

**International Cancer Control Congresses:
Do they make a difference?**

by

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ABSTRACT

Statement of the Problem

This study has taken advantage of a “natural experiment,” the holding of International Cancer Control Congresses (ICCC) to conduct research that assesses the value of such undertakings, and examines ways for effectively pursuing positive change in improving policy and practice related to cancer control. Given the importance of this global challenge, this study investigates the question: Do International Cancer Control Congresses influence reported changes in participant behaviors and activities that enhance the development or implementation of population-based cancer control programs and increased collaborations?

Methods of Investigation

The population of interest included all the congress registered participants for two International Cancer Control Congresses—362 individuals at the 3rd ICCC for the first pod of surveys; and 310 participants at ICCC4 for the second pod of surveys. The primary data collection instrument was self-report surveys, surveyed in two pods. Each pod included an on-site survey followed by a follow-up survey a few months later on the same census sample of participants. Research instruments for data collection included surveys, interviews, conference documentation, observations as well as secondary data from WHO publications and appropriate web based publications like country plans and others. The study was organized as a mixed methods research using a triangulation design that allowed a mix of both quantitative and qualitative data in a single study.

Conclusions

The study indicates that most respondents gained professionally in improved understanding of global population based cancer control programs and new insights into cancer control. Through sharing best practices and insights gained at the congress in their jurisdictions, many indicated that the Congress has helped them in their cancer control work, including increased awareness for establishing collaborations and for setting up surveillance systems; also highlighting for them the importance of expediting national cancer/integrated non-communicable disease plans. Increasing their networks, participants continue experiencing a rise in interest and involvement in cancer control. The Latin American Region research reveals that it takes time before initiatives emerge and can be attributed to ICCRC. In revealing which finds are inconclusive, this study offers opportunities for cohort longitudinal investigations.

PREFACE

This thesis is submitted in partial fulfillment of the requirements for the degree Doctor of Philosophy in global health with a focus on cancer control. It contains work done since 2009. The thesis has been based on research conducted by the author primarily through self-administered surveys.

As my research involved human subjects I had obtained the approval from the Behavior Research Ethics Board for the University of British Columbia. I received a certificate of approval H10-01771 to conduct the surveys. Subsequently in 2011, I received an amendment approval on the current UBC BREB approval H10-01771 for conducting the remainder surveys.

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LIST OF SYMBOLS AND ABBREVIATIONS

\$	US Dollar
K	Thousand
M	Million
<	Less than
=	Equal to

GLOSSARY

ACS	American Cancer Society
APJCP	Asia Pacific Journal of Cancer Prevention
BCHLA	British Columbia Healthy Living Alliance
CARMEN	Collaborative Action for Risk Factor Prevention and Effective Management of NCD's
CB	Capacity Building
CBPR	Community based participatory research
CC	Cancer Control
CCBS	Community capacity building strategy
CCC	Comprehensive cancer control
CCS	Canadian Cancer Society
CDC	Centre for Disease Control
CIHR	Canadian Institute for Health Research
CLASP	Coalition Linking Science and Action for Prevention
CoP	Community(ies) of Practice
CPAC	Canadian Partnership Against Cancer
CPG	Clinical practice guidelines
DALY	Disability adjusted life years
EPAAC	European Partnership for Action Against Cancer
EBI	Evidence based initiatives

EVIPNet	Evidence Informed Policy Networks
FAO	Food and Agriculture Organization
FCTC	Framework Convention on Tobacco Control
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
IAEA	International Atomic Energy Agency
IAEA-PACT	International Atomic Energy Agency – Programme of Action for Cancer Therapy
IARC	International Agency for Research in Cancer
ICCC	International Cancer Control Congress
ICCC1	First International Cancer Control Congress
ICCC2	Second International Cancer Control Congress
ICCC3	Third International Cancer Control Congress
ICCC4	Fourth International Cancer Control Congress
ICCC5	Fifth International Cancer Control Congress
INCA	National Cancer Institute of Brazil
INCTR	International Network for Cancer Treatment and Research
KT	Knowledge Translation
LMC	Low and middle income countries
LMIC	Low and middle income countries
MCC	Multidisciplinary cancer congresses
MDG	Millennium Development Goals

MOU	Memorandum of Understanding
MPOWER	Monitor tobacco, Protect from second hand smoke, Offer help, Warn dangers, Enforce bans, Raise taxes on tobacco
NCCP	National Cancer Control Program/Plan
NCD	Non-communicable disease
NGO	Non-governmental organization
NVivo9	Qualitative research software
P.L.A.N.E.T	Cancer Control Plan Link Act Network with Evidence Based
PACT	Programme of Action for Cancer Therapy
PMDS	PACT Model Demonstration Sites
RE-AIM	Reach Efficacy Adoption Implementation Maintenance
RINC	Network of National Cancer Institute's in Latin America
SPSS	Statistical Package for Social Sciences
TB	Tuberculosis
TTC	Transnational Tobacco Company
UICC	International Union Against Cancer
UN	United Nations
UNASUR	Union of South American Nations
UN HLM	United Nations High Level Meeting
US	United States of America
USD	United States Dollar
VUCCnet	Virtual University for Cancer Control

WCD	World Cancer Declaration
WCRF/AICR	World Cancer Research Fund /American Institute for Cancer Research
WHA	World Health Assembly
WHO	World Health Organization
WHO PEN	World Health Organization Package of Essential NCD's
WPRO	Western Pacific Regional Office of the WHO
WTO	World Trade Organization
3C	Coordination Cooperation and Close Collaboration
3 RD ICCC	(See ICC3)
4 TH ICCC	(See ICC4)

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DEDICATION

To my family for their unconditional support

CHAPTER 1: INTRODUCTION

1.1 Overview of Topic

Non-communicable diseases including cancer are one of the most serious health challenges the world faces today. It is even more serious as the population is growing rapidly and people are living longer. By 2030, deaths from non-communicable diseases (NCDs) are expected to account for 69% of all global deaths with cancer deaths increasing to 11.8 million from 7.4 million in 2008 (1). Cancer/NCDs present a global challenge that requires a coordinated and collective global response. This universal problem in a world of complexity with international dimensions calls for strengthening capacity at national, regional and global levels that will be adequate to meet the increasing challenge.

The International Cancer Control Congresses (ICCCs) provide a unique "natural experiment" opportunity to assess the value of a one way that a significant global health challenge can be approached to improve policy and practice related to cancer control. In 2003-04, it was apparent that a number of countries were developing national cancer control strategies and needed a forum to discuss common challenges, and share successes and learning. The ICCCs were subsequently launched in 2005 as a neutral forum to encourage knowledge exchange, facilitate creation of a global community of practice to share information and expertise relevant to developed and developing nations, and assist in improving national cancer control by placing it on the world health agenda. The vision of ICCCs is to "create a forum to share knowledge, experiences, strategies, approaches, tactics and best practices that can enhance and accelerate the

implementation of effective population-based national cancer control strategies and the evaluation of cancer control initiatives” (2). The focus of this dissertation is to explore the impact of the Congresses in stimulating cancer control awareness, influencing development of cancer control programs, promotion of collaborations and alliances, providing an opportunity for building capacity, fostering knowledge translation, and supporting the enhancement of National Cancer Control Plans (NCCPs).

1.2 The ICCC Initiative

A dictionary definition would depict a congress as a group of people united in a relationship and having some interest, activity, or purpose in common (3). Congresses in the context of this study are forums where participants interested in the cancer control agenda gather to share knowledge, experiences, approaches and best practices that can enhance and accelerate the implementation of sustainable population-based national cancer control strategies and more broadly non-communicable disease (NCD) agendas. It is observed that some important countries may be absent from debates while others are over-represented in these forums, and that cultural comparisons and specificities do not generally get investigated in these discussions systematically (3).

This study uses ICCCs as an example to determine if and how congresses contribute to making a difference, if they are of value in effecting short, medium or long term changes in comprehensive cancer control (CCC), and whether they impact comprehensive cancer control planning and implementation locally, regionally and globally. Using the logic model as an approach to guide analysis, this study comprehensively describes the components of the

Congresses. It examines why and how Congresses are being conducted as well as their expected outcomes. Over time, the Congresses' objectives have evolved to promote collaboration¹ among international cancer control organizations, promote progress towards establishment of effective cancer control outcomes, ensure participation and engagement between developing and developed countries, foster relationships (such as to share wide and varying experiences to promote interdisciplinary and cross-sectoral collaboration), and build on and synergize ongoing national/regional cancer control work (2, 4). The ICCC in effect strives to promote a global community of practice through extensive dialogue and participation between countries and societies with widely different experience in cancer control, and to build on activities being undertaken by governments, non-governmental organizations (NGOs) and international organizations to make sustainable cancer control a key global priority (2, 5).

The International Cancer Control Congress Association, which organizes the ICCCs, does not exist as an organization with a mandate apart from the function of organizing congresses as a vehicle for promoting global cancer control discussions. The ICCCs thus are to provide a forum where broad constituencies of global stakeholders involved in cancer control have an opportunity to work together further and learn from each other. The Congresses are planned in collaboration with the World Health Organization (WHO), international and national non-governmental organizations (NGOs), UN and non-UN agencies including the International Union Against Cancer (UICC), the International Atomic Energy Agency - Programme of Action

¹ The constructs collaboration, community of practice, knowledge transfer, capacity building have been examined further in the text.

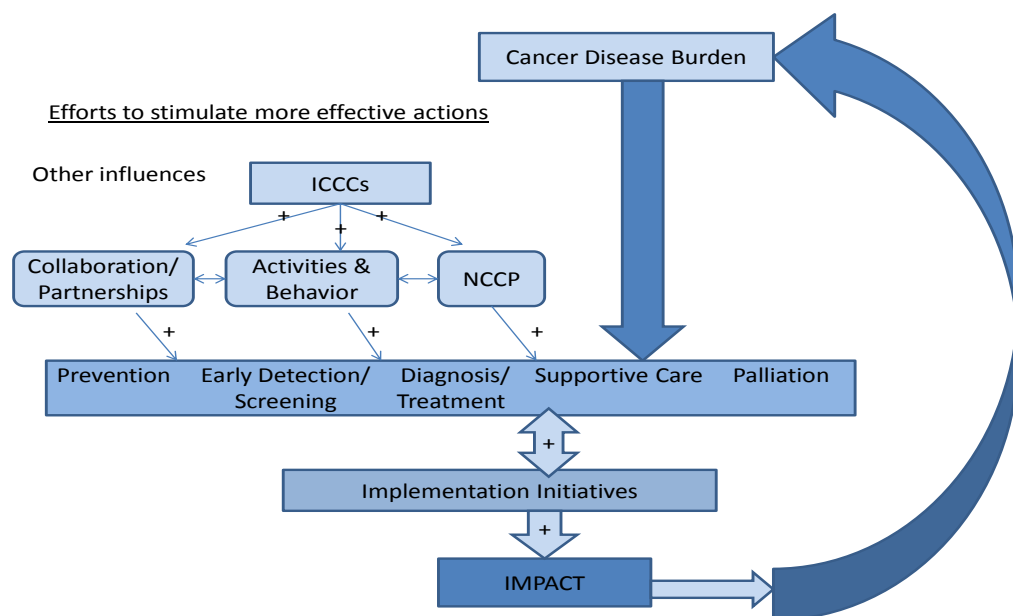
for Cancer Therapy (IAEA-PACT), International Network for Cancer Treatment and Research (INCTR) and the International Agency for Research on Cancer (IARC). This collaboration is realized through the establishment of international steering and scientific committees, as well as inviting speakers, plenary and workshop chairs to participate in ICCCs. The Congresses foster engagement with low and middle income countries (LMICs) and high income countries through involvement of diverse individuals in the Congress committees, session leaders, workshop leaders, plenary speakers, abstract selection, and sponsorships. Participants from LMICs and high income countries encompass a wide array of individuals: policy makers, decision makers, volunteers, researchers, health care officials, patients and advocates.

The ICCCs intent is international collaboration—bringing together a broad international constituency to share strategies, experiences, tactics and best practices to encourage the development or implementation of population-based cancer control. The Congress is one of the facilitating bodies that exist to contribute to enhancing changes in cancer control activities in participant jurisdictions: for example, in prevention, research, surveillance, palliative, end-of-life and other areas. This intended increase of targeted activities is pursued to ultimately produce beneficial impacts on national cancer incidence, prevalence, and mortality and morbidity rates. Every two years, this Congress sets out to gather leading researchers, policy makers, and others in cancer control to share knowledge and learn what works and what does not, to enable implementation of effective and sustainable population-based national cancer control strategies in different resource settings. Each Congress attempts to build upon the previous one to promote collaboration, establish population-based cancer control strategies, provide a dynamic

opportunity for a broad constituency of global stakeholders involved in cancer control to work together and learn from one another, strengthen alliances, and allow concerted efforts to address risk factors for cancer/non communicable diseases and a more integrated, evidence based global response to cancer prevention and control.

The direct outcomes of the Congress include completing Congress logistics and holding the Congress as planned; fostering relationships through dialogue, alliances and networking; stimulating awareness to new strategies and insights; and participants gaining a renewed sense of purpose. These basic functions are conducted so as to “enhance and accelerate the implementation of sustainable population-based national cancer control strategies,” as explained above and as illustrated by the conceptual schema (Figure 1.1) that is introduced below and will be further elaborated upon in this study.

Figure 1.1: Conceptual schema



In brief, the schema above provides a broad model of how congresses can affect cancer control activities so as to influence the burden of cancer. It explains how ICCC encourages action at all levels by influencing changes in (a) participant activities and behaviour, including their role in enhancing population-based cancer control, (b) establishing an appropriate agenda promoting collaborations and partnerships, and (c) raising awareness of participants to the importance of developing, implementing or strengthening national cancer control programs. This awareness contributes to stimulating efforts undertaken to address cancer along the cancer control continuum. Resulting strategies and initiatives implemented are expected to impact the burden of cancer.

The indirect outcomes that are anticipated include the Congress creating a platform for knowledge transfer, an increased understanding amongst participants on how to address common and unique challenges in cancer control, an increased global knowledge about population based cancer control, and a greater alignment of the Congress to participant needs and increased broad-sectoral participation with each passing Congress. Lastly, the long-term expected outcomes include: an increased global outreach and collaboration, knowledge dissemination, establishment of strategic alliances, commencement of pilot projects, and initiation of mechanisms to help countries develop and implement cancer control action plans or programs and gain a greater understanding of the importance of addressing common and unique challenges in cancer control (2, 5, 6).

1.3 Current Global Environment for Non-Communicable Diseases/Cancer

Control

Non-communicable diseases (NCDs) in the global burden of disease equation are clearly a major health burden for high income countries and are on the increase in LMICs. They are responsible for about 63% of global deaths—36 million of 57 million global deaths (7, 8). NCDs are known to affect women and men nearly equally. At one time only the burden of the developed nations, NCDs are now fast becoming a burden of the LMICs due to demographic transitions and lifestyle changes in populations. The burden of diseases, specifically chronic NCD diseases (cardiovascular disease, cancer, diabetes and acute respiratory diseases), is the leading cause of death globally. It is now high in LMICs and predictions are NCDs will continue to increase with the aging of populations, urbanization, and globalization of risk factors (7, 8). Thus, experiences gained from planning and implementing prevention programs in developed countries can help developing countries in addressing the growing NCD burden (9, 10).

The four most predominant NCDs (cardiovascular disease (CVD), cancer, acute respiratory disease, and diabetes) dominate outlay of resources in high-income countries and are often not tackled in LMICs even though these countries contribute 80% of the total global chronic disease deaths (8, 11-16). All of these diseases have roots in unhealthy lifestyles, inadequate physical activity, tobacco, excessive use of alcohol, and psychosocial stress (8, 17, 18) that are reinforced by facilitating societal structures and interests promoting these patterns. To a considerable extent, NCDs are preventable through effective interventions that address the shared risk factors particularly in an era of increased globalization. The World Health

Organization (WHO) estimates that 40% of cancers and three quarters of cardiovascular diseases, stroke and diabetes could be prevented if these major risk factors were lessened (8).

NCDs are the principal causes of death world-wide, killing more people than all other causes combined. Globally, health systems are bursting at their seams due to the increasing prevalence of chronic conditions like diabetes, heart disease, asthma and others. Countries are developing innovative solutions to address this dilemma, or re-promoting some that have been tried before. Awareness generated from the chronic diseases pandemic resulted in hosting of the first UN General Assembly on Non-Communicable Diseases in 2011 (12) where the WHO proposed cost-effective, feasible, and evidence-based ‘best buy’ interventions to address chronic diseases at a population level as WHO predicts a cumulative loss in global economic output due to NCDs of 5% of GDP by 2030 (19). Realization has set in amongst governments of the world that they need to have a collective response, and introduce stronger legislation and regulation to make a substantial impact (7).

Twenty-three LMICs account for 80% of NCD related deaths (16). Evidence shows risks for NCDs (CVD and certain cancers) are higher in individuals in lower socioeconomic levels; thus, when applying prevention strategies, underlying health inequalities influenced by education, income, housing, environment, social networks and transportation must be considered in order to develop strategies that reduce overall population risk (20-22). In LMICs, 47% of the deaths are in people less than 70 years of age. Currently in these countries, cost effective interventions to counteract tobacco and overweight risk factors are few, and surveillance and overall capacity for prevention and control of NCDs has not been sufficient to reduce the risk

factors(16). Awareness is also being raised in LMICs on the importance of population health, described by BC Healthy Living as “health of the population as measured by health status indicators and influenced by social, economic and physical environments, personal health practices, individual capacity and coping skills, human biology, early childhood development, and health services” (23).

Regarding a specific disease, cancer, some risk factors for cancer are modifiable, and others are not. Factors like radiation, food contaminants, and occupational environmental exposures may be most adequately addressed by systemic change, while others like use of tobacco or physical activity also require individual behaviour changes (24). Occupational exposures, for example, require individuals to wear protective clothing and follow safety procedures. In most cases, both individual and systemic/structural approaches are needed. It is recognized that individual and system influences exist for both prevention and primordial factors, and that efforts should be made to address them. Cancer incidence has been increasing in LMICs due to lifestyle changes, environmental exposures, increased life expectancy, population growth, infectious diseases (such as cervical cancer), and a lack of a primary care system for prevention and screening. With only 5% of global resources for cancer being spent in developing countries, cancer control—especially prevention and detection—is not well established. Palliative care too is rarely available in most LMICs (22). There is plenty of evidence that focus on both primary and primordial prevention is needed to manage preventable cancers before the disease manifests. At least 40% of cancers are preventable as they are attributable to risk factors that can be controlled like: tobacco use, alcohol consumption,

unhealthy diets, asbestos and other occupational exposures, environmental pollution, radiation and other factors (7). Exchange of insights at the Congress indicates countries are slowly beginning to recognize this need for upstream prevention to mitigate the need for sophisticated costly interventions downstream. However, this revelation is not happening fast enough. Taking the example of Asia, a continent with 60% of the world population, it had a very high burden of cancer in 2009. Asia has 46% of new cancer cases world-wide, while being challenged by inadequate funding allocation. Globally, it is predicted that by 2020, approximately 60-70% of all new cancer cases will occur in LMICs (22, 22, 24-30). However, about 70% of cancers in developing countries are detected too late for curative treatment (25).

In 2008, the total economic impact of disability adjusted life years (DALYs) lost from cancer worldwide was \$895 billion, representing 1.5% of world's GDP, 19% higher than the economic burden CVD, and seen as the single largest drain on global economy (31). Close to 43% of cancer deaths are due to use of tobacco, unhealthy diets, alcohol consumption, physical inactivity, and infections with low income groups as the ones most exposed to most modifiable risk factors (32).

With the growing burden of cancer, the World Health Organization (WHO) urged countries to address cancer through formulating comprehensive cancer control programs or strategies. Comprehensive Cancer Control in a given country is “an integrated & coordinated approach to reducing cancer incidence, morbidity, & mortality across the cancer control continuum from primary prevention to end-of-life care” (33). A National Cancer Control Programme is “a public health program designed to reduce the number of cancer cases and

deaths, and improve the quality of life of cancer patients through the systematic and equitable implementation of evidence-based strategies for prevention, early detection, diagnosis, treatment and palliation, making the best use of available resources”(25).

WHO estimates that cancer is responsible for about 13% of the total deaths that occur each year, far exceeding the combined deaths from the three major infectious diseases (TB, HIV and malaria). WHO also estimates that if present rates remain unchanged, new cancer cases will nearly double by 2030—12.7 million cases in 2008 to 21.4 million cases by 2030 (7). Between 2010 and 2020 WHO has projected a 15% global increase in NCD deaths and over a 20% increase in Africa, Eastern Mediterranean and Southeast Asia (8). Given the challenges being faced globally in cancer control, it is imperative that cancer control professionals work together to halt these premature deaths worldwide. No less than 35% of cancers are due to modifiable risk factors like tobacco, alcohol, poor nutrition, obesity, and infections and, thus, are preventable. To strengthen cancer prevention globally, an integrated approach to preventing other chronic NCDs (cardiovascular disease, stroke, diabetes, respiratory diseases) is needed as they all share major underlying risk factors stated earlier (7).

A major step was taken with the September 2011 UN NCD Summit, which ended with a political declaration by the heads of governments for a coordinated global response to the prevention and control of NCDs. Governments committed to multi-sectoral national and international policies to control NCDs, address risk factors through international agreements like WHO’s Framework Convention on Tobacco Control (FCTC), Global Strategy on Diet Physical Activity and Health and other existing agreements. They also agreed to make prevention a

cornerstone, and improve access to vaccines and palliative care. However, the declaration lacks concrete targets, indicators, actions and interventions (34). The hope is that the NCD summit, which was somewhat similar to the 2001 HIV summit, will be the turning point in governments' thinking.

1.4 Research Objective

The purpose of this study is to determine whether ICCCs influence changes in participant behaviour and activity that enhance the development or implementation of population-based cancer control programs and increased collaborations. The proposed study falls within the realm of health services research and health program evaluation as it will assess the degree to which an intervention, like the Congress, achieves its objective of collaboration, networking and exchange of insights and solutions to raise the level of cancer control activity in participant countries. Also, it will explore the complex factors that underlie the enhancement of partnerships and development of population-based cancer control programs; contribute to the impact of knowledge dissemination via congresses; analyze the cancer control factors influenced; and examine a comprehensive set of variables involving cancer control practices, programs and policies. It is fundamentally a social scientific inquiry designed to gain better understanding of certain aspects of congresses and their impact on cancer control policy and resources (35). However, the study has a distinct interdisciplinary character in that it examines the strengthening of social, technical and organizational capabilities of the people involved in addressing a major global health challenge, such as cancer. It specifically highlights the efforts being made to strengthen capacity by raising awareness and shifting the focus of the Congress participants

towards the role of the common social determinants of health², risk factors, primary prevention and promotion of knowledge exchange to effect and synergize existing efforts on evidence-based practice change in cancer control (36, 37).

One unavoidable aspect of congresses is costs, setting the context for why examination of the processes used to produce beneficial outcomes is so relevant. It has been observed that the financial impact can be very high for both organizers and participants. Reviewing total conference costs or cost per participant for ICCC confirms it. For example, the ICCC1 (2005) in Vancouver cost \$456K (\$1270/person), ICCC2 (2007) in Rio de Janeiro cost \$891K (\$1375/person), ICCC3 (2009) in Cernobbio cost \$1.3M (\$3562/person), and the ICCC4 (2011) in Seoul cost \$457K (\$1474/person). The opportunity cost of congresses is yet to be determined. Opportunity costs refer to alternative activities that have been foregone by hosting the congress. A discussion with Congress hosts and organizers confirms there are no cost-measurable benefits they can affirm of hosting congresses. Assessing opportunity costs is not about determining if resources have been wasted, but rather about having resources been optimally utilized. Though the nature of inputs, outputs and outcomes precludes a formal cost- effectiveness analysis, the investigator has considered exploring the opportunity cost of hosting the congress using a high-level cost-benefit analysis.

The focus of this study is to explore the degree to which the ICCCs stimulate thought and action to enhance population-based cancer control, develop partnerships, and promote

² Social determinants of health most commonly include gender, income, ethnicity, occupation, education and others (280).

opportunity for collaborative action and engaged dialogue and/or relationships. The investigator is fundamentally interested in ascertaining whether congresses promote knowledge transfer, sharing of best practices and insights, and influence development of communities of practice, which are activities rooted in the interests, skills and willingness of people to share, collaborate and achieves commonly-held goals. With the knowledge gained through such enquiry, it can then be possible to consider similar applications in related fields as well as more comprehensive analysis of longer term impacts.

1.5 Research Question

The intent of this research is to examine the fundamental question: Do International Cancer Control Congresses influence changes in participant activities and behaviour³ that enhance the development or implementation of population-based cancer control programs and increased collaborations?

1.6 Hypotheses

Hypothesis #1-Attending the ICCC influences changes in behaviour and activities relating to cancer control activities of participating individuals.

³ In this study activities and behaviours have both been considered. The assumption here is that some activities may be a result of behaviour change; some may occur without a behaviour change; and, maybe not all behaviour changes generate activities.

Hypothesis # 2-Attending the ICCC leads to participants' influencing changes in policy and governance that aid the development or implementation of population-based cancer control programs in their countries/regions.

Hypothesis # 3-Attending the ICCC facilitates an increase in partnerships and collaborations.

The secondary hypotheses tested as part of the research were (i) whether attending ICCC led to increased relationship building, including establishment of new communities of practice, and (ii) whether ICCC provided a platform of knowledge transfer for cancer control.

Through assessment of the views/attitudes of ICCC participants, the study will determine whether attending the Congress contributed to the development of national cancer control plans, increased changes in participant activities, and increased collaborations and partnerships. As described before, the study propositions infer that participation in ICCCs is associated with participants being more engaged, increased collaborations, partnerships and relationship building including establishment of communities of practice; and, participants influencing changes in population-based cancer control governance and policies in their countries following the Congress. Involvement of the participants is recognized as an intermediate step to achieving impact and effecting change in cancer control.

The study frames the explanatory variable as “participation at ICCC” and the outcome variables as subsequent involvement in (a) development of collaboration/partnerships/networking, and (b) post Congress development/enhancement/implementation of NCCP or cancer policies, as well as (c) changes in participant activity and behaviour, knowledge transfer and dissemination. The investigator

performed a detailed analysis to establish whether attending the Congress made a difference to the participants.

The logic that underlies the above proposed relationship is relational association/cause-and-effect/direct relationship plus inductive reasoning, as the conclusion reached will be evidence-based (i.e., the conclusion will be supported by the evidence). As described by Singleton and Straits, “induction moves from specific instances to general principles, a bottom up process that moves from specific observations to empirical generalizations” (38). Likewise, the researcher sees a parallel in this study where in addition to conducting surveys, data will be gathered to demonstrate the development or strengthening of relationships among Congress participants originating from over 40 countries with varying GDPs. These are intermediate variables of consequence that the researcher wishes to examine in the context of what could ultimately contribute to achieving impact; recognizing this is a step beyond the study. In other words, this study provides only a partial perspective on assessing the full benefit of the ICCCs. Singleton and Straits suggest the study inference will be strengthened with this increasing diversity of participants at the Congress (38). Concepts for the study are collaboration, community of practice, population-based cancer control programs, activities and behaviours.

1.7 Significance of Research

The burden of cancer touches people all over the world (39). Cancer continues to remain as one of the leading causes of morbidity and mortality worldwide. There have been many predictions for 2020 and beyond, stating that the number of new cases of cancer in the world are expected to increase manifold to more than 15 million, with deaths increasing to greater than 12

million (40). In addition, most of the burden of cancer incidence, morbidity, and mortality will occur in the developing world (40). A 2011 cancer statistics publication by Cancer Research UK that derives data from the International Agency for Research on Cancer GLOBOCAN database (2008), the World Health Organization Global Health Observatory and the United Nations World Population Prospects report estimated that 60% (7.56 M) of the 12.66 million people diagnosed with cancer across the world died. Approximately 40% of those diagnosed had one of the four site cancers—lung, breast, colorectal or stomach. With the growth and ageing of the world population, the burden of cancer is expected to concurrently increase (41).

In view of this, international discussions and related interactive processes play a substantial role as they could lead to targeted initiatives that would have significant impact at the local level, implying possibilities of mobilization of resources at the international level, and the potential establishment of a Global Partnership for cancer to mirror the effect that similar initiatives have effected in tuberculosis and HIV/AIDS, among other diseases (42). Cancer is a serious global problem and needs recognition as a vital part of the global health agenda. In this multifaceted environment, the organization of a congress brings the world's best minds in cancer control together to reframe the problems, exchange insights, share solutions and experiences to further ideas and bridge future cancer/NCD control work. The intent is to stimulate cancer control efforts at a global level. Through knowledge gains from the ICCC, participants can raise awareness, imbibe learnings and stimulate more effective action to impact cancer control.

To respond effectively to the rising burden of cancer/NCD, the Congress can be used as an instrument to catalyze the development of population-based national cancer control or

integrated non-communicable disease programs as well as initiate formation of networks. Many in the world are looking at benefits of certain screening methods, specific treatments or tested prevention mechanisms. This study is instead investigating that the interest and involvement of participants in cancer control increases following the Congress; participants are motivated to advance cancer control. This understanding will be effective in building capacity and generating a transnational impact on cancer/NCDs that is beyond the control of individual governments. Finally, the study's focus on individual actions is unique and is of considerable significance to scholars and literature.

1.7.1 The Rationale

In 2003-04, it was apparent that a number of countries were developing national cancer control strategies and needed a forum to discuss common challenges, share successes and learning (43). This perceived need gave birth to the ICCC—the first one being held in 2005 by the architects of the Canadian Strategy for Cancer Control as a neutral forum for knowledge exchange and to contribute to improving global population-based cancer control by placing it on the world health agenda. Since the first Congress, three additional congresses have been held. An active interest in determining the best way forward to continue such efforts has been expressed by the leadership, to identify effective ways to contributing to cancer prevention and control globally. And the increased recent attention more generally to NCDs, makes an assessment of the contribution of the organization and impact of international congresses all the more timely.

In order to determine the added value of congresses, the level of motivation among participants at each of the ICCCs was explored. This examination will help to identify

relationships among the variables, provide an explanation to the effects when a congress proceeds and the effects produced in terms of human behaviour. That is, this study will assess whether congresses effect behaviours/activities, whether that effect is intended by the individual as result of the Congress, whether individuals from different resource countries (low, middle and high resourced countries) see a different value-add of the congresses and, finally, if or how much of the change in behaviour/activities can be attributed to participants having attended the Congress as opposed to their attendance of other meetings (44).

1.7.2 The Gap

Evaluation of most conferences is fairly part of the routine. However, few to none actually address the short and long term impact using an evidence-based approach. Instead, most focus on evaluating congress logistical arrangements, some collect information perceived to be learnt by participants, and some dwell on how the information provided at the congress was used (45-48).

After considerable literature search in databases PubMed, Medline, PsychInfo, Canadian Institute of Health Research, Canadian Cancer Society, Canadian Partnership Against Cancer, Centre for Disease Control, Public Health Agency of Canada, NCI Cancer Control and Population Sciences, Proquest, and Google Scholar, it was found there is very limited assessment or evaluation on congresses and next to none on cancer congresses in specific⁴. Additionally, a

⁴ The literature was investigated by reviewing articles published in peer reviewed journals, grey literature, WHO publications, web site searches and open source web journals (for example, Implementation Sciences, Open Access Public Library of Science). The data bases were used to search (i) key terms: cancer control, capacity building, knowledge translation, population health, chronic diseases, national cancer control programs/plans, regional

scan of the websites of major international agencies like the World Health Organization (WHO), the International Union against Cancer (UICC), the International Network for Cancer Treatment and Research (INCTR), the International Atomic Energy Agency-Programme of Action for Cancer Therapy (IAEA-PACT), and the American Cancer Society (ACS) among others, confirmed that evaluation of conferences was generally limited to participant satisfaction questionnaires. Some of these organizations have detailed information on an evaluation process but it is not conference-specific. The questions “What is the impact of a congress and are Cancer Control Congresses of added value?” and “Do they cause behaviour and activity change that promote outcomes of cancer control?” are important for us to understand and assess prior to millions of dollars being spent on an ongoing basis by countries organizing cancer conferences. Furthermore the search has not revealed any study done as yet that examines congresses’ impact on knowledge dissemination at a population level. As of yet, no documentation has been found that examined the knowledge translation through plenary or workshop sessions or poster presentations. Determining the impact of knowledge dissemination is one of the primary intents of this study. Remarkably, little is known about the impact of congresses. Hence, there is a need for this study. The findings from this study will be useful for health care congresses to draw on a tested congress logic model. This evaluation approach may serve as a model for other global conferences.

1.8 Organization of the Dissertation

This study consists of five chapters, a bibliography and appendices:

Chapter 1 provides an introduction to the study.

Chapter 2, “Literature Review,” provides a summary of literature that summarizes the state of knowledge regarding building capacities to address global challenges (such as cancer control), including explicit exploration of constructs such as collaboration, knowledge translation and communities of practice that is critical to such processes. In this context, the character of what this means in a global context is explicitly examined. Finally, attention is given to critically examining literature on evaluation methods relevant to assessing the value of initiatives such as ICCCs.

Chapter 3, “Methodology and Design,” discusses the research methodology and design utilized for the study, the explanatory and outcome variables, and how they are measured or operationalized, as well as the statistical techniques employed, the unit of analysis, the sampling strategy, the data collection methods and timelines, associated ethical issues, and the study strengths and limitations.

Chapter 4 presents and discusses the results obtained from testing the research hypotheses at the 3rd and 4th International Cancer Control Congresses.

Chapter 5, “Discussion,” presents the interpretation of the study findings and examines the implications of the research findings. Study limitations and future research recommendations are also presented. The chapter wraps up with a conclusion of the findings. Additionally, the

chapter presents considerations for future studies relevant to the thesis topic by identifying areas of potential investigations opened up by this groundbreaking study. This particular section in the chapter presents an area of discussion of how global challenges faced by the WHO Framework Convention on Tobacco Control (FCTC) are being addressed and how FCTC's global framing of tobacco control changed thinking. It begins to identify whether similar global framing can be applied to cancer/NCD control to stimulate global action. Then, it presents a brief reflection on what the 2011 UN Summit did for NCDs, and starts to identify possible elements for a global framework for cancer control taking learning from the successful international WHO Framework Convention on Tobacco Control.

CHAPTER 2: LITERATURE REVIEW

To effectively address a global challenge, such as cancer, there is overwhelming consensus that substantial improvements must be made in the capacities for undertaking the actions that are needed. In this chapter, the investigator takes stock of what current scholarship has to say about processes that could be contributing to pursuing challenges, noting that both scientific and grey literature guided the researcher in developing research questions and selecting the appropriate methodology for the research.

The first section of the chapter reviews approaches to building capacity including communities of practice and frameworks to evaluate and establish evidence of the effectiveness of population-based approaches. The second section provides an insight on collaboration, outlines enablers for effective collaborative relationships, and introduces a conceptual framework that can be used to establish realization of outcomes. The third major section of the chapter reviews knowledge translation, frameworks for design and evaluation of complex interventions, knowledge utilization and measures. The fourth section examines global cancer control declarations to outline possible elements of a future global framework for cancer control similar to FCTC that would include a critical assessment of recognized global dimensions and interventions for cancer control. The final section provides an overview of the WHO Framework Convention on Tobacco Control (FCTC), including examining the key role global governance played in addressing the pandemic and how global framing of the issue changed worldwide thinking of the issue. The concluding section of the chapter reviews literature on methodology, examines the scientific basis that suggests the survey tool as appropriate for data collection, and

reviews complementary data collection methods and associated challenges with data analysis and synthesis. A sub-section discusses findings on evaluation methodology and validates the contention that conferences create a forum for networking, exchange of ideas, and sharing of knowledge and experiences. Another sub-section inspects logic models, mapping frameworks, and their application and relation to congress planning and evaluation.

2.1 Capacity Building

Capacity building (CB) is understood as “enhancing the ability of an individual, organization or a community to address health issues and concerns” (23, 49). CB supports infrastructure, leadership and program development, long term sustainability, and increased access and utilization of services being offered (50, 51). Over the years, CB within health care has become an area of focus. CB is an ongoing process that involves a pattern of learning and readjustment over time. There is a trade-off between the two domains of CB: infrastructure and governance, and stakeholder relations. These are highly interdependent and are impacted by environmental and market forces (52).

Capacity building is effective when the program generates the desired outcomes, can be replicated, is sustainable, and indirectly generates new additional health outcomes. Ideal programs show modest health gains but high sustainability, coupled with the ability to tackle other related health issues in addition to the issue currently targeted. These are preferred over programs that show high health gains but low sustainability. CB influences the multiplication of health gains, both of which need to be measured to determine effectiveness. Tracking progress of

CB can be done through three types of indicators: service development, sustainability, and increased problem solving capacity (53).

The literature establishes that CB is not only about providing training and information sharing to achieve short-term outcomes, but also about achieving long term sustainability through ongoing training and follow-up, and cultivating internal motivation within the target population and collective pooling of resources to enable system change (54). Effective capacity building efforts where this has been observed for targeted efforts includes cervical cancer screening, the global strategy for diet, physical activity and health, and the Framework Convention on Tobacco Control.

For cancer/NCD control, the researcher has reviewed a variety of population-based approaches to build capacity as well as researched frameworks that can be used to evaluate and establish evidence of the effectiveness of these population-based approaches (see Table 2.1 below for shortlisted approaches and Table 2.2 for shortlisted frameworks to evaluate). It is worth noting that these tables are not exhaustive as the researcher has chosen illustrative examples that provide a representative summary of the literature.

Table 2.1: Six approaches to build capacity in cancer/NCD control

Capacity Building Approaches	Key Features
#1 Four-Approach Model(55)	Four approaches that include a bottom-up, top-down, partnership and community organizing approach. This model has been applied widely. Examples: (a) the capacity building

Capacity Building Approaches	Key Features
	<p>assistance program by the Asian Pacific Islander Organizations used the model to build culturally appropriate, scalable and evidence based HIV/AIDS prevention capacity in the minority Asian Pacific community (56), (b) the Australian programs Sun Smart and Slip!Slop!Slap! use a mix of the four approaches. A multidimensional program in approach with system wide health promotion where attitude and behaviour change is coupled with policy change, increased levels of awareness. Also, a comprehensive strategy addressing the problem in social, economic, political and organizational context; founded on an integrated research and evaluation platform; with media positively influencing the community attitudes leading to a culture change (57), (c) Community capacity building, a bottoms-up participatory approach supported by the government, helped develop the river blindness program in Africa (58).</p> <p>The framework adopted in this approach was a multi-sectoral change framework that incorporated both individual and social change.</p>
#2 Centre for Disease Control (CDC) Comprehensive Phased Model Approach(59)	<p>A harmonized model with four phases for strengthening system capacities: set objectives, determine possible strategies, plan feasible strategies, implement effective strategies, and monitor and evaluate. Central to the model is a pool of knowledge to be used for decision making with data and evaluation woven into every stage. This approach was</p>

Capacity Building Approaches	Key Features
	<p>followed by the WHO to help build capacity for NCDs. An example is WHO's comprehensive approach to cancer control. The comprehensive approach has four focus areas: surveillance (to identify the need and depth of intervention required and to monitor interventional outcomes), primary prevention (reduction of exposure and risk factors), secondary prevention (screening high risks and timely diagnosis), and diagnosis, treatment and palliation (clinical assessment, treatment and end of life care) (60).</p> <p>This approach had a unique framework for building integrated organizational capacity through a three-stage process that integrates planning, monitoring and evaluation for attaining short term outcomes and long term sustainability (61).</p>
#3 Primary Health Care Approach(21)	<p>An approach that shifts the focus from episodic acute care to a proactive prevention health promotion care approach. With proven evidence that prevention and early detection interventions are cost-effective, the Pan American Health Organization (PAHO-WHO) promoted routine care and exams for the four risk factors in primary health settings as the recommended approach for chronic disease prevention. Strategies included development of partnerships, multi-sectoral collaboration and networks for NCD, advocacy for policy changes based on WHO resolutions, recommendations of tobacco control, strengthening health services for integrated prevention and management of chronic NCDs, and capacity</p>

Capacity Building Approaches	Key Features
	<p>building for community based actions (21). While, another PAHO initiative CARMEN (collaborative action for risk factor prevention and effective management of non-communicable diseases) for NCD prevention and control used integrated community-based intervention and networks. Composed of three strategies and three lines of action, it builds capacity and promotes exchange of knowledge and experiences through a network of countries supporting collaboration to address the NCD burden (62). WHO has formulated a package of low cost, low technology effective mix of individual and population based interventions called WHO PEN (Package of Essential NCD Disease Interventions), which can be implemented and assessed on an ongoing basis at different levels following an assessment of capacity at primary care facilities, training of healthcare workers, and putting in of information systems (28).</p> <p>This approach adopted an analytical framework that compares post and pre intervention rates – identifies barriers, prioritizes barriers, develops interventions & strategies, implements, monitors and evaluates (63).</p>
#4 WHO Integrated Approach to NCDs (64)	<p>The 2009 launch of WHO-IAEA (International Atomic Energy Agency) joint programme on cancer control promotes an integrated approach to non-communicable diseases including cancer. This builds on the WHO NCD Action Plan to reduce risk, morbidity and mortality due to the four shared risk factors</p>

Capacity Building Approaches	Key Features
	<p>(tobacco, physical inactivity, unhealthy diets, and alcohol) for the four diseases (cardiovascular, respiratory, cancer, diabetes). A favored approach in countries is the development of national cancer control programs integrated into the health system for equitable implementation of proven evidence based interventions from prevention to palliation. It facilitates judicious use of resources for the entire population (32).</p> <p>This approach promotes using the WHO Stepwise Framework (65).</p>
#5 Public Private Partnership Approach (33)	<p>The private sector is taking on a larger role in population-based cancer policy making, prevention and control (e.g., Pepsi and Pfizer have expanded efforts to include workplace wellness programs, tobacco control, physical activity programs, cancer screenings, reduction of carcinogens, and promotion of healthy eating in the workplace). In turn, the public sector invests more in clinical research by increasing the number of publicly funded trials compared to pharmaceutical trials; developing knowledge management platforms; using communication mediums with more reach, currency and depth for sharing information; supporting virtual communities of practice (CoPs); developing “cancer control packages” or NCD packages that include cost effective strategies and interventions targeted to the needs of the country, have the most impact; and matching the resource level of the country (33).</p>

Capacity Building Approaches	Key Features
	No framework was identified for this approach.
#6 Community Development Approach (23, 49)	<p>BC Healthy Living Alliance (BCHLA) population-based approach to capacity building is community capacity building strategy (CCBS). It has interventions and strategies addressing the four modifiable risk factors based on needs of the community and resources available. CCBS promotes regional and community networks, aligns BCHLA initiatives with network partners, facilitates capacity building at community level, and expands opportunities for improving integrated health within high risk communities (49). To implement CCBS effectively a community should be ready to receive it, effective coalitions need to be developed within the community, the program must be what the community wants, it should be transferred across as proven rather than being customized, and adequate resources, training, evaluation must be attributed to it (66).</p> <p>The advocated CCBS framework brings emphasis on leveraging existing networks, selecting priority communities, building capital within the community (i.e. investing in local leadership partnerships) focusing on sustainability, addressing community specific needs and keeping a regional focus (49).</p>

Following the literature review, the more widely accepted population-based approach is WHO's integrated approach to NCDs using their stepwise framework. It has four components of

surveillance, primary prevention (decrease exposure, address risk factors), secondary prevention (screening of high risk population) and diagnosis/treatment/palliation. WHO's 'Integrated system for comprehensive cancer control' approach focuses on balancing evidence-based and outcomes-focused interventions within the prevailing health system's political, social, cultural and economic factors. For realizing National Cancer Control/NCD Plans, it is recommended that the 'WHO Stepwise Framework' be used with its three planning and three implementation steps. Planning steps include a needs assessment, surveillance of risk factors and burden of the chronic disease at a population level to answer questions, such as "Where are we now?" Answering "Where do we want to be?" enables defining goals, setting priorities, and adoption of a cancer control/chronic disease policy which sets out the vision for prevention and control for the long term. Finally, answering "How do we get there?" helps identify the most effective interventions to implement outlined policies. After taking into account the feasibility, availability of resources, country readiness, inter-sectoral cooperation, constraints and barriers to action interventions be implemented in a stepwise manner of three steps again based upon country readiness and resources available in the country-core (using existing resources), expanded (reallocation of resources), desirable (scaling up using new resources) (25, 65, 67).

Table 2.2 below provides shortlisted frameworks to evaluate effectiveness of population-based approaches to building capacity.

Table 2.2: Frameworks for evaluating effectiveness of population-based approaches to building capacity

Framework for Evaluating	Key Features
#1 Rootman's 8 step framework (68)	Begins with <i>Describing</i> the program/initiative via a logic model → <i>Identifying</i> issues and questions through a consensual process → <i>Designing</i> data collection processes based on the type of evaluation, timeline, client needs, target of assessment → <i>Collecting</i> the data → <i>Analyzing</i> and interpreting the data to compare the observed and expected outcomes → <i>Making</i> recommendations with all stakeholders involved in interpreting results → <i>Disseminating</i> findings to financial supporters and others, and → <i>Taking</i> action by developing an action plan that identifies resources, actions and processes (68, 69).
#2 CDC six step participatory evaluation framework	There are six steps: <i>Engage stakeholders</i> invested in the program or those who have a stake in what will be done with the results → <i>Describe the program</i> using logic models to clarify components and intended measurable outcomes → <i>Focus the evaluation design</i> to determine evaluation questions as logic model goes from short to long term → <i>Gather credible evidence</i> by identifying data sources, methods, and developing indicators → <i>Justify conclusions</i> by analyzing the evidence → <i>Ensure use and share lessons</i> with stakeholders (70).
# 3 WHO evaluation	WHO is developing supporting tools customized to local needs and is promoting in LMCs the use of its innovative and action based package of essential NCD disease interventions in primary care as the cost effectiveness of these proven low-cost

Framework for Evaluating	Key Features
	interventions will stretch limited country resources, benefit populations and empower the health workers. To assess effectiveness of these efforts, each intervention has simple, reliable and valid indicators that will evaluate the ‘managerial, operational, technical, epidemiological aspects’ of implementing the WHO Package (28).

Evaluation assesses progress and accomplishments to determine effectiveness. While evaluation is often a final step in a process, optimally it should be built at the start and should be ongoing (71). Described below are frameworks for evaluating capacity building efforts. Of the three shortlisted frameworks below, the preferred framework is the Center for Disease Control (CDC) model, which includes a six step evaluation framework and eleven tested and validated performance measures. Three of the six steps in the framework are engaging stakeholders, outlining logic models, and focusing the evaluation design, leading to the development of three self-evaluation tools. The six steps of the framework are not meant to be a rigid approach. The desired kind of evaluation, its intent and purpose, and how it will be used, determine the questions, methods and level of details needed (70). The evaluation provided data on funding and feedback that would help improve survey questionnaires, establish the feasibility of conducting a standardized study of programs to identify issues that were important in developing/implementing programs and encouraging a culture of quality improvement through evaluation. Also, this evaluation framework for Public Health was found to be useful for a tuberculosis (TB) contact investigation program self-assessment (70, 72, 73). The same CDC

framework was also used in combination with a logic model by Lafferty et al. to evaluate comprehensive community initiatives (74). Rochester et al. provide examples to show that evaluation of Comprehensive Cancer Control (CCC) may be used to evaluate a program or to specific interventions/activities within a plan. For example, in Iowa, the goal was to evaluate maintenance and function of a CCC consortium at the state level; in Maine, an objective was to evaluate the state cancer plan and selected goals and objectives at the intermediate outcome stage; and Pennsylvania developed an evaluation plan with questions on process and outcomes to identify barriers of implementation (70).

2.1.1 Community of Practice (CoP)

Communities of practice (CoP), valuable means of capacity building, are defined as “groups of people who share a passion for something that they know how to do and who interact regularly to learn how to do it better” (75-78). CoPs vary greatly from informal networks to formal structured teams. CoPs are formed by people who embark on collective learning in an area of practice, it is not merely sharing an area of interest—in a well-functioning CoP, they are energized by the initiative, value their interactions and may develop over time a common sense of identity and a unique perspective on their topic as well as a body of common knowledge, practices, and approaches. The common characteristics of CoPs to varying degrees are social interaction, knowledge sharing and creation, and identity building. The core elements that develop and sustain a CoP are a sense of belonging, participation and collaboration (75, 76, 78, 79).

One example of a CoP is the “knowledge spiral” model adopted by a group of cancer surgeons which is supported by five tools that include a communication system, project support, and access to data, among others. They advocate this model for promoting sustainable learning experiences and as an instrument to build evaluation capacity for evaluating surgical outcomes (80, 81).

CoPs use different methods of engagement, are tools for knowledge management, a platform for collaborative learning which may lead to creation, management and dissemination of new knowledge and practice development (78). A CoP is a forum that is being looked at with fresh eyes to confirm its added value by many organizations for example the Canadian Partnership Against Cancer (CPAC) as it provides practitioners (i.e., members of a CoP) a forum for exchanging knowledge, doing collaborative problem solving within real situations, translating evidence based practices to promote practice change amongst the practitioners. They promote communications, networking, and collaborations across organizations (82). CoPs focus not only on sharing best practices but creating knowledge and resources to advance the issue of interest. Members develop mutual goals and priorities by negotiating and active communications (83).

CoPs at different levels in global cancer control are being promoted by ICCCs, as the Congress offers a platform for knowledge exchange that will translate into action at country levels to reduce the cancer burden (33). The effectiveness of CoPs in healthcare is yet to be confirmed. Studies are underway to determine how best to use a CoP platform for developing organizational capacity and capacity within the community (84).

Evaluating a coalition or CoP performance involves multiple layers of assessment like measuring the coalition's infrastructure, its function, then determining to what extent the interventions or activities embarked upon have reached the target population, and finally evaluating the change outcomes at the community and organizational level. However, most evaluations of coalitions focus on only the first level (85).

2.2 Collaboration

Although definitions of collaboration exist in the literature, none is universally accepted. Collaboration and partnerships appear to exist on a three C-continuum from Coordination (i.e., sharing information, having a common purpose but operating independently while being coordinated by one member) to Cooperation (i.e., sharing information, having a common purpose, operating by aligning efforts) to Close collaboration (i.e. acting cooperatively and forming an integrated team where all are working towards a shared goals) (86). There are three types of collaboration: collaboration in action (i.e., developing or implementing activities), collaboration in construction (i.e., formation of coalitions or alliances) and collaboration in times of inactivity. The underlying concepts common to all definitions for collaboration are sharing, partnership, power, interdependency and process. This study will be looking at “collaboration as a complex, voluntary and dynamic process that involves several skills and is subject to constant change” (87). Collaboration requires most resources and is truly accomplished when partners come with an open, listening receptive mind to consider new possibilities together. Culture, context and resources lay the foundation of collaboration which is successful if it is contextually relevant, culturally compatible, politically acceptable, defined leadership, defined structures and

is sustainable. Phases of collaboration start from recognizing differences and forming a partnership, fine tuning the expectations, developing norms leading to harmonious relationships and finally to collaboration.

Bentley et al., in their study on conceptual and practical challenges for implementing the communities of practice model nationally, examined Wenger's concept and concluded that his concept had successfully highlighted the importance of learning from peers. Thus, it can be extended to say the conference setting provides a platform for interactive learning and collaboration around knowledge domains (88).

A primary health care initiative, 'enhancing interdisciplinary collaboration in primary health care' defines collaboration as a dynamic, interactive, and transforming interpersonal process. It discusses the concepts of collaboration (the type of relations/interactions occurring among co-workers) and team (the human context in which collaboration takes place) and express collaboration as a "dynamic process that focuses on the related key elements of sharing, partnerships, interdependency, power sharing, process." These key elements are the measures that this study will use to measure the dependent variable collaboration (89).

D'Amour et al. also used a similar concept of collaboration and focused on different theoretical frameworks for implementing and evaluating collaboration. Overall the data are analyzed in terms of intensity of collaboration. D'Amour's model conceptualizes the process of collaboration in four dimensions—shared goals, sense of belonging, formalization and governance (90).

Collaboration is interpersonal, requiring leadership via networking, communications, persuasions and relationship-building. Culture, context, and resources lay the foundation of collaboration which is successful if it is contextually-relevant, culturally-compatible, politically-acceptable, has defined leadership and structures, and is sustainable. According to Rosenberg et al. collaboration takes place between individuals and not organizations in the partnership, and can be divided into three stages that form the partnership pathway. In the first mile, emphasis is on gathering the right members, and defining the shared vision, roles, and goal. Next, the journey starts from pursuing isolated efforts to joining forces, then uniting to build political will, and then scaling up. Finally, the last mile stresses making the partnership a value add, having the desired impact, adapting to sustain momentum, communicating lessons learnt, and lastly disbanding partnership when the goal is achieved (86).

Collaboration's path of evolution starts with organizations pursuing independent efforts until some breakthrough presents an opportunity to control the disease. This generates interest in partners to work together on a larger scale, for example, AIDS and its anti-retroviral treatment. In this case, partnership in the first stage was advocacy and in the later stages advocacy and intervention partnership. Improvements due to collaboration can be at global, regional, national or organizational level, while, education and training of collaborating effectively is at the health system & professional development levels (86).

A collaborative example is ActNow BC, a public health and health promotion initiative led by a non-governmental organization (NGO). Analyzing this initiative showed political will proves to be the key to effective collaboration. Other success factors include shared leadership

and shared governance model, transparent accountability mechanisms with targets and timelines, incentive fund, accountability framework, alliances with NGOs and civil society, and creativity in partnership. Collaborative approaches can be policy development, program management, or service delivery (91).

Collaboration occurs across several realms: between professions, amongst disciplines and at various levels such as governments, organizations or individuals, using multiple models to engage diverse interests and being sensitive to local cultural and social issues such that desired outcomes are achieved and the collaboration is sustainable. A certain amount of formalization, shared goals/vision, sense of belonging or internalization of the objectives and governance are required for collaboration to occur. A model of team effectiveness shares that teams who work well together are more effective and creative. Interprofessional collaboration is key during initiatives to deliver effective health care services as the professionals need to embrace a logic of teamwork rather than that of competition (87, 92).

A five-stage model of collaboration using social exchange theory determined collaboration is fundamentally made of exchange and negotiation. An individual or entity joins a group after assessing the alignment of his or her goals with those of the group and the associated cost-benefits. Then, he or she determines if there is a collaborative fit to negotiate exchange and build an environment of trust. Subsequent to that begins a phase of re-reflection and identification of resources, followed by refining of ideas and implementation and finally evaluation and feedback. For effective collaboration to occur, a wide range of human dynamics needs to evolve and be established within a team. Collaboration can be viewed either as a

process or as a systems approach of inputs, processes and outputs. Both approaches of collaboration work. What is more important is to consider the environment of the collaboration, the ensuing human interactions and outcomes in the collaboration (87).

Partnerships, coalitions, and alliances are foundations of collaboration. Advocacy, an essential component of successful programs, is strengthened by formation of coalitions such as the NCD alliance, which advocated successfully for the forthcoming UN Summit on NCDs. Thus, to continue to promote an integrated voice for chronic NCDs, WHO suggests coalitions be built and/or further strengthened within organizations working in chronic diseases. Embracing this concept will enable LMCs to partner with one another for cost-effective utilization of their scarce resources. To get this started, all identified potential coalition partners should be invited. Using the WHO stepwise framework for planning and implementation, they should participate in discussions on the health issue, agree on vision, desired outcomes and measures, share responsibility, and embark in continuous learning and training activities (93).

2.2.1 Examples of Effective Collaborations

The following nine examples provide insight into effective collaborations including what enables their effectiveness.

- (a) The BC Healthy Living Alliance (BCHLA), established in 2003, was a coalition of nine organizations who generated collective action to improve the health of British Columbians by addressing the modifiable risk factors of tobacco, unhealthy diets, and physical inactivity. This successful alliance achieved its objectives of health promotion advocacy, collaboration between government, non-government and the private sector, and built capacity within

communities for healthy living. It was effective as the collaboration targeted populations and regions where the need was high, approached it with a multi-sectoral approach, built upon existing programs and experiences, leveraged existing networks and strengths of alliance organizations, and decisions were evidence based (94).

- (b) Canada's newest anti-tobacco law, Bill C-32, came into effect in July 2010 banning flavored cigarettes, cigarillos, blunt wraps, and prohibiting tobacco advertising in print media in Canada. An outcome of successful advocacy by communities rallying together across Canada spurred on by the successful intersectoral collaboration 'Act Now BC'. This collaboration started in 2005 with a clear set of targets for the 2010 Winter Olympics. An initiative led by the BC Ministry of Health, it involved other ministries, external partners, municipality, BC Recreation and Parks, and the BC Healthy Living Alliance. As a result, BC adopted stronger tobacco control legislations, restrictions for use and production of trans-fats, guidelines for physical activity in schools, and dispensing healthy foods and drinks in vending machines. Factors to this success were leadership (the premier as the champion, concrete objectives and focus on visible results, political support, shared leadership and accountability) and integration (vertical and horizontal—partners quickly establishing shared values and alignment of purpose, investments in alliance building) (91).
- (c) The CARMEN Network (Collaborative Action for Risk Management and Effective Non-communicable Disease Intervention) in Latin America, supported by PAHO (Pan American Health Organization), promotes integrated prevention of NCDs in the region. CARMEN encourages and advocates establishing and strengthening partnerships (62). This network

along with the Alliance for Cervical Cancer Prevention (ACCP) is supporting cervical cancer initiatives and community based projects across Latin America with an emphasis on monitoring and evaluation to prove a demonstrative effect on outcomes (95, 96). It has been effective because expectations of countries participating in the network are clear; no local group/community/country is expected to perform without support, thus demonstration sites are linked or based in academic institutions, NGOs or municipal governments; involvement at a country level is essential for legislation and regulation; involvement at NGO or local group level important for implementation; and consensus building promoted between stakeholders to increase cooperation and responsiveness to population needs (21, 62).

- (d) In 2009, a Global Task Force on Expanded Access to Cancer Control (GTF.CCC) was formed in the US to address this growing inequity in cancer control and survival rates between developed and developing countries, especially as 80% of the disability-adjusted life years (DALY) lost globally to cancer are from developing nations where only 5% of resources are targeted to address cancer. This group's strategy is a collaboration to support existing initiatives and leverage lessons from other chronic disease initiatives like AIDS, TB, or Malaria. Another example is the treatment of cancer in the resource poor nations of Malawi, Rwanda, and Haiti despite the lack of specialists and specialty centres. Partners in Health, a collaboration between US teams and these countries, provides training to local doctors and nurses who in turn deliver medical care to patients and provide safe treatment like chemotherapy to patients (97).

- (e) Financial, human, and training constraints result in limited and fragmented treatment options for diseases in low resource settings. For example, due to the late stage of presentation, the breast cancer treatment becomes even more inadequate as there are no easily-accessible pathological or surgical options. This has led to innovative ways of collaboration between low-resource Ghana and high-resourced Norway to help bridge the capacity gap in Ghana's low resource programs for tissue processing, by sending samples to Norway and using telepathology to communicate and analyze results locally (11). An example from Nicaragua using the WHO Stepwise framework is another model of a collaborative program for cancer treatment between developed and developing countries. A twinning arrangement between the Nicaraguan hospital and a hospital in Italy enabled local professionals to be trained and care facilities to be set up in Nicaragua. A strategic alliance between the stakeholders further drew attention to the need for investments in cancer and resulted in mobilization of resources for cancer. The concepts "twinning" and "training" are now being promoted amongst the Latin American countries for a successful cancer program (98).
- (f) The Framework Convention on Tobacco Control (FCTC) is another example that has helped establish collaborations in countries. The principal feature behind creating an effective and integrated tobacco control program was strong ties between health promotion and tobacco control. Collaboration occurred by drawing together representative sets from both health promotion and tobacco control, promoting a conducive environment to share knowledge and combine capacity building efforts leading to integration due to common interests and shared values (99).

- (g) Another successful alliance is the Non-Communicable Diseases Alliance, held in September 2011, which drove a social movement resulting in the first United Nations General Assembly Summit for Non-Communicable Diseases. The alliance has all the trademarks of being potentially successful as it is mobilizing experts worldwide to support development, implementation and evaluation of intervention factors that range from public health policies to disease specific treatment. Clear roles and action items for each stakeholder group enhances success (100-102).
- (h) One more example of effective collaboration in health is the partnership for the Millennium Development Goals (MDGs), a package of development outcomes that heads of state committed to achieve collectively over the period of 2000-2015. The governance structure is an executive located within the UN Secretariat and acts as “a high profile political champion” that coordinates the partnership. Required for the partnership to succeed were: a political champion—a neutral body coordinating and facilitating actions, monitoring, and evaluating country-level efforts—close alignment between the goals of each of the partners and the goals of the overall partnership; legal bindings through ratified treaties or conventions, resolutions or declarations, norms and guidelines; economic support; and advocacy or issue champions, media campaigns to facilitate global and domestic policy changes. Goals were linked to resources, and countries needed to meet their share of the goals. A similar collaborative global response will be needed to address NCDs. Clear synergies exist between WHO, World Trade Organization (WTO), Food and Agriculture Organization (FAO), World Bank, civil societies, the private sector, and governments with

respect to improving the health of populations. These now need to be leveraged (103).

Collaboration towards a common goal can occur without members losing their identity.

Collective action is needed at the country level, for example, the Philippines Department of Health formed a coalition for their successful initiative Prevention of NCD by signing a memorandum of understanding (MOU) between the Government, civil society, NGOs, and the private sector supported by international agencies like WHO (101, 104, 105).

- (i) The Centers for Disease Control and Prevention (CDC), the National Cancer Institute, the American Cancer Society, and other national US organizations pooled efforts and resources to form the “Comprehensive Cancer Control” (CCC) collaborative to address cancer. They exchanged information, cooperated, coordinated, and collaborated through consensus actions, sharing resources and engaging in activities that improved the capacity of each of the partners for the common goal. Effective collaboration occurred when the coalition had a clear vision with attainable priorities, diverse representation from all areas of implementation, skilled leadership, resources, and mutuality of interests and efforts. Two possible models for forming coalitions can be the franchise model (i.e. adapting plan to meet local needs and culture, empowering local groups) or co-sponsoring model (i.e. emphasis here is on local initiative and ownership) (92, 106). Other successful CDC-coordinated collaborations have been colorectal cancer control program in various US states (107).

With regard to collaboration, investigation from the Latin American Caribbean Alliance (108) reveals that simply having committed individuals does not suffice—institutional support is critical. Members need to be the voice of their institutions, agree on priorities, objectives,

measures; focus on initiatives that can achieve health benefits for the population in the short term and put into place a governance model with clear roles and responsibilities. The alliance in early years had not been too successful despite articulating common goals, as it lacked a governance framework or a multi-country cooperation strategy. Also, no measures were put in place to track progress, stakeholders did not have positions of influence (thus, could not speak on behalf of their countries), and it lacked a Communications Plan and a vision for mobilizing civil society partners.

Conceptual Framework

Several frameworks were proposed of which only a handful appear to address collaborative processes. Suggested phenomena effecting processes are decision making, leadership, communication, negotiation and task orientation while outcomes to measure include satisfaction, effectiveness, increased coordination, shared responsibilities, and innovation. Few models have a clear conceptualization between collaboration and its effects. The review has shortlisted D'Amour's model of interprofessional collaboration, as its four dimensions are the most appealing to use. Sharing, partnership, power, interdependency and process have been identified as the most common concepts underlying collaboration. (87).

2.3 Knowledge Translation

WHO is finding that even effective interventions are not reaching the people who need them, resulting in continuing global health inequities. Some examples are the six million annual childhood deaths in developing countries that could be prevented by applying simple effective interventions; the 30-40% of patients in US and Europe who do not receive interventions

justified by scientific evidence, and others (109). Thus, there is a need for knowledge translation (KT), a multifaceted and multidimensional concept that needs understanding of contextual factors at multiple levels in addition to mechanisms, methods, models, and measurement (110).

Knowledge translation is described in literature using a variety of terms like implementation science, continuing education, research utilization, continuing professional development, diffusion of innovation, and knowledge management (111, 112). KT is seen as being synonymous with implementation, dissemination, translation, and utilization of knowledge. Thus, it causes confusion in science and policy due to the great number of definitions being used at different times in different ways (112, 113). The goal of KT is to turn research into action and closing the gap between ‘knowing’ and ‘doing’ through expediting the summarization and practical application of the knowledge uncovered by research (114). In contrast, knowledge transfer is about sharing knowledge between two organizations (115). Dissemination, another term closely associated with knowledge transfer and translation, is an active approach spreading evidence based interventions (EBI) to audiences using selected channels. Diffusion is the passive, untargeted, unplanned spread of interventions (116, 117).

Analysis of shortcoming in achieving the Millennium Development Goals (MDG) has made the world realize that knowledge application to health systems holds the key—to use knowledge effectively. Currently, an imbalance between how health research is done and applied is due to the inability to bridge the gap between knowledge and application, between scientific discoveries and realization of those discoveries in practice (118).

Knowledge needs to be actively disseminated in a push-pull process with all three elements of push, pull and capacity working simultaneously to increase uptake, as well as to forge partnerships between researchers and practitioners. Clinical practice is driven by science, but research also needs to be informed by real-world practice (119, 120).

The World Health Organization (WHO) supports the creation of integrated models like Evidence Informed Policy Networks (EVIPNet) for the Western Pacific Region and Africa. EVIPNet began in Asia, then moved to Africa and most recently to Latin America, and was designed to provide KT platforms to several countries in a region. For KT to be successful in a global collaboration, there are five key lessons. Interventions should be developed and profiled within the context of an evolving health research system; they should build on and leverage existing efforts, and establish continuity and synergy between efforts; they should recognize complexity in linking research to action; they should involve all stakeholders rather than only designated knowledge brokers; and they should strengthen capacity through building specific skills of stakeholders (121, 122).

Global outreach and collaboration is influenced by knowledge translation. The primary reasons low and middle income countries (LMICs) fail to implement research findings is due to weak health systems, lack of access to evidence and professional regulations. The positive news is that some countries have started to promote research-led practice, for example Chile is developing a health technology assessment program, Thailand is implementing an evidence-based hospital accreditation system, and the Philippines is funding development of evidence-based clinical practice guidelines (CPGs) (123). Continually measuring, analyzing and

comparing current performance with locally agreed concise, context specific, evidence-based standards of care example as seen in Cameroon and Mali has proven to be effective in LMICs. In contrast, in developed nations we find clinical audit and continuous quality improvement embedded within the system (124, 125).

Richard et al. argue the strategic need for research to be part of the process that transforms evidence based, cost effective interventions to practice as it will aid understanding and proactively addressing the barriers that arise when disseminating and implementing evidence based practices, thus bridging the ‘know-do’ gap (126). Thailand has growingly recognized the value of research. A triangular model blending science, politics and community needs enables interaction between knowledge generation, political engagement and societal involvement as a way to bridge the know-do gap, thus contributing to reduce the gap between research and evidence based interventions. In the Thai example of antenatal care, “political commitment was the fuel, evidence the compass and social movement the catalyst of reform” (127).

The review has established there are numerous models/frameworks summarized for the design and evaluation of complex interventions. Seven selected frameworks for designing and evaluating complex interventions are presented below in Table 2.3—the British Medical Research Council evaluation framework, Glasgow’s RE-AIM framework, the five phases model, the CIHR model and others. From all these frameworks, the investigator has shortlisted the RE-AIM framework with its suggested set of questions as most appropriate for this study’s line of investigation as it considers results not only at an individual level but also at a setting level (128).

Table 2.3: Frameworks for design and evaluation of complex KT interventions

Framework	Key Features
#1 UK Medical Research Council – MRC Framework	Provides a theoretical basis for interventions, models or simulated techniques to define intervention components, exploratory studies to refine chosen interventions, and finally followed by an evaluative study, generally a RCT. There are four stages in the continuum of increasing evidence, specifically pre-clinical or theoretical, then Phase 1 or modeling, Phase 2 or exploratory trial, Phase 3 or main trial, and Phase 4 or long term surveillance. It measures outcome and process variables, and degree of intervention sustained outside research setting (129-131).
#2 Glasgow’s RE-AIM Framework (<i>Reach, Efficacy/Effectiveness, Adoption, Implementation, Maintenance</i>)	RE-AIM a planning, evaluation and reporting web-based framework focuses on factors critical for translating research to practice. Use of the RE-AIM framework in evaluation demonstrates improvements do not need to be in every component. They could be in any of the five components. As the framework considers results at both individual and contextual level, benefits of the intervention can be increased (128, 132, 133). RE-AIM has proven effective in balancing internal and external validity (17 quality rating criteria for testing external validity), developing multistage indicators for evaluating the components, as well as, multilevel indicators to evaluate at an individual and group setting. The framework is being advocated as it has the cancer control web portal, P.L.A.N.E.T (plan, link, act, network with evidence based

Framework	Key Features
	tools) linked to it (119, 128, 134).
#3 Five Phases Model from UK- <i>Thornicroft et al integrated schema of five sequential phases 0 to 4</i> (135)	The five phase model is a model supported in North America. Translation 1 (T1) translates basic science into development of new interventions that are tested generally through RCTs e.g. guideline development; Translation 2 (T2) constitutes dissemination/ implementation and scaling up of EBI from T1 research e.g. testing effectiveness of guideline in reality; Translation 3 (T3) assesses strategies for dissemination and external validity e.g. testing strategy to disseminate guideline to diverse provider settings (136).
#4 CIHR Knowledge to Action Process framework – a seven phased conceptual framework	Its two components are knowledge creation (with three phases in an inverted funnel) and action (seven-phased action cycle). A comprehensive framework that has the complete KT cycle from knowledge creation through implementation to impact. It measures RCT study or interrupted time series or controlled/uncontrolled before-after study (110, 111, 128).
#5 Translation-Dissemination Framework	It has 24 cross-cutting competencies grouped into three categories, foundational, translation and dissemination, and change aims to help train practitioners to effectively disseminate findings and reduce the research to practice gap (137).
#6 Push Pull Infrastructure Models	The model facilitates moving EBIs into clinical practice, for example, in cancer control the ‘push’ is by science to increase adoption of clinical research interventions across the cancer

Framework	Key Features
	control continuum, while the ‘pull’ is by organizations who support informed decision-making demanding innovative interventions. The third component in the model along with push and pull is ‘capacity building’. All three factors work together to improve population health (138).
#7 CDC - Knowledge to Action (K2A) framework	Made of three phases of research, translation and institutionalization with evaluation as spanning across all phases. The framework can be applied to a policy/practice/program intervention in any disease being addressed (139).

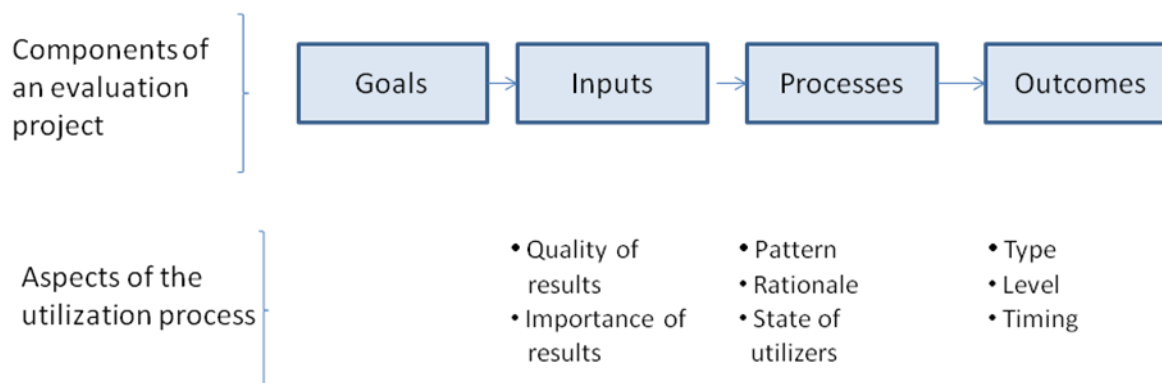
2.3.1 Knowledge Utilization and Approaches to Measure Knowledge

Platforms conducive for knowledge translation include (a) coalitions, (b) community based participatory research (CBPR), and (c) the Internet. Coalitions with supporting resources like the Cancer Control P.L.A.N.E.T (plan, link, act and network with evidence-based tools) portal are an ideal vehicle to promote partnerships between researchers and clinicians, to implement evidence-based cancer control plans and programs, to promote evidence-based interventions, and to obtain feedback on programs that have been tested (138, 140). CBPR is another way to increase community engagement, thus enhancing relevance and uptake of interventions (141). Finally, the Internet has started being used as an efficacious platform for communicating interventions in public health. For example, Cancer Control P.L.A.N.E.T. and the RE-AIM framework both use the internet. Dissemination effectiveness is not known, but

elements of utilization, reach rate, tailored messaging and social networking are well received (132, 142).

Knowledge utilization refers to the situation where the knowledge transferred/translated has been used to solve human issues, not as a single event but as a process. It is not necessary that the entire set of recommendations have to be implemented to confirm utilization. On the contrary, it is considered better if the recommendations have been locally tested and customized to meet the needs and resource availability of the local users (110). Conner's framework (see Figure 2.1) may be used to evaluate use of knowledge. It lays emphasis on goals, inputs, processes and outcomes, as well as on the key question that determines if the results of the research were utilized – by who, how, and when (110).

Figure 2.1: Conner's conceptual model for research utilization evaluation (110)



A systematic review identifies there are more than 60 procedures used to study whether knowledge has been utilized. These procedures have been classified into three main methods for confirming knowledge use— observation method, content analysis, and questionnaires and interviews. The method of questionnaires and interviews seems to be most frequently used. In contrast, outcome measures categorized at a patient level, health practitioner level and

organizational or process level also follow the pattern of measuring actual change in either the patient's condition, in the practice of a health practitioner or change in health system. Three examples of approaches mostly psychometric scales are utilized to measure knowledge use. They are summarized in Table 2.4 below. The structured interview method may be adapted to and used by the researcher for this study if needed.

Table 2.4: Few approaches in measuring knowledge use (110)

Framework	Key Features
#1 Hall's Level of Use Scale	A psychometric eight level scale that measures levels of innovation implementation. A comprehensive scale that seems to detect even small progress in knowledge use. However, it addresses only behavioural aspects of knowledge use, not levels of motivation or changes in attitude. Each of the levels has seven categories to describe the range of behaviour within the level. The seven categories are knowledge, acquiring information, sharing, assessing, planning, reporting status, and performing.
#2 Larson's Ranked Stage of Knowledge Use and Non-Use	It is a seven ranked scale. A rank value of 1-7 is assigned based on an ordinal scale from considered and rejected to nothing done, under consideration, steps towards implementation, partially implemented, implemented as presented, implemented and adapted.
#3 Anderson et al Structured Interview Method	Measures knowledge utilization in behaviour, cognitive and affective dimensions. The behaviour dimension is measured by using both open and close ended questions to obtain changes in activities, practices or policies. The cognitive aspect is

Framework	Key Features
	measured by comparing the rating of the respondent's belief on different aspects of the themed issue and for the affective aspect the respondents rated their concerns and their satisfaction with solutions.

Knowledge translation is a complex and multidimensional concept that requires ongoing collaborations between different peers, is a nonlinear process and needs multidirectional communication (110).

2.4 Global Health

Global health is multifaceted and multidimensional, and requires a number of pillars to succeed. These include funding, integrated action on social determinants, social protection, support for health programs at all levels, global agreements backed by political will and commitment of head of states, unity among multiple initiatives, and clear outline of responsibilities, transparency and accountability (143). “Global health” and “international health” mean different to some yet not to the majority who use the terms interchangeably. Readings verify the difference is in the ‘moment’—global when local leadership is able to link with global partners like Gates Foundation as in HIV/AIDS to obtain aid with a difference (144). Both terms have been considered to be complementary and not mutually exclusive. Brown et al use the example of WHO stating it is an intergovernmental agency that uses international functions to improve global health. International health was used when referring to controlling

epidemics across boundaries between nations, while global health today implies considering health needs of all people on Earth with stakeholders who are beyond governments and intergovernmental organizations. These include media, NGOs, international foundations, corporations, and patients (145). Global health is replacing discussions on international health, which is backed by well-funded global initiatives and addresses health related issues through a multi-sectoral, multidimensional approach characterized by global partnerships and global funds to enable stakeholders concentrate on specific targets (145, 146).

Koplan et al. are urging a move to adopting a common definition of global health. To them, global health focuses on health issues that can transcend national boundaries; encompasses prevention at a population level and clinical care at an individual level; embraces all health science disciplines and requires multi and interdisciplinary collaborations; and, requires global cooperation to arrive at global solutions to global problems. The authors explain that global health is different from public and international health because it stems from them. Public health and international health also focus on the health of the population but do not require global solutions. International health needs bilateral cooperation while public health needs multidisciplinary local solutions and is primarily focused on prevention programs (147).

Progress in global cancer control has not moved at the desired pace, slowed down by the weak and fragmented global and national responses. The 2011 UN Summit has validated the need for a global response to cancer control, which requires a comprehensive and integrated approach including legislation and regulation (7). Strengthening global cancer prevention requires reframing of the issues, global cancer/NCD funds, new set of strategies to raise the

priority level of cancer prevention in countries—an integrated approach to chronic NCDs—and formation of global alliances like the NCD Alliance formed by four NGOs that, in turn, represent their member organizations from 170 countries. Ultimately, sustainable long term partnerships, multilateral leadership, long term commitment supported through existing and novel mechanisms like a global NCD fund are needed (148).

The World Cancer Declaration (WCD) launched in 2006 is a call to action for world leaders to reduce the cancer burden by 2020 through developing and implementing NCCP, population based cancer registries, cancer prevention strategies, increasing access to diagnosis and treatment, enhancing screening, early detection and palliative care. The WCD is believed by many as a roadmap for change in our global cancer crisis and the development of national cancer control plans a means of realization of the targets set. WCD has 11 targets to be achieved by 2020. Priority actions have been outlined to guide countries to achieve set targets. However, unlike the proposed cancer outcomes statement for the UN Summit are not really specific and action oriented (149-153). Thus, following the political declaration on NCDs adopted at the UN Summit Sept 2011, the UICC has committed to developing targets and indicators for its targets, creation of global partnerships between the UN, member countries, civil society and private organizations, and monitor progress to committed goals. WHO plans to develop a global monitoring framework by the end of 2012, while UN member countries have committed to strengthening their national plans by 2013 (154).

Scientists, health professionals, cancer awareness campaigns, cancer declarations and patient advocates worldwide now have immense experience of what works and what does not.

They have created a wealth of knowledge, technology and ideas which if properly deployed might launch a Global Framework Convention on Cancer Control (FCCC) to provide an opportunity for progressive realization of cancer control on a global scale. Making cancer control a health and development priority is being expressed by all international agencies and leaders (152, 155). Literature summarizes a global framework convention in health as having a global governance with a bottom-up strategy that aims to build capacity, sets priorities, engage stakeholders, coordinate activities such that growing number of participants around the world are synchronized, and evaluate and monitor progress to ensure goals are met and promises honored (155). The global framework is a way to confirm the prioritization of the issue at a global level. This will advocate greater global governance and responsibility which in turn will support a universal push down on countries to fulfill their duties and promises under the framework agreement. Unlike the plethora of declarations that exist, conventions like FCTC are legally binding moral and a public health imperative—that is the prime difference between conventions and declarations. Examples like South Africa provide proof that in addition to geo-political determinants of health status there exist international challenges like human resource shortages, high cost of essential medications, etc. that make national health an issue that can only be protected by global agreements (155).

The rationale for a global framework is to improve the management of NCDs as chronic NCD approach ranges from structured to completely unstructured/inadequate across the world. LMICs are lacking systematic follow-up and monitoring of NCD care, access to essential care resources and information on morbidity and mortality rates. Elements of a framework for NCDs

contain a goal, strategy, targets, package of interventions, and progress indicators (156). For NCDs to be included in the Millennium Development Goals (MDG) discussions there is a need to define specific goals for targeted diseases, time frame, target and resources for diagnosis and treatment, and indicators for measuring and evaluating (146). NCDs need a collective global response as they pose a shared and similar health challenge worldwide. Many of the transnational/global determinants of health need global policies. A global response is also needed to address health consequences of global trade and global marketing of tobacco, alcohol, energy rich foods and beverages; and overcome resource constraints at national levels with a global response partners would have the capacity to identify, evaluate and disseminate best practices and efficiently implement national policies (1).

2.5 Framework Convention on Tobacco Control

Globalization of trade has been known to increase chronic NCDs due to the higher availability of potentially harmful products like tobacco, unhealthy diet and alcohol. Globally, NCDs are currently the primary cause of morbidity and mortality with tobacco as one of the main risk factors. The UN Political Declaration at the UN Summit on NCDs recognized the importance of the WHO Framework Convention on Tobacco Control (FCTC) as an NCD reduction strategy, and recommended its implementation be accelerated by all countries. Currently tobacco kills more than 5 million people per year. Unchecked it is anticipated the tobacco related deaths would reach 8 million by 2030 (157-159). FCTC is one of the quickest treaties to be launched and among the most ratified in the world. This is due to the creation of forums and networking where committed individuals could exchange information, experiences

and consequences. Basically, the learning from FCTC is that the launch of any global public health program must be accompanied by a plan for creating interaction opportunities (160).

The legally binding international treaty FCTC with its defined regulations has been the only significant initiative for implementing a global public health policy with a potential to respond to the tobacco pandemic and decrease the burden of cancer/NCDs. It is a population based measure based on policies that came into force in 2005 and has provided evidence that industry opposition can be overcome if there is political will. FCTC is yet to be fully implemented by all 173 signatories, perhaps because it does not have quantifiable goals, adequate funding nor a mechanism to assess outcomes for countries that endorsed the treaty—there is no monitoring body to whom violations can be reported (158, 161). Multiple readings emphasize the need to accelerate the implementation of the FCTC to transform global economies from health hazards to health friendly.

The treaty and its implementation guidelines provide an evidence based framework that can be built upon to establish a global strategy framework to address NCDs. A realization from FCTC is the need to improve information/knowledge outreach and diffusion to LMICs, and that the global cancer/NCD framework must have distinct indicators and accurately measure the impact of controlling cancer/NCDs as passing a new law does not guarantee that the policy will be effectively implemented or that behaviours will change (158, 162).

WHO's FCTC has achieved much due to its new governance system that expanded to include stakeholder groups such as NGOs and civil society, who were tasked to position health in global foreign policy negotiations. This increased the global reach of the treaty. Also, the

treaty being a legally binding instrument amenable to an international legal solution due to its transnational nature with a positive cost benefit ratio, a strong scientific evidence advocacy base and political will. Other contributors to its success were the negotiation process, global tobacco surveillance system, comprehensive tobacco control legislation at a country level, a transformative agenda, potential of the treaty to integrate gender and diversity into tobacco control, strong political commitment, leadership, and multilateral resolutions (159, 163-165). Thus, it can be concluded that NCDs backed by strong legislation and enforcement can be effective in achieving public health goals.

In support of the FCTC various advocacy networks were launched. FCTC was facilitated by interpersonal communication and networks. The most internationally recognized of all networks supporting FCTC is the online network GLOBALink. Network interaction has proven to be significant for public health programs else adoption or diffusion of the policy is diminished (160).

The main feature for the Global Tobacco Surveillance System was translation of its survey findings to effective policies using indicators and startup policies of MPOWER (M for monitor tobacco use by measuring tobacco use prevalence; P for protecting people from smoke by measuring exposure in home and workplaces; O for offering help to quit tobacco use by measuring quit attempts; W for warning about dangers of tobacco by measuring affect of printed health warnings on cigarette packs; E for enforcing bans on advertising by determining the number that had noticed cigarette marketing in various areas, and R for raising tobacco taxes). The success factors contributing to the formulation of creative and effective policies include the

formation of a national tobacco control plan, multidisciplinary team, multi-sectoral collaboration, raised social awareness, strong leadership and supportive policy makers (166).

Like all treaties, FCTC too has a blind side. It fails to sufficiently address the health impacts of trade liberalization and thus is difficult for countries to ensure policy coherence across the globe. As a result, few countries have implemented the treaty in its entirety. Evidently, greater evidence is required to support many of the implementation strategies being suggested by the FCTC including development of a one-stop regulatory system (167).

Translating the FCTC successes to NCDs would be beneficial. A foundation for moving forward with a similar kind of international instrument has been put down with the release of a political declaration on prevention and control of NCDs at the recently held Sept. 2011 UN High Level Summit. However, substantial political, economic and technical challenges still face NCDs. It is thought that “using the law in innovative ways to bring about great improvements in global NCD control holds promise and should continue to be explored, supported and furthered” (159).

2.6 Approaches to Evaluating Contributions to Strengthening Capacity

Literature is rich with applications of multiple data collection methods, such as surveys, questionnaires, observations, interviews, and focus groups, among many others. The literature reveals that both structured questionnaires and semi structured interviews are generally used in mixed methods research despite low concordance between the methods, due to inherent differences in data collection and/or analysis (168). Many issues emerge with direct observation methods including ethical concerns, recording of data, reliability and validity of observations

during evaluation. Observation is being used, for example, to assess conferences like the conference of the alcohol industry, where observation was used as the primary method to identify the key themes in the panel sessions (169). Due to the limitations associated with use of one method, conferences are now largely being assessed with a variety of data collection methods, for example, the learning experiences of students at a scholarly conference were explored using researcher observation, and pre and post interviews of students, scholars and practitioners (170). Also, within health research there is an increasing trend to use multiple research instruments like interviews, observations, surveys and others, as no one method can be considered ideal to build an in-depth understanding of the research context (171). Triangulation of data using a multiple methods approach has been explored and suggested to improve overall quality of the data (172). It appears that data obtained by using different methods complement each other and overcome inherent weaknesses in individual methods; thus, mixed methods research seems to have gained momentum in recent years (168). Mixed methods research offsets the weaknesses of conducting either qualitative or quantitative research alone. Additionally, it provides comprehensive evidence and helps answers questions that may not be answered by either approach singly. It is unrestrictive and promotes use of all methods the researcher wants to use to address the research issue at hand. Even though this design may be resource-intensive and not easy to administer, its value outweighs its difficulties (173, 174).

The remainder of this section describes data collection methods. Literature identifies the use of surveys as appropriate tools for evaluating congresses. An example is the study by Vries et al. conducted surveys at and following multiple practice or research oriented educational

conferences to explore the level of knowledge sharing that occurred at these conferences. The survey findings indicated that conferences enable bringing stakeholder groups together, contribute towards bridging educational gaps, build and strengthen networks and increase the flow of knowledge between researchers and practitioners. The survey also helped the investigators to gain understanding of the improvements needed in the educational field (175).

Surveys are appropriate tools for data collection, as demonstrated by the following studies. Kleeberg et al. used a survey to measure changes in patient satisfaction and quality in cancer care over the two year study period. They reported that the results of the survey assisted the practice team to introduce specific quality improvement measures, identify areas of specific strengths and weaknesses in care, issues with a need for improvement, provided results for benchmarking, and so on. The strength of surveys is their comprehensiveness, general and specific questions, and ability to be customized to the needs of the study (176).

Ambs et al., in their overview of the medicare health outcomes, survey linked data set, provide insights into the survey tool, the use of the SF-36 instrument that has eight scales which are weighted. The SF-36 is credible, and it enabled investigators to compare across cancer populations as well as compare to individuals with or without cancer (177).

Agrawal et al., in their study of questionnaire survey for physicians, concluded surveys are an important assessment tool available to improve knowledge as the findings through surveys enable efforts to be directed to change behaviour and ultimately improve outcomes (178).

Developing surveys specifically for a project requires establishment of measures of validity and reliability. Studies do not appear to indicate the extent of validity and reliability

measures required. Additionally, no benchmarks have been specified for studies for which evaluation can be considered as qualitative and tentative (179). Most evaluations have been conducted at a specific time, and they may fall short of comprehensiveness. Using self-report to collect data on participant characteristics introduces bias as does the possibility of questions not being interpreted by participants as intended. Also, it is seen that most survey methods did not provide for evaluation of team participant drop-outs or nonparticipants. Finally, another bias does get introduced when not providing an objective measure of the quality of sessions at a conference and instead relying on participant ratings of their experiences (179).

Cobb and colleagues' suggestion of making evaluation actionable by making it an ongoing process sound accurate (180). This review finds that most conference evaluation pieces are using surveys similar to what realist evaluators do to create a "value map" of their experience during and after the conference. The surveys use self-administered questionnaires composed of open and close ended questions to obtain a qualitative and quantitative assessment of the responses. Missing in most studies are the following:

1. a comparison of either the event or group of people,
2. use of pre and post testing to factually determine the change in attitudes, collaborative behaviours, work outputs among others, and
3. concurrent use of qualitative methods such as interviews, observations, focus groups to determine varying values of stakeholders suggested by realist evaluators (181).

Mostly conference evaluation designs are conducted as understanding cause and effect relationships between participation in conferences and the impact on the participants – their attitudes, behaviour and work. However, most of them lack the three points mentioned above and thus the question is, whether they are evaluating a change or merely reporting on participant self-evaluations or observations. Despite its limitations the one study where a comparison has been inbuilt into the survey is Wang et al's. The analysis was retrospective and data self-reported. There was variability in number of responses to each conference, the study used a convenience sample rather than a random sample and, thus, there was no data regarding the proportion of respondents to non-respondents, nor was there a way of knowing if non-respondents differed significantly from respondents. Such results are not necessarily generalizable to other settings (182).

Interviews on the other hand are much contextualized as responses seem influenced by the respondent's personal context and the process of data analysis/coding establishes categories/themes from the data (168, 183). Interviews are used when there is need to investigate specific issues associated with subgroups of individuals, for example in Lewis et al.'s qualitative investigation on obesity. This study used an interview schedule with broad generic questions along with specific sets of questions to investigate issues relevant to groups being explored. Questions were designed to be flexible to simulate conversation with some additional questions inserted as the conversation progressed (184). Interviews can be conducted individually or in groups. Some researchers have found group interviews valuable for a number of reasons like limited funding, and/or perception that group talks provide a better representation and analysis of

participant experiences. Using group interviews and sharing analysis with the participants has also proven to be helpful in studies conducted with aboriginal women. Irrespective of the form of interview, getting individuals to participate in interviews is challenging and requires considerable work building trust, rapport and relationship between interview and interviewee (185).

Yet another research methodology frequently used for qualitative analysis is observations. A non-obtrusive method, it is often used over an extended period by a researcher aiming to build an in-depth understanding of his study context. However, there are ethical, validity, and narrative issues associated with this method. Thus, there is a growing trend towards a multi-method approach to research design (171). Research does support the use of formal observations yet acknowledging its benefits and gaps. Use of observations in clinical settings is considered to be based on pragmatism and common sense (186). Participants can view observations as intrusive and may object to the observation process as a whole.

2.6.1 Evaluation Methodology

Multiple approaches are used in evaluation. For example, Swenson et al. use the program theorist approach to evaluate the impact of the 2001 Global Nursing Partnership Conference. This approach used a logic model complemented by survey questionnaires to obtain input /feedback from participants. Follow-up questionnaires and evidence from subsequent projects and partnerships in a descriptive review format were used to discuss the micro, medium and macro level outcomes of the conference (187). While, Clickner et al. conducted a quasi experimental study (post-design only) using a comparative format to evaluate the benefit or

burden of Nursing Research Conferences. Study findings suggested the conferences were of value (188). Another randomized study by Boesen et al. supported the use of scientific methodology for evaluating conferences (189).

Unpublished sources were sought by contacting cancer control leaders in Canada, and by conducting an internet search for countries posting their National Cancer Control Plans/Programs (NCCP) and collaborative work. There have been a number of studies on natural randomization (190, 191). A good example of natural randomization is from Fisher's study to determine whether regions with higher Medicare spending provide better care. This research study will determine if attending an international congress leads to increased collaborations and development of population-based cancer control programs in participant's countries. Like Fisher's study, this research does not plan using a formal instrumental variable approach as the investigator is primarily interested in the direction and general magnitude of the impact of the congress, not in precise estimates of the cost-value of programs commenced. Another reason being that instrumental analysis limitations would persist if such an approach was used as there is no way to prove this research has a perfect instrument. Also, instrumental analysis provides unbiased results only in certain settings. Thus, the thinking is to present the analysis as a descriptive study.

To measure the effectiveness of the congress outcomes, the examination will be considering the conceptual framework of complex innovation implementation adapted by Helfrich et al. that had hypothesized that effective innovative implementation is a function of organizational/political will, leadership, resource availability, policies & practices. Using this

model the comparative case study of four cancer clinical research networks was able to explain observed differences in implementation effectiveness (192).

A study on multidisciplinary cancer conferences (MCC) by Hong et al., explored the differences in attitudes of cancer care providers and administrators. It indicated and confirmed that interprofessional discussions and MCCs are effective mechanisms to coordinate and improve care plans. The study also validated that participation and perceived benefit of conferences are statistically different between administrators and clinicians, and within and outside of regional comprehensive cancer centers (193). This finding is backed up by Wright et al., who examined conferences for opportunities to promote implementation and established that clinicians perceive attending MCCs helps them to incorporate multidisciplinary opinion into their patient care plans (194).

A study on the influence of information sources on the adoption of uterine fibroid embolization by interventional radiologists concluded that conferences create “early awareness, while interactions with colleagues is the most important factor in stimulating use of the innovation among later adopters” (195). Although the key challenge in evaluation continues to be the difficulty to isolate the impact of a particular policy intervention, Lenihan et al. revealed that many effects cannot be attributed to a single program but the effects can be a result of a mix of factors (196). They advocate moving towards a new evaluation methodology by using enhanced logic models and evaluation metrics that includes as many as possible of the listed: contribution from interventions that focus on the socio-economic impacts in the region; opportunity costs; additionality (i.e. additional input, output and behaviours measured on a pre-

defined spectrum); impact on the wider community; impact on sustainable development; impact on wages and growth rate; capacity building; knowledge creation; and economic and bureaucratic impacts (196).

2.6.2 Evaluation Approach: Logic Models

Evaluations analyzing impact on policy need to think more about dissemination tools and the audience, as policy analysis needs to serve the clientele (179). Additionally, greater attention needs to be paid to interaction among participants and the connection to nonparticipants. The researcher believes it can be beneficial to evaluate conferences using a quasi-experimental design comparing quality and outcomes pre and post conference or between two programs, or between the intervention and control group using direct assessments, surveys, observational data, interviews or focus groups can be beneficial. The hope is using these multiple strategies will lead to generalizations, so that the findings can be applied to other conference situations.

Another technique used by a few evaluations is the logic model or the program theory evaluation approach as a route for understanding relationship between and impact of conference activities. A logic model is program specific and needs to be developed for a particular program and is not “off the shelf” (197). This investigation considers the logic model to be a good approach and uses it in this study. Another possible approach that could have been considered for evaluation could be “appreciative inquiry” that targets an individual rather than an organization building upon his/her strong skill sets. However, what is missing here is the lack of evidence that the participant can accurately recall her on-site written and/or oral evaluation, and

directly attribute all post-conference improvements or actions to what the individual had said at the conference or due to the conference (198).

Logic models portray assumptions about resource needs to support activities, produce outputs and realize intended outcomes of a program, as well as provide guidance to what should be assessed and measured. The logic model approach, 'holistic' and 'multidimensional' is a valuable project management resource and evaluation tool for demonstrating the effectiveness of the work conducted, exploring a chain of cause and effect, and comparing ideal against actual performance in a program and for holding stakeholders accountable for processes and outcomes (196). Literature illustrates logic models as successful instruments in planning, implementation and performance management in a variety of fields including primary care. These models require little resources yet provide the details needed for an explicit understanding of the future challenges, current resources and timelines. The logic model, a conceptual framework, describes the relationship between resources, activities, outputs and outcomes in relation to the program objective, thus providing an integrated approach from planning to evaluation. It is a powerful and flexible tool for program planning, monitoring and evaluation. This in essence unites and empowers members in advancing the objective. Readings reveal that the model needs to be regularly modified based on changing capacity and resources of the program. The first step of the process begins with confirming the program goal, and identifying the target population, determining who would benefit, thereafter defining the assumptions and inputs, and describing the activities that would meet the needs of the target population. This is followed by

identification of outputs (actual deliverables), outcomes (actual impact or change) and outcome indicators that reveal how successful the program has been (196, 197, 199).

Logic model approach has been successfully used by the Center of Disease Control (CDC) for evaluating their comprehensive cancer control programs, as well as, simultaneously monitoring processes of action and instilling a culture of quality improvement (200). Community based coalitions such as the Controlling Asthma in American Cities Project have found logic models helpful to assess coalition-based projects and to identify multilayered components that are of added value in their social ecological model. Further refinement of the model by adding explicit inclusion and exclusion criteria for each added value component helped populate specific outcomes in the logic model for each component. These enhancements have helped planners to identify the types of changes and the level of change most directly attributable to the collaborative coalition process, as well as support or disprove the coalition's contributory claims to policy and other related outcomes (201).

Population-screening cancer programs in Australia like colorectal, breast and cervical programs have developed and applied a logic model as they found not only does it articulate the relationship between project inputs, output, desired impacts, stakeholders, adoption pathway but also the relationship of the project in an organizational context. Also, performance can be monitored in the dimensions of impact, relationships, science and resourcing, and performance management can be evolved through the model as the program matures and matures. Findings following the use of the model confirmed that it enables effective communication of the aims and target impacts, and that its explicit mapping of the path to adoption speeds up time to

adoption and impact, helps track progress and helps identify roadblocks to impact thus improving data collection and usefulness (197).

Aside from their inherent benefits, logic models have potential limitations like no allowances for selection bias, little attention paid to country context and inability to isolate the impact of targeted interventions. Nonetheless, they have the potential to serve as an all-encompassing evaluation framework (196).

CHAPTER 3: METHODOLOGY

Chapter 3 describes the methods and procedures involved in this study. It first includes a restatement of the purpose of the study and presents the unit of analysis. Then it offers the research design approach and outlines the study plan, the research instrument and a conceptual framework. Following this, the study design is summarized in the methods section, and then a section on data collection provides a detailed explanation of the survey instrument, including a description of the survey process, the operationalization of the variables and the data collection procedures. Finally, the data analysis plan is described.

The Certificate of Approval for conducting research with human subjects was obtained from the Office of Research Services of the Research Ethics Board at the University of British Columbia, and is included in the Preface.

3.1 Restatement of Purpose of Study and Unit of Analysis

The rationale for this research investigation is to determine how ICCCs affect the ways that global cancer control challenges are addressed. The study specifically explored whether participating in the Congress influenced and/or resulted in changes in participants' activities and behaviours, increased collaboration and partnerships including the formation of communities of practice (CoPs), facilitated knowledge transfer, and informed the development/implementation of population-based cancer control programs or national cancer control plans.

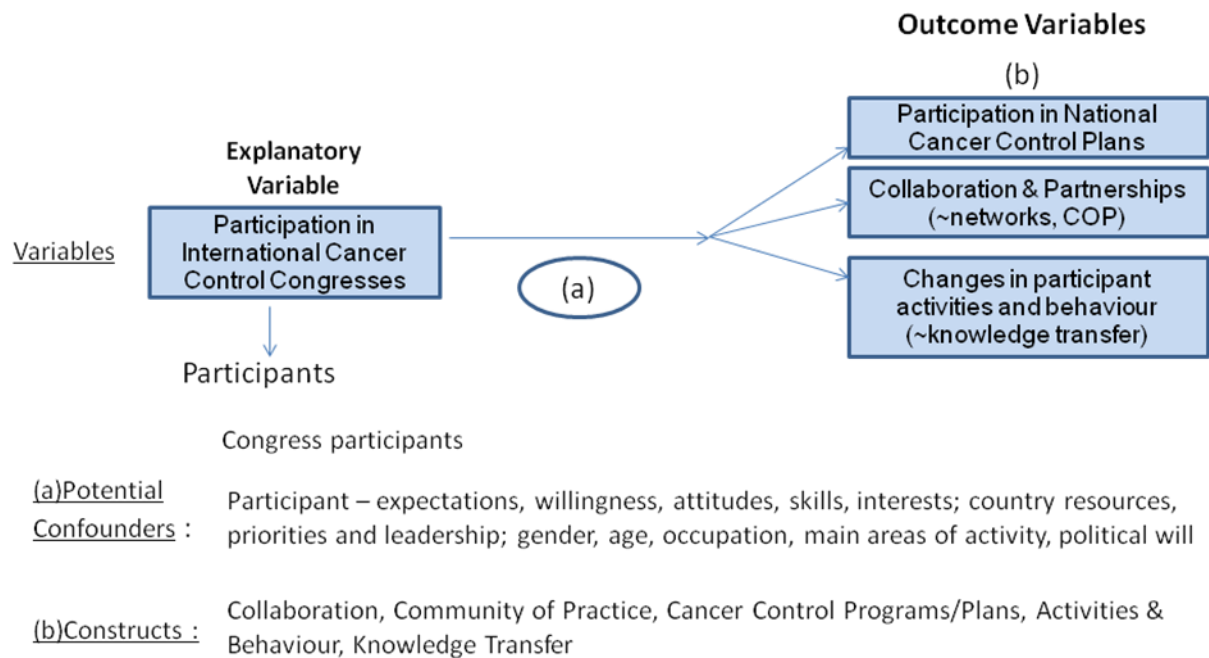
The unit of analysis for the study was that of individuals participating in each of the Congresses. At the 3rd International Cancer Control Congress (ICCC3) hosted in Italy in

November 2009, there were 362 registered participants, and there were 310 registered participants at the 4th International Cancer Control Congress (ICCC4) hosted in Korea in November 2011. The study had two pods of individuals with few repeats.

3.2 Research Design

Figure 3.1 illustrates the conceptual framework summarizing the basic relationships examined in this study to investigate the research questions introduced in Chapter 1. The explanatory variable is the participation in the ICCC, while the outcome variables are participants' activities and behaviours such as knowledge transfer, national cancer control plans, and collaboration and partnerships including communities of practice (CoPs). The study attempts to measure the influence of the explanatory variable (attendance at the Congress) on the outcome variables. It also examines the factors or conditions that seem to be associated with stronger outcomes: e.g., attending the Congress enables increased connectivity and interaction between cancer control professionals, countries or organizations; increases participants' networks, promotes exchange of ideas and experiences, and other outcomes. Some of the enabling conditions as perceived by the attendees included the conference setting, round table discussions during workshops, sufficient time, space and food provided during coffee and lunch breaks to encourage discussions and networking.

Figure 3.1: Study's conceptual framework



Diversity of the respondents may be an influence on the outcomes. This census study was open to all participants from low, middle or high income countries. As described further in the methodology, the investigator performed an analysis using cross tabulations to determine whether the congress was acknowledged differently by participants from high, middle and low income countries.

Due to the complexity and multidimensional characteristic of the study, it was organized as ‘mixed methods research’ with hypotheses that guided the direction of data collection and analysis using a mix of qualitative and quantitative data that was concurrently collected and integrated (202). The analysis approach combined both deductive and inductive thought processes, and involved various forms of data collection and analysis with an administered

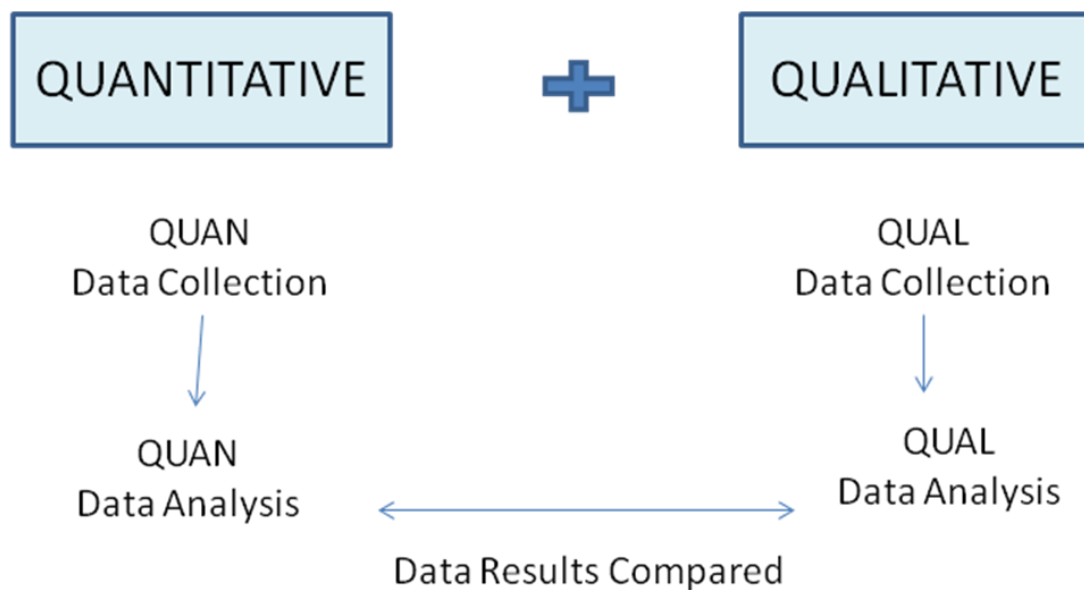
survey being the primary means of data collection. Most of the quantitative data was obtained through close-ended questions in the survey questionnaire. The qualitative data were obtained through open ended questions in the survey, interviews with participants, observations of the participants at the Congress, and a review of the latest WHO publications on non-communicable diseases country profiles. All data was obtained, compared and contrasted. The intent of the analysis was to understand participants' views in relation to the framework used for the study (173, 203-206). For reasons of practicality and feasibility it was not possible to pursue a classical triangulation design, as this would have been too expensive to conduct. However, to provide a more comprehensive perspective of respondents, the study did apply a concurrent triangulation technique explained below.

A major advantage of conducting mixed methods research was that it enabled understanding of underlying relationships and complex phenomenon that could not be understood by qualitative- or quantitative-only techniques and generated a credible evidence-base. It enabled qualitative, exploratory questions to be answered in the same study as well as with quantitative, confirmatory questions, therefore enabling verification, understanding of complex multifaceted phenomenon, and creation of a premise in the same study (207).

The purpose of this concurrent mixed methods study was to explore and generate themes about the influence of the Congresses on the behaviour and activities of participants using observations, surveys, and face-to-face interviews. Participants were surveyed during and after the Congress regarding the activities they planned to undertake or had commenced following the Congresses, changes experienced, and their influence on national cancer control planning/policy.

The rationale for using both qualitative and quantitative data in this proposed concurrent triangulation approach (Figure 3.2) was to enable the researcher to “confirm, cross validate or corroborate findings within a single study” (174). That is, the qualitative and quantitative data collection happened within the same phase of the study. Results were integrated during the result interpretation stage to strengthen the supportive findings or helping explain the divergent ones.

Figure 3.2: Concurrent triangulation strategy (174)



3.3 Methods

The current study aims at understanding and assessing the value that congresses add for the participants and their organizations/countries. The study took advantage of a natural experiment, namely the organization of the ICCCs themselves. Surveys, the primary mode of data collection were administered at the congress and post-congress. Essentially this study interprets the survey data; survey responses obtained are self-reported activities and perceptions

of participants. Some scholars may refer to them as perceptions of the participants. The study explicitly used the ICCC as the focal point to investigate the questions (a) Does participation in the ICCC lead to participants influencing their countries in the development or implementation of cancer control programs? (b) Does participating in the congress lead to increased collaboration between individuals and/or countries? (c) Does participation in the congress change activities and behaviours of participants through knowledge transfer? To explore conditions that could influence participation, one or more potential confounders could be considered to allow assignment of participants into sub groups (208). The study defined participants for age, sex, occupation and organization. Where possible, type of country is cross tabulated with appropriate questions in the survey to explore if the congress was received differently by participants from high, middle and low income countries. Countries were classified based on the Human Development Index as - low, middle or high resourced.

3.3.1 Study Design

The study design included conducting a questionnaire survey to all registered participants at each congress. This on-site survey was followed 2-3 months post-congress by a follow-up survey conducted on the same group of all registered congress participants to confirm changes in behaviour and activities of the participants. The congresses included in the study are the 3rd International Cancer Control Congress (ICCC3) held in Italy in 2009 and the 4th International Cancer Control Congress (ICCC4) held in Korea in 2011. This was a cross-sectional study as different individuals tend to attend each with the little overlap between the participants. The participants who attended both congresses or who had attended one of the earlier ICCCs were

the ones largely interviewed. For example, at ICC3 10 participants were interviewed and at ICC4 24 participants were interviewed (see Appendix C for interview questionnaire). The participants interviewed at ICC3 had attended either ICC1 or ICC2 or both. While, 20 of the 24 interviewed at ICC4 had attended ICC3 and some of them had also attended ICC2 or ICC1 or both. A pictorial representation of the study design is outlined in Figure 3.3 below.

Figure 3.3: Study design

Participants	ICC3 2009	Nov. 2009 Survey	July 2010 Survey	ICC4 2011	Nov. 2011 Survey	February 2012 Survey
ICC Participants (all attendees from high, middle and low resource countries)	X	O1	O2	X	O1	O2

X – the intervention (i.e., ICC congress)

O1 – the first observation (i.e., the survey and interviews at the congress)

O2 – the second observation (i.e., the follow-up surveys post-congress)

The first survey was conducted at ICC3 in November 2009. At the congress, 362 survey forms were distributed, 171 were completed which yielded a response rate of 47%. A follow-up survey was conducted on the same 362 congress participants using a self-administered electronic questionnaire mailed out, with a response rate of 31%. The objective was to understand the added value of the congress to participants and assess the impact of the ICC in stimulating awareness/development of cancer control programs/establishment of communities of practice. Also, it was designed to capture suggestions for content for ICC4 to better meet participants’

needs. The third survey was a real-time, on-site survey conducted at ICC4 in November 2011 (see Appendix B for survey instruments). There were 310 participants. The participants for ICC4 differed significantly from ICC3 with very few being repeats (i.e. participants who attended ICC3 or earlier ICCs). This can be attributed to the congresses being conducted in different regions of the world. The researcher did not expect too many repeat participants. Thus, this research is not a longitudinal study. A follow-up survey (the fourth and final survey) similar to the one conducted after ICC3 was completed by the 310 participants of ICC4 to understand the impact of the congress on the participant activities and behaviours and their influence in turn on cancer control planning and implementation.

Performing the follow-up surveys, interviews and observation⁵ at the congresses, and a document analysis of WHO's recent publications including the NCD Country Profiles 2011 (2009)), enabled the investigator to draw conclusions about the impact of the ICC that would be evidence-based and consistently collected. At all times, the focus was to check the validity of both quantitative data and accuracy of qualitative findings by checking the scores from past surveys, triangulating data sources, and checking registration databases and descriptions provided.

The primary data gathering procedure, a self-reporting survey questionnaire, was distributed at each of the ICCs to all individuals registered on the congress registration database. This was complemented by observational notes gathered at the congress, and open

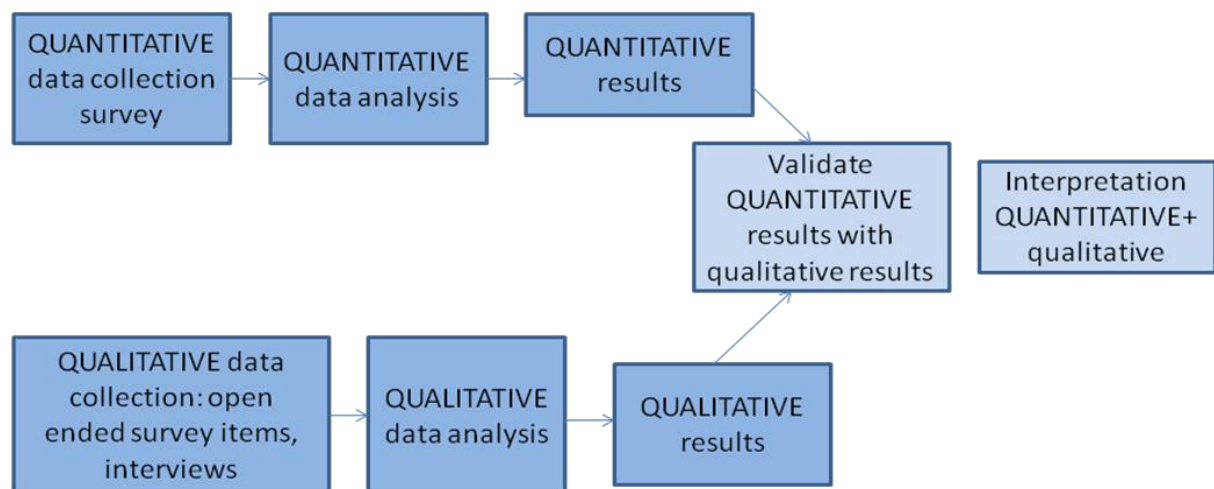
⁵ Observed the participants at the congress especially during the plenary and workshop sessions and made notes of the congress participation, key discussions and proceedings.

ended interviews of repeat participants. Data collection was supplemented by a review of current WHO published non-communicable disease country profiles. The survey instrument was designed with both close and open ended questions (see Appendix B). Including a few open ended qualitative questions within the same survey helped validate and expand on the quantitative findings from the survey. Concurrently the researcher interviewed at the congress repeat participants using open-ended questions to learn more details about their survey responses. The purpose was to obtain different but complementary data to validate survey findings and to gain more in-depth understanding from participants of how and what of attending cancer control congresses in particular ICCC made a difference. Qualitative and quantitative methods in this study are not mutually exclusive methods, rather they are interdependent. Qualitative methods help expand conceptual frameworks, while quantitative methods test and generalize theory (210). The premise is that the use of quantitative and qualitative approaches in combination will provide a better understanding of the research question (174). Use of the ‘concurrent triangulation design’ allowed the investigator to mix both quantitative and qualitative data in a single study. This strengthened the approach and general robustness of the findings as quantitative data could be compared, validated or contrasted with qualitative finding (173, 203-206).

The study thus does not use the pure triangulation design; it is a variant, ‘triangulation design validating quantitative model’. With this, the researcher undertook concurrent collection of qualitative and quantitative data from a survey, validated quantitative results with qualitative results, and merged the data during the interpretation/analysis (see Figure 3.4) (173). Validating

data in a survey is equivalent to validating qualitative data, which means assessing validity and reliability of data collected in the study. Thus, a study needs to establish validity⁶ of the survey instrument. Validity will also come from the researcher and from the information collected during the study. Reliability plays a small role in surveys (173). Reliability is synonymous with consistency (38) and “concerns the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials”(211). The surveys in the study were pilot tested with 10 potential participants prior to being administered.

Figure 3.4: Triangulation design: validating quantitative data model (173)



The benefits of the study design include the following characteristics of the study:

- it draws the quantitative and qualitative data from the same population;

⁶ Validity is synonymous with accuracy, that is, how well does the indicator measure what it is supposed to be measuring. Validity here is the extent to which the survey instrument is measuring participant experiences at the ICC. It is not the measuring instrument that is validated but the instrument in relation to the purpose for which it is being used (38, 211).

- it involves concurrent quantitative and qualitative data collection; and
- it supplements the survey and interview qualitative data with information of current prevention and control of cancer/NCD in countries obtained from the recent WHO publication “Non-communicable Diseases Country Profiles 2011” (2009), appropriate web based publications and published country national plans, if any.

The study design limitations and future directions identified were:

- participants attending the congress were self-selected participants;
- introduction of potential bias through data collection, which was overcome by using self-administered questionnaires;
- constraints of this study do not allow for data analysis based on stratification nor addition of comparison groups. These limitations need to be addressed in future investigations through cohort prospective comparative studies;
- future studies to add demographic indicators (e.g., gender) at registration and consistently collect information on country of respondents during surveys;
- biases in data collection and participants included in the surveys:
 - English as the language of the questionnaire. Participants who attended were either fluent or had a working knowledge of spoken and written English. This bias is partly solved as English was the official language of the Congress. Also, the ICC3 and ICC4 surveys were pilot tested with 10 potential participants each;

- the response rate dropping in the follow-up surveys; survey respondents from high, middle or low income countries were more proportionately represented when compared to congress participants in ICC3 versus ICC4; details provided further in the text;
 - a large proportion of participants from high income countries (HICs). At ICC3 70% (e.g., Italy, USA, Canada) and at ICC4 64% (Korea, USA, Canada) were from HICs;
 - the outcomes from follow-up survey maybe influenced by congress participants who decided to participate in the survey as they may not be the same participants who answered the on-site survey, and
 - the on-site survey and follow-up surveys were not linked.
- a risk of multiple inference, that is, indicating significance when not really present (212). The study has attempted to mitigate this limitation by taking the significance value for all tests at a lower level of 0.05 ($p < 0.05$).

3.4 Data Collection

The time frame of the study was November 2009 to January 2012. The population of interest was the Congress registered participants (that is, 362 individuals from the 3rd ICC and the 310 participants from the 4th ICC).

3.4.1 Data Collection Sources, Instruments and Procedures

For the study, the researcher collected primary data, and supplemented it with secondary data that included congress publications and recent country profiles published by the WHO. The primary data was from the participant surveys administered at the congress and as a follow-up to the congress, from interviews and observation notes at the Congress. While the secondary data was harvested from Congress Proceedings, the Congress Analysis Reports (see Appendix A), WHO NCD Country Profiles (209) and other appropriate web based publications.

A range of research instruments were used to collect information and data including surveys, review of conference documentation, country profiles, consultation with conference organizers and committees, and observation of sessions (e.g., plenary, workshops, poster - interviews, and survey of participants). However, the primary data collection instrument was the survey—onsite and follow-up—primarily thoughts and perceptions of participants plus information on specific activities undertaken or planned to be undertaken following the congress.

The surveys consisted of 26 to 33 questions—26 for onsite and 33 for follow-up surveys—and sought information about the participants' experience at the congress, the perceived benefits of Congress attendance, the impact of the congress at an individual, organizational and country level, and brief demographic information generally using a five-point Likert scale (see Appendix B for survey questionnaires). The onsite survey at each congress was a baseline survey. Both on-site and follow-up surveys for each congress were separately analyzed using the statistical package SPSS (Statistical Package for Social Sciences). Univariate

and bivariate analyses were conducted for each of the surveys to explain the distribution of responses and determine the statistical significance of relationships between variables.

The survey method was comprehensive. Details on how the data was collected via the follow-up survey are explained in the sampling sub-section. The surveys were designed to take about 10 minutes for participants to complete, were made readily available in hard and electronic copy and rapidly disseminated to all participants. The survey tool used a combination of scales to measure responses—nominal (e.g. for gender), ordinal (e.g. for impact) and interval (e.g. for age). It was a self-administered questionnaire (i.e., self-reporting) in English, the official language of the Congresses.

At the 3rd ICCC, the researcher conducted a small number of interviews and a focus group that provided qualitative data (see Appendix C for interview instruments). At ICC3 the investigator tried hosting a focus group session. The response for the focus group was extremely low which may be attributed to participants having other competing interests on their limited time at the Congress. Thus, for ICC4, in addition to the on-site survey, the investigator concentrated on identifying and interviewing all repeat participants (i.e. participants who had attended the ICC3 or one of the prior ICCs and were attending ICC4). A shortlist was created by reviewing the congress registration database for both the 2009 and 2011 congresses, making note of the repeat participants and approaching them at the conference venue to obtain their informed consent and thereafter inviting them to participate in a short 5-10 minute interview about the impact of the congresses on their work in cancer control, the work of their organizations and their country. The interview technique was used to supplement the data

obtained from surveys (the interview tool for both ICC3 and ICC4 is attached in Appendix C). The voluntary interviews with repeat participants were to obtain insightful answers on why participants came to the congress, how attending the congress had and/was benefitting them, describe the changes they have experienced or are experiencing, and what they were going to do with the learnings.

NVivo software was used to analyze and manage the qualitative data obtained from surveys, interviews, observations and publications. NVivo allowed exploring relationships between the data and ideas in the study. It also allowed transcribing the interview and observational notes, coding the analysis, generating themes or categories, representing the relationships by linking the themes, developing a narrative, and interpreting and integrating findings with quantitative findings. Details are further described in Chapter 4.

The bulk of the data was primary data that came from the onsite and follow-up surveys, interviews and observations, and from the reports that were generated from the congress proceedings. In addition, the investigator sourced some secondary data such as data from countries that reported changes in cancer control practices to explore if there were any changes in cancer control initiatives that may be a result of new cancer control policies.

3.4.2 Sampling

Sample Size

Due to the heterogeneity of the population of interest, the sample included all individuals who registered and/or participated in the Congresses. This is a census sample in that the entire

population of interest is surveyed (versus a randomly selected sample). As participants in the 3rd and 4th ICCC came from 65 and 44 countries respectively, the sampling frame is heterogeneous and representative of a varied population. Countries represented were not only diverse geographically but also reflect varying resource levels. Participants were a heterogeneous mix not only due to their country of origin but also due to:

- gender: male and female;
- occupation: ranging from cancer control professionals to health educators, academicians, non-governmental organizations, community leaders, patient advocates, students, pharmaceutical representatives, and researchers; and
- number: different countries had different number of delegates. The participants by country ranged from 1 - 150 individuals/country.

Using a census design has an associated risk of having a higher non-response rate. Nevertheless, a high response rate was expected for this study because it has a relatively small population of interest and the International Cancer Control Congress Association has dedicated resources that will enable the researcher use multiple mediums of communication to follow-up each participant. The study design has allowed the investigator to obtain as high a response rate as possible; the response rate is what happened empirically. The study costs are modest as the sample size is relatively small and used multiple communication mediums, primarily the congress itself and thereafter an electronic medium for follow-up survey dissemination and collection. For checking accuracy of the 'country' data field the investigator consulted experts as

well as used the registration database to affirm the range of countries the participants being evaluated originated from.

Probability of Selection

For the reasons provided above, the probability of selection is 100% for each member of the population for the surveys.

Survey Sampling Technique

The technique used was census sampling. As the number of Congress participants for the two Congresses is limited the study sampled all participants.

Steps for Obtaining Data for Each of the Two Congresses (3rd ICCC and 4th ICCC)

Step#1- Kept a record of all individuals who had registered for the Congress.

Step #2- Updated and cleaned the Congress database for all potential and actual participants ensuring all individuals in the database had contact details and there were no duplicate entries.

Step#3- Outlined and pre-tested the survey questionnaire with an embedded consent. For the electronic follow-up surveys, the researcher prepared a consent form in addition to the survey questionnaire for participants.

Step#4 - Integrated feedback from the survey pre-test that had been conducted on approximately 10 individuals similar to the target population. The researcher revised the questionnaire carefully before administering it.

Step#5 - Obtained ethics approval from the UBC Research Ethics Board for the survey.

Steps#6 - Upon receiving approval administered the onsite surveys and sequentially sent out the approved follow-up surveys and accompanying material to each individual who participated in the Congress.

Step#7 - Conducted open-ended interviews at the Congress of participants who participated in both congresses and/or earlier Congresses as well as gathered observational notes of the congress including participation and proceedings.

Expected Response Rate

Irrespective of the survey being in real-time or electronic follow-up survey, it was expected there would not be a 100% response rate. From the researcher's own past experience as well as experience of peers the expected rate was known to be anywhere between 30-50%. Nevertheless, the investigator proceeded and used strategies listed on the next page to increase the response rate and try to achieve as close to 100% as possible, especially as all contact details for individuals were in the congress database.

Census sampling has its benefits and limitations. Due to the sampling frame and sample size being the same, the benefits of conducting a census outweigh using other possible techniques. Benefits include the following (38):

- having information on each person in the target population;
- good design for empirical generalizations;

- complete representation of a heterogeneous population which would have been difficult to capture or generalize with other techniques—thus, it involved minimal coverage error;
- reduced non-response bias as records of individuals were up-to-date and resources were available for adequate follow-up and incentivization⁷ as the number of participants to the Congress was small;
- minimized potentiality of sampling error; and
- considerably reduced probability of a sampling bias/coverage error.

Meanwhile, the limitations realized were associated with survey of all participants and size of population. Usually a limitation associated with census surveys is the high cost of surveying the target population. However, in these Congresses the sample size of approximately 300+ individuals from each congress is a small sample and thus the associated survey cost was lower. Any possible margin of error could have been decreased if the population of interest was expanded. To sum it, the study overcame the limitations by considering the limitations to be benefits. That is, it was realized doing a census-design was better than doing other sampling strategies. The reason researchers rarely survey the entire population of interest is because the cost of surveying all individuals is too high, and the population is dynamic—the individuals making up the population may change over time (174). However, in this study, the population at

⁷ Incentives for completion of the survey included a draw for three attractive prizes at the Congress and for the follow-up survey there were three free registrations offered.

each Congress is not large—only 300+ individuals each time. Also, the individuals working in cancer control are small and even if mobile they are likely to move to units that are all associated to the congress. Though a heterogeneous group that originates from approximately 40+ countries of the world due to their association with ICCC through multiple UN agency arms, the quality of their data and responsiveness was fair. So, using any other technique (e.g., random sampling) would have been a mistake as firstly the sample size was too small for getting precise results and also it would have not represented the inherent heterogeneity of the population adequately, making it later difficult to generalize the findings.

To ensure a good response rate, the following measures were taken during both congresses:

- a. Shortlisted potential participants for interview and only interviewed them following their consent.
- b. Shared at the congress closing ceremony the intent of conducting a follow-up survey to raise the awareness of the respondents, as well as obtained consent at the on-site congress survey to contact participants following the congress.
- c. Ensured instructions for completing the survey were explicit.
- d. Ensured the questionnaires were not long (25 to 32 questions maximum) and had mostly multiple choice questions that enabled respondents to enter responses rapidly.
- e. Provided respondents with two choices of completing a survey namely: electronically or on paper.

- f. Provide respondents with three ways of submitting the completed follow-up survey:
 - i. By email – providing the researcher’s email address
 - ii. By fax – providing a fax number
 - iii. By mail – providing a postal address
- g. Attached an incentive that held value for the participants for completing the surveys.
- h. Provided sufficient time for the respondents to complete the follow-up survey (i.e., approximately three weeks).
- i. If any follow-up surveys bounced back, called up participants, obtained new contact details, informed them about the survey, and requested that they participate. Resent the survey package to the new contact address provided.
- j. Followed up after the first mail out of the questionnaire with telephone calls to opinion leaders in different countries requesting their help in encouraging their colleagues to complete the survey.
- k. Sent out a weekly reminder email to those respondents who had not sent back the completed survey (i.e., multiple contacts with non-respondents). Provided them with a visual of where the researcher was with receipt of completed surveys and urged them to help reach the target.
- l. Sent personalized thank you notes to each participant who responded.

3.4.3 Operationalization of Variables

The example described in the tables below demonstrates how the study operationalized the variables. Using the survey questionnaire for ICC4 as an example (see Appendix B) the first step was to identify the explanatory, outcome and confounder variables that would be measured. Table 3.1 below summarizes the variables to be measured. Subsequently, Table 3.2 provided the corresponding survey questionnaire items that were used to measure the variables. The three sets of outcome variables in the study are i) activities and behaviour; ii) national cancer control programs/plans, and iii) collaborations. Variation in outcome variables are hypothesized to be caused by the explanatory variable: participation in the ICC. Finally, the confounders in social sciences, also known as extraneous variables if held constant or steady, prevent varying the course of the observation or analysis. As this study was conducted in a natural setting it controlled to some extent confounding variables (38).

Table 3.1: Listing of variables and confounders

	Variable	Descriptor
1.	Explanatory Variable	Participation in the International Cancer Control Congress (ICCC)
2.	Outcome Variables	a. Development of National Cancer Control Plans/Programs b. Changes in respondent activities and behaviours • Knowledge Transfer c. Collaborations and Partnerships

	Variable	Descriptor
3.	Confounders	<ul style="list-style-type: none"> a. Country of respondents b. Age c. Gender d. Attendance to other global cancer control conferences e. Occupation f. Organization

To assess knowledge transfer, observations from plenary and workshop sessions, self-reported changes in participant activity/behaviour and perceptions of participants were used. This helped gain insight into the learning environment through the eyes of the participants.

It has been observed that some survey questions can be interrelated to gain more meaning from the data. Explanatory variables or inputs can be associated with outcome variables or outputs to observe if the association between the variables is statistically significant. The study has used cross tabulation and Pearson's chi square tests for determining if a significant relationship exists between the variables. Table 3.2 using the survey questionnaire for ICC4 provides an example of questions that have been corresponded to input or output variables. These questions will be used for performing the cross tabulations to compare two questions and test the significance of their relationship. Also, the table outlines the way the variables will be operationalized.

Table 3.2: An example to operationalize variables using the survey questionnaire of ICC4

Variables Measured in the Survey (a)Corresponding Question (b)Type of Variable	Operationalization of variable
Country of Work (a)Registration database (b)Confounder	To operationalize country, answers will be obtained and analyzed from the registration database.
Gender (a)Q24 (b)Confounder	To operationalize gender, answers obtained for Q24 from all respondents will be summed up and analyzed.
Age (a)Q25 (b)Confounder	To operationalize age, answers obtained for Q25 from all respondents will be summed and analyzed.
Other Cancer Control Conferences (a)Q3 (b)Confounder	To operationalize, answers obtained for Q3 from all respondents will be summed and analyzed.
International Cancer Control Congress (a) Q1, Q2, Q5, Q6, Q7, Q8, Q9, Q16, Q18 (b) Explanatory Variable	To operationalize the explanatory variable, ICC4 used multiple separate measures and answers obtained from respondents, which were then summed and analyzed separately. The primary measure for ICC4 is Q1.

Variables Measured in the Survey (a)Corresponding Question (b)Type of Variable	Operationalization of variable
National Cancer Control Plans (a)Q11, Q12, Q13, Q19 (b)Outcome Variable	To operationalize the outcome variable NCCP, multiple measures will be used. In this case answers of 4 separate questions will be taken—each separately summed up and analyzed. The primary measure will be Q12.
Changes in respondent activities and behaviours - knowledge transfer (a)Q10,Q14, Q15, Q17 (b)Outcome Variable	To operationalize this outcome variable multiple measures will be used. In this case answers of 4 separate questions will be taken—each separately summed up and analyzed. The primary measure will be Q17.
Collaborations & Partnerships (a)Q4, Q20, Q21 (b)Outcome Variable	To operationalize this outcome variable will use answers of three questions – each measure/question separately summed up and analyzed. Q21 will be the primary measure.
Occupation (a)Q22 (b)Confounder	To operationalize occupation, answers obtained for Q22 from all respondents will be summed and analyzed.
Organization (a)Q23 (b)Confounder	To operationalize organization, answers obtained for Q23 from all respondents will be summed and analyzed.

3.5 Positionality and Ethics

The advantage of having been a participant-observer of the International Cancer Control Congresses gained me an ‘insider’ understanding of how a diversity of participants interact, discuss, exchange insights and solutions to address the global cancer control challenge. In the role of a participant-observer⁸ and as a member of the congress planning team I was able to get an insider’s view on the complexity of deliberations, the need and expectations of stakeholders including participants. Despite my closeness to the research topic, I want to stress that I have treated the data as an outsider and the interpretation has not been impacted by my affiliation with the planning committee. The results as presented are not biased with preconceived expectation of the findings.

Ethics when working with humans or animals is extremely important. The issues that needed to be considered when gathering data from respondents included (38, 213):

- Obtaining consent prior and simultaneously to requesting participants to complete the survey (e.g., in the onsite surveys letting participants know that “completion of the survey would infer their consent to the information being collected for reporting and analysis purposes”);
- As the study results would be analyzed and presented, confirming to respondents that their responses would be kept anonymous but their responses would be used for analysis;

⁸ The benefits derived from the participant-observer positionality are accompanied with criticisms for possible limitations (281, 282). This is an inextricable dimension of studying social phenomenon as an inside observer and is the subject of critical reflection (283, 284) that has informed the conduct of this study.

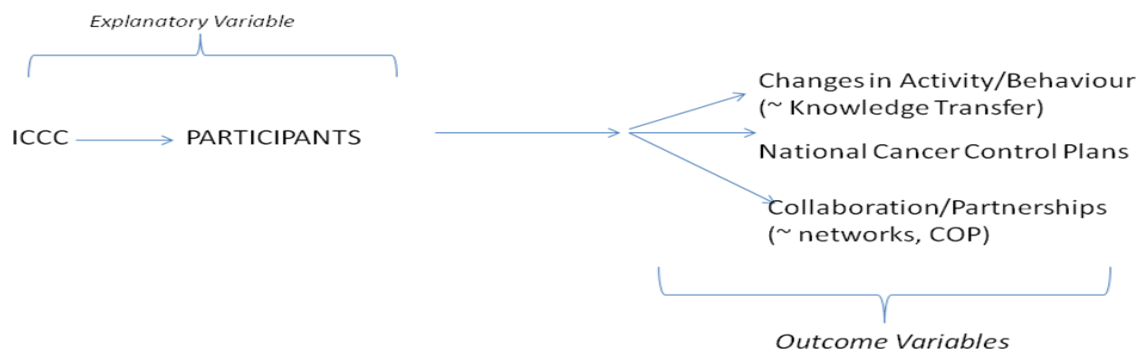
- For follow-up surveys, preparing a clear cover letter that informed population of interest why the survey was taking place and what the information would be used for;
- Providing respondents with clear instructions when requesting them to complete the survey;
- Informing respondents that they were not obliged to answer any questions and their participation was voluntary;
- Providing incentives that are modest so as not to be coercive;
- Where appropriate, ensure questions had the option of ‘do not know’ or ‘neutral’ so that respondents had an opportunity to express their lack of awareness, or unwillingness to provide an evaluation rather than being forced to provide responses they were not comfortable with;
- Wording questions clearly so that respondents were comfortable and aware of what they were responding to; and
- Confirming that the researcher has no conflicts of interest with the study.

The necessary changes were made based on the feedback received following a pre-test of the survey questionnaire on a small subset of the population (10 potential participants). Subsequently, the questionnaire was finalized and submitted to the UBC Office of Research Services (ORS) using their RISE website for review and approval. Only after receiving an approval from the ORS, were the surveys administered.

3.6 Data Analysis

Separate analyses were conducted for on-site and follow-up questionnaires. Specific reports for each survey were written. These reports presented a quantitative analysis of the survey questions using SPSS software. Data were analyzed using percentages and presented as frequency distributions, graphs, pie and bar charts. Variables were cross tabulated to graphically depict the correlation between frequency and importance, as well as to identify if any specific demography showed a significant relationship with the parameters used to determine the impact of the congress. Statistical comparisons including Chi square, Kruskal-Wallis test, and other tests were used in the analysis of the data where appropriate. Summing up, univariate and bivariate analysis were completed using the questions in the survey questionnaire for the relationships depicted pictorially in Figure 3.5. The figure portrays a diagrammatic relationship between the variables. The intent is to determine whether participation in the ICCC can be associated with an increase in partnerships/collaborations, changes in participant activity and behaviour, knowledge transfer/dissemination, and participants influencing development of cancer control programs or changes in policy and governance of cancer control in their countries.

Figure 3.5: Diagrammatic representation of relationship between variables



The main threats that existed for the study were those of selection as there would be some attrition and maturation of respondents. It was realized a test of significance does not reveal much. However, it was hoped that there is statistical significance (i.e. $p < .05$) indicating the existence of a significant relationship between the variables tested.

The cross tabulation analysis was carried out three times, once for each primary outcome variable, with the aim to reject/accept the null hypothesis, and reject/accept the alternative hypotheses that attending the ICCC leads to an increase in partnerships/collaborations, influences changes in behaviour and activities of participating individuals, and leads to participants influencing changes in policy to develop/implement population-based cancer control programs (NCCP).

NVivo software was used to transcribe and analyze qualitative responses to open-ended questions in interviews, observations and surveys, for content and key themes. A comprehensive evaluation was conducted on responses of all open ended items and responses were sorted in categories or themes for analysis. Where appropriate, the qualitative data and quantitative survey information were triangulated to highlight differences, similarities and key issues. As done by Saha et al., a descriptive analysis of the data was used to complement the quantitative analysis where possible (214).

The qualitative data obtained through interviews, observations and open ended questions from surveys, were coded, sorted and categorized, based on identified themes. Thereafter, this was planned to be transformed into quantitative counts by determining the percentage of participant responses in each of the categories (173, 174, 210). Through this analysis,

understanding was gained on the alignment and gaps between the findings and the congress conceptualization (logic model). Additionally, the investigator gained new insights into the value of ICCCs, and its differentiating aspects, and obtained interpretations of the congress impact on participants, host country or region, and changes experienced—short, medium or long term—in comprehensive cancer control.

As done by Jenkins, this study merged the quantitative and qualitative results, cross-tabbing to interrelate findings, and combining the quantitative variables with the qualitative findings in interpreting results (203). The study acknowledges that validity for the qualitative piece will arise not so much from correlation with an external criterion, but from the strong arguments and comprehensive evidence based presentation of how conclusions were derived (207, 210).

As mentioned earlier, the survey instrument was the primary tool for reporting. Since no single measure would evaluate the congress, as done in Belloc et al. study of the Measurement of Physical Health in a General Population Survey, this study too would use more than one measure (215). The three main indicators related to the outcome variables for the study were: (a) Has the country been influenced to commence developing, implementing or strengthening a national cancer control plan/program (NCCP) or a cancer control policy following the congress? (b) Have any networks/alliances/communities of practice been established in the host region, or have any alliances been established between two or more congress participating countries? (c) Following the congress, are there any incremental changes in attitudes, interest, awareness, interaction of participants? These changes are to be measured using a combination of the follow-up survey

questionnaire as well as by reviewing the changes recorded in the 2011 WHO NCD country profile (i.e. country capacity to address and respond to NCDs) or web-based publications (if available) of country plans/strategies indicating notable policy changes following participation in the congress. Added to these would be summaries of specific country or regional efforts to develop cancer prevention and control interventions where possible. For example, after the 3rd ICCC the Italian Ministry of Health through the European Union initiated discussions with the African Union on establishing a European School of Oncology in Africa. Additionally, in 2009 the European Commission established a ‘European Partnership for Action against Cancer’ for the period of 2009-2013.

3.6.1 Measures or Indicators

The following list describes the possible measures or indicators that were examined in the study. Information was obtained from participants through the four surveys and interviews to determine the status of the listed indicators. The perceptions thus obtained were supplemented where possible by a comparison with the published outcomes in the WHO publication “NCD country profile 2011” and other appropriate web publications. The findings are discussed in Chapter 5.

Following the Congress was there:

- . Enhancement or development of country or state/province cancer control or integrated NCD plans
- . Establishment of strategic alliances

- Agreements or memorandums signed between countries or within a region
- . Formation of a network/regional or local community of practice
- . Demonstrated activities/behaviour changes: *(incremental changes - can be a couple or as many of the following)*
 - Networking and making connections
 - Sharing best practices and promoting evidence to develop cancer control plans
 - Contributing learnings from ICCC to development of national cancer control policies
 - Creating collaborations
 - Raising awareness of cancer control
 - Engaging relevant communities in cancer control – governmental, non-governmental, advocacy, civil society, patients, others
 - Strengthening advocacy or policy work
 - Building relationships or nurturing and maintaining relationships
 - Creating opportunity for new research or applying new insights into current research
 - Applying new insights to the spectrum of cancer control programs
 - Coordinating of cancer care from diagnosis to palliative care
- . Identification or commencement of new population-wide cancer control/NCD projects in:
 - Registry and surveillance including risk factor distributions (e.g., development of epidemiological capability to enable statistical analysis like cancer registries)

- Primary and/or primordial prevention
- Screening/early detection
- Research (basic, clinical, socio-behavioural, health systems or population based)
- Palliative/end of life
- Socio-behavioural /rehabilitation including survivorship

3.7 Summary

This chapter outlined the methodology for the study. The study compared results from interviews, observations and the four surveys administered during and as a follow-up to the congress to determine the value of the ICCCs, the difference the ICCCs make through influencing congress participants and equipping participants to commence addressing cancer control challenges in their jurisdictions or regions. The study population was all participants who registered and attended the congresses. This was a cross sectional study as not all participants examined attended both congresses, and there was no linkage of respondents in pre and post congress surveys. The study was organized as a mixed methods study using a variant triangulation design. The output from the statistical and qualitative analysis is provided in Chapter 4, along with an interpretation and discussion of results in Chapter 5.

CHAPTER 4: RESULTS

This chapter provides a detailed description of the results of the present study. The focus of this study was to determine whether International Cancer Control Congresses (ICCCs) influenced reported changes in behaviour and activities of participants, development or implementation of population-based cancer control programs (NCCP), knowledge transfer, increased global outreach, collaborations and partnerships. The results of the study are presented in three parts. The first part provides a brief outline of the analysis process followed using SPSS for the quantitative analysis and NVivo9 for the qualitative analysis. It presents a preliminary analysis of the study, that is, findings from the frequency analysis of the four surveys supported by evidence from the qualitative analysis. The second part has three sub-sections that describe the results of the analysis that addressed the three hypothesis questions guiding this study; namely, attending the ICCC influences participants changes in behaviour and activities related to cancer control, leads to participants influencing changes in policy and governance that aid the development or implementation of population-based cancer control programs/plans in their countries/regions, and facilitates an increase in partnerships, networks or collaborations. The third and concluding part of this chapter provides a brief summary of the results. All sections present the frequency, bivariate and qualitative analyses.

Part 1: Analysis

4.1 Analysis Background

This section outlines the processes followed for the quantitative and qualitative data analyses.

As explained in Chapter 3, four surveys conducted at the 3rd and 4th International Cancer Control Congresses—two on-site and two follow-up surveys (Table 1)—were analyzed. These surveys were completed over the three-year period of 2009-2012. In addition to the surveys conducted at ICC3 and ICC4, participants who had participated in earlier ICCs were interviewed to gain an understanding on what attracted participants to an ICC, what were their professional gains from ICC over the years, whether they had done anything differently in their cancer control work as a result of attending the Congress, which ICC was more useful to them and whether their concept of cancer control had changed. A focus group was also conducted at ICC3, but due to an action packed agenda, participation to the group was very limited. Thus, the investigator refrained from holding a focus group at ICC4 and instead focused on observations and interviews of repeat participants at the Congress.

Table 4.1: Primary sources for analysis

	3rd ICC (ICC3) On-Site Survey	3rd ICC (ICC3) Follow-Up Survey	4th ICC (ICC4) On-Site Survey	4th ICC (ICC4) Follow-up Survey
Scheduled	November 2009	July 2010	November 2011	February 2012
# Participants	362	362	310	310

	3rd ICCC (ICCC3) On-Site Survey	3rd ICCC (ICCC3) Follow-Up Survey	4th ICCC (ICCC4) On-Site Survey	4th ICCC (ICCC4) Follow-up Survey
# Countries Represented	65	38	44	37
# Survey Respondents	171	112	110	106
Survey Response Rate	47%	31%	35%	34%
Survey open ended questions	✓	✓	✓	✓
Interviews	10	-	24	-
Observations	✓		✓	

At the 3rd ICCC, 362 survey forms were distributed and 171 were completed (47% response rate). A follow-up survey was conducted on the same 362 Congress participants using a self-administered electronic questionnaire mailed out, and 112 were completed (31% response rate). Similarly, at the 4th ICCC, 310 survey forms were distributed and 110 were completed (35% response rate). A follow-up survey was conducted on the same 310 Congress participants using a self-administered electronic questionnaire mailed out and 106 were completed (34% response rate).

The quantitative univariate and bivariate analysis of survey data was done using the statistical package for social sciences (SPSS), formulating hypothesis for testing and clarifying relationships between variables. Survey responses were coded and recorded in SPSS. Among quantitative methods, descriptive and bivariate statistics (cross tabulation) were used. The descriptive method of analysis such as frequency/percentage charts or counts, various types of graphs, Chi-Square test of independence was done. All graphs were drawn on Excel.

At the same time, Nvivo9 was used for the qualitative analysis of information from interviews, observation, focus group and open ended questions from the four surveys. The analysis with the support of NVivo was done in three steps, which allowed to go from a general and descriptive organization of information (inductively creating themes) to an interpretative analysis, permitting flexibility to make changes when needed. Although sometimes overlapping, the steps can be related to what is called ‘descriptive coding’ (i.e. creating the nodes), ‘topic coding’ (i.e. creating subnodes to be more specific), and ‘analytical coding’ (i.e. use of memos to create relations between codes and/or subcodes and identify new issues) (216).

Nvivo9 allowed materials for analysis to be brought into the program as source documents. Survey comments, interviews and observation notes were carefully read and transcribed using MS Word and thereafter imported into NVivo as source documents into the internal folder, a folder that held all primary material for the analysis. At the end of this first step, themes/nodes were identified using an inductive approach.

The second step corresponded to a topic coding, even though space was given to more interpretative work. The codes were associated with the identified themes bringing together references to similar issues. Some codes were renamed; others were refined or eliminated because they either lacked quotes or were duplicative. Finally, this resulted in the creation of 33 nodes or themes. Then, the investigator decided to break down each node into four categories of sub-nodes, creating a tree node to facilitate the identification and differentiation of information obtained by each Congress or follow-up survey (see Figure 4.1). For instance, the node about ‘Cancer Control Activities’ was broken down in four categories: ICC3, ICC3 Follow-up,

ICCC4, and ICC4 Follow-up. Figure 4.1 below is a snapshot in NVIVO illustrating the creation of nodes and sub nodes.

Then, the researcher populated nodes and sub nodes by coding source documents to the appropriate node or sub node. This resulted in the population of source and reference columns indicating the number of sources and references that have respectively been used for each sub-node.

Figure 4.1: NVivo nodes and sub-nodes

Nodes							
Name	Sources	References	Created On	Created By	Modified On	Modified By	
Helpfulness of ICC	17	59	16/10/2011 4:59 PM	KS	04/03/2012 5:05 PM	KS	
Attended other CC Conferences	30	68	01/03/2012 2:16 PM	KS	04/03/2012 5:24 PM	KS	
Professional Gains	40	70	16/10/2011 5:02 PM	KS	04/03/2012 5:05 PM	KS	
Follow up ICC3	0	0	28/02/2012 10:03 PM	KS	29/02/2012 1:08 PM	KS	
Follow up ICC4	1	4	28/02/2012 10:03 PM	KS	09/03/2012 7:04 PM	KS	
ICCC3	13	20	28/02/2012 10:03 PM	KS	09/03/2012 9:43 PM	KS	
ICCC4	27	46	28/02/2012 10:03 PM	KS	09/03/2012 9:43 PM	KS	
Missing elements	12	186	16/10/2011 6:29 PM	KS	04/03/2012 5:22 PM	KS	
ICCC4	8	14	28/02/2012 10:04 PM	KS	11/03/2012 5:41 PM	KS	
Follow up ICC3	1	48	28/02/2012 10:04 PM	KS	14/03/2012 12:37 AM	KS	
ICCC3	3	58	28/02/2012 10:04 PM	KS	10/03/2012 3:24 PM	KS	
Follow up ICC4	2	66	28/02/2012 10:04 PM	KS	10/03/2012 6:38 PM	KS	
Cancer Control Activities - Planned & Performed	39	299	16/10/2011 6:29 PM	KS	12/03/2012 10:11 PM	KS	
Follow up ICC3	1	2	28/02/2012 10:03 PM	KS	02/03/2012 12:16 PM	KS	
ICCC4	24	24	28/02/2012 10:03 PM	KS	03/03/2012 4:09 PM	KS	
Follow up ICC4	2	83	28/02/2012 10:03 PM	KS	10/03/2012 11:21 PM	KS	
ICCC3	12	84	28/02/2012 10:03 PM	KS	01/03/2012 4:11 PM	KS	

While the interpretation process was done in an advanced stage, some early memos were created to explore relationships between the data and ideas, and to trace three possible axes of theoretical interpretation: 1) ICC influence on changes in participant behaviour and activities,

2) development of national cancer control programs, and 3) increase in partnerships and collaborations. Then, as the third step, an analytical coding was made using NVivo memo function. The outcomes for each node were summarized in two ways: identifying the common theme for each node and ICCC event (on site or follow-up), and identifying the main theme for each ICCC event. Memos were created to summarize the information in the nodes, link nodes and/or sub-nodes, and identify new issues. Information was grouped from related nodes, thus some memos linked to two or more nodes while some were dedicated to a singular node only. This process resulted in finally outlining 23 memos. Within these, findings were grouped along the three axes of theoretical interpretation. Figure 4.2 demonstrates all the created nodes and associated memos. The blue circles on the first column represent the nodes, and the green symbols on the third column represent the memos.

Through this process, it was possible to recognize commonalities and differences in the participants' experiences of the ICCC events, and contextualize whether participation in ICCC influenced behaviours, collaborations and cancer control programs. Significant quotes were selected in the process to provide specific examples of the data collected for a better context of the analysis.

Figure 4.2: NVivo nodes and memos

Nodes							
Name	Sources	References	Created On	Created By	Modified On	Modified By	
Comments on other conferences	1	1	16/10/2011 4:54 PM	KS	04/03/2012 5:04 PM	KS	
Collaboration - Increase or	2	2	03/03/2012 7:19 PM	KS	04/03/2012 5:27 PM	KS	
Useful Presentations	3	7	02/03/2012 11:34 AM	KS	04/03/2012 5:24 PM	KS	
Measures of Success	4	7	03/03/2012 5:02 PM	KS	04/03/2012 5:26 PM	KS	
Initiatives - Successful and Unsuccessful	4	7	03/03/2012 6:02 PM	KS	12/03/2012 6:41 PM	KS	
Recommend	3	9	16/10/2011 4:57 PM	KS	04/03/2012 5:04 PM	KS	
Personnel at work	2	9	19/10/2011 3:37 PM	KS	04/03/2012 5:23 PM	KS	
Lessons Learnt	4	11	03/03/2012 5:05 PM	KS	04/03/2012 5:27 PM	KS	
Expectations from ICCC	5	13	03/03/2012 5:06 PM	KS	04/03/2012 5:27 PM	KS	
Reason to Participate	6	14	03/03/2012 4:58 PM	KS	04/03/2012 5:26 PM	KS	
To Do Different	6	14	03/03/2012 5:04 PM	KS	04/03/2012 5:27 PM	KS	
Organization	2	17	19/10/2011 1:41 PM	KS	04/03/2012 5:22 PM	KS	
Community of Practice	11	17	23/10/2011 11:27 PM	KS	04/03/2012 5:23 PM	KS	
Attend future ICCCs	6	22	19/10/2011 1:38 PM	KS	04/03/2012 5:22 PM	KS	
Logistics of Conference	6	25	02/03/2012 11:04 AM	KS	11/03/2012 9:00 AM	KS	
Application of Gains	14	26	16/10/2011 5:01 PM	KS	04/03/2012 5:03 PM	KS	
Conclusions and Recommendations	11	27	02/03/2012 11:35 AM	KS	09/03/2012 9:39 PM	KS	
Result of Activities Undertaken	23	28	02/03/2012 12:02 PM	KS	04/03/2012 5:24 PM	KS	
Benefits	8	33	16/10/2011 4:56 PM	KS	07/03/2012 3:17 PM	KS	
Sessions that would be useful	4	33	16/10/2011 5:00 PM	KS	04/03/2012 5:05 PM	KS	
Occupation	3	34	19/10/2011 1:59 PM	KS	04/03/2012 5:22 PM	KS	
Concept of Cancer Control	22	34	02/03/2012 1:32 PM	KS	04/03/2012 5:25 PM	KS	
Comparison between ICCCs	16	41	20/10/2011 2:35 PM	KS	04/03/2012 5:23 PM	KS	
Value-add of ICCC	18	42	16/10/2011 5:04 PM	KS	08/03/2012 11:00 AM	KS	
Change of interest	4	42	19/10/2011 2:10 PM	KS	04/03/2012 5:23 PM	KS	
More Important ICCC	25	43	02/03/2012 1:31 PM	KS	04/03/2012 5:25 PM	KS	
Additional comments	7	49	16/10/2011 5:06 PM	KS	04/03/2012 5:21 PM	KS	
ICCC Influence	22	50	02/03/2012 1:43 PM	KS	04/03/2012 5:26 PM	KS	
Helpfulness of ICCC	17	59	16/10/2011 4:59 PM	KS	04/03/2012 5:05 PM	KS	
Attended other CC Conferences	30	68	01/03/2012 2:16 PM	KS	04/03/2012 5:24 PM	KS	
Professional Gains	40	70	16/10/2011 5:02 PM	KS	04/03/2012 5:05 PM	KS	
Missing elements	12	186	16/10/2011 6:29 PM	KS	04/03/2012 5:22 PM	KS	
Cancer Control Activities - Planned & Performed	39	299	16/10/2011 6:29 PM	KS	12/03/2012 10:11 PM	KS	

4.2 Preliminary Analysis

This section describes the univariate analysis from the four reports—ICCC3 on-site survey, ICCC3 follow-up survey, ICCC4 on-site survey, and ICCC4 follow-up survey—and the supporting qualitative data from NVivo.

Profiles of Congresses and Participants

The ICCCs have been held biennially starting in 2005 in Vancouver, BC, followed by the second one in Rio de Janeiro, Brazil, in 2007. This section provides findings from the formal

evaluations conducted for the third and fourth ICCCs, namely the 3rd International Cancer Control Congress (ICCC3) in Cernobbio, Italy in 2009, and the 4th International Cancer Control Congress (ICCC4) in Seoul, Korea, in 2011. In particular, the univariate analysis for the four surveys—ICCC3 on-site survey, ICC3 follow-up survey, ICC4 on-site survey, and ICC4 follow-up survey—are compared and supported by qualitative findings from interviews, observations and open-ended questions.

Detailed analysis reports of the four surveys along with the survey questionnaires are presented as Appendices A and B respectively. Highlights of the univariate analysis, that is, the descriptive characteristics of the survey participants are presented and compared to each other, are offered here. Survey participants are compared on demographics, their reasons to attend the Congress, and the impact of the Congress.

At ICC3 there was representation from 65 countries. Of the 362 delegates participating in ICC3 the largest contingent was from Italy (n=86) followed by Canada (n=45), then Brazil (n=27), and USA (n=21). This indicates a higher representation at the Congress from high income countries as well as a high representation from the host country. The on-site survey questionnaire was answered by 171 delegates, of which 54% were from Europe and 23% from the Americas. The follow-up survey was answered by 112 delegates, of which 22% were from Italy, 14% from Canada, and 10% from Brazil. At ICC4 there were delegates representing 44 countries. Of the 310 delegates, 64% (n=199) were from high income countries of which 48% (n=150) of the participants were from the Republic of Korea, thus indicating a high representation at the Congress from high income countries as well as a high representation from

the host country. The follow-up survey was answered by 106 respondents from 37 countries, of whom 10% were from Canada, 10% from China, 10% from Malaysia, and 2% from Korea.

Of the 362 participants who attended ICC3 and the 310 participants who attended ICC4, the response rate for surveys was 47% (n=171) and 35% (n=110) respectively. Table 4.2 provides a comparison of the findings. The response rate for the follow-up survey administered eight months after ICC3 was 31% (n=112), and for the one done three months after ICC4, it was 34% (n=106). A great part of the respondents were females except in the ICC4 follow-up survey, where 58% were male respondents. More than half the respondents in all surveys indicated they were in the age bracket of 41-60 years and about one third were 21-40 years old.

Table 4.2: Quick glance at comparative findings from the four surveys

	ICCC3	Follow-Up	ICCC4	Follow-Up
# Total participants	362	362	310	310
# Survey respondent	171 (47%)	112 (31%)	110 (35%)	106 (34%)
Gender	61% females	59% females	52% females	42% females
Age Group: 41-60 years	63%	58%	53%	59%
Main Occupation: Researcher/scientist	30%	36%	38%	30%
Main Organization: Governmental	55%	57%	54%	52%
Cancer Control (cc) main/major	61%	78%	N/A	79%

	ICCC3	Follow-Up	ICCC4	Follow-Up
work				
Years in CC: More than 11 years	45%	50%	N/A	46%
Recommend ICCC: Yes	96%	93%	N/A	97%
Plan to attend next ICCC: Yes	95%	84%	N/A	90%

Source: for details refer to the ICCC3 and ICCC4 Participant Survey and Follow-Up Survey Analysis reports in Appendix A.

When asked, over half the participants had not participated in other major global cancer control conferences—the ICCC3 (58%) and the ICCC4 (52%). Examples of major conferences include those organized by the International Cancer Treatment and Research (INCTR), International Union against Cancer (UICC), Asian Pacific Organization for Cancer Prevention (APOCP), Asia Pacific Cancer Congress (APCC), European Society for Medical Oncology (ESMO), African Organization for Research and Training in Cancer (AORTIC), Multinational Association for Supportive Care in Cancer (MASCC), and others. Most respondents who had participated in other cancer control conferences had participated in the conference organized by the International Union against Cancer (UICC). Comments from these respondents included that ICCC brought added value because of its target audience and format (workshops) compared to the UICC World Cancer Congress, and that the ICCC more useful than the UICC in understanding cancer control because the smaller number of participants facilitated better quality interactions.

The characteristics of the congresses as determined by the four surveys were:

- The largest group of participants was researchers and scientists, followed by clinician/physicians. The group of government officials or policy makers ranged from 6% to 13% on average, while the administrators/managers ranged from 8% to 17% in all the surveys.
- Over half the participants were from governmental organizations, and 7-14% of these were policy makers. The next predominant representation was from nongovernmental organizations (NGOs).
- The proportion of participants who worked completely or mostly in cancer control ranged from 61%-79% over the four surveys.
- Over 45% of the participants had worked in cancer control for over 11 years and a large number indicated their involvement would be more than now in the next five years.
- A majority of participants were from either high income countries or middle income countries, but very few were from low income countries. At ICC3 and ICC4, over 60% participants were from high income countries.
- Both at ICC3 and ICC4 there was a large representation from the home country. At ICC3 of the 362 participants, 24% (n=86) were from Italy and at ICC4 of the 310 participants, 48% (n=150) were from the Republic of Korea.
- ‘Improved understanding of population based cancer control programs globally’ and ‘new insights into cancer control strategies and population based systems’ were the two primary professional gains for participants in all four surveys. In most surveys, these were followed by

‘new contacts and opportunities for partnership and collaboration’. Attending the congresses, however, had not been very helpful for participants looking for career advancement.

- A majority of the respondents based on their experience said that they would recommend the Congress to colleagues and would like to attend the next ICCC.

Comparing ICC3 and ICC4 Surveys

- The main reason for participants to attending ICC3 was the Congress program (26%), networking (25%), and presenting a paper (22%). Similarly, 26% of participants attending ICC4 said their primary reason for participation was the conference program with its focus on population-based cancer control, and 20% attended for networking and collaboration opportunities. Other reasons for attendance were presentation of papers, gaining knowledge from a mix of experiences, and implementation of interventions shared at the Congress.
- ICC3 and ICC4 had nearly an equal number of participants who had attended any of the past ICCs. 10-11% of participants had attended ICC1, and 15-19% had participated in ICC2. 24% of ICC4 participants had attended ICC3.
- More than half the participants at ICC3 (58%) and ICC4 (52%) had not attended other global cancer control conferences. However, among other cancer control conferences attended the International Union against Cancer (UICC) seems to be the most popular conference with almost 40% of participants having attended it.
- 55% ranked plenary sessions as the most useful at ICC3, while only 38% participants did at ICC4 (43% respondents found concurrent workshop sessions most useful instead).

- Answering the question of how they would rate the overall Congress program, nearly half the participants at both Congresses rated the overall Congress program as ‘good’ in terms of quality of sessions, quality of plenary speakers quality of workshop speakers, quality of discussion/debate and range of topics covered. The remaining 36% to 52% at ICC3 rated the program as excellent. At ICC4 only 22-36% of the participants gave a rating of excellence.
- Participants at ICC4 were asked if the Congress stimulated them to think of activities or relationships that had relevance beyond their work. 64% responded ‘Very much,’ 29% said ‘Not too much,’ and only 8% said ‘No change’ or ‘Not at all’.
- 26% of the participants at ICC3 and 42% at ICC4 expressed that there were aspects missing from the Congress. An analysis of the comments from ICC3 revealed that 20% of participants considered the conference should focus on specific issues like psychosocial effects, use of tobacco, or HIV-AIDS; 18% suggested that implementation issues be addressed instead of only theoretical presentations; and 16% felt that more live examples, such as patients’ perspectives and different cases, should be given. A strong need for including more stakeholders (especially policy-makers) and also to extend the learning/ research to third-world countries was expressed. Though similar, comments from ICC4 also added the need to reintroduce round table working-group sessions with facilitators at workshops, greater epidemiological evidence, and participation of civil society, survivors, patients, advocates, distance between hotel and conference site, and others.
- Regarding application of information or gains from the conference, approximately 25% of participants at both congresses indicated ‘Sharing new information with colleagues,’ and 25%

also said they would use the information for collaborating, i.e. developing new partnerships and following-up new contacts.

- With respect to how successful the conference was in achieving its objectives, the respondents' answers are shown below (Table 4.3). Participants at both congresses largely found them to be successful to very successful in most areas. Table 4.3 provides a comparison between ICC3 and ICC4 in key parameters. ICC3 received higher ratings of success from the participants but both congresses had a significant percentage of participants express that the Congress was not very successful in engaging the relevant communities.

Table 4.3: Comparative success of the congresses as rated by respondents

	ICC3 (% successful to very successful)	ICC4 (% successful to very successful)
Sharing best practices and promoting evidence to develop/implement cancer control plans	94%	70%
Sharing best practices and promoting evidence to develop/implement national policies on cancer control	87%	51%
Establishing a creative & appropriate agenda to create a vehicle of collaboration	81%	71%
Contributing to and creating a vehicle for raising awareness of cancer control	88%	68%
Engaging relevant communities	66%	30%
Providing a setting for relationship building	87%	73%
Providing a platform for Knowledge Transfer for CC	88%	74%

Source: for details refer to the ICC3 and ICC4 Participant Survey Analysis reports in Appendix A.

- When asked specific activities that participants would do as a result of learning from the Congress, the most prominent ones were sharing with colleagues, communicating with policy

makers, networking and collaboration. A considerable number also said they would apply their learnings to everyday work.

Comparing ICC3 Follow-Up and ICC4 Follow-Up Surveys

Table 4.4 below provides a comparison of follow-up survey responses from ICC3 and ICC4. Detailed comparison is provided after the table.

Table 4.4: Comparing follow-up survey responses of ICC3 and ICC4

	ICC3 Follow-Up Survey	ICC4 Follow-Up Survey
Rate value of attendance at ICC (<i>much better than most congresses</i>)	51%	49%
Change in involvement & interest (<i>more than before</i>)	66%	73%
ICC influenced level of interest (<i>to an extent</i>)	88%	93%
Helpfulness of ICC in CC/NCD work (<i>Somewhat to very helpful</i>)	83%	95%
Reason of participation in ICC		
· <i>Aware of latest improvements</i>	86%	82%
· <i>Implementation with limited resource</i>	97%	96%
· <i>Networking</i>	93%	93%
ICC demonstrates collaboration	96%	96%
Value of ICC		
· <i>Engages nations, people, organization</i>	77%	69%
· <i>Platform for KT</i>	69%	82%
· <i>Relationship building</i>	68%	71%
Attending ICC helped with:	(% agree to strongly agree)	(% agree to strongly agree)
· <i>Knowledge Transfer</i>	92%	91%
· <i>Creating collaborations</i>	83%	82%
· <i>Sharing best practices</i>	84%	78%
· <i>Raising awareness of cancer control</i>	75%	81%
	(% some extent to great extent)	(% some extent to great extent)
Utilization of gains from ICC	85%	91%
· <i>Shared new information - colleagues</i>	47%	53%

	ICCC3 Follow-Up Survey	ICCC4 Follow-Up Survey
. <i>Creating collaborations</i>	57%	63%
. <i>Following new contacts</i>		

Source: For details refer to the ICC3 and ICC4 Follow-Up Survey Analysis reports in Appendix A.

- When comparing ICC3 with other global congresses, nearly half the participants responding to the follow-up survey ICC3 (51%) and ICC4 (49%) reported that they rated the value of their attendance at ICC3 as ‘much better than most congresses.’ Very few (2%) were of the opinion that the ICC3 was worse than other conferences. Remainder were of the opinion that ICC3 was ‘About the same as other congresses.’
- When asked if their involvement and interest in cancer control had changed after the Congress nearly three fourths (73%) stated the change in interest and involvement was ‘More than before’ and 26% indicated that did not change at all after ICC4. Following ICC3, two thirds of participants (66%) expressed that they were more interested in cancer control and 34% indicated there was no change at all.
- 88% and 93% participants after ICC3 and ICC4 respectively expressed being influenced to an extent by the congresses indicating that a large proportion of attendees participated in activities/programs related to cancer control as a result of the Congress.
- A vast majority (83% following ICC3 and 95% following ICC4) found that their cancer control work had benefited by attending ICC3. This can be considered another parameter to measure the success of the congresses.

- Participants following ICC3 as well as participants following ICC4 agreed to strongly agreed that the Congress had provided a platform for knowledge exchange for cancer control, and had helped them primarily with creating collaborations (83%), sharing best practices to develop cancer control plans and with raising awareness of cancer control.
- Conference programs for both ICC3 and ICC4 were evaluated on five parameters—relevancy, comprehensiveness, applicability of knowledge gained, timeliness, raising awareness—to test its usefulness to participants and identify areas to be improved. Applicability of knowledge gained came as the lowest score in both congresses. All other parameters received favourable reviews.
- A large number of respondents at both ICC3 and ICC4 were interested in finding out how new improvements and state of the art clinical and scientific content could be implemented under constrained resources. The second factor attracting participants to ICC was the opportunities for networking with worldwide contemporaries.
- More than 50% of participants in the follow-up⁹ to ICC3 and ICC4 stated that they had used the knowledge gained from ICC from some to a great extent in sharing new information, developing new partnerships, following new contacts, applying to cancer control, increasing advocacy, and applying to prevention programs. The largest utilization was sharing of information.

⁹ The ICC3 follow-up survey was at 8 months following the Congress and, the ICC4 follow-up survey was at 3 months following the Congress.

- 96% of participants following ICC3 and ICC4 believed that ICCs had demonstrated collaboration to enhance cancer control. Only 4% thought otherwise.

Comparing ICC3 and ICC3 Follow-Up Survey

Table 4.5 presents a visual picture of the leading benefits participants said they had gained professionally from attending ICC3 and compares that to how participants reported that they had used their gains in the 8 months following the Congress (right hand column). 85% of participants had shared the information gained at the Congress. Other significant uses were in creating collaborations, following up with new contacts, applying information to prevention programs and cancer control planning. Most other applications were used to some extent. Information pertaining to clinical practice, palliative care and fund raising were used only by a small proportion of participants.

Table 4.5: Comparison of ICC3 with ICC3 follow-up survey

	ICC3		ICC3 Follow-Up (% some extent to great extent)
Professional gains		Utilization of gains	
Improved understanding of population-based cancer control	16%	Shared new info with colleagues	85%
New insights into cancer control strategies	16%	Creating collaborations	47%
New contacts & opportunities	16%	Following new contacts	57%
		Applying to prevention programs	59%
Plans for using gains from ICC3		Applying to cancer control planning	66%
Share new info with colleagues	21%	Strengthening advocacy and policy	56%

	ICCC3		ICCC3 Follow-Up (% some extent to great extent)
Creating collaborations (contacts & partnerships)	27%		

Source: for details refer to the ICC3 Participant Survey and Follow-Up Survey Analysis reports in Appendix A.

At ICC3, 26% of participants said the main reason for attending the Congress was the ‘Conference program on cancer control’, 25% said for networking opportunities, and 22% said for presenting a paper. When asked if their involvement and interest in cancer control had changed after attending ICC3 in the follow-up survey, 34% said ‘Not at all’ and 66% responded ‘More than before’—which shows that two thirds of the respondents were more interested in cancer control after attending ICC3. As this was one of the main objectives of the Congress, it can be said that ICC3 was successful. This is also supported by another question, which asked the participants if their current level of interest and involvement had been influenced by their attendance of ICC3. 88% responded they had been influenced ‘To some extent or to a great extent’ by attending ICC3. This indicates that a large proportion of attendees participated in activities/programs related to cancer control as a result of the Congress.

Regarding participants at ICC3 using what they gained from the conference, 21% attendees said they would share the new information with colleagues, and 27% said they would use it in collaborating, i.e. following new contacts or developing new partnerships.

Details of the activities participants said they would do following ICC3 and the activities they actually did are provided in a table in Appendix D. The listing is a collection of the answers from the survey responses and interviews. It is evident that the activities cited by

most participants as ones they would do as a result of their learning from the conference predominantly is networking and collaboration followed by participants saying they would apply their learning to everyday work and sharing their learnings with colleagues. When compared to what participants actually said they did in the ICC3 follow-up survey, a large majority had participated or organized cancer prevention/awareness programs and incorporated the learnings in research, and a significant number have used the ICC3 as a platform for networking. They had formed collaborations between organizations or groups and set up communities and forums to exchange knowledge, encourage discussions related to cancer control. Many participants had taken part in cancer screening programs, engaged in activities that advocate cancer control and some stated they had used their learnings to influence programs and policies related to cancer control in their jurisdictions.

Comparing ICC3 and ICC3 Follow-Up Survey

At the 4th ICC3, 42% of participants rated ‘Workshops’ as the strongest aspect of the Congress. This was followed by participants rating ‘Examples from other countries’ as the next best aspect (20%), then ‘Social networking’ (18%) and ‘Speakers’ (16%). 65% of participants expressed satisfaction ‘To a great extent’ by participating in ICC3. 33% said to ‘Some extent’ and only 3% said ‘Not at all’. 31% of participants indicated that their collaboration/network in cancer control had increased ‘Very much’ after attending ICC3 while 41% said ‘Not too much’.

When asked for their single most important reason to attend ICC3, 26% of respondents said it was the Congress program’s focus on population based cancer control. Other popular

reasons were the focus on networking and collaboration (20%), the mix of experiences from different cultures and contexts (15%), Congress focus on implementation (15%) and presentations of their work in sessions (14%).

Now comparing the above to participant responses in the follow-up survey to how their interest in cancer control changed after ICC4, nearly three fourths (73%) responded that their interest and involvement in cancer control was now ‘More than before.’ Another question on the extent ICC4 influenced their level of interest and involvement 93% said ‘Some extent to a great extent’. While with regard to helpfulness of the Congress in assisting participants with their cancer control work 56% reported ‘Somewhat helpful’ and 39% said ‘Very helpful’. These responses suggest that participants were able to fulfill their reasons of coming to ICC4.

Table 4.6 presents a visual picture of the leading benefits participants said they had gained professionally from attending ICC4, and compares that to how participants had used their gains in the three months following the Congress (right hand column). More than 50% of respondents stated using the knowledge gained from ICC4 to some or great extent. Thereafter, the table presents what participants thought ICC4 had been successful in and compares it to the most important things participants said they had gained professionally after three months following the Congress. More than 50% of respondents had gained professionally from ICC4 to some or great extent. Following that, examined at ICC4 47% respondents said that ICC4 increased their activity and assisted in advancing population based cancer control ‘some of the time.’ Establishing a community of practice was a goal ‘most of the time to some of the time’ for 75% of respondents. When compared to participant responses three months after the Congress,

31% of participants said their collaboration/network had increased ‘Very much,’ 41% said ‘Not too much,’ 11% had little change, and only 17% experienced no change.

Table 4.6: Comparison of ICC4 with ICC4 follow-up survey

	ICC4		ICC4 Follow-Up (% some extent to great extent)
Professional gains		Utilization of gains	
New contacts & opportunities	23%	Shared new info with colleagues	91%
New insights into cancer control strategies	21%	Applying to cancer control planning	73%
Improved understanding of pop. based cancer control	16%	Strengthening advocacy/policy work	70%
New insights into cancer prevention	16%	Creating collaborations	53%
		Following new contacts	63%
		Applying to prevention programs	61%
Success of Congress in	(% successful to very successful)	Professional gains	
		New insights into cancer control strategies	84%
Providing a platform for knowledge transfer	74%	Improved understanding of pop. based cancer control	83%
Relationship building	73%	New insights into cancer prev. – pop base intervention	81%
Creating a vehicle of collaboration	71%	New insight into plan/imp cancer control programs	80%
Sharing & promoting evidence to dev NCCP	70%	Sustaining cancer control programs	74%
Raising awareness of cancer control	68%	New alliances	71%
Sharing and promoting evidence to develop NCC policies	55%	Renewed sense of purpose	64%

	ICCC4		ICCC4 Follow-Up (% some extent to great extent)
ICCC influences participant activity and assisted in advancing cancer control in their country		Increase in collaboration after ICC4	
Some of the time	47%	Not too much	41%
Most of the time	37%	Very much	31%
Establishing a COP			
Most of the time	30%		
Some of the time	45%		

Source: for details refer to the ICC4 Participant Survey and Follow-Up Survey Analysis reports in Appendix A.

Comparative details of the activities participants said they would do following ICC4 and the activities they actually did are provided in a table in Appendix D. Most participants believed that they would be sharing new information with colleagues (25%), applying new insights to prevention programs and cancer control as a whole (28%), as well as, creating collaborations that included developing partnerships and following up on new contacts (25%). 9% mentioned undertaking new research and another 5% said they would apply new insights to clinical practice. When compared to what participants actually said they did in the ICC4 follow-up survey, many had initiated work in primary prevention and tobacco control, others were continuing with their cancer control research projects or initiating new research, for example in cancer screening, or a global framework for cancer control. Most were following up with new contacts and working on developing collaborations and partnerships. Many were also focusing on developing cancer control partnership with other related sectors, NGOs and the

private sector. A large number of participants appeared to be sharing new information they gained at the ICCC with colleagues as well as initiating cancer awareness programs in their communities. Some had embarked on doing cancer control assessments while others are implementing cancer control programs and developing community based interventions. Few attendees were working on developing new chemotherapy treatment guidelines, new cancer treatment guidelines, cancer screening, early detection activities, advocacy skills and initiation of population based cancer registries and many other activities.

Part 2: Findings Related to Research Hypotheses

This part provides findings of the analysis conducted to address the research question guiding this study. It is divided into three sections, each addressing one component of the research question. As explained in Chapter 3, the source materials used for the analysis were the survey questionnaires, interviews and observations at the congresses. Analyses were done using SPSS and NVivo9.

As explained earlier in Chapter 3, to operationalize the variables, the investigator identified the survey questions as explanatory, outcome or confounding variables. The explanatory variable was participation in the International Cancer Control Congress while the outcome variables were the study interests: changes in participant activities or behaviours, collaborations and partnerships, and development or implementation of national cancer control plans/programs/ policies. Many questions are interconnected with other questions in the study. Therefore, to confirm their associations cross tabulation analysis was carried out to compare responses, with the Pearson's chi square calculated to test the major hypothesis formulated on

the data and determine if the associations (e.g., the effect of ICCC participation with demographic variables or selected outcomes) were statistically significant. The significance value for all the tests was taken as 0.05 (95% confidence level), a value compared against the calculated p-values for the chi-square tests conducted.

4.3 ICCC Influences Changes in Participant Behaviour and Activities

This section provides results from the bivariate analysis with supporting univariate analysis from the four reports, as well as all supporting qualitative data, in order to address the study premise that attending the ICCC influences changes in behaviour and activities relating to cancer control activities of participating individuals.

4.3.1 Univariate and Bivariate Analysis

To operationalize the outcome variable ‘Changes in participant behaviour and activities,’ activity and behaviour questions in each of the questionnaires were identified and analyzed as was described in Chapter 3. For example, questions identified and analyzed from the ICCC4 survey questionnaire were Q10, Q14, Q15 and Q17 for activity and behaviour, and Q1, Q2, Q5, Q6, Q7, Q8, Q9, Q16 and Q18 for ICCC, the explanatory variable (refer to the ICCC4 report in Appendix A). Thereafter, a cross tabulation was done to compare the explanatory variable (ICCC) questions with activity and behaviour questions, and a Pearson Chi Square test was run to test the significance of the hypothesis formulated on the data.

The hypothesis was: H_0 : There exists no significant relationship.

H_A : There exists a significant relationship (based on a $p < 0.05$ criterion).

Presented below are some crosstabs that were explored during the analyses of all four surveys, supported by findings from the qualitative analysis using NVivo and frequency analysis. For all frequency analysis and crosstabs formulated and tested on the data refer to the survey analysis reports in Appendix A. These indicate the relationship between ICCC and behaviour/activities.

All attendees to each Congress (i.e., all 362 attendees of ICC3 received the Congress survey and the follow-up survey and similarly all 310 attendees of ICC4 received the Congress survey and the follow-up survey). Not everyone who completed the on-site survey necessarily completed the follow-up survey.

Table 4.7 illustrates how cross tabulations were conducted and how results were interpreted. An example is the relationship existing between the satisfaction expressed with ICC4 and the subsequent pursuit of direct follow-up plans as a result of the Congress. It reveals that those expressing 'a great extent' of satisfaction (27 of 71) were far more predisposed to pursuing follow-up plans 'to a great extent' than those who indicated satisfaction of only 'to some extent' or 'not at all' (4 of 39 cumulatively). Participants satisfied with the Congress were higher than the 3% of respondents who were 'not at all' satisfied. The chi square association indicated that this was highly significant ($p < 0.001$) and thus unlikely to be a chance relationship.

Table 4.7 Association between satisfaction with ICC4 and direct follow-up plans

	Q2 Satisfaction reasons			Total
	To a great extent	To some extent	Not at all	
Q10 Direct follow-up plans				
To a great extent	27	4	0	31
To some extent	41	25	1	67
Not at all	3	7	2	12
Total	71	36	3	110

Note: Pearson Chi-Square = 21.793 df= 4 p<.001

Source: refer to bivariate analysis Hypothesis 4 in ICC4 Participant Survey report, Appendix A

Table 4.8 presents results of some other significant cross tabulations and chi square tests from ICC4 and its follow-up survey to verify attending ICC influences participants' behaviour and activities in cancer control. Realizing the limitations of the chi square tests (i.e., it does not tell the direction nor strength of the association) the researcher has explained the results of the cross tabulations and used the derived level of significance to state if the variables are statistically associated.

Table 4.8 ICC4 associations with change in behaviour and activities of participants

	Questions cross tabulated		P value	N of valid cases
a.	Q1 Reason to attend ICC4 (Hypothesis 3- ICC4 Survey Report)	Q10 Direct follow-up plans	.009	110
b.	Q18.2 Comprehensiveness of ICC (Hypothesis 10 -ICC4 Follow-up)	Q17.4 Cancer control policy development	.001	105
c.	Q20 Would like to attend ICC5 (Hypothesis 12- ICC4 Follow-up)	Q14 Change in interest level	.013	105

	Questions cross tabulated		P value	N of valid cases
d.	Q23.1 Aware of the latest (Hypothesis 13-ICCC4 Follow-up)	Q17.6 Raising awareness in cancer control	.004	105

Source: refer to bivariate analysis in ICCC4 Participant Survey and Follow-Up Survey Analysis reports in Appendix A

- (a) Participants' most important reason for attending ICCC4 was associated (cross tabulated) with their direct follow-up plans after the Congress either with people or related programs ($p=0.009$). Of the 110 respondents, sixty-seven (61%) had made direct follow-up plans as result of the Congress 'to some extent' and thirty-one (28%) had made direct follow-up plans 'to a great extent'. Of the 110, twenty-nine respondents said their main reason to attend the Congress was its focus on population-based cancer control, and 66% of this subgroup also said they had made follow-up plans 'to some extent' and 31% said they had made follow-up plans 'to a great extent' as a result of the Congress. Additionally of the same 110, twenty-two said their main reason to attend the Congress was its focus on networking, collaboration and relationship building; 64% of this subgroup also said they had made follow-up plans 'to some extent' and 14% said 'to a great extent' as a result of the Congress. Also of the 110 respondents, seventeen said their main reason to attend the Congress was its focus on implementation of interventions, and 71% of this subgroup also said they had made follow-up plans 'to some extent' and 29% said they had made follow-up plans 'to a great extent' as a result of the Congress. Other important reasons for attending the Congress included the Congress' focus on mix of experiences from different cultures/contexts, or to deliver a presentation.

- (b) Participants' satisfaction with 'comprehensiveness' of the conference was associated (cross tabulated) with participants' contribution to the development of national policies regarding cancer control through sharing their learnings from the ICCC ($p=0.001$). Of the 105 respondents, sixty-four (58%) were 'satisfied' with the comprehensiveness of the Congress. Of this subgroup 16% 'strongly agreed', 11% had 'no opinion' and 63% 'agreed' that through sharing learnings from the Congress they were contributing to the development of national policies regarding cancer control. Also, twenty-one (19%) of 105 respondents were 'very satisfied' with the comprehensiveness of the Congress; 43% of this subgroup 'agreed' and another 43% 'strongly agreed' that they were contributing to the development of national policies regarding cancer control by sharing their learnings from ICCC. Participants satisfied with 'comprehensiveness' of the Congress was higher than the 18% of respondents who were neutral.
- (c) Participants' desire to attend ICC5 based on their experience of ICC4 was associated (cross tabulated) with their changed interest and involvement in cancer control after attending ICC4 ($p=0.013$). Of the 105 respondents, ninety-four (90%) said they would like to attend ICC5. 75% of this subgroup also said their involvement and interest in cancer control was 'more than before' after attending ICC4 while 25% said there was 'no change' in their interest and involvement in cancer control following the Congress. Eleven (10%) of the 105 respondents who said they would not attend ICC5; 64% of this subgroup said their involvement and interest in cancer control was 'more than before' after

attending ICC4 and 27% said there was 'no change' in their interest and involvement in cancer control following the Congress.

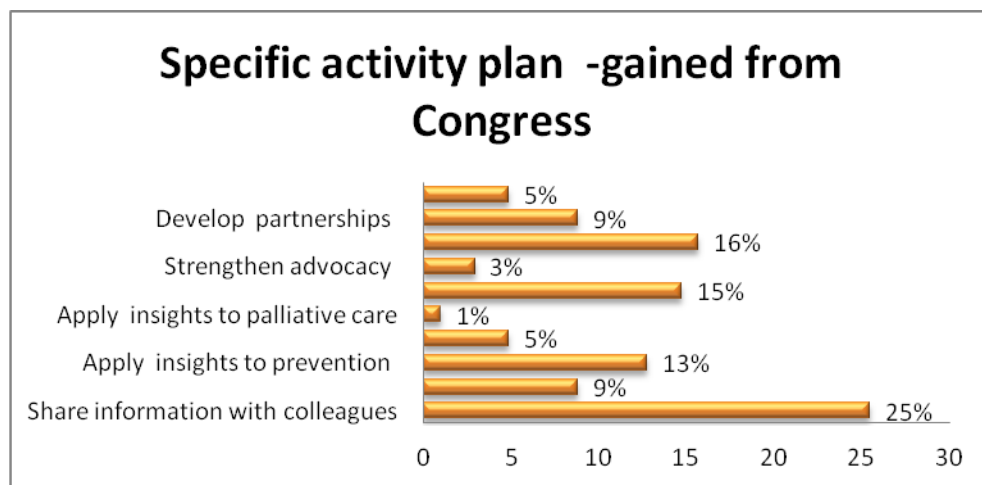
- (d) Participants' desire to be aware of the current state-of-the-art clinical and scientific content provided at the Congress was associated (cross tabulated) with participants contributing to and creating a vehicle for raising awareness of cancer control in their country. Of the 105 respondents, eighty-six (82%) came to participate in ICC4 to be aware of the current state-of-the-art clinical and scientific cancer control content. 63% of this subgroup 'agreed' and 26% 'strongly agreed' that attending ICC4 helped them in contributing to and creating a vehicle for raising awareness of cancer control in their country. Nineteen (18%) of the 105 respondents who did not come to ICC4 to be aware of the current clinical and scientific content; 42% of this subgroup 'agreed' that attending ICC4 helped them in contributing to and creating a vehicle for raising awareness of cancer control in their country ($p=0.004$).

To support the above significant relationships identified through the cross tab analysis and chi square tests that bring out the overall usefulness of the Congress. Stated below are analyses to questions asked at the Congress that demonstrate the gains perceived by participants from the Congress as a result of which they planned to undertake certain actions following the Congress. Following this is an example of an analysis from the follow-up survey that captures the actions actually carried out by participants indicating changed behaviour.

Concerning the single most important gain participants' said they had at ICC4, nearly a quarter (23%) referred to new contacts and opportunities for partnership and collaboration. This was followed by 21% saying new insights into cancer control strategies and population based

systems and 16% expressed their gain was new insights into cancer prevention and improved understanding of population based cancer control programs globally. Based on the gains the specific activity 25% of participants said they would most likely embark upon following the Congress would be ‘sharing new information with colleagues’. Figure 4.3 below displays all the activities participants said they would most likely do with the information gained from the Congress by January 2012.

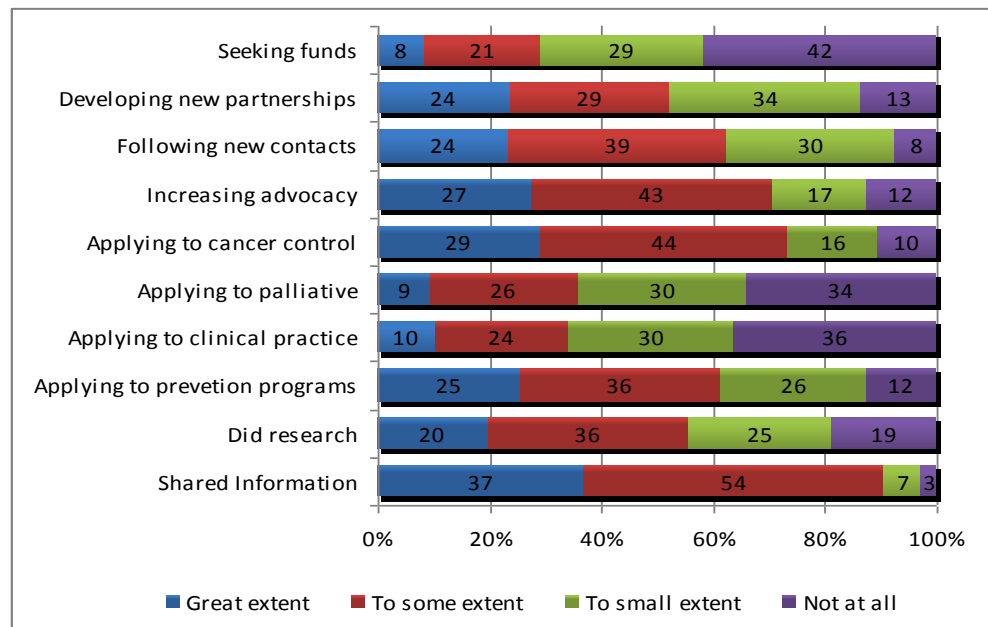
Figure 4.3: Specific activity plan – ICC4



Source: ICC4 Participant Survey Analysis report in Appendix A.

Figure 4.4 lists the activities participants actually did. Over 50% participants have used the knowledge gained from ICC4 to an extent in all the parameters mentioned in the figure.

Figure 4.4: Activities done (utilization of gains) – ICCC4 follow-up



Source: ICCC4 Follow-Up Survey Analysis report in Appendix A

Also, when asked in the follow-up if their involvement and interest in cancer control had changed after ICCC4, 60% participants said ‘to some extent’ and 33% said ‘to a great extent’.

A similar look at ICCC3 and its follow-up survey reveals the following results. Table 4.9 presents results of some significant cross tabulations and chi square tests from ICCC3 follow-up survey to verify attending ICCC influences participants’ behaviour and activities in cancer control.

Table 4.9 ICC3 associations with change in behaviour and activities of participants

	Questions cross tabulated		P value	N of valid cases
a.	Q15 Involvement and interest in cancer control changed (Hypothesis 3- ICC3 Follow-up))	Q3 Cancer control a part of work	.044	110
b.	Q15 Involvement and interest in cancer control changed (Hypothesis 4-ICC3 Follow-up)	Q5 Years of work in cancer control	.001	110

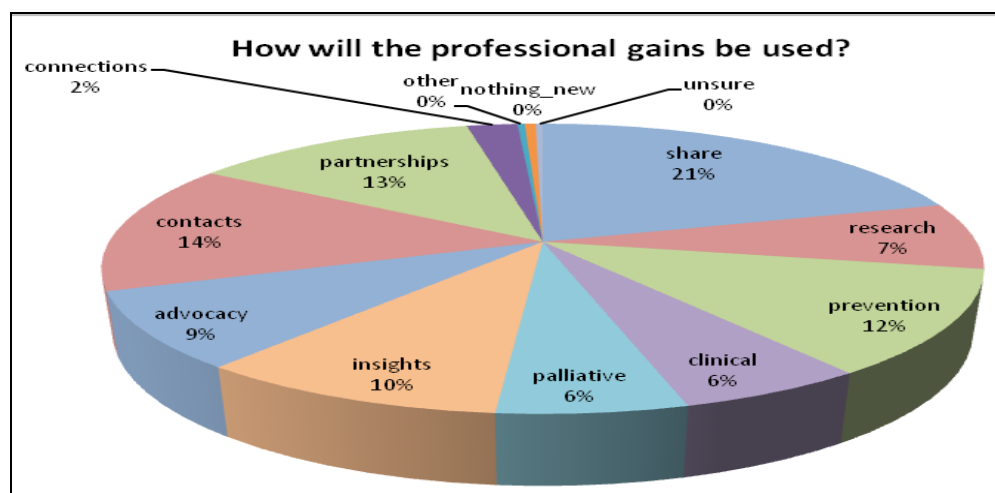
Source: Refer to bivariate analysis in ICC3 Follow-Up Survey Analysis reports in Appendix A

- (a) Participants' change of involvement and interest in cancer control work by attending ICC3 was associated (cross tabulated) with the extent to which cancer control was part of the participants' work ($p=0.044$). Of the 110 respondents, seventy-two (65%) said their involvement and interest in cancer control was 'more than before' after participating in the Congress. 50% of this subgroup also said cancer control was 'mostly' part of their work, 29% said cancer control was 'completely' part of their work and 21% said it was part of their work 'somewhat'. These proportions were higher than in other thirty-seven (34%) attendees who said they experienced 'no change' in their current level of interest and involvement after attending ICC3.
- (b) Participants' change of involvement and interest in cancer control work by attending ICC3 was also associated (cross tabulated) with the number of years the participant had worked in cancer control ($p=0.001$). Of the 110 respondents, thirty-seven (34%) had worked in cancer control for 'more than 15 years' and twenty-eight (25%) had worked for '6-10 years' in

cancer control. Of the 110, seventy-two (66%) said their involvement and interest in cancer control was ‘more than before’ after the Congress. 31% of this subgroup also said they had worked in the cancer control field for ‘more than 15 years’. Another 31% who felt the same had worked for ‘6-10 years’ in cancer control. Of the other remaining respondents from 110, thirty-seven (34%) said they experienced ‘no change’ in their current level of interest and involvement after attending ICC3; fifteen (41%) of this subgroup said they had worked in the cancer control field for ‘more than 15 years’ and six (16%) had worked for ‘6-10 years’ in cancer control. This shows that there was a greater change in interest and involvement in cancer control in participants, that is, those who had worked for ‘6-10 years’ or ‘>15 years’.

Regarding the important things participants said they had gained at ICC3, the most important takeaways from the conference, were improved understanding of global cancer control programs (16%), new insights into cancer control strategies and new contacts and opportunities for partnership (16%). When it comes to the specific activity participants said they would do to use their gains, 21% said they would share the new information with colleagues followed by creating collaborations. All activities participants said they would do following the Congress are displayed below in Figure 4.5.

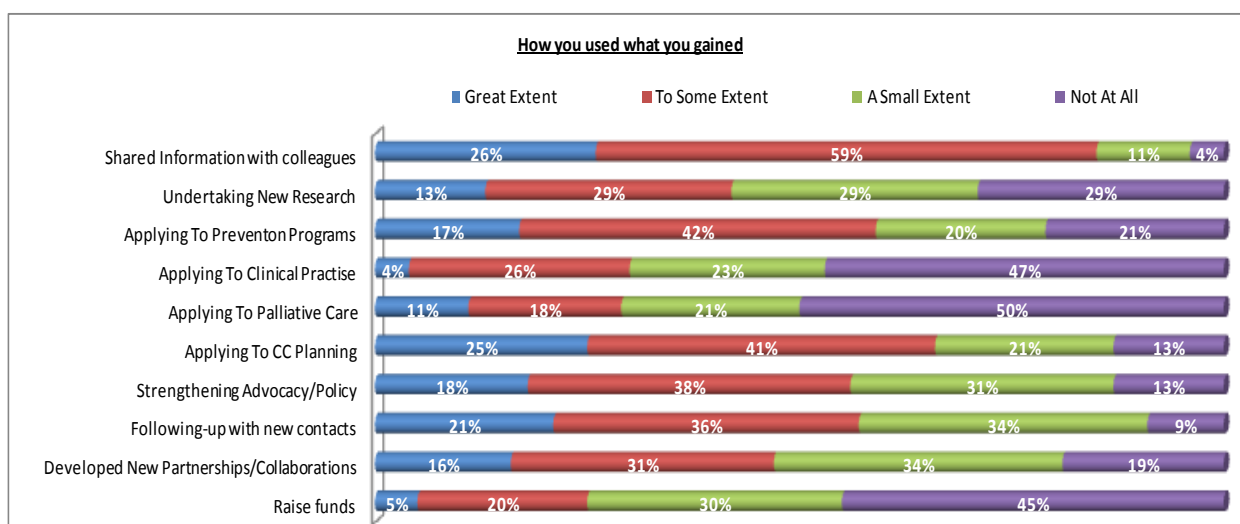
Figure 4.5: Specific activities planned to utilize congress gains – ICC3 survey



Source: ICC3 Participant Survey Analysis report in Appendix A

Figure 4.6 displays the activities participants actually did using the knowledge gained at ICC3. 85% participants shared the information gained at ICC3 and most other applications of the knowledge gained in all the parameters mentioned in Figure 4.6 have been used to some extent.

Figure 4.6: Activities done (utilization of gains) – ICC3 follow-up survey



Source: ICC3 Follow-Up Impact-Evaluation Survey report in Appendix A.

Also, when asked in the ICC3 follow-up if their involvement and interest in cancer control had changed after ICC3, 66% of participants said ‘more than before.’

As participants’ came from countries with varying resource levels, the investigator wanted to determine if ‘no changes’ in activities, behaviours, collaboration, partnerships or national cancer control work was due to a lack of resource availability in their jurisdictions or, should the ‘no change’ be attributed to a gap in the learnings or knowledge transfer at the Congress. Some cross tabulations were carried out to explore this possibility.

A cross tabulation of question 5, ‘future involvement in cancer control’ by demographic variables, was carried out. Hypothesis 4 in the ICC3 participant survey analysis report (Appendix A) confirms some factors may have more influence on the participants’ anticipated involvement in cancer control activities. For example, participants’ age group may have an influence on whether they see their cancer control-related activities increase/decrease in the future. A chi-square test was run with the different factors (age, gender, occupation, continent, years of work, and main field of work) vs. involvement. The results of the test show that involvement is influenced by the continent of work ($p=0.004$) and years of work ($p=0.046$). It is, however, independent of age, gender and other factors.

On conference success ratings, the country of origin had an effect on certain outcomes. The p value for most parameters is less than the significance value of .05. Thus, there is a relationship between the country of origin and participants calling the Congress successful. Attendees from low and middle income countries appear to be more satisfied from the Congress as opposed to those from high income countries. More attendees from low and middle income

countries rate the Congress as very successful in sharing best practices and promoting evidence to develop cancer control plans, creating a vehicle for raising awareness of cancer control and setting an appropriate agenda to create a vehicle of collaboration.

Table 4.10 presents the results of significant cross tabulations and chi square tests from ICCC4 follow-up survey to verify influence of resource level on ICCC participants' behaviour and activities. On level of interest and involvement in cancer control there was an influence of country of origin (resource level). Most other parameters cross tabulated did not demonstrate a significant relationship.

Table 4.10 Association of level of resources with participant interest or involvement

	(a) Change in Interest Level <i>(more than before)</i>			P value	N	(b) Influence on Involvement <i>(to a great extent)</i>			P value	N
	HIC	MIC	LIC			HIC	MIC	LIC		
Type of country	24	48	5	.040	105	11	18	5	.003	104
n	41	59	5		105	39	60	5		104
%	59	81	100			28	30	100		

Source: Refer to bivariate analysis Hypothesis 22, 23 in ICCC4 Follow-Up Survey Analysis report in Appendix A

Legend: HIC- high income country; MIC- middle income country; LIC-low income country

(a) To determine if the Congress was received differently by participants from high, middle and low income countries, type of country of work (low, middle and high-income) was associated (cross-tabulated) with change in participant interest and involvement in cancer control after ICCC4, showing a significant relationship ($p=0.04$). Of the 105 respondents,

39% were from high income countries, 56% from middle income countries and 5% from low income countries. The sample size is too small from low income countries to reach a definite conclusion, however there is a clear trend for a higher proportion of respondents from low income countries being interested 'more than before'; while, 59% of respondents from high income countries and 81% respondents from middle income countries said their interest levels in cancer control were more than before ICCC.

- (b) Another crosstab performed to establish if participants from high, middle and low income countries received the Congress differently. Type of country of work (low, middle and high-income) was also associated with level of interest and involvement being influenced after attending ICCC4, showing a significant relationship ($p=0.003$). Of the 104 respondents, 38% were from high income countries, 58% from middle income countries and 5% from low income countries. 28% of respondents from high income countries, 30% respondents from middle income countries, and 100% respondents from low income countries said their level of interest and involvement was influenced 'to a great extent' after attending ICCC4. Thus, again a clear trend from a higher proportion of respondents from low income countries being influenced by ICCC 'to a great extent'. The caution being the sample size is too small.

Supporting the above relationships confirmed by cross tabulation and univariate analysis are qualitative findings using NVivo9 from the Congress open ended questions, observations and interviews. Some findings demonstrate intention while others provide concrete examples of activities that have been actually performed.

Evaluation survey results of ICC3 (87%-94%) and ICC4 (51%-74%) confirm that over half the respondents have found the congresses to be successful to very successful in achieving their objectives of sharing best practices and promoting evidence to develop cancer control plans, national cancer control policies, creating a vehicle for raising awareness of cancer control, providing a setting for relationship building and providing a platform for knowledge transfer. This is further validated by the follow-up survey results where respondents rated ICC3 (75%-92%) and ICC4 (78%-91%) as having helped them with behaviours such as creating collaboration, knowledge transfer, raising awareness and sharing best practices (see ICC3 and ICC4 reports in Appendix A for details).

4.3.2 Supporting Qualitative Data

Participants' comments were of two types: concrete actions and personal development comments. With regard to concrete actions there was the initiation of special projects or implementation of activities to enhance cancer control following an ICC. A representative from Brazil in his presentation at ICC4 shared that efforts were made by Brazilian participants to establish a Regional Community of Practice in Cancer Control following ICC1 and 2, resulting in enhanced cancer control activities in Brazil and the South American Region.

The first example of this was an international forum of leaders from 10 Latin American and Caribbean countries to broaden knowledge of cancer control and encourage each country to develop a comprehensive cancer control plan. This forum, held in Mexico City in 2006, was followed by a workshop in Rio de Janeiro in November 2007. The result of these two meetings and the ICC2 was the establishment of the Latin American and Caribbean Alliance

for Cancer Control that includes Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Mexico, Nicaragua, Peru and Uruguay (108). Formation of the Alliance also led to the signing of the Rio de Janeiro Declaration, issued collectively by all participants at the closing ceremony of ICC2. The Declaration affirmed the need for regional groups to work together and promote prevention and control of cancer; reiterates need for new efforts on joint work between countries on areas of common interest related to cancer prevention and control (108).

The Alliance was a key forum for the implementation of the cancer plan of action and served to stimulate following ICC a series of activities like exchange of information and experiences among alliance countries, revitalized Latin American participation in the Ibero-American Network for Tobacco Control, encouraged a series of measures by the states of Mercosur and other South American countries in tobacco control and facilitated 4 meetings for the discussion of cancer registries and improvement of cancer registry data organized by IARC, WHO-PAHO and UICC in Ecuador (2008), Brazil (2009), Cuba (2010) and Chile (2011). ICC2 has been attributed by Brazil and the region with fostering regional cooperation and catalyzing numerous regional initiatives. The Alliance also fostered the establishment of a Latin America and Caribbean Tumor Bio-bank Network for establishing common methods and quality standard for tumor tissue storage (217).

Another example is Brazil's 2009 invitation to representatives from the Alliance and experts from IARC, Canada, and US for an International Breast Cancer Screening Symposium with support of the American Cancer Society and WHO-PAHO. In September 2009, along with four other countries of the Latin American and Caribbean Alliance (Argentina, Mexico, Uruguay

and Chile), Brazil signed an agreement with the US National Cancer Institute to establish the United States and Latin American Cancer Research Network. The presentation shared that individual and institutional relationships established following ICC3 and alliance activities led to a number of initiatives and projects in the Region. However, Brazil's learning for producing regional cooperation is that commitment of individuals needs to be supplemented by some degree of institutionalization which formalizes the commitment of governments. In the case of South America the Union of South American Nations (UNASUR) recognized the need for development and support of a Network of National Cancer Institutes (RINC) responsible for discussing national cancer control policies. The hope with the establishment of this network was the sustainability of initiatives commenced to enhance population-based cancer control following ICC2. RINC was established in September 2010 and the first meeting hosted by Brazil in July 2011 (218).

A representative from Italy shared at ICC4 the follow-up of activities following ICC3 in Cernobbio, Italy, in November 2009. The presenter expressed that, as a result of significant attention generated in Italy by ICC3 to the issue of cancer control in Africa, there had been a focus on cooperation between Europe and Africa in cancer prevention, treatment and control, which in turn led (or contributed) to the initiation of an EU-AU network of bio-banks. Another outcome was the Cernobbio Declaration to sustain cooperation on cancer control that was presented and signed at ICC3 by participants and shared with the EU to highlight the need to focus and allocate funding for cancer control in Europe (6, 219). Internationally, ICC3 he said "provided wide access to valuable information that is being developed in Europe and that can be

useful in the framework of the trends of cancer worldwide.” And, with the WHO the EU Commission is actively involved in the International Health Partnership and the joint assessment of national strategies (JANS). While, at a European level there continues to be further integration of different EU funded projects like Eurocare, Eurochip, Eurocourse, and others (220).

Another Brazilian delegate shared a concrete action following ICCC2. He explained the establishment of the nation’s first Cancer Control Program for Pediatric Cancer in the city of Campinas, Sao Paulo, dedicated to children, adolescents, and young adults.

Similarly, a delegate from IAEA-PACT shared the evolution of global activities for the Programme of Action for Cancer Therapy (PACT) and its close association with ICCCs. Over the years following ICCC1, PACT had developed a three pronged strategy to build capacity within a country to fight cancer. Firstly, they established model demonstration sites (221) in seven countries (Albania, Ghana, Mongolia, Nicaragua, Sri Lanka, Tanzania, Vietnam and Yemen) to implement projects in all aspects of cancer prevention and control. Then, in 2010 it launched the imPACT missions (Integrated Missions of PACT) to review the progress in its demonstration sites as well as to perform need assessments to support countries in their fight against cancer by performing a needs assessment of the local burden of cancer and formulating a targeted response. Thirdly, PACT is establishing a comprehensive regional cancer training network starting with a pilot of a virtual university for cancer control (VUCCnet) in Africa.

A participant from one of the past host countries added an activity that he successfully embarked upon as a result of the congresses: the development of INCTR, Canada, a country chapter for the International Network for Cancer Treatment and Research, a not-for-profit

organization dedicated to helping build capacity for cancer research and treatment in developing countries (222).

Participants from the European Union said they returned from ICC3 continuing to advocate for population-based cancer control with additional vigor. Some believed the recently established European Partnership for Action against Cancer (223) of June 2009 was further strengthened by this advocacy. A presenter from Italy stated that most EU Ministries of Health were taking concrete actions related to cancer control, such as Italian Lombardy region's leadership in the fight against cancer in Italy. The presenter stated that nationally, ICC3 and events that followed reduced the gap between research and political decisions following a significant increase over the last decade.

Personal development comments ranged from references to the usefulness of exchanges of practical experiences, to comments on knowledge transfer. A senior participant from Malaysia pointed out that he highly appreciates ICC's focus on all levels of countries for others to learn from and share with colleagues when they go back to their country.

In the ICC3 follow-up survey the Estonian contingent commented that the Estonian Cancer Society had learned new ways to fight cancer. Another delegate said, "The Conference was an exciting journey and has left its mark in my personal memory and in my professional development." Comments received in the ICC4 follow-up survey suggested that future ICC meetings be hosted in developing countries to promote "knowledge exchange between global experts and people from local organizations." This way, the impact of implementation would be greater and facilitate local change where most needed.

Supporting changes occurring in participant activity and behaviour following the Congress were an assortment of comments from congresses. Observations received in the ICC3 follow-up survey further demonstrated that ICCC influenced changes in behaviour and provided a platform for knowledge exchange. Some participants expressed, “I have been able to work in a more innovative fashion,” “ICCC gives a lot of motivation to action,” and “Insights and realizations have added to my skills and understanding.” For a delegate, ICCC motivated him to continue supporting his country’s progress in cancer control.

At ICC4, a delegate from the United Kingdom said his impression was that “ICCC expertise has contributed to the development and sharing of information in cancer registries and helped to give this cancer registry based work international perspective.” An IAEA-PACT delegate commented that “the ICCCs provide a platform for experience exchange very much convenient for PACT Model Demonstration Sites (PMDS),” which is one of the programme’s objectives. A delegate from Spain who had attended both ICC3 and 4 commented that following his participation he had been “better able to conceptualize multidisciplinary care,” while a UICC representative commented “all information received during the congresses imposes the vision of the real world and allows me to evaluate better strategies.” A Chinese official said ICCC has helped him refocus from an interest in only research to population based implementation.

A detailed table of all the specific activities that participants said they would do at the Congress and the resultant activities they performed are shared in a table in Appendix D. Specific activities that participants said they had accomplished were implementation of cancer

awareness and prevention programs (such as Smoke-Free Penang in Malaysia, various tobacco control activities, hosting discussion forums in cancer prevention, development of new cancer prevention programs, and organized cancer screening and early detection activities); sharing information of best practices and learnings with colleagues and engaging colleagues for program planning; undertaking new research (for example, establishing the Pan Arab Oncology Research Group in Saudi); developing partnerships and collaborations (e.g. organizing an oncological network between Europe and developing countries); and implementing plans and other activities.

After ICC3, some delegates commented that their interests had changed. One of the delegates from Egypt shared that the Congress inspired him to initiate a program for palliative care for cancer cases in Egypt as a pilot model. Another delegate mentioned that even though his work focus still needed to be on direct patient care, his appreciation of broader issues had improved. He expressed that he was a better teacher, leader and supervisor because of my exposure at ICC3. Because of the ready accessibility to presentations on the ICC website, a delegate from New Zealand mentioned that she had been able to write reports after each Congress, summarizing key contacts and presentations. By circulating these reports to others working in cancer control in New Zealand, she was able to discuss issues of interest/relevance to colleagues; and, by so doing, “my personal interest and commitment to cancer control has been stimulated/enhanced.” One of the delegates also attributed changes in behaviour following the Congress to the presentations and discussions at the ICC being an eye-opener. These dialogues “help us understand the challenges that other countries face and put into perspective our own challenges.”

After ICCC4 a number of delegates from North America commented how the Congress had broadened their focus to see “how the challenges and opportunities for cancer control in LMICs can inform cancer control efforts to reduce cancer health disparities within high income countries.” Thus the Congress facilitated not only knowledge exchange from the developed countries to the developing, but also vice versa.

With a broader perspective on key issues related to developing countries, delegates have commented how they have found their actions, attitudes, and behaviour towards developing countries have changed too. A participant said she had started to work more scientifically in the field of Cancer Control, while another expressed their interest to establish a cancer registry hospital in the capital of Laos. One more expressed that ICCC had sparked his interest in the area of lifestyle including food choices, and yet another said he now was interested in cancer control work in developing countries.

A vast majority of participants at all ICCCs believed that the ICCCs had helped them professionally and that they had been positively influenced by attending the Congress.

4.4 ICCC Influences Development/Implementation of NCCP

This section provides findings from the analysis carried out to address the study’s premise that attending the ICCC may lead to participants influencing changes in policy and governance that aid the development or implementation of population-based cancer control programs, plans or policies in their jurisdictions. The results are based on bivariate analyses from all four reports (Appendix A) and the supportive qualitative findings analysed using NVivo.

4.4.1 Univariate and Bivariate Analysis

Similar to what was done in the previous section, to operationalize the outcome variable ‘changes in national cancer control plans/policies/programs,’ NCCP questions were identified and analyzed in each of the survey questionnaires. Thereafter, a cross tabulation was performed to compare the explanatory variable (ICCC) questions with NCCP questions, and a Pearson Chi Square test was run to test the significance of the hypothesis formulated on the data. Limitations of the chi square tests, that is, it will not tell the direction or strength of the association were recognised. The null hypothesis (H_0) is that there is not a significant relationship between the variables while the alternative hypothesis (H_A) is that a significant relationship exists between the variables based on a $p < 0.05$ criterion.

Presented below are some significant crosstabs explored during the survey analyses. These are supported by findings from the qualitative analysis using NVivo and frequency analysis, indicating a relationship between attending ICC3 and cancer control work—NCCP (for all frequency analysis and crosstabs formulated and tested using chi square on the data refer to the survey analysis reports in Appendix A).

Table 4.11 presents results of some significant cross tabulations and chi square tests from ICC3 and its follow-up survey to verify attending ICC3 influences development, implementation or enhancement of national cancer control plans or programs.

Table 4.11 ICC3 associations with development or implementation of NCCP

	Questions cross tabulated		P value	N of valid cases
a.	Q13 Reason to attend ICC3 (Hypothesis 3- ICC3 Survey Report)	Q4 Cancer control- main area of work	.026	158
b.	Q19.1 Relevance of ICC3 (Hypothesis 5-ICC3 Follow-up)	Q21Like to attend ICC4	.001	110
c.	Q19.5ICC raises awareness (Hypothesis 6- ICC3 Follow-up)	Q21Like to attend ICC4	.001	110

Source: Refer to bivariate analysis in ICC3 Participant Survey and Follow-Up Survey Analysis reports in Appendix A

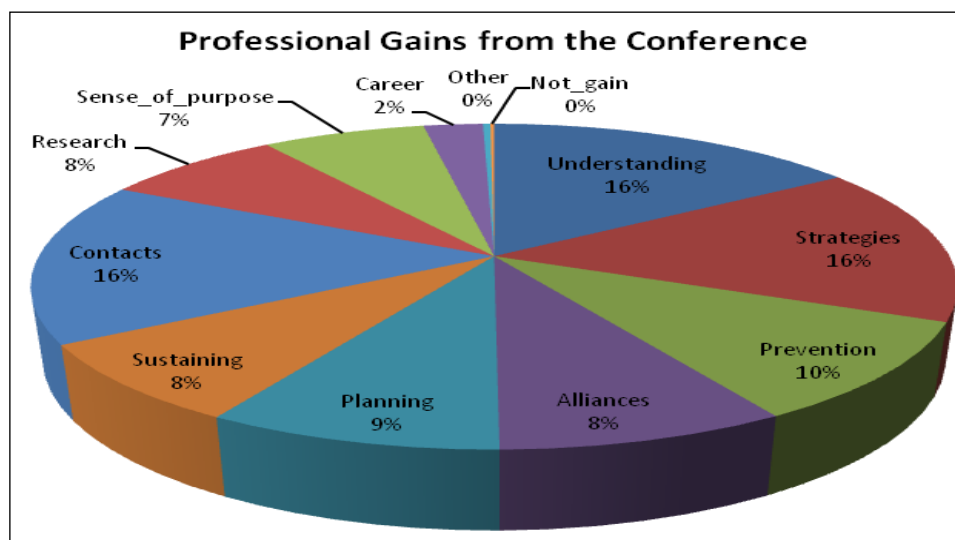
- (a) Participants' main reason for attending ICC3 was associated (cross tabulated) with cancer control being the main area of work for attendees ($p=0.026$). Of the 158 respondents, fifty-five (35%) said cancer control was their 'main area' of work. 29% of this subgroup also said their main reason for attending ICC3 was the 'conference program' and 25% said their main reason was to 'avail of networking opportunities' at the Congress. Additionally, thirty-eight of the 158 respondents had cancer control as their area of work 'to a great extent'; 34% of this subgroup said their main reason for attending ICC3 was the 'conference program', 38% said for 'presenting a paper' and 34% said for 'networking opportunities'. While, forty-six (29%) of the 158 respondents who had cancer control as 'part of their work'; 22% of this subgroup said their main reason for attending ICC3 was the 'conference program', 17% for 'presenting a paper', 17% said for 'networking opportunities' and 15% attended as they were 'invited speakers'.

- (b) Participants' responses about the relevance of the 3rd ICCC were associated (cross tabulated) with participants' intention of attending the next ICCC ($p=0.001$). Of the 110 respondents, eighty-nine (81%) said based on their experience of the ICCCs, they would like to attend the next Congress. 60% of this subgroup also said they found the Congress relevant and were 'satisfied' with ICC3 and 35% said the Congress was relevant and they were 'very satisfied' with ICC3. In comparison, seventeen of 110 respondents said they would not attend ICC4; however, 59% of this subgroup found ICCC relevant and were 'satisfied' with the Congress.
- (c) Participants' responses that ICC3 raises awareness about cancer control have also been associated (cross tabulated) with participants' intention of attending ICC4 ($p=0.001$). Of the 110 respondents, eighty-nine (81%) said based on their experience of the ICCCs they would like to attend the next Congress. Eighty (90%) of this subgroup also said they found the Congress raised awareness on cancer control and were 'satisfied to very satisfied' with ICC3 and would attend the next Congress. In comparison, seventeen of 110 respondents said they would not attend the next Congress; however, 53% of this subgroup was 'satisfied' with ICC3 ability to raise awareness on cancer control and 29% were 'neutral', 18% 'dissatisfied' with ICCC ability to raise awareness on cancer control.

In support of the above significant shown relationships, frequency analysis to questions asked at the Congress (ICC3) reveals 16% participants believe they gained new insights in cancer control strategies, another 17% believed they gained insight into planning, maintaining

and sustaining population based cancer control programs and another 16% saw the gains in terms of new contacts and opportunities for partnership and collaboration (see Figure 4.7 below).

Figure 4.7: Participant expressions of professional gains from the congress – ICC3



Source: ICC3 Participant Survey Analysis Report – Appendix A

Respondents' conviction in the success of the Congress is evident from the significant percentage of participants (94%) who believed ICC3 was successful to very successful in 'sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation'. Also, 87% participants believed the Congress was successful to very successful in 'sharing best practices and promoting evidence to develop national cancer control policies (see Table 4.12).

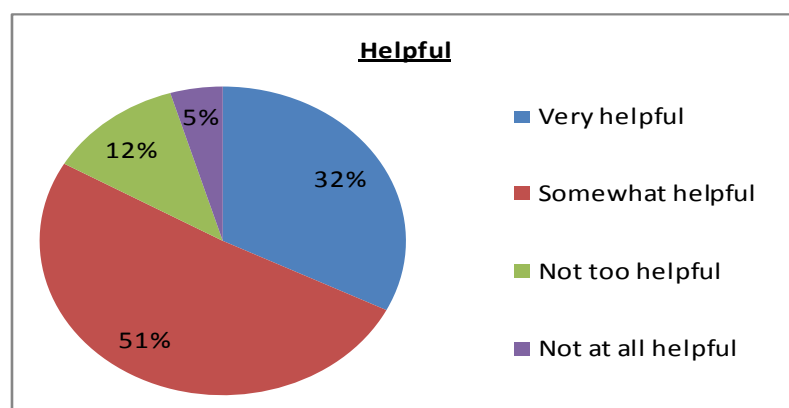
Table 4.12: ICC3 success in specific objectives

	Very Successful	Successful	Not Very Successful	Not At All Successful	Don't Know
Sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation	54	100	7	1	3
Sharing best practices and promoting evidence to develop national policies regarding cancer control	43	101	15	1	6

Source: ICC3 Participant Survey Analysis Report – Appendix A

Thereafter, an analysis from the ICC3 follow-up survey revealed how beneficial attendees found the Congress months later. When asked in the follow-up survey eight months later if the Congress had been helpful in assisting them with their cancer control/NCD work, 51% found attending ICC3 had been ‘somewhat helpful’ and 32% found it ‘very helpful’ (Figure 4.8). Also 64% participants ‘agreed to strongly agreed’ that they were now more equipped to help change the minds of policy makers in their jurisdiction. And, 66% stated they were applying ‘to an extent’ the new insights gained at ICC3 in their cancer control planning work, that is, insights in planning, implementing, maintain & sustaining population-based cancer control programs (refer to ICC3 Follow-Up Survey Report in Appendix A).

Figure 4.8: ICC3 helpfulness in cancer control/NCD work



Source: ICC3 Follow-Up Survey Analysis Report – Appendix A

Table 4.13 presents results of some significant cross tabulations and chi square tests from ICC4 and its follow-up survey to verify attending ICC3 influences development, implementation or enhancement of national cancer control plans or programs.

Table 4.13 ICC4 associations with development or implementation of NCCP

	Questions cross tabulated		P value	N of valid cases
a.	Q1 Reason to attend ICC4 (Hypothesis 1- ICC4 Survey Report)	Q11 ICC3 helpful in NCCP	.000	107
b.	Q1 Reason to attend ICC4 (Hypothesis 2-ICC4 Survey Report)	Q13 ICC3 helpful in assisting with cancer control work	.035	108
c.	Q4 ICC4 stimulated thinking (Hypothesis 13-ICC4 Survey Report)	Q11 ICC3 helpful in NCCP	.000	103
d.	Q9.5 Range of topics covered (Hypothesis 16- ICC4 Survey Report)	Q11 ICC3 helpful in NCCP	.000	106
e.	Q9.4 Quality of discussion and debate (Hypothesis 17- ICC4 Survey Report)	Q13 ICC3 helpful in assisting with cancer control work	.000	106

	Questions cross tabulated		P value	N of valid cases
f.	Q18.3 Applicability of knowledge (Hypothesis 2- ICC4 Follow-up)	Q16 Helpfulness of ICC4	.000	105
g.	Q18.3 Applicability of knowledge (Hypothesis 3- ICC4 Follow-up)	Q25.6 Applying to cancer control	.013	105
h.	Q23.2 Implementation in other places (Hypothesis 7- ICC4 Follow-up)	Q25.6 Applying to cancer control	.045	106

Source: Refer to bivariate analysis in ICC4Participant Survey and Follow-Up Survey Analysis reports in Appendix A

- (a) Participants' most important reason for attending ICC4 was associated (cross tabulated) with helpfulness of the Congress in supporting participants in National Cancer Control Planning (NCCP) ($p < 0.001$). Of the 107 respondents, fifty-one (48%) considered the Congress to be 'somewhat helpful' and thirty-five (33%) thought the Congress would be 'very helpful' in supporting them in NCCP. Of the 107, twenty-nine (27%) who said their main reason to attend the Congress was its 'focus on population based cancer control'. 52% of this subgroup also said the Congress would be 'somewhat helpful' and 41% said 'very helpful' in NCCP. Additionally, seventeen of 107 respondents who said their main reason to attend was the Congress 'focus on implementation of interventions'; 47% of this subgroup found the Congress would be 'very helpful' in NCCP. And, twenty-two of 107 respondents who said their main reason for attending the Congress was its 'focus on networking, collaboration and relationship building'; 36% of this subgroup found the Congress would be 'somewhat helpful' and 32% said 'very helpful' in National Cancer Control Planning.

- (b) The most important reason for participants' attending ICC4 was also associated (cross tabulated) with participants' perception of the helpfulness of the Congress in assisting them in their Cancer Control work ($p=0.035$). Of the 108 respondents, sixty-five (60%) said the Congress would be 'somewhat helpful' and 25% said 'very helpful' in assisting them with their cancer control work. Of the 108, twenty-nine (27%) who said their main reason to attend the Congress was its 'focus on population based cancer control'. 69% of this subgroup also said they found attending the Congress 'somewhat helpful' in their cancer control work. Additionally, seventeen of 108 respondents who said their main reason to attend was the Congress 'focus on implementation of interventions'; 47% of this subgroup found attending the Congress 'somewhat helpful' and another 47% found ICC4 'very helpful' in their cancer control work. And, twenty two of 108 respondents who said their main reason to attend was the 'focus on networking, collaboration and relationship building'. 41% of this subgroup found attending the Congress 'somewhat helpful' and 32% found ICC4 'very helpful' in their cancer control work.
- (c) ICC4 stimulates participants to think of activities/relationships that have relevance beyond their direct work was associated (cross tabulated) with helpfulness of the Congress in supporting participants with National Cancer Control Planning ($p<0.001$). Of the 103 respondents, fifty (49%) considered ICC4 would be 'somewhat helpful' and thirty-three (32%) considered it would be 'very helpful' in supporting them with NCCP. Of the same 103 respondents, sixty-five who said by attending the Congress they were 'very much' stimulated to think of cancer control activities beyond their direct work. 83% of this subgroup also said

they found the Congress would be ‘somewhat to very helpful’ in supporting them with NCCP. In comparison, thirty of 103 respondents who said they were ‘not too much’ stimulated to think of cancer control activities beyond their direct work; however, 80% of this subgroup also said the Congress would be ‘somewhat to very helpful’ in supporting them in National Cancer Control Planning.

(d) The range of topics covered in the Congress program were also associated (cross tabulated) with the helpfulness of the Congress in supporting participants in National Cancer Control Planning ($p<0.001$). Of the 106 respondents, fifty (47%) said the Congress would be ‘somewhat helpful’ and thirty-five (33%) said ‘very helpful’ in supporting them with NCCP. Of the 106, fifty-six (53%) who said the range of topics covered by the Congress were ‘good’. 64% of this subgroup also said they found the Congress would be ‘somewhat helpful’ and 20% ‘very helpful’ in supporting them in NCCP. Additionally, thirty (28%) of 106 participants rated the range of topics covered ‘excellent’; 70% of this subgroup also said the congress would be ‘very helpful’ in supporting them with NCCP. In comparison, only 16% (seventeen) of the 106 respondents said the congress would be ‘not too helpful’ in assisting them with their cancer control work.

(e) The quality of discussions and debate at ICC4 was associated (cross tabulated) with helpfulness of the Congress in assisting participants in cancer control work ($p<0.001$). Of the 106 respondents, sixty-three (59%) said the Congress would be ‘somewhat helpful’ and twenty-seven (25%) said ‘very helpful’ in assisting them with their cancer control work. Of the 106, forty-eight who said the quality of discussion and debate at the Congress was

‘good’. 67% of this subgroup also said they found the Congress ‘somewhat helpful’ and 21% said ‘very helpful’ in their cancer control work. In addition, twenty-four of 106 respondents who said the quality of discussion and debate at the Congress was ‘excellent’; 38% of this subgroup also said they found the Congress would be ‘somewhat helpful’ and 63% said ‘very helpful’ in their cancer control work. In comparison, thirty (28%) of the 106 respondents who said the quality of discussion and debate at the Congress was ‘fair’, 70% also found the congress would be ‘somewhat helpful’ in their cancer control work.

- (f) The applicability of knowledge gained as per participants’ context from the Congress was associated (cross tabulated) with the helpfulness of the ICCC in assisting participants with their cancer control/NCD work ($p < 0.001$). Of the 105 respondents, fifty-nine (56%) found the congress had been ‘somewhat helpful’ and forty (38%) respondents found it ‘very helpful’ in assisting them with their cancer control work. Of the 105, sixty respondents who said they were ‘satisfied’ with the applicability of knowledge gained at the Congress. 57% of this subgroup also said they had found the Congress ‘somewhat helpful’ and 40% said they found it ‘very helpful’ in assisting them their cancer control/NCD work. Additionally, twenty-two of the 105 respondents who said they were ‘very satisfied’ with the applicability of knowledge gained at the Congress. 27% of this subgroup also said they had found the Congress ‘somewhat helpful’ and 73% said they found it ‘very helpful’ in assisting them their cancer control/NCD work. In comparison, twenty-one of the 105 respondents who said they were ‘neutral’ to the applicability of knowledge gained at the Congress. 86% of this

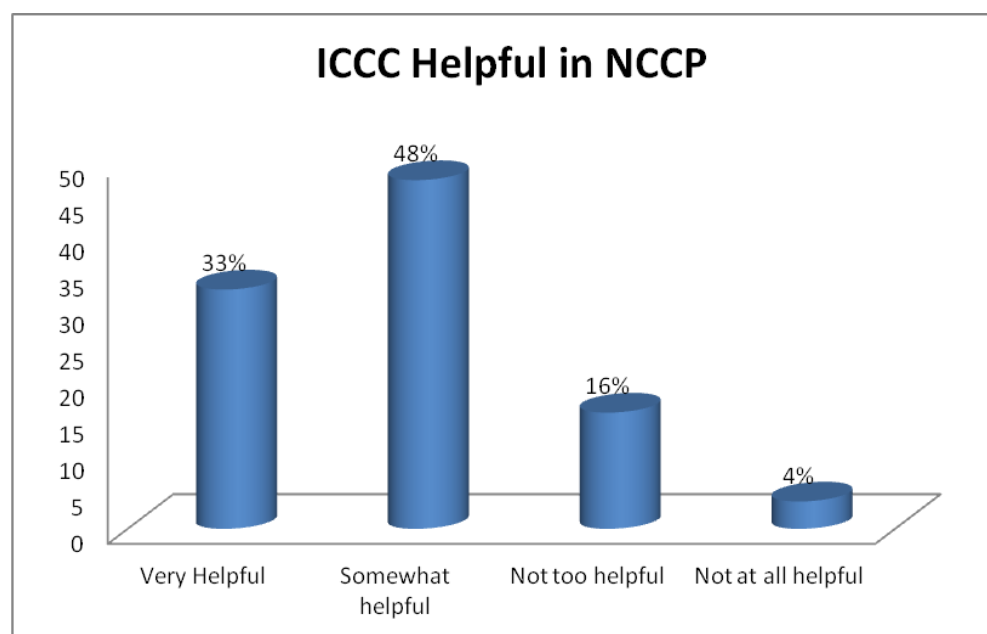
subgroup also said they had found the Congress ‘somewhat helpful’ in assisting them their cancer control/NCD work.

- (g) The applicability of knowledge gained as per participants’ context from the Congress was also associated (cross tabulated) with participants’ applying to new insights to cancer control planning ($p=0.013$). Of the 105 respondents, forty-seven (45%) had applied ‘to some extent’ and thirty (29%) had applied to a ‘great extent’ new insights to cancer control planning following the Congress. Of the 105, sixty said they were ‘satisfied’ with the applicability of knowledge gained at the Congress. 45% of this subgroup also said they had ‘to some extent’ and 27% said ‘to a great extent’ applied new insights to cancer control planning following the Congress. In comparison, twenty-one of the 105 respondents who said they were ‘neutral’ to the applicability of knowledge gained at the Congress. 57% of this subgroup also said they had ‘to some extent’ applied new insights to cancer control planning following the Congress.
- (h) Desire to gain awareness on how the current state of knowledge is being implemented in various resource settings was associated (cross tabulated) with applying new insights to cancer control planning gained at the ICC4 ($p=0.045$). Of the 105 respondents, forty-seven (45%) had applied ‘to some extent’ and thirty (29%) had applied to a ‘great extent’ new insights to cancer control planning following the Congress. Of the 106 respondents, seventeen (16%) had applied ‘to a small extent’, forty-seven (44%) ‘to some extent’ and thirty-one (29%) had applied to a ‘great extent’ new insights to cancer control planning following the Congress. Of the 106 respondents, 102 (96%) who said they had come to

attend ICC4 because they wanted to know how the current state of cancer control knowledge is being implemented in various resource settings. 16% of this subgroup also said they had ‘to a small extent’, 45% said ‘to some extent’ and 30% said ‘to a great extent’ applied new insights to cancer control planning following the Congress, compared to nine (9%) who said they had ‘not at all’ applied their new insights to cancer control planning following the Congress .

Regarding how helpful ICC4 was to participants in supporting them in NCCP, one third (33%) of the participants found the Congress very helpful and 48% found it somewhat helpful (see Figure 4.9 below). Also, 34% participants believed attending ICC4 would help them in sharing best practices and promoting evidence to develop/implement cancer control plans.

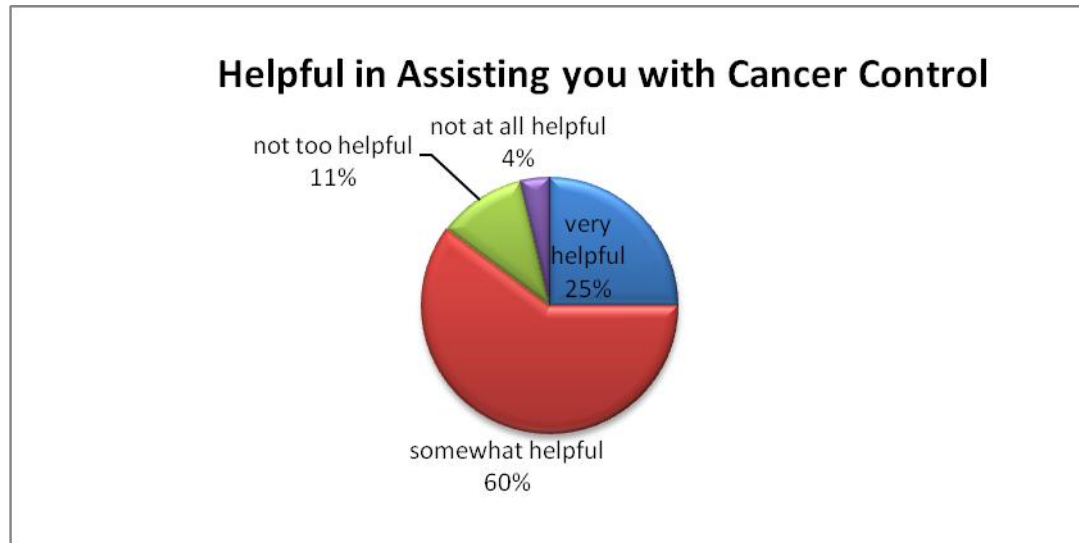
Figure 4.9: ICC4 helpfulness in supporting NCCP



Source: ICC4 Participant Survey Analysis Report – Appendix A

One fourth (25%) of the respondents found that Congress would be ‘very helpful’ and 60% thought ‘somewhat helpful’ in assisting them with their Cancer Control work (see Figure 4.10).

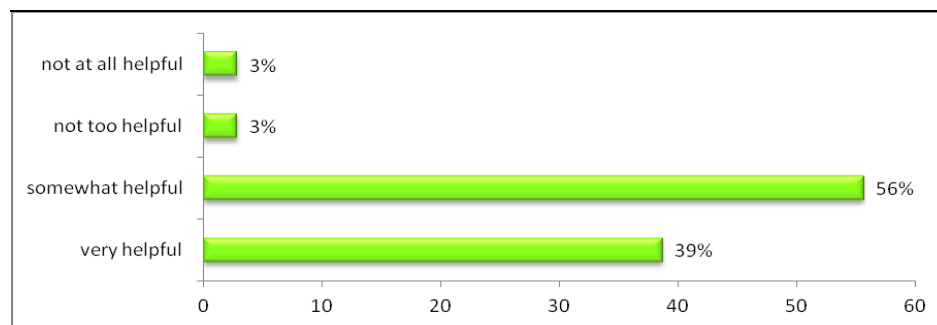
Figure 4.10: ICCC4 helpfulness in cancer control work



Source: ICCC4 Participant Survey Analysis Report – Appendix A

Figure 4.11 reveals following the Congress did the participants actually find the Congress helpful in their cancer control/NCD work. About 40% of respondents found the Congress was ‘very helpful’ and 56% reported that it had been ‘somewhat helpful’.

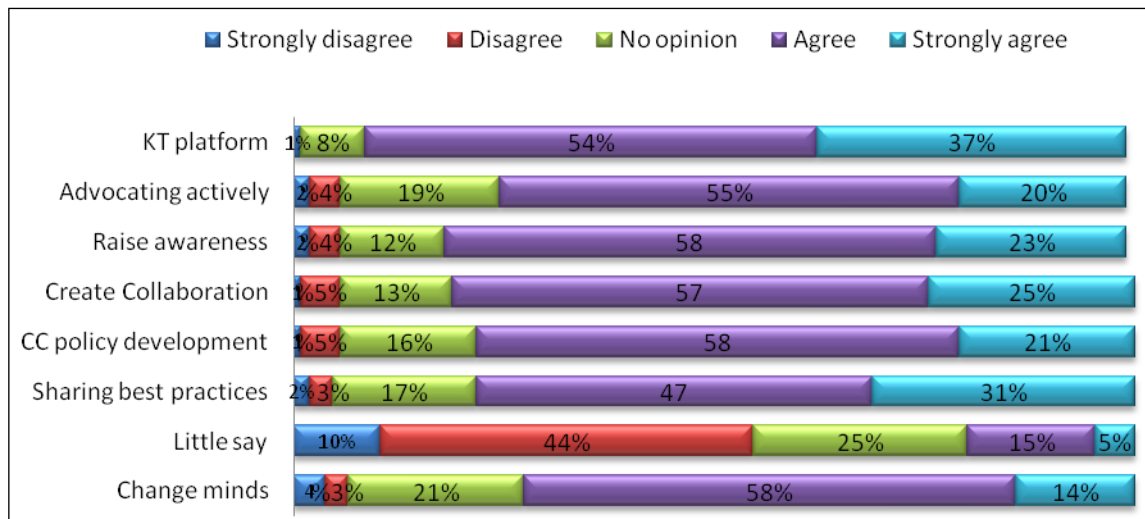
Figure 4.11: Helpfulness of ICCC4 in cancer control work – ICCC4 follow-up survey



Source: ICCC4 Follow-Up Survey Analysis Report – Appendix A

Figure 4.12 provides confirmation that almost 70-90% of participants agree to strongly agree that attendance at ICCC4 has been helpful with most issues listed in the figure. Also, analysis findings revealed that 52% respondents believe ICCC influences changes in national population based cancer control programs.

Figure 4.12: Attending ICCC4 helpful – ICCC4 follow-up survey



Source: ICCC4 Follow-Up Survey Analysis Report – Appendix A

4.4.2 Supporting Qualitative Data

Supporting the above relationships confirmed by cross tabulation and univariate analysis are qualitative findings processed using NVivo9 from the Congress open ended questions, observations and interviews. Some findings demonstrate intention while others provide concrete examples of activities that have been actually performed.

Comments by participants in support of ICCCs influencing development or implementation of NCCP were varied. A New Zealand delegate shared at ICCC3 that her attendance to ICCC2 had inspired her to lobby for a national prevention approach for chronic

disease, and that ICC3 had provided her additional insights and practical steps towards achievements of national cancer control plans. Another Canadian leader said attending ICC has “heightened my appreciation of needs and support for enhancing cancer control in the developing world.”

Comments received in the ICC3 follow-up survey included mentions to it providing a global perspective that can be articulated locally, an experience that provides concrete ideas to modify strategies, and professional growth. This demonstrates that policy makers who attended the conference would be influential in facilitating development or implementation of their countries’ NCCPs.

Feedback on ICC3 was also positive. Most participants expressed that they have been influenced by the conference and felt that it helped them in their cancer control work. Many said that gaining knowledge on implementation of new innovations in different resource settings and networking were their primary reasons for attending the Congress. Two delegates thought that ICC were helpful because they could engage in connections that might lead to cancer control initiatives and provided “an insight into the global cancer control program and how to apply that in my country.”

A delegate from Nigeria who had received sponsorship for ICC2 shared at ICC4 that she had shared the best practices and evidence from the congress with her Ministry and had been successful in advocating for screening programs she said she would do after ICC2. She proudly referred to how her advocacy enabled the launching of a cervical and breast cancer screening program, which led to opening screening clinics at her workplace. She expressed that “Today,

women come themselves to these clinics for screening plus they are able to do opportunistic screening. A unit was built for us and equipments were purchased and this has greatly improved our work performance.”

A few participants at ICC4 commented there were knowledge gains about challenges that people faced in monitoring the cancer burden, in developing NCCPs, what to do with the cancer indicator results, how to influence the key actors, and how to deal with opposite goals (e.g., thinking about tobacco, economic/political ones vs. better quality of care and less cancer cases). A delegate from Tanzania voiced what many participants were saying—“Over the years, the ICC has been a platform to network, share, learn and establish collaborations which have in many ways helped me during the formulation of our National Cancer Control Plan.” He also added, “The ICCs have influenced the establishment of a population based cancer registry and prioritizing palliative care.”

Comments from a two members of the International Steering Committee who have attended UICC and INCTR conferences thought ICCs were unique due to “their concentration on strategic population based approaches to cancer control” and because the ICC “encourages exchange of ideas and debates in practical aspects of cancer control.” A Chinese participant expressed that ICC focused more on cancer control and prevention than other congresses. Other delegates expressed the need of an external facilitative body to motivate their country to build a cancer center and develop a national cancer control program in the country. For example, a delegate from Laos commented on how his country is yet to establish a cancer center. Another member said what she really liked was “the interaction at the workshop level that has got more

focused and strategic over the ICCCs.” Two delegates, one from Australia and one from Tanzania, had attended both UICC and INCTR conferences, and expressed their preference for ICCC congresses. They pointed out that ICCC’s concentration on strategic population based approaches to cancer control, and the way it facilitated exchange of ideas and debates in practical aspects of cancer control were helpful.

A participant from WHO following his participation in the ICCCs, commented that he is now bringing WHO national offices into cancer control capacity building, which is proving to be a collaborative and helpful way to advance national cancer control planning.

A delegate from China commented his delegation at ICC4 “got new information from other participants to improve our country’s strategy for cancer/NCD, overall health policy (Ministry of Health).” A delegate from Spain who attended both ICC3 and 4 commented in the follow-up survey that participating in ICC has influenced him to consider with greater gravity cancer registry resulting in “an impact of registry data on cancer control planning in his jurisdiction.” Other participants in the ICC4 follow-up survey said that attending the Congress helped “develop integrated national cancer control program (NCCP)” in their countries.

A detailed table of all the specific activities that participants said they would do at the Congress and the resulting activities they performed following ICC3 or ICC4 are shared in the Table in Appendix D. Specific cancer control plans or programs that some participants said they had accomplished are launching of the tobacco control program, building lung cancer control programs by doing tobacco control, development of new cancer prevention programs (breast, colorectal, and cervical), strengthening primary and acute care linkages, applying new

insights and supporting population based cancer control programs, expanding breast and cervical cancer program to include lifestyle modification interventions, initiating development of a palliative care program, developing early detection and screening programs, initiated development of clinical practice guidelines, and treatment guidelines. Several participants also mentioned working on a better integration of cancer control with non-communicable disease (NCD) control and advocating for cancer/NCD control to their governments.

One of the developing country participants' had started a demonstration project on palliative care in rural areas, while participants from Latvia and Jordan had organized population-based screening programs in their countries. Also, a participant from Sri Lanka spoke of strengthening cancer surveillance activities in Sri Lanka. A participant from Australia shared since ICC4 as a short term consultant he had developed a policy document for WHO/EURO on early detection while a participant from India spoke about working on developing a national cancer control plan in India.

Few other participants mentioned the establishment of a cancer prevention and control coordination committee, initiation of a national program to fight against tobacco, development of EU NCCPs, commencing implementation of National Cancer Control Plans, improving cancer care strategy in their country, development of community based intervention on cancer control, and establishment of a primary prevention strategy and a research and development strategy as part of the National Cancer Prevention and Control Program.

A small number of participants also said they had been providing advise based on Congress presentations to regional efforts for establishing cancer data collection systems,

updated their NCCP, were in the process of changing cancer control protocols. Delegates from developed nations spoke primarily to continuing their work on monitoring cancer control activities or to initiating full evaluation of their cancer control programs.

At the panel discussion during the evaluation session at ICC4, panel discussants observed that the first three ICC meetings—and especially the second one, which took place in Latin America—served to foster regional cooperation and catalyze numerous regional initiatives. Over the congresses two declarations have been issued, firstly, the Rio de Janeiro declaration signed by all participants at ICC2 and secondly, the Cernobbio Declaration at ICC3 with 200 signatures from across the world for the inclusion of cancer control as a priority have been significant outcomes from the congresses. Hosts of the ICC3 said all three meetings had been successful initiatives for the exchange of ideas, for setting up collaborations and cooperation in global cancer control. In addition to the focus on global cancer control collaboration, ICC3 also concentrated on the cooperation between Europe and Africa at many levels. The sustainability of such initiatives, however, has often been challenging. Other outcomes of the Congresses include generation of significant attention in Italy to the issue of African cancer control which in turn has led to the initiation of an EU-AU network of bio-banks; publication of manuscripts following ICC3 and ICC4 respectively in *Tumori*, a Journal of Experimental and Clinical Oncology (4) and Asian Pacific Journal of Cancer Prevention (in process of being published).

Following the congresses most delegates said they were committed and would continue their work in cancer control as they were already highly motivated. Attending the ICCs cemented their conviction and spurred them into continued action. This is evident from one of

the delegates' comment following ICC4: "I am already fully committed, so the conference would not change this."

4.5 ICC Facilitates Increase in Partnerships and Collaborations

This section's findings are provided from the analyses to address the study premise that attending the ICC facilitates an increase in partnerships and collaborations, and also assists in relationship building, networking and make possible communities of practice. The findings presented correspond to the bivariate and univariate analyses from all four reports and supporting qualitative data from NVivo analyses.

4.5.1 Univariate and Bivariate Analysis

Similar to the previous sections, to operationalize the outcome variable 'collaboration' the investigator identified and analyzed collaboration or partnership questions in each of the questionnaires. Thereafter, a cross tabulation was made to compare the explanatory variable (ICC) questions with collaboration questions and a Pearson Chi Square test was run to test the significance of the hypothesis formulated on the data.

The null hypothesis (H_0) was that there is not a significant relationship between the variables while the alternative hypothesis (H_A) was that a significant relationship exists between the variables based on a $p < 0.05$ criterion.

Included below are some significant crosstabs that were explored during the survey analysis from the four surveys. They are supported by findings from the qualitative analysis using NVivo and frequency analysis. These indicate a relationship between ICC and

collaborative activities (refer to the survey analysis reports in Appendix A for all frequency analysis and crosstabs formulated and tested on the data).

Table 4.14 presents results of some significant cross tabulations and chi square tests from ICC3 and its follow-up survey to verify attending ICC3 facilitates increase in partnerships and collaborations

Table 4.14 ICC3 associations with collaborations, partnerships or networks

	Questions cross tabulated		P value	N of valid cases
a.	Q13 Reason to attend ICC3 (Hypothesis 1- ICC3 Survey Report)	Q3 Main occupation	.024	150
b.	Q17 Helpfulness of ICC3 (Hypothesis 1-ICC3 Follow-up)	Q3 Cancer control part of work	.000	110
c.	Q17 Helpfulness of ICC3 (Hypothesis 2-ICC3 Follow-up)	Q5 Years of work in cancer control	.003	110

Source: Refer to bivariate analysis in ICC3Participant Survey and Follow-Up Survey Analysis reports in Appendix A

(a) Participants' main reason for attending ICC3 was associated (cross tabulated) with the occupation of participants ($p=0.024$). The main reasons for participants attending ICC3 was the conference program, for networking opportunities or they were presenting. Of the 150 respondents, thirty-nine (26%) said their main reason for attending ICC3 was the conference program, thirty-six (24%) said they were attending for networking opportunities and thirty-two (21%) said their reason was for presenting a paper. From the cross tabulation count it is seen that researchers' main reason for attending ICC3 was mostly for networking

opportunities (34%) or for presenting a paper (28%) while clinicians/physicians mostly attended the Congress for the conference program (34%) or for presenting a paper (24%).

(b) Participants' responses on the helpfulness of ICC3 in assisting them with their cancer/NCD control work was associated (cross tabulated) with the extent to which cancer control was part of the participants' work ($p < 0.001$). Of the 110 respondents, thirty-nine (35%) had cancer control 'completely' part of their work, forty-six (42%) had cancer control 'mostly' part of their work and twenty-two (20%) had cancer control 'somewhat' part of their work. Of the 110, fifty-five (50%) said attending the Congress had been 'somewhat helpful' in assisting them with their cancer control/NCD work. 44% of this subgroup also said cancer control was 'completely' part of their work, 36% said it was 'mostly' a part of their work and 18% said cancer control was 'somewhat' a part of their work. Additionally, thirty-five (32%) of 110 respondents said attending the Congress had been 'very helpful' in assisting them with their cancer control/NCD work. 29% of this subgroup also said cancer control was 'completely' part of their work, 54% said it was 'mostly' a part of their work and 17% said cancer control was 'somewhat' a part of their work. In comparison, thirteen (12%) who said attending the Congress was 'not too helpful' five of them had cancer control 'mostly' part of their work, another five had it 'somewhat' part of their work and the remaining three had it 'completely' part of their work.

(c) Participants' responses on how helpful ICC3 was in assisting participants with their cancer/NCD control work was also associated (cross tabulated) with the participants' work experience (i.e., number of years the participant has worked in cancer control) ($p = 0.003$). Of

the 110 respondents, thirty-seven (34%) had worked in cancer control for greater than 15 years and twenty-eight (25%) had work experience in cancer control of 6-10 years. Of the 110, fifty-five (50%) who said attending the Congress had been 'somewhat helpful' in assisting them with their cancer control/NCD work. 35% of this subgroup also said they had worked in cancer control for more than 15 years and 29% said they had been in cancer control for 6-10 years. Additionally, thirty-five (32%) of the 110 respondents who said attending the Congress had been 'very helpful' in assisting them with their cancer control/NCD work. 37% of this subgroup also said they had worked in cancer control for more than 15 years and 26% said they had worked in cc for 6-10 years. In comparison, thirteen (12%) who said the Congress was 'not too helpful' four of them had worked in cancer control >15 years, one had worked '6-10 years', another three had worked '3-5 years', thus showing this particular response was not predominant in any one particular 'work experience' group.

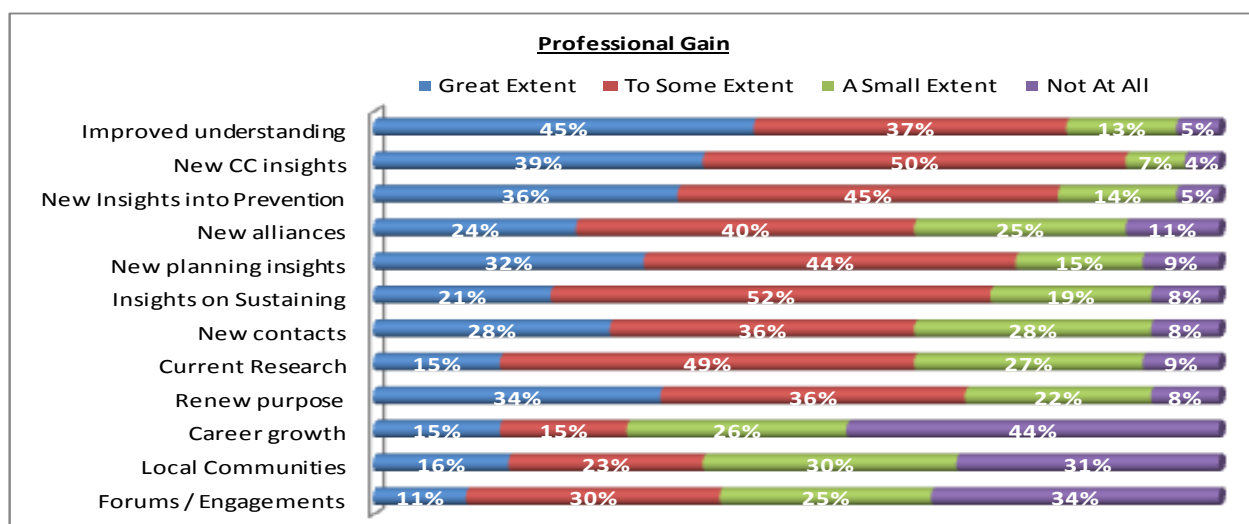
To support the above significant relationships that brings out the overall usefulness or helpfulness of the Congresses for participants by fostering a forum of engagement and facilitating development of new partnerships or collaborations. Frequency analysis to questions asked at the Congress (ICCC3) reveals 25% of participants main reason for attending ICC3 was to network, another 26% came for the Congress program. 81% of the participants at ICC3 believed the conference was successful in establishing a creative and appropriate agenda to create a vehicle of collaboration (refer to ICC3 participant survey analysis report in Appendix A). Regarding how participants believed they would use what they gained at the Congress 14%

said they would follow-up new contacts and 13% thought they would develop new partnerships and collaborations with the contacts made at the Congress—see Figure 4.5 for the list of all the activities participants said they would do to utilize their gains from the Congress.

Figure 4.6 lists the activities respondents actually did. 91% respondents articulated in the ICC3 Follow-Up Survey that they were following up with new contacts ranging from a small to some to a great extent. 81% of the respondents believed they were developing new partnerships or collaborations from a small to some to great extent.

Figure 4.13 below demonstrates what respondents believed they gained professionally from attending ICC3. 64% gained new insights from some extent to a great extent into potential geographic alliances for common interest groups as well as new contacts and opportunities for partnership and collaboration. 39-41% gained new insights from some extent to a great extent into developing local communities of practice or fostering forums of engagement.

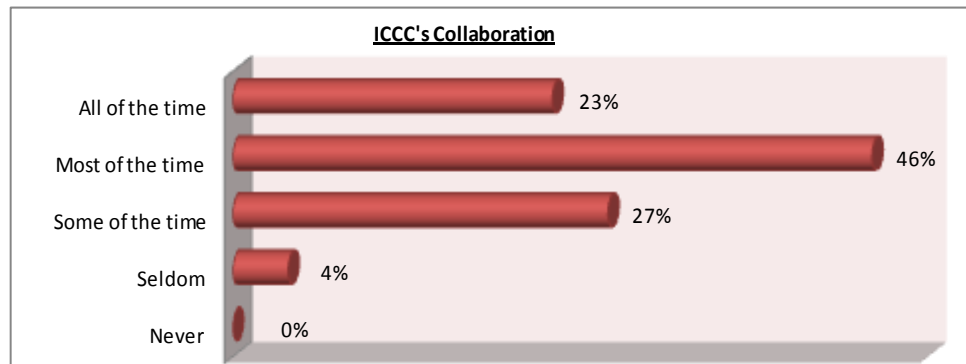
Figure 4.13: Professional gains from attending the congress – ICC3 follow-up survey



Source: ICC3 Follow-Up Survey Analysis report in Appendix A

Figure 4.14 below illustrates 96% of respondents believe ICCCs demonstrate and promote collaboration to enhance global cancer control some to all of the time.

Figure 4.14: Demonstrated collaboration – ICCC3 follow-up survey



Source: ICCC3 Follow-Up Survey Analysis report in Appendix A

Table 4.15 presents results of some significant cross tabulations and chi square tests from ICCC4 and its follow-up survey to verify attending ICCC facilitates increase in partnerships and collaborations.

Table 4.15 ICCC4 associations with collaborations, partnerships or networks

	Questions cross tabulated		P value	N of valid cases
a.	Q2 Satisfaction (Hypothesis 10- ICCC4 Survey Report)	Q15.3 Creating a vehicle of collaboration	.016	107
b.	Q8 Most useful session (Hypothesis 20-ICCC4 Survey Report)	Q21 Community of Practice	.010	101
c.	Q9.1 Quality of sessions (Hypothesis 21-ICCC4 Survey Report)	Q21 Community of Practice	.027	102

	Questions cross tabulated		P value	N of valid cases
d.	Q9.5 Range of topics covered (Hypothesis 22- ICCC4 Survey Report)	Q4 Stimulation to think	.002	106
e.	Q18.1 Relevance of congress (Hypothesis 16-ICCC4 Follow-up)	Q28 Demonstrated collaboration	.001	105
f.	Q23.1 Aware of latest (Hypothesis 18-ICCC4 Follow-up)	Q26.11 Develop CoP	.010	106
g.	Q19 Recommend ICCC (Hypothesis 19-ICCC4 Follow-up)	Q28 Demonstrated collaboration	.016	106
h.	Q23.3 Desire to network (Hypothesis 21 -ICCC4 Follow-up)	Q25.8 Following new contacts	.000	105

Source: Refer to bivariate analysis in ICCC4Participant Survey and Follow-Up Survey Analysis reports in Appendix A

(a) Participants' satisfaction with attending ICCC4 was associated (cross tabulated) with the success of the Congress in establishing a creative and appropriate agenda to create a vehicle of collaboration ($p=0.016$). Of the 107 respondents, seventy-six (71%) considered the Congress 'successful to very successful' in establishing an appropriate agenda to create a vehicle of collaboration in comparison to twenty-four (22%) respondents who said the congress was 'not very successful' in establishing an agenda to create a vehicle for collaboration. Of the same 107, sixty-eight (64%) said they were satisfied 'to a great extent' with attending ICCC4. 81% of this subgroup also said the Congress has been 'successful to very successful' in establishing a creative and appropriate agenda to create a vehicle of collaboration, compared to 13% who said the Congress had been 'not very successful' in establishing an agenda to create a vehicle of collaboration. Also, of the 107 respondents,

thirty-six (34%) said they were satisfied 'to some extent' with attending ICC4, thus indicating largely participants had satisfied their reasons for attending the Congress.

- (b) A significance value of .010 indicated that there existed a significant relationship between the most useful session/activity at ICC4 for participants and establishing a Community of Practice as a goal for participants. Of the 101 respondents, forty-four (44%) had the establishment of a community of practice as a goal 'some of the time', thirty-one (31%) had CoP as a goal 'most of the time' and fifteen (15%) had establishment of CoP as a goal 'all of the time'. Of the 101, forty-four (44%) said 'concurrent workshop sessions' were the most useful at ICC4. 36% of this subgroup also said 'some of the time' and 41% said 'most of the time' their goal was to establish a community of practice. Also, of the same 101 respondents thirty-seven (37%) said 'plenary sessions' were the most useful at ICC4. 54% of that subgroup also said 'some of the time' their goal was to establish a community of practice.
- (c) Participants' ratings of the quality of sessions at the Congress were also associated (cross tabulated) with the establishment of a Community of Practice (CoP) as a goal of participants ($p=0.027$). Of the 102 respondents, forty-five (44%) aimed to establish a community of practice 'some of the time', thirty-one (30%) 'most of the time' and fifteen (15%) aimed for it 'all of the time'. Of the 102 respondents, fifty-seven (56%) said the quality of sessions at the Congress were 'good'. 53% of this subgroup also said 'some of the time' and 23% said 'most of the time' their goal was to establish a community of practice. Also, of the same 102 respondents, thirty-two (31%) said the quality of sessions at the Congress were 'excellent'.

31% of this subgroup also said ‘some of the time’ and 41% said ‘most of the time’ their goal was to establish a community of practice. However, from the thirteen (13%) respondents who said the quality of sessions were ‘fair to poor’ five (38%) of them also said ‘some of the time’ and another five said ‘most of the time’ their goal was to establish a CoP.

- (d) A significance value of .002 indicated that there existed a significant relationship between the range of topics covered in the Congress program and the ICCC4 stimulating participants to think of activities/relationships beyond direct work. Of the 106 respondents, sixty-eight (64%) had been stimulated by ICCC ‘very much’ and thirty (28%) said ‘not too much’ to think of relevant activities or relationships beyond their direct work. Of the 106, fifty-five (52%) said the range of topics covered in the Congress program was ‘good’. 58% of this subgroup also said ICCC4 stimulated them to think ‘very much’ of and nineteen (35%) said ‘not too much’ of activities or relationships that have relevance beyond their direct work. Also, of the same 106 respondents thirty-one (29%) who said the range of topics covered in the Congress program were ‘excellent’. 74% of this subgroup also said ICCC4 stimulated them to think ‘very much’ of and six (19%) said ‘not too much’ of activities or relationships that have relevance beyond their direct work. In comparison, 14% of the respondents found the range of topics covered in the congress program were ‘fair’ and 5% found them poor.
- (e) Participant satisfaction with relevance of the conference was associated (cross tabulated) with the extent ICCC has demonstrated collaboration to enhance global cancer control ($p=0.001$). Of the 105 respondents, forty-four (44%) said ICCCs demonstrate collaboration ‘most of the time’, twenty-one (20%) said ‘all of the time’ and thirty-four (32%) said ‘some

of the time' to enhance global cancer control. Of the 105 respondents, sixty-four (61%) who said they were 'satisfied' with the relevance of the Congress. 53% of this subgroup also said ICCCs demonstrate collaboration to enhance global cancer control 'most of the time' and 30% said 'some of the time'. In addition, of the same 105 respondents, twenty-seven (26%) who said they were 'very satisfied' with the relevance of the Congress; 41% of this subgroup also said ICCCs demonstrate collaboration to enhance global cancer control 'all of the time', 33% said 'most of the time' and 22% said 'some of the time'. In comparison, eleven (10%) were 'neutral' and 2% 'dissatisfied' with the relevance of the Congress.

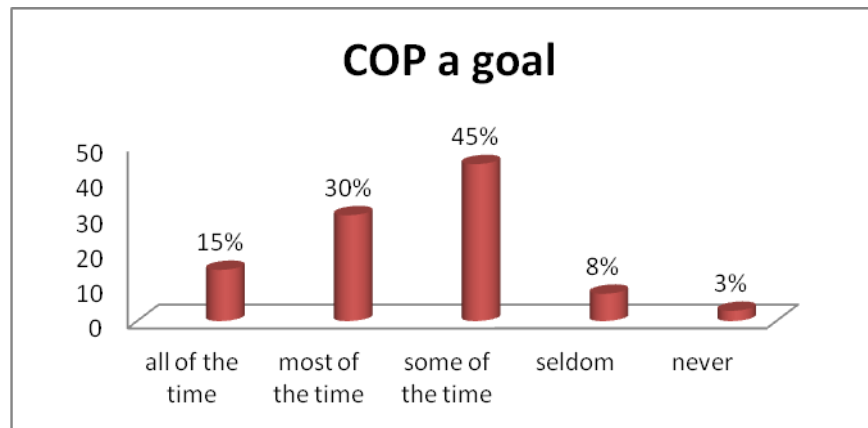
- (f) Participants' desire to participate in ICCC to be aware of the current state-of-the-art clinical and scientific content was associated (cross tabulated) with gaining skills to develop local communities of practice by attending ICCC ($p=0.010$). Of the 106 respondents, forty-five (42%) said they had gained skills 'to some extent', thirteen (12%) said 'to a great extent', twenty-seven (25%) said 'to a small extent' compared to the twenty-one (20%) who said 'not at all' to develop local communities of practice. Of the 106 respondents, 87 said they came to participate in the ICCC to be aware of the current state-of-the-art clinical and scientific cancer control content. 47% of this subgroup also said 'to some extent' they gained skills to develop a CoP after attending the Congress, 15% had gained skills 'to a great extent', 22% to 'a small extent' and only 16% said 'not at all' to gaining skills in developing CoP.
- (g) Participants' recommending ICCC to colleagues was associated (cross tabulated) with the extent ICCC has demonstrated collaboration to enhance global cancer control ($p=0.016$). Of the 106 respondents 20% said ICCCs demonstrate collaboration 'all of the time', 44% said

‘most of the time’ and 32% said ‘some of the time’. Of the same 106 respondents, 103 (97%) who said they would recommend ICCC to their colleagues. 46% of this subgroup also said ICCCs demonstrate collaboration ‘most of the time’, thirty-two (31%) said ‘some of the time’ and twenty-one (20%) said ‘all of the time’ to enhance cancer control.

- (h) Participants’ desire to attend ICCC to network between developed and developing world settings was cross tabulated with participants following new contacts gained at the ICCC4 ($p < 0.001$). Of the 105 respondents twenty-five (24%) followed-up ‘to a great extent’, forty (38%) followed up ‘to some extent’ and thirty-two ‘to a small extent’ new contacts gained at ICCC4. Of the same 105 respondents, ninety-eight (93%) who said they came to participate in the ICCCs to network between developed and developing countries. 41% of this subgroup also said ‘to some extent’ they followed up with new contacts following the Congress.

Regarding the activities respondents said they would most likely do with the information gained at ICCC4 16% thought they would follow-up new contacts and 9% said they would develop new partnerships or collaborations (Figure 4.3). 90% of the respondents alleged establishing a community of practice was a goal some to most to all of the time, as described on Figure 4.15 below.

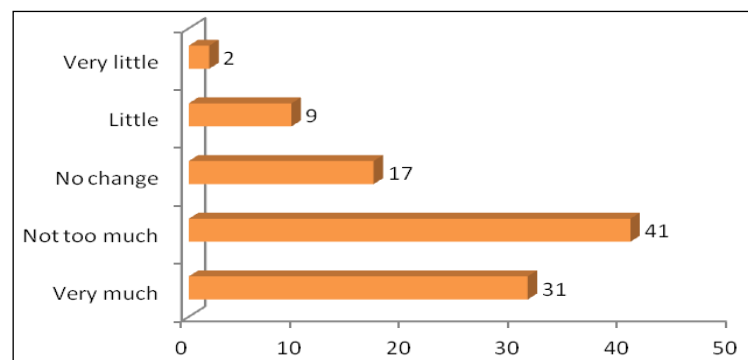
Figure 4.15: Community of Practice (CoP) a goal – ICCC4 survey



Source: ICCC4 Participant Survey Analysis report in Appendix A

More than 50% respondents at the ICCC4 Follow-Up Survey said they had been following up with new contacts made at ICCC4 and were developing new partnerships and collaborations (see Figure 4.4). Figure 4.16 illustrates respondent beliefs in increase of collaborations or networks following ICCC4. 31% respondents believe their network has increased and another 52% think there has been a change even if not much. Similar to ICCC3 follow-up results (Figure 4.14) 96% of respondents following ICCC4 believe ICCCs demonstrate and promote collaboration to enhance global cancer control some to all of the time.

Figure 4.16: Increase in collaborations after ICCC4 – ICCC4 follow-up survey



Source: ICCC4 Follow-up Survey Analysis report in Appendix A

Similar to responses following ICC3 (Figure 4.13), over 50% respondents to the ICC4 follow-up survey confirmed among the most important things that they had gained from some to great extent by attending the Congress were new insights into potential geographic alliances (61%), new contacts and opportunities for partnership and collaboration (61%), developing local COP (54%) and fostering forums of engagement (54%) (Refer to ICC4 follow-up survey report in Appendix A).

As participants came from countries with varying resource levels, the investigator as before wanted to determine whether ‘no changes’ in collaboration or partnerships were due to resource level of country or was it due to a gap in the interactions from the Congress. A crosstab was carried out to ‘explore’ this possibility.

Table 4.16 presents results of significant cross tabulations and chi square tests from ICC4 follow-up survey to verify influence of resource level on ICC participants’ level of collaborations. There seems to be some influence of country of origin (resource level) on collaborations. Most other parameters cross tabulated with resource level did not demonstrate a significant relationship.

Table 4.16 Association of level of country resources with participant collaborations

	(a) Increase in collaboration after ICC <i>(increased very much)</i>			P value	N of valid cases
	HIC	MIC	LIC		
Type of country	9	19	5	.037	106
n	41	60	5		106

	(a) Increase in collaboration after ICCC <i>(increased very much)</i>			P value	N of valid cases
%	22	32	100		

Source: Refer to bivariate analysis Hypothesis 23 in ICCC4 Follow-Up Survey Analysis report in Appendix A

- (a) To determine if the Congress was received differently by participants from high, middle and low income countries. Participants' type of country of work was associated (cross tabulated) with increase in collaboration in cancer control after ICCC4 ($p=0.037$). Of the 106 respondents, forty-one (39%) were from HIC, sixty (57%) were from MIC and five (5%) from LIC. Further analysis of the crosstab count shows that all respondents from low income countries reported their collaboration/network had increased 'very much' (sample size is too small to make a definite statement). However, 22% of respondents from high income countries and 32% of respondents from middle income countries said their collaborations/networks had increased 'very much' following the Congress.
- (b) To further check if the Congress was received differently by participants from high, middle and low income countries. Participants' type of country of work was cross tabulated with helpfulness of ICCC (Q16) and the extent ICCCs demonstrated collaboration to enhance global cancer control (Q28). In both the cases, there exists no significant relationship.

Supporting the above relationships confirmed by cross tabulation and univariate analysis are qualitative findings using NVivo9 from the Congress open ended questions, observations and interviews. Some findings demonstrate intention while others provide concrete examples of activities that have been actually performed.

The frequency analysis revealed a significant percentage (31%) of participants following ICCC4 responded that their collaborations or networks have increased very much after they attended the Congress while 17% found no change. One of the participants attributed this lack of change to cancer control programs being already in place in his country and thus their work had followed the same level of activities. He stated, “No changes, as our programs are already in place—following same level of activities.”

4.5.2 Supporting Qualitative Data

Comments by participants in this section are of two types—concrete actions and personal gains. The concrete actions are described below:

A delegate from Canada shared that ICCCs have influenced his work in cancer control both at the organizational and national level. Following ICCC2, “an ongoing link with the Government of Canada was initiated; it established cancer prevention and control as a component of the Brazil-Canada memorandum of understanding in chronic disease collaboration.” Shortly thereafter, a collaboration was initiated between the National Cancer Institute of Brazil (INCA) and the Public Health Agency of Canada (PHAC) in cancer registration and early detection.

A representative from a non-UN agency said at ICCC3 that participating in the ICCCs did not influence him in a conscious way, but that he particularly valued getting to know many more people working in similar fields, some of whom he believed may well become (or have already become) “close collaborators or friends in the context of the INCTR experiment.” And he was true in saying this as following ICCC3 with the partnerships initiated at the ICCCs

resulted in collaboration with both Brazil and Canada and subsequently International Cancer Treatment and Research Agency branches INCTR-Brazil and INCTR-Canada (Two Worlds Cancer Collaboration) were formally established (222).

Most participants at ICC4 valued the contacts they had made at the Congress for further consultation, receiving updates on their fields of interest and networking. When asked, another participant said the ICC “brought back one or two ideas to create national and international collaborations—alliances in colorectal cancer, PSA context.” A Brazilian delegate who had attended ICC 2-4, deemed it important to get to know about overseas experience in cancer control, especially breast cancer control due to her research on breast cancer control in Brazil. She was keen to understand what others were doing in the world in breast cancer control. This demonstrates how valuable she considers ICC in providing a global community of practice that allowed participants to share knowledge and experience over three continuous days every two years.

Another delegate from Brazil added that his participation had resulted in bringing the “World Cancer Research Fund (WCRF)/American Institute for Cancer Research (AICR) work and ICC 2007 and 2009 reports together” to create a session on cancer prevention, risk factors and integrated approaches with NCDs at ICC4.

The National Cancer Institute (INCA) Brazil host of ICC2 has incorporated and translated learnings from ICCs in all areas of the cancer control spectrum especially for strengthening prevention, research and palliation and for laying the foundation of a regional community of practice. One example of the ongoing collaborative work is the establishment of

the Latin American Caribbean Alliance in Cancer Control (108), the Biobank Network of the Latin-American and Caribbean Alliance for Cancer Control (217) and the NCI-Latin American Cancer Research Network. This sets cancer as a global issue in the spotlight for the poor countries and not only for wealthy countries and within Brazil specifically commencement of the Latin American and Caribbean Tumor Bank Network (224).

Following ICC3 there was the development of a bilateral Memorandum of Understanding between Canada and Brazil for cooperation, knowledge transfer and the sharing of expertise between the two countries in chronic diseases; particularly sharing technical expertise in cancer registry and approaches to effective cervical cancer screening and hard to reach populations (225).

Another IAEA-PACT delegate said “my networking has increased, have established new partnerships that have facilitated the work that we are doing in IAEA- PACT.” While, a delegate from China at ICC4 commented “Due to the participation of my colleagues in the past ICCs and now me in this ICC we can confidently say that China will establish a National Cancer Centre and take the learnings and help from Japan and Korea to do so.” This upholds the purpose of the ICC to enable countries contribute insights and solutions to one another, irrespective of income differentials; and, get enriched via partnerships and collaboration to achieve desired goals.

There were a number of collaborative initiatives that were planned to be initiated following ICC3, such as the EU African School of Oncology, a community of practice between European Union and African union member countries. However, these did not get timely

realized due to the global economic crisis. That said, ICC3 did result in an ongoing collaboration that involves the Gambian Ministry of Health: the Gardasil Access Program for the availability of HPV vaccines in school-age girls in Gambia. Additionally, the host for ICC3 confirmed important contacts with European Ministries have been developed since the Congress.

A delegate from Spain who has attended both ICC3 and 4 commented that participating in ICC has influenced him to more actively network cancer care organizations in his territory.

After ICC3 some delegates commented that they valued the ability to form alliances to solve global issues at the conference. One of the delegates was hoping to fund strategic investments that could benefit global cancer control. He valued the potential coalition building that occurred for him at ICC. Another delegate found that it was useful to learn about other countries, use them as a benchmark, and get stimulated to action. For example, a delegate from Canada was motivated learning from the Congress presentations that Canada was ahead of a number of other European countries with similar cancer rates, but he was also spurred on by seeing how far ahead other countries are. For many, it was useful to learn where Ireland was in the global picture of cancer control program implementation.

A participant interviewed at the 3rd ICC commented that the ICCs have provided her with the ability to link with others from around the world. This statement was supported by other interviewed participants who further elaborated that the ICC provided them with not just the opportunity to network rather to “network and plan for collaborations with international contacts with similar cancer control or research interests.” Another said it helped her make connections with colleagues from other countries to “gain an understanding of the issues, challenges and

successes from a variety of countries and settings.” Other participants made any similar comments and spoke to respondents appreciating the ability to connect with a diversity of stakeholders from different countries and learn about what is being pursued in other areas of the world. Another delegate expressed the ICCC experience as having been very educational and fruitful. “It has created many networks of work and has strengthened my relationships with other organizations, making possible more recognition in my country and strengthening my position as an important stakeholder in cancer control.”

Comments shared at ICCC4 included “We have had the opportunity to meet people who have inspired us and who now we have strong bonds and professional exchange with.” Networking was frequently mentioned as being invaluable. Many participants from developed countries expressed developing an interest of cancer control work in developing countries. In the words of one of the delegates, “I have particularly valued gaining insights into strategies in developing countries and making connections with individuals involved in programs in low resource settings.” A Korean delegate working in cancer control added that “the Congress by itself makes no difference to the level of commitment; however, it is useful to be connected to colleagues outside the country.” Other participants thought ICCCs have been important for gaining an international perspective on cancer control, developing contacts with a network of international experts and national decision makers from a diversity of countries and international organizations.

A nursing leader from Canada thought that ICC3 “provided a platform to collaborate on any education project for nurses,” and that they hoped it served as a model for implementation in other settings especially LMICs.

A delegate from China liked the proceedings at ICC4 as it had many topics that focused on the Asian problem. According to him, “the examples shared are very translatable and concurrent with the problems in China, Japan, and Korea; we can use the examples with suggested strategies after adapting them to our culture.” Again highlighting how participants viewed the Congress as a venue that fosters development of new partnerships and supports ongoing collaborations, one particular delegate observed that with each ICC he has attended “he has built strong connections that end up as fruitful partnerships.”

Following ICC4 a delegate said he valued collaboration more and now his office is looking for collaborating and exchanging experience with other expert delegates.

A detailed table of all the specific activities that participants said they would do at the Congress and the resultant activities they performed following ICC3 or ICC4 are shared in the table in Appendix D. Specific partnerships, connections or networks that some participants said they had accomplished or were in the process of following ICC3 included: initiating cooperation between the National Cancer Institute Brazil (INCA) and the British Columbia Cancer Agency (BCCA) in aspects of cancer control; organization of an oncological network from Europe with developing countries; further strengthening the Latin American Cancer Control Networking Initiative with ten Latin American countries; exploring other potential partners in Asia for expanding the International Cancer Control Network; networking tumor

banking activities; the Public Health Agency of Canada (PHAC) and the Canadian Partnership Against Cancer (CPAC) collaboration for cancer prevention in northern British Columbia (CLASP) Project; and others. While, following ICC4 the specific partnerships or collaborations shared by participants were the confirmation of annual meetings of the eight PACT Model Demonstration Sites (PMDS) a cross sector collaboration for capacity building in cancer prevention and treatment in select developing nations, initiating a plan with NCI Korea for regular capacity building in the Western Pacific Region (WPRO), development of a intersectoral cancer control partnership, and several participants stated having started collaborations with colleagues met at the Congress.

There were comments received at the ICCs that demonstrated ICC was facilitative in promoting collaborations and networking, for example “It was useful to see how other countries are addressing areas such as cancer screening.” A participant from Cameroon who has been attending the ICCs from ICC2 onwards said they now had many international contacts and information so that they could exchange information and ideas.

Overall, delegates at ICC4 thought ICCs helped with learning about what others are doing, engaging in problem solving regarding particular issue of mutual concern (i.e. nursing, training, in oncology) and thus increasing the likelihood of collaborating. Many shared the most important thing was gaining knowledge on other countries’ experiences in cancer control and the challenges they faced, to compare them with the challenges they are facing and trying to overcome in their own jurisdictions. Basically knowledge gain has been the driver for them to attend the Congress.

Part 3: Conclusion

4.5 Summary

The results of the study were presented in four sections. The first section provided preliminary findings from the frequency analysis and supportive qualitative data on the four Congress surveys. It compared the results from each of the four surveys. The content material of the Congresses was found to be aligned to the interests of the participant demographics. The second to fourth sections described the results of the analysis that addressed the three premise—attending ICCC influences participants behaviour and activities related to cancer control, leads to participants supporting the development or implementation of population-based cancer control programs in their countries and attending ICCC facilitates an increase in partnerships, networks or collaborations.

Taken together, the results of the present study suggest that there is a significant dependence between the variables; attendees from developing countries (low and middle income countries) are more satisfied with the Congress as opposed to those from the developed nations. The main reason for a majority of participants for attending the conferences was the focus on population based cancer control, networking, collaboration and relationship building. Contrary to expectations most attendees believe ICCC helped them professionally in gaining new insights into cancer control and they appear to be influenced by the Congresses. The UICC conference is the only other conferences that has been attended by some participants and over half respondents distinguish ICCC as being more valuable to them from UICC or other meetings.

To test the impact of ICCCs with variables, cross tab analysis was used using Pearson's chi square test for statistical significance. Cross tabulation as well as findings from the qualitative analysis performed using NVivo9 suggest that there is a favorable impact of ICCC on a large number of participants. It reveals that for the most part ICCC appears to stimulate participants in their cancer control work, activities and behaviours, collaborations and networks. Further discussions of these findings and their implications taking into consideration limitations of the study are presented in Chapter 5.

CHAPTER 5: DISCUSSION AND CONCLUSION

This research study examined the outcomes and impacts of participants attending the International Cancer Control Congresses (ICCC). The purpose of the study was to determine whether ICCCs influenced reported changes in participant behaviour and activity that enhanced the development or implementation of population based cancer control plans/programs and increased collaborations. Participants in this study were all registered attendees at the 3rd ICCC (ICCC3), the 4th ICCC (ICCC4) or both.

The first part of this chapter uses the logic model approach to present an interpretation of findings related to the research questions posed in this study. Thereafter, it integrates and examines the research findings.

The second part provides an analysis of the strengths and limitations of the present study. It describes ways in which some limitations have been addressed, and identifies those that were beyond the scope of this study and need to be addressed by future investigations.

The third part examines the implications of the research findings in light of current research related to questions considered and presents suggestions for future research. And, being the final and concluding chapter it presents the overall findings and contributions of the thesis research.

5.1 Findings

The principal focus of ICCCs is population-based cancer control. The intent is to bring together a diversity of community across science, clinical practice, policy, patient, and public

and private sectors, and provide a platform of knowledge exchange to share learnings and facilitate an understanding to create and implement enhanced population-based cancer control activities. Over the period of 2005-2011, the Congresses have evolved such that approximately half of the Congress relates to social determinants of health, risk factors, primary prevention and early detection, and the other half to interventional cancer control, integrated care and need for knowledge translation (science to policy to practice). In this evolution, the Congress content has increasingly recognized that cancer and other non-communicable diseases share common social determinants, which is consistent with the September 2011 UN Political Resolution on NCDs (226). This dissertation has examined the effect that has been produced on the Congress participants.

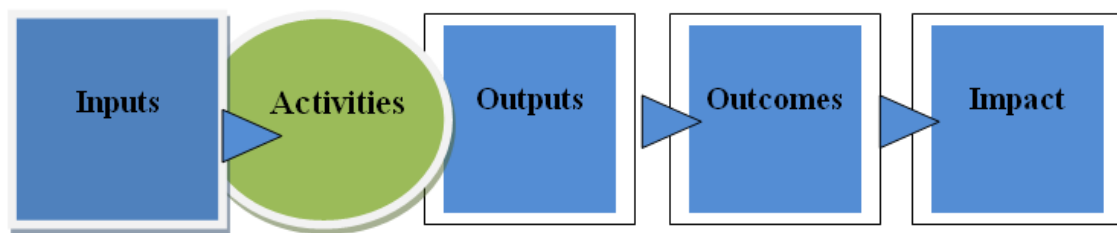
Presented below are the findings from this research study, which assessed: a) the impact of the Congresses in stimulating cancer control awareness, b) changes in participant activities and behaviour that enhanced the development of cancer control programs, and c) the facilitation of an increase in collaborations and alliances, as well as fostering of knowledge transfer. To assist in this analysis, primary data was obtained through surveys, interviews and observations. This was supplemented by secondary data available from recent WHO and appropriate web based publications.

5.1.1 Summary of Current Findings

With the increased emphasis on performance, that is, effectiveness, efficacy and efficiency of Congresses, logic models hold significant potential for evaluation and planning (197, 199). The model provides a conceptual approach that suggests that an intervention's

inputs—in this case the Congress—lead to activities, which then generate outputs, and then outcomes/effects/results that lead to impacts. The causal pathway or framework, which is not linear but iterative, is depicted in Figure 5.1 below. Another example of the use of a logic model is the CDC six step participatory evaluation framework with eleven performance measures explained in Chapter 2 (200).

Figure 5.1: Logic model impact chain: inputs to impact (227)



Using the logic model as an approach, this study comprehensively describes different parameters of the Congress. It provides explanation on why and how they are being conducted and their outcomes (see Appendix E). The logic model is used to link on one end, the purpose and objectives of the ICCCs, their areas of focus, the inputs and the strategies, to on the other end, the outputs, the immediate, intermediate and long term outcomes, and the intended long term impacts. The findings focus on whether the ICCCs achieved their purpose and objectives and whether the ICCCs result in any short, medium or long term change in comprehensive cancer/NCD control.

The logic model serves as a visual communicator that provides a guide to what should be assessed and measured, and helps explore a chain of cause and effect (196). In this study, the

logic model started by providing a context for holding the Congress (the why), next it stated the objectives and areas of focus (the what), then it described the inputs and strategies (the how), and followed with the activities (the which). Subsequently were participants (the who), outputs (products and services that resulted from the Congress), three time-related sets of outcomes (immediate, intermediate and long term), and finally, the intended long term impacts. SMART—specific, measurable, attainable, relevant, and time bound—measures of success were associated with the objectives for effectiveness (228). Evaluating the objectives meant determining the relevance, efficiency and effectiveness of an activity in terms of its objectives (196).

The Congress logic model was developed following the CDC evaluation framework and its comprehensive cancer control logic model (70, 200). The approach engaged a broad group of stakeholders through the international scientific and steering committees, the host countries and co-sponsoring organizations, and the Congress attendees, and interviewed the hosts and the committee members on their expectations from the Congress and the measures of success for the ICCC. Using the logic model, it depicted a path linking objectives to activities to expected outcomes. Thereafter, it identified key evaluation questions, indicators and measures as outlined in Chapter 3, and gathered credible evidence using surveys, observations and interviews. Subsequently, it analyzed and interpreted the findings to ensure use and sharing of lessons learned.

Some of the challenges to evaluating the Congress included: i) working with a broad group of stakeholders, and ii) conceptualizing, communicating and measuring desired change, as self-reported changes are largely perceptions and beliefs. Very long term impacts, such as

reductions in cancer incidence, mortality and prevalence, were not measured because they were beyond the scope of the current research. Furthermore, it remains a fundamental challenge to isolate the impact of a particular intervention as most effects cannot be attributed clearly to one single program but can be a result from a mix of efforts (196). Accordingly focus was restricted to the more proximal effects of activities and behaviours of participants that would be the first links to what could be a chain leading to desired impact in addressing cancer control challenges.

Global participants' attendance at the Congresses, the survey results and the interviews during the conference with most repeat participants, hosts and committee members, suggests that the Congresses achieved their vision. The Congresses aimed at hosting a global forum that brought together health care experts, professionals and health system leaders to share knowledge, experiences, strategies, approaches, tactics and best practices in clinical, hospital and community settings, that can enhance and accelerate the implementation of effective population based national cancer control strategies and the evaluation of cancer control initiatives.

The objectives of the Congresses were to raise population-based cancer control awareness, support/synergize ongoing cancer control work, provide a platform for knowledge transfer, foster relationships, encourage the development of communities of practice, and promote collaboration between organizations, institutions, policy, practice and civil society to enhance global control of cancer and non-communicable diseases. The stated intent of ICCCs was to discuss: 'What would be necessary to convert our current knowledge of cancer control into directions and actions that will enhance population cancer and NCD outcomes?' The current state of knowledge was referenced in the Congresses' pre-reading materials and through plenary

presentations. The Congresses did not promote discussing current knowledge content, but rather applying ‘what we know to what we do.’ This involved discussing at least one initiative at policy legislation, system capacity and service provision, health professional availability, roles and responsibilities of partners and stakeholders, or public and patient education and information.

Based on the Congress logic model, Table 5.1 displays an overview of performance measures that correspond to the achievement of the Congress objectives as well as the sources of data and methods for investigating completion of these measures. Data for the Congress measures was obtained from the Congress surveys, reports and interviews, in addition to documentation obtained from WHO and other web-based publications. For qualitative data, descriptive summaries were prepared and examined in NVivo; subsequently all qualitative and quantitative data was triangulated or synthesized. Results from the measures for the Congress are presented next.

Table 5.1: Congress impact performance measures, data sources and methods of measure -
Adapted from the CDC framework (200)

Congress Impact Measure	Source of the Data	How the Measure was Assessed
1) NCCP		
Develop/enhance/implement NCCP	Congress follow-up surveys, WHO NCD Country Profile, web review of plan if available	Participant report on the cancer control activities they had initiated/participated in following ICC. Validated it with the published country profile and plan.

Congress Impact Measure	Source of the Data	How the Measure was Assessed
Develop/enhance/implement a cancer registry	Congress follow-up surveys, WHO NCD Country Profile, web review of country status if available	Participant report on the cancer control activities they had initiated/participated in following ICC. Validated it with the published country profile.
Identification/commencement of new cancer control/NCD programs	Congress follow-up surveys	Participant report on the cancer control activities they had initiated/participated in following ICC.
Initiation of pilot projects to enhance cancer/NCD control	Congress follow-up surveys, interviews, web based reports	Participant report on the cancer control activities they had initiated/participated in following ICC.
2) Collaborations		
Establishment of new networks/alliances/partnerships – agreement signed between countries	Congress follow-up surveys , interviews, web based reports	Participant or host country reporting on the formation of alliances.
Declarations signed at the congress	Congress proceeding reports, observation	Release of signed declarations at the congresses.
Formation of a community of practice	Congress follow-up surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICC.

Congress Impact Measure	Source of the Data	How the Measure was Assessed
3) Behaviour and Activities		
Networking: making connections, building nurturing relationships, following up with new contacts	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.
Sharing information/ best practices	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.
Developing new partnerships/ collaborations	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.
Engaging relevant communities	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.
Strengthening advocacy or policy work	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.
Applying new insights to cancer control programs	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.

Congress Impact Measure	Source of the Data	How the Measure was Assessed
Applying new insights to research	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.
Development of post congress products, e.g. manuscripts	Publications	Manuscripts accepted for and published by Tumori (ICCC3) and APJCP (ICCC4) peer reviewed scientific journals. (<i>APJCP publication in process</i>)
Promote or participate in screening/ED/prevention activities	Surveys, interviews	Participant report on the cancer control activities they had initiated/participated in following ICCC.

The Congress objectives were evaluated using the above mentioned measures from several perspectives, including whether the objective was accomplished, the success of the Congress, the increase in partnerships/collaborations/network, whether participant activities and behaviour change was realized, and the extent of the impact (i.e., whether the Congress was perceived as one of the facilitating bodies contributing to changes in cancer control activities in participant jurisdictions). These perspectives were all useful in communicating results and justifying conclusions (70), and this study recognizes that the individuals' perspectives included are largely subjective. Although there were a small number of participants from most countries, the results indicated that, based on evolving needs, there is cancer control activity both prior to

and after the Congress reported in countries, irrespective of the country's resource level—high, middle or low.

Only some participants shared specific cancer control activities they had initiated or participated in following the Congress via follow-up surveys. Nevertheless, a considerable number of cases of such involvement were provided by respondents. For example, following ICC3 there were about 187 participant-reported activities, and following ICC4, there were 210. Responses were collated and analyzed using NVivo.

Respondents consistently indicated that there were some ongoing cancer control activities in all countries irrespective of the resource level of the country, and reporting of their involvement was considered in relation to the reported status of such activities in WHO documentation (209). This included building collaborations, establishing networks to exchange experiences, and reaching out for support. Some countries were also developing, updating or implementing national cancer control/integrated NCD plans and strengthening cancer control/NCD programs. With growing awareness for surveillance, there were activities recognizing the need for monitoring and evaluating effectiveness of cancer control efforts. This in turn led to the jurisdictions commencing or accelerating cancer registry activities.

Beginning with the development,enhancement or implementation of NCCPs following ICCCs, some participants from Italy, Latvia, Peru, Finland, Japan, China, Netherlands, Yemen, India, Indonesia reported they were working on either updating or enhancing or implementing the plans. The WHO Non-Communicable Diseases Profile 2011 confirmed these countries have cancer specific and in some cases integrated NCD plans, which refer to the country's capacity to

address and respond to NCDs in terms of resource allocations and reporting systems (209). In the case of Yemen, the investigator confirmed the preparation of a National Cancer Control Plan through the work that IAEA-PACT is doing in the country with the PACT Model Demonstration Projects (229, 229).

Next, when talking about the development, enhancement or implementation of a national population based cancer registry following ICCCs, some participants from Romania, Poland, USA, Canada, Ireland, Nicaragua, New Zealand, Peru, Brazil, Switzerland, Egypt, Indonesia, Laos, Nepal, Netherlands, Phillipines, Sri Lanka, Vietnam, Thailand, and Tanzania reported that they were working on either strengthening, developing or implementing cancer registry related activities. The WHO Non-Communicable Diseases Profile 2011 confirmed that many countries like Laos, Egypt, Indonesia, Nepal, Romania, Netherlands, Sri Lanka, Switzerland, Tanzania did not have a national population based registry (209). Thus, the participants' realization following ICCC—as expressed by them in the follow up survey—and the subsequent formulation of plans to commence population-based registry activity were positive steps.

Regarding identification/commencement of new cancer control programs for example in prevention or early detection or screening following ICCCs, some participants from Malaysia, India, Indonesia, Jordan, Kenya, Lithuania, Phillipines, Singapore, Yemen, Sri Lanka, Thailand, Vietnam, Latvia, Russia, Peru, Malta, Romania, Netherlands, and Finland reported either supporting ongoing efforts or initiating the development of new programs.

Initiation of a number of pilot projects following ICCCs were identified and included: a) the enhancement of national cancer control planning activities in Italy and many countries of the

European Union; b) the organization of Brazil's national network of tumour tissue biobanks by the Brazilian National Institute of Cancer (INCA), which subsequently led to the development of the Latin American and Caribbean Tumor Biobank Network (224); c) several other projects in Brazil and Latin America in tumour biobanks, cancer registry and others initiated following the creation of the Alliance; and 4) the IAEA-PACT Model Demonstration Sites, which gained momentum following ICC1 in 2005 and have expanded to eight sites with an objective for comprehensive cancer capacity building in low and middle income nations (64).

Regarding establishment of new alliances or partnerships as well as regional communities of practice, results showed that: a) the Latin America and Caribbean Alliance for Comprehensive Cancer Control was formed in 2007 (following ICC2). This alliance included 10 countries, namely Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Mexico, Nicaragua, Peru and Uruguay (108); b) an agreement between Brazil (INCA) and Canada (PHAC) was signed in 2009, for Canadian experts to help INCA improve cancer registries in Brazil and share best practice approaches on cervical cancer screening (225); c) the partnership between the US National Cancer Institute (NCI) and the Canadian Partnership Against Cancer (CPAC) in transferring knowledge regarding the NCI web portal Cancer Control P.L.A.N.E.T. (Plan, Link, Act, Network with Evidence Based Tools), a toolkit for cancer control planning, program implementation and evaluation, led to establishment of Cancer Control PLANET Canada; d) this subsequently led to the creation of Cancer View by CPAC, an online resource for providing information to Canadians on cancer—patients, care providers or health care professionals (230).

Also, following ICC3 foundations were laid for a European Union (EU) - African Union (AU) partnership to support strengthening of cancer control in AU. The Cernobbio Declaration of ICC3 helped in commencing the discussions (4, 219).

Signing of the Rio De Janeiro declaration, issued collectively by all participants at the closing ceremony of ICC2 (108), confirmed the need for the Latin American Caribbean region to work together and promote the prevention and control of cancer. Similarly, the Cernobbio declaration signed by 200 participants at ICC3 (219) urged all to function as a global community of practice and share information and experiences on cancer control, and advocate for inclusion of cancer/ NCDs on the global/regional/national health agendas. Cernobbio declaration also provided support to the countries of the European Union to bring back the focus on cancer control with their respective Ministries of Health.

Holding the ICC3 in Europe (Cernobbio, Italy 2009) assisted with the enhancement of global national cancer control planning and specifically within the European Union. Six manuscripts (one for each session of the Congress) and an editorial were published as a monograph in Tumori, a journal of experimental and clinical oncology in the fall of 2009(5). Then, hosting ICC4 in Asia-Pacific (Seoul, Korea 2011) produced four manuscripts and an editorial (one from each session of the Congress) for publication in a supplement of the Asia Pacific Journal of Cancer Prevention in 2012. These are in the process of being published.

ICC follow-up survey responses pointed out the respondents' affirmation to the activities they said they would embark upon, thus demonstrating actionable behaviour following the Congresses (refer to ICC3 and 4 follow-up survey reports in Appendix A)—over 90%

respondents had shared new information obtained from the Congress with their colleagues, 71% respondents following ICC3 and 81% following ICC4 had undertaken new research, about 80% or over respondents reported applying new insights gained at the Congress to prevention programs, more than 85% reported new insights gained at the Congress to cancer control planning or programs, 87% were using their learnings to strengthen advocacy or policy work in cancer/NCD control, over 90% were following up with new contacts made at the Congress, and above 80% were developing new partnerships or collaborations.

In contrast, not all survey respondents reported on specific cancer control activities they had initiated or were participating in following the Congress. From the listed activities—approximately 200 activities following each Congress—25% of the activities on an average promoted, developed or participated in cancer screening/early detection/ prevention activities; 10% of the activities were networking, creating partnerships or collaborations; another 15% were sharing information on learnings from the Congress; 6% were cancer registry related activities; 10% were related to supporting/ enhancing/ developing cancer control plans/programs; 8% were research related, and 25% were other cancer control related activities like advocacy, educational, treatment related, and presenting in meetings (refer to Appendix F).

Summing up, 362 participants from 65 countries participated in ICC3 and 310 participants from 44 countries participated in ICC4. Approximately, 24 plenary presentations, 40 oral workshop presentations and 140 poster presentations were presented over six sessions at ICC3, while there were over four sessions 17 plenary presentations, 44 oral presentations, 104 poster presentations and four consensus statements at ICC4. At both Congresses, more than

half the participants were from government organizations or NGOs, and cancer control formed a large part of their work. ICCC can perhaps have a greater influence on cancer control work by attracting larger numbers of policy makers. Currently, researchers and scientists comprised the largest occupational group among all participants. The most important reason for attending ICCCs appeared to be the Congress focus on population based cancer control followed by a focus on networking and collaboration. As ICCCs are held in different regions of the world, repeat participants in the Congresses were few.

A majority of the participants believed that the ICCC helped them professionally and that their attendance at ICCC was most helpful in sharing best practices, promoting evidence to develop cancer control plans, and creating collaborations which they intend to continue pursuing. Over 80% participants following both Congresses believed they had gained new insights into cancer control strategies and population-based systems and were sharing new information with colleagues. Over 60% believed they were applying new insights to prevention programs and cancer control, and following up on new contacts.

Approximately 40% of the participants said UICC Congress was the only conference they had previously attended. Most participants thought ICCC was different and better than UICC and other cancer control Congresses due to its smaller size, its varying themes, and its round table workshop sessions, which provided a greater opportunity for networking and discussions.

The analyses demonstrated that Congress participants were generally working in the cancer control field itself. Future enquiries perhaps may be able to measure demonstrable impact

the Congress had on their work. In this study, only subtle inferences that the Congress influenced can be drawn. A supportive conclusion that the Congress enables an enduring impact at an individual participant level cannot be derived. However, since alliances, memorandum of understanding, signing of declarations, formalized cancer control networks have resulted from ICC2 and ICC3 at a country level, the Congress may be perceived as a facilitating forum that helped in getting enduring impact in the host region.

The following section integrates the findings and reflects on whether and how attending ICC influenced participant activities/behaviour, collaborations, national cancer control planning or programs, relationship building, communities of practice, and knowledge exchange/transfer.

5.1.2. Integration of Findings

This research study is not an attempt to give credit to ICCs for implementation of all cancer control programs or initiation of collaborative activities in participant or host country jurisdictions. However, participants, representatives of the host countries and co-sponsoring international organizations like WHO, IAEA-PACT, INCTR and others perceived the Congress as a forum that had helped create many networks and strengthen relationships between organizations and countries.

Through the interactive workshops where discussions explored themes relevant to current scenarios being experienced by participants, attendees were able to assimilate ideas that they could take back and apply within their spheres of influence. Thus, most participants viewed ICCs as a facilitator that highlighted and supported capacity building efforts by countries; and

promoted use of toolkits, such as the WHO Stepwise Framework (65, 67) and others to bring change in cancer control/integrated non-communicable activities by undertaking or strengthening national cancer control planning, and initiating or enhancing targeted cancer control programs, knowledge translation and research activities. This provided tentative leads for further inquiry to conclude the sustainability of these individual efforts as the present study was not longitudinal. Another definite that cannot be derived from this study is whether changes in activities in the very long term impact cancer incidence, prevalence, mortality and morbidity rates.

5.1.2.1 Changes in behaviour and activities

Attending the ICCC influenced changes in behaviour and activities relating to cancer control in participants. Responses from participants suggested that during the working group sessions problems were shared and discussed with participants from very different countries (i.e. in culture and context) , which was helpful to many as they gained additional insights which they could take away and share with colleagues in their countries to outline and thereafter apply creative solutions.

It can be said that any significant impact at the local level depends a lot on whether the participants are key decision makers in their home countries. An interview with the host of ICCC2 validated this statement as he shared the unsuccessful efforts made by the Brazilian National Cancer Institute (INCA) to get cancer declared as a public health issue in the country. However, following the Congress cancer was finally recognized as a public health problem in Brazil. Although it was not completely attributable to ICCC, the host believed that ICCC was a

catalyst and an agent of change that influenced the Brazilian policy makers in understanding what INCA had been trying to communicate. This can also be interpreted as ICCC having motivated the continuing sustainability of cancer control national and regional efforts.

This study also provided a basis for comparing what individuals say they would do with what they actually do. In both the Congress surveys, individuals tended to say they would be sharing information with colleagues (over 20%), collaborate (over 25%), apply their new insights to cancer control programs including prevention, palliative care (over 30%), and undertake new research (over 7%). In both follow-up surveys, individuals also said that they were using their gains to a great extent, like sharing information (over 25%), undertaking new research (over 10%), applying new insights to cancer control programs (over 50%), and collaborating (over 40%). Though not all individuals gave a listing of the specific activities they were undertaking, it appeared that they were taking action.

Due to the study not being longitudinal—individual participants not being followed over time nor any milestone reports from delegates on actual progress made in specific aspects of cancer control programs—it cannot be definitively determined whether any individual level contacts established during the Congress actually continued to foster and give rise to concrete cooperative efforts visible in the future. However, there was progress at an organizational level. For example, representatives from IAEA-PACT and NCI made contact at ICCC and had been working in partnership for the past few years to provide education and training in cancer prevention to the people from the eight PACT Model Demonstration sites (231). Similarly, the National Cancer Institute (INCA) of Brazil had followed contacts starting from ICCC1 with

multiple organizations for example the Public Health Agency of Canada, BC Cancer Agency (BCCA), International Cancer Treatment and Research (INCTR), Canadian Association for Provincial Cancer Agencies (CAPCA), and Canadian Partnership Against Cancer (CPAC), and has established formal agreements with each in different spheres—cancer registry, tumor biobanks, cervical screening, palliative care, and others (108, 217, 222, 225, 232).

It may be inferred from the responses of repeat participants who are in positions of influence in their NGOs, or UN and non-UN agencies, that ICCC somewhat indirectly through their views and participation had influenced discussions at the September 2011 UN High Level Summit regarding NCDs and cancer in particular (226).

However, the present study found that a significant number of participants undertook activities they said they would be doing based on the insights gained at the Congress, such as: initiating, developing, enhancing or implementing national cancer control programs/planning; cancer prevention programs; research, advocacy, screening and early detection programs/activities; palliative care programs; cancer registry; knowledge translation activities; sharing information with colleagues; influencing programs and policies related to cancer control, and creating collaborations or establishing alliances and building networks. The examination of the information from the analysis did support that ICCCs influenced reported changes in activities and behaviours of participants.

On the other hand, it was difficult to determine the extent of the influence on the demonstrated changes in behaviour and activities, and the extent and sustainability of the resulting actions or knowledge translation measures on population-based cancer control

programs and collaborations. The investigator made an attempt to use the knowledge translational model RE-AIM (reach, effectiveness, adoption, implementation, and maintenance) and the logic model outlining expected outcomes, as logic models are useful for showing ‘predicted relationships and in guiding measurement decisions’ (133). The difficulties encountered were due to limited information available to gain an estimate of the actions/interventions on RE-AIM dimensions. That is, to accord a status to ‘reach’ information regarding the participation rate within the intended population is needed. Similarly for determining the status for effectiveness, adoption, implementation and maintenance the investigator respectively needed the success rate of the implemented activities, the uptake of the intervention based on capacity, fidelity of the intervention/ action and the extent the action is sustained over time (133, 233). Constraints attributable to the limited time for the current study and the study being cross sectional as opposed to a cohort study that is prospective (longitudinal).

5.1.2.2 Effects of country resource levels

Examining whether a change in behaviour or activities depended on the resource level of a country, the present study found that attendees from low and middle income countries were more satisfied with the Congress and considered it a success, as opposed to attendees from high income countries. Over 60% of the participants following both Congresses found their involvement and interest in cancer control had changed; over 50% of participants expressed that their level of interest and involvement in cancer control was to some extent influenced by attending ICCC, and over 30% experienced an increase in their network/collaborations following

ICCC. When these changes were cross tabulated with country resource levels it confirmed again that attendees from low and middle income countries experienced a greater change, were influenced by ICCC to a greater extent and there was a greater increase in their collaborations/networks. Thus it could be inferred that participants from low and middle income countries valued the Congress program to a larger extent making ICCC that much more valuable to the developing world delegates.

Also the increasing interest amongst the high income countries for cancer control activities in low and middle income countries was noticed. Many participants expressed an interest in learning about latest developments in cancer control from other countries, especially developing countries (LMICs). And, articulated about how the knowledge they gained from the Congress can be implemented by applying innovative solutions to addressing constrained resource challenges of remote and specialized communities. Communication and benefits are bi-directional between high, middle and low income countries—it does not only flow one way.

5.1.2.3 Effects on collaborations and partnerships

Attending the ICCC facilitated an increase in partnerships and collaborations. The present study found that the alliances or collaborations—understood as simply bringing together country or organizational representatives following the Congress—did not lead to collaboration. Teams coming together needed to trust one another to strengthen relationships before the collaborative process with its underlying concepts of sharing, partnership, interdependency and power could grow roots (90).

As seen from the survey results, over 50% of respondents following the Congresses are following new contacts and developing new partnerships and 30% believe their collaborations/networks in cancer control have increased after attending the Congress. As previously discussed, a number of collaborations had been initiated or established but it was evident that these partnerships take time and are witnessed following a considerable passage of time. Thus, the focus of examples was more from after ICCC2, a few from after ICCC3, and yet to be witnessed after ICCC4 which concluded only in November 2011. Ongoing efforts following ICCC4 are being made by the host country Korea, the Asian Pacific Organization for Cancer Prevention, other Asian-Pacific countries, and UN and non-UN agencies to enhance the Asian National Cancer Center Alliance (234) and promote cancer centers in Asia to initiate new projects or engage in new partnerships as a result of the Congress. Also, following the Congress, Asia hopes to take a path similar to the Latin American Region, where the NCI-Latin American Cancer Research network was established in 2009 to create strong partnerships in Latin America for international cancer research, bring the spotlight of research on LMICs, portray cancer as a global issue and increase the cooperation between high income and LMICs in research and training (235).

The listing of the partnerships or alliances or agreements made following the ICCCs includes: the Latin American and Caribbean Alliance for Cancer Control (108), Memorandum of Understanding signed between Brazil and Canada in cancer and chronic diseases (225), the NCI and IAEA-PACT partnership to provide training in cancer prevention(231), the NCI and five Latin American countries (Argentina, Brazil, Chile, Mexico, and Uruguay) establishing the

United States-Latin America Cancer Research Network(235); foundations were laid for the European Union-African Union alliance; strengthening of the ongoing project work in Europe—EUROCHIP, EUROCARE, CONCORD—and others (6, 220).

ICCCs were also attributed by Latin American participants to have helped them in facilitating meetings for the discussion of cancer registries organized by PAHO, IARC, and UICC. They also helped revitalize participation and enhancement of their activities in existing networks like the Ibero-American Network for Tobacco Control, Latin American Tumor Biobank Network, and the Network of National Cancer Institutes RINC (108, 217, 218). Additionally, participants from the European Union believed the ICCC helped them further cement their commitment to the collective action being advocated across Europe to address cancer by the recently established European Partnership for Action against Cancer (EPAAC) in June 2009 (223).

Also, after ICC3 as shared by a WHO delegate, the WHO supported the creation of a political forum “Mediterranean Network” with the Ministry of Health Egypt as its chair. This forum was characterized by an intergovernmental working group that fed into the development and planning of NCD/cancer control programs now for the Eastern Mediterranean Region. And, references indicate IAEA-PACT has achieved considerable success in its PACT Model Demonstration Projects in eight developing countries initiated soon after ICC1 (a success not being attributed to ICCCs—however ICCC may be inferred as a catalyst forum that facilitated further strengthening of actions and supportive networks). By early 2012, PACT was conducting

a review of the sites, building further collaborations with other UN and non-UN partners to help capacity building efforts in developing nations, especially the demonstration sites (25, 64, 236).

The study found the collaborations cited above were successful as they incorporated the collaboration concepts. The four dimensional conceptualization of the collaboration process in D'Amour's model begins with collaborating partners finalizing shared goals/vision that translates into a sense of belonging, trusting relationships and awareness of their interdependency. The third dimension is formalization of the partnership through establishing and strengthening regulatory structures followed by the last dimension, governance that deals with connectivity, expertise and leadership at the network level and local level (90).

Analysis reveals that the Latin American alliance was slow to start as there was a lack of clear central leadership. It has had mixed success as it had the commitment and support of international organizations and individuals from the Region, but it lacked institutional support from all participating countries. As the Alliance was not championed, organized, managed or financed well, it had not been effective. Although the Rio de Janeiro declaration articulated common goals, the Alliance lacked a multi-country cooperation strategy and a more binding agreement. A system of Governance for the Alliance was not defined from the beginning; although contemplated, no Alliance secretariat was established; none of the members had experience in managing a regional Alliance and no management tools were put in place to track progress; some representatives did not hold positions of responsibility which permitted them to speak or act on behalf of their governments; and it lacked a communications plan and a vision for mobilizing civil society partners as well as projects, which made it difficult to capture

resources or mobilize strong partners. If missing, these concepts derail partnerships and are very important as stated by D'Amour in her framework for a successful collaboration (90).

Thus, it is not surprising that the early Brazilian experience demonstrated that, despite strong interpersonal relationships, representatives for INCA and their alliance partners had been interacting for a long time in a complex environment that not only presented them with opportunities but also with a variety of organizational constraints and challenges in continuing their work together(90). In 2011, reports from Brazil stated that Brazil was taking the lead. With a clear motivated 'champion' working in the Latin American-Caribbean region, this alliance has finally gained momentum with positive hope for success.

The study found successful the collaboration (233) between the National Cancer Institute (INCA) Brazil and the BC Cancer Agency and the Public Health Agency of Canada in cancer prevention, cancer registry, tumor banking and palliation at both individual and system level because of active championship, effective central and local leadership and relationship development based on mutual trust and common purpose (90).

Not surprisingly, there have been initiatives that have not been successful in establishing partnerships due to the missing collaborative concepts. The plans for initiating the EU African School of Oncology following ICC3 in Italy, for example, did not get realized due to the global economic crisis, lack of a committed leadership, and lack of national support, so support remained only at an institutional level. However, ICC3 did result in a yet ongoing collaboration involving the Gambian Ministry of Health in the Gardasil Access Program for the availability of HPV vaccines in school-age girls in Gambia.

5.1.2.4 Relationship building

ICCC facilitated relationship building, including establishment of communities of practice. The analyses demonstrated that there had been considerable synergy and enhancement of relationships between international organizations like WHO, UICC, IAEA, INCTR, IARC and others through the ICCCs. This observation was supported by these organizations being consistently represented, co-presenters and discussants at every ICCC. Also, through the collective work they continued to do in highlighting cancer as a public health issue, taking action to address the prevention and control of the cancer/NCD epidemic, some as members of the NCD Alliance formed in 2009 and others as supporting partners (237).

Findings from the study interviews suggested that a larger representation from a country enabled relationship building. For example, a delegate from New Zealand who had attended all ICCCs discovered that the influence on New Zealand was far greater following ICC1 and ICC2 as there had been more representation from New Zealand (NZ). Of particular importance were contacts or relationships developed between the NZ Ministry of Health and participating countries like Canada, Ireland, US, Italy, and the UK, undertaking international data comparisons. Also, discussions with the steering committee members, most of who had participated in more than one ICCC, confirmed their conviction that ICCCs enhanced collaboration, exchange of ideas and knowledge.

Not surprisingly, the study found that the Congress had received a wealth of global cancer control expertise through participation, strong support from participating organizational and country leaders and demonstrable outputs from the Congresses—Congress reports, abstract

books, and others. Foremost were the relationships that have been established, e.g. the interactions between participants from high income and LMICs, the collaboration between several international organizations like INCTR and INCA, WCRF/AICR and CPAC, CPAC and INCA, CPAC and NCI, WCRF/AICR and UICC and many others demonstrating the aim to facilitate partnerships, mobilize allies and strengthen key stakeholders was achieved through the ICCCs. During the panel discussion in the evaluation session at ICC4, a representative from one of the UN Agencies endorsed ICCC as “an ideal forum for sharing of tools, models, approaches, etc.” ICCC enabled him to have an ongoing contact with the WHO Regional Offices as well as provided him opportunities for direct interaction with country representatives.

Furthermore, the Rio de Janeiro Declaration at ICC2 and the Cernobbio Declaration at ICC3—which strongly affirmed the need for regional governments to work together, support development, enhancement or implementation of the National Cancer Control Plans (108, 155, 219)—brought together participants and built further commitment towards cancer control at the Congresses as they signed the declarations. The examination of the survey results (Chapter 4) highlighted what the 103 respondents at ICC4 thought was the role of declarations and alliances at meetings. More than half of the participants were of the opinion that it either ‘influenced changes in national population based cancer control programs’(22%), ‘provided a platform for knowledge transfer’(5%), helped in ‘engaging nations, organizations and people’ (20%), and ‘facilitated relationship building’ (17%).

During the Congress, delegates appeared to be making appointments for further exchange of experiences with newly met contacts— thus contributing to enlarging their existing contacts

and networks and facilitating relationship building. However, it is worth noting that it cannot be determined whether these relationships started at the Congress have translated into partnerships or associations as the participants have not been followed over a period of time.

The starting point for establishing a community of practice is to be able to connect with others. The ability to email and have web based discussions between meetings is very important to sustain a COP (83). By providing the email addresses of all participants at the conference, the ICCCs enabled this interaction between participants. COPs at different levels were being promoted by ICCCs (33). The ICCC Congresses were vital in fostering new communities of practice through dialogue at workshops in particular as specific projects get shared by participants which may later lead to participants at the round table discussions offering to work on the project following the conferences for example the bio-bank network set up in Latin America post ICCC2. This Latin American bio-bank network was inspired by example at the Congress. The challenge however remains how to sustain these projects or initiatives between Congresses. Currently participants depend upon maintaining email contact established on a one-on-one basis. Further work is needed to come up with a more sustainable solution.

5.1.2.5 Effects on NCCP

Attending the ICCC leads to participants influencing changes in policy and governance that aid the development/enhancement/implementation of population-based cancer control programs in their jurisdictions. However, this statement does not imply that the mandate of ICCCs is to coach participants in the development and implementation of NCCPs. ICCCs are primarily a forum that has been created to share knowledge, experiences, strategies, approaches, tactics and

best practices that can enhance and accelerate the implementation of effective population-based national cancer control strategies, programs or plans. The focus of ICCCs has been knowledge transfer through collaboration and relationship building. Particular emphasis has been given to how high income countries might be able to help LMICs that lack good planning information. International organizations supporting countries with tool kits and technical expertise, for example WHO and PACT, make efforts to assist countries plan and implement effective national cancer control programs (NCCP) using the WHO's six modules "Cancer Control: Knowledge Into Action" and the 2011 WHO-IAEA NCCP Core Assessment Tool (238, 239).

The study analysis indicated that a vast majority of respondents (over 80%) following both Congresses found that their cancer control or NCD work had benefited by attending ICCC. Over 60% agreed they could now help to change the minds of policy makers in their jurisdictions and were applying new insights to cancer control planning; and, over 75% were sharing best practices and promoting evidence to develop cancer control plans or strengthen implementation. Tracking ICCCs over the years it can be said that ICCCs have generally been successful in bringing the focus on the needs and benefits of population-based cancer control. With the Cernobbio Declaration signed by 200 participants from all around the world in 2009, ICC3 was successful in raising the profile of NCCPs with countries of the European Union. This declaration signed at ICC3 was sent to the authorities of the EU Member States, along with letters that helped the initiative gain attention. Also, a question was raised at the EU Parliament in relation to the Declaration and the steps being taken in cancer control in Europe following ICC3 and in preparation for the 2011 UN High Level NCD Summit.

Following WHO's call for global action against cancer at the 60th World Health Assembly in May 2007—which was followed by the launch of the WHO publication “Cancer Control: Knowledge Into Action-WHO Guide for Effective Programme”—a series of six modules were created to help countries develop their national cancer control plans and strategies to improve the prevention, care, treatment and palliative care of patients using the WHO Stepwise Approach (238). The WHO Global Status Report on NCDs 2010 showed that countries have expanded their capacity to respond to the burden of non-communicable diseases including cancer (8). The WHO Non-Communicable Diseases Country Profile report of 2011 confirmed that 92% of the 184 member states had either developed an integrated NCD plan or at least one chronic disease specific plan, but the developed plan was operational in only 79% of the countries. 36% of countries only reported having a population based cancer registry. For risk factors starting with tobacco, 80% of the countries had a plan, 75% had it for diet and physical activity and far less number of countries for alcohol. Starkly missing from the plans were measurable outcomes and targets (8, 209).

Taking information from the WHO NCD country profiles and the European Union Cancer Control Plan report the study determined (see Appendix G) the status with regard to NCCP for the 61 countries that had representation at either ICC3 or ICC4 or at both (i.e. the countries of the survey respondents). It was confirmed using the WHO and EU reports that 48 of 61 countries had a National Cancer Control Plan and/or Integrated NCD Plan, 33 of 61 had a national population based registry, and 47 of 61 countries have a Tobacco Plan (209, 240, 241).

Further web searches of the countries' activities and plans combined with the findings from the study analysis, suggested that participant feedback on their contribution having become more targeted and useful towards changes in policy and/or governance that aids their national cancer control program/plans holds high feasibility. As this study did not follow each participant longitudinally, it was hard to determine the exact extent of their increased contributions. However, it could be inferred that the contributions existed on a continuum that can range from low to medium to high. The European Partnership for Action Against Cancer (EPAAC) was advocating loudly for the implementation of National Cancer Plans/Programs in Europe (240), and this again supported the inference that participants from Europe were definitely taking insights back to their countries and applying them to their work in their jurisdictions.

As the surveys indicated, over 90% of participants were working in cancer control completely or in some ways, so the chances of their contribution to national cancer control programs was high. Specific areas where participant contributions appeared to have occurred included prevention programs, such as: screening and early diagnosis, research, palliative care, programs targeted to risk factors especially tobacco control, patient care and support actions, creating a tumor bank, cancer registry, cancer reference centre, translational research activities, creation of regional networks for example in Latin America, sharing information on best practices, linking countries, holding childhood and adolescent cancer activities, having online cancer information like 'cancer view' in Canada and 'cancer control PLANET' in the US, addressing risk factors, NCCP implementation or preparatory work prior to implementation,

home based cancer management, care provisions in remote areas, and rehabilitation and supportive care for patients (241-243).

Most countries in the country profiles reported low scores on the MPOWER measures—measuring tobacco use prevalence, measuring second hand smoke exposure in the home and in workplaces, measuring quit attempts, measuring affect of printed health warnings on cigarette packs and measuring notices on tobacco (244) .

Taking information from the attendees comments of ‘actual activities’ participants did following the Congress, the findings from a total of 61 countries respondents to the follow-up surveys with regard to the development/enhancement/implementation of the NCCP were that only participants from 16% of the countries (Japan, China, Netherlands, Yemen, Indonesia, India, Peru, Finland, Italy and Latvia) actually worked on them. On development, enhancement, or implementation of cancer control programs, delegates from only 35% of the countries (Vietnam, Latvia, Russia, Peru, Malta, Italy, Canada, Romania, Netherlands, Finland, Kosovo, Malaysia, India, Indonesia, Jordan, Kenya, Lithuania, Philippines, Singapore, Yemen, Sri Lanka, and Thailand) reported actually working on them. On initiating/strengthening/implementing population based cancer control registries participants reporting action were from 37% of the total responding countries (Egypt, Indonesia, Iran, Laos, Netherlands, Philippines, Sri Lanka, Yemen, Nepal, Vietnam, Indonesia, New Zealand, Thailand, UK, USA, Switzerland, Italy, Brazil, Canada, Nicaragua, Romania, Poland, and Ireland) (refer to Appendix F).

Results of the present study indicated that cancer control did not seem to have the same definition in different countries; it might be an issue to be discussed, especially the control aspect

at different geographical levels. The link between the different domains, which should be included in a NCCP, and the effect of an action in one domain on other domains appear to be missing. Also, the investigator found none to little research on the effect of a NCCP: from the point of view of efficiency (funding, capacity), effect on survival rates, on costs, on quality of life of patients. Neither was it clear how to steer once a national cancer control plan has been developed as well as, how countries keep current their established national cancer control plans.

5.1.2.6 Participants' perceptions of other conferences

ICCC when compared to other cancer conferences this set of analyses demonstrated that almost half the respondents rated the ICCC better when compared to their experience at other global conferences and almost all respondents would recommend the ICCC to a colleague and would like to attend the next ICCC. However, an equal number said ICCC was about the same as other Congresses.

Participants at the Congress thought ICCC was different from other cancer control conferences due to its smaller size and its ability to provide greater opportunity for networking and discussions—ICCCs bring together 300 to 600 participants, compared to UICC Congresses that host over 3000 participants (245)—and the non-therapeutic approach. The varying themes, leadership and workshops are what many believed differentiated ICCCs from other cancer Congresses. Most of the delegates interviewed had been to the UICC World Cancer Congress, the annual INCTR conference and the African AORTIC Congresses. In their view, ICCC attracted the elite of cancer community researchers, policy makers and global cancer control organizations. It was “the best international gathering on cancer control planning.” A suggestion

received from many delegates consistently over the years was to preserve ICCC, keep the ICCC focused and avoid merging with other major conferences like UICC. Delegates appeared to distinguish ICCC from other Congresses in that ICCC discussion and lectures were tailored to provide perspectives at varying resource level that can be taken back to the participants' colleagues.

The primary difference highlighted by the delegates between the ICCC and other global conferences were the interactive workshops with small working groups in a round table format, which encouraged participants to discuss amongst themselves and come up with table recommendations and action items. The 'workshop approach' of the ICCCs reinforced its uniqueness, and enabled participants and presenters to engage in workshops to further explore the theme under discussion—which was usually relevant to the current scenario countries are experiencing. Another distinguishing characteristic was that ICCC focused on the issues of the region it is held in to ensure participants find it more relevant as the maximal participation at Congresses is from the host country region and included more information from LMICs of that Region. Thus, ICCC4 was found by Asian delegates more relevant as it concentrated on the problems of the Western Pacific Asian Region, whereas ICCC3 had focused on the European-North African Region. Also a number of conferences were focused on the work of the organization hosting the Congress or the organizations presenting in terms of the organizations strategy, disciplines of practice rather than comprehensive cancer control.

The study suggests most participants came to ICCC either to increase awareness to current state-of-the-art clinical and scientific content in cancer control, or, because they were

interested in how the current state of knowledge was being implemented in various resource settings, or to network. A majority of the participants believed that the ICCCs helped them professionally and that their attendance at ICCC was most helpful to their countries as it equipped them to share best practices with their colleagues, provided them with evidence to develop cancer control plans applying the new insights gained into cancer control strategies and population-based systems, follow-up with new contacts, and establish new partnerships and networks.

ICCC on the whole appeared to attract participants working in cancer control and delegates came as the meeting content is aligned to their domain of interest. Also, the surveys indicated that participants were satisfied with the proceedings of the Congress. This was demonstrated by their appreciation of the meeting content, attendees' ability to network, gain of knowledge in areas of cancer control other than their area of focus, ability to mingle in a global forum and other similar reasons.

The study found all meetings had a low participation of government and policy makers—something that all cancer control meetings need to focus on. Participant feedback confirmed that ICCCs were different due to their concentration on strategic population-based approaches to cancer control and the emphasis on participation and getting participants involved in discussions both at the plenary and during workshops.

5.1.2.7 Platform for knowledge transfer

ICCC provided a platform for knowledge transfer for cancer control. Delegates' responses indicated that knowledge shared at ICCCs adds to cancer control understanding of

experts and new entrants. This perception was further supported by the comments of other participants, saying that they were now better informed about the real world and could assess strategies better. Irrespective of the region hosting the Congress, participants at ICCC gained insights into implementation of interventions and were able to share translatable practical experiences through presentations and discussions in the working session. There were also comments that further support that knowledge is being exchanged at the Congress. This can be coupled with the survey results of over 70% participants expressing the Congress was successful at providing a platform for knowledge transfer for cancer control; and over 50% participants articulating success of the Congress in sharing best practices and promoting evidence to develop or strengthen implementation of cancer control plans, and development of national policies in cancer control.

Based on interviews and survey results, the present study found that discussions at ICCC contribute to transfer of knowledge. A delegate from the WHO at ICC4 reminisced on the close collaboration WHO has shared with ICCC over the years and his belief that ICCC discussions contributed to knowledge translation in participating member states. This is validated by the follow-up surveys where over 90% respondents believed the Congress provided a platform for knowledge exchange for cancer control.

Attendees appeared to gain understanding on how the current state of cancer control knowledge was being implemented in various resource settings as well as established new connections with people from a variety of resource settings. This was supported by participants (over 15%) stating that the most important gains from the Congress were ‘an improved

understanding of population based cancer control programs globally’, ‘new insights into cancer control strategies and population-based systems’ and ‘new contacts and opportunities for partnership and collaboration.’ Another realization captured by this study was how knowledge transfer could be made more effective. Participants suggested that there would be value-add of holding ICCC in low and middle income country settings. This, they said, would promote exchange between global and local experts. Participants experienced Brazil as having gained more following ICCC2 as more local people could participate and insights were translated rapidly into action with the support of expert organizations participating in the Congress.

Yet another conclusion that could be derived was that, irrespective of the resource level of their country, participants found that the knowledge expertise at ICCC was valuable for the development and sharing of information in cancer registries and helped to give cancer registry based work an international perspective. It was also identified as a platform for experience exchange by PACT delegates, who are sponsored by PACT to attend ICCC.

5.1.2.8 Gaps in ICCC programs

Some participants (26% for ICCC3 and 42% for ICCC4) realized there was a scope of improvement in ICCCs. The researcher collated an instructive table using NVivo to report and document these constructive suggestions (refer to Appendix H). Given they were more the exception than the rule, no new investigations were done on these gaps. However, they have been systematically noted down and are tabulated in Appendix H. Some key points have been shared in this section.

Although the present study found a number of aspects of ICCCs that participants found helpful, participants expressed that some elements were missing from ICCCs on the surveys and interviews. Among these were: 1) the Congress ability to address issues of funding, optimal allocation of resources, country specific capacity building or political issues; 2) a limited participation of policy makers, government representatives, developing countries, NGOs, diversity of care professionals, patients and advocates; 3) best practice sessions on engagement and dissemination, evaluation of cancer/NCD policies, occupational and environmental risks, international cancer control collaborations; 4) impact and measures of a NCCP in terms of efficiency, survival rates, costs and quality of life of patients; and 5) skill building workshops with clear toolkits in evaluation, development and implementation of NCCP, cancer control programs and cancer registries, including steps to establish indicators, information on innovative technology, and more examples on implementation from low and middle income countries.

The review found as there were not many repeat participants at ICCCs evidence-based changes in outcomes from previous ICCCs had not been shared at the participant level; this is of no surprise. The connectivity in outcomes and changes experienced was made at each ICCC, but limited to sharing know-how experienced by only past ICCC hosts. These identified gaps or needs of participants should be taken into account and incorporated in scientific discussions and design at future ICCCs.

5.1.2.9 Comparison of ICC3 and 4

The study compared the two ICCCs and found the results as indicated by the two pods of surveys—the ICC3 on-site and follow-up survey with the ICC4 on-site and follow-up

survey—to be relatively similar on almost all aspects of the Congress—demographics, gains, program, future plans and Congress impacts. This similarity in results occurred even though most attendees at both the Congresses were different. The few delegates interviewed at both Congresses had also relatively similar and supportive comments. However, when asked to choose one over the other they would not comment between the two Congresses as they thought the Congresses built on one another, emphasized national cancer control planning, networking, sharing experiences, promoting ideas and the two together advocated for and strengthened an integrated cancer and NCD health system. Some added to this position by saying both Congresses reflected the orientation of the regional community, its priorities and its directions. Others felt it was hard to compare as ICC3 focused more on Europe-Africa affairs while ICC4 was focused on Asia largely. It was believed a “regional focus was informative and allowed a more specific conversation to emerge and the link to the NCD agenda is a very important consideration.” Delegates from IAEA-PACT thought that with each ICC meeting there was a clearer linkage between Congress objectives and expectations of participation from sponsoring organizations, and an increased focus on problem and issues of relevance to lower middle income countries. A delegate found a stronger emphasis on collective action at ICC4 than just knowledge exchange and networking, and another one found ICC4 more helpful due to the additional focus on public health issues in cancer control like policy development and cancer registry.

5.1.2.10 Usefulness of Congresses

Are Congresses the right way for promoting population-based cancer control? And if not, what are the alternatives? Has the planned purpose defined by the identified outcomes been achieved? Was the intervention, that is, the Congress, correct? These are questions that came to mind when analyzing the results of ICCCs.

Table 5.2 presents the conclusions from the ICCC analysis indicating whether there is positive change for each of the intended long term outcomes identified by the ICCCs. It also highlights whether the changes experienced at the local level make a global difference—remembering the differences experienced in new/global will be very marginal compared to those perceived at a local/traditional level. The investigator populated this table with the subjective analysis of the findings and the web based documented activities that were completed or work-in-progress in the regions the ICCCs have been held in. The categorization of low, medium or high has been used as in the RE-AIM Framework for evaluating interventions. Due to insufficient data at individual or organizational level of the exact level of participant contributions on cancer control programs and activities, the five RE-AIM (reach, efficacy, adoption, implementation, and maintenance) dimensions could not be evaluated (233). The key challenge in an evaluation is to isolate the impact of a particular intervention, which in this case is the ICCC. Many activities that are ongoing in participant countries cannot be singularly attributed to the participants who participated in the Congress and nor can it be said that the Congress was the only contributory factor influencing actions of the participants (196).

Table 5.2: Estimated status of congress outcomes at local and global level

Long Term Outcomes	Local (traditional)	Global (New)
Changes in individual activity, behaviour	Medium	Low
Participants influence cancer control activities including development/ enhancement/ implementation of NCCP	Medium	Low
Increased partnerships, networking, collaboration	Medium	Low
Establishment of COPs	Low	Not known
Knowledge transfer and dissemination	Medium	Low
Pilot projects committed to/established	Medium	Not known

Scale: Low: none to low findings. Medium: Few to some findings. High: Many findings.

Source: Qualitative and quantitative results from surveys and interviews, and participant described activities.

Further research using a cohort study is needed to explore the contribution of Congress sustainability, that is, sustenance of participant motivation in the two years following each ICCC and to determine if the insights gained from the Congress continue to be used and built upon between Congresses. Also, findings from the study demonstrate the design of the Congress needs a refresh, that is, each ICCC should be connected to the one prior by connecting desired outcomes to changes that have taken place following the previous ICCC. This will provide evidence based information on impact, relevance, sustainability and performance of the Congress. Additionally, relevant communities need to be engaged from countries of varying resource levels to participate in the Congresses such that there is knowledge transfer and

exchange that happens horizontally across domains of practice namely, policy, public health, community health, clinical practice, research taking into account differing cultural, contextual resource constraints.

As evident, the aim of ICCCs was to foster a global community of practice by creating a forum that enables widespread participation and dialogue between countries and communities with varying cancer control experiences to build on and synergize ongoing work by countries, interest groups, national and international organizations to make sustainable cancer/NCD control a global priority; build awareness, collaboration and direction towards ongoing development or implementation of national cancer control plans. Sessions in each of the Congresses were established for the diversity of participants from over 40 countries to share knowledge, learning and experiences to address the growing gap between the present and emerging global burden of cancer using context-appropriate solutions (4). Participants were provided with Congress material in terms of background readings, publications with toolkits where appropriate, Congress proceeding reports, presentation decks and many other supporting materials, including a Congress website which they could explore with colleagues upon returning home. Congresses have concluded with a synopsis of the learnings and discussions at each session/track, and brief recommendations for possible interventional activity following the Congress. Following, both ICCC3 and ICCC4 manuscripts have been prepared. ICCC3 manuscripts were published as a monograph in *Tumori*, a journal of experimental and clinical oncology (5), while the ICCC4 manuscript will shortly be published in the *Asia Pacific Journal of Cancer Prevention (APJCP)*.

The study of ICCCs indicates that the global health conferences provide more than a

meeting place for people aiming to discuss matters of common concern. For example, the global surgery conference emphasizes conferences provide an important forum for continued improvement of interventions, diffusion of research and identify challenges facing resource constraint countries (246). In a bid to truly go global, countries like the US are now applying what they know beyond their borders. They realize the value of building global relationships and to that end are creating supportive infrastructure in the US like the Centre of Global Health in the National Cancer Institute (NCI) (247). Congresses are useful as they bring connectivity to the professionals struggling with similar issues and resource challenges around the world, enable personalized discussion with a human touch that cannot be held using the electronic media, harness common interests of diverse communities, and greatly enlarge the forum for knowledge translation across these diverse communities of interest, who do not commonly attend meetings beyond their sphere of activity. Congresses also provide a wealth of opportunity for low, middle and high income countries to contribute insight and solutions for each other's issues, and perpetuate following the Congress partnerships and communities of practice to address mutual goals and challenges.

5.1.2.11 Opportunity cost

It is a common realization that information can be shared electronically instead of hosting these large conferences to disseminate information and advance cancer control. Similarly, education can happen outside Congress mega venues and a portion of the resources could be spent on developing more efficient educational modalities and holding smaller topic focused workshops (248). However, with regard to efficiencies and in light of recent findings from a

participant perspective, a large number of participants perceived the Congresses as successful in sharing best practices and promoting evidence to develop or implement NCCP, national policies on cancer control, create a vehicle of collaboration, raise awareness and provide a platform for knowledge transfer and relationship building.

All revenues raised at the ICCC meetings support the Congress, and the conferences have been designed to be break-even and fiscally self-sufficient. Revenue sources are threefold—host country and international government contributions; Congress registration fees, which consistent with local rates in the host country; and sponsoring cancer-related organizations like IAEA, Lance Armstrong, NCI and others. ICCC does not source sponsorship funding from pharmaceutical and biotechnology companies, for the discussions not to be influenced by industry, and instead be evidence-based presentations. Expenses on non-academic matters are controlled and the funds are used to sponsor appropriate participation from low and middle income countries.

Despite all prudent measures, the study shows conference costs have been high. For example the 1st ICCC cost USD 456 thousand (around \$1270/person), the 2nd ICCC cost USD 891 thousand (\$1375/person), the 3rd ICCC cost USD 1.3 million (about \$3562/person), and the 4th ICCC cost USD 457 thousand (\$1474/person). The 5th ICCC in Australia is projected to cost USD 796 thousand (\$1592/person). Discussions with Congress hosts and organizers validated that there were no measurable benefits they could easily provide. Future research should include a “real time” tracking of costs and added value outcomes that would permit stakeholders to assess if a balance has been achieved between costs incurred and outcomes attributable to the

Congress (85). Currently the nature of the inputs, outputs and outcomes preclude formal cost-effectiveness.

However, Lenihan refers to establishing alternatives foregone prior to the intervention by performing some kind of a cost-benefit analysis to determine what else could have been done with the funding (196). From discussions with the conference chair and some members, it was possible to identify some alternatives that they considered were possibly foregone by conducting the Congress—supporting educational opportunities for developing nations, hosting topic-specific workshops in low and middle income countries, or merging with other cancer control Congresses. Using the funding needed for holding the 5th ICCC, Table 5.3 below provides a very high-level cost-benefit analysis and alternatives foregone with the information available to the investigator.

Table 5.3: High-level cost benefit analysis of congress and alternatives foregone

Event/ Modality	Costs	Perceived Benefits
ICCC5	\$796K	<ul style="list-style-type: none"> . Promotes momentum around population-based cancer control . Fosters a global community of practice . Fosters a regional COP for Australia and New Zealand to catalyze their activities in cancer control . Provides a platform for knowledge transfer . Enables participation and dialogue between countries of varying resource levels . Strengthens relations between high, middle & low income countries through collaboration and twinning

Event/ Modality	Costs	Perceived Benefits
		<ul style="list-style-type: none"> . Brings together cancer control professionals worldwide to address cancer control challenges . Enables diverse countries to provide insights and solutions and support each other . Promotes international and intercontinental collaborations . Launches declarations and uses opportunity to put cancer on the political agendas of international treaties . Highlights regional issues and provides the momentum to build regional COP . Enhances potential for regional cooperation in the Australasian Region . Promotes collaboration and synergy between international organizations . Increases potential for cooperation between developed and developing nations for research and training . Raises commitment of countries to make cancer/NCD control a global priority . Stimulates cancer control activities in the host region . Supports cancer centers or interest groups in the host Region to initiate new projects or engage in new partnerships as a result of the Congress . Fosters political influence nationally, regionally and globally . Raises awareness of NCCPs and promotes an agenda for progress at local, national and international levels . Contributes to strengthening strategic alliances in the region . Enables participants to define pilot projects . Enhances knowledge within domains of practice

Event/ Modality	Costs	Perceived Benefits
		<ul style="list-style-type: none"> Promotes knowledge exchange horizontally across domains of practice – public health, community, health, clinical practice, NGOs and others Addresses risk factors for cancer control in relation to cancer/NCD
Alternatives forgone		
Supporting educational opportunities for developing nations	\$200K*	<ul style="list-style-type: none"> Enables identified professionals to participate in research and training workshops for which their country was unable to support them Helps building capacity in low and middle income countries Promotes ‘twinning’ in domains of interest between high income and LMICs through trained professionals
Hosting topic-specific workshops in low and middle income countries	\$200K*	<ul style="list-style-type: none"> Approximately four small workshops may be held if experts can be sourced from high income countries on a voluntary basis; else two workshops if <i>per diems</i> for short term consultants need to be paid
Merging with other cancer control congresses	\$200K*	<ul style="list-style-type: none"> Reduces the number of cancer congresses for which participants need to find funds to attend Maximizes utilization of country and global funds available for congresses Enables ICCC to influence the agenda of other major cancer congresses

**The amount is reduced to only \$200K due to the lack of registration and host country contributions.*

The ICCCs meet the ethics advocated for academic conferences by avoiding dependency on industry (249). The Congresses provide a global forum distinguished by including participants world-wide who are facing similar challenges of either building or sustaining health capacity to control cancer/NCDs in different resource settings. Considering the table above and the study findings, it can be said that Congresses provide a venue for a diverse group with the common purpose of addressing the global burden of population based cancer/NCD control.

Congress participants can also offer insights and solutions to one another, and forge partnerships and collaborations to examine barriers, strategies and identify practical solutions. Costs and benefits are traded off either way among all options (250). The question here is, what is the benefit-cost trade off? As mentioned earlier, it is difficult to quantify it at present with the limited information available, and it would need to be determined by a future study that examined the Congresses once they have built-in parameters to track and perform an in depth cost-effectiveness analysis.

5.2 Strengths and Limitations of Study

This section presents the various strengths and limitations of the study. The study has made several important contributions to the literature.

5.2.1 Study Strengths

First, a major strength of this study is that the research itself emerged from reflections on the experience of an international congress, stimulating the exploration of fundamentally practical questions such as “Do International Cancer Control Congresses add value?” “Do they cause behaviour and activity change that promote outcomes of cancer control?” “Does ICCC facilitate relationship building including establishment of communities of practice?” “Does attending the Congress facilitate an increase in partnerships and collaborations?” “Do ICCC provide a platform for knowledge transfer?” Each of these interrelated questions examine the impact of Congresses on knowledge dissemination that is not limited to only participant’s local area but, in fact, includes effects on cancer control programs at national levels. Remarkably, little is known about the impact of congresses. The findings from this study may guide health care

congresses to draw on the logic model approach used in this study. This evaluation approach may serve as a model for other global conferences.

This origin of the study enabled ready access to a census sample that allowed significant research findings to be made within the time frame of interest for the study: November 2009 to January 2012. The population of interest was all the Congress registered participants for the International Cancer Control Congress—362 individuals from 65 countries at ICC3 for the first pod of surveys and 310 participants from 44 countries at ICC4 for the second pod of surveys. The sample was surveyed in two pods: the first pod included the onsite survey at ICC3 followed by a follow-up survey on all the 362 registered participants at ICC3 while, the 2nd pod included the onsite survey at ICC4 followed by a follow-up survey on all 310 registered participants at ICC4. A range of research instruments were used to collect the information including surveys, interviews, conference documentation, observations and secondary data from WHO publication on country profiles for NCDs and appropriate web based publications. The primary data collection instrument was the surveys conducted by the investigator. This study offers understanding stemming from a set of parameters which allowed the study to happen within the defined time frame from November 2009 to January 2012. Parameters in addition to the time frame of the study include conducting a self-administered questionnaire survey at each Congress followed by a follow-survey conducted on the same census sample of Congress participants a few months later. The technique used for survey sampling was census sampling. The study required judicious selection of the parameters to generate very important data set for this study and follow-up studies.

Second, the study has provided additional insight for Congresses by exploring ways in which Congresses play significant roles to stimulate thought and action. Does this stimulation influence development or implementation of population-based cancer control programs, promotes collaborative action, activate engaged dialogue and build relationships? By examining the entire population of interest, that is all registered participants to the 3rd ICCC in 2009-2010 and similarly all registered participants to the 4th ICCC 2011-12 as two distinct pods. The study examined the relationship between the identified explanatory and outcome variables. Thereafter, provided a causal explanation to the effects produced in terms of human behaviour.

Third, the present study has extended this body of research on cancer control Congresses by examining the relationships between international discussions and changes in the attendees' subsequent actions and activities. It has explored if the diverse cultural knowledge exchange and gain of new insights at the Congress influences activities and behaviour of participants following the Congress. Such as, formations of new partnerships, collaborations, networks, communities of practice, development or enhancement of national cancer control programs.

Fourth, the present study validates a wide variety of assumptions including individuals from different resource countries (low, middle and high resourced countries) see a different value-add of the Congresses in some Congress parameters.

Fifth, further strengths of the study include the following:

1. The study being a natural experiment, was organised as a mixed methods research with hypotheses that guided the direction of data collection and analysis. Using a mix of qualitative and quantitative data the study built interpretation. Although it is thought that

attending the ICCC does influence changes in activity and behaviour of participants, the associated benefits of actions are assumed to take a while to materialize as it takes a long time before the activities initiated demonstrate concrete results.

2. The study allowed concurrent collection and integration of qualitative and quantitative data (202). The quantitative data was obtained through close ended questions in the survey questionnaire. While, the qualitative data was obtained through open ended questions in the survey, from participant interviews, by observing participants at the Congress and was supplemented by reviewing the latest WHO publications on non-communicable diseases country profiles. A major advantage of conducting mixed methods research was that it enabled understanding of underlying causalities and complexities that could not be understood by purely qualitative or purely quantitative techniques. It enabled qualitative questions (exploratory) to be answered simultaneously with quantitative questions (confirmatory), therefore enabling verification, understanding of complex phenomenon in the same study (207).
3. The efficient triangulation design of the study, by which both quantitative and qualitative data types were collected at the same time allowed the investigator to mix both quantitative and qualitative data in a single study. The premise being the use of quantitative and qualitative approaches in combination would provide a better understanding of the research question (174). Use of the 'triangulation design' strengthened the approach and general robustness of the findings as quantitative data could be compared, validated or contrasted with qualitative finding (173, 203-206).

4. The conceptual model effectively outlined the constructs, the relationship between the variables while the hypothesis tests the research question. While, the logic model approach provided a framework for conceptualization, monitoring and analysis. It has been viewed as a valuable resource that helped succinctly define objectives, inputs, activities, outputs, and outcomes. It has helped demonstrate the effectiveness of the research conducted, exploring a chain of cause and effect (196).
5. Census sampling enabled the sampling frame and sample size to be the same. Benefits of conducting a census outweighed use of other possible techniques. Benefits included the following (38):
 - a. had information on each person of the target population (although information such as participant gender could have been gathered);
 - b. good design for empirical generalizations;
 - c. complete representation of a heterogeneous population, thus involving minimal coverage error (although the response rate was low), and
 - d. minimized potentiality of sampling error.
6. The study is a reasonably reliable and valid study as there is consistency between the two groups of the surveys; and, also having done complete sampling (census) of the participants adds to it.

7. A significant strength of the study are the two pods of surveys conducted in the 3rd and 4th ICCC that provided the investigator the ability to compare the two pods, thus increasing the internal validity of the study.
8. All four surveys use exactly the same sampling procedures and core questionnaire items thus increasing the reliability. Additionally, the questions for both the onsite surveys and both the follow-up survey are almost the same. Therefore, the analysis of data is consistent and comparable across the survey pods.
9. Both internal and external validity of the study is high for the following reasons:
 - a. each survey is a cross-sectional study of diverse participants originating from over 40 countries of the world;
 - b. external validity due to the study being generalizable with the diversity of representation from countries world-wide. Additionally, the Congress being organized at different sites enabled data collection from multiple sites, thus strengthening generalizability.
10. Survey instrument and interview questionnaire was pilot tested each time prior to administration of the survey to confirm the survey instrument was measuring the intended variables and was easy to comprehend. Thus, instrument reliability supported and as the information is being collected in a Congress setting subject, observer and situational reliability are assured.
11. Importance of the research question currently to a number of cancer organizations.

12. The study being descriptive with multiple observation points was an integral strength of the study. Being subjective versus objective the survey helped describe the perceptions of the participants.
13. Attention was given to face, content, and construct validity by the committee reviewing and by pre-testing the surveys each time on a pilot population. Thus, there is a good face, content, and construct validity in the study. Content validity is established through the comprehensive questions (251, 252) while construct validity though difficult to establish with confidence to a large extent exists as the measures are consistent with the theoretical concepts being measured.
14. As the baseline surveys were being administered in person at the conference they had immediate completion by participants on site. While, the follow-up surveys were electronic surveys had a fair response rate as they could be completed at the participant's convenience and avoid interviewer bias.
15. Increased objectivity of the study due to the long time frame.

5.2.2 Study Limitations

Despite the strengths and contributions of the present study, there are several limitations that are important to identify. Each of these limitations points towards further essential research that needs to be conducted for more effective knowledge dissemination at a Congress level to mobilize people, governments, communities and researchers in each nation of the world for successfully addressing cancer control challenges at all levels.

First, from the researcher's own and peer past experience, the expected response rate to surveys was known to be anywhere between 30-50%. In spite of the response rate investigator pursued the central questions guiding this study. Strategies listed in Chapter 3 were used for increasing the response rate and to try and get it as close to 100% as possible. Despite all efforts to reach participants and motivate them to take the survey, the response rate over the four surveys ranged from 31% to 47% which though not high has been considered reasonable. Limitations in information initially collected about the study population limited analysis of possible dissimilarities between respondents and non-respondents.

Second, the data for this study was primarily drawn from participants self-reporting in surveys and interviews. Such measures are open to socially desirable responding; that is, there is a possibility that participants may have reported how they wanted to be viewed by the investigator or they may have also reported how they wanted to view themselves. The subjectivity of the study—obtaining opinions, self-responses, self-reporting, and perceptions of participants—was overcome by supplementing the information provided by participants by reviewing WHO's recently published NCD report on country profiles. Additionally, reviewed where available web-based country NCCP's and reports of countries cancer control program activities within the time frame of the study.

Third, since the primary data collection instrument was the survey questionnaire, the study has been open to survey questionnaire bias. Surveys are powerful exploratory research methods but are labour intensive and lack the rigour of experimental methods (251). Attempts have been made to minimize the bias by using surveys over four points of time, conducting open

ended interviews of repeat registrants at both the Congresses, gathering observational notes, supplementing and validating the information by web based research of country and WHO reported cancer control plans and activities over the study period.

Fourth, the recognized limitations were associated with high costs of surveying all participants and size of population. The sample size of approximately 300+ individuals from each Congress was a small sample. Any possible margin of error could have been decreased had the population of interest been expanded. However, the study overcame the limitations by considering the limitations to be benefits. That is, it was realized doing a census design was better than doing other sampling strategies. The reason researchers rarely survey the entire population of interest is because the cost of surveying all individuals is too high, and the population is dynamic in that the individuals making up the population may change over time (174).

Fortunately, in this study, the population at each Congress was not large: only 300+ individuals each time. Also, the individuals working in cancer control are small and even if mobile they move to units that are all associated with the Congress. Though a heterogeneous group, that originates from approximately 40+ countries of the world due to their association with ICCC through multiple UN agencies, the quality of their data and responsiveness was fair. So, using any other technique (e.g., stratified random sampling) would have been a mistake as firstly the sample size was too small for getting precise results and also it would have not represented the inherent heterogeneity of the population adequately, making it later difficult to generalize the findings.

Fifth, additional limitations of the study include the following:

1. This study was conducted as a cross-sectional study as the participants for each of the Congresses was not the same as in the past Congress. This is because ICCCs are rotated through the different WHO Regions of the world in an effort to promote cancer control in every corner of the globe and foster a global community of practice. Thus, there are approximately only 10%-15% repeat participants at each Congress. However this study has recognized the importance to follow participants through time, confirm the activities they are saying they are doing, measure the impact of those activities on cancer control programs in their jurisdictions using the RE-AIM framework (233), and for many other similar reasons. For future investigations, a cohort study is suggested that is longitudinal (prospective). In undertaking a long term study participants must be followed for the interim two years between Congresses.
2. The follow-up survey was not linked to the on-site survey for several reasons, such as participants' use of anonymous clickers. It is suggested that future studies link the congress survey to the post-Congress follow-up survey for better understanding of changes in respondent behaviour and activities.
3. Collection of demographic information on participants at registration (e.g., gender) would allow a comparison on gender profiles between survey respondents and congress attendees. Similarly, consistent collection of information on the country of respondents at each survey would enable comparing survey respondents to congress participants for this indicator. This

would enable a better understanding of the response rates and increase confidence to generalize survey findings.

4. This study suffers from minor reliability limitations (a) subject reliability (e.g. participant's mood while completing survey), and (b) survey instrument reliability. The concern on instrument reliability was addressed by pilot testing survey instruments on a small group of potential participants prior to administering a survey. Additionally, for improving the surveys/interview congruence, the investigator worked through the questions asked.
5. The addition of comparison groups would facilitate the development of better understanding about the value-add of ICCC in comparison to other Congresses as well as contribute to further strengthening the validity of the study.
6. The study recognizes the risk of multiple inference that is, indicating significance when not really present (212). This risk has been tried to be minimized by taking the significance value for all cross tabulation tests at a lower level of 0.05 ($p < 0.05$).
7. Though the study has high internal validity (as each survey is a cross sectional study), nonetheless, the investigator is aware of possible internal validity limitations that may co-exist. These are shared below and have been minimized by the investigator in the study as much as possible by triangulating the study:
 - a. Selection bias—attendees participating in the ICCC are representatives from all parts of the world. As expected and desired, there was an over representation from the host region. For example, as ICC3 was hosted in Italy, 54% participants were from Europe. In ICC4, hosted in Korea, about 70% participants were from Asia-Pacific region.

- b. Attrition bias– attrition may have occurred over the years as individuals move in their organizations either up the career ladder or in lateral moves. Thus, it was not always the same people who attended each Congress from the country.
 - c. History and maturation of participants.
 - d. Differential attrition – there may be lower response rates between individuals.
 - e. Non-response bias – some participants may refuse to respond or may have skipped a couple of questions.
 - f. Researcher bias – to reduce this bias, the researcher analyzed the complete data using social sciences statistical package (SPSS) and qualitative analysis software (NVivo9). In addition, the researcher reviewed the analysis with peers and incorporated their feedback.
 - g. Language bias – the bias of English as the language of the questionnaire was reduced by English being the official language of the Congress; participants who attended were either fluent or had a working knowledge of spoken and written English. Also, the ICC4 survey was pilot tested with 10 Korean participants (as the host country was Korea) while in Italy even though participants were going to be largely from Europe and North America, still pilot tested the questionnaire with ten potential participants.
8. The study has good external validity as the results of this natural experiment apply to the world outside the host country setting especially as the population of interest of the study are from over 40 countries of the world at the Congress; nonetheless, the researcher is aware of possible external validity limitations that may co-exist.

- a. The factors that may affect this study's representativeness may be multiple treatment interference: that is, as participants/organizations/ countries may have received a variety of cancer control tools from other meetings or conferences they may have attended. On the other hand, generalization of results may be good to the population of interest as the study concurrently used the survey and interview method with open and close ended questions.
- b. Response rate – the response rate dropping in the follow-up surveys; thus the researcher is careful with reporting generalization of the findings,
- c. Larger participation at the Congresses from high income countries (HIC). At ICC3 70% and at ICC4 64% were from HIC. From the 362 delegates at ICC3 70% (n=252) were from HIC (e.g. Italy, USA, Canada), 27% (n=98) were from MIC, middle income countries (e.g. Brazil, Romania), and 3% (n=12) were from LIC, low income countries (e.g. Nigeria, Uganda). The follow-up survey was answered by 112 delegates, of which 78 were from HIC, 28 from MIC and 6 from LIC; thus, indicative the survey respondents to an extent are proportionately representative of the population of interest.

Of the 310 delegates at ICC4 64% (n=199) were from HIC (e.g. Korea, USA, Canada), 34% (n=104) were from MIC (e.g. China, Malaysia, Thailand) and 2% (n=7) were from LIC (e.g. Tanzania, Nigeria, Cameroon). The follow-up survey was answered by 106 delegates, of whom 41 were from HIC 60 from MIC and 5 from LIC; thus indicating the survey respondents are not proportionately representative of the HIC when

compared to the population of interest; with strong respondent representation from MIC and LICs.

In conclusion, to reduce any potential reliability issues, the researcher improved the surveys' congruence and efficiency by doing pilot surveys prior to administering the surveys. To increase validity the study attempted to control confounding variables. This was not the object of this preliminary investigation (confines of this study did not allow for data analysis based on stratification). It can be accomplished in future investigations. For example, stratify the intervention group into three distinct groups of high, middle and low resourced countries. Then perform an analysis on each distinct stratum. Thereafter, compare the stratum across the points of observation.

This study examined the two composite data sets for the 3rd and 4th ICCC for similarities in development of relationships at both Congresses. It sought to explore whether the 4th ICCC have the results similar to the 3rd ICCC on relationships, partnerships, collaborations, networks. Also, concurrently were explored hypotheses of changes in relationships/partnerships/collaborations through the interviews. Finally, the relationships found between the variables are tentatively recognizing all the study hypotheses and assumptions. There may be some effects of variables that are not discovered in the data which need to be addressed in future investigations.

By virtue of the boundaries defining this dissertation research, there are questions, issues, concerns and research problems that have deliberately been placed for further investigation.

5.3 Implication of Findings

This study has taken advantage of a “natural experiment,” the holding of International Cancer Control Congresses, to examine the value of a way of strengthening human resource capacities so as to better address a global challenge (in this case, cancer control).

The results of this study have numerous implications. One of the most salient implications is raising participants’ awareness of the importance of population-based cancer control. To equip participants to catalyze their activities in cancer control, it is important for ICCC to continue generating and sustaining momentum on the development or implementation of population-based cancer control plans. This will help to influence development, mobilization and strengthening of national cancer/NCD control programs. It will also lay the foundations for effective and sustainable partnerships /collaborations, networks and communities of practice. Additionally, this research will help commence ‘pilot’ or ‘proof of principle’ projects to enable implementation of cancer control plans.

With the current study, it is possible to provide tentative leads for further inquiries about the significance of the Congress in its contributions through participants to the ongoing cancer control work in participant countries and globally. In addition, to using the survey method and interviews, in a future long term study a cohort of participants will need to be identified and followed in real time in the two years between Congresses. This is the follow-up being recommended by the study. The two years between each Congress will provide the time frame to link their changes in activities and behaviour to the Congress and determine the impacts of their activities on their cancer control/NCD programs (253).

As this study has confirmed through the cross tab analysis results (Chapter 4), there is a significant relationship between ICCCs and increased partnerships or collaborations. Changes occur in participant activities and behaviour that enhances actions to influence the cancer control work/NCCP in their countries. To build up on this identified strength, it is important that suggested follow-up investigations be done in the interim two years between Congresses through a cohort study that is longitudinal. This is essential for establishing an evidence-base.

The study brings to light that ICCCs' influence development of collaborations and networks. This influence could be increased if each Congress intensified efforts to highlight the results of the previous Congresses at each Congress. For example, to motivate the participants at ICC5, it is suggested carefully collected and disseminated concrete information be provided on the activities that have occurred following ICC4, ICC3, ICC2 and ICC1. Information in the future will need to be collected about the kind and number of cancer control collaborations/networks that have been established, as well as the best practices implemented; including, recognized communities of practice. This follows the needs of the participants, as they would find it helpful to learn and understand the numbers and how they were established and how they are being sustained. It is important that these activities and outcomes are linked to the objectives and are measurable. It is essential to share outcomes following ICC. This will help position the Congress as actionable. This will demonstrate the value-add of the Congress and confirm change has occurred. At present, only brief highlights of activities initiated or influenced following the Congress are presented by past hosts.

This study affirms that ICCC meets its purpose of providing a forum for knowledge transfer/exchange. Largely, delegates who have participated in all the ICCCs said the ICCCs derive their benefit from the emphasis on inclusion in the program structure of opportunities for dialogue and exchange – particularly in the workshop sessions. They noted that after each Congress, they have been able to continue contact with individuals from whom they have sought advice or information as a result of meeting them at the Congress. Also by coming to the ICCC, they have valued the opportunity to be able to step outside their respective national contexts or organizational contexts and reflect on key issues from an international system perspective. However, such information dissemination is not sufficient for building upon past strengths and constructively addressing past strengths and weaknesses.

One more area the findings indicate needs to be emphasized for successful organization of conferences. To be effective as a Congress it is essential to engage a diverse community of participants in the plenary and working group discussions at ICCC. More than 55% of participants at ICCCs pointed out that the Congress has not been very successful at engaging diverse communities like advocacy groups, nurses, civil society, patients, health professionals like social workers, occupational therapists, dieticians and many other similar stakeholders.

Examples drawn from several nations of Latin America confirm the Congress successfully influenced the initiation of a community of practice. It points out the integral element of a sustainable community of practice is a designated ‘champion.’ This champion would provide ongoing leadership, coordination, hold members accountable and keep the momentum of the CoP ongoing. In addition, it is key that a CoP outlines and communicates its

shared goals/vision. This will allow members to internalize the shared vision and have a sense of belonging. Yet another proposal for definitive consideration is a formalized governance structure with central and local leadership identified along with clear roles and responsibilities, timelines and milestones, and measures of success well communicated. The foundation of this structure would be establishing effective communication channels between members (83, 90). As said by one past host: “to produce results from a regional cooperation and collaboration, the commitment of individuals is necessary but insufficient. Institutional support is critical.” Efforts to establish a community of practice in cancer control in Latin America and the Caribbean grew out from the first two ICCCs (108). However, it is only recently that this Regional CoP is a vibrant entity as INCA, Brazil is the designated champion to take the lead in regional cancer control initiatives.

The analysis indicates that irrespective of the resource level of the country, there is ongoing cancer control activities in all countries. This includes building collaborations, establishing networks to exchange experiences and reach out for support. Some are also developing or updating or implementing national cancer control/integrated NCD plans and strengthening cancer control/NCD programs. With growing awareness for advantages of surveillance systems, there are activities recognizing the need for monitoring and evaluating effectiveness of cancer control efforts through establishment and maintenance of national population-based cancer registries. This, in turn, leads to the jurisdictions commencing or accelerating associated cancer registry activities.

The study explains how and why ICCCs are being perceived by participants, representatives of the host countries and co-sponsoring international organizations (WHO,

IAEA-PACT, INCTR), and others as a forum that has catalyzed the creation of diverse networks as well as providing a forum that has helped strengthen relationships between organizations and countries.

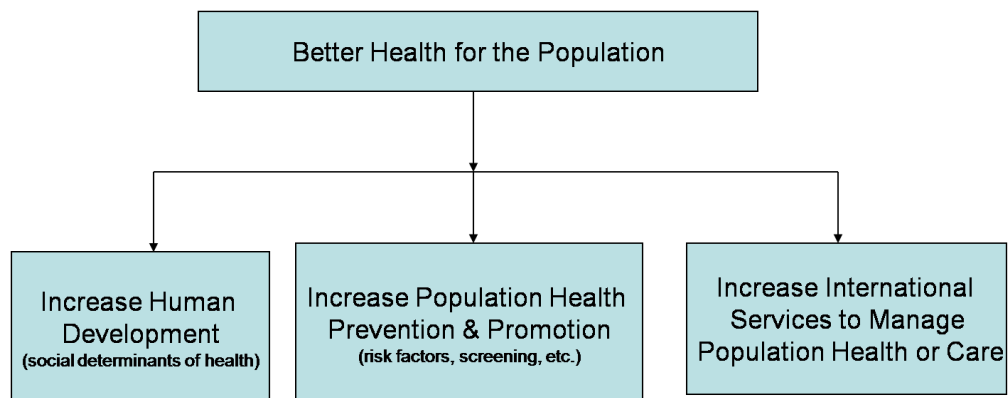
The study inferred that attendees from low and middle income countries are more satisfied with the Congress and consider it a success as opposed to attendees from high income countries. Another inference stemming from this study suggests that participants from low and middle income countries value the Congress program to a larger extent making ICCC that much more valuable to the developing world delegates.

To conclude, findings of the present study offer researchers and practitioners a wide a number of implications for future research. Firstly, important limitations of this study need to be addressed in future investigations. In particular, the addition of comparison groups would facilitate the development of better understandings about the difference in impact of ICCC in comparison to other Congresses. Also, the follow up investigations in the interim two years between Congresses needs to be formally and rigorously institutionalized through a cohort study that is longitudinal, in order for an evidence-base for change to be established. The study should be conducted longitudinally in three sub-groups of participants based on the resource level of their countries—low, middle or high. In addition, the study should consistently collect additional information such as gender (during registration) and country of work (during surveys), and link the on-site and follow up surveys. Secondly, it is imperative that ICCCs work towards attracting larger number of policy makers who may have a greater influence on cancer control work, nationally as well as globally.

5.3.1 Additional Considerations for Future Congresses

The study reveals that the International Cancer Control Congresses (ICCCs) endeavor addressing the cancer control continuum through their plenary and workshop sessions. The Congresses target to manage population-based health by focusing on human development, prevention and promotion and international services/care (see Figure 5.2). From the ICCC4 Congress program, there also appears to be a growing focus in the congresses on the first box of social determinants¹⁰ and much attention appears to be paid on the second and third components—population-based health prevention and promotion and international services or care to manage population health (254). The political resolution from the September 2011 UN High Level Summit for NCD validates the need for increasing population-based prevention and promotion and focus on the social determinants of health (226).

Figure 5.2: ICCC population-based cancer control



¹⁰ Social determinants of health most commonly include gender, income, physical, social and work environment, ethnicity/culture, occupation, education, early childhood development etc (36).

The above figure portrays that prevention encompasses primary and primordial prevention. Primordial includes the circumstances under which the population lives and includes food security, water security, built environment, occupation, education and others. Overall prevention harnesses reducing or countering exposure to risk factors (primary prevention) driven by primordial factors. There is plenty of evidence that focuses on both primary and primordial prevention being needed to manage preventable cancers before the disease manifests (7). Meanwhile, international services refers to the partnerships or collaborations established between countries or international agencies like the IAEA-PACT, WHO, UICC, etc. that will enable channelization of expertise and resources to build capacity to manage care.

Insights from the study make it possible for the investigator to suggest a possible equation (see Figure 5.3) for increasing the uptake of cancer control by participants at the Congresses.

Figure 5.3: ICCC equation

$$\begin{array}{ccccccc}
 & & (a) & & (b) & & (c) \\
 \text{Level of achievement in} & = & \text{Knowledge} & & \text{Context in} & & \text{Relationships} \\
 \text{cancer control} & & \text{in cancer} & \times & \text{which it is} & \times & \text{Available} \\
 & & \text{control} & & \text{applied} & &
 \end{array}$$

In the above equation the magnitude of the level of achievement or added value of attending ICCC is a product of knowledge, contextual application of the gained knowledge and relationships fostered. To increase the magnitude of achieving cancer control in the equation, the need is to strengthen the elements of the equation, as follows:

- (a) *Knowledge*: To what extent is the Congress about making sure people gain knowledge of cancer control? Realizing that participants do not get knowledge only from attending the ICCC as there are a variety of mechanisms for gaining knowledge—literature, attending other cancer meetings or conferences. The question here is how much of the participants knowledge increase can be attributed to the Congress? Is the Congress providing added value in terms of increase in knowledge?
- (b) *Context*: The context in which the knowledge is applied is very relevant. How does the application of knowledge gained at the Congress work in a region or country? What makes the knowledge application successful? Or, what does not enable success or change in the desired direction?
- (c) *Relationships*: Does the Congress attract or have the right mix of participants for transfer of knowledge such that it gets translated into practical application?

The next ICCC could begin the journey of strengthening the equation by addressing the following questions:

- What specific cancer control knowledge would provide added value to participants?
- What should be done at the Congress and how to maximize application of knowledge as well as align the knowledge disseminated to participant's real-life context?
- How should ICCC maximize the context in which the knowledge is applied?
- What should be the mix of participants at the Congress and what can be done to attract the identified mix—an appropriate mix of public, provider and political?

- What more can be done within ICCCs to maximize the relationships available in the forum?
- Has the Congress maximized the likelihood that attendees will continue to work on their identified areas of action post-Congress? To what extent can the Congress design make sure that happens?

A starting point to address the above introspective questions would be the ICCC logic model. The logic model maybe revised to describe the mechanism by which the congress will maximize knowledge, context and mix of participants. And then, address the plenary sessions (whose intent is to bring the audience up to a common level of knowledge so that participants can have informed and constructive discussions during the follow-up breakout sessions); the plenaries need to reflect the front edge of challenging cancer control issues. These plenary subjects or areas of the cancer control continuum need to be decided upon in collaboration with and based on the identified need of the host country/ region; a change from how plenary topics are currently chosen (i.e., in association with the international community rather than with the host country). The Congress needs to be tailored to the host country/region and must be an action-oriented forum of the country, by the country and for the country. This is because the largest contingent participating is from the country or region and thus the forum needs to be meaningful and aligned to their interests rather than try to be everything to everyone.

A reflection if ICCCs should continue to be organized confirms that the design of ICCCs captures the need expressed in the UN Summit statement for control of NCDs including cancer (226). The evolution of the ICCCs appears to be consistent with the directions coming from the

2011 UN NCD Summit and the WHO. The study interviews with the committee revealed that ICCC endorses an integrated approach to NCD control and healthy living as well as provide a forum for participants to share insights and solutions, build collaborations, strengthen existing partnerships and address mutual goals to build, maintain or sustain capacity to control cancer/NCD. Additionally the forum appears to: (i) enable fostering of partnerships between governments, government and UN agencies and NGOs, (ii) promote capacity building of NCD/cancer at country levels, (iii) promote strengthening research and development related to prevention and control of NCD/cancer, (iv) promote international collaboration and a public health approach to cancer prevention and control especially for LMICs, and (v) urge international agencies to provide technical assistance to developing nations.

5.3.2 Considerations for Future Studies Relevant to Thesis Topic

Promising research stemming out of this doctoral investigation opens out into areas for future investigations. Among the many future possibilities stemming from this doctoral research the following discussed rank among promising significant ones.

For future discussions, the researcher has identified the challenges faced by cancer/NCD control namely, stimulate global action, provide a conduit for knowledge transfer and stimulate an awareness of leadership, governance, competencies and skills required for management of cancer/NCD control.

Thereafter, has recognized the importance of the international treaty, the WHO Framework Convention of Tobacco Control (FCTC) opening up an area of future discussion on how it addressed the global tobacco challenge, how it framed the issues at a global level, the

reasons behind its success—strategies, norms, debate—whether this can be applied to cancer control.

Then, shifting the focus to the 2011 UN High Level Meeting on NCDs for future research on what the summit did for the NCDs, the researcher reflected on whether global framing as done for FCTC would change thinking and stimulate action. Later, using insights from FCTC, the investigator opens up for future conversation how the NCD summit and its resolution can be leveraged. This reveals the need for an in depth exploration of the cancer declarations—UICC World Cancer Declaration and the Congress declarations—to begin to identify possible elements for a global framework for cancer control.

5.3.2.1 Challenges faced by cancer control/NCDs

The international community has come to recognize non-communicable diseases including cancer as major global health challenges that not only threaten human health but also growth, development and economic growth of nations. This recognition culminated in the United Nations General Assembly convening a high level meeting of heads of states and governments in September 2011 to address a response to this major global health challenge—63% (36 million) of all deaths worldwide are caused by NCDs of which 80% of deaths occur in LMICs (8, 256). Of this 63% of NCD deaths, 48% were attributable to cardiovascular diseases, 21% to cancers and remaining 12% to respiratory diseases and diabetes (257). There will be a great global loss in economic output (47 trillion) with the high income countries having the highest loss of output as the value of lost earnings is highest in developed nations (256) .

A series of fora held prior to the UN Summit in which a number of members of the ICCC steering committee participated reaffirmed the need for a collaborative global response to the NCD challenge. A perspective from India, which was complementary to what many were advising, called for addressing NCDs by launching a multipronged approach that propels action at the national and local level through a strong public health policy, actionable community-based programs and clinical preventive services (257).

The challenges faced for an effective response to cancer/NCD control ranges from a need to stimulate action to provisions of a conduit for knowledge transfer to stimulate competencies and skills required for effective and sustainable cancer/NCD control.

Discussions at the global fora and among the congress participants confirms action needs to be multi-stakeholder and cross-sectoral with comprehensive involvement by all sectors of governments, NGOs, civil society, experts and society or community at large; identification and mobilization of effective leadership at national and global levels; and, the need for political will to be galvanized at both global and national levels such that governments scale up their responses at an individual and collective global level(258).

The need is not only to get concerted action from governments worldwide but also to rally international NGOs to collectively address the growing NCD challenge such that they provide support to governments in political action (259)and use their networks for social mobilization, that is, engage and motivate their multiple partners (community, institutions, religious groups) at all levels to raise awareness and turn the tide on cancer/NCDs .

Another extremely important partner is the private sector including industry who though aware of the threat cancer/NCDs pose to economic growth and thus to their businesses needs to be part of the solution. They should be actioned to commit to the highest level of engagement and change what they currently do. This decisive change needs to use creative and innovative measures that allows the private sector accomplish their role and contribution in facilitating adoption of sustainable healthier lifestyles by their end users—reformulate their products, perform responsible marketing, make essential drugs and technologies readily accessible (256, 259).

The long term challenge for this multisectoral, multi-stakeholder also discussed by forums at the ICCC will be to find ways to continue to work collaboratively in unison with the national cancer control or NCD plans (259). Trust and cooperation between the stakeholders and with the larger public will be the keys to the long march ahead. Success requires public-private partnerships, a global political vision, resource mobilization across sectors, governments (ministries) using innovative financing mechanisms (260).

Another challenge that the panel discussants at ICCC4 highlighted was to provide a conduit for knowledge transfer as global health systems need to be strengthened before any goals can be achieved whether they be major global health goals or specific health programs like cancer/NCD goals. No progress can be made without evidence to base effective health/cancer control /NCD programs on. Currently a large number of countries in the world are missing necessary population-based surveillance and cancer registry systems. The ability to measure, monitor both programs and targets is critical as it demonstrates the size of the problem and will

empower governments to take action, evidence-based action. An extremely important component of strengthening health systems is countries having well trained health workers across their health care continuum with community-based primary care receiving the greatest focus and strengthening. Other interrelated blocks for health system strengthening include service delivery, ease of access to essential medicines and technology, financing, leadership and governance (261).

Implementation of the agreed upon ‘best-buys’ advocated by WHO at the UN Summit which was also supported by participants at the congress needs both country specific research for implementation (thus needs research capacity be built at country level especially LMICs) appropriate incentives at the community level for making healthy choices and a strong political commitment—raising taxes on tobacco and alcohol, screening for cervical cancer and removal of lesions, early detection of breast, colorectal and oral cancer, reducing salt intake in food, increasing awareness of diet and physical activity(8, 19, 259). An ongoing challenge that needs immediate attention is to obtain a firm commitment from countries to resources and implementation – resources are yet to be committed (154)

Challenges of leadership, governance and of stimulating competencies and skills required for management of effective cancer/NCD control poses yet another formidable challenge. A political champion and a legal binding instrument (law) are critical to addressing the political, technical and economic challenges associated with NCDs including cancer. This area should be further explored as it holds great promise. With the UN General Assembly now in position as the global body to which global NCD progress reports starting 2014 will need to be presented can be

considered the much awaited champion with WHO as the designated UN regulatory agency monitoring global NCD prevention and control activities. The governance, seems will be networked, which will now make it difficult to instill a collective sense of ownership and a clear structure for responsibility and accountability. Thus, the challenges faced by WHO and its collaborative partners including countries are going to be manifold. To begin with, WHO would need to prepare a practical global monitoring framework with clear measurable indicators and targets by end of 2012. This will be to track trends and assess progress of countries as they develop and implement their National NCD plans including cancer—ICCCs are continuing through their fora to promote the momentum around the necessity for population-based cancer control . In 2013 countries as committed through the UN political resolution would need to report on the status of their NCD plans while WHO in collaboration with its member states, UN and other international agencies would need to suggest shortlisted options for strengthening and facilitating multisectoral action for prevention and control of NCDs including cancer. And, then in 2014 WHO will report on the progress to commitments made in the UN Political Declaration on NCDs and the resultant impact on the millennium development goals (226). The ongoing challenge here for WHO to overcome will be the existing tensions across international agencies and a few powerful industries like tobacco undermining its efforts as well as countries still in different stages of having their integrated NCD/cancer control plans ready for implementation (154).

5.3.2.2 WHO Framework Convention on Tobacco Control (FCTC)

For future analyses, I have identified a need for exploring the WHO Framework Convention on Tobacco Control (FCTC), an international treaty recognized again recently by the UN Political Resolution at the UN Summit for NCD Prevention and Control as an effective NCD reduction strategy. In the hope of opening multiple windows on promising research, I present a brief examination of the key questions—How does it address the global tobacco control challenge? Did it frame the issue globally? Why has it been successful? Finally can learning's from FCTC be applied to cancer/NCD control?

How Does FCTC Address the Global Tobacco Challenge?

The WHO FCTC, a milestone in public health promotion, provides a new legal scope for international health co-operation. It is a powerful call for global collaborative action signaling opportunities to address the collective global problem. It is opening pathways by putting in place effective reporting and monitoring mechanisms. WHO has provided a platform for action. Thereafter, it called for setting up a governance structure that included a governing body 'Conference of Parties' made up of all party to the convention. Conference of Parties was made responsible for promoting the implementation of the convention globally. The power of the process and structure has been made transparent and accountable, that is countries are being held accountable to achieve the targets put into place in consultation with members themselves. It has initiated an important diverse cultural institution that all stakeholders relate to.

Conference of Parties lays out the transnational legal norms, a reporting process and oversees development of the implementation toolkit including the protocol and guidelines that

are being put into place (262). Support is being aligned to help countries implement articles of the convention. The monitoring and reporting system too is well positioned and functional. (263, 264). The treaty is offering firstly essential steps and then reinforcing accountability.

By developing a global response to a transnational health problem and encouraging political ownership of the tobacco problem FCTC has offered a treaty that can become a shared project of the world—decentralizing and sharing controls with stakeholders. The treaty has had global reach through partnerships, agreements and governance structure linked governments, agencies, transnational corporations and global health stakeholders; creating a political momentum for addressing the issue. Through all the regulatory norms set at a global level, it is reinforcing enforcement (264).

To address the global tobacco challenges, FCTC specifies the measures that countries should implement. These include going beyond advertising bans, taxation, smoke free policy and cessation support. It continues to produce guidelines and support materials to help implementation. For example, upon adoption of FCTC in 2004 Mexico stemmed the tobacco epidemic. With the support of WHO, Mexico put into effect comprehensive tobacco control programs which have been since then evaluated to confirm effect by the global surveillance system (224).

Additionally, FCTC is activating and mobilizing funding efforts like the Bloomberg Initiative to support implementation in high burden, low resourced countries. The Initiative also advocates translating the treaty into national laws with strong enforcement mechanisms (14, 265). FCTC has used price control especially raising taxes and positioned it as a promising

intervention with governments. For example, in the US, states are raising tobacco taxes frequently as a reliable double-edged tool for it reduces tobacco consumption and increases state revenue (266). It has used multiple strategies like tax, pricing, education, monitoring, regulatory, communication and surveillance strategies (159). Its Global Tobacco Surveillance System (GTSS) with its components of the Global Youth Tobacco Survey, Global Adult Tobacco Survey, Global Health Professions Student Survey. Clear indicators and six startup policies of MPOWER have proven to be extremely effective (267).

The Global Adult Tobacco Survey (GATS) 2008-2011 is surveying countries in phases. Due to strong leadership at the country level, committed governments and partnerships at multiple level, GATS findings are being translated by countries to tobacco control policies. At ICC4 survey findings from a few countries in Phase 1 (GATS 2009) like Thailand, China and others were presented. Also presented was the translation of these findings to tobacco control policy changes for example, in Thailand M (monitor) would now include setting up a comprehensive national tobacco surveillance system, W(warn) would rotate the printed health warnings every 2 years (254, 267).

Using FCTC as a window into governance and NCDs there are important lessons to be learnt from the FCTC analysis. Taking Vietnam as an example where innumerable transnational tobacco companies (TTC) made concerted persistent efforts over decades to establish a presence in Vietnam as it was one of the fastest growing tobacco markets of the world. To protect the health of its population, Vietnam realized the importance of launching a regulatory instrument to control the tobacco industry. In 2000 the country launched its 10 year national tobacco control

policy, and, then in 2004 ratified the FCTC thus signaling a shift in the country's political will to protect public health. The national implementation and enforcement of the tobacco prevention and control measures were possible as the country could draw global support from the Framework Convention on Tobacco Control (FCTC) as well as through its networks from regional experiences of Asian countries (268).

FCTC a turning point in global tobacco control calls for comprehensive implementation of the treaty by nations. It insists countries focus on both demand and supply side measures—demand through taxation policies and supply through the protocol on illicit trade (269).

Are resources an important part of the equation? FCTC appears to have linked goals to resources. Countries are encouraged to raise tobacco taxes and channelize the additional income to fund tobacco control programs as pioneered by Australia, Thailand and others (14).

How Did FCTC Globally Frame the Issue?

FCTC is a legally binding international treaty, with well defined regulations very well. Actually, it has been the only significant initiative implementing a global public health policy to respond to the tobacco pandemic or what WHO calls “globalization of the tobacco epidemic” (270). Subsequently, tobacco was made a global priority. The new UN Political Declaration on the prevention and control of NCDs again laid emphasis to commit and strengthen political resolve to accelerate implementation of the FCTC (226).

As WHO member countries realized and agreed at the 48th World Health Assembly 1995 the gravity of the tobacco issue. The Framework Convention on Tobacco Control was developed

and later at the 52nd WHA FCTC with its multilateral negotiation instruments was placed as a global health priority (270).

Tobacco was framed as a transnational serious health threat. The seriousness of the tobacco issue further highlighted the international interdependence between nations and the need for transnational cooperation to solve this problem. As responsibility and control would rest with the countries and monitoring mechanisms would be instituted with their input. There was agreement to adopt a legally binding instrument with an international legal solution (159).

Tobacco control's cost-benefit ratio and strong scientific evidence-based information on the effects of tobacco use were further reinforced this framing. Evidence that tobacco was a public health risk and the TTCs had ignored warning consumers of it, additionally irritated NGOs and interest groups. This generated a strong advocacy base support. With hard evidence of the cost-effectiveness of interventions suggested political support and willingness to act for the treaty grew (159).

The convention offered an institutional basis to develop tobacco control with a clear focus on specific measures like tobacco smuggling. In April 2012, the very first protocol for FCTC has been firmed up which if adopted will address illicit trade in tobacco products by controlling the supply chain (262).

By identifying concrete goals, closely aligning them with the goals of the stakeholders and positioning tobacco control as a means to strengthen national capacity the importance of addressing the issue was conveyed. Also, supporting countries with legislation enforcement highlighted the importance of the issue The political processes ensuring stakeholders own, care

about and understand the need of the goals to want to put resources and work in collaboration with other partners to reduce the burden has been crucial (264).

To raise awareness, bolster commitment and mobilize action FCTC has used multiple communication channels primarily GLOBALink and fostered various advocacy networks. Interpersonal communication and networks facilitated FCTC in its global framing. The treaty has demonstrated the significance of network interaction for public health programs. If missing, adoption or diffusion of the policy diminishes (160).

Why Has It Been Successful?

FCTC is significant in being one of the quickest treaties to be diffused and to be the one most ratified in the world. The treaty identifies both demand and success measures. The success of this treaty is being attributed to multiple reasons. Foremost being its strategies and medium of online communication GLOBALink—considered by many to be the most frequented and internationally recognized of all online networks. This has facilitated creation of fora and networking where committed individuals could exchange information, experiences and consequences. FCTC proves that the launch of any global public health program must be accompanied by a plan for creating interaction opportunities (160).

WHO FCTC, a legally binding multilateral instrument is open to a international legal solution. The Framework can be considered to be a trend setter as it developed a regulatory strategy to address the tobacco epidemic (270). It has been distinguished by a strong political will, leadership, commitment among all stakeholders and a well-built evidence advocacy base; a new approach to international health cooperation (42).

The established governance structure demonstrated a paradigm shift as it included NGOs and civil society in addition to member countries. This expanded group of stakeholders was tasked to position health in global foreign policy negotiations, something not done before in global health. They monitored, lobbied, brokered information and offered expertise where needed. This novel negotiation process combined with the treaty's global reach, that is, it is binding on all WHO member states enabled convergence of governments with NGOs (163).

NGOs with a far reach into the communities further served to increase the global reach of the treaty. Inclusion of the larger public through a call for larger public involvement was yet another win. Inclusion and broad participation that included all interested stakeholders including the private sector at all open and transparent negotiation rounds build up tobacco control (163, 271)

The success factors contributing to the formulation of creative and effective policies includes the formation of a national tobacco control plan, multidisciplinary team, multi-sectoral collaboration, raised social awareness, strong leadership and supportive policy makers (166). FCTC positions tobacco control as a legally binding public health norm, thus enabling nations to enforce legislations for achieving the goals of the convention (159).

Other contributors to its success include the intricate riches of the negotiation process; a long history of multilateral resolutions; having been conceived and implemented as a global tobacco surveillance system, comprehensive tobacco control legislation at a country level, transformative agenda, potential of the treaty to integrate gender and diversity into tobacco control, a strong political commitment, leadership, and multilateral resolutions (159, 163-165).

Realization of the importance of ongoing diffusion and dissemination of information to gain stakeholder and the public's support was vastly important. Communications and networking via GLOBALink has been the treaty's cornerstone to success. They allowed international information sharing of experiences and consequences of action. This catalyzed the process of ratification to the treaty (160)

By controlling the marketing of tobacco products, sponsorships to events and organizations, advertising and promotion of tobacco FCTC is trying to turn the tide against all undermining debates put forth by TTCs. For example after China ratified the treaty, the national media was kept well informed, and all organizations were made aware by the government of the pitfalls associated with partnering the TTC and coached to refrain from accepting tobacco industry funding(272).

Tobacco control has used comprehensive programs that address several components of the environment synergistically to have a maximal impact. This has been done using a singular or a multi-message multi-channel approach of clinical intervention and management, educational strategies, regulation and economic approaches. For example clinical interventions through physicians discussing smoking in tobacco cessation clinics; educational interventions through advertising, mass media, and employer educational campaigns; introducing tobacco prevention talks since elementary schools; enforcement of tobacco control policies like clean indoor air and others (273).

Can Learnings Be Translated and Be Applied to Cancer/NCDs?

FCTC has demonstrated the importance of an evidence based framework with implementation guidelines and use of a legal instrument. This framework that addresses both individual and institutional causes can be built upon to establish a global strategy framework to address NCDs. Similarly, its proven strategies and platforms for communications can be replicated to enhance diffusion of knowledge and information to all stakeholders. Learning can be absorbed such that the global cancer/NCD framework has distinct indicators and time limited targets. Similar to FCTC, the NCD framework should be accompanied by a monitoring and reporting system so that it is able to accurately measure the inputs and subsequent impacts of preventing and controlling cancer/NCDs (158, 162).

Translating the FCTC successes to NCDs would be advantageous. A foundation for moving forward with a similar kind of international instrument has been laid with the recent UN political declaration on prevention and control of NCDs (226). With the UN Political Resolution on NCDs, these have the attention and high level commitment of the international community including governments. On a foundation of evidence, if they can leverage this political will, harness the energies of advocacy of the UN and non-UN agencies, international and national NGOs, civil society, interest groups and others the cancer/NCD epidemic can be addressed just like tobacco (159).

Tax and pricing strategies could be replicated. NCD could mirror tobacco's education promotion strategies, communication and public relations approaches, and ways to raise awareness, control marketing, sponsorships, advertising and promotion. However, the regulatory

component of the treaty needs to be used in balance due to the complicated issues of food associated with cancer/NCDs (159). Yet, what is vastly important to parallel are two things—the involvement of NGOs in transnational negotiations and the public voice which comes by facilitating public participation in the process (271).

However, unlike FCTC the control of both demand and supply of products detrimental to population health should equally be focused by the NCD drive (165). Incorporating recognition of how global systems play an important role in understanding non-communicable diseases and the capacities for dealing with them would hold the magical key to successful implementation.

Countries are realizing they have to work together. Countries as well as sectors (education, agriculture, trade etc) are aware that they cannot be counterproductive. What is extremely essential is that the UN, WHO and others capitalize on this heightened awareness and involve governments and stakeholders early in the process. They have to be part of the process in conceptualizing solutions and implementation timelines. As done in FCTC they need to be part of the process from the inception else they will not ‘own’ the process and will not collaborate at international levels. Nor will they set up necessary institution structures, or conceptualize strategies for effective implementation. The drive has to start within each nation, agencies, corporate sector and each of the multiple stakeholder groups. They are part of the problem and they can be part of the solution. And, they have it in them to be productive contributors to the success of addressing the cancer control/NCD epidemic.

5.3.2.3 UN NCD Summit

Among the many possibilities for future analyses, the Sept 2011 UN Non-Communicable Diseases (NCD) Summit also known as the UN High Level Meeting (HLM) for the prevention and control of NCDs, necessitates formal and rigorous explorations to ensure the much needed global focus for non-communicable diseases does not get shelved. NCDs have overtaken infectious diseases today even in LMIC's and are being attributed as the main cause of death and illness in these resource strapped countries (274). This is due to little attention being paid to them, for the attention had shifted focus to infectious diseases like tuberculosis, HIV and others. In the hope of opening multiple pathways on promising research, below is presented a brief examination of the key questions—What did the UN summit do for NCDs and how can it be leveraged? What are possible elements for a global framework for cancer control? And finally, will global framing change thinking?

What Did the UN High Level Meeting Do for NCDs Including Cancer and How Can It Be Leveraged?

Future directions demand changes in thinking that stimulate action beyond the current country specific approach of addressing the challenge non-communicable diseases present. The UN HLM has offered hope; NCDs have been acknowledged as a global problem and are being signaled as a global priority (226, 275) . Now, that the world's attention has been captured for the moment, the need is to leverage the UN Summit Political Declaration for NCDs prevention and control. This can be achieved through increasing the momentum of activity at all levels, aligning and mobilizing financial, human and technical resources with concrete strategies.

The action appears to have started with the UICC committing to following the political declaration on NCDs to developing targets and indicators for the eleven targets it had set in its 2006 World Cancer Declaration. They are also committing to enhancing efforts on creation of global partnerships between the UN, member countries, civil society and private organizations, and monitoring progress to committed goals. Meanwhile, WHO plans to develop a global monitoring framework by end 2012, and the UN member countries have committed to strengthening their national plans by 2013; thereafter reporting progress at the 2014 UN General Assembly (154). The key question here is, will everyone be able to sustain these initial efforts and meet their commitments? In the past, words have not always got translated into actions. There have been few exceptions, like the Programme of Action for Cancer Therapy (PACT) of the International Atomic Agency (IAEA) that has sustained its momentum over the past six years; and successfully expanded and evolved its imPACT reviews to assist countries in evaluating their current capacity in addition to supporting cancer control demonstration projects (also known as PACT Model Demonstration Sites) in eight selected developing nations (148, 236).

Today the interdependent relationship between NCDs is recognized especially, between the four major diseases (cancer, diabetes, cardiovascular and respiration). They need a collective global response as NCDs pose a shared health challenge worldwide. There also exists a significant need to address their risk factors by addressing health consequences of global trade and global marketing of tobacco, alcohol, energy rich foods and beverages, as well as, optimize global utilization of resources to overcome constraints at national levels. With a global response,

transnational partners will gain the capacity to identify, evaluate and disseminate best practices and efficiently implement national policies (1).

The Political Declaration issued at the UN Summit heralds a new era for NCDs prevention and control at a population-based level that needs to be leveraged and sustained. As realized from the FCTC discussions aligning resources to desired actions is of utmost importance. This requires strong political will. Another vital piece as demonstrated by FCTC is the dynamic leadership of the NGOs and civil society—NGOs as partners during negotiations, for advocacy, to increase awareness, for outreach and to mobilize grassroots communities; the civil society for lobbying policy changes, legal reforms, supporting capacity building efforts and aligning resources. For example the NCD Alliance formed by four international NGOs for the UN Summit generated at a global level significant momentum and advocacy for NCDs (7). NGOs and civil society of all countries especially, LMICs need to be strengthened and mobilized; as currently there is very little social movement in these countries. This is required to generate pressure on the governments, for development of policy and change in regulations (7). Partnerships and alliances hold the key. For sustaining the momentum to address this global epidemic new partnerships need to be continually encouraged between governments, the UN and its agencies, NGOs, civil society, and the private and corporate sector (260). And finally, Governments need to present a unified strategy that shapes multi-sectoral policies—health, education, food, environment, transportation, media, communities and many more (153).

Action on NCDs must transcend national boundaries and capitalize on the growing realization by countries of the need to work in collaborative partnerships, share culture and

context relevant experiences, implementation successes and know-how as well as innovative ways of financing and mobilizing resources. The attention of countries cannot be lost. They cannot be allowed to become disengaged and counterproductive. They have to be kept at the table along with the multiple stakeholders as this is everyone's problem. It cannot be solved by the UN or WHO singularly—it needs collective action and thought of all stakeholders so that the solutions conceptualized are their solutions. If achieved, this will increase their commitment to the process and will ultimately result in facilitative institutional structures set up at national and international levels to collaborate.

Governments, in addition to comprehensively strengthening their health systems including information systems, will be required to provide strong leadership and resource stewardship. To achieve the collectively set global targets, the expectation is that countries using creative financing mechanisms allocate and mobilize resources (156). This is one of the many areas where the high resource countries can support LMICs by sharing their proven financing mechanisms and models. For optimal utilization of global resources, 'twinning' of facilities could be done or partnerships established to share resources using technology. For example, 'Partners in Health' has been successfully established by USA with Mexico, Haiti, Rwanda and Malawi to assist these countries with treatment of highly complex problems through providing expertise largely using videoconferencing and other online communication tools(26) . Another area that warrants exploration is the possible creation of a global fund for supporting NCD prevention and control in LMICs.

Prioritization of actions is urgently required as is sustainable long term partnerships (148). So is strong leadership; countries at the summit committed to multi-sectoral national and international policies for controlling NCDs and to the use of accepted international instruments like WHO Framework Convention on Tobacco Control, WHO Global Strategy to Reduce Harmful Use of Alcohol and the WHO Global Strategy on Diet, Physical Activity and Health. This clearly will make NCD prevention the cornerstone of the global response (34, 226). However, missing from the political resolution are concrete targets with indicators and milestones. Even though WHO has been accorded the task of creating the global NCD monitoring framework with recommendations for voluntary global targets, it is insufficient.

This is a missed opportunity that needs to be corrected with advocacy and social mobilization efforts by all stakeholders at both national and international levels, such that governments realize the need to use the summit momentum and commit to defined stretch targets not voluntarily. Especially, as the summit has generated the needed political momentum and endorsed cost effective solutions (best buys) to address the common risk factors. Now, countries need to be held responsible for accelerating development and implementation of integrated NCD plans, as well as, commencing action on the best buys'. In addition, the NCD alliance network calls for integrating the NCDs into the Millennium Development Goals (MDG) or into any successive framework created on expiry of the MDG in 2015 (260). It would generate much goodwill if the international partners considered the UICC Cancer Outcomes Statement prepared for the summit and maybe built upon it further (276).

Possible Elements for A Global Framework for Cancer Control

With the enactment of the FCTC, the global community responded to the tobacco crisis. Cancer too needs to have one accepted global framework for addressing cancer control. Early exploration of the cancer declarations suggests the importance of conceptualizing a global framework that extends and builds upon regional and national health care plans.

Cancer is a global issue. Cancer is one of the most common causes of death and is responsible for approximately 13% of the 59 million deaths worldwide. If unchecked, current cancer rates will continue to grow. It is predicted new cases of cancer would increase from 12.7 million cases in 2008 to 21.4 million cases in 2030 (275).

The World Cancer Declaration (WCD) 2006 is a call to action on world leaders to reduce the cancer burden by 2020. This is to be achieved through several country-based actions like developing and implementing NCCP's, population-based cancer registries and cancer prevention strategies. It would also be attained by increasing access to diagnosis and treatment, enhancing screening, early detection and palliative care activities. The WCD with its eleven targets have been believed by many as a roadmap for addressing the global cancer crisis. Priority actions were outlined to guide countries achieve set targets. However, these unlike the proposed cancer outcomes statement for the UN Summit are not specific and action oriented (149-153).

There is a wealth of know-how and experience in the world today on what works and what does not which if properly deployed might launch a Global Framework Convention on Cancer Control (FCCC) to provide an opportunity for progressive realization of cancer control on a global scale. Making cancer/NCD control a health and development priority is being

expressed widely (152, 155). The review shows a global framework convention of health would ideally have global governance with a bottom-up strategy having multiple aims. These would include an aim to build capacity, set clear priorities with timelines, engage stakeholders, synchronize and coordinate activities of stakeholders, as well as evaluate and monitor progress (155). The global framework would enable prioritization of issues at a global level. Similar to the FCTC it will advocate greater global governance and responsibility. Thus, it would provide a transparent tool to hold countries responsible and accountable in fulfilling their duties and promises as agreed under the framework agreement. This proposed FCCC may possibly replace the plethora of cancer declarations that currently exist. Set up like FCTC, this convention too would be legally binding and regulatory—which would form its greatest strength as, unlike declarations it would be legally binding (155).

The rationale for a global framework is to improve the management of cancer/NCDs as, at present, the chronic NCD approach ranges from structured to completely unstructured/inadequate across the world. In particular, LMICs are lacking systematic follow-up and monitoring of cancer/NCD care, access to essential care resources and information on morbidity and mortality rates (156). The example from South Africa provides evidence that in addition to geo-political determinants of health status there exist international challenges like human resource shortages, high cost of essential medications and others that make national health an issue that can only be protected by global agreements (155).

Suggested natural elements of a framework for cancer control are a goal, strategy, targets, package of interventions, and progress indicators (156). The framework with its well defined

targets and indicators would assist in motivating global discussions; and, signal countries that the United Nations and its agencies mean business and that countries are going to be held to the commitments they make under the convention. It is of utmost importance to define specific goals for cancer/NCDs, time frames, targets and resources for diagnosis and treatment, and indicators for measuring and evaluating (146).

Other important elements comprise political commitment to the definite actions with defined time frames. This commitment needs to be by all—governments, international multi-sectoral agencies and all stakeholders. Research, is another integral element which must be woven into the framework with identified resources such that LMICs can consider establishing and promoting culture and context specific research. (148). Other possible elements for consideration are the eight focus areas identified by UICC in their Cancer Outcomes Statement for NCDs. Some of them are prevention, resources, cancer mortality, progress, early detection and treatment, and public awareness and education (276).

This Outcomes Statement is informed by positive experiences of the actionable HIV/AIDS outcome statement (provided in the annex to the UICC outcomes statement). It is created with specific timelines and expected results. However, it has not been completely able to echo the approach taken by HIV/AIDS in 2001. What is missing from the identified outcomes are indicators and mechanisms on how does a country achieve the outcome? For example, regarding the initiation or strengthening of population based cancer registries; the question is how countries take the required action to achieve the goal--through the use of toolkits or by creating partnerships with other countries and international agencies. Another example is an

outcome that speaks to providing development assistance to LMICs. It is not clear how this can be achieved. Is there a global fund being created or are donor countries being urged to support this? (276). Most importantly, progress cannot be monitored without indicators and countries cannot be held accountable.

The proposed framework convention on cancer control would receive buy-in and success at implementation only if it were to capitalize on synergies with other non-communicable disease control efforts. This will allow prudent use of scarce human, financial and infrastructure resources a challenge faced by most countries irrespective of their resource levels (156). Uptake by countries would further increase if the cancer control framework were synergistic with all efforts including other existing disease control frameworks and ongoing actions. If the framework for cancer control proves functional it could be expanded to prevent and manage other NCD diseases.

Will Global Framing Change Thinking?

Though countries and international health organizations have been aware of the NCD crisis for many years, progress in global cancer/NCD control has not moved at the desired pace, slowed down by the weak and fragmented global and national responses (7). NCDs need a population health approach as they do not only cause individuals to fall sick, but impact entire societies and transcend borders. As they are a shared challenge of governments worldwide, with underlying global determinants (i.e. trade agreements, food, agriculture etc) and requiring a transnational coordinating mechanism, NCDs merit a collective global response. Sharing ownership would allow all to benefit from the unique strength of partners (1).The 2011 UN

Summit has validated that a global response to cancer/NCD control was needed and has generated the much required political momentum for NCDs. This response requires a comprehensive and integrated approach including legislation and regulation.

A synergistic relationship exists between NCDs and development. By reframing NCDs including cancer as not only a disease but as a barrier to development, it is being advocated that NCDs be included within the Millennium Development Goals and their successor goals following 2015 (151, 276). Reframing NCDs will allow NCD prevention to be recognized as a “co-benefit of action and resources stemming from other global issues like climate change and food security”(277). For example urban policies for reducing greenhouse gases by promoting walking or cycling would concurrently increase the population’s physical activity. Through change, NCDs can be positioned as recipients for many activities like technical assistance, capacity building, innovative funding, transformative environmental changes and others. An example, the Thai Health Promotion Foundation has implemented a sustainable funding initiative to support NCD prevention through levying a 2% surcharge on alcohol and tobacco (277) .

It is only by changing the status quo can thinking be promoted to change at the local and global level. NCDs, a problem of all countries and societies need to continue being framed at a global level as a societal problem that requires societal solutions (277). This global framing will provide a reinvigorated approach to NCDs like it did for FCTC and HIV/AIDS. This in turn will change thinking and has a likelihood of initiating collaborative activities (278, 279) .

For example, strengthening global cancer prevention requires reframing of the issues. This will require an integrated approach that includes a global cancer/NCD fund and a new set of strategies to raise the priority level of cancer/ NCD prevention in countries. It will also mean formation of global alliances like the NCD Alliance formed by four international NGOs like UICC, World Heart Federation and others who became the voice of hundreds of countries. Essentially, it will need sustainable long term partnerships, multilateral leadership, long-standing commitment supported through existing and novel mechanisms like a global NCD fund (148).

The global world needs an integrated approach to address this important challenge posed by NCDs. This approach should include action on the social determinants, support for health programs, global agreements powered by political will and firm commitments by head of states. As well as, unity among multiple initiatives, clear outline of responsibilities, transparency and clear accountability (143).

FCTC can be quoted as a successful example that gained the attention of world leaders. This was by framing the tobacco problem as a global challenge. Similarly, NCDs including cancer may only be able to change thinking and mobilize concerted action if it is strengthened in its positioning as a global challenge. It needs not only a multisectoral response at a country and global level, but an adoption by society as a whole. It needs all the population—including multisectoral international agencies, countries, NGOs, communities, corporate and private sector to identify with the problem and believe in it being “everybody’s problem” (259).

There maybe better possibilities of catalyzing the much needed empowerment for building capacity in NCD surveillance/ information systems and research in LMICs by globally

framing the NCD challenge. This refers to supporting capacity building within LMICs for conducting their own research to address specific chronic disease challenges, stimulate innovative health financing and pharmaceutical production (259, 274) .

How are cancer/NCDs becoming a barrier to (economic) development? Questions such as these direct research in linking cancer/NCDs to other societal concerns for well-being that include human health and require a global response as they are not just a domestic challenge. They can entrench poverty and are a threat to all development—social, human and economic. The UN HLM stimulated a global response which needs to be carefully nurtured and built upon. The hope is endorsing governments will integrate NCD interventions into their national development processes as will multilateral institutions through their future actions (7).

As discussed, these initial examinations open up areas for future explorations and discussions.

5.4 Conclusion

This study investigated whether International Cancer Control Congresses (ICCCs) influence reported changes in behaviour and activities of participants, development or implementation of population-based cancer control programs (NCCP), knowledge transfer or exchange, increased global outreach, collaboration and partnerships.

The focus of the research was to assess the impact of the Congress in stimulating cancer control awareness, influencing development of cancer control programs, promotion of

collaborations and alliances, providing opportunity for building capacity, fostering knowledge translation and supporting enhancement of National Cancer Control Plans.

It is important to historically document and recall that ICCCs were launched in 2005 with ICC1 (Vancouver) following the work undertaken in Canada to establish a national cancer control program, 1998–2006 as the Canadian Strategy for Cancer Control, and from 2007 through 2017 as the federally funded Canadian Partnership Against Cancer (255). This first Congress has been followed by a Congress every two years in a different region of the world. ICC2 (2007) was held in Rio de Janeiro, hosted by INCA (National Cancer Institute of Brazil). This played a significant part in fostering the development of the Latin American-Caribbean Alliance for Cancer Control and the continued planning of population-based control by an alliance of countries within the region. ICC3 (2009) was hosted by the Instituto Tumori in Cernobbio, Italy and assisted with the enhancement of national cancer control planning within the European Union. ICC4 (2011) was hosted by the National Cancer Center, Korea targeted to support ongoing efforts in national cancer control planning in the Asia-Pacific Region. Both ICC3 and ICC4 have manuscripts for publication in scientific journals—ICC3 in the Tumori Journal (6) and ICC4 in the Asia-Pacific Journal of Cancer Prevention (in process of publication).

The study indicates that most of the respondents gained professionally in improved understanding of global population based cancer control programs and new insights into cancer control. Through sharing best practices and insights gained at the Congress in their jurisdictions, many indicated that the Congress has helped them in their cancer control work, including

increased awareness for establishing collaborations and for setting up surveillance systems. Also, the study highlighted for them the importance of national cancer/integrated NCD plans. Increasing their networks, participants continue experiencing an increase in interest and involvement in cancer control following the Congress. The Latin American Region research reveals that it takes time before initiatives emerge and can be attributed to ICCC, including considerable activity in Brazil following ICCC2.

It is worth mentioning that this study cannot measure the long-lasting effects on the changes in behaviour and activities of participants. Similarly, it cannot quantify the extent or depth of participants' influence on their national cancer control programs, planning or policies. However, the study did find evidence of an increase in formation of partnerships and regional networks at the organization and country level, as well as a development of relationships among individuals. Nevertheless, this increase was only evident after a considerable amount of time had passed, which could be attributed to collaborations needing some years to grow roots and bear fruition.

The study also found that discussions at the Congresses contributed to transfer of knowledge amongst participants. ICCCs have also been shown to bring the focus or raise awareness of the needs and benefits of population based cancer control initiatives, and NCCP. ICCCs have raised the profile of NCCP by helping stakeholders realize the importance of dealing with cancer.

Additionally, the study has helped the researcher identify some significant future post-doctoral research possibilities discussed in section 5.3.2. This section presented some challenges

faced globally by non-communicable diseases including cancer, and a discussion on how global tobacco challenges are being addressed and advanced by WHO FCTC. It also discussed whether similar global framing can be applied to cancer/NCD control to stimulate global action that leverages the milestone September 2011 UN High Level Meeting on NCDs.

In summary, the main gains from ICCCs for participants can be classified as creation of new contacts and connections with members of participating countries and organizations; an appreciation of differences in cancer control worldwide, and an awareness of the necessity and value of collaboration. This includes building contacts and networks at all geographic levels; receiving updated information on local/regional/global cancer control activities and projects, and learning from each other's experience's and supporting one another as a community either at a local, regional or global levels.

This study is ground work preliminary research. For culminating research, other longitudinal and cross-sectional studies need to be undertaken by teams of researchers, scholars and practitioners. The investigator has opened up fields for cohort studies that are both longitudinal and cross-sectional in the future.

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APPENDIX A

This offers the following four Survey Reports:

- A.1 ICC3 Participant Survey Analysis Report, March 2010
- A.2 ICC3 Follow-Up Survey Analysis Report, January 2011
- A.3 ICC4 Participant Survey Analysis Report, January 2012
- A.4 ICC4 Follow-Up Survey Analysis Report, March 2012



3RD INTERNATIONAL Cancer Control Congress

INTERNATIONAL COLLABORATIONS

8 - 11 NOVEMBER, 2009 / CERNOBBIO, COMO, ITALY

3rd International Cancer Control Congress

Participant Survey Analysis Report

March 2010

By

Kavita Sarwal

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1. Introduction

The 3rd International Cancer Control Congress (ICCC) was held at Cernobbio, Italy, during November 2009. The purpose of this conference was to foster collaboration among people involved in cancer control activities, from diverse demographical and occupational backgrounds, and at various levels of involvement. The conference was a common platform for physicians, researchers, officials from governmental and non-governmental organizations, etc. to come together and exchange their views, network, build partnerships, raise funds and so on.

The ICCC Participant Survey aims to capture the impact and reach of the conference, and also any pointers for future conference planning. The survey mainly covers the following areas, apart from the profiling or demographic questions:

- Conference Program – feedback on sessions, themes and program mix.
- Conference Impact – gains/ takeaways from the conference, success of the conference in achieving its objectives, etc.
- Conference planning – feedback on the organization of the conference, venue, etc.

1.1 Analysis Methodology

The responses are coded and recorded in Excel, then exported to SPSS. SPSS and Excel were used for the analysis. Mainly used methods of analysis were: frequency charts or counts, various types of graphs, Kruskal-Wallis tests, Chi-Square test of independence etc. All graphs (except box plots) are drawn on Excel.

The respondents were profiled according to demographical features like age, sex, occupation, continent of work, their level of involvement in cancer control activities, etc. This would bring out any skew in the data. Also, these demographics could be used in checking further whether the various groups differ on satisfaction levels from the conference.

The stated reasons to attend the conference can give us the expectations that the respondents had from the conference. The main reasons given were analyzed by different age bands, occupation and level of involvement (time spent on cancer control activities). This would show if different groups have different needs from the conference.

The sessions, half-day themes, program mix etc were analyzed, to get trends based on their ratings. This will show which themes were appreciated by the participants.

The professional gains from the conference were analyzed to give an idea about the future conference planning. It would also be interesting to find out whether these stated gains would actually be put into use. For this, we correlate the gains with the responses to how the gains will be put to use.

1.2 Assumptions & Limitations

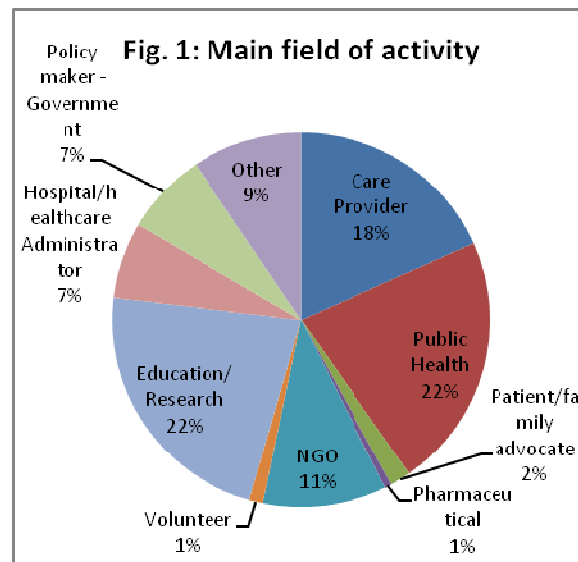
1. 362 participants attended the conference, of which only 171 took the survey (47% response rate). The results obtained by the analysis may not be a good approximation of the whole population because of the low response rate.
2. Because of the discrete nature of the variables, we use only the non-parametric tests for statistical analysis.
3. For all the statistical tests, the level of significance is taken as 0.05, unless otherwise specified.

2. Analysis

This section of the report gives findings about each question of the survey. The survey consists of 28 main questions. The total number of responses is 171.

2.1 Demographic Questions

1. Main Field of Activity

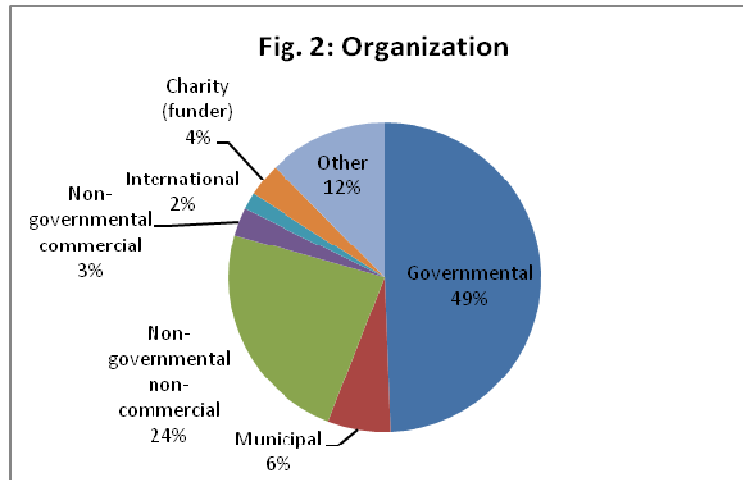


No. of responses: 170 (of 171 total responses)

Valid Responses: 169

The main fields of activity of the participants are: Public Health and Education/ Research (22% each). Patients or family advocates form only 2% of the participants.

2. Organization

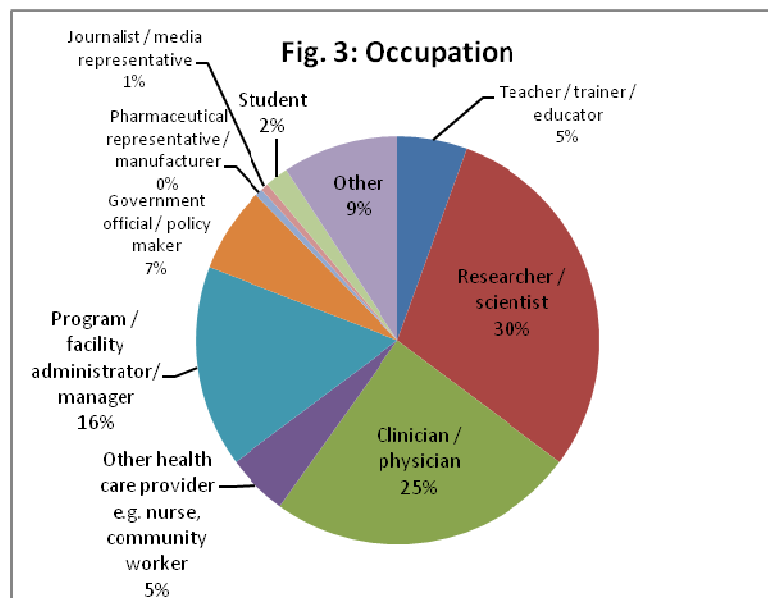


No. of responses: 171

Valid Responses: 171

From the above graph, we can see that almost half the conference participants were from governmental organizations (84 respondents). Out of these, 12 respondents (14%) are policy makers (comparing responses from question 1). Among other organizations, 24% participants belong to non-governmental non-commercial organizations.

3. Occupation



No. of responses: 171

Valid Responses: 162

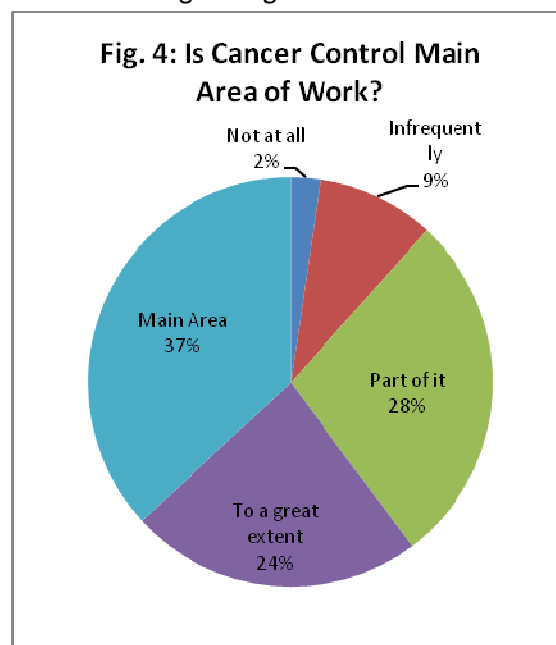
The participants mainly consist of researchers & scientists (30%) and clinician/physicians (25%), as is evident from Fig. 3.

4. Cancer control – Main area of work

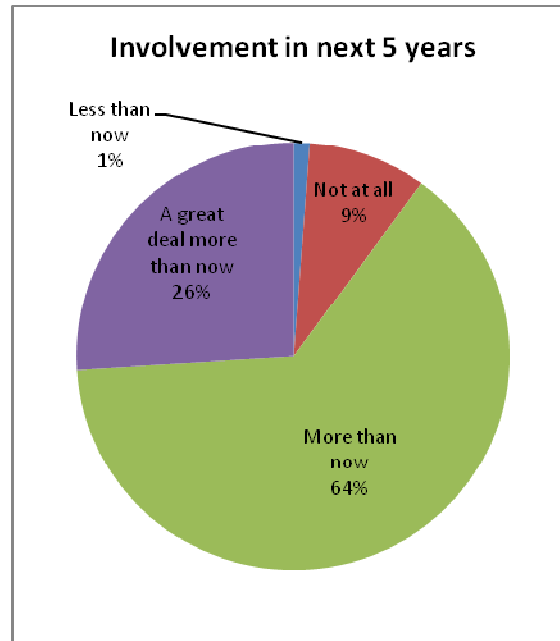
No. of responses: 171

Valid Responses: 171

37% of the attendees said cancer control is their main area of work. Most of the remaining participants are involved in cancer control at least as a frequent part of their work. As the aim of the congress would be to reach out to those who are actively involved in cancer control activities, we can say that the conference has been successful in attracting the right audience.



5. Involvement in next 5 years

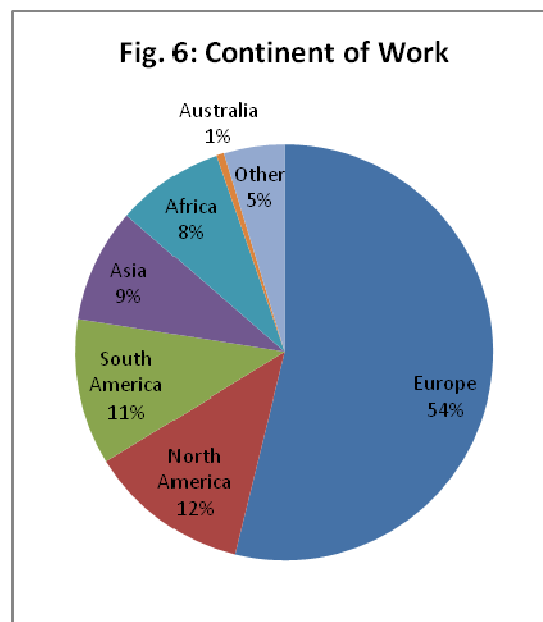


No. of responses: 169

Valid Responses: 169

90% of the respondents see their involvement increasing over the next 5 years. 26% say they see a manifold increase in their involvement from current levels.

6. Continent of Work

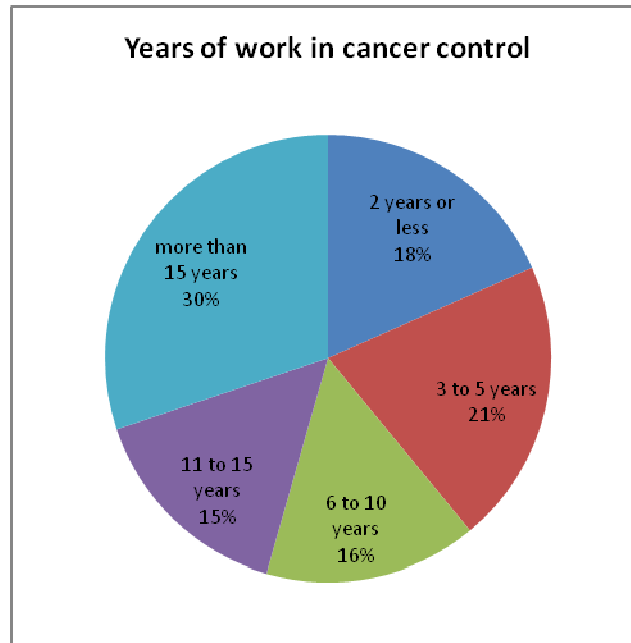


No. of responses: 171

Valid Responses: 169

Europe and Americas are well-represented in the Congress. About 54% attendees work mostly in Europe and 23% in Americas. 65 countries were represented at the Congress.

7. Years of work in cancer control field

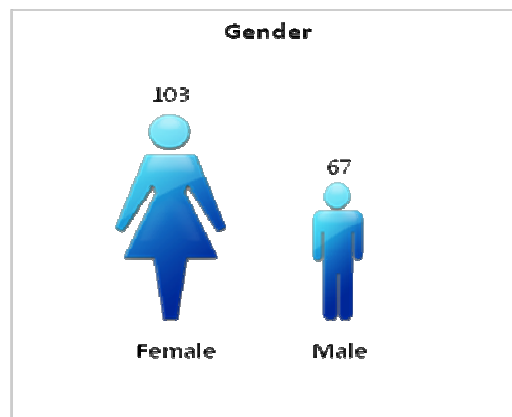


No. of responses: 169

Valid Responses: 169

The conference has attracted well-experienced people in cancer control field. 45% of the participants have more than 10 years of work (full or part-time) in the cancer control field. 30% have worked more than 15 years.

8. Gender

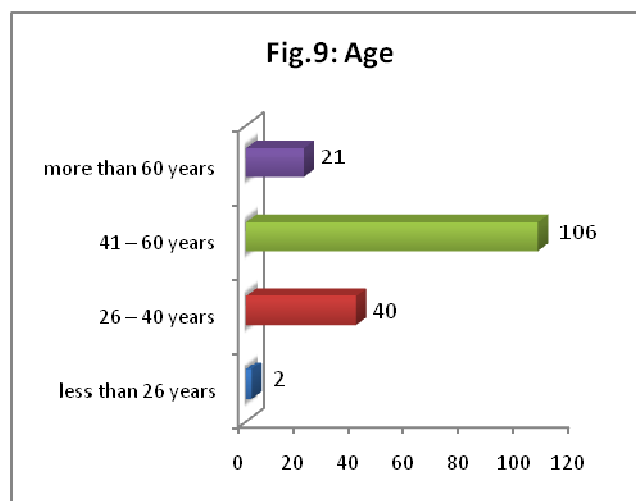


No. of responses: 170

Valid Responses: 170

61% of the participants are females.

9. Age group



No. of responses: 169

Valid Responses: 169

63% of the participants are in the age group of 41- 60 years.

10. 1st Cancer Control Congress Attendees

	Responses	%
Yes	17	10%
No	153	90%

No. of responses: 170

Valid Responses: 170

11. 2nd Cancer Control Congress Attendees

	Responses	%
Yes	33	19%
No	137	81%

No. of responses: 170

Valid Responses: 170

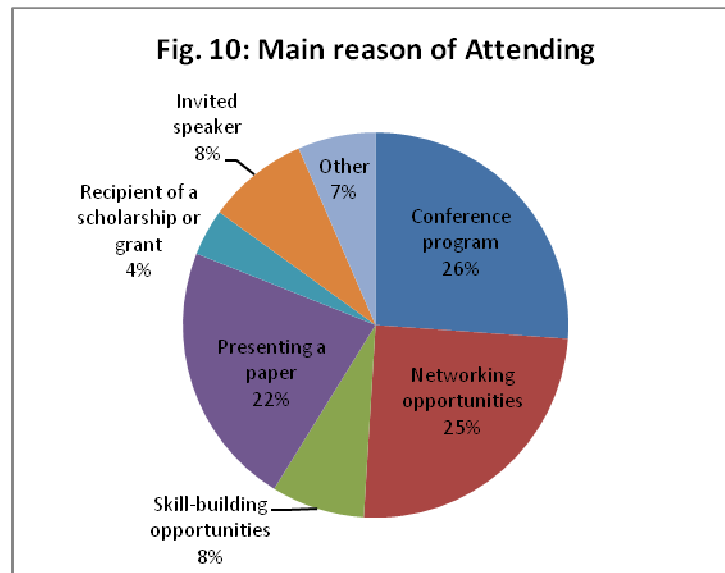
12. Other Global conference

	Responses	%
Yes	71	42%
No	98	58%

No. of responses: 170

Valid Responses: 169

13. Main reason for attending



No. of responses: 168

Valid Responses: 153

The main reasons for attending the congress are conference program (26%), networking opportunities (25%), and presenting a paper (22%).

2.2 Conference Program

14. Most useful session or activity

Table 1: Frequency Table - Useful Sessions Ranking						
	1 (Most Useful)	2	3	4	5 (Least)	Missing
Plenary sessions	92	28	21	12	14	4
Concurrent workshop sessions	51	62	20	17	16	5
Poster viewing sessions	4	18	35	49	47	18
Sideline meetings	7	17	25	45	50	27
Networking	21	34	50	26	24	16

Plenary sessions were rated by most respondents (92) as most useful. Similarly, sideline meetings are considered as least useful by 50 respondents.

15. Mix of Program – Any change needed?

Table 2: Frequency Table - Mix of Programs				
	More	The same	Less	No opinion
Plenary sessions	36	116	11	3
Concurrent workshops	32	94	34	4
Poster sessions	19	91	31	16
Research oriented session	68	65	9	18
Free time for networking	46	90	4	19

Mostly, the participants would want to retain the same mix of programs for the next conference too. However, there is a slight favor towards increasing the research oriented sessions. Kruskal-Wallis test was conducted on the responses and the sessions. The results show no significant difference in the distribution of ratings with respect to the different sessions. This means, from a program mix point of view, the sessions and the ratings given are not specifically following a trend.

16. Usefulness of half day themes

Table 3: Frequency Table – Usefulness of Half-day Themes					
	Very useful	Useful	Not very useful	Not at all useful	Did not attend
Day 1 - Planning and Monitoring	61	94	7	0	1
Day 1 – Collaborative Interest	41	97	18	1	4
Day 2 – Primary Prevention and Screening	87	59	14	0	2
Day 2 – Research and Development	52	75	21	1	8

Day 3 – Organization of population based programs	63	77	7	0	5
Day 3 – Maintenance & Sustainability of population based programs	51	71	14	1	14

The conference program had 6 half-day themes spread over 3 days. The participants rated each of these according to their usefulness to them. 'Primary Prevention and Screening' (Day 2 – morning theme) was rated as the most useful theme according to the no. of responses. It was also observed that morning sessions got higher responses than afternoon sessions, on all the 3 days.

A Kruskal-Wallis test was done to check for difference between the different sessions. At a significance level of 0.05, it was found that there exists a difference among responses to different sessions. Further, from the frequency distribution table above, we can see that 'Primary Prevention & Screening' and 'Planning and Monitoring' are rated higher on usefulness.

17. Overall Conference Program Rating

Table 4: Frequency Table – Overall Conference Rating				
	Excellent	Good	Fair	Poor
Quality of sessions	78	83	5	0
Quality of plenary speakers	87	75	6	0
Quality of workshop speakers	66	80	21	0
Quality of discussion and debate	59	79	24	2
Range of topics covered	64	82	17	2

Overall, the responses are positive, with most of the responses in the excellent or good region.

Kruskal-Wallis test was conducted, hypothesizing that the distribution of the responses is the same across the different parameters. At a significance level of 0.05, the p-value obtained was 0.003. Thus we reject the hypothesis, and can say that the different parameters indeed have different distribution of responses. Further, to find out which parameters are different, we can use box plots as shown below.

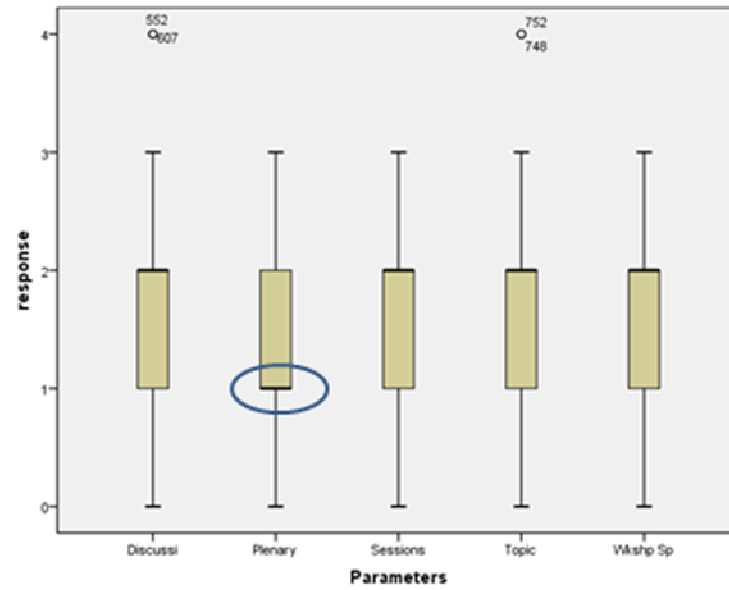


Fig. 11: Box Plot for Responses

From Fig.11, we can see that the responses of all the parameters are skewed. While the response for plenary sessions is skewed towards 'Excellent', all others are skewed towards 'Good'. Thus, we can say that 'Quality of Plenary Speakers' is rated higher among other parameters.

2.3 Conference Impact

18. Professional gains from the conference

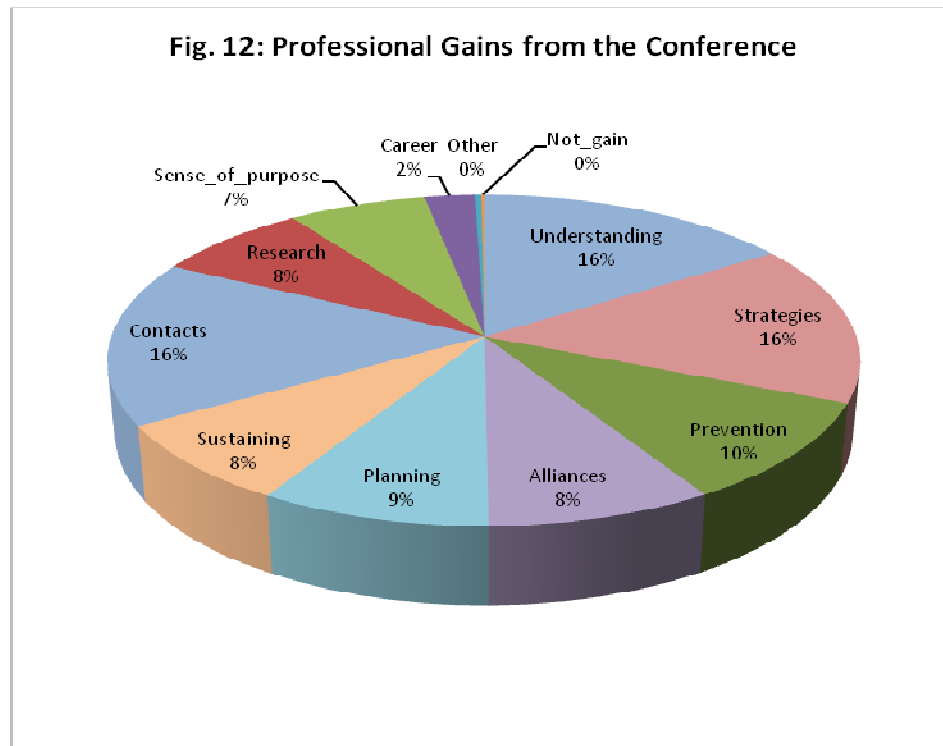


Fig. 12 shows the consolidated distribution of the takeaways from the conference according to the participants. The most important of these are: 'Improved understanding of population based cancer control programs globally' (16%), 'New insights into cancer control strategies and population-based systems' (16%) and 'New contacts and opportunities for partnership and collaboration' (16%).

19. Conference success in achieving its objectives

Table 5: Frequency Table – Conference Objectives					
	Very Successful	Successful	Not Very Successful	Not At All Successful	Don't Know
Sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation	54	100	7	1	3
Sharing best practices and promoting evidence to develop national policies regarding cancer control	43	101	15	1	6
Establishing a creative and appropriate agenda to create a vehicle of collaboration	30	100	22		10
Contributing to and creating a vehicle for raising awareness of cancer control	35	110	12		7
Engaging the relevant communities – government, non governmental organizations, advocacy groups, civil society, risk factor control groups, patients, others	24	83	41	1	13
Providing a setting for relationship building and/or nurturing and maintaining relationships	39	100	15		6
Providing a platform for knowledge transfer for cancer control	47	95	14		5

The conference has been mostly successful in achieving its objectives. This can be seen from the table above. However, a significant percentage of participants feel that the conference is not very successful in engaging the relevant communities.

A Kruskal-Wallis test was conducted to see whether the ratings are similar for all the objectives stated. At a significance level of 0.05, the test returns a value of 0.000, which means that we reject the null hypothesis. That is, there exists a difference in response to the various objectives. Further, to see where this difference lies, we can see the box plot (fig. 13) below. It clearly shows that the distribution of 'engaging the relevant communities' is distributed differently from the rest of the responses.

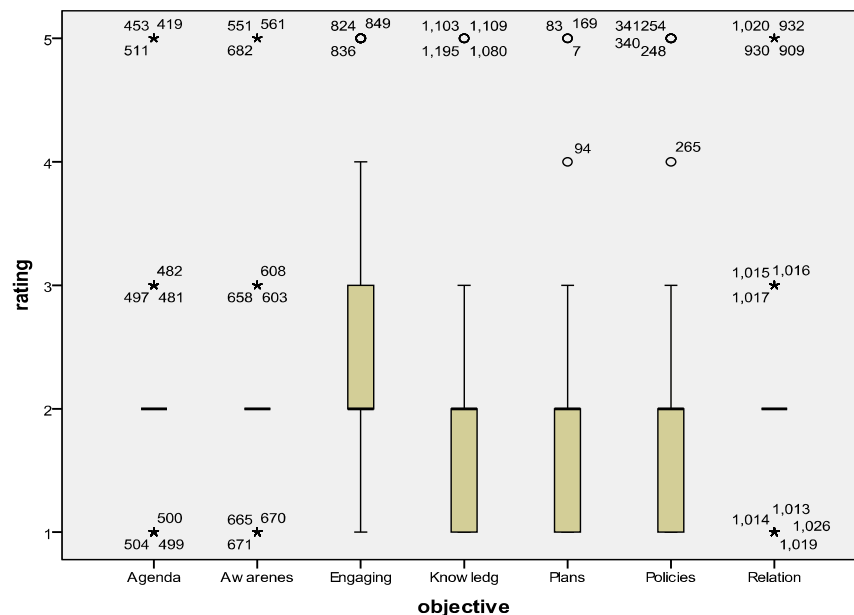


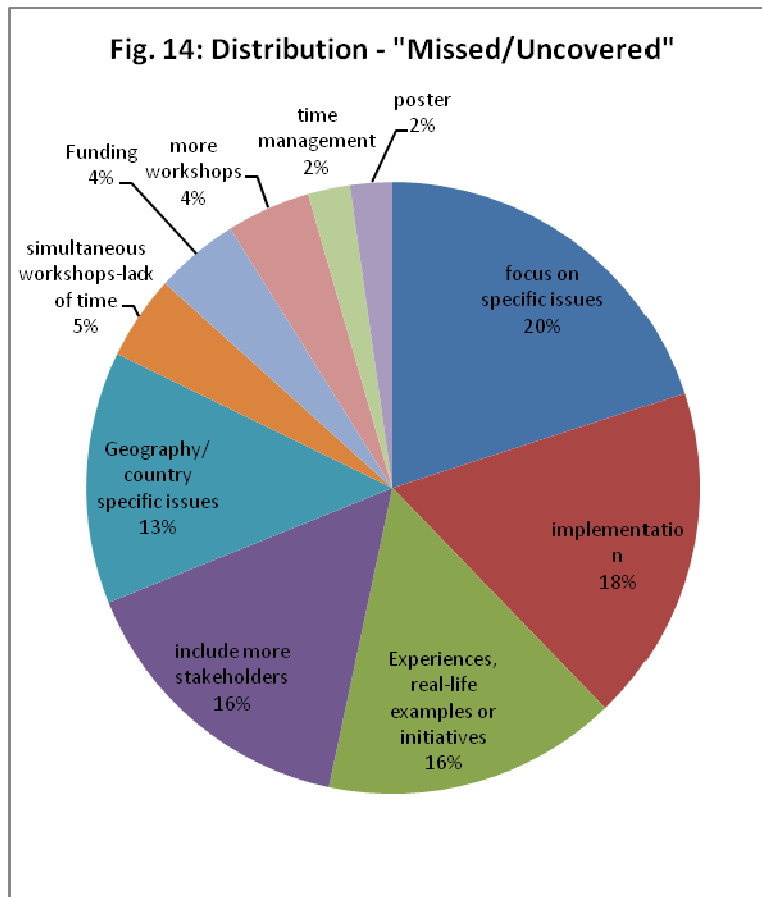
Fig. 13: Box Plot for Responses

20. Missed in the Congress

The participants were asked whether they felt anything was missed or not covered in the conference. The responses are given below:

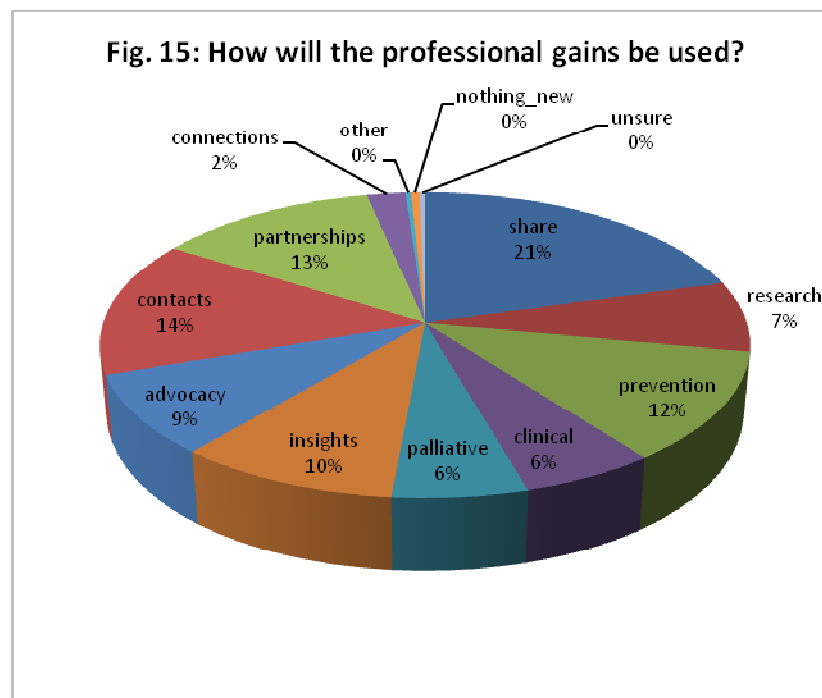
	Responses	%
Yes	41	26%
No	118	74%

It can be seen that 26% of the participants feel there is something missing the current conference. An analysis of open-ended responses will give a better idea about this. Also, this question is further analyzed with respect to other relevant questions (see next section).



The above figure shows the distribution of responses of participants who said there was something missing in the conference. 20% of the respondents said that the conference should focus on specific issues like psychosocial effects, tobacco, HIV-AIDS etc. 18% feel that implementation issues should be taken care of, instead of concentrating only on theoretical presentations. 16% feel that more live examples, patients' perspectives, and learning from different cases should be given as examples. There is a need felt for including more stakeholders (especially policy-makers) and also to extend the learning/research to third-world countries.

21. Using what you gained



When it comes to using what they gained from the conference, 21% attendees say that they will share the new information with colleagues, and totally 27% said they would use it in collaborating (following up new contacts or developing new partnerships).

Further, a correlation (Spearman's correlation) was run to see whether there is a correlation between the gains (q.18) and the way they will be used. The test shows that there exists a correlation between the two. From this, we can say that the gains *might* be actually used by the participants.

22. What activities will be done as a result of learning

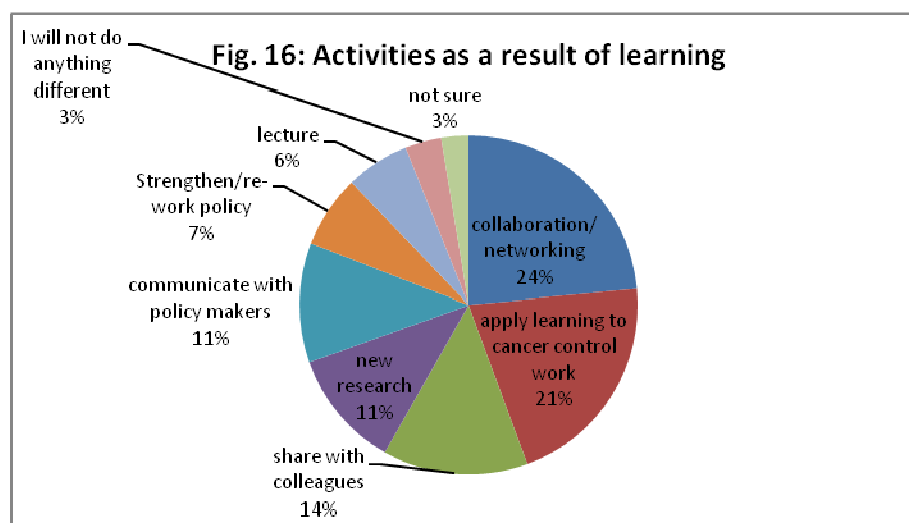


Fig. 16 shows the distribution of the activities that the participants would do, as a result of their learning from the conference. As in other responses, the networking and collaboration figure prominently. 21% said that they would apply their learning to their everyday work. Also prominent (11%) is that the learning would be shared with the colleagues.

2.4 Conference Planning and Organization

23. (Q.23) Conference Organization Rating

Table 6: Facilities at the Conference					
	Excellent	Good	Fair	Poor	Don't Know
Congress website	73	75	17	0	2
Pre-congress information	61	81	21	1	1
Online registration	73	71	10	3	6
Delegate bag collection	46	68	33	10	6
Conference material	47	81	29	7	0
Opening ceremony	66	66	10	1	21
Poster viewing area	28	78	48	9	2
Exhibit area	33	90	34	3	1
Time tabling of sessions	52	93	18	1	2
Conference venue and facilities	89	65	10	0	0

The facilities provided at the conference, the information provided, and the conference website, are all well-received by the participants, as the ratings above show.

24. (Q.24) Recommend conference to colleagues

	Responses	%
Yes	158	96%
No	7	4%

No. of responses: 165

Valid Responses: 165

An overwhelming 96% of the participants say they would recommend the conference to a colleague.

25. (Q.25) would you attend ICCC 4?

	Responses	%
Yes	155	95%
No	8	5%

No. of responses: 163

Valid Responses: 163

95% of the participants said they would attend the next ICCC, based on their experience from the current conference.

26. Favorite Presentation & Reason

The participants were asked to name one favorite presentation and the reasons why they liked it. Presently, data is not available on the favourite presentation; however we have responses for the reasons for liking a presentation. We shall try to derive from this data what the attendees are looking forward in a presentation.

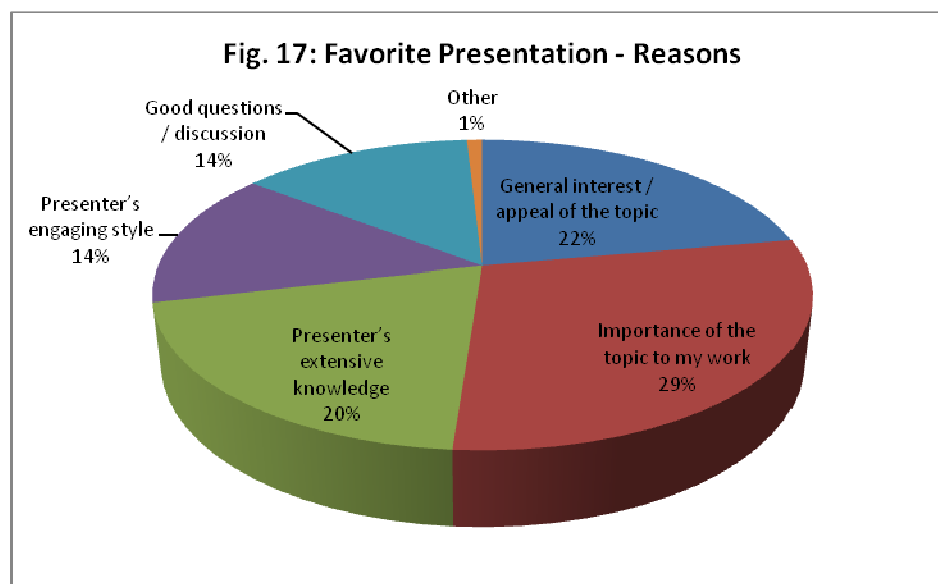
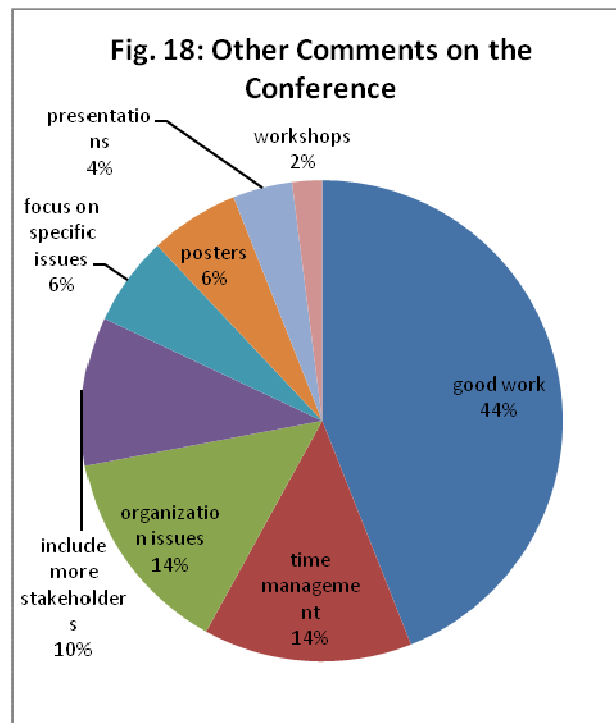


Fig. 14 gives a consolidated distribution of the reasons for liking a presentation and the concurrent workshop. We can see that the most important attributes are the relevance to one's field of work, general appeal of the topic, and the presenter's knowledge about the topic.

27. Any other comments on the conference (open-ended)



As many as 44% of the respondents are appreciative of the conference and the way it was organized. Time management issues stand at the top of issues raised. Many respondents state that they wanted to attend more than one presentation/ workshop but due to a lack of time or due to simultaneous scheduling, they could not do so. The venue chosen is widely appreciated.

3. Cross-Tab Analysis

Some questions in the survey can be interrelated with other questions, to gain more meaning from the data. Demographic profiling can be applied to see whether different groups are behaving in a differed manner, and whether this behavior is statistically significant. We can use cross-tabs and Chi-Square tests for the same. This section of the report highlights the major hypotheses formulated and tested on the data to bring out trends and correlations in the data.

The significance value for all the tests is taken as 0.05. This value is compared against the p-values. The complete output in SPSS format is embedded at the end of this section.

Hypothesis 1: Main reason of attending vs. Occupation

Cross-Tabulation:

Table 7: Main_Reason * Occupation Crosstabulation												
		Occupation									Total	
		Teacher / trainer / educator	Researcher / scientist	Clinician / physician	Other health care provider e.g. nurse, community worker	Program / facility administrato r/manager	Government official / policy maker	Journalist / media representati ve	Student	Other		
Main_Reason	Conference program	4	6	13	3	6	2	0	2	3	39	
	Networking opportunities	2	16	6	2	6	1	0	0	3	36	
	Skill-building opportunities	1	3	2	0	0	2	0	0	3	11	
	Presenting a paper	1	13	9	2	3	2	0	0	2	32	
	Recipient of a scholarship or grant	1	0	3	0	0	0	0	1	1	6	
	Invited speaker	0	3	4	0	3	1	0	0	1	12	
	Other	0	4	1	0	3	1	0	0	0	9	
	8	0	2	0	0	1	0	1	0	1	5	
Total		9	47	38	7	22	9	1	3	14	150	

It can be seen from the table that:

- Researchers mostly look for networking opportunities and presenting a paper.
- Clinicians/Physicians attended the Congress for conference programs and presenting a paper.

Chi-Square Test:

Null Hypothesis (H_0): Main reason of attending the conference is independent of the participants' occupation

Table 8: Chi-Square Tests (Main_Reason * Occupation)			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.760 ^a	56	.024
Likelihood Ratio	61.439	56	.287
Linear-by-Linear Association	.182	1	.670
N of Valid Cases	150		

Result: From Table 8, we see that the p-value is 0.024. Hence we can reject the null hypothesis, and say that the main reasons given for attending the conference are related to the occupation of the participant.

Hypothesis 2: Main reason of attending vs. Age

Cross-Tabulation:

Table 9: Main Reason * Age Cross tabulation

		Age				Total
		less than 26 years	26 – 40 years	41 – 60 years	more than 60 years	
Main_Reason	Conference program	2	9	22	7	40
	Networking opportunities	0	8	26	3	37
	Skill-building opportunities	0	2	9	1	12
	Presenting a paper	0	13	18	3	34
	Recipient of a scholarship or grant	0	2	4	0	6
	Invited speaker	0	1	9	3	13
	Other	0	2	6	2	10
	Invalid	0	2	3	0	5

Table 9: Main Reason * Age Cross tabulation

		Age				Total
		less than 26 years	26 – 40 years	41 – 60 years	more than 60 years	
Main_Reason	Conference program	2	9	22	7	40
	Networking opportunities	0	8	26	3	37
	Skill-building opportunities	0	2	9	1	12
	Presenting a paper	0	13	18	3	34
	Recipient of a scholarship or grant	0	2	4	0	6
	Invited speaker	0	1	9	3	13
	Other	0	2	6	2	10
	Invalid	0	2	3	0	5
Total		2	39	97	19	157

Chi-Square Test:

H₀: Main reason of attending the conference is independent of the participants' age group

Table 10: Chi-Square Tests (Main_Reason * Age)			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.822 ^a	21	.660
Likelihood Ratio	18.590	21	.611
Linear-by-Linear Association	.063	1	.802
N of Valid Cases	157		

Result: From Table 10, we see that the p-value is 0.660. Hence we fail to reject the null hypothesis, and say that the main reasons given for attending the conference are not dependent on the age group of the participant.

Thus, even though there are some trends in the age groups vs. main reason, these are not statistically significant.

Hypothesis 3: Main reason of attending vs. Cancer Control-Main area of work

Cross-Tabulation:

Table 11: Main_Reason * CC_Main_Area Crosstabulation							
		CC_Main_Area					Total
		Not at all	Infrequently	Part of it	To a great extent	Main Area	
Main_Reason	Conference program	1	3	10	10	16	40
	Networking opportunities	0	6	8	10	14	38
	Skill-building opportunities	0	1	6	3	2	12
	Presenting a paper	1	2	8	13	10	34
	Recipient of a scholarship or grant	1	3	2	0	0	6
	Invited speaker	0	0	7	0	6	13
	Other	1	0	3	2	4	10
Invalid Response		0	0	2	0	3	5
Total		4	15	46	38	55	158

Chi-Square Test:

H₀: Main reason of attending the conference is independent of the participants' involvement in cancer control

Table 12: Main_Reason * CC_Main_Area Crosstabulation			
Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.283 ^a	28	.026
Likelihood Ratio	46.329	28	.016
Linear-by-Linear Association	.260	1	.610
N of Valid Cases	158		

Result: From Table 12, we see that the p-value is 0.026. Hence we can reject the null hypothesis, and say that the main reasons given for attending the conference are dependent on whether cancer control forms the main area of the participants' work.

Participants, who said cancer control is their main area of work, mostly attended the conference for conference programs and networking. As this group is a high priority group, attention should be paid in the future conferences that these areas (conference programs and networking) are taken good care of.

Hypothesis 4: Factors bearing maximum impact on future involvement in cancer control

Some factors may have more influence on the participants' foreseen involvement in cancer control activities. For example, participants' age group may have an influence on whether they see their cancer control-related activities increase/decrease in the next 5 years. A chi-square test was run with the different factors (age, gender, occupation, continent, years of work, and main field of work) vs. involvement. The results of the test show that involvement is influenced by the continent of work (with chi-square $X=0.004$) and years of work ($X=0.046$). It is, however, independent of age, gender and other factors.

Hypothesis 5: Previous Attendees vs. Overall Conference Rating

To see how the present conference fares against the past conferences, we can see whether there is a difference in responses to overall conference program by people who have attended past conferences (ICCC 1 & ICCC 2) and those who have not.

The attendees were coded as 1 if they had attended either/ both the previous conferences, and 0 if not. Chi-Square tests between this and the overall conference ratings show that for 4 out of 5 parameters, the ratings do not depend on previous attendance. However, responses to the parameter 'quality of plenary speakers' are dependent on previous attendance (Chi Square significance = 0.008). In other words, with respect to the quality of plenary speakers, there is a significant difference between the response of a previous attendee and the response of a non-attendee.

Hypothesis 6: Gains from the conference vs. profiling questions

Chi-square tests were conducted to see whether the gains from the conference and the various profiling responses (age, years of work, continent, occupation etc) are dependent on each other. That is, whether participants belonging to a particular age group, work background, etc are more likely to have gained something in particular from the conference. This way, we could predict the impact of the conference on different participant groups.

At a level of significance of 0.05, we see very weak associations with some of the variables considered (occupation, continent and foreseen involvement). But otherwise, the gains from the conference are independent of the demographic groups of participants.

Hypothesis 7: Conference Impact – Developed vs. Developing Countries

An attempt was made to check whether the conference was received differently by attendees belonging to different geographies; that is, those from developing countries and developed countries. For this, the continents North America, Europe and Australia were taken as 'Developed' and others were taken as 'Developing'. Kruskal-Wallis tests were conducted upon the data for relevant fields, after coding the Developed geographies as '1' and developing geographies as '2'. The parameters considered were: conference success in achieving objectives, main reason for attending, topics missed in the congress, usefulness of half day themes, preferred program mix for next congress, and conference organization rating. The tables below show the Kruskal-Wallis outputs. On some parameters, we can see that the

country of origin had an effect on the response (where asymptotic significance lesser than 0.05). Some observations:

1. The country of origin (whether from a developed or developing country) had no effect on the main reason for attending the conference.
2. Similarly, there was no difference between those who said the conference was missing out on something, based on the country of origin.
3. On conference success ratings, the country of origin had an effect on certain parameters. The attendees from developing countries are more satisfied from the congress as opposed to those from the developed nations. More attendees from developing countries rate the conference as 'Very Successful'. Also, the percentage of people rating the conference as 'Not very successful' on a parameter is lower compared to the attendees from developed countries.
4. The above trend is also visible in the ratings for the usefulness of half-day themes. We can see that more respondents from developing countries said a particular theme was 'Very useful' to them as opposed to those from developed countries.

Test Statistics^{a,b} for Continent vs. Conference Success							
	Plans	Policies	Agenda	Awareness	Engaging	Relationship	Knowledge
Chi-Square	7.170	9.261	14.959	6.331	7.042	.336	2.610
df	1	1	1	1	1	1	1
Asymp. Sig.	.007	.002	.000	.012	.008	.562	.106
a. Kruskal Wallis Test							
b. Grouping Variable: Continent							

Test Statistics^{a,b} for Continent vs. Missed	
	Missed
Chi-Square	.057
df	1
Asymp. Sig.	.970
a. Kruskal Wallis Test	
b. Grouping Variable: Continent	

Test Statistics ^{a,b} for Continent Vs. Main Reason	
	Main_Reason
Chi-Square	.481
df	1
Asymp. Sig.	.488
a. Kruskal Wallis Test	
b. Grouping Variable: Continent	

Test Statistics ^{a,b} for Continent Vs. Half-Day Themes						
	Day1am	Day1pm	Day2am	Day2pm	Day3am	Day3pm
Chi-Square	5.445	8.284	.079	4.391	.891	5.671
df	1	1	1	1	1	1
Asymp. Sig.	.020	.004	.844	.036	.345	.017
a. Kruskal Wallis Test						
b. Grouping Variable: Continent						

Test Statistics ^{a,b} for Continent Vs. Program Mix					
	Plenary	Workshops	Poster	Research	Networking
Chi-Square	.550	5.282	.080	.059	.067
df	1	1	1	1	1
Asymp. Sig.	.458	.022	.987	.926	.795
a. Kruskal Wallis Test					

Test Statistics^{a,b} for Continent Vs. Program Mix					
	Plenary	Workshops	Poster	Research	Networking
Chi-Square	.550	5.282	.080	.059	.067
df	1	1	1	1	1
Asymp. Sig.	.458	.022	.987	.926	.795
a. Kruskal Wallis Test					
b. Grouping Variable: Continent					

Test Statistics^{a,b} for Continent Vs. Conference Organization Rating						
	website	pre-congress	online	delegate_bag	conf_material	opening
Chi-Square	8.611	3.034	8.303	10.196	.862	2.649
df	1	1	1	1	1	1
Asymp. Sig.	.003	.082	.004	.001	.353	.104
a. Kruskal Wallis Test						
b. Grouping Variable: Continent						

Test Statistics^{a,b} for Continent Vs. Conference Organization Rating (Contd.)				
	poster_area	exhibit_area	time_tabling	venue
Chi-Square	.545	2.165	2.299	1.187
df	1	1	1	1
Asymp. Sig.	.460	.141	.129	.276

a. Kruskal Wallis Test
b. Grouping Variable: Continent

Hypothesis 8: Gap Analysis – Current conference vs. Previous/Global conferences

Another way to measure the performance of the 3rd ICCC vis-à-vis the other conferences are to compare the responses to the question 20 (In your opinion, is there anything that has been missed or not covered by the Congress?) with respect to the attendees of other conferences. If there is a difference between the responses between attendees and non-attendees we can say that the attendees feel that the 3rd ICCC conference is different from the previous ICCC or other global conferences.

For this, we have considered each conference and corresponding responses to Q.20 separately. Following are the results from the Chi-Square analysis:

1. 1st ICCC: There is no significant dependence between the responses. In other words, those who have attended the 1st ICCC have no particular preference to whether there is anything not covered in the present congress.
2. 2nd ICCC: Here, there is a significant dependence between the variables (Chi Square significance = 0.002). This means, there is a difference on how 2nd ICCC attendees feel about the current conference as compared to those who didn't attend the 2nd ICCC. Further, from the data we see that 15 of 33 (45%) people who attended the 2nd ICCC feel there is something missing in the 3rd ICCC.
3. Other global conferences: Here too, there is a significant dependence between the variables (Chi Square significance = 0.031). 71 participants have attended some other global conference in the past 3 years. Out of these, 23 participants (32%) say they feel something is missing or uncovered in the 3rd ICCC.

To conclude, we can say that the participants who have attended the 2nd ICCC or any other global conference, feel that the current conference has missed out on some points in comparison. The analysis of open-ended response for q.20 gives an idea about what exactly the conference did not cover (refer figure 14)

4. Inferences & Suggestions

This section of the report summarizes the inferences from the analysis, and any suggestions that can be derived.

1. Currently the conference attracts very few patients / family advocates. If more efforts are put to attract the patients who cope with the disease and/or are cured, it may lead to a better success for the future conferences in more ways than one.
2. On the occupational front, though the representation from government agencies is very good, only a small percentage of them are actually involved in policy making (others are mostly researchers or physicians). Attracting more policy makers to the future conferences would further the cause of cancer control in their areas.
3. A great majority of the participants are actively involved in cancer control activities. Thus, the conference has been successful in getting the right target audience. To retain this type of audience for future conferences, care has to be taken about their preferences in the current conference.
 - a. For example, most of the people who are doing cancer control as their main area of work, have attended the conference for conference programs, networking opportunities and presenting a paper. To attract more such audience, these programs should be increased and made more intensive.
4. Plenary sessions are considered as the most useful in the conference, whereas sideline meetings are considered least useful.
5. The mix of programs can be kept the same for the next conference, based on participant feedback. However, there can be an effort to slightly increase the research oriented sessions.
6. More effort should be put in to engage the relevant communities (government, non-governmental organizations, advocacy groups, civil society, risk factor control groups, patients, others), as the participants feel this objective of the conference was not very successfully achieved.
7. Quality of plenary speakers is a very important parameter. This influences not only the overall conference ratings, but also the responses of past conference attendees. This needs to be given due importance while choosing the plenary sessions/ speakers for future conferences.
8. Topics being relevant to one's main area of work influences overall participation in the conference (favorite presentation, conference ratings etc). Care should be taken to keep the topics/ workshops relevant to the participants' area of work.
9. There seems to be room for some improvement in the current conference. A good percentage of participants feel something is missing or not covered in the conference. Especially participants who have attended the previous ICCC (ICCC 2) and those who have attended similar global conferences in the last 3 years feel there is a lack in the current conference. More focus on specific issues, implementation-related workshops, including more real-life examples are needed in this regard.



3RD INTERNATIONAL Cancer Control Congress

INTERNATIONAL COLLABORATIONS

8 - 11 NOVEMBER, 2009 / CERNOBBIO, COMO, ITALY

3rd International Cancer Control Congress

Follow-Up Survey Analysis Report January 2011

By

Kavita Sarwal

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1. Introduction

The 3rd International Cancer Control Congress (ICCC) was held from 8th – 11th November 2009 at Cernobbio, Italy. The purpose of this conference was to foster collaboration among people involved in cancer control activities, from diverse demographical and occupational backgrounds, and at various levels of involvement. The conference was a common platform for physicians, researchers, officials from governmental and non-governmental organizations, etc. to come together and exchange their views, network, build partnerships, raise funds and so on.

The ICCC Follow - Up Survey aims to assess the impact of the ICCC in stimulating awareness/development of cancer control programs/establishment of communities of practice. This survey has been designed to help understand the value-add of the Congress to participants and to capture feedback on what content should be considered for the 4th ICCC to better meet the participants' needs. The survey mainly covers the following areas, apart from the profiling or demographic questions:

- Conference Program – feedback on sessions, themes and program mix.
- Conference Impact – gains / takeaways from the conference, success of the conference in achieving its objectives.
- Conference planning – feedback on the organization of the conference, venue, etc.

1.1 Analysis Methodology

The responses are coded and recorded in Excel, then exported to SPSS. SPSS and Excel were used for the analysis. Mainly used methods of analysis were: frequency charts or counts, various types of graphs, Chi-Square test of independence etc. All graphs are drawn on Excel.

The respondents were profiled according to demographical features like age, sex, occupation, continent of work, their level of involvement in cancer control activities, etc. This would bring out any skew in the data. Also, these demographics could be used in checking further whether the various groups differ on satisfaction levels from the conference.

The stated reasons to attend the conference can give us the expectations that the respondents had from the conference. The usefulness of each aspect of the conference were analyzed by different age bands, occupation and level of involvement (time spent on cancer control activities). This would show if different groups have different needs from the conference.

The sessions, program mix etc were analyzed, to get trends based on their ratings. This will show which themes were appreciated by the participants and what changes can be incorporated into the next conference.

The professional gains from the conference were analyzed to give an idea about the future conference planning. It would also point out the parameters which were used by participants after the conference. For this, we correlate the gains with the responses to see how the gains have been used.

1.2 Assumptions & Limitations

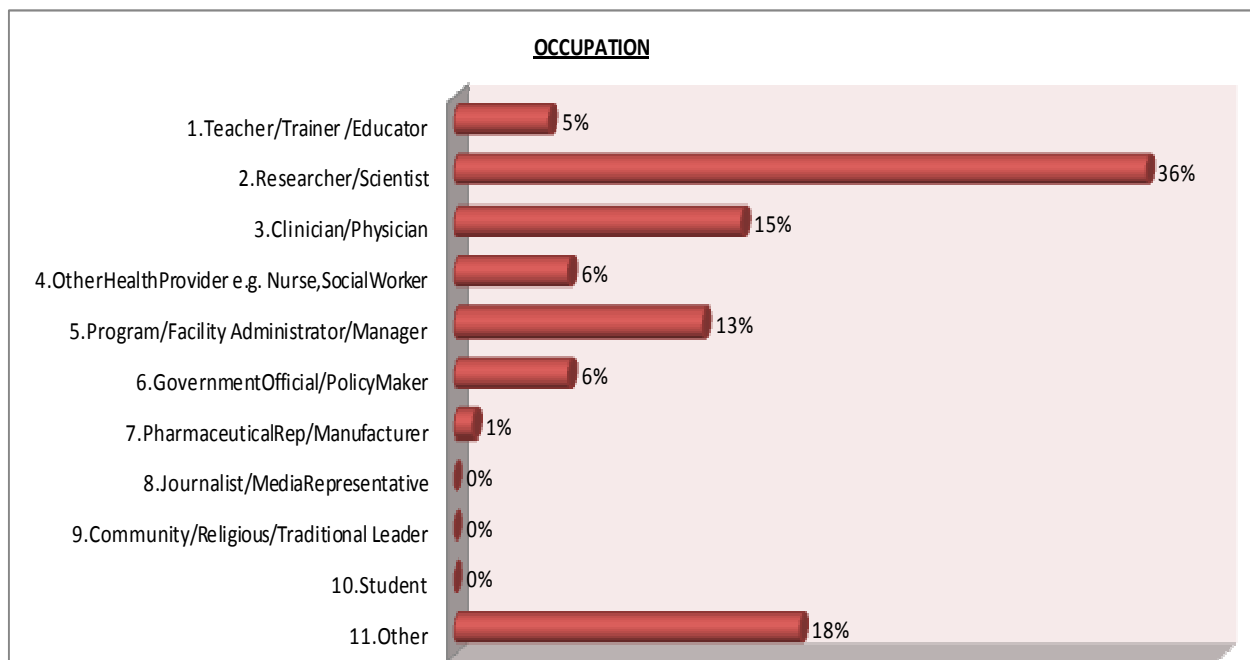
1. 362 participants attended the conference, of which only 112 took the survey (31% response rate). The results obtained by the analysis may not be a good approximation of the whole population because of the low response rate.
2. Because of the discrete nature of the variables, we use only the non-parametric tests for statistical analysis.
3. For all the statistical tests, the level of significance is taken as 0.05, unless otherwise specified.

2. Analysis

This section of the report gives findings about each question of the survey. The survey consists of 32 main questions. The total number of responses is 112.

2.1 Demographic Questions

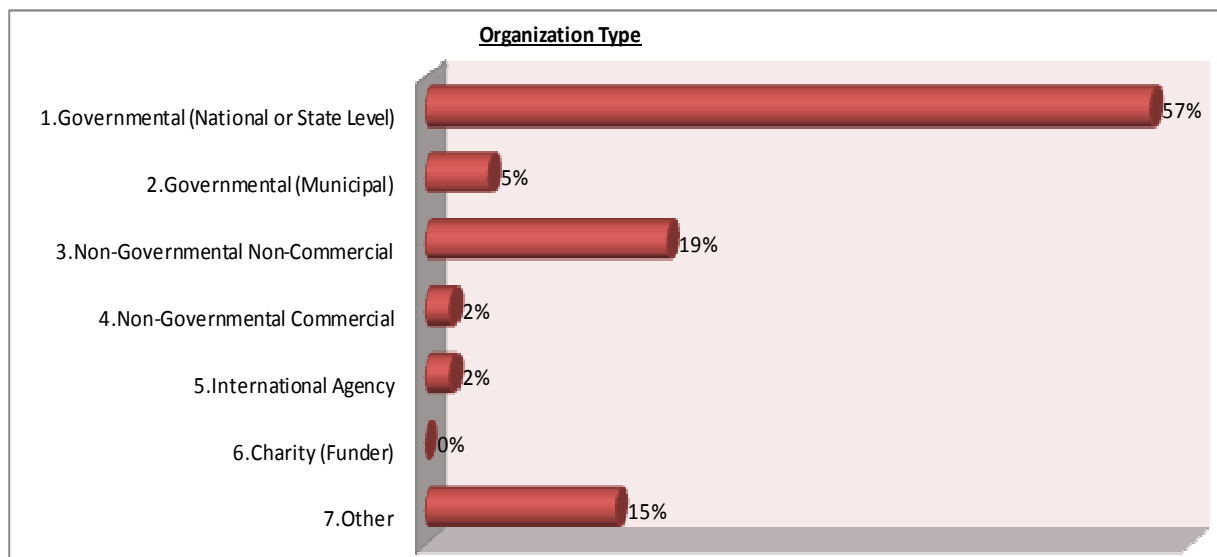
1. Occupation



No. Of Valid Responses: 109

The largest number of participants are Researchers / Scientists (36%). The other main fields of activity of the participants are: Clinician / Physician (15%) and Facility Administrator (13%). Government Officials / Policy Makers comprise 6% of the respondents.

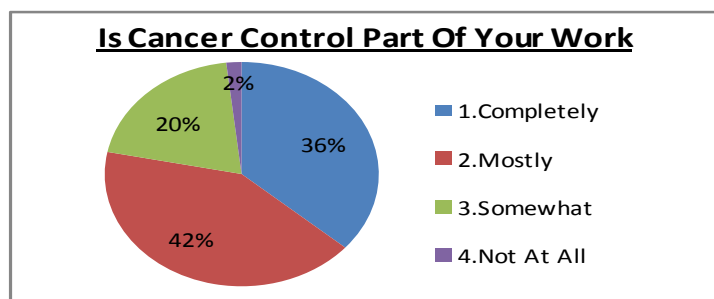
2. Type Of Organization



No. Of Valid Responses: 110

From the above graph, we can see that more than half the conference participants (57 %) were from government organizations. Out of these, 10 % are policy makers (comparing responses from question 1). Having more policy makers could help the ICCC create a greater impact.

3. Cancer control – Main area of work

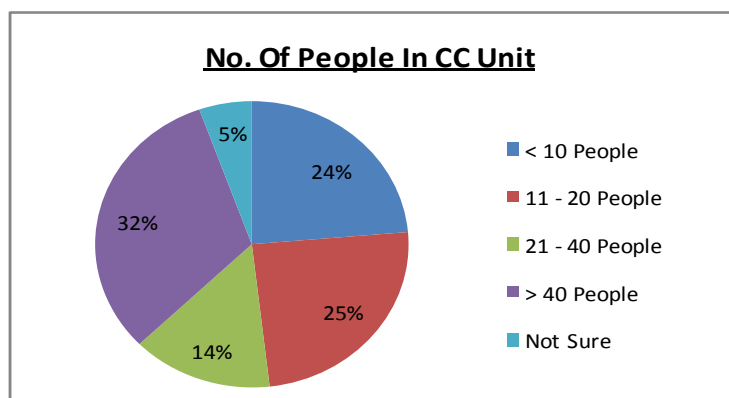


No. Of Valid Responses: 110

78% of the respondents work completely or mostly on cancer control. The rest are involved in cancer control at least as a frequent part of their work. Since the aim of the congress is to reach out to those

who are actively involved in cancer control activities, we can say that the conference has been successful in attracting the right audience.

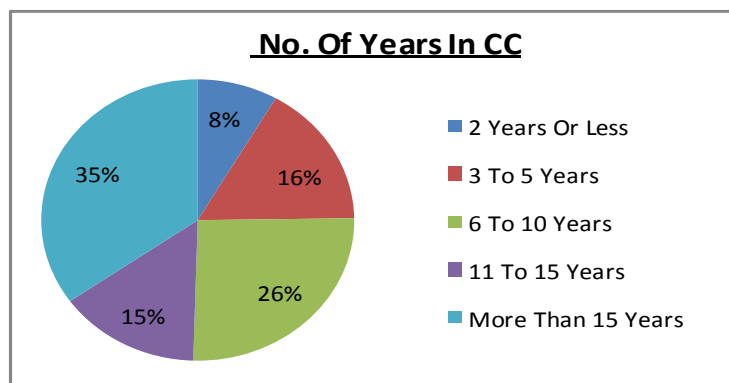
4. Number of people in the cancer control unit of your organization



No. Of Valid Responses: 110

Nearly a third (32%) have more than forty people in their organizations whose work is related to cancer control. This reflects that quite a few participants were from relatively larger organizations.

5. Years of work in cancer control field

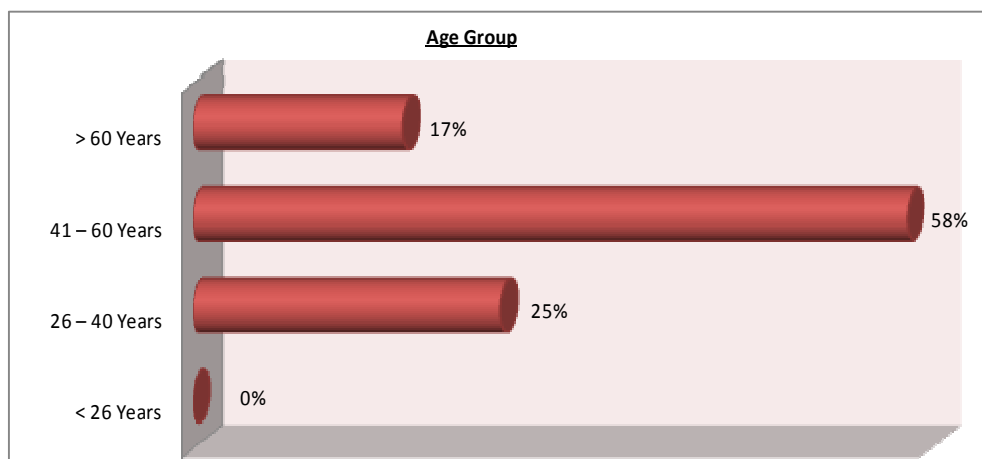


No. Of Valid Responses: 109

Half the respondents have more than a decade's experience in the cancer control field. A significant part, 42%, have 3 – 10 years experience. Very few (8%) are new to the field. Nearly a third (35%), the largest group, have more than 15 years of experience. Considering that 98 % of them have spent a

significant amount of time in cancer control related work, we can say that each one is serious about learning, sharing and implementing what they learnt at the ICC.

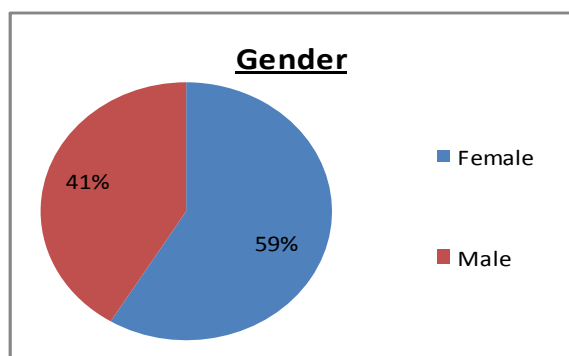
6. Age Group



No. Of Valid Responses: 109

Three fourth of the respondents are over 40 years of age.

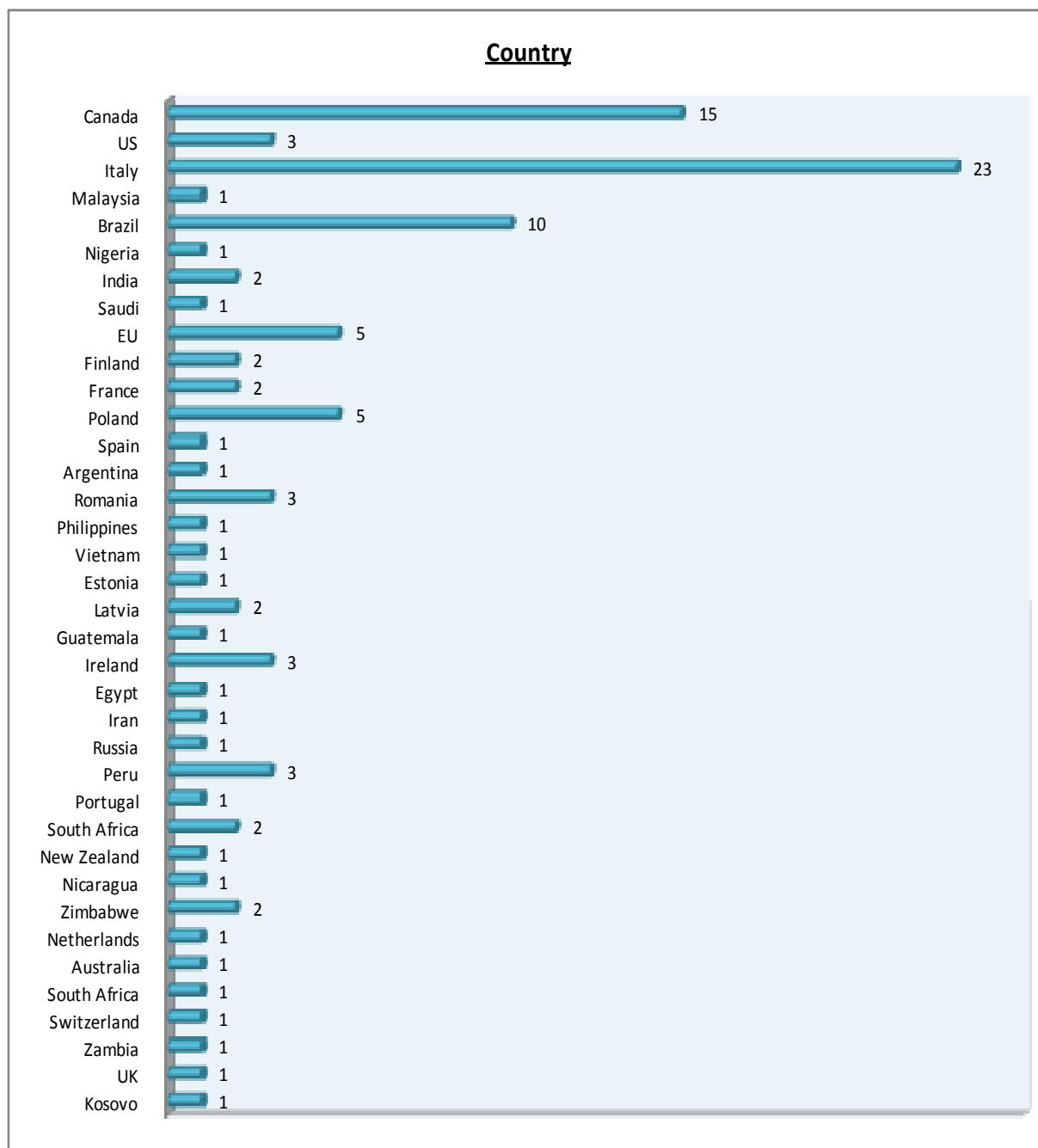
7. Gender



No. Of Valid Responses: 109

A greater part (59%) of the respondents are females.

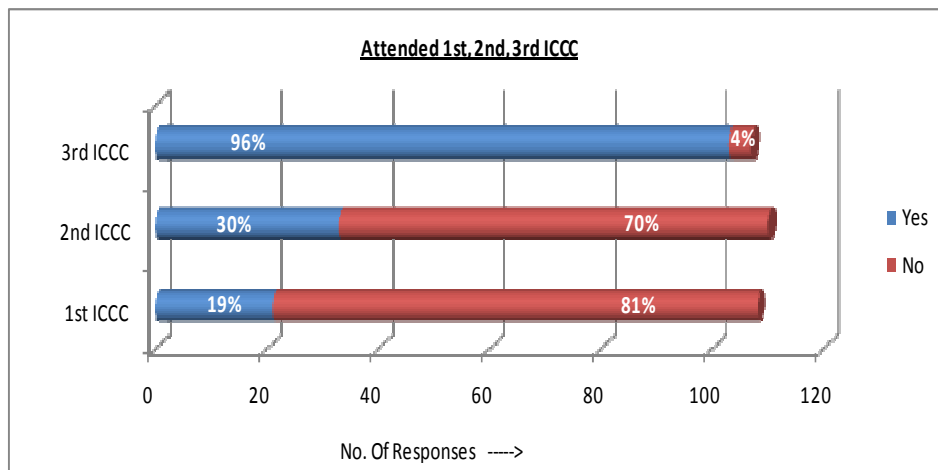
8. Country of Work



No. Of Valid Responses: 104

Majority of respondents are from Italy (22%) and a considerable number are from Canada (14%) and Brazil (10%). There are a fair number of representatives from all parts of the globe. 65 countries were represented at the Congress.

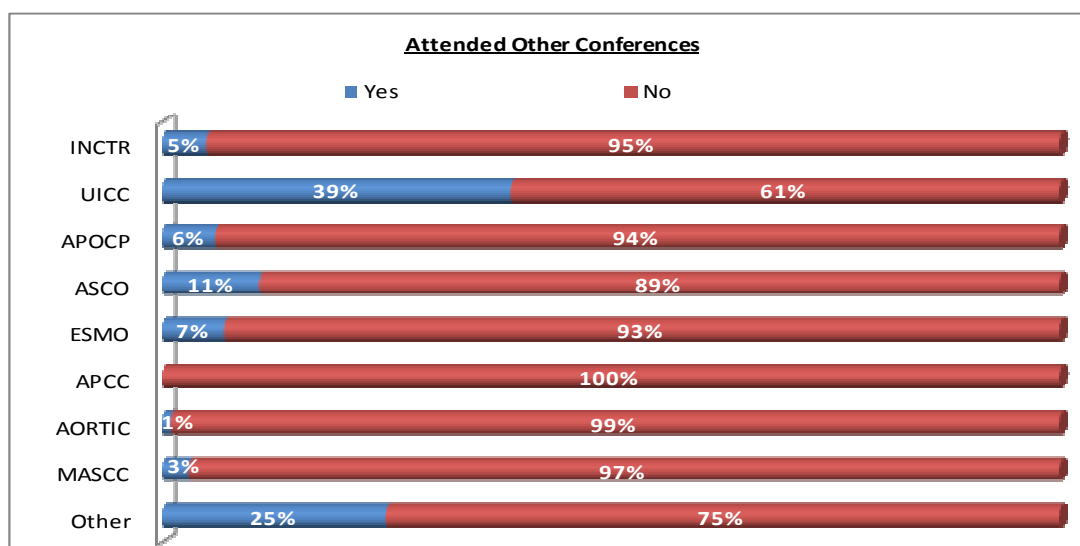
9. Attended previous Cancer Control Congress



No. Of Valid Responses: 110

Majority of respondents (over two third) have not attended the previous conferences.

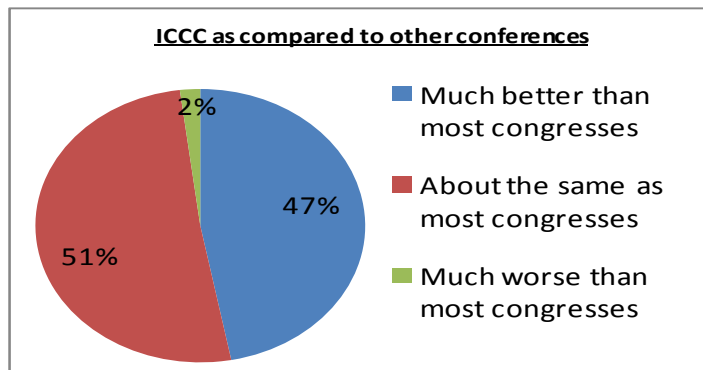
10. Attended other cancer control conferences



No. Of Valid Responses: 111

Amongst other cancer control related conferences, UICC seem to be the most popular conference with almost 40 % respondents having attended it.

11. ICC3 as compared to other conferences



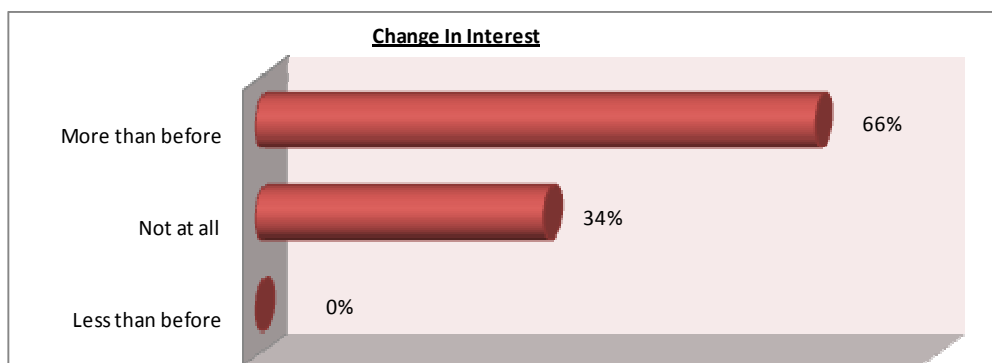
No. Of Valid Responses: 100

Nearly half (47%) respondents find the 3rd ICC3 to be much better than other conferences. Very few (2%) are of the opinion that the ICC3 does not match up to other conferences.

2.2 Conference Program

1. Influenced by 3rd ICC3

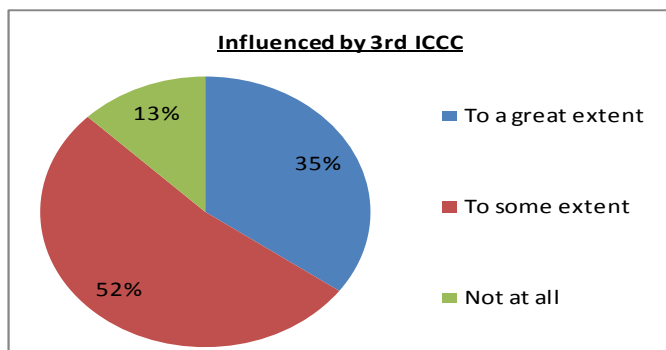
1.1. Change in Interest and Involvement



No. Of Valid Responses: 109

Two thirds of respondents are more interested in cancer control after attending the 3rd ICC3. Assuming that this is one of the main objectives of the conference, we can say that 3rd ICC3 has been considerably successful.

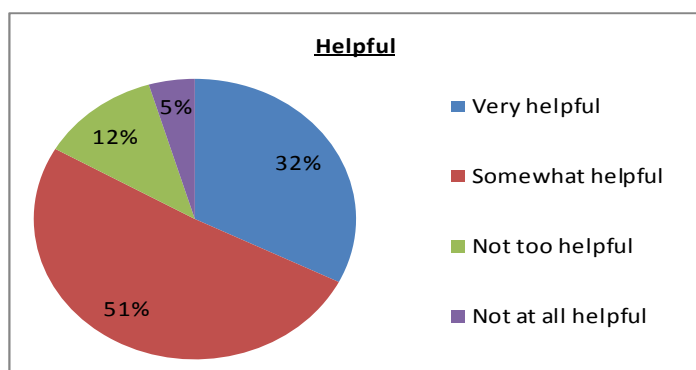
1.2. Have you been influenced after attending the ICCC – Extent of change



No. Of Valid Responses: 103

Amongst those who find their interest level in cancer control related work to have increased after the conference, 88% have been influenced to an extent after attending the 3rd ICCC. This may indicate that a large proportion of attendees participated in activities/programs related to cancer control as a result of the conference.

2. Has attending the 3rd ICCC assisted in your cancer control work

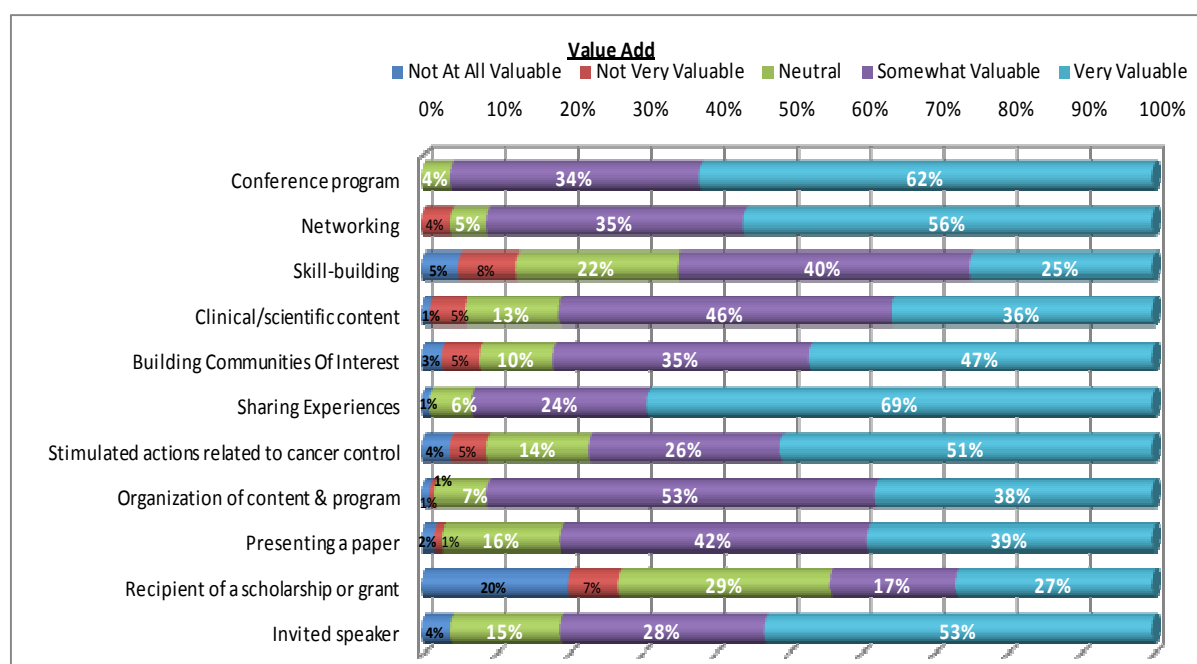


No. Of Valid Responses: 108

A vast majority, 83%, find that their work has benefited by attending the 3rd ICCC. This can be considered as another parameter to measure the success of the 3rd ICCC.

3. Value Of Attending The 3rd ICCC Based On The Following :

PARAMETER	Not At All Valuable	Not Very Valuable	Neutral	Somewhat Valuable	Very Valuable
1.Conference program	0	0	3	27	49
2.Networking	0	3	4	28	45
3.Skill-building	4	6	17	30	19
4.Clinical/scientific content	1	4	10	37	28
5.Building Communities Of Interest	2	4	8	27	37
6.Sharing Experiences	1	0	5	19	54
7.Stimulated actions related to cancer control	3	4	11	21	40
8.Organization of content & program	1	1	5	41	29
9.Presenting a paper	1	1	12	31	29
10.Recipient of a scholarship or grant	13	5	19	11	18
11.Invited speaker	3	0	11	20	38



No. Of Valid Responses: 80

Participants have been asked to rate a few aspects of the conference based on the extent to which they benefited from the 3rd ICCC. Sharing Experiences, Networking and the Conference Program are the factors that have provided the most value to attendees of the 3rd ICCC. Skill Building and Scholarships/Grants are areas that could be improved upon in future conferences.

4. Attending The 3rd ICCC Helped Me With The Following :

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1.Change Minds Of Policy Makers In My Jurisdiction	3	12	22	55	13
2.I Have Little Say In Influencing Policy	15	43	16	25	7
3.Share Best Practices	0	4	13	63	27
4.Share Learnings	2	10	30	44	18
5.Create Collaborations	3	1	14	73	15
6.Raise Awareness	2	2	22	63	16
7.Engage Community	1	8	31	45	20
8.Knowledge Transfer	0	2	6	48	50

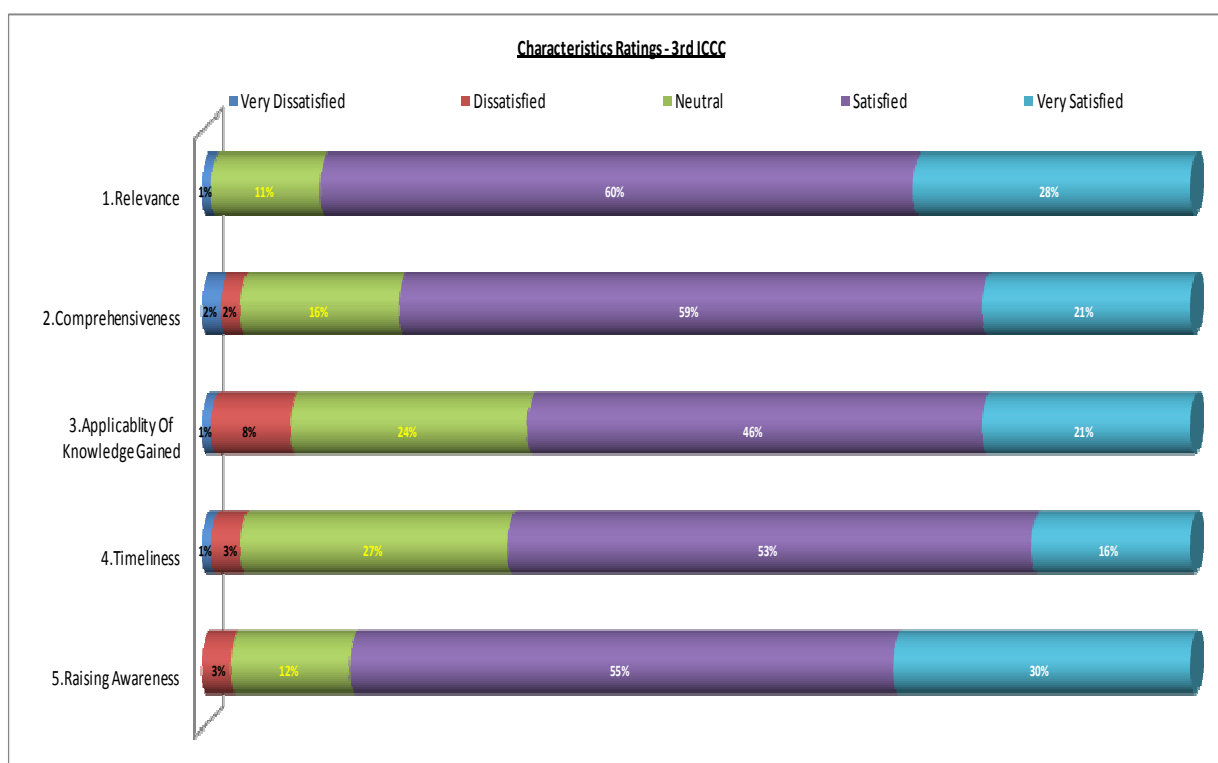


No. Of Valid Responses: 109

Participants have rated the above parameters based on how useful it turned out to be after the ICCC. Attending the 3rd ICCC has helped participants primarily in Creating Collaborations, Knowledge Transfer, Raising Awareness and Sharing Best Practices. The results are consistent with those of the previous question.

5. Overall Satisfaction With The Conference – Characteristic Ratings

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
1.Relevance	1	0	12	65	31
2.Comprehensiveness	2	2	18	64	23
3.Applicability Of Knowledge Gained	1	9	26	49	23
4.Timeliness	1	3	29	57	18
5.Raising Awareness	0	3	13	60	33

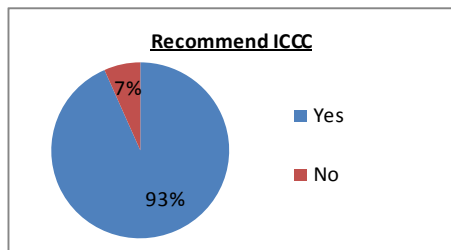


No. Of Valid Responses: 109

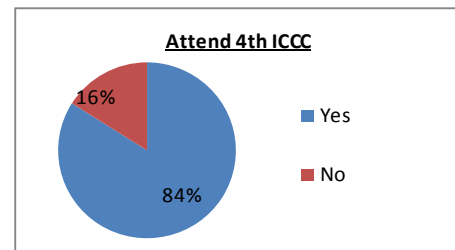
The conference program has been evaluated on five parameters to test its usefulness to attendees and to identify area that need to be improved. Applicability of the knowledge gained comes across as the one scored lowest with the participants. All other parameters have received favourable reviews.

6. Attend ICCC In Future

6.1. Would you recommend ICCC to a colleague



6.2. Would you attend the 4th ICCC

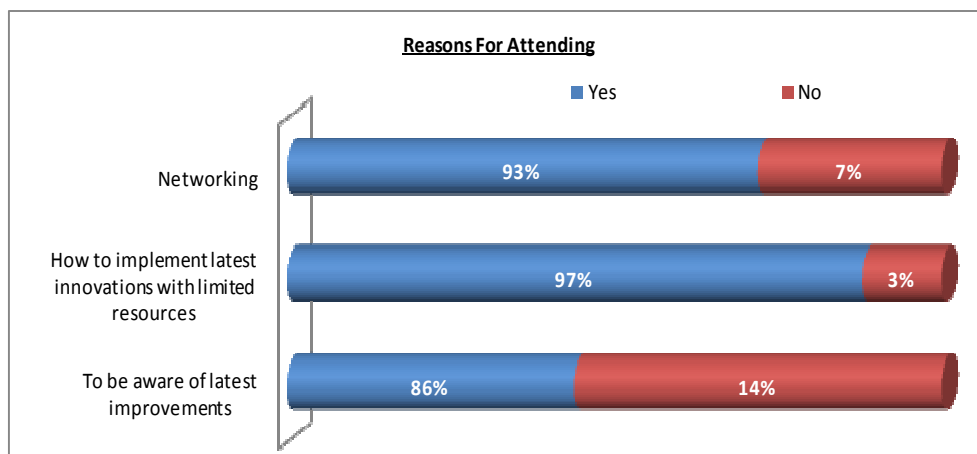


No. Of Valid Responses: 106

An overwhelming majority of 93 % would recommend the ICCC to colleagues and 84 % would like to attend the next ICCC.

2.3 Conference Planning And Organization – For 4th ICCC

1. Reason For Attending – What participants look for / expect.



No. Of Valid Responses: 106

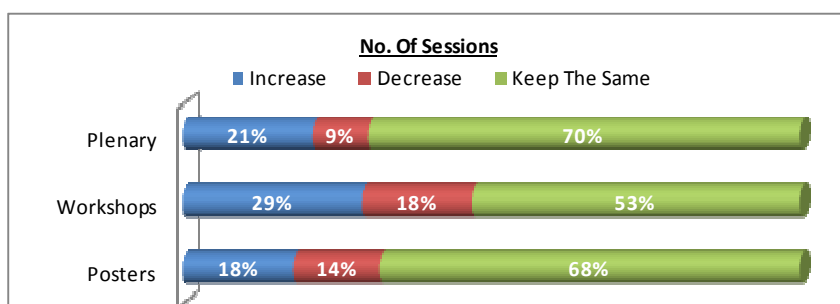
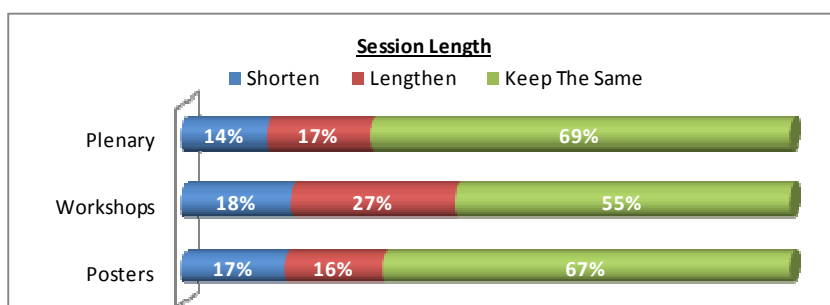
The largest number of respondents are interested in finding out how new improvements and state-of-the-art clinical and scientific content can be implemented under constrained resources. The second factor in drawing participants is the opportunities available for networking with contemporaries across the globe.

2. Session Planning

This section seeks to gather the participants' feedback on the topics covered and the number and duration of sessions and application examples. It identifies the changes / improvements , if any, that the audience would like to see.

2.1. Session Durations & Frequency

<u>Session</u>	<u>Session Length</u>		<u>Number Of Sessions</u>		<u>Keep The Same</u>
	<u>Shorten</u>	<u>Lengthen</u>	<u>Increase</u>	<u>Decrease</u>	
Plenary	15	19	23	10	75
Workshops	18	27	30	18	55
Posters	18	16	19	14	70

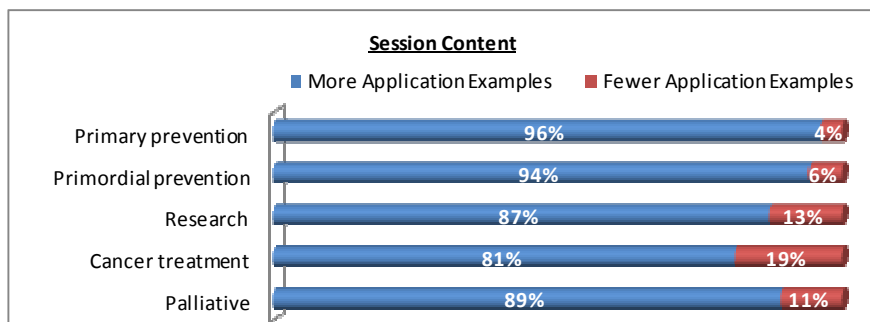
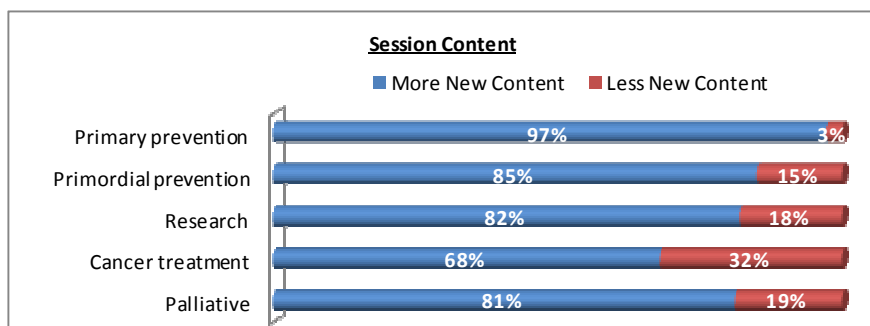


No. Of Valid Responses: 109

The majority prefer the sessions as they are. Those who want changes are primarily looking for more sessions and for longer sessions. This is particularly relevant to the workshops that are held.

2.2. Session Content

<u>Session</u>	More New Content	More Application Examples	Less New Content	Fewer Application Examples
Primary prevention	67	80	2	3
Primordial prevention	57	64	10	4
Research	53	56	12	8
Cancer treatment	48	57	23	13
Palliative	54	62	13	8



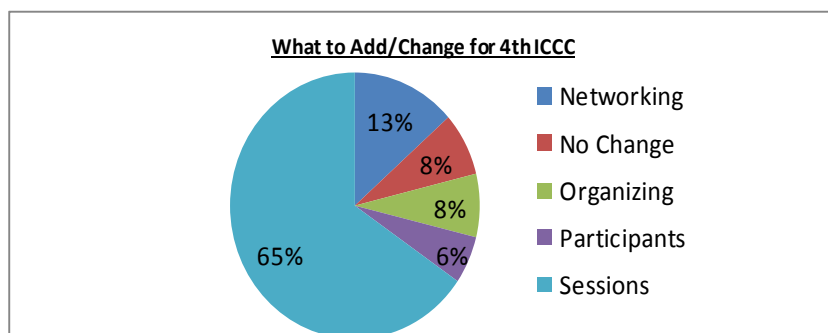
No. Of Valid Responses: 109

Again, the majority would like to have more new content and more application examples for all topics covered. The majority is slightly smaller when it comes to cancer treatment. Comparatively for cancer treatment, there are quite a few who would like less new content and fewer examples.

3. Improvements/Suggestions for the 4th ICCC

The verbatim responses were analysed to identify what changes/improvements the participants would like to see in the 4th ICCC.

The responses were grouped into five main categories and then further divided into sub-groups.



No. Of Valid Responses: 51

6% - Participants : Seeks to involve more participants – specifically policy makers and sponsorers.

8% - Organizing : Refers to minor discrepancies regarding session/break timings, etc.

8% - No Change : These attendees liked the conference as it was and do not wish to add anything.

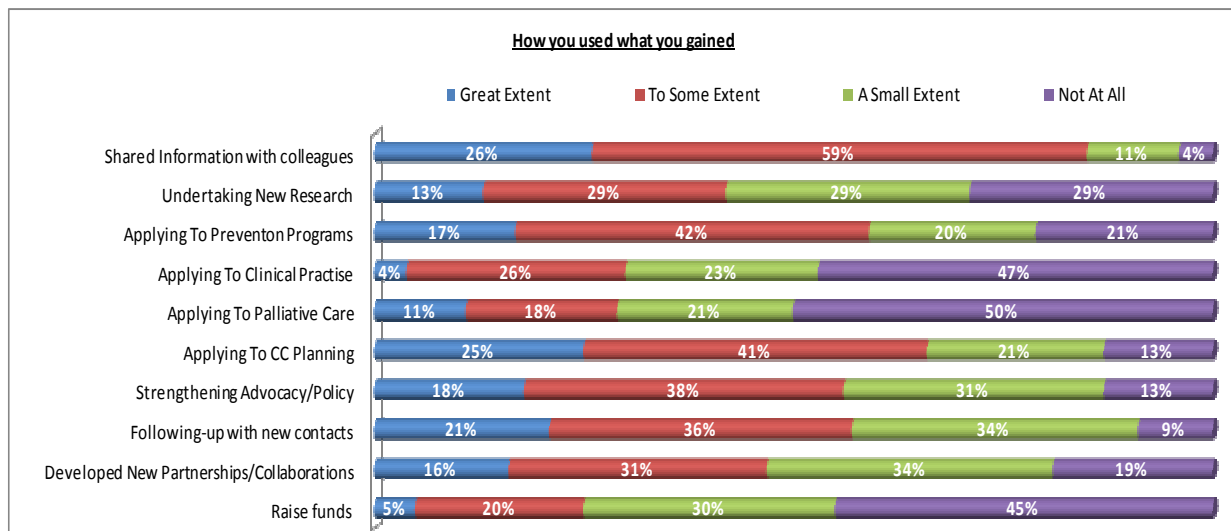
13% - Networking : To arrange for more opportunities where participants get to meet and spend more time discussing with others who have something in common – e.g. other participants from the same region, working on similar programs, etc.

65% - Sessions : These are suggestions on adding topics to the presentations and workshops. Primary Prevention and Region-wise implementation of cancer control work are the two topics which are mentioned most often.

2.4 Conference Impact

1. Have you used what you gained at the 3rd ICC

	Great Extent	To Some Extent	A Small Extent	Not At All
Shared Information with colleagues	27	62	12	4
Undertaking New Research	13	30	30	30
Applying To Prevention Programs	17	44	21	22
Applying To Clinical Practice	4	26	23	46
Applying To Palliative Care	11	18	21	49
Applying To CC Planning	26	42	21	13
Strengthening Advocacy/Policy	18	39	31	13
Following-up with new contacts	21	37	35	9
Developed New Partnerships/Collaborations	16	31	33	19
Raise funds	5	20	29	44
Nothing done	1	0	0	0
Other	2	0	0	0



No. Of Valid Responses: 105

85% of the participants have shared the information that they gained at the conference. Most other applications of their newly gained knowledge have been used to some extent. Information pertaining to clinical practice, palliative care and fund raising have been used significantly only by a small portion of attendees. The organizers can plan on adding more content that instructs/facilitates participants to implement the knowledge they gained at the conference. This is required in particular for those interested in clinical practices, palliative care and fund raising.

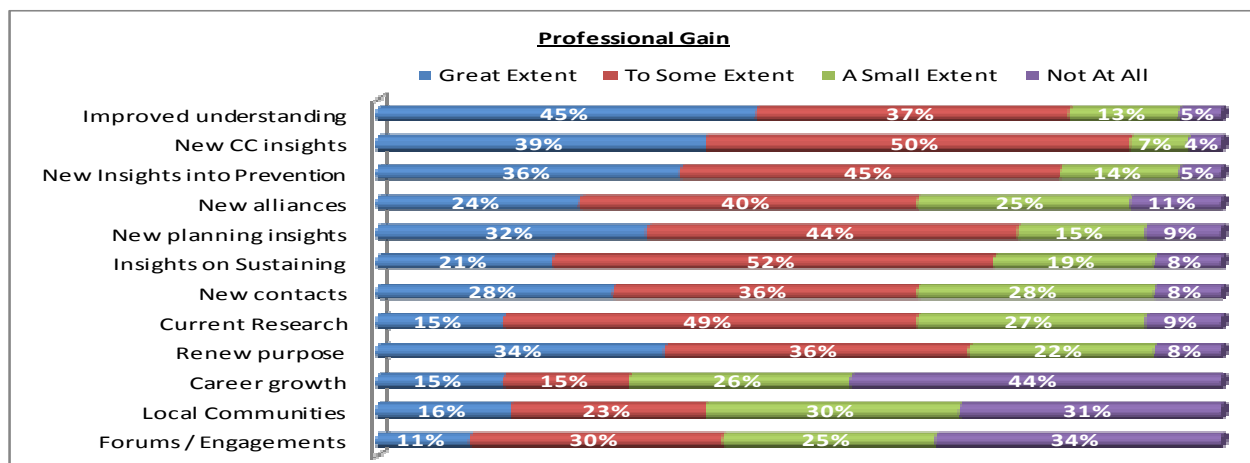
Ranks		Test Statistics	
	Mean Rank		
Shared Information with colleagues	5.66	N	110
Undertaking New Research	8.00	Kendall's W ^a	.521
Applying To Prevention Programs	7.19	Chi-Square	630.241
Applying To Clinical Practice	8.68	df	11
Applying To Palliative Care	8.76	Asymp. Sig.	.000
Applying To CC Planning	6.28	a. Kendall's Coefficient of Concordance	
Strengthening Advocacy/Policy	6.86		
Following-up with new contacts	6.75		
Developed New Partnerships/Collaborations	7.17		
Raise funds	8.78		
Nothing done	1.94		
Other	1.93		

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here, 0.521, shows that there is a moderate level of concordance between the responses to the variables, but not much. This means that the responses are not following any trend and that the responses for each of the variables are independent of each other.

The ranks given are a statistical measure to identify which variables have received the most favourable ratings and which need improvement.

2. Professional gain from attending the 3rd ICCC

	Great Extent	To Some Extent	A Small Extent	Not At All
Improved understanding	48	40	14	5
New CC insights	41	52	7	4
New Insights into Prevention	36	45	14	5
New alliances	25	41	25	11
New planning insights	33	45	16	9
Insights on Sustaining	22	54	19	8
New contacts	28	37	29	8
Current Research	15	50	28	9
Renew purpose	34	36	22	8
Career growth	15	15	26	45
Local Communities	16	23	30	31
Forums / Engagements	11	29	25	33
Other	1	1	0	0



Ranks	
	Mean Rank
Improved understanding	6.08
New CC insights	5.83
New Insights into Prevention	6.08
New alliances	7.53
New planning insights	6.78
Insights on Sustaining	7.20
New contacts	7.32
Current Research	7.81
Renew purpose	6.79
Career growth	9.76
Local Communities	9.11
Forums / Engagements	9.11
Other	1.58

Test Statistics	
N	109
Kendall's W ^a	.370
Chi-Square	483.526
df	12
Asymp. Sig.	.000

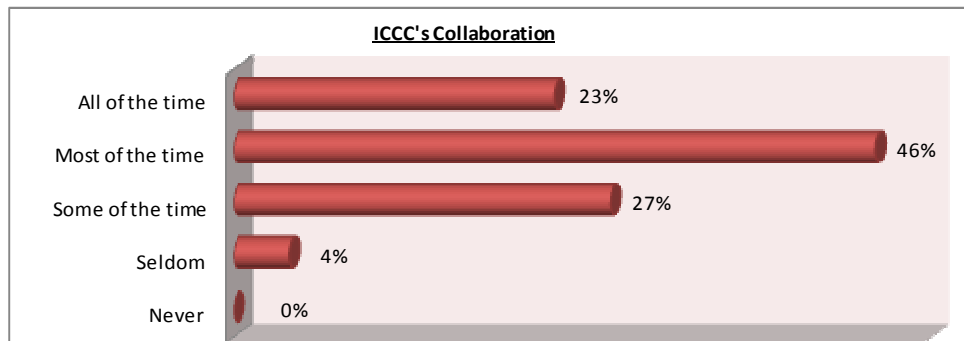
a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here, 0.370, shows that there is only a small level of concordance among the variables.

No. Of Valid Responses: 107

New insights and improved understanding of cancer control are the two primary professional gains from the 3rd ICCC for most participants. Attending the ICCC has however not been very helpful for participants looking for career advancement, developing local practices or fostering forums of engagement. While most participants were interested in networking opportunities and have used them also, these have not been very beneficial to them professionally. All other information gained has been professionally useful to some extent for most respondents.

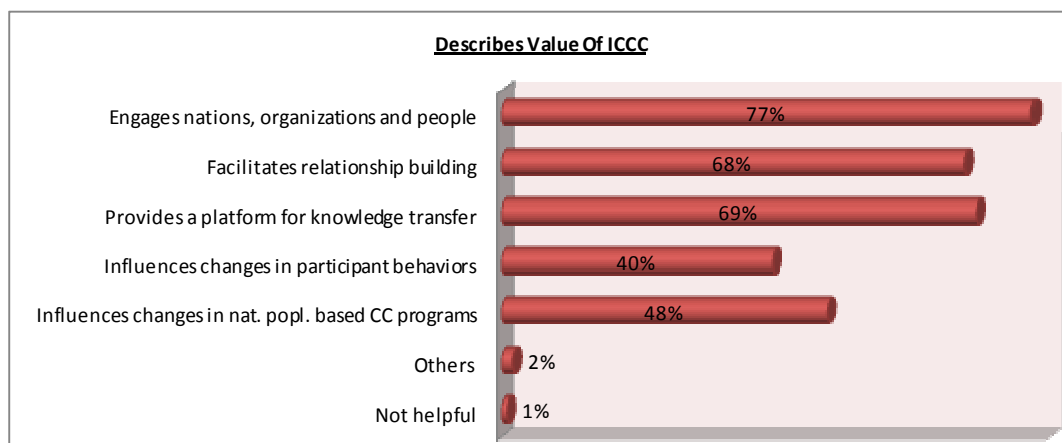
3. To what extent have the ICCC's demonstrated collaboration



No. Of Valid Responses: 103

96% of participants believe that the ICCC's have consistently demonstrated collaboration to enhance global cancer control. Just 4 % think otherwise.

4. Which Of The Following Best Describes The Value Of ICCC

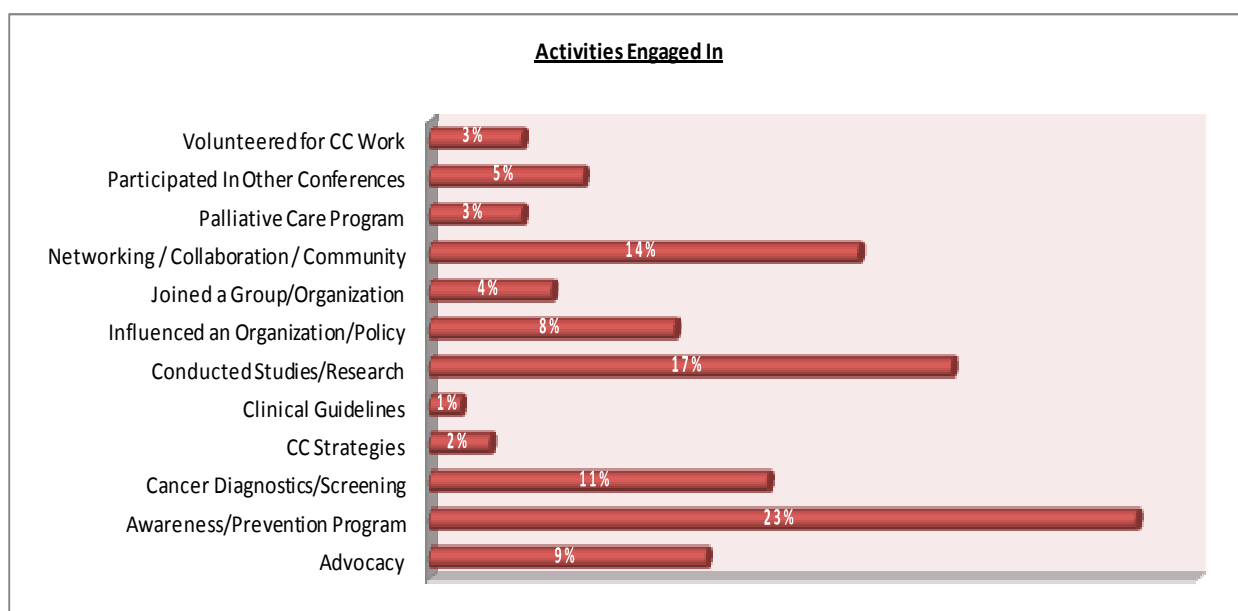


The most popular perception of the ICCC is of a conference that engages participants across organizations and nations. The ICCC provides a platform for exchange of new ideas and content and for networking.

5. Activities I initiated/participated in that were influenced by the 3rd ICCC

The open-ended responses were evaluated to identify which activities the attendees engaged in as a result of the 3rd ICCC.

The responses from 73 participants were classified into various groups :



The largest portion of respondents (23%) have participated or organized Cancer Awareness / Prevention programs. Quite a few have used what they learnt in their researches (17%) and a significant proportion of respondents have used the ICCC as a platform for networking. They have formed collaborations between groups/organizations and also set up communities and forums to exchange knowledge and encourage discussions related to cancer control. Many participants have taken part in cancer screening programs (11%). 9% have engaged in activities that advocate cancer control and 8% have used what they gained at the 3rd ICCC to influence programs and policies related to cancer control. These two groups are extremely important and can perhaps be focused on in the next ICCC so that the percentages increase next time.

3. Cross-Tab Analysis

Some questions in the survey can be interrelated with other questions, to gain more meaning from the data. Demographic profiling can be applied to see whether different groups are behaving in a differed manner, and whether this behavior is statistically significant. We can use cross-tabs and Chi-Square tests for the same. This section of the report highlights the major hypotheses formulated and tested on the data to bring out trends and correlations in the data.

The significance value for all the tests is taken as 0.05 (95% confidence level), unless mentioned otherwise. This value is compared against the p-values.

We have initially focused on two questions that bring out the overall usefulness / value-add of the conference.

A cross tab was created to compare these two questions with each of the demographic parameters and Chi Square Tests were run to identify statistically significant variables.

The hypothesis :- H_0 : There exists no significant relationship

H_A : There exists a significant relationship

The test results that were found to be significant are given below as the first four hypotheses. The null hypotheses are rejected for these cases.

Next, chi square tests were run to identify if the characteristic ratings of the 3rd ICCC has influenced participants' decision to attend the next ICCC. The hypotheses' 5 to 10 show these results.

The usefulness of the knowledge gained has been tested to identify if attending the 3rd ICCC helped in implementation. Hypotheses 11, 12 and 13 contain these results.

Hypothesis 1 : Usefulness of the 3rd ICCC (Q.17) vs Cancer Control Being A Part Of Work (Q.03)

The value added to the participant's cancer control work by attending the 3rd ICCC has been cross tabulated with the extent to which cancer control is part of the participant's work.

H_0 : There exists no significant relationship between the participants work and the usefulness derived from the conference.

H_A : There exists a significant relationship between the participants work and the usefulness derived from the conference.

Chi Square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		To What Extent Is Cancer Control Part Of Your Work					Total
		Completely	Mostly	Somewhat	Not At All	Invalid Responses	
Usefulness	Very Helpful	10	19	6	0	0	35
	Somewhat Helpful	24	20	10	0	1	55
	Not Too Helpful	3	5	5	0	0	13
	Not At All Helpful	1	2	1	1	0	5
	Invalid Responses	1	0	0	1	0	2
Total		39	46	22	2	1	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	45.441 ^a	16	.000
Likelihood Ratio	21.520	16	.159
Linear-by-Linear Association	.001	1	.980
N of Valid Cases	110		

a. 18 cells (72.0%) exp < 5. Min exp = .02...

The significance value in the table above is less than 0.05, which is the threshold that we have chosen (95% confidence level). Therefore the null hypothesis is rejected. A significance value of 0.0 indicates that there exists a very strong relationship between the two variables.

Hypothesis 2 : Usefulness of the 3rd ICC (Q.17) vs Years Of Work In Cancer Control (Q.05)

The value added to the participant's cancer control work by attending the 3rd ICC has been cross tabulated with the number of years the participant has worked in cancer control.

H₀ : There exists no significant relationship between the participant's work experience and the usefulness derived from the conference.

H_A : There exists a significant relationship between the participant's work experience and the usefulness derived from the conference.

Chi Square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		No. Of Years In Cancer Control Work						Total
		< 2 Years	3 – 5 Years	6 – 10 Years	11 – 15 Years	> 15 Years	Invalid Responses	
VAR00135	Very Helpful	1	7	9	5	13	0	35
	Somewhat Helpful	4	8	16	7	19	1	55
	Not Too Helpful	2	3	1	3	4	0	13
	Not At All Helpful	2	0	1	1	1	0	5
	Invalid Responses	0	0	1	0	0	1	2
Total		9	18	28	16	37	2	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	41.563 ^a	20	.003
Likelihood Ratio	21.569	20	.364
Linear-by-Linear Association	25.580	1	.000
N of Valid Cases	110		

a. 22 cells (73.3%) exp < 5. Min exp = .04...

The significance value in the table above is less than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.003 indicates that there exists a strong relationship between the two variables. Therefore the null hypothesis is rejected.

Hypothesis 3 : Involvement In CC has Changed (Q.15) vs Cancer Control Being A Part Of Work (Q.03)

The participant's change in involvement in cancer control work by attending the 3rd ICC3 has been cross tabulated with the extent to which cancer control is part of the participant's work.

H_0 : There exists no significant relationship between the participant's work and the change in involvement after attending the 3rd ICCC.

H_A : There exists a significant relationship between the participant's work and the change in involvement after attending the 3rd ICCC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		To What Extent Is Cancer Control Part Of Your Work					Total
		Completely	Mostly	Somewhat	Not At All	Invalid Responses	
Change In Involvement	Less Than Before	0	0	0	0	0	0
	Not At All	18	10	6	2	1	37
	More Than Before	21	36	15	0	0	72
	Invalid Responses	0	0	1	0	0	1
Total		39	46	22	2	1	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	15.889 ^a	8	.044
Likelihood Ratio	15.790	8	.045
Linear-by-Linear Association	.002	1	.966
N of Valid Cases	110		

a. 9 cells (60.0%) expf < 5. Min exp = .01...

The significance value in the table above is less than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.044 indicates that there exists a moderately strong relationship between the two variables. Therefore the null hypothesis is rejected.

Hypothesis 4 : Involvement In CC has Changed (Q.15) vs Years Of Work In Cancer Control (Q.05)

The participant's change in involvement in cancer control work by attending the 3rd ICCC has been cross tabulated with the number of years the participant has worked in cancer control.

H₀ : There exists no significant relationship between the participant's work experience and the change in involvement after attending the 3rd ICCC.

H_A : There exists a significant relationship between the participant's work experience and the change in involvement after attending the 3rd ICCC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		No. Of Years In Cancer Control Work						Total
		< 2 Years	3 – 5 Years	6 – 10 Years	11 – 15 Years	> 15 Years	Invalid Responses	
Change In Involvement	Less Than Before	0	0	0	0	0	0	0
	Not At All	4	1	6	9	15	2	37
	More Than Before	4	17	22	7	22	0	72
	Invalid Responses	1	0	0	0	0	0	1
Total		9	18	28	16	37	2	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	28.888 ^a	10	.001
Likelihood Ratio	24.977	10	.005
Linear-by-Linear Association	.195	1	.659
N of Valid Cases	110		

a. 9 cells (50.0%) expf < 5. Min exp = .02...

The significance value in the table above is less than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.001 indicates that there exists a highly significant relationship between the two variables. Therefore the null hypothesis is rejected.

Hypothesis 5 : Relevance Of The 3rd ICCC (Q.19.1) vs Decision to Attend 4th ICCC (Q.21)

The participants' impression of the Relevance of the 3rd ICCC has been cross tabulated with their intention of attending the next ICCC.

H₀ : There exists no significant relationship between the participant's decision to attend the next ICCC and participant's opinion on the relevance of the 3rd ICCC.

H_A : There exists a significant relationship between the participant's decision to attend the next ICCC and participant's opinion on the relevance of the 3rd ICCC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		Re-Attend			Total
		Yes	No	Invalid Response	
Relevance	Very Dissatisfied	1	0	0	1
	Dissatisfied	0	0	0	0
	Neutral	3	7	2	12
	Satisfied	53	10	2	65
	Very Satisfied	31	0	0	31
	Invalid Response	1	0	0	1
Total		89	17	4	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	32.361 ^a	8	.000
Likelihood Ratio	31.683	8	.000
Linear-by-Linear Association	.125	1	.724
N of Valid Cases	110		

a. 11 cells (73.3%) expf < 5. Min exp = .04...

The significance value in the table above is less than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.0 (i.e., < 0.001) indicates that there exists a highly significant relationship between the two variables. Therefore the null hypothesis is rejected.

Hypothesis 6 : Raising Awareness (Q.19.5) vs Decision to Attend 4th ICC (Q.21)

The participants' impression that the 3rd ICC has helped raise awareness about cancer control has been cross tabulated with their intention of attending the next ICC.

H₀ : There exists no significant relationship between the participant's decision to attend the next ICC and participant's opinion that the 3rd ICC has raised awareness about cancer control.

H_A : There exists a significant relationship between the participant's decision to attend the next ICC and participant's opinion that the 3rd ICC has raised awareness about cancer control.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		Re-Attend			Total
		Yes	No	Invalid Response	
Awareness	Very Dissatisfied	0	0	0	0
	Dissatisfied	0	3	0	3
	Neutral	8	5	0	13
	Satisfied	47	9	4	60
	Very Satisfied	33	0	0	33
	Invalid Response	1	0	0	1
Total		89	17	4	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	31.535 ^a	8	.000
Likelihood Ratio	31.618	8	.000
Linear-by-Linear Association	.057	1	.811
N of Valid Cases	110		

a. 10 cells (66.7%) expf < 5. Min exp = .04...

The significance value in the table above is less than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.0 (i.e., < 0.001) indicates that there exists a highly significant relationship between the two variables. Therefore the null hypothesis is rejected.

Hypothesis 7 : Applicability Of Knowledge Gained (Q.19.3) vs Gender (Q.06)

The applicability of the knowledge gained by attending the 3rd ICCC has been cross tabulated with the participant's gender.

H₀ : There exists no significant relationship between the applicability of the knowledge gained by attending the 3rd ICCC and the participant's gender.

H_A : There exists a significant relationship between the applicability of the knowledge gained by attending the 3rd ICCC and the participant's gender.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 90% was chosen.

Crosstab

Count

		Gender			Total
		Female	Male	Not Answered	
Applicability Of Knowledge Gained	Not Answered	0	1	0	1
	Very Dissatisfied	1	0	0	1
	Dissatisfied	3	5	1	9
	Neutral	20	6	0	26
	Satisfied	22	26	1	49
	Very Satisfied	17	6	0	23
	Invalid Response	0	1	0	1
Total		63	45	2	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	19.387 ^a	12	.080
Likelihood Ratio	19.370	12	.080
Linear-by-Linear Association	.044	1	.834
N of Valid Cases	110		

a. 14 cells (66.7%) expf < 5. Min exp = .02...

The significance value in the table above is 0.80. At a confidence level of 95%, we will have to accept the null hypothesis. However, if we assume a confidence level of 90 % (i.e., signif. < 0.10), then we can say that the null hypothesis is rejected and that there exists a relationship between the applicability of knowledge gained at the 3rd ICC and the participant's gender.

Hypothesis 8 : Raising Awareness (Q.19.5) vs Recommend ICCC to colleagues (Q.20)

The participants' impression that the 3rd ICCC has helped raise awareness about cancer control has been cross tabulated with their intention of recommending the ICCC to colleagues.

H_0 : There exists no significant relationship between the participant's decision to recommend colleagues to attend the next ICCC and the participant's opinion that the 3rd ICCC has raised awareness about cancer control.

H_A : There exists a significant relationship between the participant's decision to recommend colleagues to attend the next ICCC and the participant's opinion that the 3rd ICCC has raised awareness about cancer control.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Recommend			Total
		Yes	No	Invalid Response	
Awareness	Very Dissatisfied	0	0	0	0
	Dissatisfied	2	1	0	3
	Neutral	10	3	0	13
	Satisfied	56	2	2	60
	Very Satisfied	30	1	2	33
	Invalid Response	1	0	0	1
Total		99	7	4	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	12.324 ^a	8	.137
Likelihood Ratio	9.213	8	.325
Linear-by-Linear Association	.014	1	.907
N of Valid Cases	110		

a. 12 cells (80.0%) expf < 5. Min exp = .04...

The significance value in the table above is greater than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.137 indicates that no significant relationship exists between the two variables. Therefore the null hypothesis is accepted.

Hypothesis 9 : Relevance Of The 3rd ICC (Q.19.1) vs Recommend ICC to colleagues (Q.20)

The participants' impression of the Relevance of the 3rd ICC has been cross tabulated with their intention of recommending the ICC to colleagues.

H_0 : There exists no significant relationship between the participant's decision to recommend colleagues to attend the next ICC and the participant's opinion on the relevance of the 3rd ICC.

H_A : There exists a significant relationship between the participant's decision to recommend colleagues to attend the next ICC and the participant's opinion on the relevance of the 3rd ICC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Recommend			Total
		Yes	No	Invalid Response	
Relevance	Very Dissatisfied	1	0	0	1
	Dissatisfied	0	0	0	0
	Neutral	9	3	0	12
	Satisfied	57	4	4	65
	Very Satisfied	31	0	0	31
	Invalid Response	1	0	0	1
Total		99	7	4	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	12.128 ^a	8	.146
Likelihood Ratio	12.861	8	.117
Linear-by-Linear Association	.054	1	.816
N of Valid Cases	110		

a. 12 cells (80.0%) expf < 5. Min exp = .04...

The significance value in the table above is greater than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.146 indicates that no significant relationship exists between the two variables. Therefore the null hypothesis is accepted.

Hypothesis 10 : Applicability Of Knowledge Gained (Q.19.3) vs Decision to Attend 4th ICCC (Q.21)

The applicability of the knowledge gained by attending the 3rd ICCC has been cross tabulated with the participant's intention of attending the next ICCC.

H_0 : There exists no significant relationship between the applicability of the knowledge gained by attending the 3rd ICCC and the participant's decision to attend the next ICCC.

H_A : There exists no significant relationship between the applicability of the knowledge gained by attending the 3rd ICCC and the participant's decision to attend the next ICCC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		Re - Attend			Total
		Yes	No	Invalid Response	
Applicability Of	Not Answered	1	0	0	1
Knowledge Gained	Very Dissatisfied	1	0	0	1
	Dissatisfied	5	3	1	9
	Neutral	17	7	2	26
	Satisfied	41	7	1	49
	Very Satisfied	23	0	0	23
	Invalid Response	1	0	0	1
Total		89	17	4	110

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	14.690 ^a	12	.259
Likelihood Ratio	18.126	12	.112
Linear-by-Linear Association	.139	1	.709
N of Valid Cases	110		

a. 16 cells (76.2%) exp < 5. Min exp = .04...

The significance value in the table above is greater than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.259 indicates that no significant relationship exists between the two variables. Therefore the null hypothesis is accepted.

Hypothesis 11 : Helped Raise Funds (Q.25.10) vs Attended The 3rd ICC (Q.11)

The usefulness of the 3rd ICC in helping participants raise funds has been cross tabulated with the participants who attended the 3rd ICC.

H₀ : There exists no significant relationship between raising funds and attending the 3rd ICC.

H_A : There exists a significant relationship between raising funds and attending the 3rd ICC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 90% was chosen.

Chi-Square Tests			
	Value	df	Asymptotic Significance
Pearson Chi-Square	28.638 ^a	20	.095
Likelihood Ratio	17.541	20	.618
Linear-by-Linear Association	.040	1	.841
N of Valid Cases	109		

a. 26 cells (86.7%) expf < 5. Min exp = .04...

The significance value in the table above is 0.95. At a confidence level of 95%, we will have to accept the null hypothesis. However, if we assume a confidence level of 90 % (i.e., signif. < 0.10), then we can say that the null hypothesis is rejected and that there exists a relationship between the attending the 3rd ICC and raising funds.

Hypothesis 12 : Developing Local Communities Of Practice (Q.26.11) vs Attended The 3rd ICC (Q.11)

We have created a cross tab to check if attending the 3rd ICC has helped participants develop local communities of practice.

H₀ : There exists no significant relationship between developing local communities of practice and attending the 3rd ICC.

H_A : There exists a significant relationship between developing local communities of practice and attending the 3rd ICC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	18.771 ^a	20	.537
Likelihood Ratio	15.695	20	.735
Linear-by-Linear Association	.036	1	.850
N of Valid Cases	109		

a. 25 cells (83.3%) expf < 5. Min exp = .02...

The significance value in the table above is greater than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.537 indicates that no significant relationship exists between the two variables. Therefore the null hypothesis is accepted.

Hypothesis 13 : Strengthen Advocacy Or Policy Work (Q.25.07) vs Attended The 3rd ICC (Q.11)

We have created a cross tab to check if attending the 3rd ICC has helped participants strengthen advocacy or policy work.

H_0 : There exists no significant relationship between strengthening advocacy or policy work and attending the 3rd ICC.

H_A : There exists a significant relationship between strengthening advocacy or policy work and attending the 3rd ICC.

Chi Square test has been used to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Chi-Square Tests

	Value	df	Asymptotic Significance
Pearson Chi-Square	15.575 ^a	20	.743
Likelihood Ratio	15.464	20	.749
Linear-by-Linear Association	.049	1	.824
N of Valid Cases	109		

a. 26 cells (86.7%) expf < 5. Min exp = .04...

The significance value in the table above is greater than 0.05, which is the threshold that we have chosen (95% confidence level). A significance value of 0.743 indicates that no significant relationship exists between the two variables. Therefore the null hypothesis is accepted.

4. Inferences & Suggestions

This section of the report summarizes the inferences from the analysis, and any suggestions that can be derived.

1. Currently Researchers and Scientists comprise the largest group by occupation amongst all participants. Also, most attendees are those who deal with cancer control regularly as part of their work. While a large number of participants are government officials, the ICCC can perhaps have a greater influence on cancer control work by attracting larger numbers of policy makers.
2. UICC is the only other conference that has been attended by a significant number of participants. Almost all respondents would recommend the ICCC to a colleague and would also like to attend the next ICCC. Almost half the respondents distinguish ICCC from other meetings
3. For Plenary and Poster sessions, the majority is comfortable with the present session length and number of sessions. For Workshops, while the majority still want to retain the current session plan, a significant number would like to see an increase in the session duration and the number of sessions held.
4. For all topics, i.e., primary prevention, primordial prevention, research, cancer treatment and palliative, more content and more application examples would be preferred by the attendees.
5. A vast majority believe that the ICCC has helped them professionally and that they have been positively influenced by attending the conference. Sharing of Knowledge and Networking are seen as the two most important benefits from attending the ICCC. Attendees are interested in learning about latest developments/innovation in the field of cancer control and about how the knowledge can be implemented effectively under constrained resources.

5. Conclusion

1. Findings From Univariate Analysis

The responses to each question have been analyzed to determine the usefulness / impact of the 3rd ICCC. The univariate analysis shows the 3rd ICCC to be a success on all parameters. The content material of the conference is found to be aligned to the interests of the participant demographics. Most of them are involved in cancer control in their work and that they have been doing it for quite a few years. Participants have attended from countries across the globe.

The feedback on the 3rd ICCC has also been positive. Most attendees have been influenced by the conference and feel that it has helped them in their cancer control work. An overwhelming percentage would like to attend the next conference and would also recommend it to colleagues.

Implementation of new innovations and networking are the primary reasons for attending the conference. The majority of participants are happy with the session plans and content as they are, though a few would like to see more content.

2. Findings From Bivariate Analysis

Variables have been cross tabulated to identify if any specific demography shows a significant relationship with the parameters used to judge the impact of the conference. The number of years spent in cancer control work, the extent to which cancer control is part of work, the decision to recommend the conference to colleagues and to attend the next conference are the four parameters that show a significant relationship with the overall impact / influence of the conference.

4th International Cancer Control Congress
3rd-5th November, 2011
Seoul, Republic of Korea



Participant Survey Analysis Report
January 2012

By
Kavita Sarwal

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1. Introduction

The 4th International Cancer Control Congress (ICCC) was held from 3rd – 5th November 2011 at the National Cancer Center, Seoul, Republic of Korea. The purpose of the Congress was to build on the achievements of ICCC 1, 2 and 3. The 4th International Cancer Control Congress was designed to raise awareness, improve participation and promote collaboration between organizations, institutions, policy, practice and civil society to enhance global control of cancer and non-communicable diseases.

The objectives of the Congress were to discuss ‘what would be necessary to convert our current knowledge of cancer control into directions and actions that will enhance population cancer and NCD outcomes?’, ‘collaborate and share knowledge’, share application of what we know to what we do in different resource settings’. The vision of the ICCCs continues to foster ‘international collaboration’ –create a global forum for health care experts, professionals and health system leaders to share knowledge, experiences, strategies, approaches, tactics and best practices in clinical, hospital and community settings that can enhance and accelerate the implementation of effective population based national cancer control strategies and the evaluation of cancer control initiatives.

The four plenary sessions at the Congress are stated below. Each session had 4-5 concurrent workshops following the plenary discussions. The survey covers what participants perceived was the usefulness of the presentations, discussions and working group sessions at ICCC4 and what can be done to increase the value of future ICCCs.

Session 1: Risk Factors for Prevention of Cancer and NCDs

(Cancer prevention, risk factors, integrated approaches with NCDs)

Session 2: Managing Population Health to Prevent and Detect Cancer and NCDs

(Measuring and monitoring of cancer outcomes)

Session 3: Coordinating Care and Treatment for cancer patients

(Health system and community support for cancer management and care)

Session 4: Translating research into policy and practice

(Putting population-based plans into policy, practice, and application)

1.1 Analysis Methodology

To accomplish the objectives, a mixed approach i.e., both qualitative and quantitative methods of research, is employed. Qualitative methods, like interviews, observations were used. Among quantitative methods, descriptive statistics and bivariate statistics (cross tabulation) were used using Statistical Package for Social Sciences (SPSS). SPSS and Excel were used for the analysis. Mainly used methods of analysis were: frequency/percentage charts or counts, various types of graphs, Chi-Square test of independence etc. were done. All graphs were drawn on Excel.

The respondents were profiled according to demographical features like age, sex, occupation, country of work, their level of involvement in cancer control, activities/behaviors, networking etc. Also, these demographics could be used in checking further whether the various groups differ on satisfaction levels from the conference.

The stated reasons to attend the conference can give us the expectations that the respondents had from the conference. The usefulness of each aspect of the conference were analyzed by different age bands, occupation and level of involvement in cancer control activities. This would show if different groups have different needs from the conference.

The sessions, program mix etc were analyzed to get trends based on their ratings. This will show which themes were appreciated by the participants and what changes can be incorporated into the next conference. The professional gains were analyzed to give an idea for future conference planning.

1.2 Assumptions & Limitations

1. 310 participants attended the conference from various countries, of which only 110 took the survey (35% response rate). The results obtained by the analysis may not be a good approximation of the whole population due to the response rate.

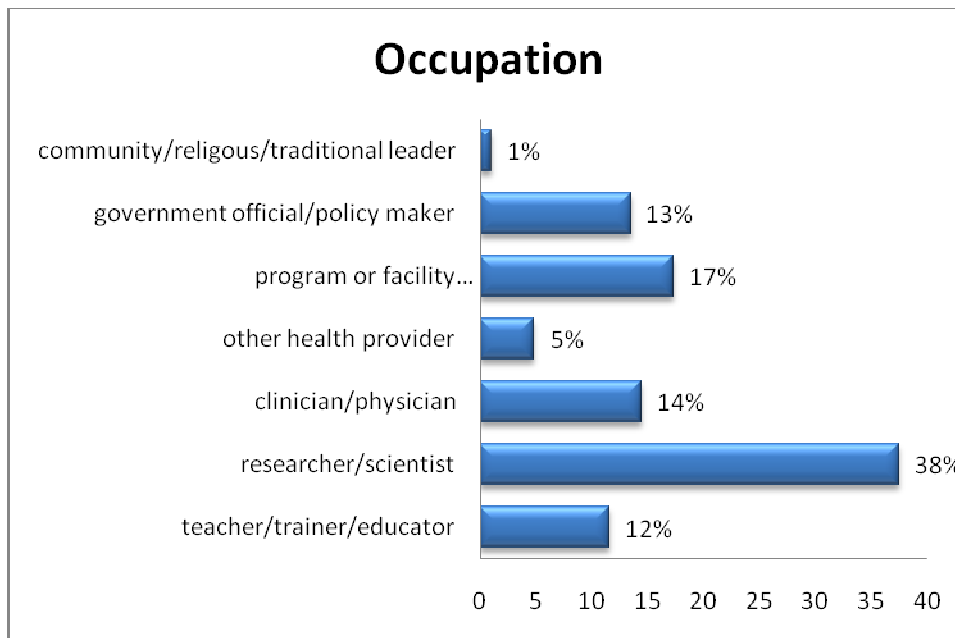
2. Because of the discrete nature of the variables, we use only descriptive statistics and non-parametric tests for statistical analysis.
3. For all the statistical tests, the level of significance is taken as 0.05, unless otherwise specified.

2. Univariate Analysis

This section of the report gives findings about each question of the survey. The survey consists of 25 main questions. The total number of respondents are 110.

2.1 Demographic Questions

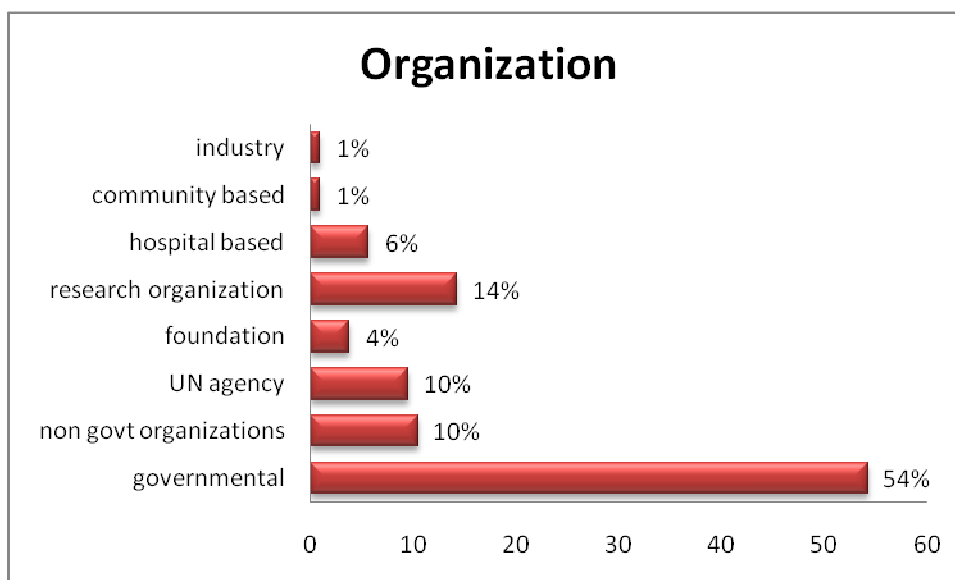
1. Occupation



No. of valid response 105

The largest numbers of participants are researcher/scientist (38%). The other main fields of activity of the participants are program or facility administrator (17%) and clinician/physician (14%). Government official/policy makers comprise 13% of the respondents.

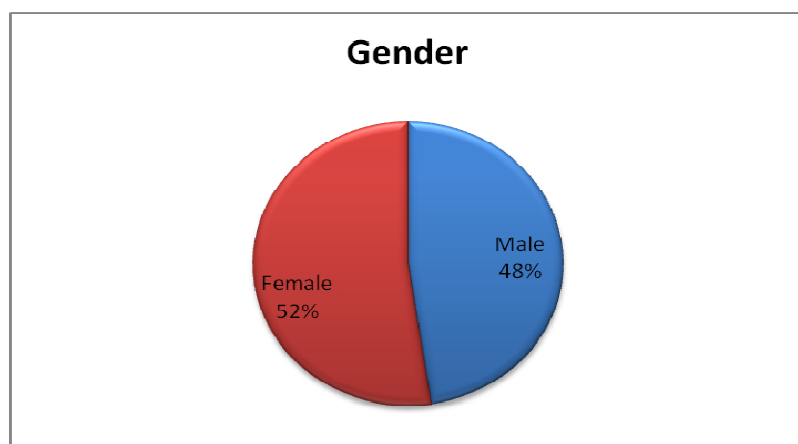
2. Organization



No. Of Valid Response 105

More than half of the conference participants (54%) were from government organizations. Out of these 13% were policy makers (comparing response from question 1). Having more policy makers could help the ICCC create a greater impact.

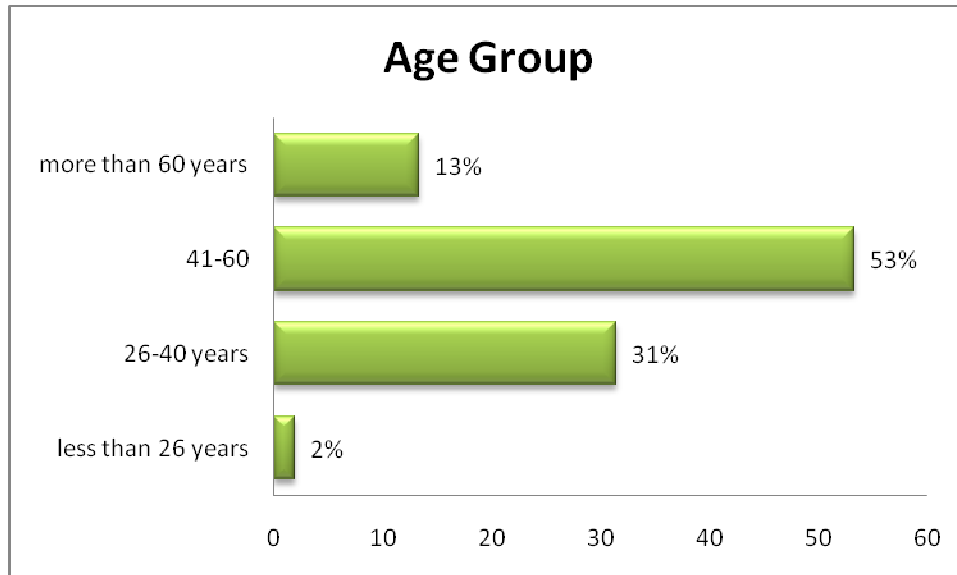
3. Gender



No. Of Valid Response 105

The graph shows that female (52%) are more than their counter part male (48%)

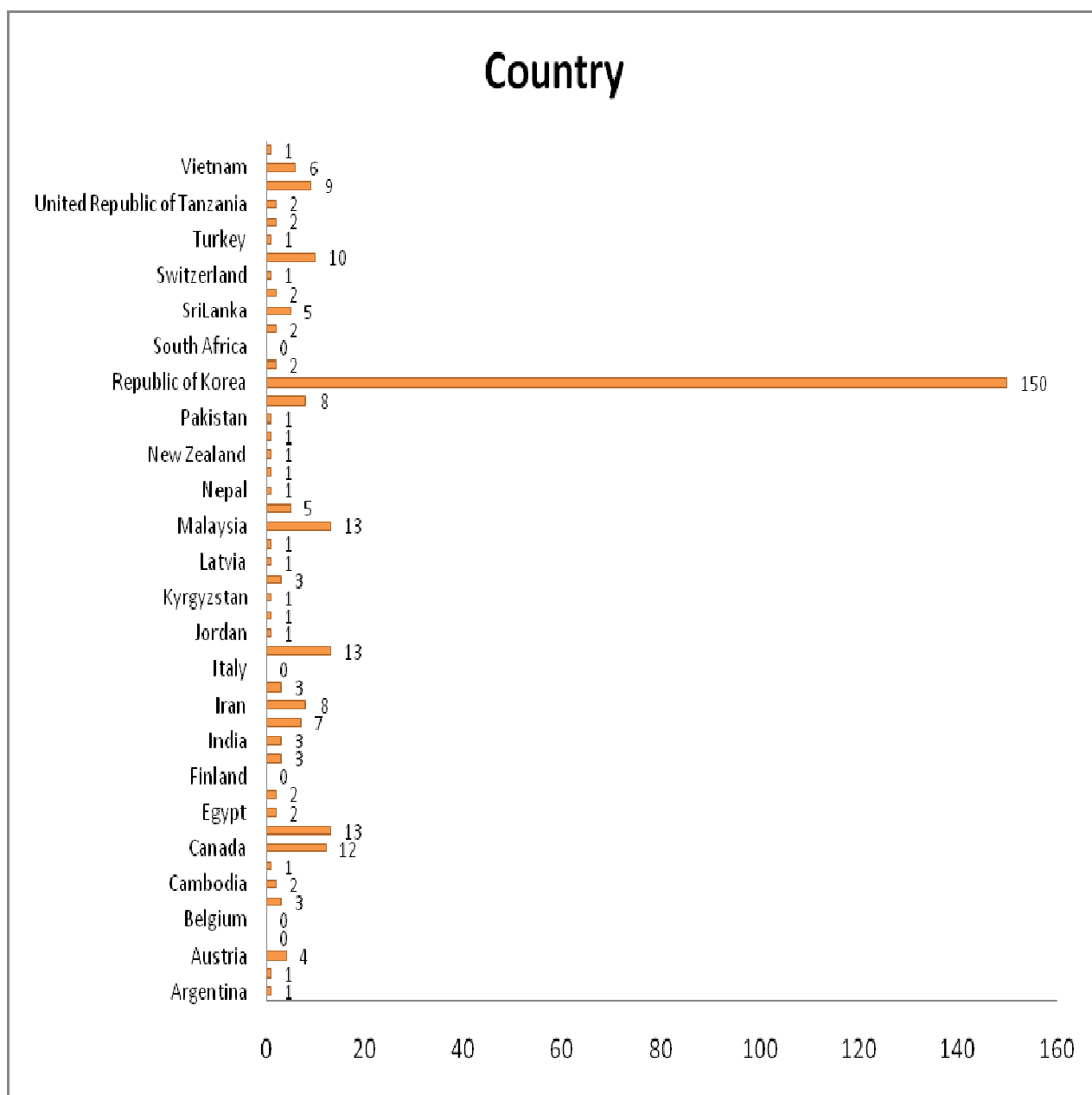
4. Age Group



No. Of Valid Response 105

More than half of the respondents are between the age bracket of 41-60 years and about one third are in age bracket of 26-40 years.

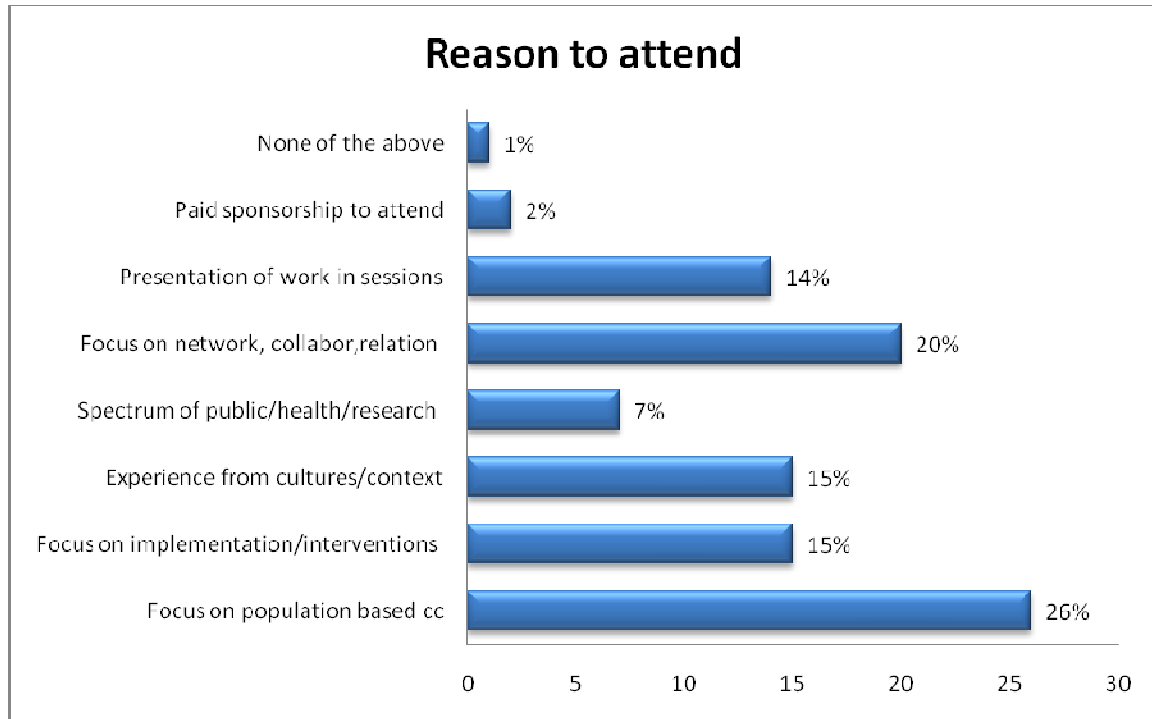
5. Country of Work



44 countries were represented at the Congress. From the 310 participants, highest number of participants were from the Republic of Korea 48%

2.2 Conference –behavior and activities

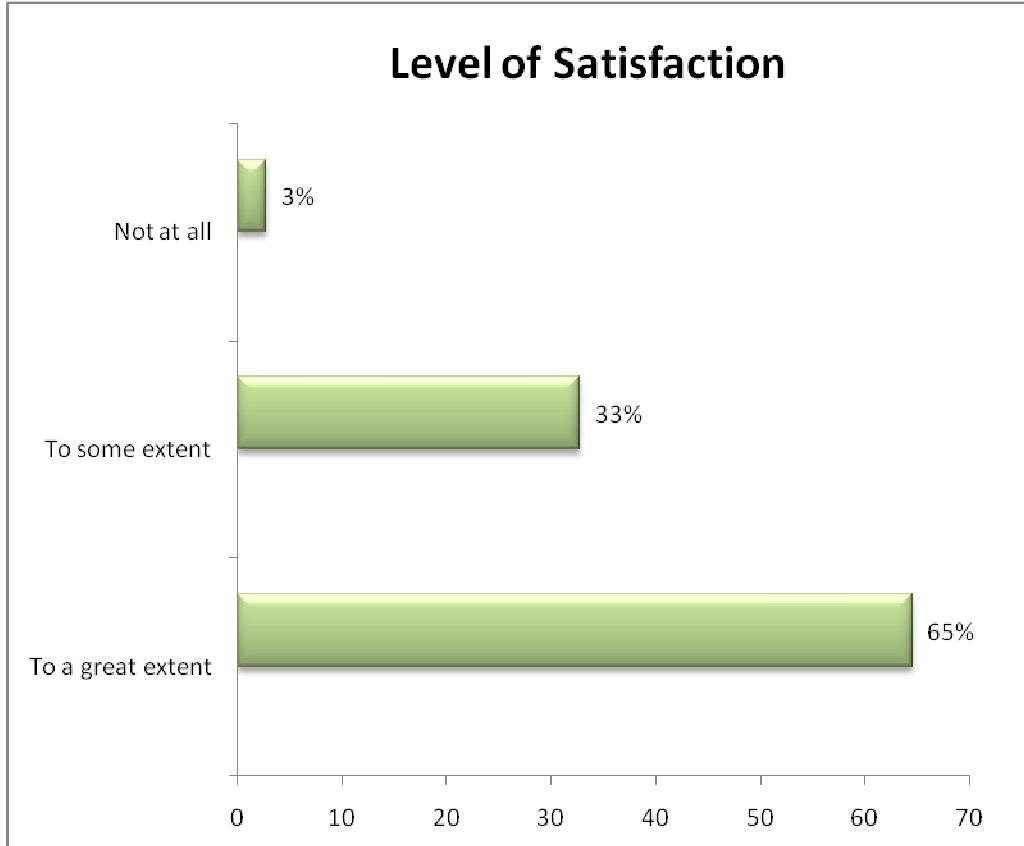
6. Reason to Attend



No. Of Valid Response 110

The main reason to attend the conference was the focus on population based cancer control (26%) followed by focus on networking, collaboration and relationship building (20%).

7. Level of Satisfaction

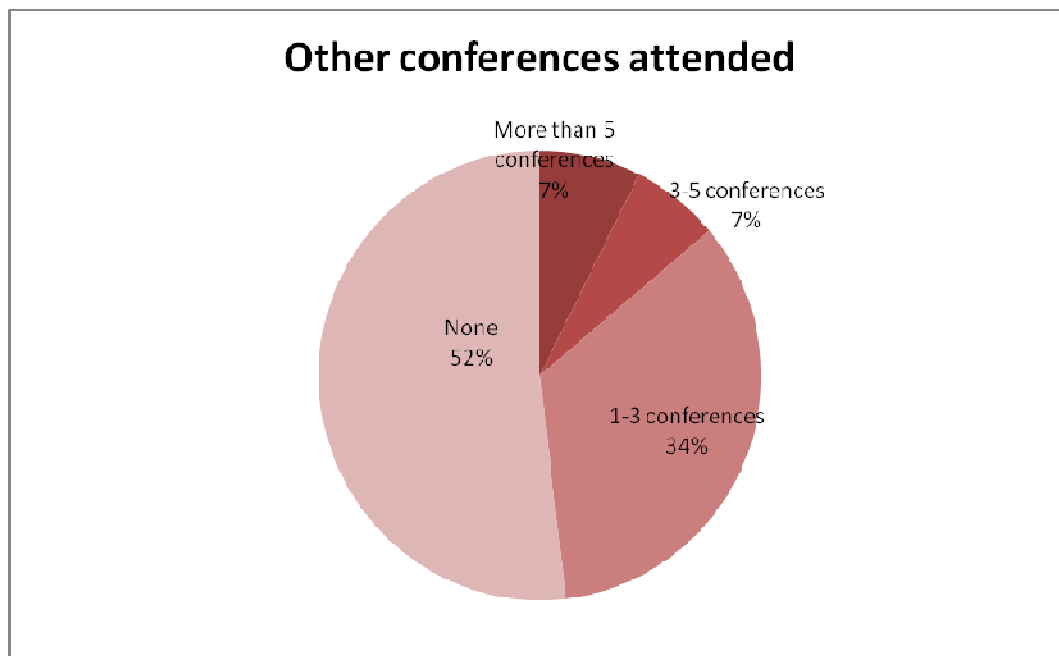


8.

No. Of Valid Response 110

65% of the respondents voted to be satisfied to a great extent with participating in the Congress.

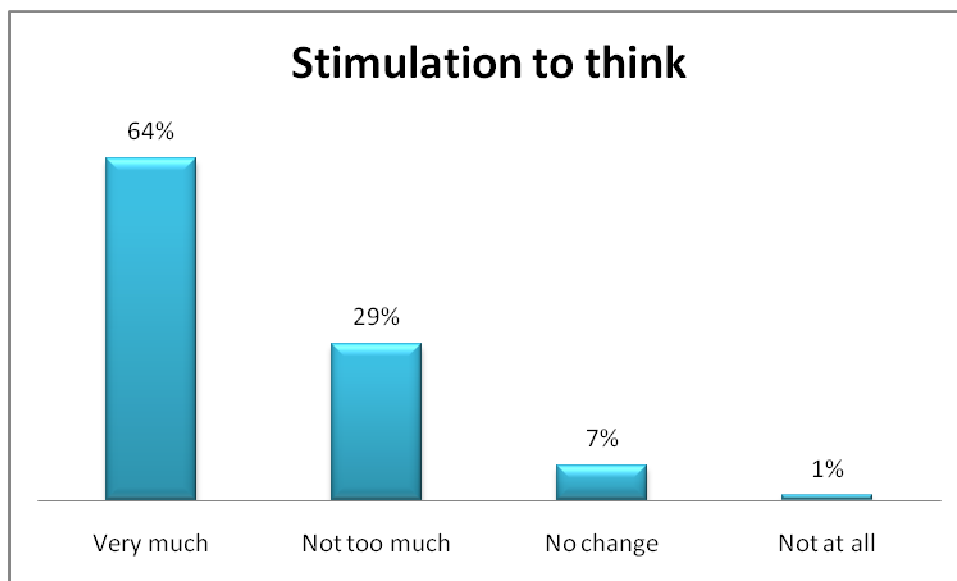
9. Other Global Cancer Control Conferences Attended



No. Of Valid Response 108

About one third (34%) of the respondents had attended between 1-3 global cancer control conferences in the period 2010-2011. More than half of them had not attended any such conferences.

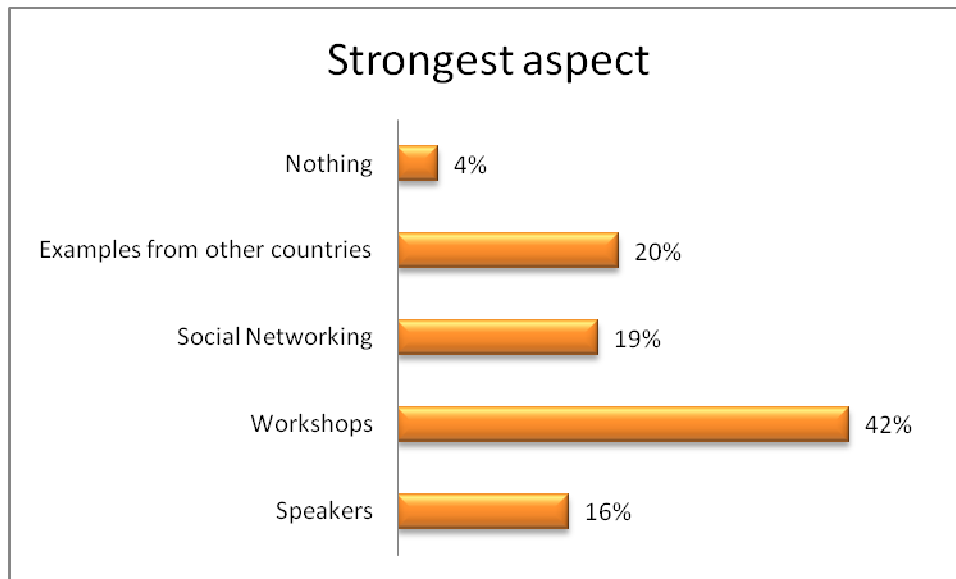
10. Stimulation to Think



No. Of Valid Response 107

ICCC4 has ‘very much’ stimulated 64% respondents to think of activities/relationships that have relevance beyond their direct work. 29% thought there was some stimulation, however, not much. And, 6% respondents were neutral (no change).

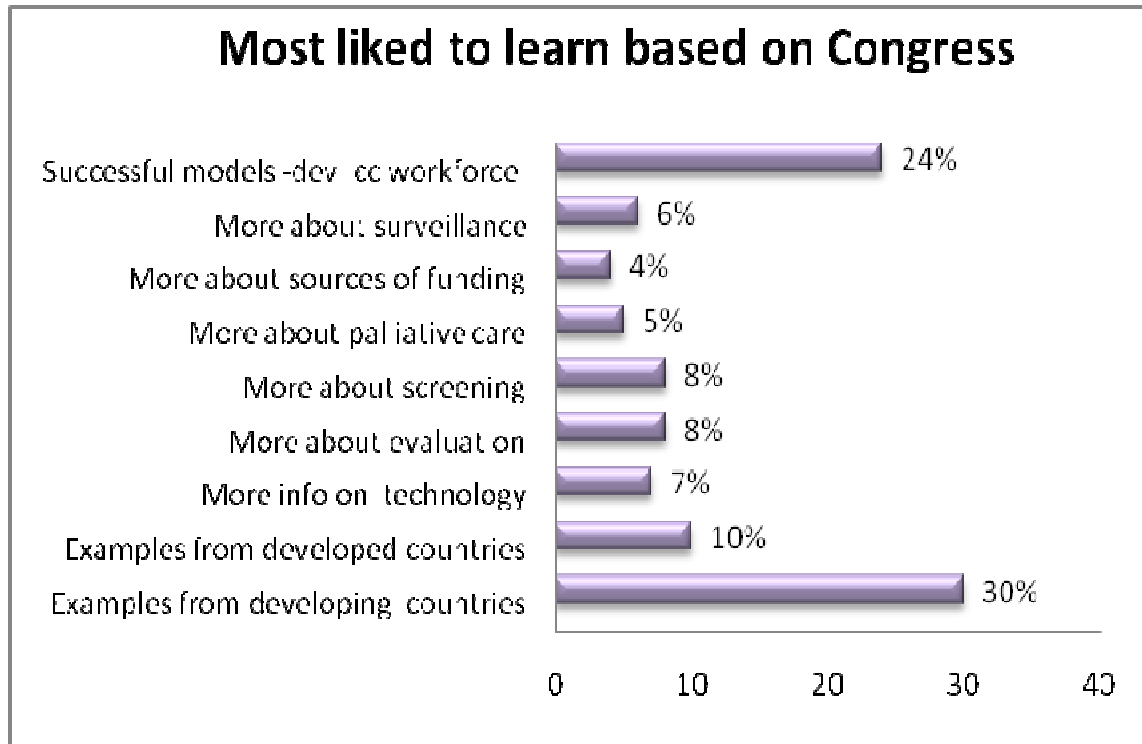
11. Strongest Aspects



No. Of Valid Response 108

The response from the participants for strongest aspect of ICC4 congress was for workshops (42%) followed by examples that were shared from other countries (20%), then social net working (18%), speakers (16%) respectively.

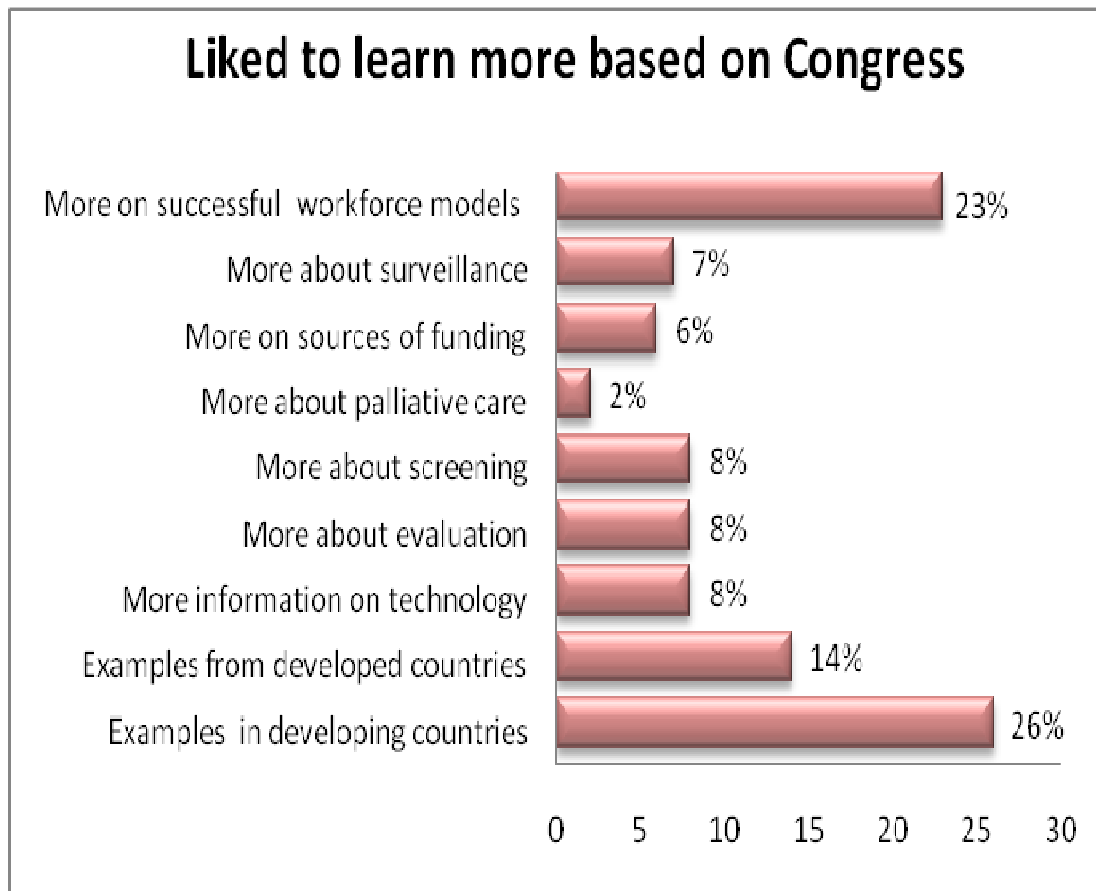
12. Most Liked to Learn Based on Congress



No. Of Valid Response 104

The participants were asked which aspect would they have most liked to learn about during the congress. 30% participants would have most liked to learn more about examples of programs in developing countries and 24% would have liked to learn more on successful models for developing a workforce for cancer control.

13. Also would have liked to learn about at the Congress

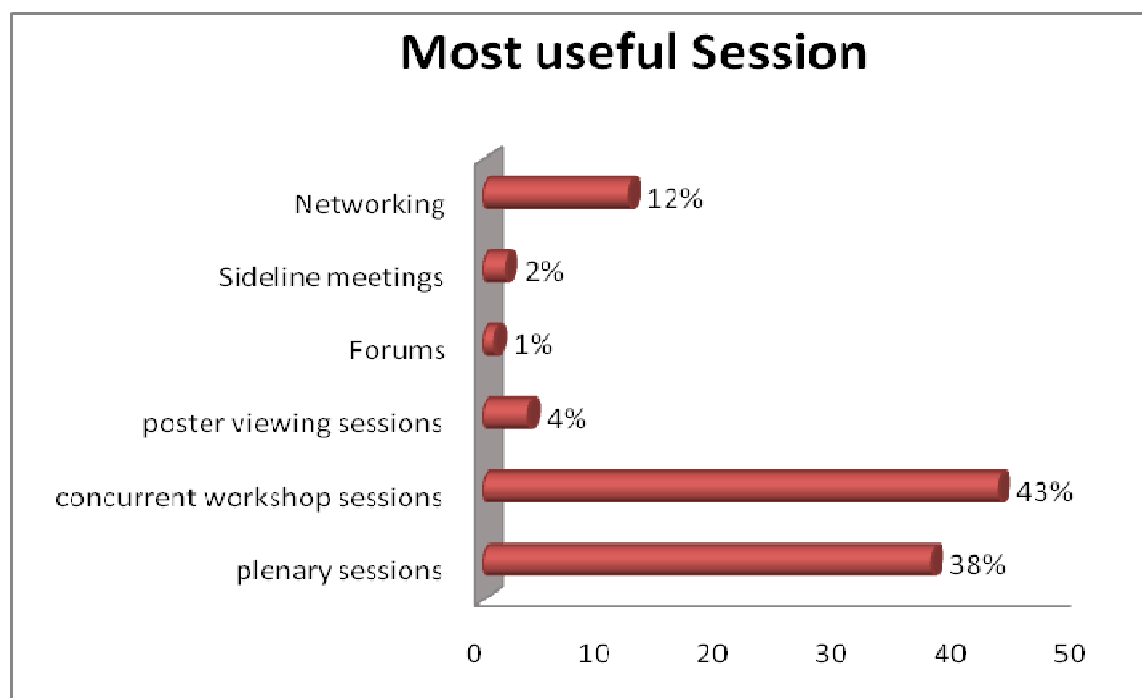


No. Of Valid Response 106

More than one fourth (26%) of respondents would have also liked to learn more about examples of programs in developing countries based on congress. Nearly 23% of respondent liked to learn more on successful models for developing workforce for cancer control. In this second response we find 14% would have also liked to learn on more examples of cancer control from developed countries.

2.2 Congress Activities

14. Most Useful Sessions

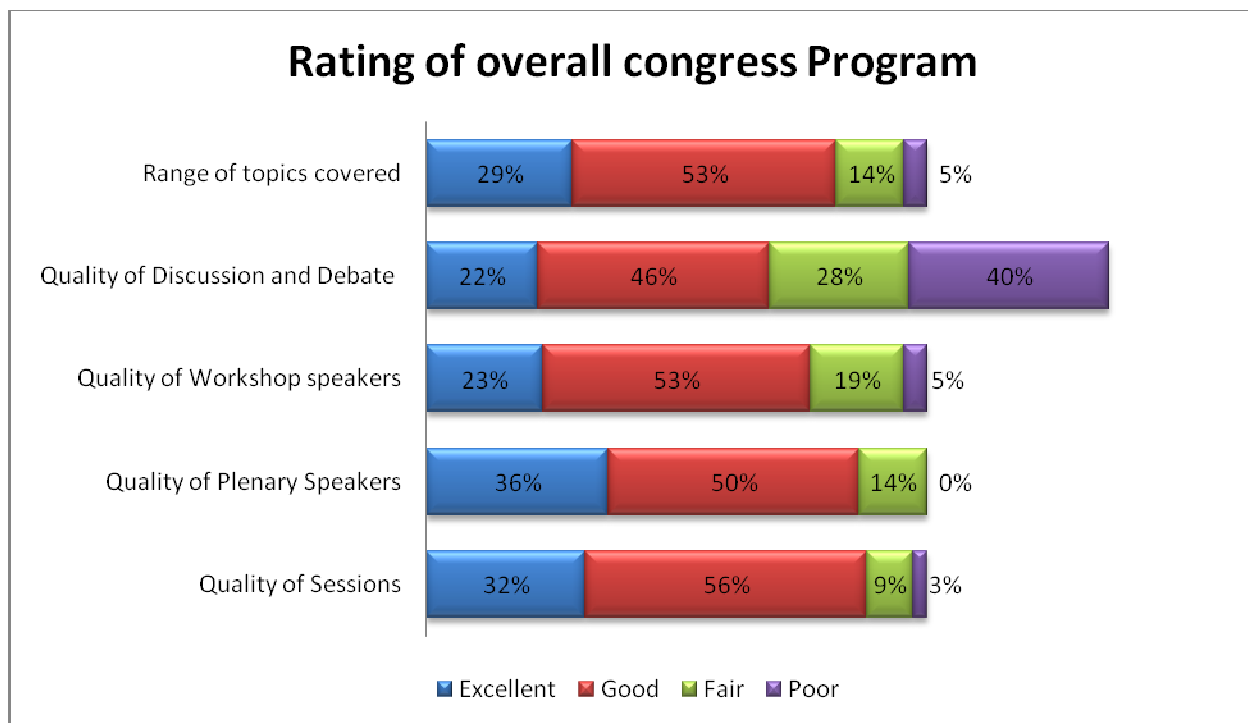


No. Of Valid Response 104

43% respondents found the concurrent workshop sessions most useful and 38% of respondents found plenary session most useful at the 4th ICCC

14. How do you rate the overall congress program?

	Excellent	Good	Fair	Poor
Rate Quality of Sessions	34	60	10	3
Rate Quality of Plenary Speakers	40	55	15	0
Rate Quality Workshop Speakers	25	57	20	5
Rate Quality Discussion Debate	24	50	30	4
Rate range of topics covered	32	58	15	5



Participants were asked to rate the overall congress program in terms of quality of sessions, plenary speakers, workshop speakers, quality of discussion and debate and range of topics covered in ICC4. Nearly half of the participants rated the overall congress program as ‘good’ and about one fifth rated it as ‘excellent’.

Kendall's W Test

Ranks

	Mean Rank
Q9.1 Rate Quality of Sessions	2.73
Q9.2 Rate Quality of Plenary Speakers	2.67
Q9.3 Rate Qlty Workshop Speakers	3.18
Q9.4 Rate Qlty Discussion Debate	3.39
Q9.5 Rate range of topics covered	3.03

Test Statistics

N	106
Kendall's W(a)	.060
Chi-Square	25.279
df	4
Asymp. Sig.	.000

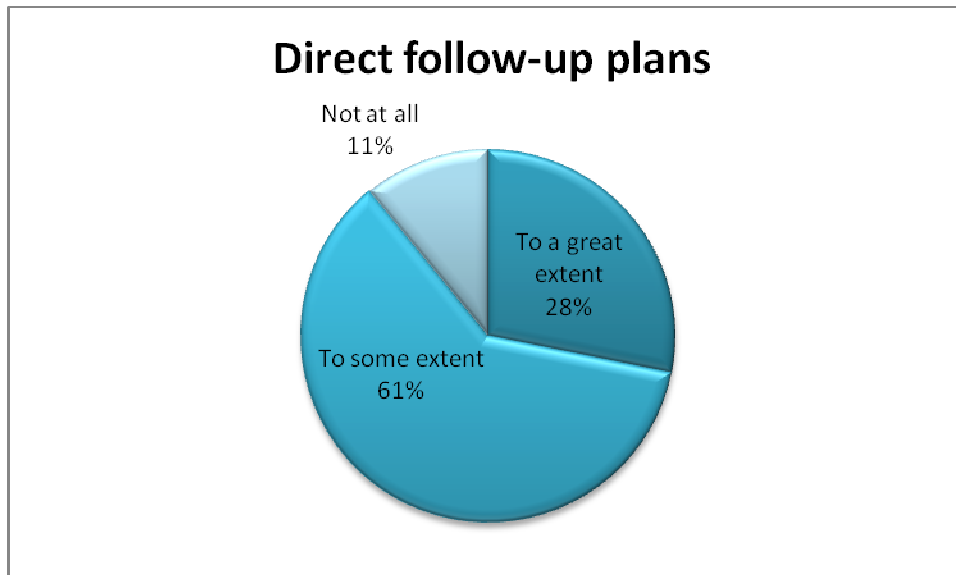
a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .060, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent of each other.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings and which need improvement.

2.3 Conference Impact

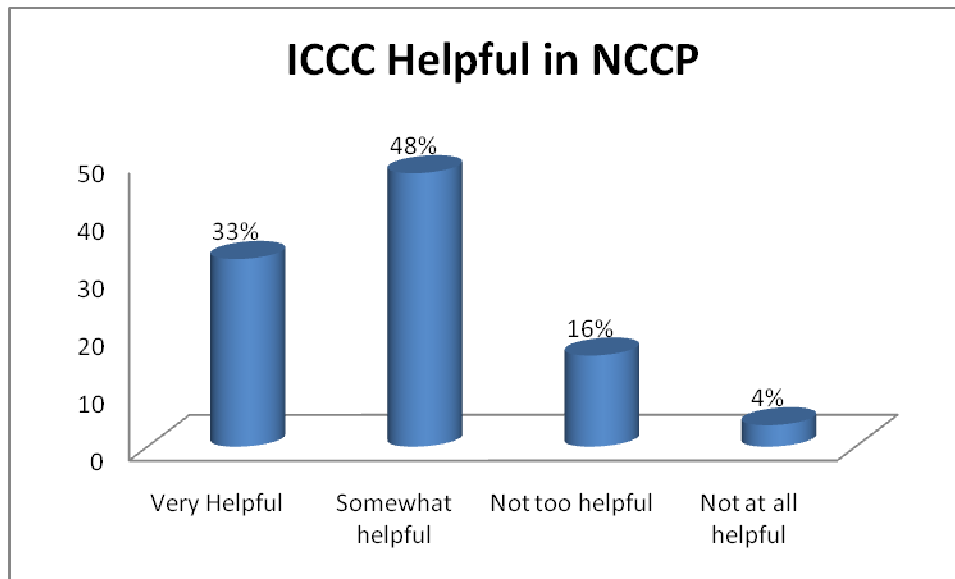
15. Direct Follow up Plans



No. of valid response 110

About 61% of participants have made direct follow up plans ‘to some extent’ and 28% ‘to a great extent’ as a result of the congress-either with people or related to programs. We can also say 90% of the respondents had made or were thinking of follow-up plans as a result of the Congress.

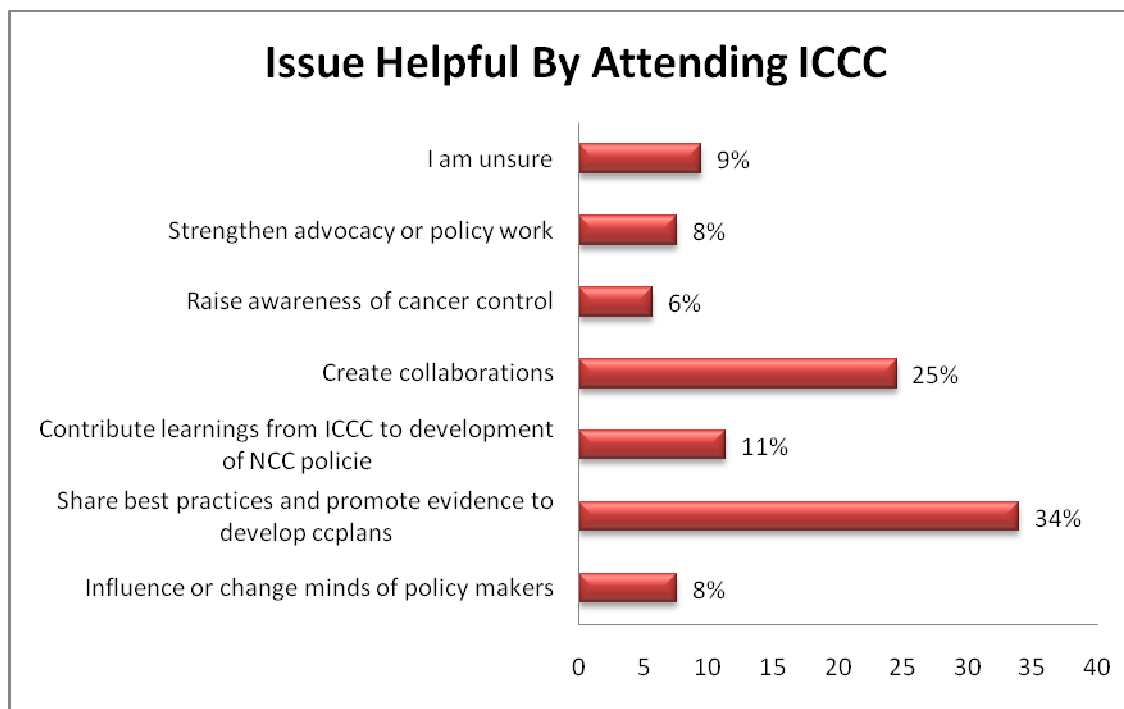
16. ICCC Helpful in NCCP



No. Of Valid Response 107

One third (33%) of the participants found the Congress very helpful in supporting them in National Cancer Control planning and 48% found ICCC4 somewhat helpful.

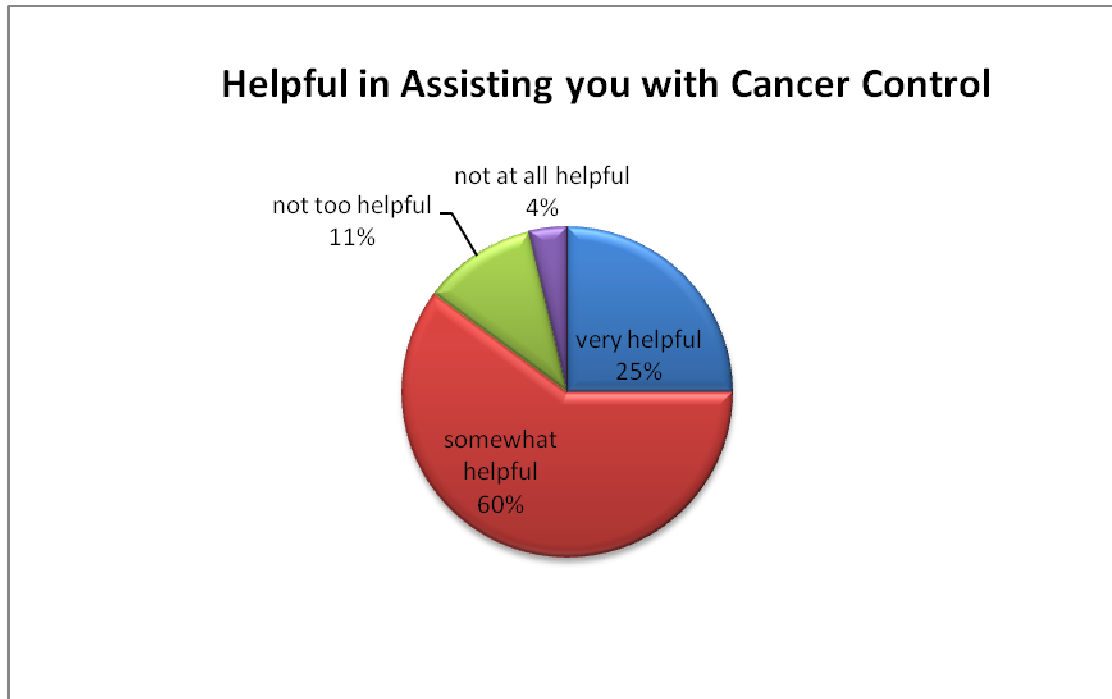
17. Issue Helpful by Attending ICCC



No. Of Valid Response 106

Nearly one third (34%) of the participants expressed that attending ICCC would help them with ‘sharing best practices and promoting evidence to develop/implement cancer control policies’ in their country/jurisdiction. One fourth (25%) of participants felt that their attendance at the 4th ICCC will be most helpful in creating collaboration in their country/region/globally.

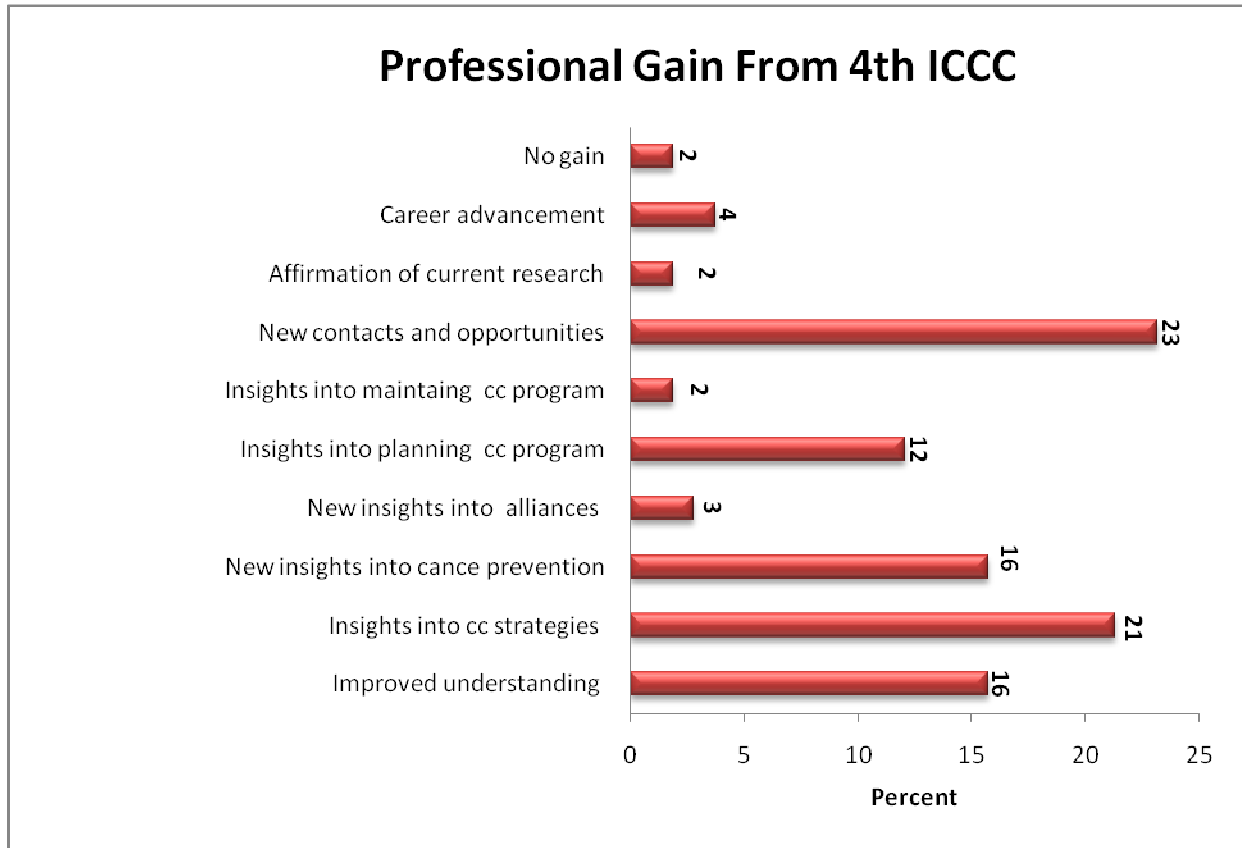
18. Helpful in Assisting with cancer Control



No. of Valid Response 108

One fourth (25%) of the respondents found that Congress will be 'very helpful' and 60% thought 'somewhat helpful' in assisting them with their Cancer Control work.

19. Professional Gain from 4th ICCC



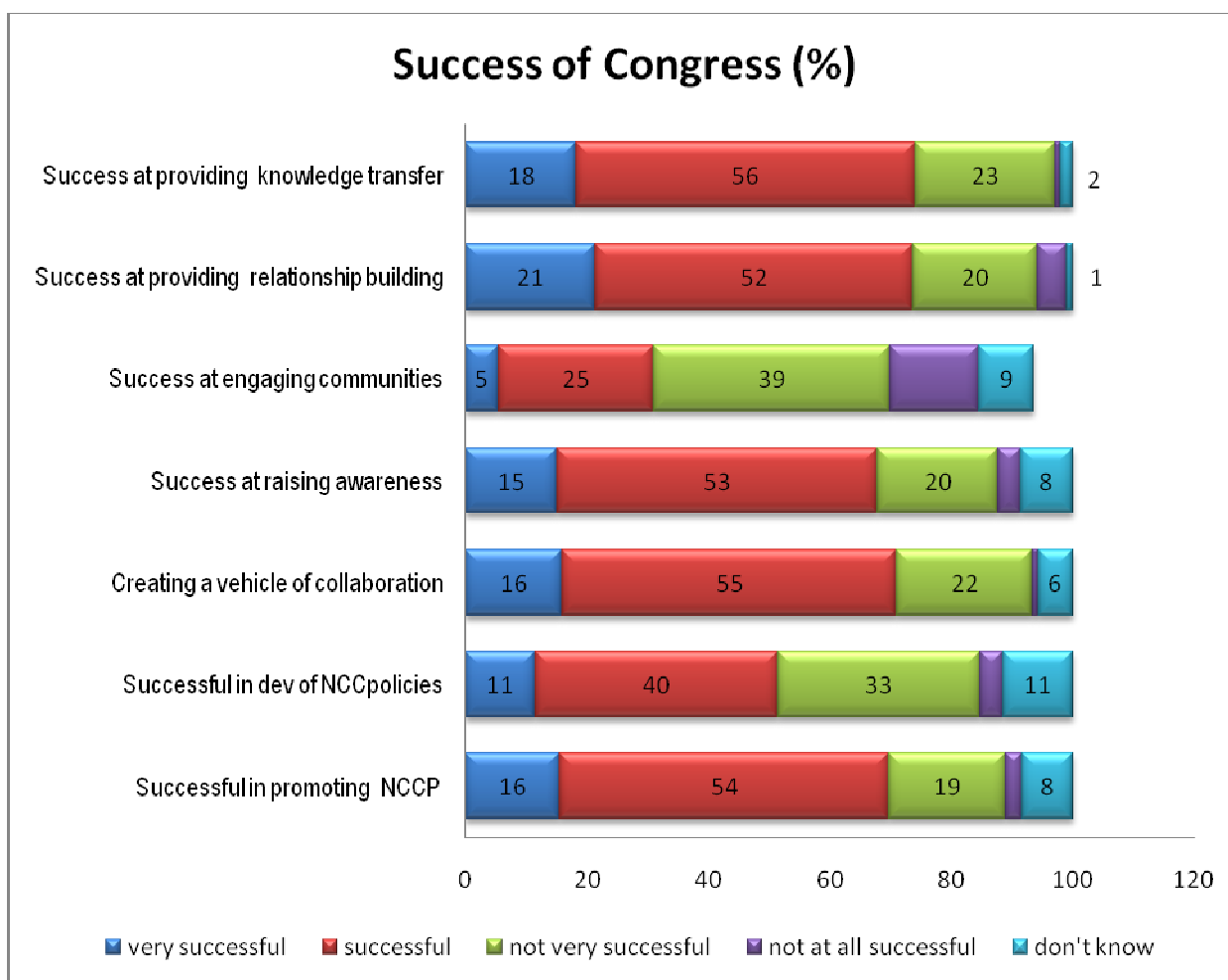
No. Of Valid Response 108

Respondents were asked to give their opinion about single most important thing they gained professionally from attending ICCC4. Highest proportion (23%) of respondents mentioned that they gained new contacts and opportunities for partnership and collaboration. Next highest response was 21% for 'new insight into cancer control strategies and population based system.

20. How Successful has the congress been in achieving the following?

	very successful	successful	not very successful	not at all successful	don't know
Successful in promoting dev/imp of NCCP	16	54	19	3	8
Successful in promoting dev of NCC policies	11	40	33	3	11
Creating a vehicle of collaboration	16	55	22	3	6
Success at raising awareness of cc	15	53	20	3	8
Success at engaging relevant communities	5	25	39	3	9

Success at providing setting for relationship building	21	52	20	3	1
Success at providing platform for knowledge transfer	18	56	23	3	2



More than half the respondents have found the congress to be successful to very successful in sharing best practices and promoting evidence to develop cancer control plans (70%), develop national cc policies (51%), creating a vehicle of collaboration (71%), raising awareness (68%), providing a setting for relationship building (73%), providing a platform for knowledge transfer (74%). One of the biggest drawbacks brought out by the respondents of the congress was its inability to attract a diverse community of participants to attend (54%).

Kendall's W Test

Ranks

	Mean Rank
Q15.1 Successful in promoting dev of NCCP	3.79
Q15.2 Successful in promoting dev of NCC policies	4.52
Q15.3 Creating a vehicle of collaboration	3.70
Q15.4 Success at raising awareness	3.89
Q15.5 Success at engaging communities	5.13
Q15.6 Success at providing setting for relationship building	3.48
Q15.7 Success at providing platform for knowledge transfer	3.49

Test Statistics

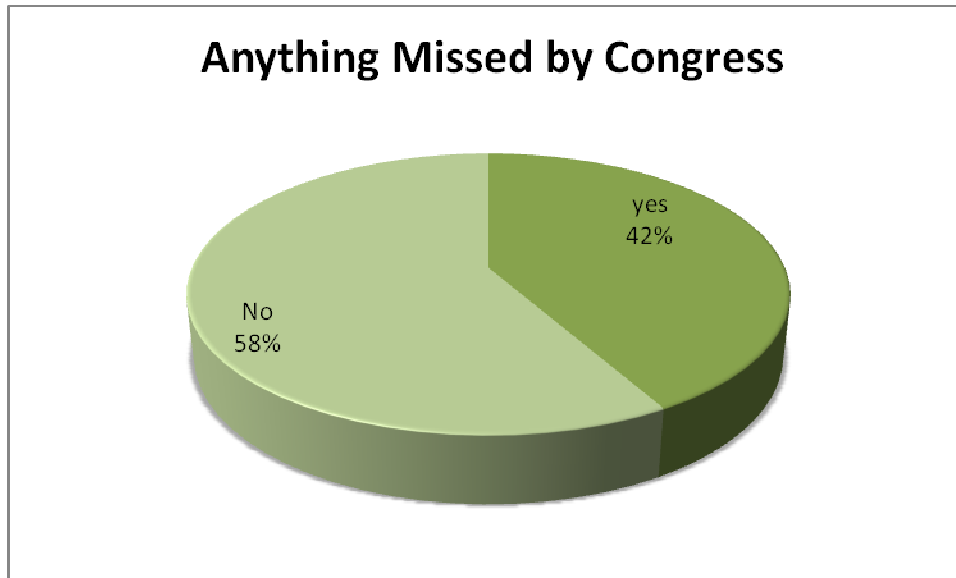
N	98
Kendall's W(a)	.128
Chi-Square	75.418
df	6
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .128, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings and which need improvement.

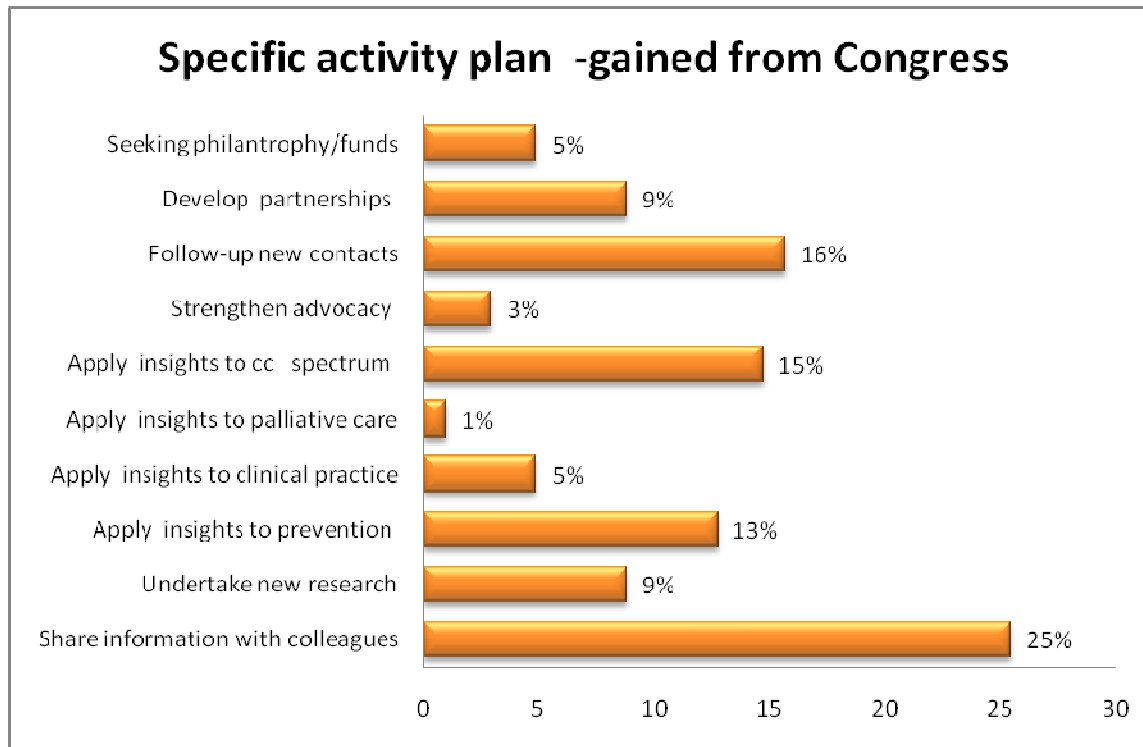
21. Anything Missed by Congress



No. Of Valid Response 103

More than half (58%) of participants were of the opinion that everything was covered by the Congress and nothing is missed out. However, 42% thought there were aspects missing from the Congress example, some thought there should have been more epidemiological evidence, round table working-group sessions with facilitators at workshops, information on sources of fund for research or for setting up networks, MOU, collaboration etc. Others felt there was a lack of information on the impact of civil societies promoting cancer control programs, lack of participation of civil society, survivors, patients, advocates, lack of closer dialogue and interaction during workshops, considerable distance between hotel and conference site and yet some others felt there was missed information on actual tried out strategies in prevention, early detection, screening, treatment.

22. Specific Activity Plan

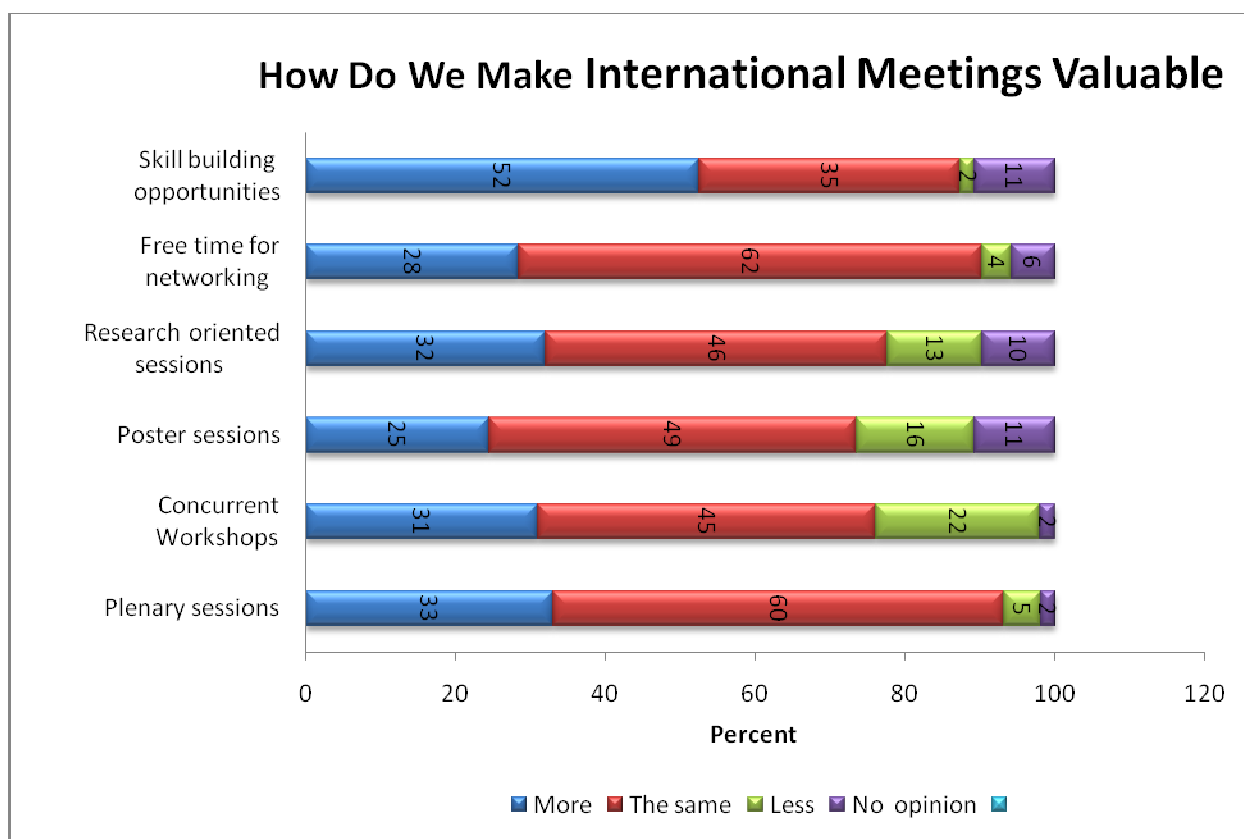


No. Of Valid Response 102

One fourth (25%) of the participants found that ‘sharing the new information with colleagues’ will be the most likely activity to do with the information gained from congress.

23. How do we make international meetings valuable?

	More	The same	Less	No opinion
Plenary sessions	34	62	5	2
Concurrent Workshops	31	45	22	2
Poster sessions	25	50	16	11
Research oriented sessions	33	47	13	10
free time for networking	29	63	4	6
Skill building opportunities	54	36	2	11



Participants were asked to offer their opinion to make international meeting valuable from the six specific options given in the graph. About half of the participants were satisfied with the plenary, workshop, poster sessions and networking covered in the congress. 52% felt that skill building opportunities should be more.

Kendall's W Test

Ranks

	Mean Rank
Q18.1 Plenary sessions	3.27
Q18.2 Concurrent Workshops	3.61
Q18.3 Poster sessions	3.94
Q18.4 Research oriented sessions	3.62
Q18.5 free time for networking	3.49
Q18.6 Skill building opportunities	3.07

Test Statistics

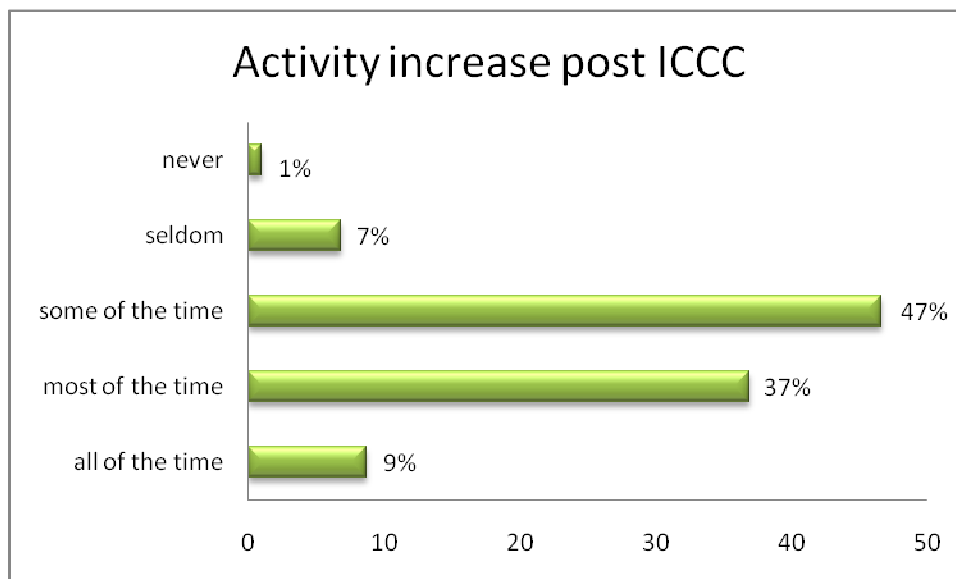
N	95
Kendall's W(a)	.038
Chi-Square	17.940
df	5
Asymp. Sig.	.003

a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .038, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings and which needs improvement. The mean rank of 'Skill building opportunities' is minimum. Therefore, there is need to strengthen skill building opportunities.

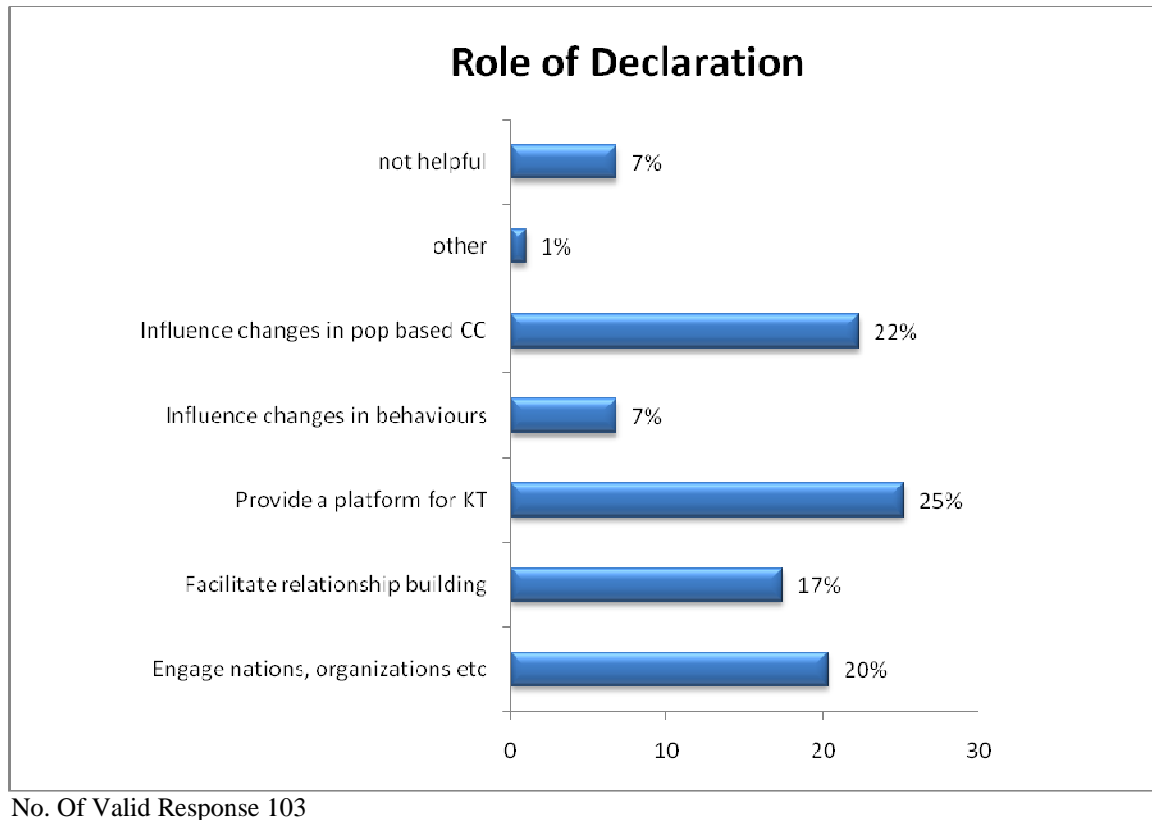
24. Activity Increase Post ICC



No. Of Valid Response 103

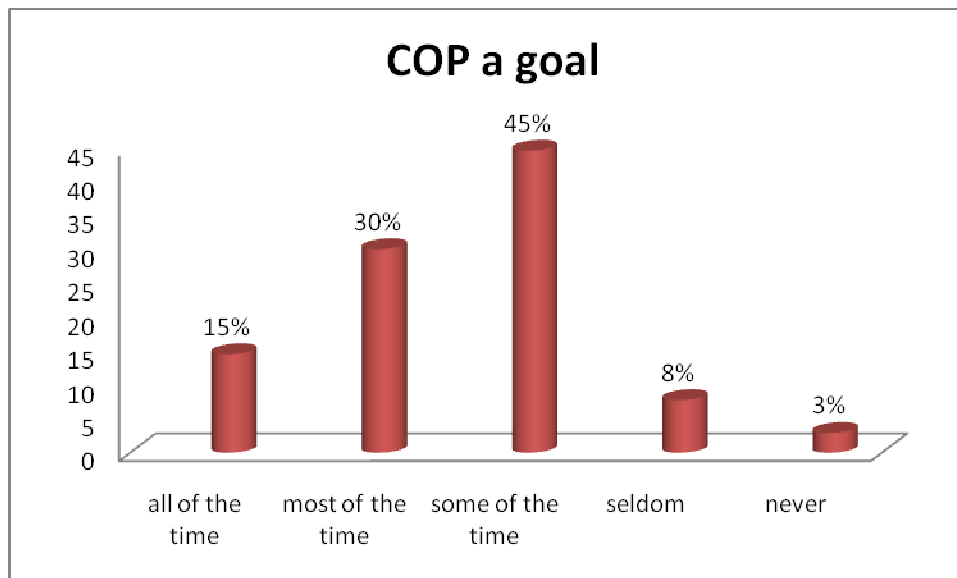
More than one third (37%) of the participants expressed their opinion that most of the time international meetings increased their activities and assisted them in advancing population-based cancer control in their country and 47% said that it assisted them some times.

25. Role of Declarations



Participants were asked about the most important role of declarations and alliances at meetings. More than half of the participants were of the opinion that it either 'influences changes in national population based cancer control program (22%), provide a platform for knowledge transfer (25%), engage nations, organizations and people (20%).

26. COP a Goal



No. Of Valid Response 103

14% respondents said COP was their goal ‘all of the time’ while three fourths (75%) of the respondents said COP was a goal ‘most of the time’ to ‘some of the time’.

3.Bivariate Analysis (Cross-Tabs)

It has been observed that some questions can be interrelated with other questions to gain more meaning from the data. Inputs can be associated with various outputs to see impact of ICC4 and whether the associations are statistically significant. We have used cross tabs and Pearson Chi Square tests for the same. This section of the report presents the major hypothesis formulated and tested on the data to bring out the trends and correlation in the data.

The significance value for all the tests is taken as 0.05 (95% confidence level), unless mentioned otherwise. This value is compared against the p-values.

A cross tabulation is done to compare two questions with each other and Pearson Chi square test was run to test the significance of hypothesis.

There two types of Hypothesis namely

Null Hypothesis Ho: There exists no significant relationship

Alternative Hypothesis H_A : There exists significant relationship

We have focused on important variables that bring out the overall usefulness/ value added to the conference. The test results that were found to be significant are given below. The null hypotheses are rejected for these cases. The usefulness of ICC4 on development of national cancer control plans is contained in the results of Hypothesis 1,2,5,6,13,14,15,16,17,19; usefulness of ICC4 with collaborations/ networking/ partnership is contained in the results of Hypothesis 10, 20, 21, 22; and, usefulness of ICC4 with change in activity or behavior of participants is contained in the results of Hypothesis 3,4,7,8,9,11,12,18.

Hypothesis 1: Q1 Reason to attend by Q11 ICC4 Helpful in NCCP

The reason for attending ICC4 has been cross tabulated helpfulness of Congress in supporting participants in National Cancer Control Planning.

Ho : There exists no significant relationship between the reason for attending the ICC4 and helpfulness of Congress in supporting National Cancer Control Planning

H_A : There exists a significant relationship between the reason for attending the ICC4 and helpfulness of Congress in supporting National Cancer Control Planning

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Crosstab

Chi-Square Tests

Total		35	51	17	4	107
		Q1: ICC4 helpful in NCOP				Total
		Very Helpful	Somewhat helpful	Not too helpful	Not at all helpful	
Q1 Reason to attend	the focus on population based cancer control	12	15	2	0	29
	focus on implementation of interventions and practical experience	8	4	5	0	17
	mix of experience from different cultures and context	2	12	2	0	16
	spectrum of public & pop health, clinical practice, research	4	2	1	0	7
	focus on networking, collaboration and relationship building	7	8	6	1	22
	presentation of your work in plenary, workshops or abstract	1	10	0	2	13
	paid sponsorship to attend	1	0	1	0	2
	none of the above	0	0	0	1	1

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	58.830(a)	21	.000
Likelihood Ratio	43.573	21	.003
Linear-by-Linear Association	7.619	1	.006
N of Valid Cases	107		

a. 23 cells (71.9%) have expected count less than 5. The minimum expected count is .04.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.0 indicates that there exists a relationship between the reason of attending the ICC4 and helpfulness of Congress in supporting National Cancer Control Planning.

Hypothesis 2: Q1 Reason to attend by Q13 ICC4 Helpful in assisting with CC work

The important reason for attending ICC4 has been cross tabulated with variable (Q 13) to know 'how helpful the Congress be in assisting participants in their Cancer Control work'.

H_0 : There exists no significant relationship between the reason for attending the ICC4 and getting help from congress in assisting Cancer Control work

H_A : There exists significant relationship between the reason for attending the ICC4 and getting help from congress in assisting Cancer Control work

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q13 ICCC Helpful in assisting with CC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Q1 Reason to attend	the focus on population based cancer control	8	20	1	0	29
	focus on implementation of interventions and practical experience	8	8	0	1	17
	mix of experience from different cultures and context	0	12	2	1	15
	spectrum of public & pop health, clinical practice, research	3	4	1	0	8
	focus on networking, collaboration and relationship building	7	9	5	1	22
	presentation of your work in plenary, workshops or abstract	1	11	1	1	14
	paid sponsorship to attend	0	1	1	0	2
	none of the above	0	0	1	0	1
Total		27	65	12	4	108

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.086(a)	21	.035
Likelihood Ratio	36.525	21	.019
Linear-by-Linear Association	5.995	1	.014
N of Valid Cases	108		

a. 25 cells (78.1%) have expected count less than 5. The minimum expected count is .04.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.035 shows that there exists a relationship between the reason of attending the congress and ICC4 assisting participants in their Cancer Control work.

Hypothesis 3: Q1 Reason to attend by Q10 Direct follow-up plans

The important reason for attending ICC4 has been cross tabulated with direct follow-up plan as a result of the congress either with people or related program to know the association between two variables.

H_0 : There exists no significant relationship between the reason for attending the ICC4 and conference impact on direct follow plans with people or related to Program.

H_A : There exists significant relationship between the reason for attending the ICC4 and conference impact on direct follow plans with people or related to Program.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Crosstab

Count

		Q10 Direct follow-up plans			Total
		To a great extent	To some extent	Not at all	
Q1 Reason to attend	the focus on population based cancer control	9	19	1	29
	focus on implementation of interventions and practical experience	5	12	0	17
	mix of experience from different cultures and context	3	12	1	16
	spectrum of public & pop health, clinical practice, research	3	3	2	8
	focus on networking, collaboration and relationship	4	14	4	22

	building				
	presentation of your work in plenary, workshops or abstract	7	6	2	15
	paid sponsorship to attend	0	0	2	2
	none of the above	0	1	0	1
Total		31	67	12	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.382(a)	14	.009
Likelihood Ratio	24.205	14	.043
Linear-by-Linear Association	2.429	1	.119
N of Valid Cases	110		

a. 17 cells (70.8%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.009 shows that there exists a relationship between the reason of attending the ICC4 and participant's direct follow-up plans as a result of the congress either with people or related to programs.

Hypothesis 4: Q10 Direct follow-up plans by Q2 Satisfaction

The reason for satisfaction of participants for attending ICC4 has been cross tabulated with direct follow-up plan as a result of the congress either with people or related program.

Ho : There exists no significant relationship between satisfaction by attending the ICC4 and direct follow up plans made as a result of attending ICC4

H_A : There exists significant relationship between satisfaction by attending the ICC4 and direct follow up plans made as a result of attending ICC4

Chi square test has been run to test the statistical significance of relationship between the two variables. A confidence level of 95% was adopted.

Crosstab

Count

		Q2 Satisfaction reasons			Total
		To a great extent	To some extent	Not at all	
Q10 Direct follow-up plans	To a great extent	27	4	0	31
	To some extent	41	25	1	67
	Not at all	3	7	2	12
Total		71	36	3	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.793(a)	4	.000
Likelihood Ratio	19.356	4	.001
Linear-by-Linear Association	17.446	1	.000
N of Valid Cases	110		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .33.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.0 shows that there exists a relationship between participant satisfaction by attending the ICC4 and participants making direct follow up plans as a result of attending the congress

Hypothesis 5: Q2 Satisfaction by Q11 ICC4 Helpful in NCCP

Satisfaction of participants from attending ICC4 has been cross tabulated with helpfulness of congress in supporting participants in National Cancer Control Planning.

Ho : There exists no significant relationship between satisfaction of participants from attending the ICC4 and the conference being helpful in supporting National Cancer Control Planning.

H_A : There exists significant relationship between satisfaction of participants from attending the ICC4 and the conference being helpful in supporting National Cancer Control Planning.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q11 ICC4 Helpful in NCCP				Total
		Very Helpful	Somewhat helpful	Not too helpful	Not at all helpful	
Q2 Satisfaction reasons	To a great extent	29	31	6	2	68
	To some extent	5	20	10	1	36
	Not at all	1	0	1	1	3
Total		35	51	17	4	107

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.061(a)	6	.002
Likelihood Ratio	18.647	6	.005
Linear-by-Linear Association	11.172	1	.001
N of Valid Cases	107		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.002 shows that there exists a strong relationship between satisfaction of participants from attending the ICC4 and helpfulness of the conference in supporting National Cancer Control Planning

Hypothesis 6: Q2 Satisfaction by Q13 ICC4 Helpful in assisting with CC

Satisfaction of participants by attending ICC4 has been cross tabulated with helpfulness of congress in assisting participants in their cancer control work.

Ho : There exists no significant relationship between the reasons for satisfaction of participants by attending the ICC4 and helpfulness of the congress in assisting participants in their cancer control work.

H_A : There exists significant relationship between satisfaction of participants by attending the ICC4 and helpfulness of congress in assisting participants in their cancer control work.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen

Crosstab

Count		Q13 ICC4 Helpful in assisting with CC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Q2 Satisfaction reasons	To a great extent	25	37	7	0	69
	To some extent	2	27	5	2	36
	Not at all	0	1	0	2	3
Total		27	65	12	4	108

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.484(a)	6	.000
Likelihood Ratio	28.837	6	.000
Linear-by-Linear Association	19.456	1	.000
N of Valid Cases	108		

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. A significance value of 0.0 shows that there exists a strong relationship between the reasons for satisfaction of participants for attending the ICC4 and helpfulness of congress in assisting participants in their cancer control work.

Hypothesis 7: Q2 Satisfaction by Q14 Gained Professionally

Satisfaction of participants by attending ICC4 has been cross tabulated with single most important thing gained professionally from attending 4th ICC.

H₀ : There exists no significant relationship between satisfaction of participants by attending the ICC4 and participants having gained from attending 4th ICC.

H_A : There exists significant relationship between satisfaction of participants from attending the ICC4 and participants having gained professionally from attending 4th ICC.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen

Crosstab

Count

		Q2 Satisfaction reasons			Total
		To a great extent	To some extent	Not at all	
Q14 Gained Professionally	improved understanding of cc programs globally	11	6	0	17
	new insights into cancer control strategies and pop based sy	19	4	0	23
	new insights into cancer/NCD prevention-pop based interventi	10	7	0	17
	new insights into potential geographic alliances for common	2	1	0	3
	new insights into planning & implementing pop based ccprogra	7	6	0	13
	new insights into maintaining & sustaining pop based ccprogr	0	2	0	2
	new contacts and opportunities into partnerships and collabo	16	8	1	25

	affirmation of current research or practice	1	0	1	2
	opportunity for career advancement	3	1	0	4
	i did not gain anything from the congress	0	1	1	2
Total		69	36	3	108

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.998(a)	18	.000
Likelihood Ratio	25.308	18	.117
Linear-by-Linear Association	4.580	1	.032
N of Valid Cases	108		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .06.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists a relationship between satisfaction of participants from attending the ICC4 and participants having gained professionally from attending 4th ICC.

Hypothesis 8: Q2 Satisfaction by Q15.1 Successful in promoting evidence to develop NCCP (sharing best practices and promoting evidence to develop cancer control plans)

Satisfaction of participants from attending ICC4 has been cross tabulated with success of congress in sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation.

Ho : There exists no significant relationship between satisfaction of participants from attending the ICC4 and success of congress in sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation.

H_A : There exists significant relationship between satisfaction of participants from attending the ICCC4 and success of congress in sharing best practices and promoting evidence to develop cancer control plans / strengthen implementation.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Crosstab

Count

		Q15.1 Successful in promoting dev of NCCP					Total
		very successful	successful	not very successful	not at all successful	don't know	
Q2 Satisfaction reasons	To a great extent	16	42	6	0	6	70
	To some extent	1	17	14	1	3	36
	Not at all	0	0	1	2	0	3
Total		17	59	21	3	9	109

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.383(a)	8	.000
Likelihood Ratio	37.106	8	.000
Linear-by-Linear Association	11.171	1	.001
N of Valid Cases	109		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is .08.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. The finding shows that there exists a significant relationship between satisfaction of participants from attending the ICCC4 and success of congress in sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation.

Hypothesis 9: Q2 Satisfaction by Q15.2 Successful in promoting evidence to develop national policies regarding cancer control

Satisfaction of participants by attending ICC4 has been cross tabulated with success of congress in sharing best practices and promoting evidence to develop national policies regarding cancer control

Ho : There exists no significant relationship between satisfaction of participants by attending the ICC4 and success of congress in sharing best practices and promoting evidence to develop national policies regarding cancer control.

HA : There exists significant relationship between satisfaction of participants by attending the ICC4 and success of congress in sharing best practices and promoting evidence to develop national policies regarding cancer control.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q15.2 Successful in promoting dev of NCCpolicies					Total
		Very successful	Successful	Not very successful	not at all successful	don't know	
Q2 Satisfaction reasons	To a great extent	12	30	17	1	6	66
	To some extent	0	12	17	2	5	36
	Not at all	0	0	1	1	1	3
Total		12	42	35	4	12	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.232(a)	8	.005
Likelihood Ratio	22.862	8	.004
Linear-by-Linear Association	11.682	1	.001
N of Valid Cases	105		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.005 shows that there exists a significant relationship between satisfaction of participants by attending the ICCC4 and success of congress in sharing best practices and promoting evidence to develop national policies regarding cancer control.

Hypothesis 10: Q2 Satisfaction by Q15.3 Creating a vehicle of collaboration

Satisfaction of participants from attending ICCC4 has been cross tabulated with the congress being successful in establishing a creative and appropriate agenda to create a vehicle of collaboration.

H_0 : There exists no significant relationship between satisfaction of participants from attending the ICCC4 and success of congress in creating a vehicle of collaboration.

H_A : There exists significant relationship between satisfaction of participants from attending the ICCC4 and success of congress in creating a vehicle of collaboration.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q15.3 Creating a vehicle of collaboration					Total
		Very successful	successful	not very successful	not at all successful	don't know	
Q2 Satisfaction reasons	To a great extent	15	40	9	0	4	68
	To some extent	2	18	14	1	1	36
	Not at all	0	1	1	0	1	3
Total		17	59	24	1	6	107

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.802(a)	8	.016
Likelihood Ratio	17.713	8	.023
Linear-by-Linear Association	7.568	1	.006

N of Valid Cases	107		
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a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .03.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.016 shows that there exists a significant relationship between satisfaction of participants from attending ICC4 and success of congress in establishing a creative and appropriate agenda to create a vehicle of collaboration.

Hypothesis 11: Q2 Satisfaction reasons by Q15.4 Success at raising cc awareness

Satisfaction of participants from attending ICC4 has been cross tabulated with success of congress in contributing to and creating a vehicle for raising awareness of cancer control.

H_0 : There exists no significant relationship between satisfaction of participants from attending the ICC4 and success of congress in raising awareness of cancer control.

H_A : There exists significant relationship between satisfaction of participants from attending the ICC4 and success of congress in raising awareness of cancer control.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q15.4 Success at raising awareness					Total
		very successful	successful	not very successful	not at all successful	don't know	
Q2 Satisfaction reasons	To a great extent	16	39	7	1	5	68
	To some extent	0	17	13	2	3	35
	Not at all	0	0	1	1	1	3
Total		16	56	21	4	9	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.138(a)	8	.000
Likelihood Ratio	31.457	8	.000
Linear-by-Linear Association	14.391	1	.000
N of Valid Cases	106		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists significant relationship between satisfaction of participants from attending the ICCC4 and success of the congress in contributing to and creating a vehicle for raising awareness of cancer control.

Hypothesis 12: Q2 Satisfaction reasons by Q15.5 Success at engaging communities

Satisfaction of participants for attending ICCC4 has been cross tabulated with success of congress in engaging the relevant communities-government, nongovernmental organizations, advocacy groups, civil society, risk factor control groups, patients others.

Ho : There exists no significant relationship between satisfaction of participants by attending the ICCC4 and success of congress in engaging the relevant communities.

H_A : There exists significant relationship between satisfaction of participants by attending the ICCC4 and success of congress in engaging the relevant communities.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Crosstab

Count		Q15.5 Success at engaging communities						Total
		missing	Very successful	successful	not very successful	not at all successful	don't know	
Q2 Satisfaction reasons	To a great extent	6	6	21	30	4	4	71
	To some extent	1	0	7	13	10	5	36
	Not at all	0	0	0	0	2	1	3
Total		7	6	28	43	16	10	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.482(a)	10	.005
Likelihood Ratio	26.590	10	.003
Linear-by-Linear Association	5.919	1	.015
N of Valid Cases	110		

a. 11 cells (61.1%) have expected count less than 5. The minimum expected count is .16.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of .005 shows that there exists significant relationship between satisfaction of participants from attending the ICC4 and success of congress in engaging the relevant communities.

Hypothesis 13: Q4 Stimulation to think by Q11 ICC4 Helpful in NCCP

ICC4 stimulating participants to think of activities/relationships that have relevance beyond their direct work has been cross tabulated with helpfulness of congress in supporting participants in National Cancer Control Planning.

Ho : There exists no significant relationship between ICC4 stimulating participants to think of activities/relationships beyond their direct work and the helpfulness of the congress in supporting participants in National Cancer Control Planning.

H_A : There exists a significant relationship between ICC4 stimulating participants to think of activities/relationships beyond their direct work and the helpfulness of the congress in supporting participants in National Cancer Control

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Cross tabulation

Count

		Q11 ICC4 Helpful in NCCP				Total
		Very Helpful	Somewhat helpful	Not too helpful	Not at all helpful	
Q4 Stimulation to think	Very much	25	29	9	2	65
	Not too much	7	17	6	0	30
	No change	1	4	2	0	7
	Not at all	0	0	0	1	1
Total		33	50	17	3	103

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.491(a)	9	.000
Likelihood Ratio	13.382	9	.146
Linear-by-Linear Association	4.906	1	.027
N of Valid Cases	103		

a. 11 cells (68.8%) have expected count less than 5. The minimum expected count is .03.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists a significant relationship between the Congress stimulating participants to think of activities/relationships with helpfulness of the congress in supporting participants in National Cancer Control Planning.

Hypothesis 14: Q5 Strongest aspect by Q11 ICC4 Helpful in NCCP

The 'strongest aspect' of the congress perceived by participants has been cross tabulated with helpfulness of congress in supporting participants in National Cancer Control Planning

H₀ : There exists no significant relationship between the perceived strongest aspect of congress and helpfulness of congress in supporting participants in National Cancer Control Planning.

H_A : There exists significant relationship between the perceived strongest aspect of the congress and helpfulness of the congress in supporting participants in National Cancer Control Planning.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Cross Tabs

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.135(a)	12	.000

		Q5 Strongest aspect					Total
		Speakers	Workshops	Social Networking	Examples from other countries	Nothing	
Q11 ICC4 Very helpful	Very Helpful	1	11	1	11	1	25
	Somewhat helpful	12	24	9	5	1	51
	Not too helpful	3	3	5	5	1	17
	Not at all helpful	0	0	1	1	2	4
Total		17	43	20	21	4	105

Likelihood Ratio	29.129	12	.004
Linear-by-Linear Association	2.596	1	.107
N of Valid Cases	105		

a. 11 cells (55.0%) have expected count less than 5. The minimum expected count is .15.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. The finding shows that there exists a significant relationship between the perceived strongest aspect of this congress and helpfulness of the congress in supporting participants in National Cancer Control Planning

Hypothesis 15: Q9.1 Quality of Sessions by Q11 ICCC Helpful in NCCP

The quality of sessions rated by participants has been cross tabulated with helpfulness of congress in supporting participants in National Cancer Control Planning..

Ho : There exists no significant relationship between the Quality of sessions and the helpfulness of congress in supporting participants in National Cancer Control Planning.

H_A : There exists a significant relationship between the Quality of sessions and helpfulness of congress in supporting participants in National Cancer Control Planning

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q11 ICCC Helpful in NCCP				Total
		Very Helpful	Somewhat helpful	Not too helpful	Not at all helpful	
Q9.1 Rate Quality of Sessions	Excellent	19	14	1	0	34
	Good	12	31	12	2	57
	Fair	1	5	3	0	9
	Poor	0	0	1	2	3
Total		32	50	17	4	103

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.697(a)	9	.000
Likelihood Ratio	33.679	9	.000
Linear-by-Linear Association	25.301	1	.000
N of Valid Cases	103		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .12.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists a significant relationship between the Quality of sessions and helpfulness of congress in supporting participants in National Cancer Control Planning.

Hypothesis 16: Q9.5 Range of topics covered by Q11 ICCC Helpful in NCCP

Range of topics covered in the congress program has been cross tabulated with the helpfulness of the congress in supporting participants in National Cancer Control Planning.

H_0 : There exists no significant relationship between the range of topics covered in the congress program with helpfulness of congress in supporting participants in National Cancer Control Planning

H_A : There exists a significant relationship between the range of topics covered in the congress program with helpfulness of congress in supporting participants in National Cancer Control Planning

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstabulation

Count

		Q11 ICCC Helpful in NCCP				Total
		Very Helpful	Somewhat helpful	Not too helpful	Not at all helpful	
Q9.5 Rate range of topics covered	Excellent	21	5	3	1	30
	Good	11	36	8	1	56
	Fair	3	7	4	1	15
	Poor	0	2	2	1	5
	Total	35	50	17	4	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.391(a)	9	.000
Likelihood Ratio	33.970	9	.000
Linear-by-Linear Association	17.015	1	.000
N of Valid Cases	106		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .19.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists a significant relationship between the range of topics covered in the congress program with helpfulness of congress in supporting participants in National Cancer Control Planning.

Hypothesis 17: Q 9.4 Quality of Discussion & Debate by Q13 ICCC Helpful in assisting with CC work

The quality of discussions and debate has been cross tabulated with helpfulness of congress in assisting participants in cancer control work.

H_0 : There exists no significant relationship between the quality of discussions and debate with helpfulness of congress in assisting participants in cancer control work.

H_A : There exists significant relationship between the quality of discussions and debate with helpfulness of congress in assisting participants in cancer control work.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count

		Q13 ICCC Helpful in assisting with CC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Q9.4 Rate	Excellent	15	9	0	0	24

Qlty Discusson Debate					
Good	10	32	6	0	48
Fair	2	21	4	3	30
Poor	0	1	2	1	4
Total	27	63	12	4	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.979(a)	9	.000
Likelihood Ratio	39.815	9	.000
Linear-by-Linear Association	28.792	1	.000
N of Valid Cases	106		

a. 9 cells (56.3%) have expected count less than 5. The minimum expected count is .15.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists significant relationship between the quality of discussions and debate and helpfulness of congress in assisting participants in cc work.

Hypothesis 18: Q9.1 Quality of Sessions by Q 15.1 Successful in promoting evidence to dev NCCP

The quality of sessions as rated by participants has been cross tabulated with successfulness of congress in achieving to share best practice and promoting evidence to develop cancer control plans and /or strengthen implementation .

Ho : There exists no significant relationship between quality of sessions and successfulness of congress in sharing best practice and promoting evidence to develop cancer control plans.

H_A : There exists significant relationship between quality of sessions and successfulness of congress in sharing best practice and promoting evidence to develop cancer control plans.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

Count		Q9.1 Rate Quality of Sessions				Total
		Excellent	Good	Fair	Poor	
Q15.1 Successful in promoting dev of NCCP	very successful	12	5	0	0	17
	successful	20	35	3	0	58
	not very successful	2	13	5	1	21
	not at all successful	0	1	0	2	3
	don't know	0	6	2	0	8
Total		34	60	10	3	107

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	74.222(a)	12	.000
Likelihood Ratio	44.784	12	.000
Linear-by-Linear Association	24.264	1	.000
N of Valid Cases	107		

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .08.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. The finding shows that there exists a significant relationship between quality of sessions as rated by participants and the successfulness of congress in achieving to share best practice and promoting evidence to develop cancer control plans and /or strengthen implementation.

Hypothesis 19: Q9.3 Quality of Workshop Speakers By Q15.1 Success in promoting evidence to dev NCCP

The quality of workshop speakers as rated by participants has been cross tabulated with successfulness of the congress in achieving to share best practice and promoting evidence to develop cancer control plans and /or strengthen implementation .

Ho : There exists no significant relationship between quality of workshop speakers and successfulness of congress in sharing best practice and promoting evidence to develop cancer control plans.

H_A : There exists significant relationship between quality of of workshop speakers and successfulness of congress in sharing best practice and promoting evidence to develop cancer control plans.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen.

Crosstab

		Q9.3 RateQlty Workshop Speakers				Total
		Excellent	Good	Fair	Poor	
Q15.1 Successful in	very successful	12	38	8	0	58
	successful	2	8	7	4	21
	not very successful	0	1	1	1	3
	not at all successful	0	4	4	0	8
Total		25	57	20	5	107

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.025(a)	12	.000
Likelihood Ratio	47.314	12	.000
Linear-by-Linear Association	24.036	1	.000
N of Valid Cases	107		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .14.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. The finding shows that there exists significant relationship between quality of workshop speakers as rated by participants and the successfulness of the congress in achieving to share best practice and promoting evidence to develop cancer control plans and /or strengthen implementation.

Hypothesis 20: Q8 Most useful session or activity by Q21 COP a goal

The most useful session/activity at ICC4 has been cross tabulated with the establishment of a Community Of Practice (COP) as a goal for participants.

Ho : There exists no significant relationship between most useful session/activity with the establishment of a COP as a goal

H_A : There exists a significant relationship between the most useful session/activity with the establishment of a COP as a goal.

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen

Cross tabulation

Count

		Q21 COP a goal					Total
		all of the time	most of the time	some of the time	seldom	never	
Q8 Most useful session	plenary sessions	4	8	20	4	1	37
	concurrent workshop sessions	7	18	16	2	1	44
	poster viewing sessions	3	1	0	0	0	4
	Forums	0	0	1	0	0	1
	Sideline meetings	0	1	0	0	1	2
	Networking	1	3	7	2	0	13
Total		15	31	44	8	3	101

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.523(a)	20	.010
Likelihood Ratio	25.737	20	.175
Linear-by-Linear Association	.183	1	.669
N of Valid Cases	101		

a 23 cells (76.7%) have expected count less than 5. The minimum expected count is .03.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of .010 shows that there exists a significant relationship between the most useful session/activity at ICC4 with establishing a Community Of Practice as a goal for participants.

Hypothesis 21: Q9.1 Quality of Sessions by Q21 COP a goal

The rating of Quality of Sessions of congress program has been cross tabulated with the establishment of a Communities Of Practice (COP) as a goal for participants.

H_0 : There exists no significant relationship between rating of quality of sessions with the establishment of a COP as a goal

H_A : There exists a significant relationship between rating of quality of sessions with the establishment of a COP as a goal

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen

Crosstab

Count

		Q21 COP a goal					Total
		all of the time	most of the time	some of the time	seldom	never	
Q9.1 Rate Quality of Sessions	Excellent	7	13	10	2	0	32
	Good	8	13	30	4	2	57
	Fair	0	5	4	1	0	10
	Poor	0	0	1	1	1	3
Total		15	31	45	8	3	102

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.078(a)	12	.027
Likelihood Ratio	19.360	12	.080
Linear-by-Linear Association	8.458	1	.004

N of Valid Cases	102		
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a 15 cells (75.0%) have expected count less than 5. The minimum expected count is .09.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. a significance value of .027 shows that there exists a significant relationship between participants rating of quality of sessions with establishment of a Community Of Practice as a goal for participants.

Hypothesis 22: Q9.5 Range of topics covered by Q4 Stimulation to think

The rating of range of topics covered in congress program has been cross tabulated with the ICC4 stimulating participants to think of activities/relationships

Ho : There exists no significant relationship between topics covered in the congress program and the ICC4 stimulating participants to think of activities/relationships

H_A : There exists a significant relationship between topics covered in the congress program and the ICC4 stimulating participants to think of activities/relationships

Chi square test has been run to check for any statistically significant relationship between the variables. A confidence level of 95% was chosen

Crosstab

Count

		Q4 Stimulation to think				Total
		Very much	Not too much	No change	Not at all	
Q9.5 Rate range of topics covered	Excellent	23	6	2	0	31
	Good	32	19	4	0	55
	Fair	10	5	0	0	15
	Poor	3	0	1	1	5
Total		68	30	7	1	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
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Pearson Chi-Square	26.592(a)	9	.002
Likelihood Ratio	14.462	9	.107
Linear-by-Linear Association	2.033	1	.154
N of Valid Cases	106		

a. 11 cells (68.8%) have expected count less than 5. The minimum expected count is .05.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of .002 shows that there exists a significant relationship between the range of topics covered in the congress program and the ICC4 stimulating participants to think of activities/relationships beyond direct work.

4. Inference and suggestions

This section of the report summarizes the inferences from the analysis, and any suggestions that can be derived.

1. 310 participants from 44 countries participated in the 4th International Cancer Control Congress. Most had never attended an ICCC previously.
2. Currently the largest numbers of participants comprises of researcher/scientist amongst all type of occupation group also more than half of the conference participants consist of government organizations. Majority of respondents are those who deal with cancer control as a part of their work.
3. Participants found it helpful by attending ICCCs as the Congress shares best practices and promote evidence to develop or implement cancer control plans.
4. Participants at the Congress thought ICCC is different from other cancer control meeting due to being smaller in size and thus provides greater opportunity for networking and discussions.
5. The important reason for attending the conference was the focus on population based cancer control followed by focus on networking, collaboration and relationship building.
6. Three fourth of participants rate the overall program as excellent/good. Most of them liked concurrent workshop session or plenary session as most useful sessions of congress activities.

7. Approximately, 17 plenary presentations, 44 oral presentations, 104 poster presentations and 4 consensus statements were presented at the Congress.
8. A vast majority believe that the ICCC helped them professionally and they have been positively influenced by attending the conference.
9. Participants stated at the Congress that they gained new insights into cancer control strategies and population based systems.
10. Most believe that they would be sharing new information with colleagues, applying new insights to prevention programs and cancer control as a whole, as well as following up on new contacts.
11. Overall impact of the conference is on collaboration/networking/partnership and follow-up activities participants plan doing - two most important benefits to the participants.
12. Participants are interested in learning latest developments/innovation in the field of cancer control from other countries, especially developing countries and about how the knowledge gained from conference can be implemented effectively under constrained resources.

5. Conclusion

This section of the report summarizes the findings derived from analysis.

Findings from Univariate Analysis

The response to each question has been analyzed to determine the usefulness / impact of ICCC4. The univariate analysis shows that ICCC4 is successful on most of the parameters. The scientific content of the conference is found to be aligned to the interest of participants. Most of the participants were involved in cancer control and quite experienced in this field for quite a few years. Participants came from 44 countries with the largest numbers of participants from Republic of Korea 48%. A large number of respondents were researcher/scientist, more than half of the conference participants (54%) were from government organizations and 53% of the respondents were between the age bracket of 41-60 years. The main reason for attending the conference was the focus on population based cancer control followed by focus on networking, collaboration and relationship building.

Findings from Bivariate Analysis

Questions have been cross tabulated to identify if any specific relationship exists. Cross tabulation identified that there is a relationship between satisfaction level of attending ICC4 and the congress being helpful in supporting NCCP, in assisting participants with their cancer control work, in participants formulating direct follow-up plans following the congress, congress considered as a vehicle of collaboration, participants gaining professionally, sharing of best practices, promoting evidence to develop national policy about cancer control, congress being a vehicle for awareness of cancer control and providing a platform for knowledge. The analysis also shows a significant relationship between helpfulness of congress in supporting in NCCP and quality of sessions, range of topics covered, quality of discussion and debate. Range of topics covered in ICC4 is further associated in assisting cancer control work.

Sharing best practices and promoting evidence to develop cancer control plan is significantly correlated with quality of sessions and plenary speakers. The finding also shows that , COP as a goal is associated with congress activities such as quality of sessions and useful activities at ICC4 . Participants being stimulated to think of activities that have relevance beyond their direct work is related to range of topics covered in the conference.

4th ICCC Follow-Up Survey 3rd-5th November, 2011 Seoul, Republic of Korea



Follow-Up Survey Analysis Report March 2012

By
Kavita Sarwal

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1. Introduction

The 4th International Cancer Control Congress (ICCC) was organized by the National Cancer Center Korea and the International Cancer Control Congress Association Canada and co-sponsored by the World Health Organization. It was held from Nov 3-5th 2011 in Seoul, Republic of Korea. The purpose of the Congress was to build on the achievements of ICCC 1, 2 and 3. The 4th International Cancer Control Congress was designed to raise awareness, improve participation and promote collaboration between organizations, institutions, policy, practice and civil society to enhance global control of cancer and non-communicable diseases.

The vision of ICCCs is “International Collaborations” – to create a global forum for health care experts, professionals and health system leaders to share knowledge, experiences, strategies, approaches, tactics and best practices in clinical, hospital and community settings that can enhance and accelerate the implementation of effective population based national cancer control strategies and the evaluation of cancer control initiatives. The Congress was not only about discussing current knowledge content, but rather applying it.

The Congress is a means of developing the priorities, actions, and roles to enhance cancer and NCD control within our practice locations and environments – achieved through the collaboration and sharing of knowledge, reflecting the strengths and opportunities, and the challenges and needs within our diverse practice settings. At ICCC4 there were 310 registered participants at the Congress from 44 countries of the world. Korea had the largest number of participants – 48%. A diversity of participants attended the Congress ranging from health administrators to physicians, nurses, patient advocates, cancer control experts, researchers, policy makers.

There were four plenary sessions at the Congress—Session 1 Risk Factors for Prevention of Cancer and NCDs, Session 2 Managing Population Health to Prevent and Detect Cancer and NCDs, Session 3 Coordinating Care and Treatment for cancer patients,

Session 4 Translating research into policy and practice. Each plenary session was followed by concurrently held 4-5 workshops. The total length of the session including workshops was 3 hrs. On the last day there was a 5th session called the Evaluation Session which discussed the perceived value of ICCC and what could be done to increase it. At the Congress, 17 plenary presentations, 44 oral presentations, 104 poster presentations and 4 consensus statements were presented.

A follow-up survey has been conducted following the Congress, results of which are presented in this report.

1.1 Analysis Methodology

The responses were coded and recorded in Statistical Package for Social Sciences (SPSS). SPSS and excel were used for the analysis. To achieve the objectives, a mixed approach i.e., both qualitative and quantitative methods of research, is employed. Qualitative methods, like open ended questions/interviews, observations were used. Among quantitative methods, descriptive statistics, bivariate (cross tabulation) statistical methods were used. The descriptive method of analysis such as frequency/percentage charts or counts, various types of graphs, Chi-Square test of independence was used. All graphs were drawn on Excel.

The stated reasons to attend the conference can give us the expectations that the respondents had from the conference. The usefulness of each aspect of the conference was analyzed by different age bands, occupation, organization, country and level of involvement in cancer control activities. This would show if different groups have different needs from the conference.

The sessions, program mix etc were analyzed to get trends based on their ratings. This will show which themes were appreciated by the participants and what changes can be

incorporated into the incoming conference. The professional gains were analyzed to give an idea for future conference planning.

1.2 Assumptions & Limitations

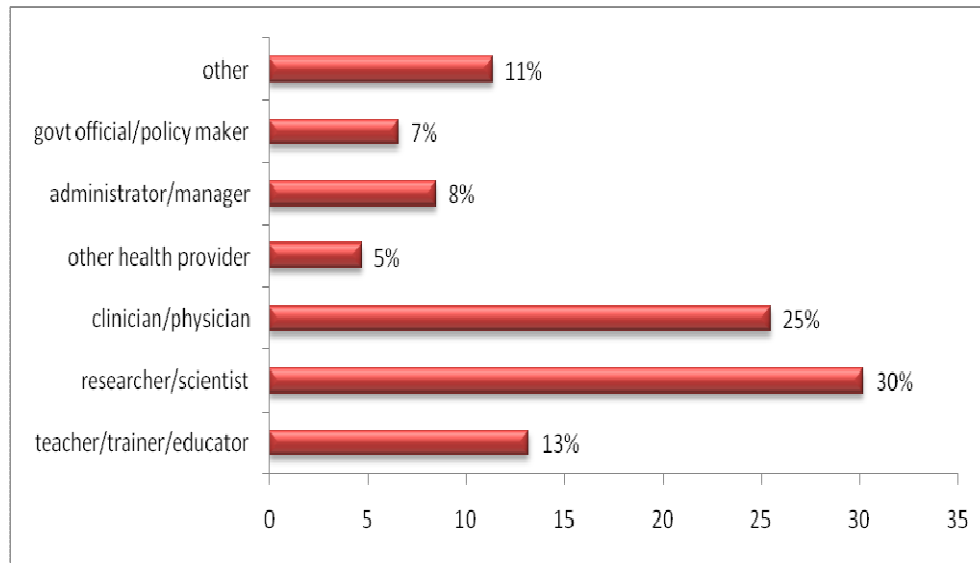
1. 310 participants registered for the conference from 44 countries of which only 106 took the survey (34% response rate). The results obtained by the analysis may not be a good approximation of population due to the response rate.
2. Because of the discrete nature of the variables, we use only descriptive statistics and non-parametric tests for statistical analysis.
3. For all the statistical tests, the level of significance is taken as 0.05, unless otherwise specified.

2. Univariate Analysis

This follow-up survey was conducted approximately 3 months following the congress. The survey was sent electronically to all the 310 registered participants of the congress. 106 participants responded - thus providing the survey with a response rate of 34%. This section of the report provides findings about each question of the survey. The survey consisted of 33 main questions. The total number of responses was 106.

2.1 Demographic Questions

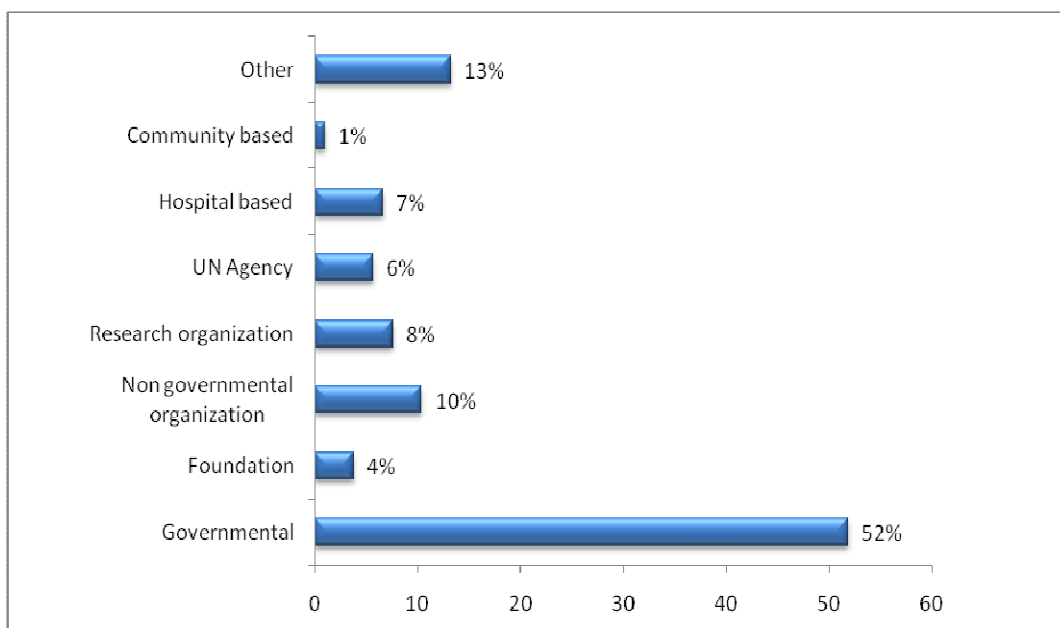
1. Main Occupation



No. of valid response 106

The largest numbers of respondents were researcher/scientist (30%) followed by clinician or physician (25%) and teacher/trainers/educator (13%). About 8% were administrators/managers and 7% were government officials/policy makers.

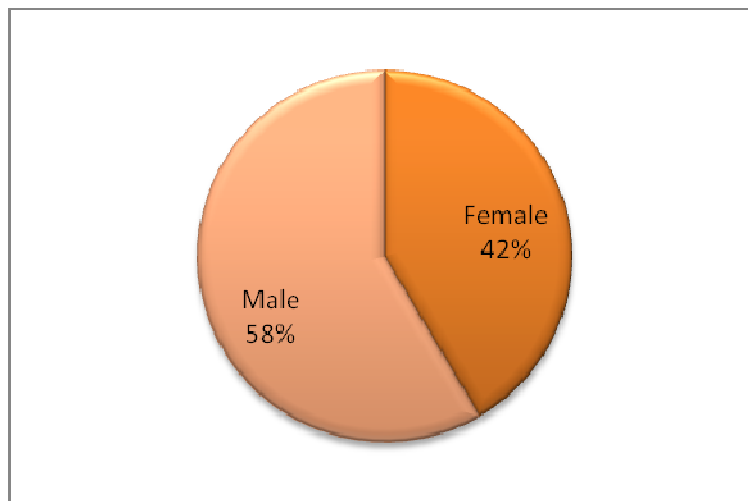
2. Organization



No. of valid response 106

More than half of the conference respondents (52%) were from government organizations and 10% from non government organizations (e.g. UICC, APOCP etc.). 8% of respondents were from research organization, 7% from the hospital sector and 6% from UN agencies (e.g. WHO, IAEA etc.) and 4% from foundations such as national cancer foundation etc. Only 1% of respondents were from community based and 13% from other organizations.

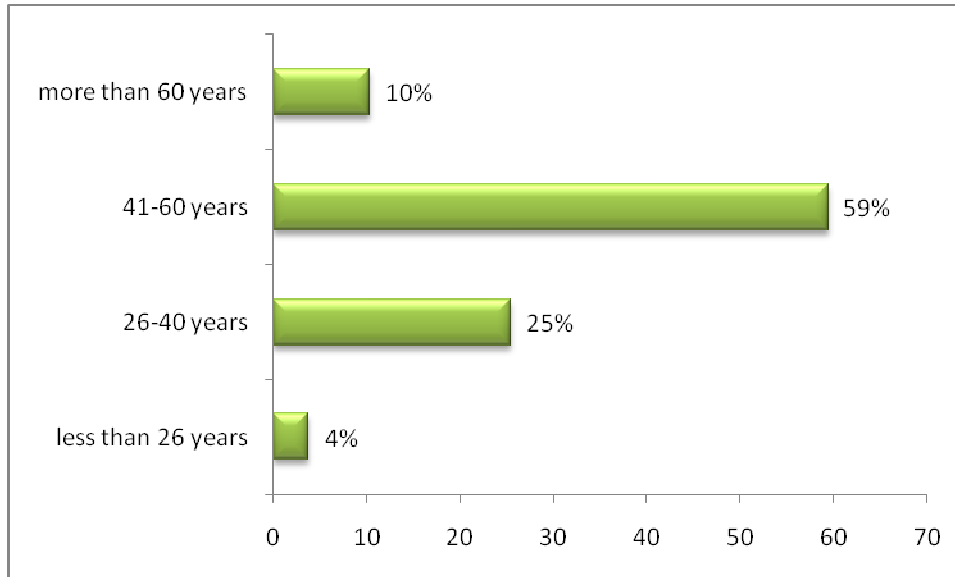
3. Gender



No. of valid response 106

The graph shows that 58% were male participants and 42% were female. Thus, a greater number of respondents were males.

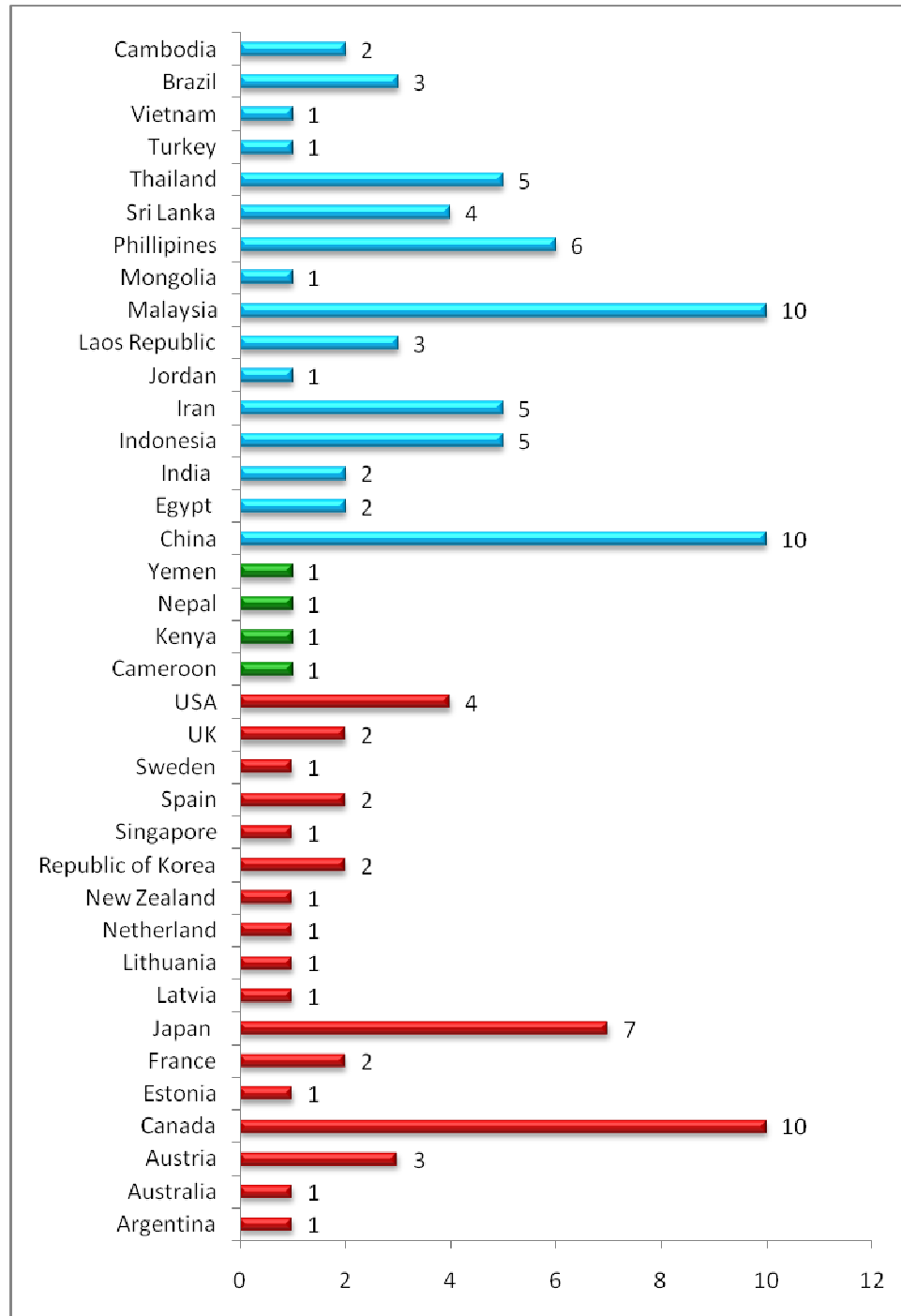
4. Age Group



No. of valid response 105

Nearly 60% of respondents were in the age bracket of 41-60 years and one fourth of the respondents were in the age bracket of 26-40 years.

5. Country of Work



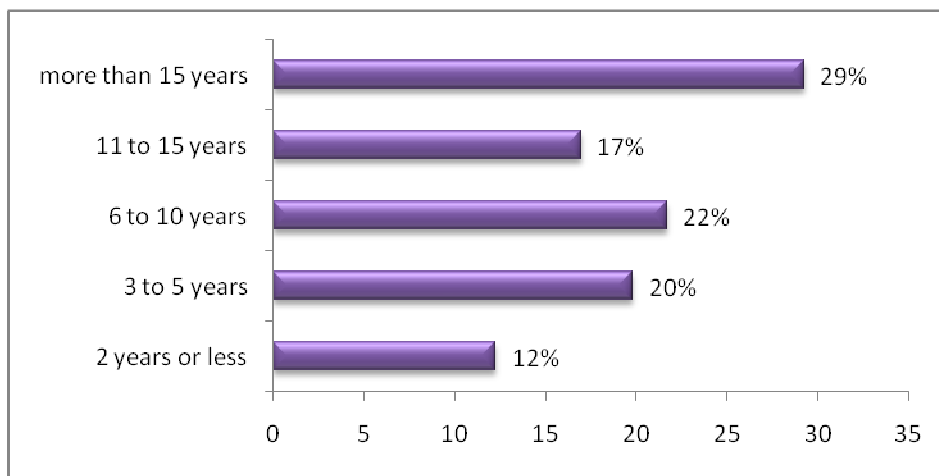
No. of valid response 106

44 countries were represented at the Congress. Using the human development index countries were grouped as high, middle, low income countries. Red color represents high

income, green color represents low income and blue color represents medium income countries. The follow-up survey was answered by respondents from 37 countries. This representation of countries depicts where respondents do most of their work. From the high and medium income countries, highest (10%) number of respondents were from Canada and China & Malaysia respectively.

2.2 Cancer Control Work Related Questions

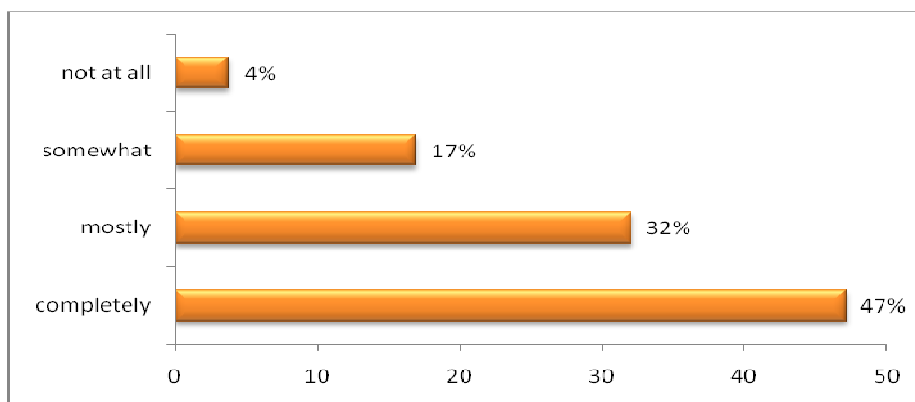
6. Years in cancer control



No. of valid response 106

The graph shows the number of years respondents have worked in cancer control in various areas example—health administration/policy making/research/cancer prevention/early detection screening /diagnosis /treatment & care/ palliative & end of life etc. 29% of the respondents have worked in the field of cancer control for more than 15 years, 17% have worked 11 to 15 years, 22% have worked 6 to 10 years and remaining 32% have experience of 5 year or less.

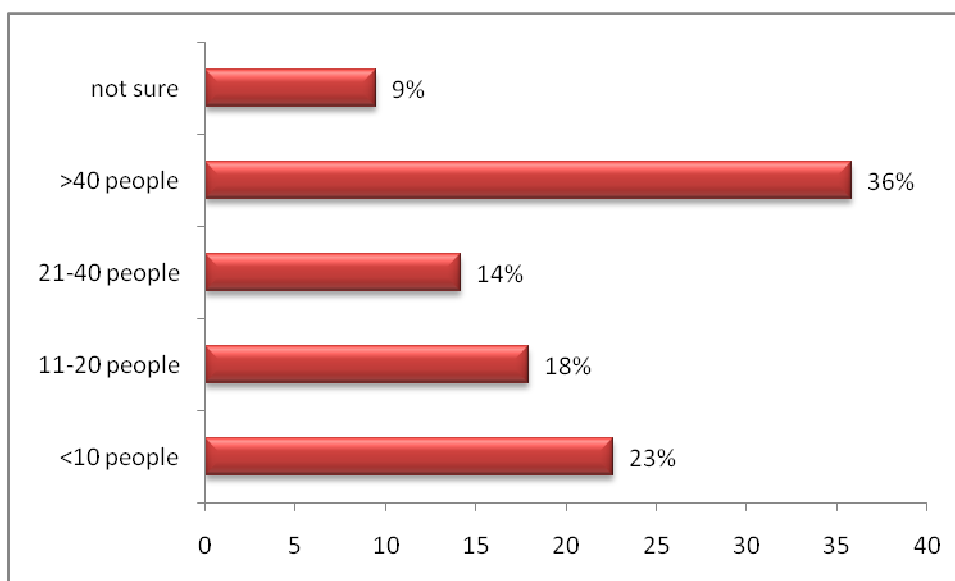
7. Cancer Control part of work



No. of valid response 106

Almost half (47%) of the respondents stated that cancer control is completely part of their work. It is their primary focus. One third reported that cancer control is mostly part of their work (major part of their work), 17% of respondents stated that cancer control is somewhat part of their work (minor part of their work) and only 4% of respondents confirmed that cancer control is not at all part of their work.

8. Number of personnel working in Cancer Control in respondent's organization



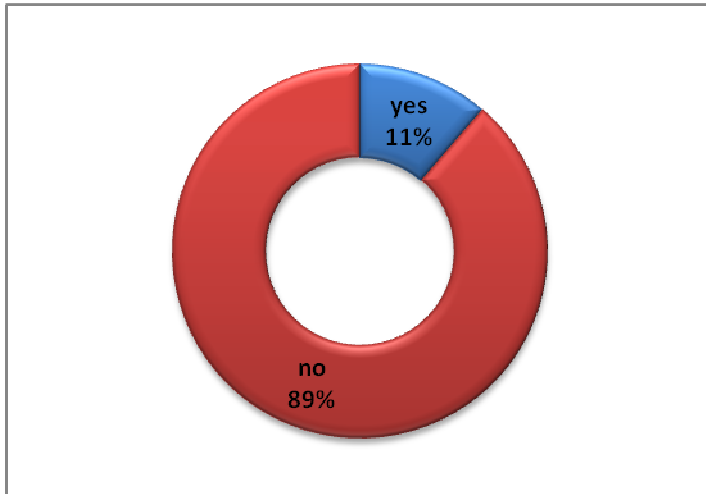
No. of valid response 106

Nearly one third (36%) of the respondents stated that more than 40 people work on cancer control in their organizations including themselves. 14% participants reported that between 21 to 40 personnel work on cancer control in their organizations and 18% stated

that between 11 to 20 personnel work on cancer control in their organizations. About one fourth (23%) participants reported that less than 10 persons work on cancer control in their organization.

2.3 Cancer Control Conference Related Questions

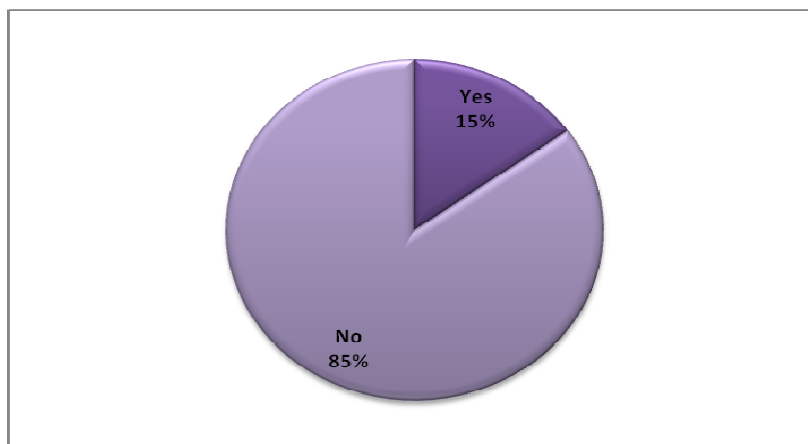
9. Attended ICC1



No. of valid response 106

Only one tenth (11%) of respondents stated that they have attended the first International Cancer Control Congress in Vancouver, Canada in November, 2005.

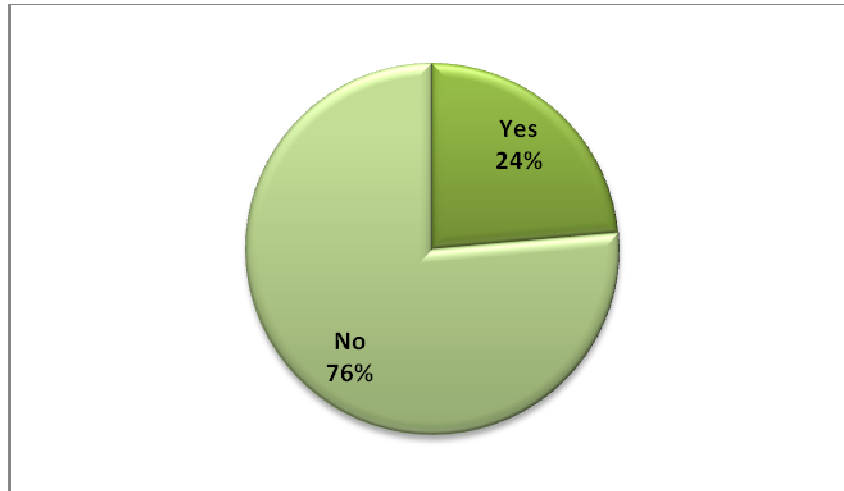
10. Attended ICC2



No. of valid response 106

Majority (85%) of respondents stated that they have not attended the second International Cancer Control Congress in Rio de Janeiro, Brazil in 2007.

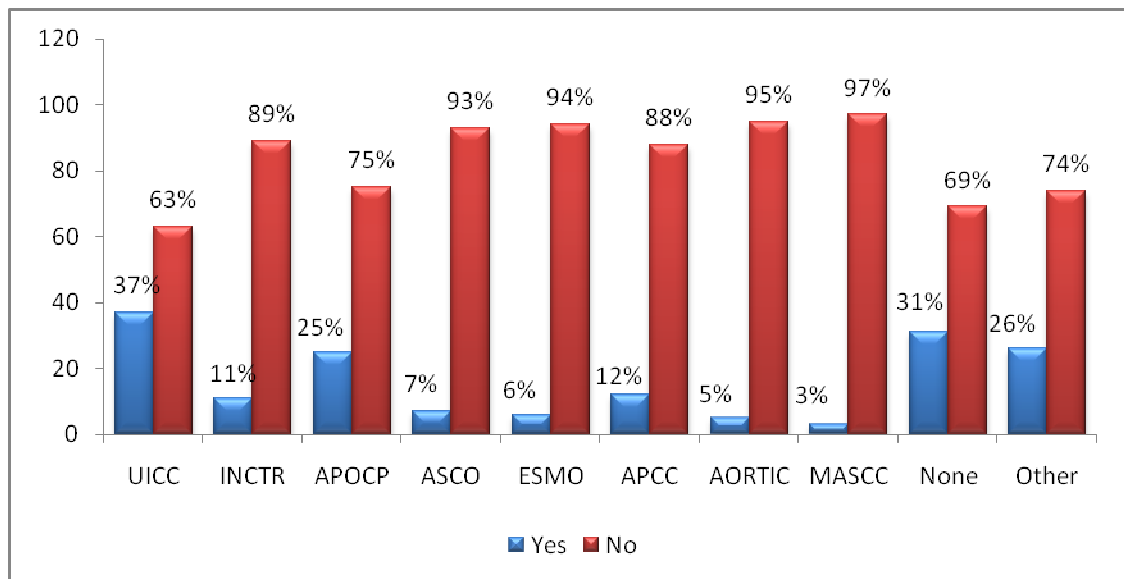
11. Attended ICC3



No. of valid response 106

About one fourth (24%) of respondents stated that they have attended the third International Cancer Control Congress in Cernobbio, Italy in 2009.

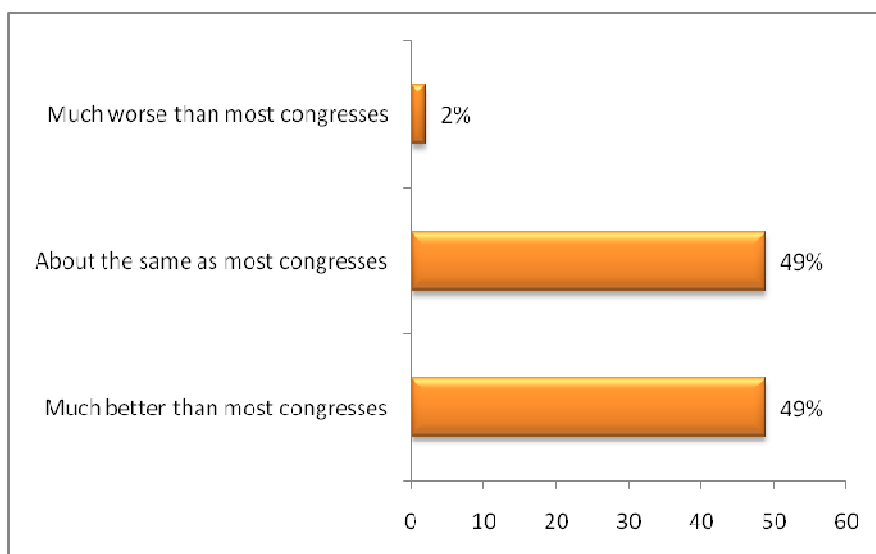
12. Attended Any of the Cancer Control conferences during 2007-2012



No. of valid response 106

Majority (75% to 97%) of the participants stated that they have not attended any of the cancer control conferences such as INCTR, APOCP, ASCO, ESMO, APCC, AORTIC, MASCC etc. in the last 5 years i.e. 2007 to 2012. From the above stated conferences one fourth of the respondents had attended APOCP cancer control conference. The conference most attended by respondents was the UICC World Cancer Congress – 37% of respondents had participated in the UICC Conferences

13. Rate value of attendance at ICCC

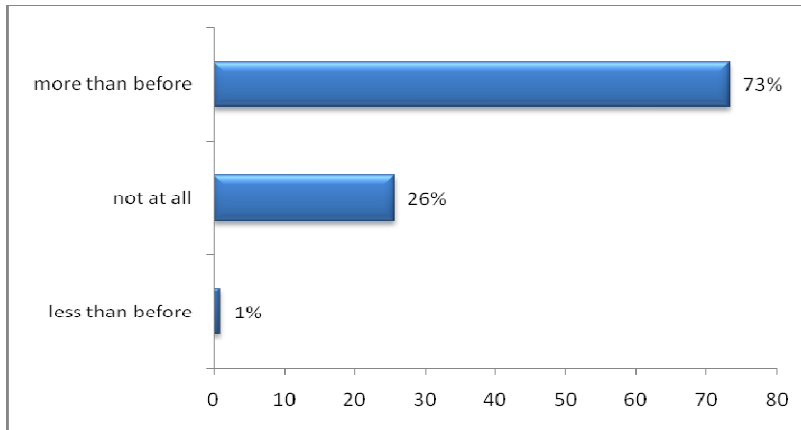


No. of valid response 100

Respondents were asked about how they would rate the value of their attendance at ICCC in comparison to other congresses. 49% of respondents were of the opinion that the ICCC was 'much better than most congresses' and an equal 49% said that ICCC was 'about the same as most congresses'.

2.4 Follow-up to ICCC4 Congress

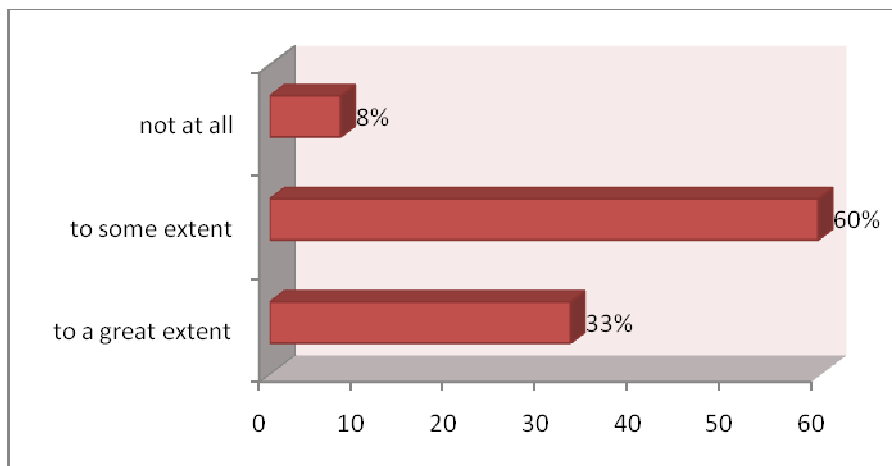
14. Involvement and Interest Level



No. of valid response 105

Respondents were asked about changes in their involvement and interest in cancer control after the Congress. Nearly three fourth (73%) stated their involvement and interest in cancer control was 'more than before' and 26% participants stated that there is no change 'not at all'.

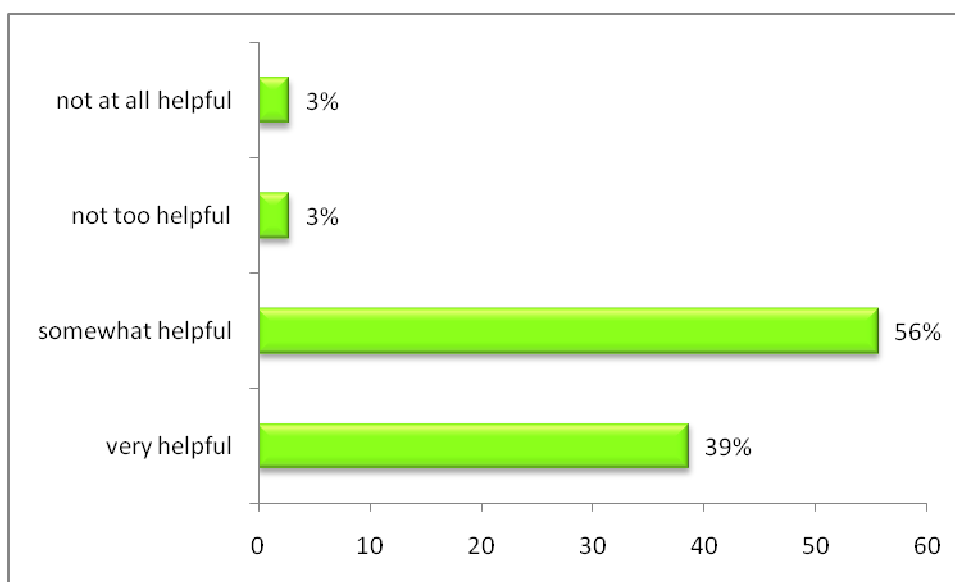
15. Influenced by ICC



No. of valid response 104

About one third of the respondents said their current level of interest and involvement was influenced by attending the 4th ICC to 'a great extent' and 60% respondents said 'to some extent'.

16. Helpfulness of ICC

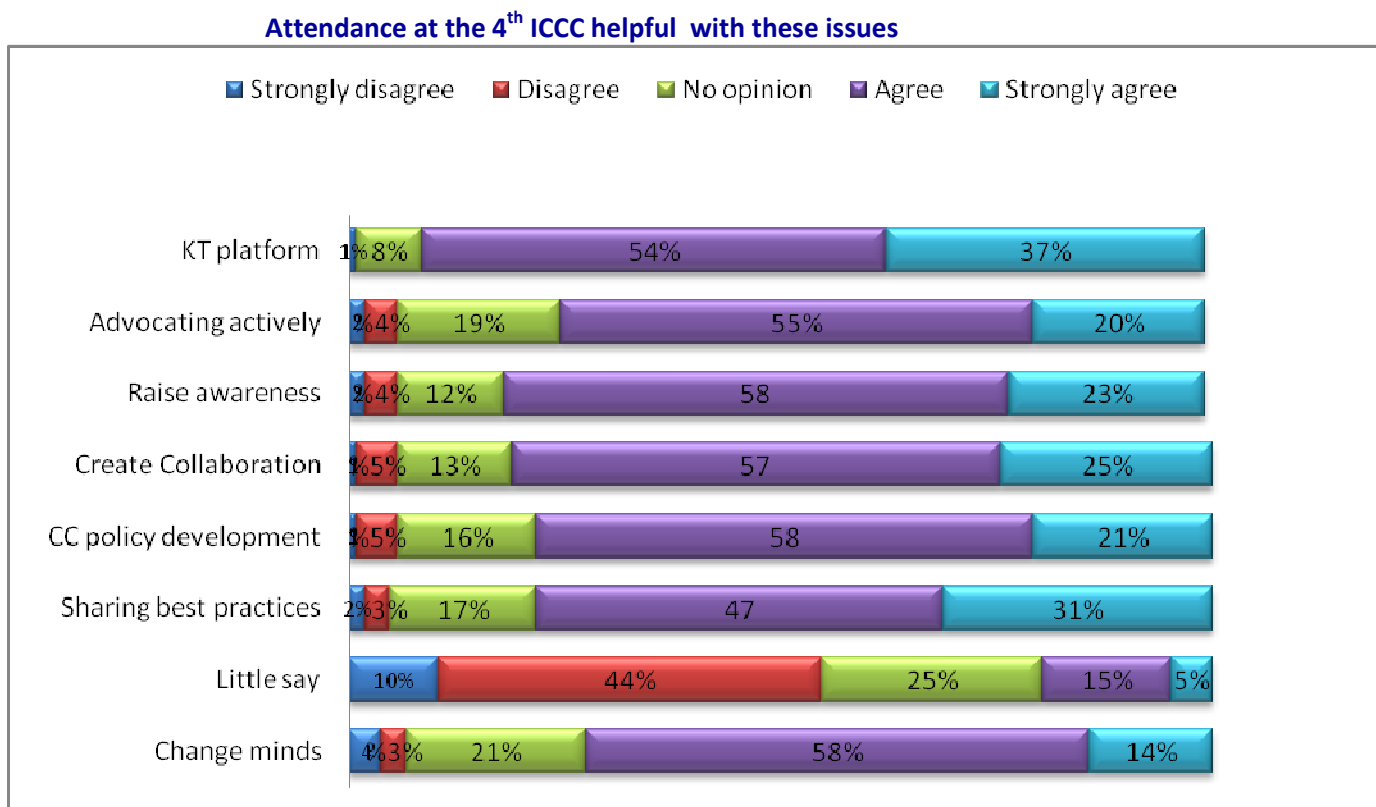


No. of valid response 106

About 40% of respondents stated that the congress was ‘very helpful’ in assisting them in their cancer control/NCD work and 56% reported that congress was ‘somewhat helpful’ in assisting them in their cancer control/NCD work.

17. Attendance at the 4th ICCC helpful with the following issues

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
Change minds	4	3	21	58	14
Little say	10	44	25	15	5
Sharing best practices	2	3	17	47	31
CC policy development	1	5	16	58	21
Create Collaboration	1	5	13	57	25
Raise awareness	2	4	12	58	23
Advocating actively	2	4	19	55	20
KT platform	1	0	8	54	37



Respondents were asked to rate if their attendance at ICC4 helped with issues such as-- can change the minds of policy makers in my jurisdiction, have little say in government or organization activities, sharing best practices to develop cancer control plans, can contribute to development of cancer control policies, can help create vehicle for collaboration, raising awareness of cancer control, advocating or engaging the relevant communities- government or non government, civil society, control group, congress has provided the platform for knowledge exchange for cancer control. Almost 70-90% of respondents agree and strongly agree with their ability to address these issues indicating that they were decision makers in their country or organization. 54% of respondents disagreed and strongly disagreed that they have little say in government or organization policies/activities

Kendall's W Test

Ranks

	Mean Rank
--	-----------

Change minds	4.13
Little say	2.16
Sharing best practices	5.07
CC policy development	4.68
Create Collaboration	4.88
Raise awareness	4.83
Advocating actively	4.51
KT platform	5.73

Test Statistics

N	103
Kendall's W(a)	.278
Chi-Square	200.486
df	7
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

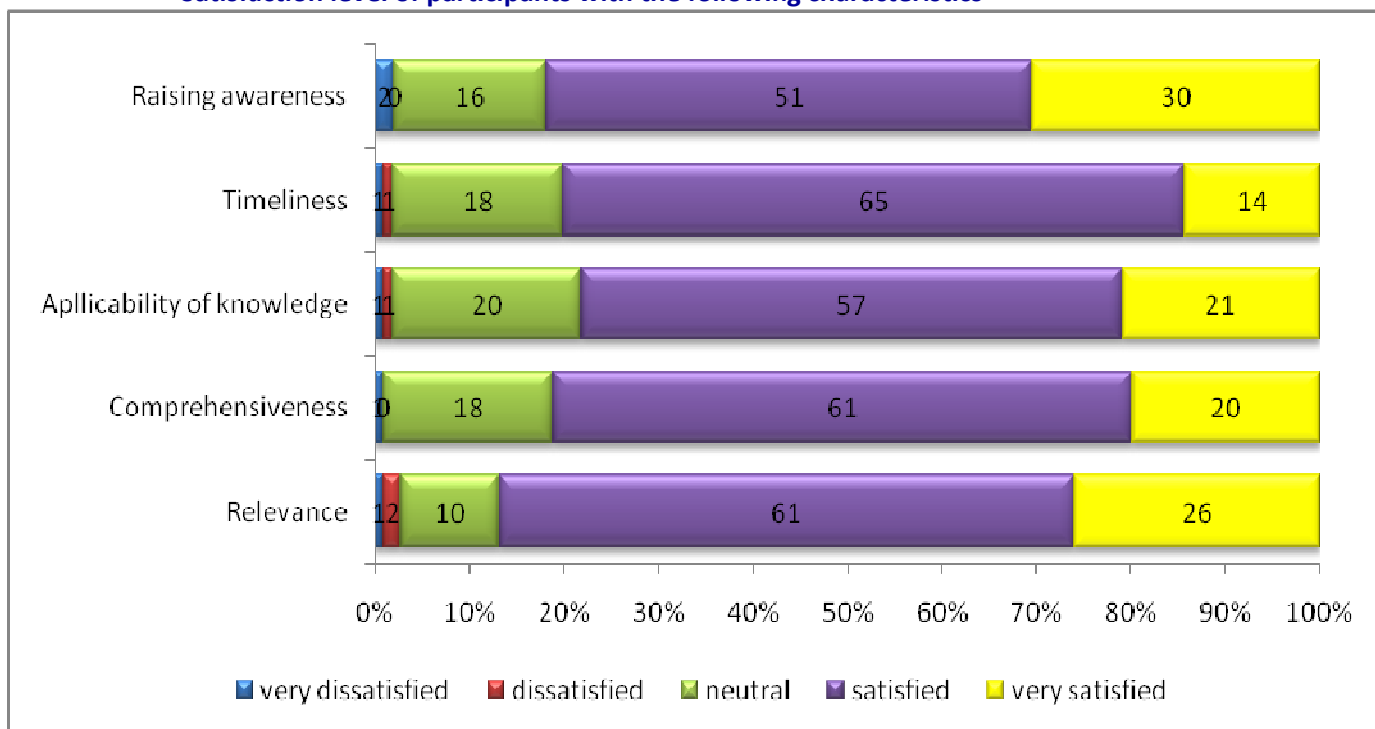
Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .278, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable (KT platform) has received most favorable ratings and which need improvement (little say). Therefore, there is need to get more decision makers and policy makers to the next Congress.

18. Level of Satisfaction with ICCC on Five Identified Characteristics

	Relevance	Comprehensiveness	Applicability knowledge	Timeliness	Raising awareness
very dissatisfied	1	1	1	1	2
dissatisfied	2	0	1	1	0
neutral	10	18	20	18	16
satisfied	61	61	57	65	51
very satisfied	26	20	21	14	30

Satisfaction level of participants with the following characteristics



With the above listed five categories associated with effective conferences, respondents were asked to rate their overall satisfaction level with regards to ICCC. 51% to 65% participants were 'satisfied' and 14% to 30% were 'very satisfied' with ICCC in terms of -relevance of conference, timeliness, applicability of knowledge, comprehensiveness and raising awareness.

Kendall's W Test

Ranks

	Mean Rank
Relevance	3.14
Comprehensiveness	2.94
Applicability of knowledge	2.88
Timeliness	2.80
Raising awareness	3.25

Test Statistics

N	104
Kendall's W(a)	.031

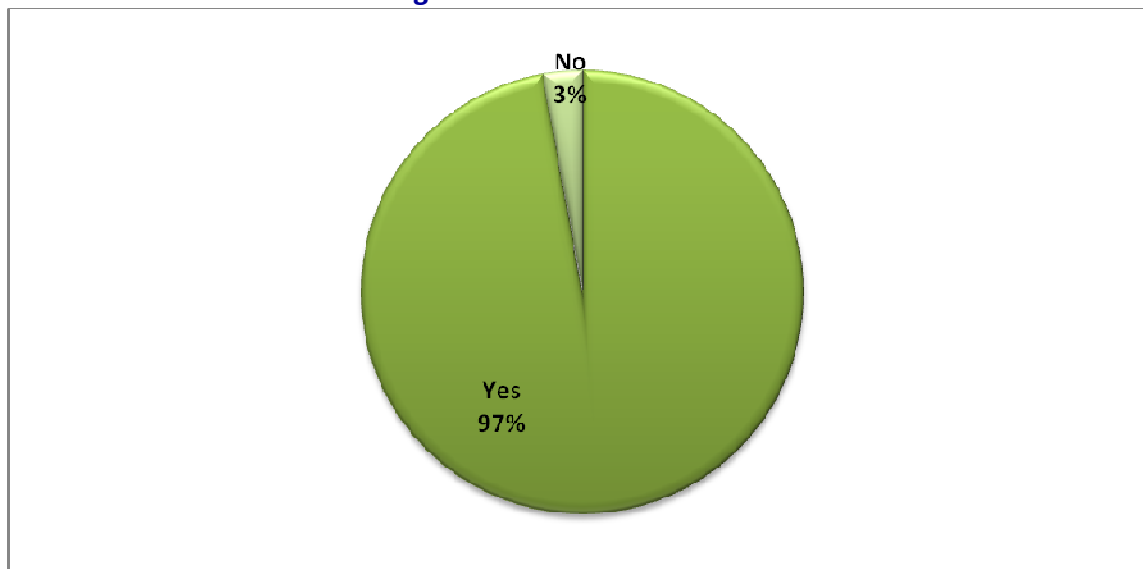
Chi-Square	12.850
df	4
Asymp. Sig.	.012

a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .031, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings (raising awareness) and which needs improvement.

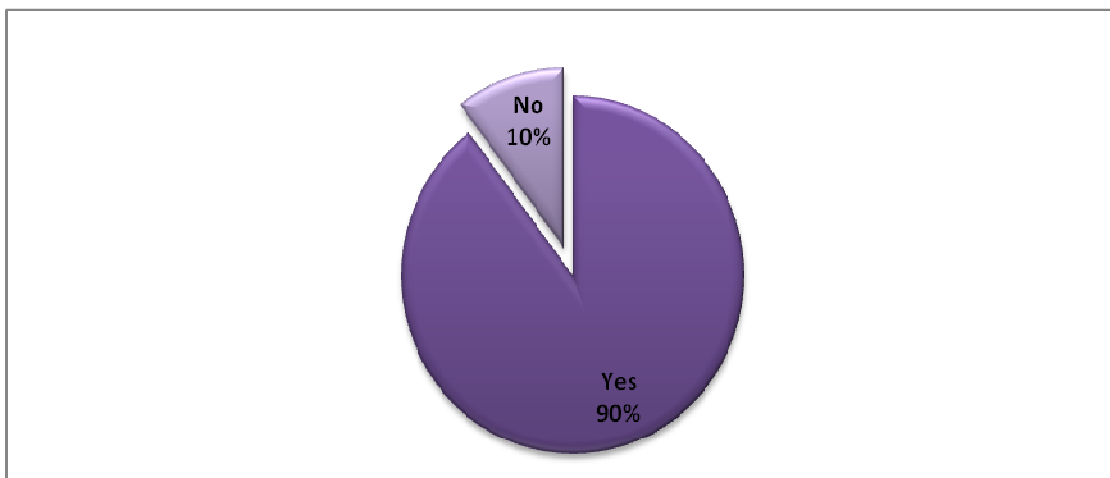
19. Recommend ICCC to colleagues



No. of valid response 106

Nearly 97% of respondents stated that they would like to recommend the International Cancer Control Congress(es) to their colleagues.

20. Attend ICCC5



No. of valid response 106

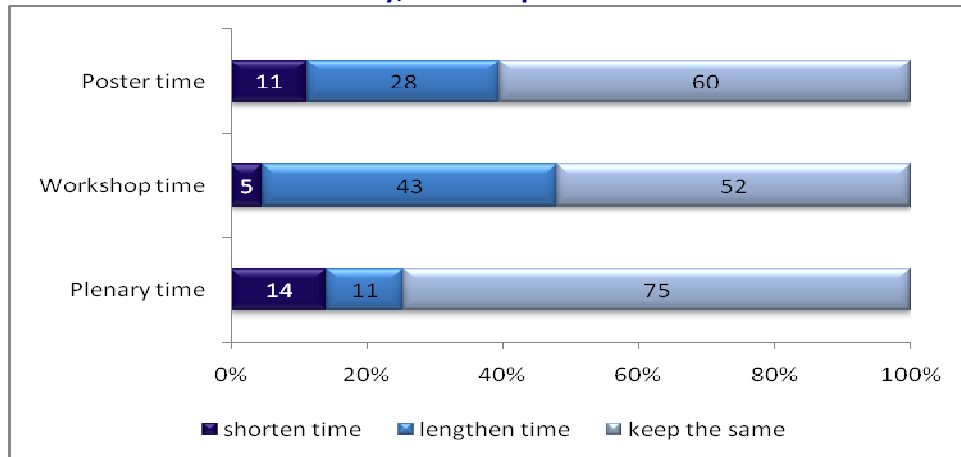
Majority of the respondents (90%) stated that based on their experience at ICCCs they would like to attend the 5th International Cancer Control Conference.

2.5 Planning of 5th ICCC

21. Length of time for sessions

	Plenary time	Workshop time	Poster time
shorten time	14	5	11
lengthen time	11	43	28
keep the same	75	52	60

Time for Plenary, Workshop and Poster sessions



Respondents were asked to recommend the duration of time for plenary session, workshop and poster sessions using 4th ICCC as a reference point for planning the next congress. For plenary sessions, three fourth of the respondents recommended to keep the same time, 11% suggested to increase the time and 14% were of the opinion to shorten the time. For workshops, 52% of respondents recommended to keep the same time, 43% suggested to increase the time and 5% stated to shorten the time. Regarding poster sessions, 60% respondents were of the opinion to keep the same time, 28% suggested to lengthen the time and 14% reported to shorten the time.

Kendall's W Test

Ranks	
	Mean Rank
Plenary time	2.13
Workshop time	1.92
Poster time	1.94

N	106
Kendall's W(a)	.026
Chi-Square	5.431
df	2
Asymp. Sig.	.066

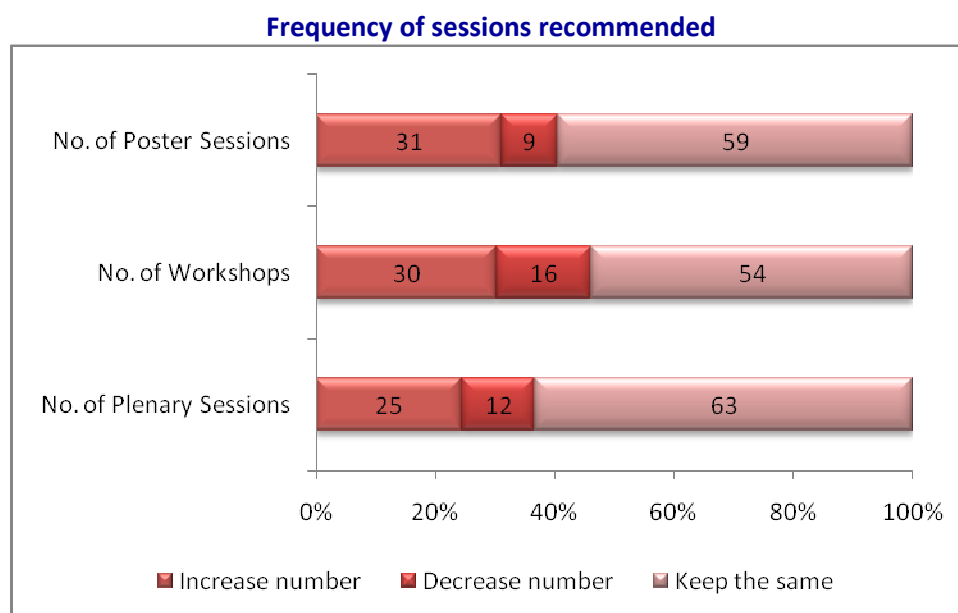
a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .026, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings (plenary time) and which needs improvement (workshop time).

22. Frequency of Plenary, Workshop and Poster sessions

	No. of Plenary	No. of Workshop	No. of Poster
Increase number	25	30	31
Decrease number	12	16	9
Keep the same	63	54	59



To plan the 5th ICCC, respondents were asked to suggest the number of plenary, workshop and poster sessions required. More than half of the participants recommended keeping the same number of session's i.e. at par with 4th ICCC. While, one fourth of the

respondents stated that number of sessions should be increased in 5th ICCC and remaining respondents reported to decrease the number.

Kendall's W Test

Ranks

	Mean Rank
Plenary#	2.06
Workshop#	1.93
Poster#	2.00

Test Statistics

N	106
Kendall's W(a)	.008
Chi-Square	1.591
df	2
Asymp. Sig.	.451

a. Kendall's Coefficient of Concordance

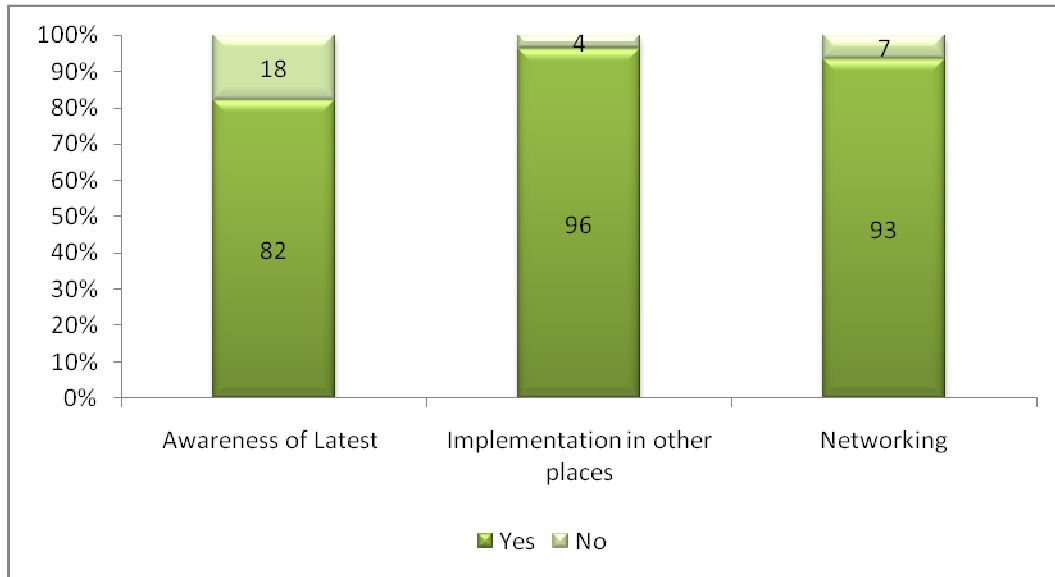
Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .008, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings (plenary sessions) and which needs improvement (workshops).

23. Reasons for Participation

	Aware of Latest	Implementation in other places	Networking
Yes	82	96	93
No	18	4	7

Reasons for Participation in ICCC



More than 80% of participants stated that their reasons for attending ICCC was that, they wanted to be aware of the current state-of-the-art clinical and scientific content, how this current state of knowledge was being implemented in various resource settings and to network between developed and developing world settings.

Kendall's W Test

Ranks

	Mean Rank
Aware of latest	2.13
Implementation in other places	1.91
Network	1.96

Test Statistics

N	105
Kendall's W(a)	.090
Chi-Square	18.900
df	2
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .090, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

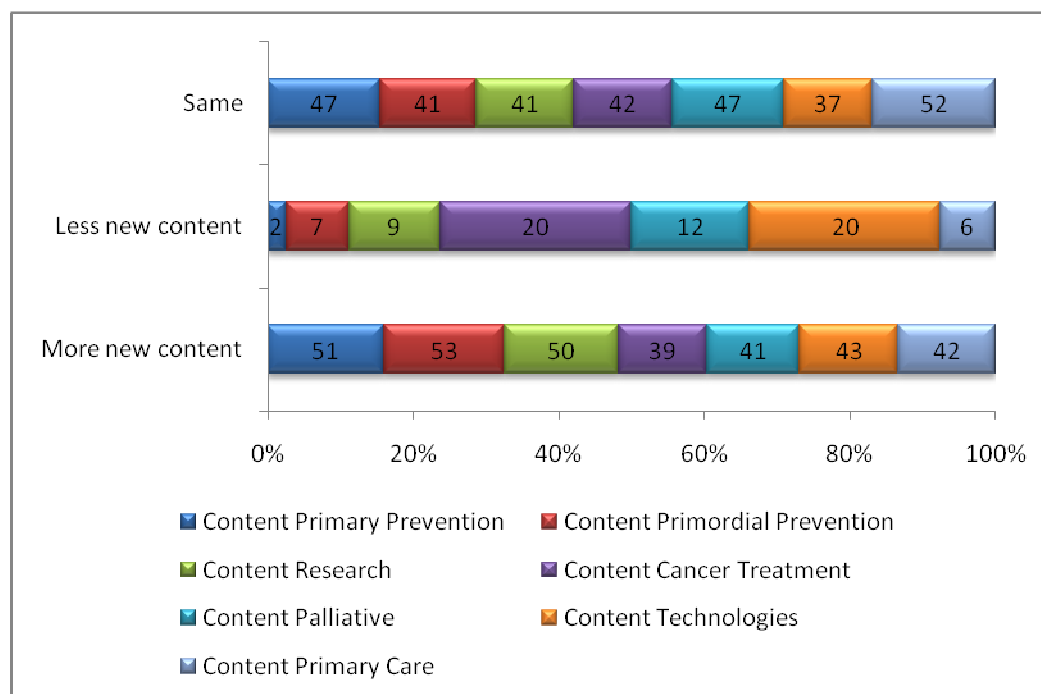
The ranks given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings (aware of latest) and which needs improvement.

24. Kind of sessions that would be useful at ICC5

24.1 Content of sessions

	Content Primary Prevention	Content Primordial Prevention	Content Research	Content Cancer Treatment	Content Palliative	Content Technologies	Content Primary Care
More new content	51	53	50	39	41	43	42
Less new content	2	7	9	20	12	20	6
Same	47	41	41	42	47	37	52

Content of sessions useful at ICC5



Respondents were asked to give their opinion about content of the sessions for the next ICCC. More than 40% of the respondents expressed need for more new content in all fields - primary prevention, primordial prevention, research, palliative, treatment, primary care

Kendall's W Test

Ranks

	Mean Rank
Content Primary Prevention	3.92
Content Primordial Prevention	3.75
Content Research	3.85
Content Cancer Treatment	4.14
Content Palliative	4.17
Content Technologies	3.94
Content Primary Care	4.23

Test Statistics

N	106
Kendall's W(a)	.012
Chi-Square	7.823
df	6
Asymp. Sig.	.251

a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .012, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

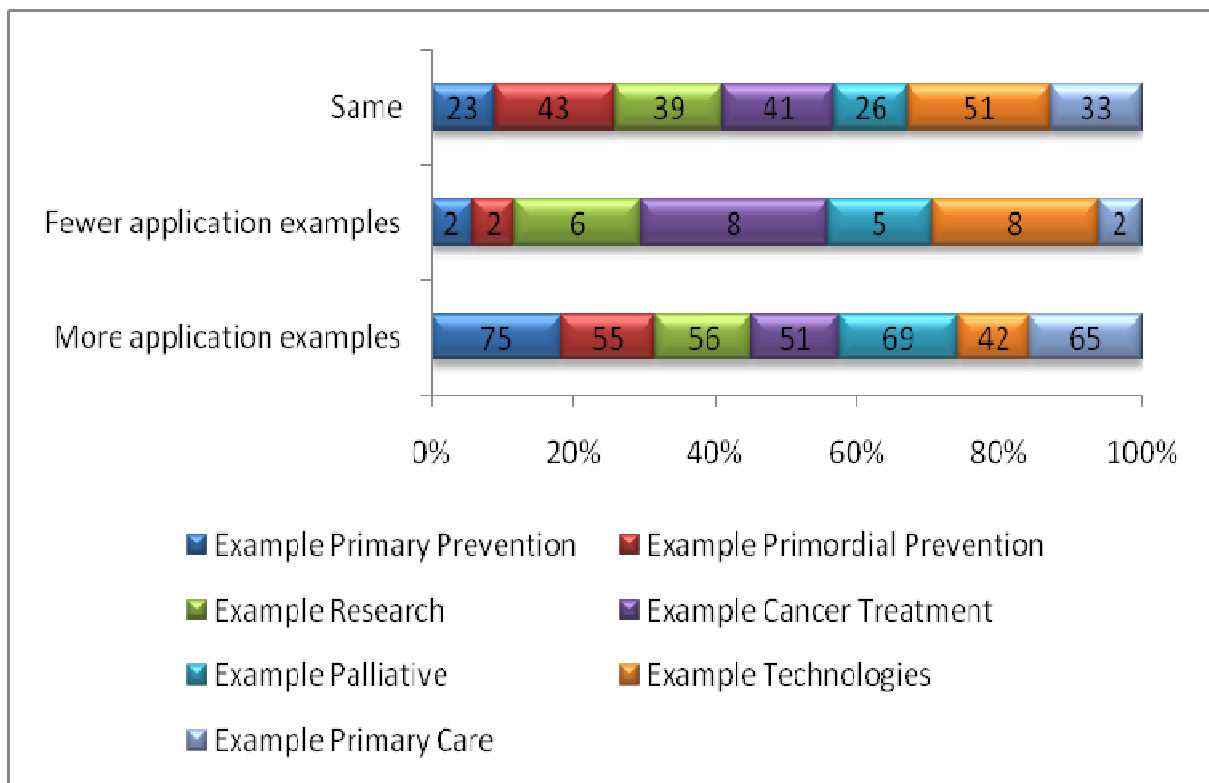
The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify

which variable has received most favorable ratings (primary care) and which needs improvement (primordial prevention).

24.2 Application examples in sessions

	Example Primary Prevention	Example Primordial Prevention	Example Research	Example Cancer Treatment	Example Palliative	Example Technologies	Example Primary Care
More application examples	75	55	56	51	69	42	65
Fewer application examples	2	2	6	8	5	8	2
Same	23	43	39	41	26	51	33

Application examples of sessions useful at ICC5



More than half of the respondents stated that more application examples would be useful in all the fields such as primary prevention, treatment, research, primordial prevention, palliative, primary care and technologies in the next ICCC.

Kendall's W Test

Ranks

	Mean Rank
Examples Primary Prevention	3.40
Examples Primordial Prevention	4.16
Examples Research	4.12
Examples Cancer Treatment	4.28
Examples Palliative	3.63
Examples Technologies	4.62
Examples Primary Care	3.80

Test Statistics

N	106
Kendall's W(a)	.075
Chi-Square	47.472
df	6
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .075, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

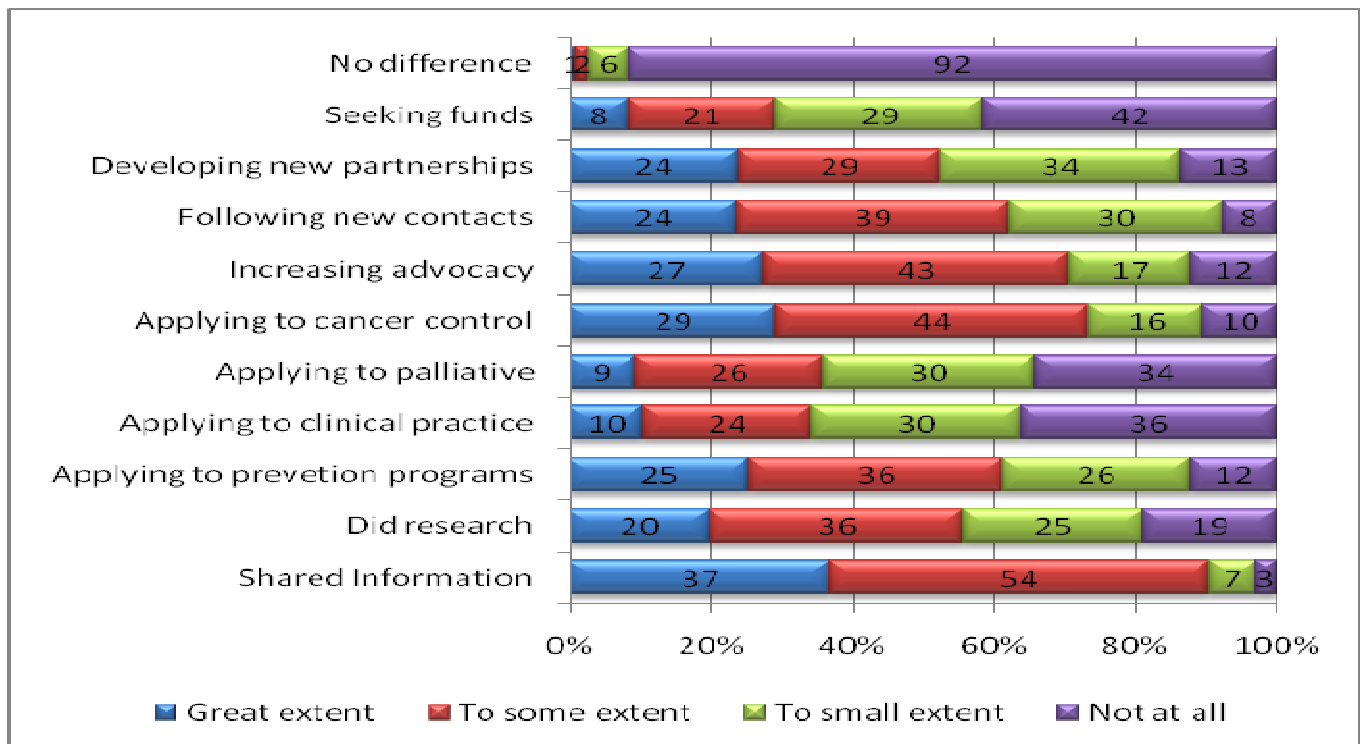
The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable received most favorable ratings (technologies) & which needs improvement (primary prevention).

2.5 Congress Impact

25. Utilization of Gains from ICC4

	Great extent	To some extent	To small extent	Not at all
Shared Information	37	54	7	3
Did research	20	36	25	19
Applying to prevention programs	25	36	26	12
Applying to clinical practice	10	24	30	36
Applying to palliative	9	26	30	34
Applying to cancer control	29	44	16	10
Increasing advocacy	27	43	17	12
Following new contacts	24	39	30	8
Developing new partnerships	24	29	34	13
Seeking funds	8	21	29	42
I haven't done anything different	1	2	6	92

Use of information gained from ICC4



92% of the respondents said definitely they had done something different with the information gained at the Congress. More than 50% of respondents stated that they have used the knowledge gained from 4th ICC4 to some or small extent in the parameters

mentioned in the above graph. Nearly one fourth of the respondents had used the information to a 'great extent' in applying new insights to cancer control planning, sharing new information, following new contacts, applying new insights to prevention programs, increasing advocacy & developing new partnerships.

Kendall's W Test

Ranks

	Mean Rank
Shared Information	3.60
Did research	5.91
Applying to prevention programs	5.11
Applying to clinical practice	7.14
Applying to palliative	7.09
Applying to cancer control	4.47
Increasing advocacy	4.80
Following new contacts	5.08
Developing new partnerships	5.48
Seeking funds	7.63
No difference	9.68

Test Statistics

N	104
Kendall's W(a)	.350
Chi-Square	363.533
df	10
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

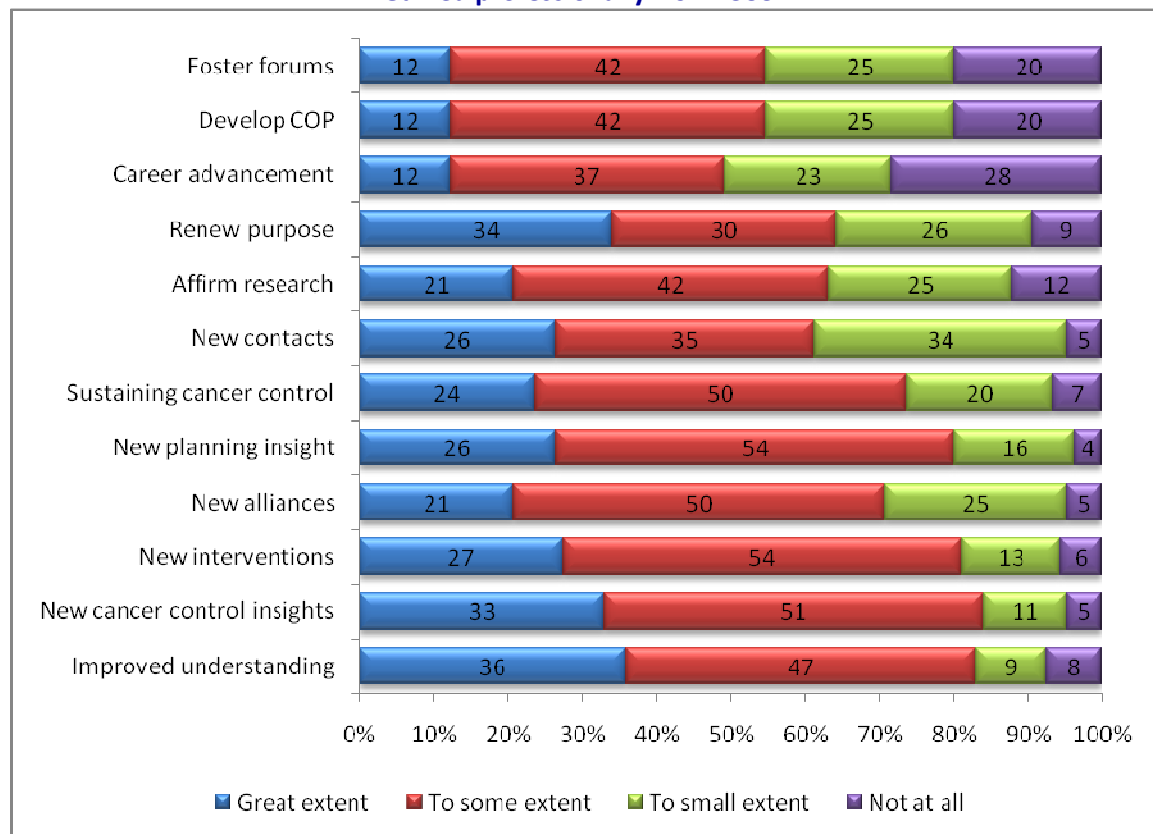
Kendall's W is a non-parametric test used to measure agreement among ratings. The value here is .35, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The ranks given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings and which needs improvement.

26. Professional Gains by attending ICCC4

	Great extent	To some extent	To small extent	Not at all
Improved understanding	36	47	9	8
New cancer control insight	33	51	11	5
New interventions	27	54	13	6
New alliances	21	50	25	5
New planning insight	26	54	16	4
Sustaining cancer control	24	50	20	7
New contacts	26	35	34	5
Affirm research	21	42	25	12
Renew purpose	34	30	26	9
Career advancement	12	37	23	28
Develop COP	12	42	25	20
Foster forums	12	42	25	20

Gained professionally from ICCC4



More than 50% of the respondents stated that they have gained professionally from the 4th ICCC to a great and to some extent in various ways listed in the graph. More than one third of the participants said they gained to a great extent in ‘improving understanding of

population based cancer control programs globally’ and ‘getting new insights into cancer control strategies’.

Kendall's W Test
Ranks

	Mean Rank
Improved understanding	5.17
New cancer control insights	5.16
New interventions	5.64
New alliances	6.33
New planning insight	5.67
Sustaining cancer control	6.22
New contacts	6.37
Affirm research	6.94
Renew purpose	6.27
Career advancement	8.38
Develop COP	8.07
Foster forums	7.77

Test Statistics

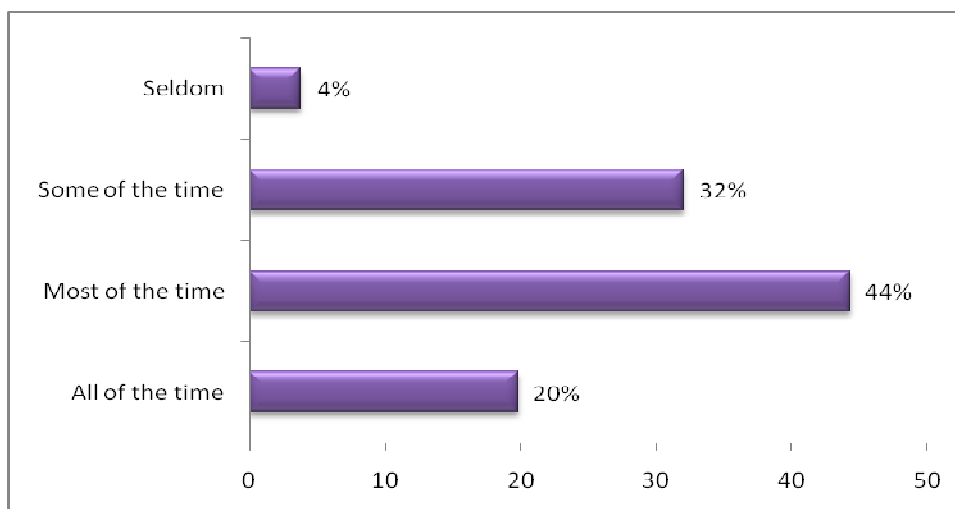
N	106
Kendall's W(a)	.136
Chi-Square	158.434
df	11
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Kendall’s W is a non-parametric test used to measure agreement among ratings. The value here is .136, shows that there is a mild level of concordance between the responses to the variables, but not much. This implies that responses are not following any trend and the responses for each of the variables are independent.

The rank given are a statistical measure to determine the degree of associations among the several sets of ranking of several object or individual. From this one can identify which variable has received most favorable ratings and which needs improvement.

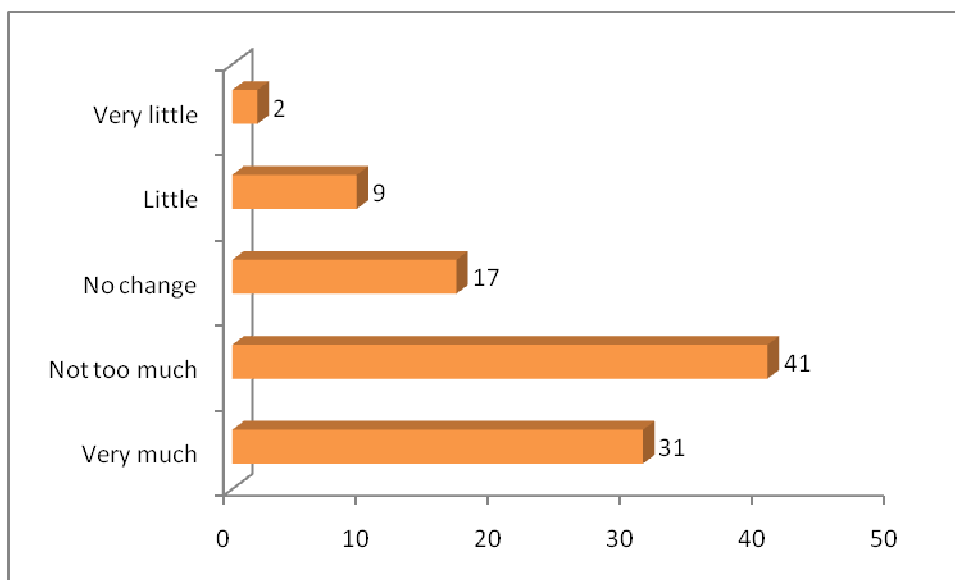
27. ICCCs demonstrated collaboration



No. of valid response 106

Respondents were asked to what extent have the ICCCs demonstrated “collaboration” to enhance global cancer control. 44% of the respondents stated ‘most of the time’ and 20% said ‘all of the time’.

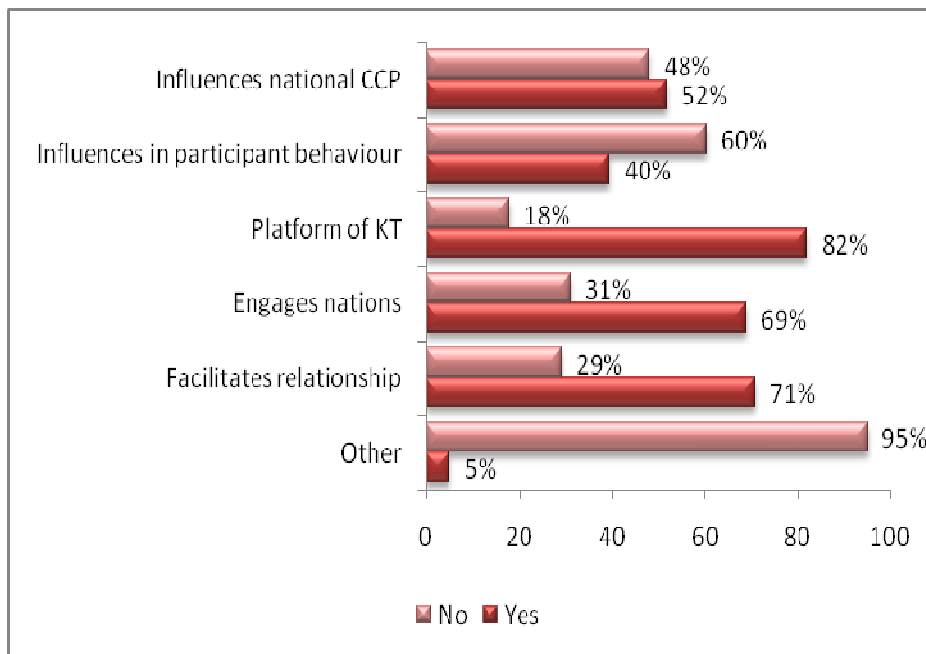
28. Increase in collaboration after ICC4



No. of valid response 106

Nearly 31% of participants stated that their collaboration/network in cancer control has increased ‘very much’ after attending ICC4 and 41% participants said ‘not too much’ change in collaboration/network.

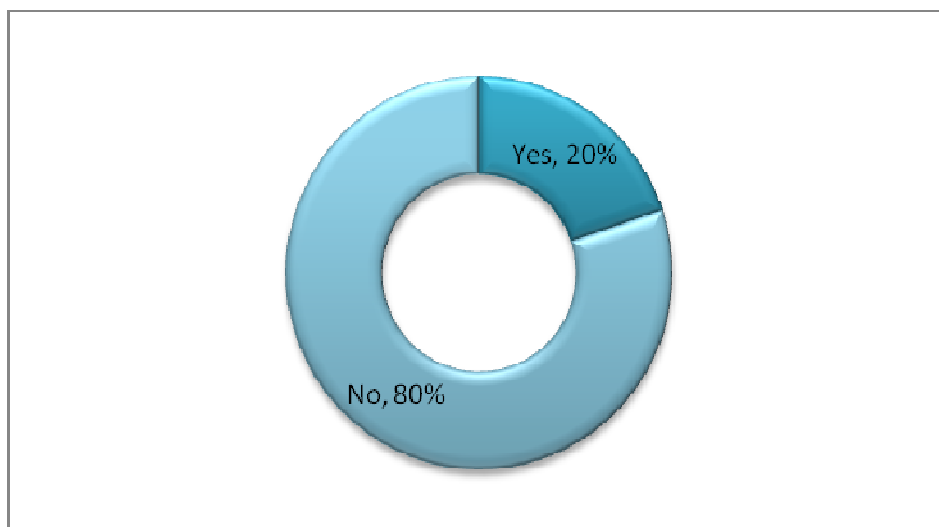
29. Best describes the value of ICCCs



No. of valid response 106

Categories most frequently chosen by respondents to describe the value of ICCCs were knowledge transfer, facilitates relationship, engages nations, influences participant behaviour and population based cc programs. Specifically, 82% of respondents chose 'platform for knowledge transfer –research to policy to practice', 71% chose 'facilitates relationship building' 69% conveyed that it 'engages nations, organizations, people', 60% chose 'influences changes in participation behaviour' and 52% respondents also conveyed 'influences changes in national population based cancer control programs'.

30. Any comments



No. of valid response 106

20% respondents had additional comments on the conference while 80% had no additional comments.

3. Bivariate Analysis (Cross-Tabs)

Many questions are interconnected with other questions in the present study therefore to obtain more meaningful results from data chi square test was applied using cross tabs. The Crosstabs procedure forms two-way tables and provides a variety of tests and measures of association for two-way tables. In this section Pearson chi-square test was used to see the statistical significance. Inputs can be associated with various outputs, for example to assess the effect of ICCCs with demographic variables or whether different groups receive the congress differently. This section of the report presents the crosstab analysis and testing of major hypothesis formulated on the data.

The significance value for all the tests was taken as 0.05 (95% confidence level), unless mentioned otherwise. This value was compared against the p-values.

A cross tabulation was done to compare two questions with each other and Pearson Chi square test was run to test the significance of hypothesis.

The two types of Hypothesis namely:

Null Hypothesis	Ho: There exists no significant relationship
Alternative Hypothesis	H _A : There exists a significant relationship

We have focused on important variables that bring out the overall usefulness/ value added to the conference. Chi square tests were used. The test results that were found to be significant are given below. The null hypotheses are rejected for these cases.

The usefulness/impact of ICCC on participants influencing development/ implementation of national cancer control plans is contained in the results of Hypothesis 1,2,3,4,5,6 and 7. ICCC impacts changes in participant's activities and behavior has been tested and its results are given in Hypothesis 8,9,10,11,12,13 and 14; while, results about whether ICCC influences changes in collaborations/partnerships/networks are provided in Hypothesis 15,16,17,18,19, 20 and 21.

To know if the congress was received differently by participants from high, middle and low income countries have tested it and results are given in hypothesis 22, 23 and 24.

Hypothesis 1: Q18.1 Relevance * Q16 Helpfulness of ICCC

Participant satisfaction with relevance of the conference has been cross tabulated with helpfulness of ICCC in assisting participants with their cancer control/NCD work.

Ho: There exists no significant relationship between participant satisfaction with relevance of the conference and helpfulness of the International Cancer Control conference in assisting them with cc work

H_A: There exists a significant relationship between participant satisfaction with relevance of the conference and helpfulness of the International Cancer Control conference in assisting them with cc work

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Relevance * Helpfulness of ICCC Cross tabulation

Count		Helpfulness of ICCC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Relevance	very dissatisfied	0	1	0	0	1
	dissatisfied	0	1	0	1	2
	neutral	2	8	1	0	11
	satisfied	19	41	2	2	64
	very satisfied	19	8	0	0	27
Total		40	59	3	3	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.901(a)	12	.000
Likelihood Ratio	25.200	12	.014
Linear-by-Linear Association	15.651	1	.000
N of Valid Cases	105		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .03.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.0 indicates that there exists a significant relationship between participant satisfaction with the relevance of the conference and helpfulness of the conference in assisting them with cancer control/NCD work.

Hypothesis 2: Q18.3 Applicability of knowledge * Q16 Helpfulness of ICCC

The applicability of knowledge gained as per participant's context from the conference has been cross tabulated with helpfulness of ICCC in assisting participants with their cancer control/NCD work.

Ho: There exists no significant relationship between the applicability of knowledge gained in conference and helpfulness of ICCC in assisting with cc work

H_A: There exists a significant relationship between the applicability of knowledge gained in conference and helpfulness of ICCC in assisting with cc work

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Applicability of knowledge * Helpfulness of ICCC Cross tabulation

Count

		Helpfulness of ICCC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Applicability of knowledge	very dissatisfied	0	1	0	0	1
	dissatisfied	0	0	0	1	1
	Neutral	0	18	2	1	21
	Satisfied	24	34	1	1	60
	very satisfied	16	6	0	0	22
Total		40	59	3	3	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	61.683(a)	12	.000
Likelihood Ratio	42.080	12	.000
Linear-by-Linear Association	25.755	1	.000
N of Valid Cases	105		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .03.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. A significance value of 0.0 shows that there exists a significant relationship between the applicability of knowledge gained in the conference and helpfulness of the International Cancer Control conference in assisting participants with their cancer control/NCD work.

Hypothesis 3: Q18.3 Applicability of knowledge * Q 25.6 Applying to cancer control planning

The applicability of knowledge gained as per participant's context from the conference has been cross tabulated with application of new insights to cancer control planning skills gained at ICC4.

Ho: There exists no significant relationship between the applicability of knowledge gained in the conference and applying new insights to cancer control planning

H_A: There exists significant relationship between the applicability of knowledge gained in the conference and applying new insights to cancer control planning.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Applicability of knowledge * Applying to cancer control Cross tabulation

Count		Applying to cancer control				Total
		great extent	to some extent	a small extent	not at all	
Applicability of knowledge	very dissatisfied	1	0	0	0	1
	dissatisfied	0	0	0	1	1
	neutral	1	12	5	3	21
	satisfied	16	27	11	6	60
	very satisfied	12	8	1	1	22
Total		30	47	17	11	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.358(a)	12	.013
Likelihood Ratio	23.251	12	.026
Linear-by-Linear Association	7.975	1	.005
N of Valid Cases	105		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .10.

The significance value in the above table of Chi Square is < 0.05 , therefore the null hypothesis is rejected. A significance value of 0.013 shows that there exists a significant relationship between the applicability of knowledge gained in the conference and applying new insights to cancer control planning.

Hypothesis 4: Q23.2 Implementation in other places * Q16 Helpfulness of ICCC

The implementation of current state of knowledge in various resource settings has been cross tabulated with helpfulness of the ICCC in assisting participants with their cancer control/NCD work.

Ho: There exists no significant relationship between how the current state of knowledge is being implemented in various resource settings and the helpfulness of ICCC in assisting with cc work

H_A: There exists a significant relationship between how the current state of knowledge is being implemented in various resource settings and the helpfulness of ICCC in assisting with cc work

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Implementation in other places * Helpfulness of ICCC Cross tabulation

Count						
		Helpfulness of ICCC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Implementat ion in other places	yes	41	58	3	0	102
	no	0	1	0	3	4
Total		41	59	3	3	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.928(a)	3	.000
Likelihood Ratio	23.926	3	.000

Linear-by-Linear Association	30.581	1	.000
N of Valid Cases	106		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.0 shows that there exists a significant relationship between how the current state of knowledge is being implemented in various resource settings and the helpfulness of ICCC in assisting participants with their cancer control/NCD work.

Hypothesis 5: Q23.3 Network * Q25.6 Applying to cancer control

The desire to network between developed and developing world settings by participants has been cross tabulated with applying new insights to cancer control planning gained at the 4th ICCC.

H₀: There exists no significant relationship between desire to network between developed and developing world and applying new insights to cancer control planning.

H_A : There exists a significant relationship between desire to network between developed and developing world and applying new insights to cancer control planning.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Network * Applying to cancer control Cross tabulation

Count

	Applying to cancer control				Total
	great extent	to some extent	a small extent	not at all	
Network yes	30	45	15	8	98
no	1	1	2	3	7
Total	31	46	17	11	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.299(a)	3	.016
Likelihood Ratio	7.758	3	.051
Linear-by-Linear Association	7.284	1	.007
N of Valid Cases	105		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .73.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.016 shows that there exists a significant relationship between the desire to network between developed and developing world settings by participants and applying new insights to cancer control planning gained at ICC4.

Hypothesis 6: Q30.4 Influences participant behavior * Q16 Helpfulness of ICC

ICC influences changes in participant behavior has been cross tabulated with helpfulness of ICC in assisting participants with their cancer control/NCD work.

H₀: There exists no significant relationship between ICC influences changes in participant behavior and helpfulness of ICC in assisting with cc work

H_A: There exists significant relationship between ICC influences changes in participant behavior and helpfulness of ICC in assisting with cc work

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Influences in participant behaviour * Helpfulness of ICC Crosstabulation

Count

		Helpfulness of ICC				Total
		very helpful	somewhat helpful	not too helpful	not at all helpful	
Influences in participant behaviour	yes	24	17	1	0	42
	no	17	42	2	3	64
Total		41	59	3	3	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.031(a)	3	.012
Likelihood Ratio	12.036	3	.007
Linear-by-Linear Association	9.518	1	.002
N of Valid Cases	106		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.19.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.012 shows that there exists a significant relationship between ICCC influences changes in participant behavior and the helpfulness of the International Cancer Control conference in assisting participants with their cancer control/NCD work.

Hypothesis 7: Q23.2 Implementation in other places * Q 25.6 Applying to cancer control

The implementation of the current state of knowledge in various resource settings has been cross tabulated with applying new insights to cancer control planning gained at the 4th ICCC.

Ho: There exists no significant relationship between how the current state of knowledge is being implemented in various resource settings and applying new insights to cancer control planning.

H_A: There exists a significant relationship between how the current state of knowledge is being implemented in various resource settings and applying new insights to cancer control planning.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Implementation in other places * Applying to cancer control Cross tabulation

Count

	Applying to cancer control				Total
	great extent	to some extent	a small extent	not at all	
Implementation in other places yes	31	46	16	9	102
no	0	1	1	2	4
Total	31	47	17	11	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.063(a)	3	.045
Likelihood Ratio	6.348	3	.096
Linear-by-Linear Association	6.588	1	.010
N of Valid Cases	106		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .42.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.045 shows that there exists a significant relationship between how the current state of knowledge is being implemented and applying new insights to cancer control planning gained at the 4th ICC4.

Hypothesis 8: Q13 Rate ICC4 * Q15 Influenced by ICC4

Participant's rating value of attending ICC4 in comparison to attending other global congresses has been cross tabulated with the extent to which the participant's current level of interest and involvement has been influenced by attending ICC4.

Ho: There exists no significant relationship between rated value of attending ICC4 and current level of interest & involvement being influenced by attending ICC4.

H_A: There exists a significant relationship between rated value of attending ICC4 and current level of interest & involvement being influenced by attending ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Rate ICCC * Influenced by ICC Cross tabulation

Count

		Influenced by ICC			Total
		to a great extent	to some extent	not at all	
Rate ICCC	Much better than most congresses	26	22	1	49
	About the same as most congresses	6	36	6	48
	Much worse than most congresses	1	1	0	2
Total		33	59	7	99

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.752(a)	4	.001
Likelihood Ratio	21.308	4	.000
Linear-by-Linear Association	13.993	1	.000
N of Valid Cases	99		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .14.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.001 shows that there exists a significant relationship between participant's rating the value of attending ICC in comparison to attending other global congresses and the extent to which the participant's current level of interest & involvement has been influenced by attending ICC4.

Hypothesis 9: Q18.1 Relevance * Q17.3 Sharing best practices

Participant satisfaction with relevance of the conference has been cross tabulated with participant's sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation.

Ho: There exists no significant relationship between participant satisfaction with relevance of the conference and participant's sharing best practices and promoting evidence to develop cancer control plans.

H_A: There exists a significant relationship between participant satisfaction with relevance of the conference and participant's sharing best practices and promoting evidence to develop cancer control plans.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Relevance * Sharing best practices Cross tabulation

Count

		Sharing best practices					Total
		strongly disagree	disagree	no opinion	agree	strongly agree	
Relevance	very dissatisfied	0	0	0	1	0	1
	dissatisfied	0	1	0	1	0	2
	neutral	0	0	5	6	0	11
	satisfied	2	1	11	32	18	64
	very satisfied	0	1	2	10	14	27
Total		2	3	18	50	32	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.606(a)	16	.004
Likelihood Ratio	26.766	16	.044
Linear-by-Linear Association	8.503	1	.004
N of Valid Cases	105		

a. 19 cells (76.0%) have expected count less than 5. The minimum expected count is .02.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.004 shows that there exists a significant relationship between participant satisfaction with the relevance of the conference and participant's sharing best practices & promoting evidence to develop cancer control plans

Hypothesis 10: Q18.2 Comprehensiveness * Q17.4 CC policy development

Participant's satisfaction with comprehensiveness of the conference has been cross tabulated with participant's contribution to the development of national policies regarding cancer control

Ho: There exists no significant relationship between participant's satisfaction with comprehensiveness of the conference and participant contribution to the development of national policies regarding cancer control.

H_A: There exists a significant relationship between participant's satisfaction with comprehensiveness of the conference and participant's contribution to the development of national policies regarding cancer control.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Comprehensiveness * CC policy development Cross tabulation

		CC policy development					Total
		strongly disagree	disagree	no opinion	agree	strongly agree	
Comprehensiveness	very dissatisfied	0	1	0	0	0	1
	neutral	0	1	4	12	2	19
	satisfied	0	3	11	40	10	64
	very satisfied	1	0	2	9	9	21
Total		1	5	17	61	21	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
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Pearson Chi-Square	33.982(a)	12	.001
Likelihood Ratio	19.297	12	.082
Linear-by-Linear Association	6.206	1	.013
N of Valid Cases	105		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .01.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.001 shows that there exists a significant relationship between participant's satisfaction with comprehensiveness of the conference and participant's contribution to the development of national policies regarding cancer control.

Hypothesis 11: Q18.3 Applicability of knowledge * Q15 Influenced by ICC4

The applicability of knowledge gained as per participant's context from the conference has been cross tabulated with the extent to which the participant's current level of interest & involvement has been influenced by attending ICC4.

Ho: There exists no significant relationship between rating the applicability of knowledge gained from the conference and the extent to which the participant's current level of interest & involvement has been influenced by attending ICC4.

H_A: There exists a significant relationship between rating the applicability of knowledge gained from the conference and the extent to which the participant's current level of interest & involvement has been influenced by attending ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Applicability of knowledge * Influenced by ICC4 Cross tabulation

Count

	Influenced by ICC4	Total
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		to a great extent	to some extent	not at all	
Applcability of knowledge	very dissatisfied	0	1	0	1
	neutral	3	16	2	21
	satisfied	14	40	5	59
	very satisfied	16	5	1	22
Total		33	62	8	103

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.372(a)	6	.001
Likelihood Ratio	21.926	6	.001
Linear-by-Linear Association	11.791	1	.001
N of Valid Cases	103		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .08.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.001 shows that, there exists a significant relationship between the applicability of knowledge gained from the conference and the extent to which the participant's current level of interest and involvement has been influenced by attending ICC4.

Hypothesis 12: Q20 Attend ICC5 * Q14 Interest Level

Participants desire to attend ICC5 based on the experience of other ICCs has been cross tabulated with participant's changed interest and involvement in cancer control after ICC4.

Ho: There exists no significant relationship between participant's desire to attend ICC5 and participant's changed interest and involvement in cancer control after ICC4.

H_A: There exists a significant relationship between participant's desire to attend ICC5 and participant's changed interest and involvement in cancer control after ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Attend ICC5 * Interest Level Cross tabulation

Count

		Interest Level			Total
		less than before	not at all	more than before	
Attend ICC5	yes	0	24	70	94
	no	1	3	7	11
Total		1	27	77	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.715(a)	2	.013
Likelihood Ratio	4.688	2	.096
Linear-by-Linear Association	1.768	1	.184
N of Valid Cases	105		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .10.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.013 shows that there exists a significant relationship between participant's desire to attend ICC5 and participant's changed interest and involvement in cancer control after ICC4.

Hypothesis 13: Q23.1 Aware of latest * Q 17.6 Raise awareness

Participant's awareness of the current state of art clinical and scientific content at the Congress has been cross tabulated with participants contributing to and creating a vehicle for raising awareness of cancer control in their country

Ho: There exists no significant relationship between participant's awareness of the latest state-of-art in clinical and scientific content and participant's contributing to and raising awareness of cancer control in their country

H_A: There exists a significant relationship between participant's awareness of the latest state-of-art in clinical and scientific content and participant's contributing to and raising awareness of cancer control in their country

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Aware of latest * Raise awareness Cross tabulation

Count

	Raise awareness					Total
	strongly disagree	diagree	no opinion	agree	strongly agree	
Aware of latest yes	1	3	6	54	22	86
no	1	1	7	8	2	19
Total	2	4	13	62	24	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.384(a)	4	.004
Likelihood Ratio	12.628	4	.013
Linear-by-Linear Association	8.429	1	.004
N of Valid Cases	105		

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is .36.

The significance value in the above table of Chi Square is < 0.05, therefore the null hypothesis is rejected. A significance value of 0.004 shows that, there exists a significant relationship between participant's awareness of the latest state-of-art in clinical and scientific content and participant's contributing to and raising awareness of cancer control in their country

Hypothesis 14: Q30.1 Engages nations * Q14 Interest Level

One value of the ICC4 to participant's - engages nations, organizations and people has been cross tabulated with participant's changed interest level and involvement in cancer control after ICC4.

H₀: There exists no significant relationship between participant's value of ICC4 that it engages nations, organizations and people and participant's changed interest level and involvement in cancer control after ICC4

H_A: There exists a significant relationship between participant's value of ICC4 that it engages nations, organizations and people and participant's changed interest level and involvement in cancer control after ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Engages nations * Interest Level Cross tabulation

Count

	Interest Level			Total
	less than before	not at all	more than before	
Engages nations yes	0	14	59	73
no	1	13	18	32
Total	1	27	77	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.093(a)	2	.017
Likelihood Ratio	7.981	2	.018
Linear-by-Linear Association	7.720	1	.005
N of Valid Cases	105		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .30.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. Significance value of 0.017 shows that there exists a significant relationship between participant's value of ICC4 that it engages nations, organizations

and people and participant's changed interest level and involvement in cancer control after ICC4.

Hypothesis 15: Q18.1 Relevance * Q25.1 Sharing New Information

Participant satisfaction with relevance of the conference has been cross tabulated with participant's sharing new information with colleagues gained at the 4th ICC.

Ho: There exists no significant relationship between participant satisfaction with the relevance of the conference and participant's sharing new information with colleagues gained at the 4th ICC.

H_A: There exists a significant relationship between participant satisfaction with the relevance of the conference and participant's sharing new information with colleagues gained at the 4th ICC.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Relevance * Shared Information Cross tabulation

Count		Shared Information				Total
		great extent	to some extent	a small extent	not at all	
Relevance	very dissatisfied	1	0	0	0	1
	dissatisfied	0	1	0	1	2
	neutral	1	6	3	1	11
	satisfied	23	36	4	1	64
	very satisfied	14	13	0	0	27
Total		39	56	7	3	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	33.765(a)	12	.001
Likelihood Ratio	23.073	12	.027
Linear-by-Linear Association	10.462	1	.001
N of Valid Cases	105		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .03.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.001 shows that, there exists a significant relationship between participant satisfaction with the relevance of the conference and participant's sharing new information with colleagues gained at the 4th ICCC.

Hypothesis 16: Q18.1 Relevance * Q28 Demonstrated collaboration

Participant satisfaction with relevance of the conference has been cross tabulated with the extent ICCC has demonstrated collaboration to enhance global cancer control.

H₀: There exists no significant relationship between participant satisfaction with the relevance of the conference and the extent ICCC has demonstrated collaboration to enhance global cancer control at ICCCs

H_A: There exists a significant relationship between participant satisfaction with the relevance of the conference and the extent ICCC has demonstrated collaboration to enhance global cancer control at ICCCs.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Relevance * Demonstrated collaboration Cross tabulation

Count		Demonstrated collaboration				Total
		all of the time	most of the time	some of the time	seldom	
Relevance	very dissatisfied	0	0	1	0	1
	dissatisfied	0	0	1	1	2
	neutral	0	3	7	1	11
	satisfied	10	34	19	1	64
	very satisfied	11	9	6	1	27
Total		21	46	34	4	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.985(a)	12	.001
Likelihood Ratio	25.878	12	.011
Linear-by-Linear Association	14.924	1	.000
N of Valid Cases	105		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .04.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.001 shows that, there exists a significant relationship between participant satisfaction with the relevance of the conference and the extent ICCC has demonstrated collaboration to enhance global cancer control.

Hypothesis 17: Q20 Attend ICC5 * Q29 Increase in collaboration after ICC4

Participants desire to attend ICC5 based on the experience of other ICCs has been cross tabulated with increase in collaboration in cancer control after ICC4.

H₀: There exists no significant relationship between a desire to attend ICC5 and an increase in collaboration in cancer control after ICC4.

H_A: There exists a significant relationship between a desire to attend ICC5 and an increase in collaboration in cancer control after ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Attend ICC5 * Increase in collaboration after ICC Cross tabulation

Count

		Increase in collab after ICC					Total
		very much	not too much	no change	little	very little	
Attend ICC5	yes	31	41	15	8	0	95
	no	2	2	3	2	2	11
Total		33	43	18	10	2	106

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.211(a)	4	.000
Likelihood Ratio	13.163	4	.011
Linear-by-Linear Association	9.597	1	.002
N of Valid Cases	106		

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is .21.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. Significance value of 0.0 shows that, there exists a significant relationship between participant's desire to attend ICC5 and an increase in collaboration in cancer control after ICC4.

Hypothesis 18: Q23.1 Aware of latest * Q26.11 Develop COP

Participant's awareness of the current state-of-the-art clinical and scientific content at the Congress has been cross tabulated with gaining skills to develop local communities of practice by attending ICC.

H_0 : There exists no significant relationship between awareness of the latest state-of-the-art clinical and scientific contents and development of local communities of practice.

H_A : There exists a significant relationship between the awareness of the latest state-of-art clinical and scientific contents and development of local communities of practice.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Aware of latest * Develop COP Cross tabulation

Count

	Develop COP				Total
	great extent	to some extent	a small extent	not at all	
Aware of latest yes	13	41	19	14	87

no	0	4	8	7	19
Total	13	45	27	21	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.240(a)	3	.010
Likelihood Ratio	13.147	3	.004
Linear-by-Linear Association	10.205	1	.001
N of Valid Cases	106		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 2.33.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.010 shows that there exists a significant relationship between participant's awareness of the latest state-of-the-art clinical and scientific contents and gaining skills to develop local communities of practice.

Hypothesis 19: Q19 Recommend ICCC * Q28 Demonstrated collaboration

Participants recommending ICCC to colleagues has been cross tabulated with the extent ICCC has demonstrated collaboration to enhance global cancer control.

Ho: There exists no significant relationship between participants recommending ICCC to colleagues and the extent ICCC has demonstrated collaboration to enhance global cancer control.

H_A: There exists a significant relationship between participants recommending ICCC to colleagues and the extent ICCC has demonstrated collaboration to enhance global cancer control.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Recommend ICCC * Demonstrated collaboration Cross tabulation

Count

		Demonstrated collaboration				Total
		all of the time	most of the time	some of the time	seldom	
Recommend ICCC	yes	21	47	32	3	103
	no	0	0	2	1	3
Total		21	47	34	4	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.281(a)	3	.016
Likelihood Ratio	7.592	3	.055
Linear-by-Linear Association	6.250	1	.012
N of Valid Cases	106		

a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is .11.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.016 shows that there exists a significant relationship between participants recommending ICCC to colleagues and the extent to which ICCC has demonstrated collaboration to enhance global cancer control .

Hypothesis 20: Q23.1 Aware of latest * Q26.4 New alliances

Participant's desire to be aware of the current state-of-the-art clinical and scientific content at the Congress has been cross tabulated with participant's gaining new insights into geographic alliances for common interest groups by attending ICCC.

Ho: There exists no significant relationship between participant's desire to be aware of the current state-of-the-art clinical and scientific content at the Congress and participant's gaining new insights into geographic alliances by attending ICCC.

H_A: There exists a significant relationship between participant's desire to be aware of the current state-of-the-art clinical and scientific content at the Congress and participant's gaining new insights into geographic alliances by attending ICCC.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Aware of latest * New alliances Cross tabulation

Count		New alliances				Total
		great extent	to some extent	a small extent	not at all	
Aware of latest	yes	21	47	17	2	87
	no	1	6	9	3	19
Total		22	53	26	5	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.188(a)	3	.002
Likelihood Ratio	13.849	3	.003
Linear-by-Linear Association	13.439	1	.000
N of Valid Cases	106		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .90.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.002 shows that there exists a significant relationship between participant's awareness of the latest state-of-the-art clinical and scientific contents and participant's gaining new insights into geographic alliances for common interest groups by attending ICCC.

Hypothesis 21: Q23.3 Network * Q25.8 Following new contacts

The desire to network between developed and developing world settings by participants has been cross tabulated with participants following new contacts gained at the 4th ICCC.

H₀: There exists no significant relationship between the desire to network between developed and developing world and participants following new contacts gained at the 4th ICCC.

H_A: There exists a significant relationship between the desire to network between developed and developing world and participants following new contacts gained at the 4th ICCC.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Network * Following new contacts Cross tabulation

Count						
		Following new contacts				Total
		great extent	to some extent	a small extent	not at all	
Network	yes	25	40	28	5	98
	no	0	0	4	3	7
Total		25	40	32	8	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.616(a)	3	.000
Likelihood Ratio	16.737	3	.001
Linear-by-Linear Association	13.591	1	.000
N of Valid Cases	105		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .53.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. A significance value of 0.0 shows that there exists a significant relationship between the desire to network between developed and developing world settings and participants following-up with new contacts gained at the 4th ICCC.

Hypothesis 22: Type of Country(Q4) * Interest Level (Q14)

To determine if the congress was received differently by participants from high, middle and low income countries. Type of country of work has been cross tabulated with change in participant interest and involvement in cancer control after ICC4

Ho: There exists no significant relationship between type of country of work and change in participant interest and involvement in cancer control after ICC4.

H_A: There exists a significant relationship between type of country of work and change in participant interest and involvement in cancer control after ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Type of country * Interest Level Cross tabulation

Count

		Interest Level			Total
		less than before	not at all	more than before	
type of country	high	0	17	24	41
	medium	1	10	48	59
	low	0	0	5	5
Total		1	27	77	105

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.010(a)	4	.040
Likelihood Ratio	11.311	4	.023
Linear-by-Linear Association	6.694	1	.010
N of Valid Cases	105		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .05.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. A significance value of 0.04 shows that there exists a significant

relationship between the congress being received differently by participants from various countries and change in participant interest & involvement in cancer control after ICC4.

Of the 106 respondents 39% were from high income countries, 58% from middle income countries and 4% from low income countries. The sample size is too small from low income countries and skewed to reach a definite conclusion. However, analyzing the crosstab count further it can be said that all respondents from low income countries reported being interested more than before (sample size is too small); while, 59% of respondents from high income countries & 81% respondents from middle income countries said their interest levels in cc were more than before following ICC

Hypothesis 23: Type of Country (Q4) * Influenced by ICC (Q15)

To determine if the congress was received differently by the participants from high, middle and low income countries. Type of country of work has been cross tabulated with current level of interest and involvement being influenced after attending ICC4.

Ho: There exists no significant relationship between participants type of country of work and current level of interest & involvement of participant being influenced by ICC4.

H_A: There exists significant relationship between participants type of country of work and current level of interest & involvement influenced by ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Type of country * Influenced by ICC Cross tabulation

Count

		Influenced by ICC			Total
		to a great extent	to some extent	not at all	
type of country	high	11	22	6	39
	medium	18	40	2	60
	low	5	0	0	5

Total	34	62	8	104
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Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.717(a)	4	.003
Likelihood Ratio	16.323	4	.003
Linear-by-Linear Association	6.375	1	.012
N of Valid Cases	104		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .38.

The significance value in the above table of Chi Square is < 0.05 , therefore null hypothesis is rejected. A significance value of 0.003 shows that, there exists a significant relationship between congress being received differently by participants from various countries and current level of interest & involvement of participants being influenced by attendance at ICC4.

Analyzing the crosstab count further it can be said that all respondents from low income countries reported being influenced by ICC4 to 'a great extent' (sample size is too small to make a definite statement); while, 28% of respondents from high income countries and 30% respondents from middle income countries said their current level of interest and involvement was influenced to 'a great extent' following the Congress.

Hypothesis 24: Type of Country (Q4) * Increase in collaboration after ICC4 (Q29)

To determine if the congress was received differently by participants from high, middle and low income countries. Participants type of country of work has been cross tabulated with increase in collaboration in cancer control after ICC4.

Ho: There exists no significant relationship between participants type of country of work and increase in collaboration in cancer control after ICC4.

H_A: There exists a significant relationship between participants type of country of work and increase in collaboration in cancer control after ICC4.

Chi square test has been run to test the statistical significance of relationship between the variables. A confidence level of 95% was adopted.

Type of country * Increase in collaboration after ICC4 Cross tabulation

Count

		Increase in collab after ICC4					Total
		very much	not too much	no change	little	very little	
type of country	high	9	15	10	6	1	41
	medium	19	28	8	4	1	60
	low	5	0	0	0	0	5
Total		33	43	18	10	2	106

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.426(a)	8	.037
Likelihood Ratio	16.902	8	.031
Linear-by-Linear Association	8.591	1	.003
N of Valid Cases	106		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is .09.

The significance value in the above table of Chi Square is < 0.05, therefore null hypothesis is rejected. A significance value of 0.037 shows that there exists a significant relationship between congress being received differently by participants from various countries and increase in collaboration in cancer control after ICC4.

Analyzing the crosstab count further it can be said that all respondents from low income countries reported their collaboration/network had increased 'very much' (sample size is too small to make a definite statement); while, 22% of respondents from high income countries and 32% of respondents from middle income countries said their collaborations/networks had increased 'very much' following the Congress.

Others: Type of Country by helpfulness of ICCC and demonstrated collaboration

To check if the congress was received differently by participants from high, middle and low income countries. Participants type of country of work was cross tabulated with helpfulness of ICCC (Q16) and the extent of ICCCs demonstrated collaboration to enhance global cancer control (Q28). In both the cases, there exists no significant relationship.

4. Inference and suggestions

This section of the report summarizes the inferences from the analysis, and any suggestions that can be derived.

- 1 Currently Researchers and Scientists followed by Clinicians or Physicians comprise the largest group by occupation amongst all participants. Also, most attendees were those who deal with cancer control regularly as part of their work. Only a tenth of participants were government officials. The ICCC can perhaps have a greater influence on cancer control work by attracting larger numbers of decision makers, government officials and policy makers.
- 2 Almost all respondents would recommend the ICCC to a colleague and would also like to attend the next ICCC.
- 3 Most of the participants stated the reasons for attending ICCC was that, they want to be aware of the current state-of-the-art clinical and scientific content, how this current state of knowledge is being implemented in various resource settings and to network between developed and developing world settings.
- 4 For plenary, poster and workshop sessions, the majority is comfortable with the present session length and number of sessions. Few of the participants would like to see an increase in the session duration and the number of sessions and workshops held.

- 5 Majority of the participants stated that their current level of interest and involvement was influenced by attending ICC4 and that the congress was very helpful in assisting them in their cancer control/NCD work.
- 6 A majority of the participants were comfortable with all topics, i.e., primary prevention, primordial prevention, research, cancer treatment, palliative, primary care and technology. Few expressed that more content and more application examples would be preferred in the future.
- 7 A vast majority believed that the ICC4 has helped them professionally and that they have positively gained in improved understanding and new cancer control insights, new interventions, new planning insight and most of the time ICC4 demonstrated “collaboration” to enhance global cancer control.
- 8 Participants were asked to state 3 specific cancer control activities that they have initiated or participated in that were influenced by their participation in ICC4. Some of the participants have initiated work in primary prevention and tobacco control, others are continuing with their cancer control research projects or initiating new research. Most are following up with new contacts and working on developing collaborations and partnerships. While, a large number of participants appear to be sharing new information they gained at the ICC4 with colleagues. Few attendees are working on developing new chemotherapy treatment guideline, new cancer treatment guideline, cancer screening, early detection activities, advocacy skills and so on so forth.
- 9 Participants were asked to mention missing element in ICC4 that they would recommend be included for ICC5. The responses were primarily more involvement of a diversity of stakeholders especially government bodies, more focused and round table interactive workshops, more presentations of ‘how we did it’, of screening activities, more focus on developing countries, more successful examples of implementation in LMICs, how to implement and evaluate cancer control programs, greater attention to posters etc.

5. Conclusion

1. Findings from Univariate Analysis

The response to each question has been analyzed to determine the usefulness / impact of 4th ICCC. A diversity of participants attended the congress from around the world. The univariate analysis shows that ICCC4 is successful in fulfilling all the parameters. The content of material of the conference is found to be aligned to the interest of respondents. Most of the respondents are involved in cancer control and are quite experienced in this field.

Most of the respondents were influenced by the conference and especially gained professionally in improved understanding of global population based cancer control programs and new insights into cancer control. Many have indicated the Congress has helped them in their cancer control work. Majority of the respondents would like to attend the 5th ICCC and would also recommend it to their colleagues. Most of the respondents were satisfied with the conference content and application examples. Majority of respondents were satisfied with the duration and number of plenary sessions, workshops, poster sessions and few of them have recommended that they would like to see more new content and application examples at the next Congress

2. Findings from the Bivariate Analysis

To assess the impact of ICCCs with variables, cross tab analysis was used using Pearson's Chi square test for statistical significance. Cross tabulation has identified that there is usefulness or a favorable impact of ICCC on participants. It reveals that ICCC appears to have an influence on participants in their cancer control work, activities and behaviour, collaborations and networks. Significant relationships are seen with overall influence of the conference on participants such as:

Cancer Control work: Relevance of the conference and Helpfulness of ICCC, Applicability of knowledge gained and Applying new insights to cancer control planning, Applicability of knowledge gained and Helpfulness of ICCC, Knowledge on implementation in other places and Applying new insights to cancer control planning,

Networking and Helpfulness of ICCC, and, Influences in current level of interest and involvement and Helpfulness of ICCC;

Activities and behavior: Rate value of attending ICCC and Influenced by ICCC, Relevance of ICCC and Sharing best practices, Comprehensiveness of ICCC and Cancer control policy development, Applicability of knowledge gained and Influenced by ICCC, Attend ICCC5 and Changes in interest level following ICCC, Raise awareness and Aware of latest, Change in interest level and value of ICCC in engaging nations, organizations and people;

Collaborations and networks: Relevance of ICCC and Shared new information with colleagues, Relevance of ICCC and ICCC demonstrated collaboration to enhance global cancer control, Recommend ICCC and Foster forums of engagement, Attend ICCC5 and Increase in collaboration/networks after ICCC, Aware of latest and New insights into alliances, Aware of latest and Develop COP, Aware of latest and Following-up with new contacts.

Stated above are the key noteworthy cross tabs. There were some more cross tabs that were significant and some that were not significant. Due to limitations of space posted in the report are only the key significant crosstabs.

APPENDIX B

This offers the following four Survey Questionnaires:

- B.1 ICC3 Participant Survey Questionnaire, November 2009
- B.2 ICC3 Follow-Up Survey Questionnaire, August 2010
- B.3 ICC4 Participant Survey Questionnaire, November 2011
- B.4 ICC4 Follow-Up Survey Questionnaire, January 2012

ICCC3 Participant Survey

*Please take five minutes to complete this evaluation survey. The information you provide will assist the conference organizers to assess the impact of 3rd ICCC 2009 and to plan for the next conference. The data collected will be analyzed by the Conference Evaluator. By returning your completed survey you consent to the information being used for reporting purposes. ****Please note: The survey has five pages*****

A few details about you

1. What is your main field of activity (✓ check one only)

- 1 ☐ Care Provider
- 2 ☐ Public Health
- 3 ☐ Patient/family advocate
- 4 ☐ Pharmaceutical
- 5 ☐ Non governmental organization
- 6 ☐ Volunteer
- 7 ☐ Media
- 8 ☐ Education/Research
- 9 ☐ Hospital/healthcare Administrator
- 10 ☐ Policy maker - Government
- 11 ☐ Other (please specify) _____

2. What type of organization do you work in? (✓ check one only)

- 1 ☐ Governmental
- 2 ☐ Municipal
- 3 ☐ Non-governmental non-commercial
- 4 ☐ Non-governmental commercial
- 5 ☐ International
- 6 ☐ Charity (funder)
- 7 ☐ Other (please specify) _____

3. What is your main occupation (✓ check one only)

- 1 ☐ Teacher / trainer / educator
- 2 ☐ Researcher / scientist
- 3 ☐ Clinician / physician
- 4 ☐ Other health care provider e.g. nurse, community worker
- 5 ☐ Program / facility administrator/manager
- 6 ☐ Government official / policy maker
- 7 ☐ Pharmaceutical representative / manufacturer
- 8 ☐ Journalist / media representative
- 9 ☐ Community / religious / traditional leader
- 10 ☐ Student
- 11 ☐ Other (please specify) _____

4. Is cancer control your main area of work?

- 1 ☐ Not at all 2 ☐ Infrequently 3 ☐ Part of it 4 ☐ To a great extent 5 ☐ Main Area

5. How would you like to see your involvement in cancer control change in the next 5 years?

- 1 ☐ Less than now 2 ☐ Not at all 3 ☐ More than now 4 ☐ A great deal more than now

6. In which continent do you do most of your work (✓ check one only)

- 1 ☐ Europe
- 2 ☐ North America
- 3 ☐ South America
- 4 ☐ Asia
- 5 ☐ Africa
- 6 ☐ Australia
- 7 ☐ Other (please specify) _____

7. How many years (full or part-time) have you worked in the cancer control field (✓ check one)

- 1 ☐ 2 years or less
 2 ☐ 3 to 5 years
 3 ☐ 6 to 10 years
 4 ☐ 11 to 15 years
 5 ☐ more than 15 years

8. What is your gender? (✓ check one)

- 1 ☐ Female 2 ☐ Male 3 ☐ Transgender

9. What is your age (✓ check one)

- 1 ☐ less than 26 years
 2 ☐ 26 – 40 years
 3 ☐ 41 – 60 years
 4 ☐ more than 60 years

10. Did you attend the First International Cancer Control Congress in Vancouver, Canada in Nov. 2005?

- 1 ☐ Yes 2 ☐ No

11. Did you attend the 2nd International Cancer Control Congress in Rio de Janeiro, Brazil in 2007?

- 1 ☐ Yes 2 ☐ No

12. Have you attended any other global cancer control conferences in the past 3 years?

- 1 ☐ Yes 2 ☐ No

If yes, please list _____

13. What is your main reason for attending the 3rd International Cancer Control Congress (✓ check one)

- 1 ☐ Conference program
 2 ☐ Networking opportunities
 3 ☐ Skill-building opportunities
 4 ☐ Presenting a paper
 5 ☐ Recipient of a scholarship or grant
 6 ☐ Invited speaker
 7 ☐ Other (*please specify*) _____

Conference Program

There are 6 sessions at the 3rd ICC:

1. Cancer Control - Planning and monitoring population-based systems: Europe and the World
2. Cancer Control – Europe and the World: International Collaborative Interest Group Workshop
3. Cancer Control – Establishing effective primary prevention and population based screening programs
4. Comprehensive Cancer Control - Research and Development: Knowing what we do and doing what we know
5. Cancer Control - Organization of population-based programs: Europe and the World
6. Cancer Control – Critical factors influencing the establishment, maintenance & sustainability of population based programs

14. Rank 1-5 the types of sessions or activities that you found most useful at the 3rd ICC. (1 being the most useful and 5 the least)

- _____ Plenary sessions
 _____ Concurrent workshop sessions
 _____ Poster viewing sessions
 _____ Sideline meetings
 _____ Networking

15. Would you change the mix of the program for the next congress? (✓ check one in each row)

	more	the same	less	no opinion
Plenary sessions				
Concurrent workshops				
Poster sessions				
Research oriented session				
Free time for networking				

16. How useful did you find each half day theme? (✓ check one in each row)

	Very useful	Useful	Not very useful	Not at all useful	Did not attend
Day 1 - Planning and Monitoring					
Day 1 – Collaborative Interest					
Day 2 – Primary Prevention and Screening					
Day 2 – Research and Development					
Day 3 – Organization of population based programs					
Day 3 – Maintenance & Sustainability of population based programs					

17. How would you rate the overall conference program? (✓ check one in each row)

	excellent	good	fair	poor
Quality of sessions				
Quality of plenary speakers				
Quality of workshop speakers				
Quality of discussion and debate				
Range of topics covered				

Conference Impact

18. What were the most important things you gained professionally from attending 3rd ICCC (✓ check all that apply)

- 1 ☐ Improved understanding of population based cancer control programs globally
- 2 ☐ New insights into cancer control strategies and population-based systems
- 3 ☐ New insights into cancer / NCD prevention – population based interventions
- 4 ☐ New insights into potential geographic alliances for common interest groups
- 5 ☐ New insights into planning and implementing population based cancer control programs
- 6 ☐ New insights into maintaining and sustaining population based cancer control programs
- 7 ☐ New contacts and opportunities for partnership and collaboration
- 8 ☐ Affirmation of current research or practice
- 9 ☐ A renewed sense of purpose
- 10 ☐ Opportunity for career advancement
- 11 ☐ Other (please specify) _____
- 12 ☐ I did not gain anything from the conference

19. How successful was the conference in achieving the following?

		Very successful	Successful	Not very successful	Not at all successful	Don't know
1.	Sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation					
2.	Sharing best practices and promoting evidence to develop national policies regarding cancer control					
3.	Establishing a creative and appropriate agenda to create a vehicle of collaboration					
4.	Contributing to and creating a vehicle for raising awareness of cancer control					



		Very successful	Successful	Not very successful	Not at all successful	Don't know
5.	Engaging the relevant communities – government, non governmental organizations, advocacy groups, civil society, risk factor control groups, patients, others					
6.	Providing a setting for relationship building and/or nurturing and maintaining relationships					
7.	Providing a platform for knowledge transfer for cancer control					

Comments (if any)

20. In your opinion, is there anything that has been missed or not covered by the Congress?

1 ☐ Yes 2 ☐ No

If yes, please specify

21. How will you use what you gained at the conference? (✓ check all that apply)

- 1 ☐ Share new information with colleagues
- 2 ☐ Undertake new research
- 3 ☐ Apply new insights to prevention programs
- 4 ☐ Apply new insights to clinical practice
- 5 ☐ Apply new insights to palliative care
- 6 ☐ Apply new insights to the spectrum of cancer control
- 7 ☐ Strengthen advocacy or policy work
- 8 ☐ Follow-up new contacts
- 9 ☐ Develop new partnerships or collaborations
- 10 ☐ Seeking philanthropy / foundation funds / establishing charitable connections
- 11 ☐ Other (please specify)
- 12 ☐ I will not do anything different
- 13 ☐ I am unsure
- 14 ☐ I did not gain anything from the conference

22. As a result of your learning from the Congress, what specific activity/activities will you do by December 31st, 2009? Please list.



Conference planning and organization

23. Please rate the following ...

	excellent	good	fair	poor	Don't know
Congress website					
Pre-congress information					
Online registration					
Delegate bag collection					
Conference material					
Opening ceremony					
Poster viewing area					
Exhibit area					
Time tabling of sessions					
Conference venue and facilities					

24. Would you recommend the International Cancer Control Congress to a colleague?

1 ☐ Yes 2 ☐ No

25. Based on your experience of the 3rd ICCC, would you choose to attend the next conference?

1 ☐ Yes 2 ☐ No (*Please explain why*)

26. What was your favourite presentation and concurrent workshop session? (*Please specify*)

What were the reason(s) for this?(✓ check all that apply)

- 1 ☐ General interest / appeal of the topic
- 2 ☐ Importance of the topic to my work
- 3 ☐ Presenter's extensive knowledge
- 4 ☐ Presenter's engaging style
- 5 ☐ Good questions / discussion
- 6 ☐ Other (*please specify*) _____

27. Do you have any other comments about the conference?

1 ☐ Yes (*please specify*) 2 ☐ No

28. Can we contact you post-congress, if needed?

1 ☐ Yes 2 ☐ No

Name _____

Thank you for taking the time to fill out this survey. Please hand it back at the registration desk latest by 4:00 p.m. Wednesday, November 11th so that we can enter you for a prize draw.

You are being asked to participate in this follow-up survey to the 3rd International Cancer Control Congress (ICCC). Completion of the survey will automatically provide you a chance to win one of **three free registrations** to the 4th ICCC. The survey is designed to assess the impact of the ICCC in stimulating awareness/ development of cancer control programs/establishment of communities of practice. This survey has been designed to help understand the value-add of the Congress to you as a participant and will provide feedback on what content should be considered for the 4th ICCC to better meet your needs. The survey is being sponsored by the International Cancer Control Congress Association and is being conducted by Kavita Sarwal. The survey will take about 10 minutes to complete. Please select the answers that best describe your work following the Congress. If you are not sure about how to answer a question, please give the best answer you can. There is no right or wrong answer to these questions. Your participation in the survey is voluntary. Individual responses will be treated with confidence and anonymity in reporting is assured. **Your completion of this survey will infer your consent to the information being used for reporting purposes.**

Please keep a copy of this consent form for your records. Thank you for completing this survey!

Name _____

Identifier # _____

Participant Follow-up Survey

*Thank you for taking the time to complete this follow-up survey to the 3rd ICCC. The information you provide will assist us assess the impact of the International Cancer Control Congress (es) in influencing changes in activities that (a) enhance development or implementation of population based cancer control programs and (b) increase global outreach, collaborations and partnerships. Findings from these surveys will also help us plan for the 4th ICCC. The data collected will be analyzed by the Congress Evaluator. By returning your completed survey you consent to the aggregate information being used for reporting purposes. ****Note: The survey has 7 pages*****

A few details about you

1. What is your main occupation (✓ check one only)

- 1 ☐ Teacher / trainer / educator
- 2 ☐ Researcher / scientist
- 3 ☐ Clinician / physician
- 4 ☐ Other health provider e.g. nurse, social worker
- 5 ☐ Program / facility administrator/manager
- 6 ☐ Government official / policy maker
- 7 ☐ Pharmaceutical representative / manufacturer
- 8 ☐ Journalist / media representative
- 9 ☐ Community / religious / traditional leader
- 10 ☐ Student
- 11 ☐ Other (please specify)_____

2. What type of organization do you work in? (✓ check one only)

- 1 ☐ Governmental (national or state level)
- 2 ☐ Governmental (municipal)
- 3 ☐ Non-governmental non-commercial
- 4 ☐ Non-governmental commercial
- 5 ☐ International agency
- 6 ☐ Charity (funder)
- 7 ☐ Other (please specify)_____

3. To what extent is cancer control a part of your work? (✓ check one only)

- 1 ☐ Completely – cancer control is my primary focus
- 2 ☐ Mostly – cancer control is a major part of my work
- 3 ☐ Somewhat – cancer control minor part of my work
- 4 ☐ Not at all – cancer control is not part of my work

4. In which country (s) do you do most of your work?

5. How many years (full or part-time) have you worked in the cancer control field¹ (✓ check one only)

- 1 ☐ 2 years or less
- 2 ☐ 3 to 5 years
- 3 ☐ 6 to 10 years

¹ 'Cancer control' includes - population health/cancer prevention/early detection, screening/diagnosis/treatment & care/supportive, palliative & end-of-life

- 4 ☐ 11 to 15 years
5 ☐ more than 15 years

6. What is your gender? (✓ check one)

- 1 ☐ Female 2 ☐ Male

7. What is your age (✓ check one)

- 1 ☐ less than 26 years
2 ☐ 26 – 40 years
3 ☐ 41 – 60 years
4 ☐ more than 60 years

8. Including yourself, how many personnel work in cancer control / non-communicable disease in your organization?

- 1 ☐ <10 people 2 ☐ 11-20 people 3 ☐ 21-40 people 4 ☐ >40 people 5 ☐ not sure

Comments _____

9. Did you attend the First International Cancer Control Congress in Vancouver, Canada in Nov. 2005?

- 1 ☐ Yes 2 ☐ No

10. Did you attend the 2nd International Cancer Control Congress in Rio de Janeiro, Brazil in 2007?

- 1 ☐ Yes 2 ☐ No

11. Did you attend the 3rd International Cancer Control Congress in Cernobbio, Italy in 2009?

- 1 ☐ Yes 2 ☐ No

12. Have you attended any of the following cancer control conferences in the period 2005-2010? (✓ check all that apply)²

INCTR	UICC	APOCP	ASCO	ESMO	APCC	AORTIC	MASCC	Other

Other(please specify) _____

13. When you attend cancer control conferences, what value do they provide you? For every group's most recent conference that you have participated in please rate the value to yourself on a scale of 1-5 on each dimension (1 not at all valuable, 2 not very valuable, 3 neutral, 4 somewhat valuable, 5 very valuable)

If you have not attended a particular conference please skip the box

		ICCC	INCTR	UICC	APOCP	ASCO	ESMO	APCC	AORTIC	MASCC	Other
1.	Conference program										

² ICC3 – International Cancer Control Congress; INCTR – International Cancer Treatment & Research; UICC – International Union Against cancer; APOCP – Asia Pacific Org. for cancer Prevention; APCC- Asia Pacific Cancer Congress; ESMO – European Society for Medical Oncology; AORTIC – African Organization for Research & Training in Cancer; MASCC – Multinational Association for Supportive Care in Cancer.

		ICCC	INCTR	UICC	APOCP	ASCO	ESMO	APCC	AORTIC	MASCC	Other
2.	Networking										
3.	Skill-building										
4.	Clinical/scientific content										
5.	Building communities of interest										
6.	Sharing experiences										
7.	Stimulated actions related to cancer control										
8.	Organization of content & program										
9.	Presenting a paper										
10.	Recipient of a scholarship or grant										
11.	Invited speaker										

Comments (if any)

14. Thinking about the ICC3, how would you rate your attendance in comparison to your attendance at other global congresses?

- 1 ☐ Much better than most congresses
 2 ☐ About the same as most congresses
 3 ☐ Much worse than most congresses

Follow-up to the Congress

15. After the Congress has your involvement and interest in cancer control changed?

- 1 ☐ Less than before 2 ☐ Not at all 3 ☐ More than before *(if you checked #3 please answer Q16, otherwise please skip to Q17)*

16. To what extent has your current level of interest and involvement been influenced by your attendance at the International Cancer Control Congress?

- 1 ☐ To a great extent 2 ☐ To some extent 3 ☐ Not at all

Comments_____

17. How helpful has the Congress been in assisting you with your cancer control/NCD work?

1 ☐ very helpful 2 ☐ somewhat helpful 3 ☐ not too helpful 4 ☐ not at all helpful

Comments_____

18. Did your attendance at the 3rd ICCC help with these issues? (✓ check one in each row)

		Strongly disagree	Disagree	No opinion	Agree	Strongly agree
1	I believe I can help change the minds of policy makers in my jurisdiction.					
2	People like me have little say in what my organization/government does					
3	I am sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation					
4	By sharing my learning's from the ICCC I am contributing to the development of national policies regarding cancer control					
5	I believe now I can help create internally and/or externally a vehicle of collaboration					
6	I am contributing to & creating a vehicle for raising awareness of cancer control in my country					
7	I am more actively advocating and/or engaging the relevant communities – government, non governmental organizations, civil society, risk factor control groups, patients, others					
8	I believe the Congress has provided a platform for knowledge exchange for cancer control					

Comments (if any)

19. Listed below are five characteristics often associated with effective conferences. With regard to ICCC how dissatisfied/satisfied are you on each of the following characteristics? (✓ check one in each row)

	<i>Very dissatisfied</i> 1	Dissatisfied 2	Neutral 3	Satisfied 4	<i>Very satisfied</i> 5
Relevance					
Comprehensiveness					
Applicability of knowledge gained to your context					
Timeliness					
Raising Awareness					

20. Would you recommend the International Cancer Control Congress (es) to a colleague?

1 ☐ Yes 2 ☐ No (*Please explain why not*)

21. Based on your experience of any or all of the ICCCs, would you like to attend the 4th ICCC?

1 ☐ Yes 2 ☐ No (*Please explain why not*)

Planning 4th ICCC

22. In planning the next Congress what would you recommend with regard to plenary, workshop and poster sessions using the 3rd ICCC as the reference point (✓ check one in each row)

	<i>Shorten/lengthen session time</i>	<i>Increase/decrease number</i>	<i>Keep the same</i>
Plenary	Shorten <input type="radio"/> Lengthen <input type="radio"/>	Increase <input type="radio"/> Decrease <input type="radio"/>	
Workshops	Shorten <input type="radio"/> Lengthen <input type="radio"/>	Increase <input type="radio"/> Decrease <input type="radio"/>	
Posters	Shorten <input type="radio"/> Lengthen <input type="radio"/>	Increase <input type="radio"/> Decrease <input type="radio"/>	

23. I come to participate in the ICCC because (✓ check one in each row)

	<i>Yes</i>	<i>No</i>
I want to be aware of the current state-of-the-art clinical and scientific content		
I want to know how this current state of knowledge is being implemented in various resource settings		
I want to network between developed and developing world settings		

| 24. What kind of sessions would be useful at the 4th Congress? (✓ check all that apply)

		More		Less	
		More New Content	More Application Examples	Less New Content	Fewer Application Examples
1	Primary prevention, screening				
2	Primordial prevention – occupational & environmental exposure reduction, built environment, social determinants etc.				

3	Research, technology development and assessment				
4	Cancer treatment and care				
5	Palliative, end of life care, survivorship, supportive care, symptom control				

6 Other (please specify)_____

Congress Impact

25. How did you use what you gained at the 3rd ICCC conference? (✓ check one in each row)

		Great extent	To some extent	A small extent	Not at all
1	Shared new information with colleagues				
2	Undertaking new research				
3	Applying new insights to prevention programs				
4	Applying new insights to clinical practice				
5	Applying new insights to palliative care				
6	Applying new insights to cancer control planning				
7	Strengthening advocacy or policy work				
8	Following-up with new contacts				
9	Developed new partnerships or collaborations				
10	Seeking philanthropy / foundation funds / establishing charitable connections				
11	I have not done anything different				

12 Other (please specify)_____

26. What were the most important things you gained professionally from attending the International Cancer Control Congress (es) (✓ check one in each row)

		Great extent	To some extent	A small extent	Not at all
1	Improved understanding of population based cancer control programs globally				
2	New insights into cancer control strategies and population-based systems				
3	New insights into cancer / NCD prevention – population based interventions				
4	New insights into potential geographic alliances for common interest groups				
5	New insights into planning and implementing population based cancer control programs				
6	New insights into maintaining and sustaining population based cancer control programs				
7	New contacts and opportunities for partnership and collaboration				
8	Affirmation of current research or practice				
9	A renewed sense of purpose				
10	Opportunity for career advancement				
11	Developing local communities of practice				



ICCC4 Participant Survey

*Please participate in this 25 minute real-time evaluation session using a clicker. Your responses will be collated and presented to you instantly. The information you provide will assist the conference organizers to assess the impact of 4th ICCC 2011 and to plan for the next conference. The data collected will be analyzed in detail later by the Conference Evaluator. By participating in the session you consent to the information being used for reporting purposes. ****Please note: There are 26 questions*****

Setting Context

1. **What was your single most important reason for attending ICCC4 (✓ check one only)**
 - 1 ☐ the focus on population -based cancer control
 - 2 ☐ the focus on implementation of interventions and practical experience
 - 3 ☐ the mix of experience from different cultures and contexts
 - 4 ☐ the spectrum of public and population health, clinical practice, research and policy
 - 5 ☐ the focus on networking, collaboration and relationship-building
 - 6 ☐ the presentation of your work in plenary, workshop or abstract/poster format
 - 7 ☐ paid sponsorship to attend
 - 8 ☐ none of the above

2. **Did you satisfy your reasons for attending ICCC4? (✓ check one only)**
 - 1 ☐ To a great extent 2 ☐ To some extent 3 ☐ Not at all

3. **Have you attended any other global cancer control conferences in the period 2010-2011? (✓ check one only)**
 - 1 ☐ More than 5 conferences
 - 2 ☐ 3 - 5 conferences
 - 3 ☐ 1 - 3 conferences
 - 4 ☐ None

4. **Has ICCC-4 stimulated you to think of activities /relationships that have relevance beyond your direct work? (✓ check one only)**
 - 1 ☐ very much 2 ☐ not too much 3 ☐ no change 4 ☐ not at all

5. **What is the strongest aspect of this Congress? (✓ check one only)**
 - 1 ☐ Speakers
 - 2 ☐ Workshops
 - 3 ☐ Social networking
 - 4 ☐ Examples from other countries
 - 5 ☐ Nothing

6. **Which one of the following would you have most liked to learn more about, based on the congress (✓check one only)**
 - 1 ☐ Examples of programs in developing countries
 - 2 ☐ Examples from developed countries
 - 3 ☐ More information on new technology
 - 4 ☐ More about evaluation
 - 5 ☐ More about screening
 - 6 ☐ More about palliative care
 - 7 ☐ More about sources of funding
 - 8 ☐ More about surveillance
 - 9 ☐ More about vaccines
 - 10 ☐ More on successful models for developing a workforce for cancer control



7. Which one of the remaining choices would you have also liked to learn more about, based on the congress (✓ check one only)

- 1 ☐ Examples of programs in developing countries
- 2 ☐ Examples from developed countries
- 3 ☐ More information on new technology
- 4 ☐ More about evaluation
- 5 ☐ More about screening
- 6 ☐ More about palliative care
- 7 ☐ More about sources of funding
- 8 ☐ More about surveillance
- 9 ☐ More about vaccines
- 10 ☐ More on successful models for developing a workforce for cancer control

Congress Activities

8. Which type of session or activity did you find most useful at the 4th ICC (✓ check one only)

- 1 ☐ Plenary sessions
- 2 ☐ Concurrent workshop sessions
- 3 ☐ Poster viewing sessions
- 4 ☐ Forums
- 5 ☐ Sideline meetings
- 6 ☐ Networking

9.1 How would you rate the overall congress program? (✓ check one only)

	excellent	good	fair	poor
Quality of sessions				

9.2 How would you rate the overall congress program? (✓ check one only)

	excellent	good	fair	poor
Quality of plenary speakers				

9.3 How would you rate the overall congress program? (✓ check one only)

	excellent	good	fair	poor
Quality of workshop speakers				

9.4 How would you rate the overall congress program? (✓ check one only)

	excellent	good	fair	poor
Quality of discussion and debate				

9.5 How would you rate the overall congress program? (✓ check one only)

	excellent	good	fair	poor
Range of topics covered				



Conference Impact

10. Have you made any direct follow-up plans as a result of the congress - either with people or related to programs? (✓ check one only)

1 ☐ To a great extent 2 ☐ To some extent 3 ☐ Not at all

11. How helpful will the Congress be in supporting you in National Cancer Control Planning? (✓ check one only)

1 ☐ very helpful 2 ☐ somewhat helpful 3 ☐ not too helpful 4 ☐ not at all helpful

12. Which one of the following issues will your attendance at the 4th ICCC most help you with in your country/jurisdiction? (✓ check one only)

- 1 ☐ Influence or change minds of policy makers
- 2 ☐ Share best practices and promote evidence to develop/implement cancer control plans
- 3 ☐ Contribute learnings from ICCC to development of national cancer control policies
- 4 ☐ Create collaborations
- 5 ☐ Raise awareness of cancer control
- 6 ☐ Strengthen advocacy or policy work
- 7 ☐ I am unsure

13. How helpful will the Congress be in assisting you with your cancer control work? (✓ check one only)

1 ☐ very helpful 2 ☐ somewhat helpful 3 ☐ not too helpful 4 ☐ not at all helpful

14. What is the single most important thing you have gained professionally from attending 4th ICCC (✓ check one only)

- 1 ☐ Improved understanding of population based cancer control programs globally
- 2 ☐ New insights into cancer control strategies and population-based systems
- 3 ☐ New insights into cancer / NCD prevention – population based interventions
- 4 ☐ New insights into potential geographic alliances for common interest groups
- 5 ☐ New insights into planning and implementing population based cancer control programs
- 6 ☐ New insights into maintaining and sustaining population based cancer control programs
- 7 ☐ New contacts and opportunities for partnership and collaboration
- 8 ☐ Affirmation of current research or practice
- 9 ☐ Opportunity for career advancement
- 10 ☐ I did not gain anything from the congress

15.1 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation					

15.2 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Sharing best practices and promoting evidence to develop national policies regarding cancer control					



15.3 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Establishing a creative and appropriate agenda to create a vehicle of collaboration					

15.4 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Contributing to and creating a vehicle for raising awareness of cancer control					

15.5 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Engaging the relevant communities – government, non governmental organizations, advocacy groups, civil society, risk factor control groups, patients, others					

15.6 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Providing a setting for relationship building and/or nurturing and maintaining relationships					

15.7 How successful has the congress been in achieving the following? (✓ check one only)

	Very successful	Successful	Not very successful	Not at all successful	Don't know
Providing a platform for knowledge transfer for cancer control					

16. In your opinion, is there anything that has been missed or not covered by the Congress? (✓ check **one** only)

1 ☐ Yes 2 ☐ No

17. What one specific activity will you most likely do with the information that you have gained from the congress by January, 2012? (✓ check **one** only)

- 1 ☐ Share new information with colleagues
- 2 ☐ Undertake new research
- 3 ☐ Apply new insights to prevention programs
- 4 ☐ Apply new insights to clinical practice
- 5 ☐ Apply new insights to palliative care
- 6 ☐ Apply new insights to the spectrum of cancer control



ICCC4 - CONGRESS EVALUATION

- 7 ☐ Strengthen advocacy or policy work
 8 ☐ Follow-up new contacts
 9 ☐ Develop new partnerships or collaborations
 10 ☐ Seeking philanthropy / foundation funds / establishing charitable connections

18.1 How do we make international meetings valuable? (✓ check one only)

	More 1	the same 2	Less 3	no opinion 4
Plenary sessions				

18.2 How do we make international meetings valuable? (✓ check one only)

	More 1	the same 2	Less 3	no opinion 4
Concurrent workshops				

18.3 How do we make international meetings valuable? (✓ check one only)

	More 1	the same 2	Less 3	no opinion 4
Poster sessions				

18.4 How do we make international meetings valuable? (✓ check one only)

	More 1	the same 2	Less 3	no opinion 4
Research oriented session				

18.5 How do we make international meetings valuable? (✓ check one only)

	More 1	the same 2	Less 3	no opinion 4
Free time for networking				

18.6 How do we make international meetings valuable? (✓ check one only)

	More 1	the same 2	Less 3	no opinion 4
Skill building opportunities				

19. Do international cancer meetings increase your activity and assist you in advancing population based cancer control in your country? (✓ check one only)

- 1 ☐ All of the time
 2 ☐ Most of the time
 3 ☐ Some of the time
 4 ☐ Seldom
 5 ☐ Never



20. What is the most important role of declarations and alliances at meetings? (✓ check one only)

- 1 ☐ Engage nations, organizations and people
- 2 ☐ Facilitate relationship building
- 3 ☐ Provide a platform for knowledge transfer
- 4 ☐ Influence changes in participant behaviors
- 5 ☐ Influence changes in national population based cancer control programs
- 6 ☐ Other
- 7 ☐ Not helpful

21. Is the establishment of communities of practice a goal for you? (✓ check one only)

- 1 ☐ All of the time
- 2 ☐ Most of the time
- 3 ☐ Some of the time
- 4 ☐ Seldom
- 5 ☐ Never

Demographics

22. What is your main occupation (✓ check one only)

- 1 ☐ Teacher / trainer / educator
- 2 ☐ Researcher / scientist
- 3 ☐ Clinician / physician
- 4 ☐ Other health provider e.g. nurse, social worker
- 5 ☐ Program / facility administrator/manager
- 6 ☐ Government official / policy maker
- 7 ☐ Pharmaceutical representative / manufacturer
- 8 ☐ Journalist / media representative
- 9 ☐ Community / religious / traditional leader

23. What type of organization do you work in? (✓ check one only)

- 1 ☐ Governmental (e.g. Ministry, Municipality, Hospital-based, Community-based etc)
- 2 ☐ Non-governmental organization (e.g. UICC, ACS, APOCP etc)
- 3 ☐ UN Agency (e.g. WHO, IAEA, FAO, UNDP, WTO etc)
- 4 ☐ Foundation (e.g. cancer foundations, hospital foundations etc)
- 5 ☐ Research organization
- 6 ☐ Hospital –based (not a government institution)
- 7 ☐ Community-based (not a government institution)
- 8 ☐ Industry (e.g. pharmaceutical, biotechnology etc)

24. What is your gender? (✓ check one only)

- 1 ☐ Male
- 2 ☐ Female

25. What is your age (✓ check one only)

- 1 ☐ less than 26 years
- 2 ☐ 26 – 40 years
- 3 ☐ 41 – 60 years
- 4 ☐ more than 60 years

26. Can we contact you again if needed? (✓ check one only)

- 1 ☐ Yes
- 2 ☐ No

Thank you for participating in this real-time evaluation session. Please hand back your clickers as you exit.

The survey is designed to assess the impact of the 4th International Cancer Control Congress (ICCC4) in stimulating awareness/ development of cancer control programs/establishment of communities of practice. This survey has been designed to help understand the value-add of the Congress to you as a participant and will provide feedback on what content should be considered for the 5th ICCC to better meet your needs. The survey is being sponsored by the International Cancer Control Congress Association and is being conducted by Kavita Sarwal. The survey will take about 10 minutes to complete. Completion of the survey will automatically provide you a chance to win **one of three free registrations to the 5th ICCC**. Please select the answers that best describe your work following the Congress. If you are not sure about how to answer a question, please give the best answer you can. There is no right or wrong answer to these questions. Your participation in the survey is voluntary. Individual responses will be treated with confidence and anonymity in reporting is assured. Your completion of this survey will infer your consent to the information being used for reporting purposes.

Please keep a copy of this consent form for your records. Thank you for completing this survey!

Name : ----- (optional)

Identifier # ----- (you will find this number on the accompanying email)

Instructions:

Please complete this form electronically, then save it on your computer, and return the form as an email attachment to 4ICCCEvaluation@torrances.com or fax it to us at +1-604-675-8118 by February 13, 2012.

Please note the form's formatting changes on a MAC computer, thus we request completion of the form using Windows MS Word.

Participant Follow-up Survey

Thank you for taking the time to complete this follow-up survey to the 4th ICCC. The information you provide will assist us assess the impact of the International Cancer Control Congress (es) in influencing changes in activities that (a) enhance development or implementation of population based cancer control programs and (b) increase global outreach, collaborations and partnerships. Findings from these surveys will also help us plan for the 5th ICCC. The data collected will be analyzed by the Congress Evaluator. By returning your completed survey you consent to the aggregate information being used for reporting purposes. ****Note: The survey has 6 pages****

A few details about you

1. **What is your main occupation (✓ check one only)**
 - 1 ☐ Teacher / trainer / educator
 - 2 ☐ Researcher / scientist
 - 3 ☐ Clinician / physician
 - 4 ☐ Other health provider e.g. nurse, social worker
 - 5 ☐ Program / facility administrator/manager
 - 6 ☐ Government official / policy maker
 - 7 ☐ Pharmaceutical representative / manufacturer
 - 8 ☐ Journalist / media representative
 - 9 ☐ Community / religious / traditional leader
 - 10 ☐ Other (please specify)_____

2. **What type of organization do you work in? (✓ check one only)**
 - 1 ☐ Governmental (e.g. Ministry, Municipality, Hospital-Based, Community-Based etc.)
 - 2 ☐ Foundation (e.g. cancer foundations, hospital foundations etc)
 - 3 ☐ Non-governmental organization (e.g. UICC, ACS, APOCP etc)
 - 4 ☐ Research organization
 - 5 ☐ UN Agency (e.g. WHO, IAEA, FAO, UNDP, WTO etc)
 - 6 ☐ Hospital-based (not a government institution)
 - 7 ☐ Community-based (not a government institution)
 - 8 ☐ Industry (e.g. pharmaceutical, biotechnology etc)
 - 9 ☐ Other (please specify)_____

3. **To what extent is cancer control a part of your work? (✓ check one only)**
 - 1 ☐ Completely – cancer control is my primary focus
 - 2 ☐ Mostly – cancer control is a major part of my work
 - 3 ☐ Somewhat – cancer control minor part of my work
 - 4 ☐ Not at all – cancer control is not part of my work

4. **In which country (s) do you do most of your work?**

5. **How many years (full or part-time) have you worked in the cancer control field¹ (✓ check one only)**

¹ 'Cancer control' includes - population health/cancer prevention/early detection, screening/diagnosis/treatment & care/supportive, palliative & end-of-life

- 1 ☐ 2 years or less
 2 ☐ 3 to 5 years
 3 ☐ 6 to 10 years
 4 ☐ 11 to 15 years
 5 ☐ more than 15 years

6. **What is your gender? (✓ check one only)**

- 1 ☐ Female 2 ☐ Male

7. **What is your age (✓ check one only)**

- 1 ☐ less than 26 years
 2 ☐ 26 – 40 years
 3 ☐ 41 – 60 years
 4 ☐ more than 60 years

8. **Including yourself, how many personnel work in cancer control / non-communicable disease in your organization?**

- 1 ☐ <10 people 2 ☐ 11-20 people 3 ☐ 21-40 people 4 ☐ >40 people 5 ☐ not sure

Comments _____

9. **Did you attend the First International Cancer Control Congress in Vancouver, Canada in Nov. 2005?**

- 1 ☐ Yes 2 ☐ No

10. **Did you attend the 2nd International Cancer Control Congress in Rio de Janeiro, Brazil in 2007?**

- 1 ☐ Yes 2 ☐ No

11. **Did you attend the 3rd International Cancer Control Congress in Cernobbio, Italy in 2009?**

- 1 ☐ Yes 2 ☐ No

12. **Have you attended any of the following cancer control conferences in the period 2007-2012? (✓ check all that apply)²**

INCTR	UICC	APOCP	ASCO	ESMO	APCC	AORTIC	MASCC	None	Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other(please specify) _____

13. **Thinking about the ICCC, how would you rate the value of your attendance in comparison to your attendance at other global congresses?**

- 1 ☐ Much better than most congresses

² ICCC – International Cancer Control Congress; INCTR – International Cancer Treatment & Research; UICC – International Union Against cancer; APOCP – Asia Pacific Org. for cancer Prevention; APCC- Asia Pacific Cancer Congress; ESMO – European Society for Medical Oncology; AORTIC – African Organization for Research & Training in Cancer; MASCC – Multinational Association for Supportive Care in Cancer.

- 2 ☐ About the same as most congresses
3 ☐ Much worse than most congresses

Follow-up to ICCC4 Congress

14. After the Congress has your involvement and interest in cancer control changed?

- 1 ☐ Less than before 2 ☐ Not at all 3 ☐ More than before *(if you checked #3 please answer Q15, otherwise please skip to Q16)*

15. To what extent has your current level of interest and involvement been influenced by your attendance at the 4th International Cancer Control Congress?

- 1 ☐ To a great extent 2 ☐ To some extent 3 ☐ Not at all

Comments _____

16. How helpful has the Congress been in assisting you with your cancer control/NCD work?

- 1 ☐ very helpful 2 ☐ somewhat helpful 3 ☐ not too helpful 4 ☐ not at all helpful

Comments _____

17. Did your attendance at the 4th ICCC help with these issues? (✓ check one in each row)

		Strongly disagree	Disagree	No opinion	Agree	Strongly agree
1.	I believe I can help change the minds of policy makers in my jurisdiction.					
2.	People like me have little say in what my organization/government does					
3.	I am sharing best practices and promoting evidence to develop cancer control plans and/or strengthen implementation					
4.	By sharing my learning's from the ICCC I am contributing to the development of national policies regarding cancer control					
5.	I believe now I can help create internally and/or externally a vehicle of collaboration					
6.	I am contributing to & creating a vehicle for raising awareness of cancer control in my country					
7.	I am more actively advocating and/or engaging the relevant communities – government, non governmental organizations, civil society, risk factor control groups, patients, others					
8.	I believe the Congress has provided a platform for knowledge exchange for cancer control					

Comments (if any)

18. Listed below are five characteristics often associated with effective conferences. With regard to ICCC how dissatisfied/satisfied are you on each of the following characteristics? (✓ check one in each row)

	<i>Very dissatisfied 1</i>	<i>Dissatisfied 2</i>	<i>Neutral 3</i>	<i>Satisfied 4</i>	<i>Very satisfied 5</i>
Relevance					
Comprehensiveness					
Applicability of knowledge gained to your context					
Timeliness					
Raising Awareness					

19. Would you recommend the International Cancer Control Congress (es) to a colleague?

1 ☐ Yes 2 ☐ No (*Please explain why not*)

20. Based on your experience of any or all of the ICCCs, would you like to attend the 5th ICCC?

1 ☐ Yes 2 ☐ No (*Please explain why not*)

Planning 5th ICCC

21. In planning the next Congress what would you recommend with regard to the **length of time** for the plenary, workshop & poster sessions using 4th ICCC as the reference point (✓ check one in each row)

	<i>Shorten time</i>	<i>Lengthen time</i>	<i>Keep the same</i>
Plenary			
Workshops			
Posters			

22. In planning the next Congress what would you recommend with regard to **the number of plenary, workshop and poster sessions** using the 4th ICCC as the reference point (✓ check one in each row)

	<i>Increase number</i>	<i>Decrease Number</i>	<i>Keep the same</i>
Plenary			
Workshops			
Posters			

23. I come to participate in the ICCC because (✓ check one in each row)

	<i>Yes</i>	<i>No</i>
I want to be aware of the current state-of-the-art clinical and scientific content		
I want to know how this current state of knowledge is being implemented in various resource settings		
I want to network between developed and developing world settings		

24. What kind of sessions would be useful at the 5^h Congress? (✓ check all that apply)

		More		Less	
		More New Content	More Application Examples	Less New Content	Fewer Application Examples
1	Primary prevention, screening				
2	Primordial prevention – occupational & environmental exposure reduction, built environment, social determinants etc.				
3	Research, technology development and assessment				
4	Cancer treatment and care				
5	Palliative, end of life care, survivorship, supportive care, symptom control				
6	Diagnostic and therapeutic technologies				
7	Primary, Community and Specialized Care				

- 8 Other (please specify) _____

Congress Impact

25. How did you use what you gained at the 4th ICCC conference? (✓ check one in each row)

		Great extent	To some extent	A small extent	Not at all
1	Shared new information with colleagues				
2	Undertaking new research				
3	Applying new insights to prevention programs				
4	Applying new insights to clinical practice				
5	Applying new insights to palliative care				
6	Applying new insights to cancer control planning				
7	Strengthening advocacy or policy work				
8	Following-up with new contacts				
9	Developed new partnerships or collaborations				
10	Seeking philanthropy / foundation funds / establishing charitable connections				
11	I have not done anything different				

12 Other (please specify) _____

26. What were the most important things you gained professionally from attending the International Cancer Control Congress (es) (✓ check one in each row)

		Great extent	To some extent	A small extent	Not at all
1	Improved understanding of population based cancer control programs globally				
2	New insights into cancer control strategies and population-based systems				
3	New insights into cancer / NCD prevention – population based interventions				
4	New insights into potential geographic alliances for common interest groups				
5	New insights into planning and implementing population based cancer control programs				
6	New insights into maintaining and sustaining population based cancer control programs				
7	New contacts and opportunities for partnership and collaboration				
8	Affirmation of current research or practice				
9	A renewed sense of purpose				
10	Opportunity for career advancement				
11	Developing local communities of practice				
12	Fostering forums of engagement				

13 Other (please specify) _____

27. List 3 specific cancer control activities you have initiated or participated in that were influenced by your participation in the International Cancer Control Congress (es).

- 28. To what extent have the ICCCs demonstrated “collaboration” to enhance global cancer control (✓ check one)**

- 1 ☐ All of the time
2 ☐ Most of the time
3 ☐ Some of the time
4 ☐ Seldom
5 ☐ Never

- 29. How much have your collaboration/network in cancer control increased after attending ICC4?**

- 1 ☐ very much 2 ☐ not too much 3 ☐ no change 4 ☐ little 5 ☐ very little

Comments

- 30. Which of the following do you feel best describes the value of the ICC? (✓ check all that apply)**

- 1 ☐ Engages nations, organizations and people
 2 ☐ Facilitates relationship building
 3 ☐ Provides a platform for knowledge transfer – research to policy to practice
 4 ☐ Influences changes in participant behaviors
 5 ☐ Influences changes in national population based cancer control programs
 6 ☐ Other (*please specify*) _____
 7 ☐ Not helpful

31. What was the most significant element missing from the 4th ICC that you would recommend be included in the 5th ICC being planned for November, 2013?

- 32. Do you have any other comments about the conference?**

- 1 ☐ Yes (*please specify*) 2 ☐ No

- 33. Can we contact you again as needed?**

- 1 ☐ Yes 2 ☐ No

Thank you for taking the time to fill out this follow-up survey.

Please send it back electronically to 4ICCEvaluation@torrances.com before February 13, 2012 so that we can use your feedback in preparing for the 5th ICC.

APPENDIX C

This offers the following two Interview Questionnaires:

C.1 ICC3 Interview Questionnaire, November 2009

C.2 ICC4 Interview Questionnaire, November 2011



ICCC3 - INTERVIEW QUESTIONNAIRE

Hello, I'm a member of the Conference Evaluation Team. I'm collecting feedback from those who are participating in the International Cancer Control Congress (es). By participating in the interview you consent to the information being used for reporting purposes.

1. **Thinking back across the three International Cancer Control Congresses, 1st ICC 2005 or 2nd ICC 2007 or 3rd ICC 2009, can you recall the most important things you gained from attending?**

2. **Did you do anything differently in your cancer control work as a result of attending the congress? (...did the conference influence your work?)**

1 ☐ Yes (please describe) 2 ☐ No (was there a reason for this)

3. **Did ICC direct or influence any of the cancer control work undertaken in your organization and/or country?**

1 ☐ Yes (please describe) 2 ☐ No 3 ☐ Don't know

4. **Share your ideas or interests on forms/ways of building a sustainable "community of practice" in cancer control?**

5. **How will you use what you are learning/learned at this congress - what specific activities do you plan undertaking. Please describe.**

6. **Can we contact you post congress as we compile the evaluation report**

☐ Yes 2 ☐ No

Name _____



ICCC4 - INTERVIEW QUESTIONNAIRE

Hello, I'm a member of the Conference Evaluation Team. I'm collecting feedback from those who are participating in the International Cancer Control Congress (es). By participating in the interview you consent to the information being used for reporting purposes.

- 1. Thinking back across the International Cancer Control Congresses, 1st ICCC 2005 or 2nd ICCC 2007 or 3rd ICCC 2009 or 4th ICCC 2011, can you recall the most important things you gained from attending (why have you attended these congresses)?**

- 2. Did you do anything differently in your cancer control work as a result of attending the congress? (...did the conference influence your work?)**

1 ☐ Yes (please describe) 2 ☐ No (was there a reason for this)

- 3. Did ICCC direct or influence any of the cancer control work undertaken in your organization and/or country?**

1 ☐ Yes (please describe) 2 ☐ No 3 ☐ Don't know

- 4. Outside your organization, are you aware of ICCC influencing cancer control work in your country?**

1 ☐ Yes (please describe) 2 ☐ No 3 ☐ Don't know

- 5. How will you use what you are learning/learned at this congress - what specific activities do you plan undertaking. Please describe.**



ICCC4 - INTERVIEW QUESTIONNAIRE

6. Have you been to any other global cancer control congresses? Is there any particular advantage of the ICCC congress

7. Between the 3rd and 4th ICCC which one do you think is more important to you and why.

8. Has your concept of cancer control changed between the 3rd and 4th ICCC.

9. Can we contact you post congress as we compile the evaluation report

☐ Yes ☐ No

Name _____

That is the end of my questions. Please may I have some information about you.

10. What is your gender?

1 ☐ Female ☐ Male

11. What is your main occupation (✓ check one only)

- 1 ☐ Teacher / trainer / educator
- 2 ☐ Researcher / scientist
- 3 ☐ Clinician / physician
- 4 ☐ Other health provider e.g. nurse, social worker
- 5 ☐ Program / facility administrator/manager
- 6 ☐ Government official / policy maker
- 7 ☐ Pharmaceutical representative / manufacturer
- 8 ☐ Journalist / media representative
- 9 ☐ Community / religious / traditional leader
- 10 ☐ Others (please specify)

12. What type of organization do you work in? (✓ check one only)

- 1 ☐ Governmental (e.g. Ministry, Municipality, Hospital-based, Community-based etc)
- 2 ☐ Non-governmental organization (e.g. UICC, ACS, APOCP etc)
- 3 ☐ UN Agency (e.g. WHO, IAEA, FAO, UNDP, WTO etc)
- 4 ☐ Foundation (e.g. cancer foundations, hospital foundations etc)
- 5 ☐ Research organization
- 6 ☐ Hospital –based (not a government institution)
- 7 ☐ Community-based (not a government institution)



1 ☐ Yes 2 ☐ No

APPENDIX D

This offers a table on “Activities Planned or Performed by ICC3 and ICC4 Participants”. These are activities by participants who provided information on activities they planned or performed in their response to the surveys and/or during interviews.

Appendix D

Activities Performed or Planned by Participants

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
Prevention <ul style="list-style-type: none"> • Screening • Tobacco control • Clinics • Strengthening training in prev. • Strengthen primary prevention & public health policy • Promote more effective program • Increase prevention programs • Increase contents of cancer prev. & control in nursing school • Share insights • Forums 	Prevention <ul style="list-style-type: none"> • Cancer awareness and prevention program - Smoke free Penang • Included cancer prevention in Nigeria National Medical College conference , August 2010 • Creating awareness • Introduced a FORUM of discussion with the Univ. of Campinas, for Cancer Prevention • Secondary prevention for colorectal cancer at a municipal level • Doing primary and secondary prevention in a province • Tobacco Control Program • Produced a new anti-smoking video clip for national TV • preventive clinical practice • Development of new cancer prevention programmes (Breast, colorectal, cervical cancer) • Development of Primary Prevention Programs • Secondary cancer prevention • Addressing physical activity, 	Prevention <ul style="list-style-type: none"> • Screening • Tobacco Control • Share Insights • Forums • Apply new insights to prevention programs • Conduct prevention programs 	Prevention <ul style="list-style-type: none"> • Cancer prevention • Prevention work with INCA Brazil • Prevention work with CPAC, Canada • Globally working on prevention between WCRS, AICR and INCTR • Working in primary prevention by seeing geographic differences in cancer control • Attended Cancer prevention and control training course in China • Continuing work on Cervical & breast cancer prevention & control in China • Tobacco control activities • Promoting & raising cancer prevention awareness • Community based prevention with focus on carcinogenic risk factors • Early primary Prevention activities • Public policies to prevent cancer • Organized cervical cancer screening in Latvia • Initiated prevention activities for cervical cancer and liver cancer • Education of students regarding cancer prevention • Estbd. cancer prevention and

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
	<p>pollution & anti-smoking</p> <ul style="list-style-type: none"> • Development of primary and primordial prevention in disadvantaged communities (aboriginal) • Promoting prevention • Extending prevention activities • Better understanding of screening/prev. activities 		<p>control coordination committee</p> <ul style="list-style-type: none"> • Initiation national program of fighting against tobacco and declaration of cancer free world • Nationally holding training session for cancer prevention & control • Health Promotion • Did month long Cervical Cancer Prevention activities in Jakarta in partnership – gave free services for women in the city with VIA method. The achievement was 7860 examination. • Anti-smoking policy • Prostate cancer awareness • Diet control • Alcohol consumption control
<p>Sharing information</p> <ul style="list-style-type: none"> • Raising awareness • Insights from Congress • Congress material • Informing colleagues/others • Lecture • Integrate learning to future work • Meet unit head, share new ideas • Communicate with EU Commissioner of Health • Link org. to congress website • Use teleconference to share • Share insights on primary prevention of cc/chronic diseases • Summarizing key learnings 	<p>Sharing Information</p> <ul style="list-style-type: none"> • Provided advice based on ICCC3 presentations to regional efforts to establish cancer data collection systems • Shared contact details of ICCC3 participants • Cancer talk and seminar • Presented poster & lectured ophthalmology residents March 2010 • Decided to present annually a paper at the ophthalmological society of Nigeria to manage Retinoblastoma. Submitted paper for this year. • Ongoing discussions with 	<p>Sharing Information</p> <ul style="list-style-type: none"> • Insights from Congress • Share information on health quality indicators and findings of OECD system of cancer care study • Use mass media, internet and NGOs to increase awareness of cancer control. • Informing colleagues/others and come up with a plan of action • Share new information with colleagues 	<p>Sharing Information</p> <ul style="list-style-type: none"> • Introduced local cancer experts into thinking more globally • More involvement with WCRF • Expanding focus on vulnerable populations in Canada • Sharing best practices and learning with colleagues • Sharing learning opportunities • I learned a substantial amount of new useful information that is helping me in my daily work • engagement with colleagues for program planning • Developed Congress Report & sent to key government and NGO agencies working in cancer

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
	<p>national head of cc on how best to work in the area of cancer control</p> <ul style="list-style-type: none"> • Lectures about tobacco control with factory managers in an industrial country • Sharing info in low/med income countries • Working with volunteer org • Teaching • Sharing new information • Organized 1st Cervical & Breast Cancer conference for GPs and gynecologists in Estonia • Actively communicating • Supporting Global Youth Tobacco awareness • Shared summary of breakout sessions • Raising internal awareness of cancer control issues in emerging markets • Sharing informations about other countries initiatives with my partners 		<p>control</p> <ul style="list-style-type: none"> • Meeting with NZ Cancer Registry staff regarding need for NZ involvement in International Cancer Benchmarking Partnership • Cancer awareness program for the communities •
<p>Research</p> <ul style="list-style-type: none"> • Initiate new research • Explore other projects/research that may inform current work • Write protocol using cancer registry data • More pop-based studies • Improve biobanking for research • ↑network for clinical research 	<p>Research/Study</p> <ul style="list-style-type: none"> • Study on public opinion about cancer control in Poland • Study on reasons of low attendance in cervical cancer screening projects in Poland • Established an epidemiological Cohort Study with 100,000 babies in Campinas 	<p>Research/Study</p> <ul style="list-style-type: none"> • Undertake new research • Conduct research about other expanding indicators of breast cancer screening on primary health care • Epidemiological research - gastric and esophageal cancer 	<p>Research/Study</p> <ul style="list-style-type: none"> • Promoting more KTE research funding for LMIC Investigators • Commencing research work on a global framework in cancer control • Continue to work on my cancer control research projects • Doing research

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
<ul style="list-style-type: none"> • Dev hypothesis on screening • Increase research students doing cancer prev. & cc research • 	<ul style="list-style-type: none"> • Cancer Control Research Projects • Undertaking new research or publication, • Communication research in Latin American countries • Started research on cancer from HCV in Egypt • Doing research on nurse contribution to early detection of breast cancer control Brazil. • Doing research • Compiling all benign cancers for further research • Database studies • Brazil , Mexico, Argentina, Uruguay and Chile partnering with US NCI Research project for Breast Cancer • Research on cancer mortality in Romania • Increasing research on breast cancer prevention including intervention on risk factors among young women • Exploring SES and cancer, ageing and cancer, occupation and cancer 		<ul style="list-style-type: none"> • Gene polymorphism and advanced research in Jordan • Research activities in CC screening field • Initiating new research to quantify the barriers to early detection of breast cancer • A proposed qualitative study • Developed patient centered research focus • Planned new research • A study about opioid usage in cancer patients in primary care • Epidemiological study • submitted research proposal • New insight for data contribution between Arab • Establishing the Pan Arab Oncology Research Group (PAORG) in Saudi Arabia • Submission to NGO research funding body regarding need to increase investment in intervention research • University research
Collect Information <ul style="list-style-type: none"> • innovative models to deliver care 	Collect Information <ul style="list-style-type: none"> • Doing further cc studies in Central America • Globally scoped social media 	Collect Information <ul style="list-style-type: none"> • Develop an inventory of laws/regulations in cancer control by country and use this information as I take decisions or provide global advise in cc 	Collect Information

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
Partnerships/Collaborations <ul style="list-style-type: none"> Forming new connections Follow-up new contacts Dev new collaborations Exchange information Follow-up email correspondence Follow-up new contacts Partner with King Hussein Cancer Centre in Jordan Rethink industry partnerships To monitor & evaluate cancer survival rates Share knowledge & start new collaboration Realize EU-AU collaboration Make symposium for IPOS & UICC Share new ideas on EUROCHIP Network Conference call with European School of Oncology Increase community based programs Dev collaboration in cancer prev. Convene coalition; expand work in primary prev., cc & palliative Networking bio-banks between continents Expand collaborations globally 	Partnerships/Collaborations <ul style="list-style-type: none"> Working on EUROCHIP - Rehab Introduced concept of COP Organizing a Oncological network from Europe with developing countries Continued fostering involvement of all concerned in the coalition of NCDs, Initiative to develop palliative care program Liaison and collaboration with NGOs involved in cancer control Promoting alliances with common interest groups Global interaction Latin American Cancer Control Networking Initiative with ten Latin American countries Brazil and BC Cooperation Activities Exploring other potential partners in Asia for expanding the international cancer control network Networked tumor banking activities Through networking at the congress, linked up with London School of Hygiene and Tropical Medicine – has opened up career opportunity PHAC/CPAC collaboration for 	Partnerships/Collaboration <ul style="list-style-type: none"> Form new connections Dev new collaborations Follow-up with new contacts in relation to the role of primary care in cancer control. Increase the exchange of experiences by annual meeting of PMDS representatives Develop a plan with NCI Korea for regular regional capacity building in the WPRO Region Explore an Oral Cancer/Head & neck cancer early detection program with India Strengthen partnerships of IAEA-PACT program Expand role of my organization in international cc efforts Maintain contacts made at the congress. Continue to collaborate with specific colleagues around nursing training issues in cancer care. Have focused discussions with my organization regarding future collaboration through the ICC3 network 	Partnerships/Collaborations <ul style="list-style-type: none"> Confirming to conduct annual meeting of PMDS representatives More awareness of policy initiatives elsewhere to build on in my work Participating in an international collaboration project Collaborative work for Asian countries Strengthened a collaborative community-based cancer control pilot project International collaborations International collaboration on cancer screening Multisectoral coordination Started collaboration with colleagues from Malaysia that I met at the conference Increased collaboration with colleagues from Korea that I met at the conference Network Development of cancer control partnership with other related inter sectors, inter program, NGOs and private sectors Developing collaborations, in touch with latest knowledge

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
	prevention in the North BC <ul style="list-style-type: none"> Organizing a Community and Academic Partnership to identify community needs & grants to evaluate intervention New contacts and regional partnerships 		
Cancer Control Continuum <ul style="list-style-type: none"> Strengthen links between tertiary and primary care Strengthen work in spectrum Apply new insights to clinical practice 	Cancer Control Continuum <ul style="list-style-type: none"> Strengthening primary and acute care linkage Strengthening the population based cancer control programs 	Cancer Control Continuum <ul style="list-style-type: none"> Apply new insights to clinical practice Strengthen work across the cancer control spectrum 	Cancer Control Continuum <ul style="list-style-type: none"> Applying new insights Workshop on cancer control in universities and hospitals in Cameroon and abroad Working on cancer control programs Doing Rural Woman Cancer Control Programme supported by the local administrative body Diagnostic and treatment Tracking social determinant factors in cancer control Expanding our breast/cervical cancer program to include lifestyle modification interventions Developing targeted cancer control messages for my organization Cervical Cancer Control Focusing on cancer control programs Enhance breast cancer control Population wide cancer control activities Oral cancer control

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
			<ul style="list-style-type: none"> Lung cancer control by doing tobacco control
Palliative Care <ul style="list-style-type: none"> Organising forum Link with registry activities Share new insights Urge dev. of national palliative care program Estb. telehealth palliative care Program review 	Palliative Care <ul style="list-style-type: none"> Initiative to dev palliative prog. Joined teams with NGO for future prog. on palliative care pilot model Palliative & psychosocial care 	Palliative Care <ul style="list-style-type: none"> Through “two Worlds IINCTR-Canada) we further develop palliative care (INCTR.pax) program in Nepal and India. Develop palliative care program Start demo projects on palliative care in rural areas Apply new insights to palliative care 	Palliative Care <ul style="list-style-type: none"> Palliative Care Enhance palliative care Developing a system for Palliative services in Division of Oncology Gynecology
Early Detection & Screening <ul style="list-style-type: none"> Develop screening programs Analyze why current screening programs not effective Implementation of a national colorectal cancer screening programme Education & training to screen cervical cancer screening 	Early Detection & Screening <ul style="list-style-type: none"> Dev. cancer early detection & screening program Early cancer diagnosis in infants, through a community program Strengthening advocacy on cancer screening programs Population screening Pop-based mammography screening Development of colorectal cancer screening policy Preparing for recto and colon cancer screening Colonic screening Development of an oral cancer screening initiative ↑Support in diagnosis, detection & pathology Re-evaluated screening 	Early Detection & Screening <ul style="list-style-type: none"> Policy development Programs 	Early Detection & Screening <ul style="list-style-type: none"> Since ICC4 have developed a policy document for WHO/EURO on early detection Early detection activities Screening of cervical cancers in rural Cameroon Screening of prostate, breast, and liver cancers Cervical cancer screening in China Focusing on cancer screening and cancer etiology Using the new method for gastric cancer detection Working on HPV and cervical pre-cancers HPV Vaccination Cervical cancer screening Breast cancer early detection Strengthening & developing cervical and breast screening

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
	<p>choices when doing programs</p> <ul style="list-style-type: none"> • Development of the organized CC screening programme in Latvia 		<p>programs</p> <ul style="list-style-type: none"> • High risk group detection in cancer • Screening program in Jordan • Teaching activities regarding CC screening field • A tailored screening program • Developing guideline for primary care doctors on early detection of breast cancers • Developing health education materials on cancer control • Breast cancer early detection • Prostate cancer screening •
<p>Implementation & Activities</p> <ul style="list-style-type: none"> • Simplify clinical practice guidelines to facilitate implementation • CC strategy implementation • Implementation of learning's • Revise my program short-term objectives, amend TOR for IMPACT reviews • Implement plan with emphasis in promotion and early screening • Apply new insights to cc program update & implementation • Apply new insights to new projects on childhood adolescent prevention projects 	<p>Implementation & Activities</p> <ul style="list-style-type: none"> • Implementation of 5-year survival study in Podlaskie vivodship in Poland • Implemented Clinical guideline • Multidisciplinary care dissemination across Spain • Pushed for development of clinical practice guidelines • Exposed asbestos issue • Concord Project: analysis of 5 yr relative survival trends in Holycross Region • Reconfiguration of cancer treatment services • Participated in training in PATH program for cancer in Mediterranean countries • Working with Aboriginal Populations in Canada 	<p>Implementation & Activities</p> <ul style="list-style-type: none"> • Organize conferences • Apply new insights to new projects • Apply new insights to cc program • Capacity building activities 	<p>Implementation & Activities</p> <ul style="list-style-type: none"> • initiated work on ICC5 • working to raise profile of international network for cancer treatment and research Canada branch- two worlds cancer collaboration • working on institute for health system sustainability • Since the Congress have done cancer control assessments, planned for missions and workshops in Iran, Jordan, Moldova, • Encouraged and developed primary health education and school health curriculum • Developing guidelines • Implementation of programs • Actively participating with WHO

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
	<ul style="list-style-type: none"> • Focus on Canadian Territorial contexts for Cancer Control • Food security • Participated in Advisory Committee re Cancer Stigma • More directed and insightful participation in organisation's QA/QC Committee • Strengthening surveillance • Started clinical trials • Smoking treatment • Tried to use international models in domestic situations with low economic status • Involved in PACT program • Improving information about breast self-examination among women with low income. • Teaching new examples and experiences • Affirmate current practices • 		<p>and other UN agencies following meetings related to the NCD Political Declaration</p> <ul style="list-style-type: none"> • Improved our need assessment review missions in terms of coverage • Education • Identifying cancer-specific expenditure data • Providing cancer treatment • Finding expert to set up cancer center in my country • Working on developing new chemotherapy treatment guideline • Working on developing new guidelines to overcome chemotherapy side effects • Working on developing new cancer treatment guideline depending on genetic polymorphism • Volunteered with community group • Implementing policy • Establishing new cancer journal for public • Strengthening PACT activities • RT strategies in Mongolia • Strengthening surveillance of cancers in Sri Lanka
<p>Nothing</p> <ul style="list-style-type: none"> • No time - full agenda 	<p>Nothing</p> <ul style="list-style-type: none"> • Do not remember 	<p>Nothing</p> <ul style="list-style-type: none"> • No time 	<p>Nothing</p> <ul style="list-style-type: none"> • No time

ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
Department Planning <ul style="list-style-type: none"> Dev plan of action for dept. 2010 	Department Planning	Department Planning	Department Planning
Cancer Plan (NCCP) <ul style="list-style-type: none"> Development Implementation Re-discuss objectives Work on cancer indicators Complete CCP Finalize CC Program and adopt a pop-based approach Overview cc strategies Incorporate congress info into NCCP under development Expanding cancer planning training to more countries Develop local version of international cc models Enhance edu & training of programs 	Cancer Plan (NCCP) <ul style="list-style-type: none"> Developing cancer plan Elaborated our National Control and Prevention Cervical Cancer Work in progress- Implement our NCCP New cancer control strategies in my region Change cc protocols Updated NCCP Exchanged e-mails regarding cancer control planning 	Cancer Plan (NCCP) <ul style="list-style-type: none"> Develop NCCP Implement NCCP Use ICC4 earnings when we update or review the objectives of the cancer plan Take ICC4 recommendations and include them in NCCP Brazil 	Cancer Plan (NCCP) <ul style="list-style-type: none"> Commenced implementing NCCP CC Program development, Improving cancer care strategy EU NCCPs Policy development finalized Establishing national strategy of CCC NCCP in India Development of cancer control planning Development of community based intervention on cancer control program National Cancer Prevention and Control Program (Primary Prevention Strategy) National cancer prevention and control program (Research and development strategy)
Explore NCD approach <ul style="list-style-type: none"> integrated chronic disease mgt application to aboriginal community in Canada 	NCD Approach <ul style="list-style-type: none"> Better integration of cancer control with NCD control 	NCD Approach <ul style="list-style-type: none"> Strengthen and improve training program for NCD and prevention Work towards integrated policy framework for cancer & chronic disease prevention Continue reiteration with relevant bodies/agencies that NCD also includes cancer. 	NCD Approach <ul style="list-style-type: none"> Prevention of NCDs using traditional lifestyle practices
Advocacy	Advocacy	Advocacy	Advocacy

ICCC3 On-Site Survey & Interviews <i>(Planned Activities)</i>	ICCC3 Follow-Up Survey <i>(Performed Activities)</i>	ICCC4 On-Site Survey & Interviews <i>(Planned Activities)</i>	ICCC4 Follow-Up Survey <i>(Performed Activities)</i>
<ul style="list-style-type: none"> • Develop report for advocacy to government • Re-approach health policy makers in country for action • Meet with govt members, NGO's, advocacy groups • Writing to the Minister of Health identifying opportunities to draw upon e.g. Ireland to provide an external perspective or advise. • 	<ul style="list-style-type: none"> • Advocating cancer prev. • Advocacy to get better policy (anti tobacco law) • Attended Cancer Advocacy Training - able to participate more purposively • Advocacy on national cancer control activities • March of awareness in prevention and control of breast cancer and cervical cancer. • Advocating for the development of the EU-AU community of practice • Advocating partnership with Korea for the 4th ICCC • 	<ul style="list-style-type: none"> • Explore how we can influence policy at a local level • Contact political leaders, raise cancer awareness and advocate cancer control • Advocate cancer be included for action in the NCD spectrum. • Strengthen advocacy or policy work 	<ul style="list-style-type: none"> • Advocated for greater resource and expertise contribution towards global efforts • Developing Advocacy skills, • Advocacy of cancer control • Advocacy to provincial and district government on cancer control • Advocating for increased research funding in cancer control from the government •
Monitoring and Evaluation <ul style="list-style-type: none"> • NCCP dev./implementation • Collaboration with others • Cancer Survival • Apply congress learning's on evaluating problems & quality • Better outcome monitoring • Emphasize measuring progress, compliance with guidelines/ targets • Change programs rapidly if progress not enough 	Monitoring and Evaluation <ul style="list-style-type: none"> • Monitoring Breast and Cervical Cancer Screening • Measuring effectiveness of geographically dispersed communities of practice • 	Monitoring and Evaluation <ul style="list-style-type: none"> • Expand economic studies work to examine cost effectiveness of cancer control interventions especially technologies • Concept of how cancer control systems operate and can be evaluated. 	Monitoring and Evaluation <ul style="list-style-type: none"> • Since the Congress have done cancer control assessments and planning missions and workshops in Iran, Jordan, Moldova • Initiated full evaluation of our country programs
Cancer Registry <ul style="list-style-type: none"> • Establish registry • Apply new standards of surveillance in cancer registry 	Cancer Registry <ul style="list-style-type: none"> • Work on cancer registration • Integration of registry data into gov't dashboards 	Cancer Registry <ul style="list-style-type: none"> • Plan to discuss with my hospital management on the need to revitalize our cancer registry 	Cancer Registry <ul style="list-style-type: none"> • Continuing work to strengthen cancer registry • Population based cancer registry • Setting cancer registry hospital

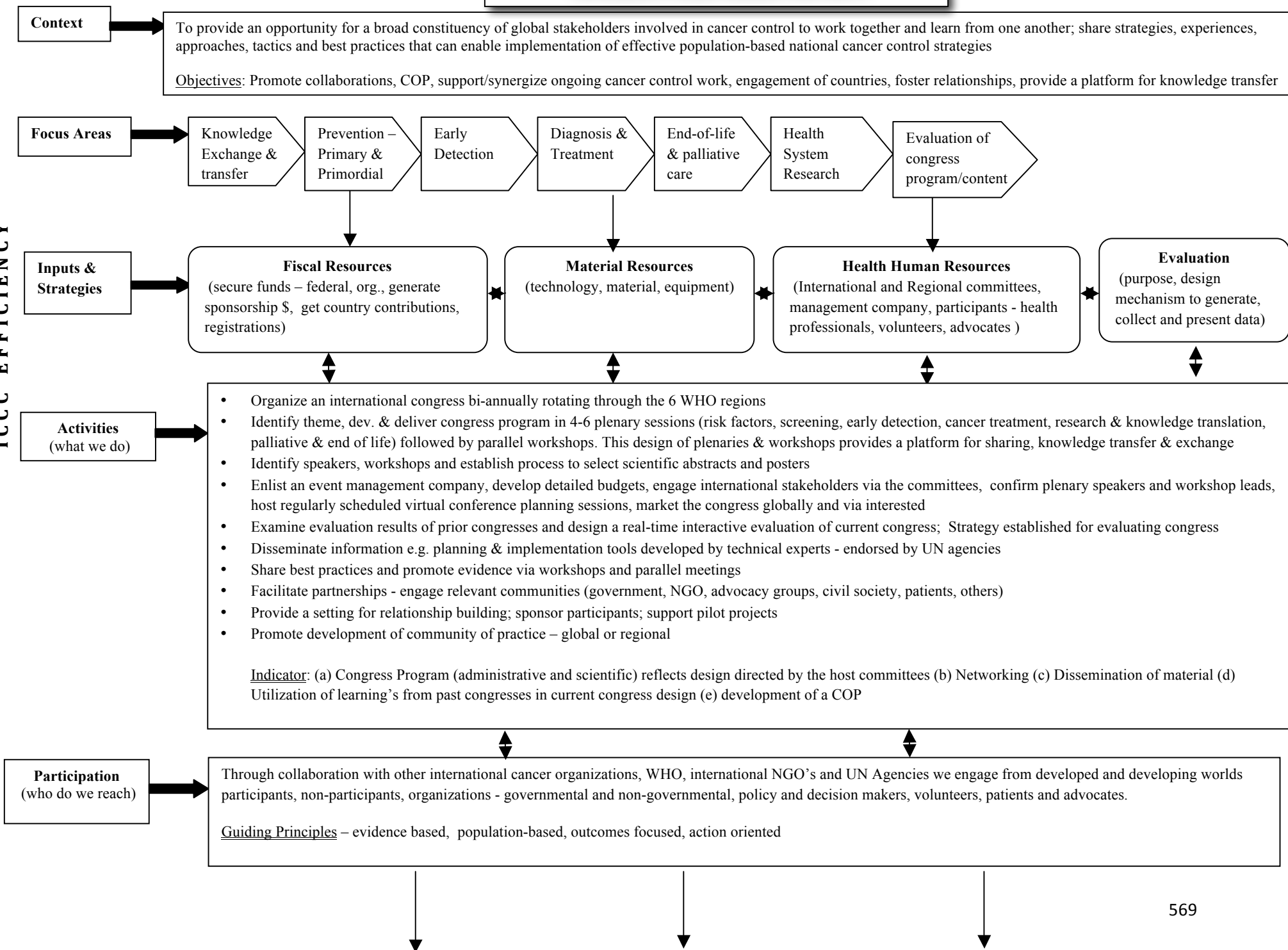
ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
			based <ul style="list-style-type: none"> • Hospital based cancer incidence data from 7 major hospitals • Cancer registry purposes • Analysis of the registry data • Population based cancer registry initiated • Cancer registry (Population and hospital based)
Cancer Indicators <ul style="list-style-type: none"> • establish a list of cancer rehabilitation indicators 	Cancer Indicators <ul style="list-style-type: none"> • 	Cancer Indicators <ul style="list-style-type: none"> • establish cancer indicators • Develop Health Quality Indicators • 	Cancer Indicators <ul style="list-style-type: none"> • New methods of cancer data analysis • EU indicators • Poster presentation of cancer incidence data in Nepal • Cancer mortality registration in Vietnam •
Academics <ul style="list-style-type: none"> • Complete Masters/PhD • Update teaching materials • Teaching 	Academics <ul style="list-style-type: none"> • Influence school health • medical education curricula • PhD thesis • Improve resident planning • Teaching regarding CC screening • Increasing subjects related to cancer control and prevention in the nursing graduate program at the university. • 	Academics <ul style="list-style-type: none"> • Complete Masters/PhD • Teaching 	Academics
Cancer Declarations <ul style="list-style-type: none"> • Familiarize with WCD • 	Cancer Declarations <ul style="list-style-type: none"> • Work - Cernobbio declaration 	Cancer Declarations	Cancer Declarations <ul style="list-style-type: none"> •

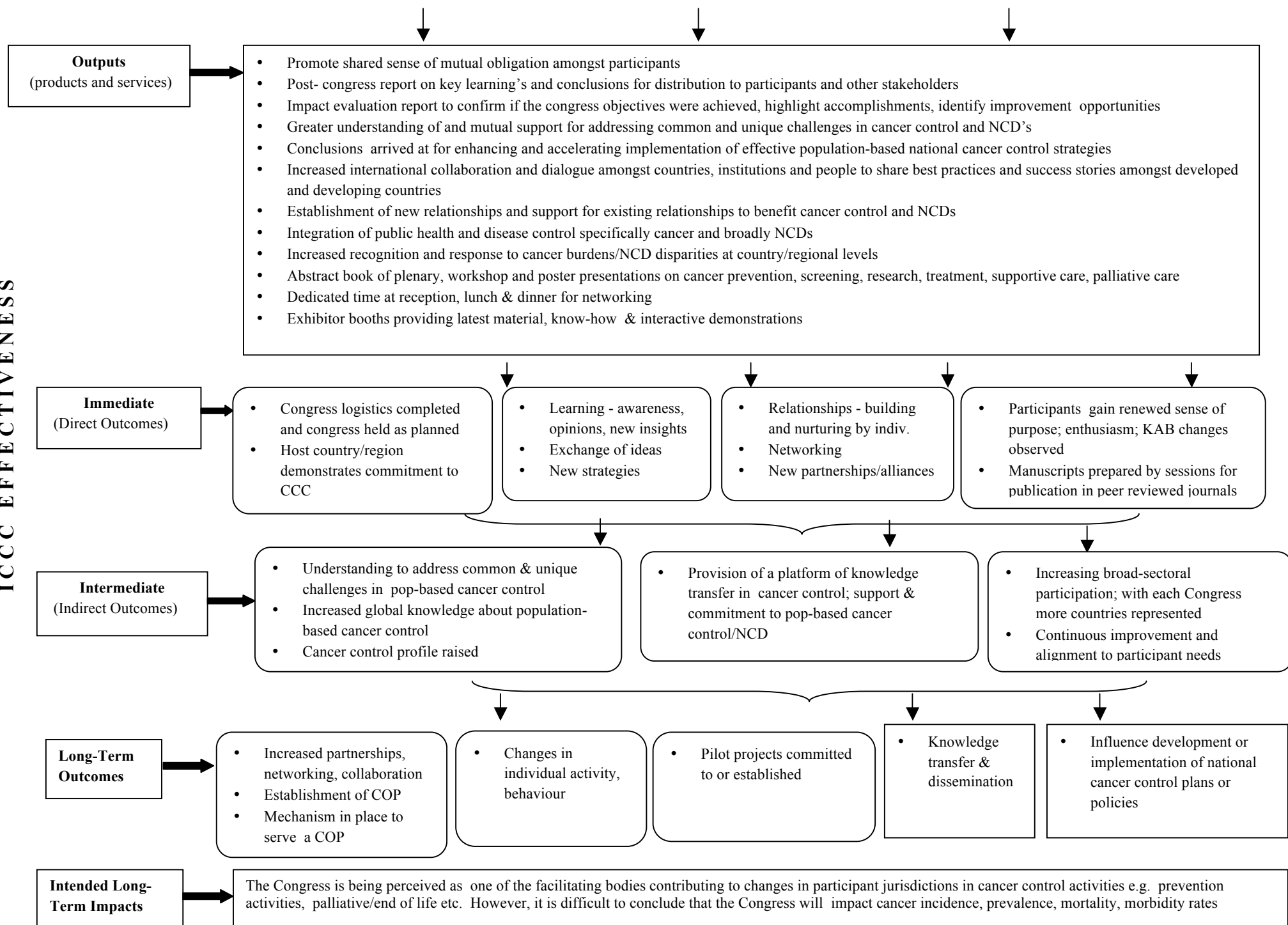
ICCC3 On-Site Survey & Interviews (Planned Activities)	ICCC3 Follow-Up Survey (Performed Activities)	ICCC4 On-Site Survey & Interviews (Planned Activities)	ICCC4 Follow-Up Survey (Performed Activities)
Patient Centered Activities (with pts) <ul style="list-style-type: none"> Promote rehab & palliative care Promote HPV vaccination Share factors for primary prev. 	Patient Centered Activities <ul style="list-style-type: none"> Organized in Estonia a cancer patient information sharing and retreat camp Work with adolescents and young adults General overview Management of childhood cancer survivors Patient education Pacific marches asking for recognition of patient rights The "Patient University" project has made new advocates who would defend the patients rights. 	Patient Centered Activities <ul style="list-style-type: none"> Promote patient activities 	Patient Centered Activities <ul style="list-style-type: none"> Offering radiation therapy Women's health focus on cancer Prioritizing cancer control
Funding <ul style="list-style-type: none"> Explore new sources 	Funding <ul style="list-style-type: none"> Trying to get support for my 2 projects presented at ICC3 	Funding <ul style="list-style-type: none"> Seek philanthropy, foundation funds/establish charitable connections 	Funding <ul style="list-style-type: none"> Seeking funds Cancer economics Cost benefit of early detection new procedures of cancer
Knowledge Translation <ul style="list-style-type: none"> Enhance capture of practice based evidence Application of the Integrated chronic disease management approach (example from Australia and Philippines) to a project in Canada Examine for adoption in Brazil the fruit and veggie lifestyles campaign in Canada for 	Knowledge Translation <ul style="list-style-type: none"> Conducted a programme review and systems strengthening exercise in light of the information obtained from the very enriching palliative care workshops 	Knowledge Translation <ul style="list-style-type: none"> Translate to work in clinical practice/guideline development/implementation 	Knowledge Translation <ul style="list-style-type: none"> Translating learning's to guideline development Initiated knowledge translation projects in the States of Sergipe, Rio de Janeiro and Para , Brazil. Exploring how my organization can become more engaged in international cancer control KTE efforts Reviewing presentations from the

ICCC3 On-Site Survey & Interviews <i>(Planned Activities)</i>	ICCC3 Follow-Up Survey <i>(Performed Activities)</i>	ICCC4 On-Site Survey & Interviews <i>(Planned Activities)</i>	ICCC4 Follow-Up Survey <i>(Performed Activities)</i>
<p>colorectal cancer prevention</p> <ul style="list-style-type: none"> • Take a CCC perspective in my advisory role for NIH/NCI (US) on translating science into practice for cancer control interventions 			<p>congress especially Mpower for addressing a modifiable cancer risk factor</p> <ul style="list-style-type: none"> • Translating research into practice and policy •
<p>Participation</p> <ul style="list-style-type: none"> • Conferences • Meetings • Task Forces • Boards/Chapters 	<p>Participation</p> <ul style="list-style-type: none"> • Participated in EPAAC • Participated in OCCAM • Joined national task force on AYA oncology, Brazil • Joining the Board of INCTR Canada • Attended AOCP • Seconded to the Cancer Prevention & Control Committee 	<p>Participation</p> <ul style="list-style-type: none"> • Conferences • Meetings • Task Forces • Boards/Chapters 	<p>Participation</p> <ul style="list-style-type: none"> • Participated in regional conference • Establishing annual oncology conference in Yemen

APPENDIX E

This offers the “Logic Model” for the International Cancer Control Congresses





APPENDIX F

This offers a tabulation of “ICCC3 and ICC4 Follow-up Activities” (i.e. activities participants said they did following the congress in the follow-up surveys).

F.1 Tabulation of Participant-Reported ICC3 Follow-Up Activities

F.2 Tabulation of Participant-Reported ICC4 Follow-Up Activities

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1		APPENDIX F.1 - TABULATION OF PARTICIPANT-REPORTED ICCC3 FOLLOW-UP ACTIVITIES																			
							Dev/Initiation of Prevention Programs	Dev/Initiation of ED/Screening Programs	Partnership/Collaboration/Networking	Sharing Info/Educating	Signing Agreements-MOU	COP formed	Alliance	Undertook other specific cc activities	Dev/Imp of policy	KT activities	Screening/ED Prevention Activities	Research	Cancer Registry Activities	Initiate Cancer Registry	
2	S. No	ID#	Country	Palliative Care	Dev/Implementation of CC Plans	Dev of CC Programs															
3	1	1	Malaysia											1			2				
4	2	4	Nigeria											3							
5	3	6	India											1							
6	4	300	Zimbabwe						1					1			1				
7	5	19	Italy							1				1							
8	6	20	Italy											3							
9	7	22	Canada											1			1				
10	8	30	Poland							1							2				
11	9	337	Italy											3							
12	10	339	Latvia							1							1				
13	11	340	Italy											1				2			
14	12	44	Argentina							1							2				
15	13	49	Brazil							1				1				1			
16	14	60	Romania							1							1		1		
17	15	74	Phillippines							1				1			1				
18	16	8	Italy											1							
19	17	9	Italy		1				1	1				1							
20	18	12	Italy											3							
21	19	33	Spain							1				2							
22	20	34	Brazil							1							1	1			
23	21	107	Poland															1	1		
24	22	111	Italy											1							
25	23	119	Italy														1				
26	24	133	Ireland						1					1			1				
27	25	135	USA											1				1	1		
28	26	149	S. Africa							2							1				
29	27	153	Egypt	1					1					1							
30	28	78	Vietnam	1		1	1										1				
31	29	83	Italy											1							
32	30	88	Canada											1							
33	31	93	Estonia							2				1			1				
34	32	94	Latvia		1			1	1												
35	33	295	Ireland						1					1					1		
36	34	188	S. Africa											3							
37	35	192	Brazil															2			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1			APPENDIX F.2 - TABULATION OF PARTICIPANT-REPORTED ICCC4 FOLLOW-UP ACTIVITIES																		
							Dev/Initiation of Prevention Programs	Dev/Initiation of ED/Screening Programs	Partnership/Collaboration/Networking	Sharing Info/Educating	Signing Agreements-MOU	COP formed	Alliance	Undertook other specific cc activities	Dev/Imp of policy	KT activities	Screening/ED Prevention Activities	Research	Cancer Registry Activities	Initiate Cancer Registry	
2	S. No	ID#	Country	Palliative Care	Dev/Implementation of CC Plans	Dev of CC Programs															
3	1	24	Canada						1					2							
4	2	2	Australia											1	1						
5	3	7	Brazil											1			2				
6	4	20	Canada											3			2				
7	5	95	Malaysia					1													
8	6	75	Japan		1									1							
9	7	6	Austria											3							
10	8	9	Brazil													3					
11	9	13	Cameroon													1	2				
12	10	17	Canada											1		1					
13	11	21	Canada											1		2					
14	12	22	Canada							1						1		1			
15	13	25	Canada														1				
16	14	28	China		1									1			1				
17	15	29	China						1								2				
18	16	30	China															1			
19	17	31	China											2				1			
20	18	32	China						1												
21	19	33	China														3				
22	20	38	China														3				
23	21	40	Egypt	1										1					1		
24	22	42	Estonia							1				1			1				
25	23	45	France							1				1	1						
26	24	46	India			1											2				
27	25	48	India											1			3				
28	26	53	Indonesia											1			1			1	
29	27	55	Indonesia					1						1							1
30	28	57	Iran											1					1		
31	29	60	Iran											1							
32	30	62	Iran											1			2				
33	31	68	Japan											1			2				
34	32	80	Jordan					1						1				1			
35	33	81	Kenya			1								1							
36	34	83	Laos											1							
37	35	84	Laos											1			1			1	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	S. No	ID#	Country	Palliative Care	Dev/Implementation of CC Plans	Dev of CC Programs	Dev/Initiation of Prevention Programs	Dev/Initiation of ED/Screening Programs	Partnership/Collaboration/Networking	Sharing Info/Educating	Signing Agreements-MOU	COP formed	Alliance	Undertook other specific cc activities	Dev/Imp of policy	KT activities	Screening/ED Prevention Activities	Research	Cancer Registry Activities	Initiate Cancer Registry	
38		36	85	Laos											2		1				
40		37	86	Latvia						1							1	1			
41		38	87	Lithuania		1								1			1				
42		39	88	Malaysia										2			1				
43		40	90	Malaysia										1				1			
44		41	91	Malaysia		1											1				
45		42	93	Malaysia										3							
46		43	96	Malaysia					2								2				
47		44	97	Malaysia						1							2				
48		45	298	USA					1					1			1				
49		46	100	Malaysia										1			2				
50		47	106	Nepal										1			1		1		
51		48	107	netherlands	1														2		
52		49	113	Phillipines													1		1		
53		50	117	Phillipines	1	1															
54		51	270	Singapore		1												1			
55		52	272	Spain					1												
56		53	273	Sri Lanka											1				1		1
57		54	275	Sri Lanka										2	1						
58		55	279	Norway					2	1											
59		56	291	Turkey										1			1				
60		57	301	USA																	
61		58	302	USA										2				1			
62		59	305	Vietnam													1	1	1		
63		60	310	Yemen	1	1								2							
64		61	357	Nepal										3							
65		62	34	China						1							2				
66		63	4	India	1				1					1							
67		64	19	Canada						1								1			
68		65	41	Saudi					1					2							
69		66	50	Indonesia	1	1			1												
70		67	51	Indonesia						1							1		1		
71		68	54	Indonesia										1			1				
72		69	74	Japan											1						
73		70	108	New Zealand						1				1					1		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
74	S. No	ID#	Country	Palliative Care	Dev/Implementation of CC Plans	Dev of CC Programs	Dev/Initiation of Prevention Programs	Dev/Initiation of ED/Screening Programs	Partnership/Collaboration/Networking	Sharing Info/Educating	Signing Agreements-MOU	COP formed	Alliance	Undertook other specific cc activities	Dev/Imp of policy	KT activities	Screening/ED Prevention Activities	Research	Cancer Registry Activities	Initiate Cancer Registry	
75	71	112	Phillipines											2			1				
76	72	116	Switzerland											1							
77	73	168	S. Korea											3							
78	74	276	Sri Lanka											1			1		1		
79	75	277	Sri Lanka			2											1				
80	76	282	Thailand											3							
81	77	288	Thailand																1		
82	78	290	Thailand			2														1	
83	79	293	UK														1	1			
84	80	294	Tanzania											1			1			1	
85	81	297	USA											1							
86	82	35	China															1			
87			TOTAL	2	6	12	0	3	12	10	0	0	0	67	7	8	53	12	12	6	210
88			%	1%	3%	6%	0%	1%	6%	5%	0%	0%	0%	32%	3%	4%	25%	6%	6%	3%	
89																					

APPENDIX G

This offers a table that contains the “NCCP and Cancer Registry Information For Participating Countries”. That is, the information collected is specifically for countries corresponding to participants who responded to the ICC3 and ICC4 follow-up surveys with information on activities they had embarked upon. The information has been sourced from the WHO NCD Country profiles 2011, Analysis Report of National Cancer Control Programmes in Europe and web reports where available and appropriate.

	A	B	C	D	E	F	G
1			Appendix G - NCCP and Cancer Registry Information for Countries				
2	Source: WHO NCD Country profiles 2011 and Analysis Report of National Cancer Control Programmes in Europe						
3		Country	Has a cancer plan/program	Has a national population-based cancer registry	Any other topic specific chronic disease plan	Tobacco Control Plan	Additional Information from Web
4							
5	1	Austria	NR	NR	NR	NR	National Cancer Plan work-in-progress
6	2	Ethiopia	No	No	No	No	
7	3	Kenya	No	No	Yes	No	
8	4	Laos	NR	No	NR	No	
9	5	Yemen	Yes	No	No	Yes	Plan drafted March 2008
10	6	Albania	No	No	No	No	
11	7	Bulgaria	No	Yes	No	Yes	
12	8	Cyprus	No	Yes	No	Yes	Has a national cancer control strategy
13	9	Israel	No	Yes		No	
14	10	Jordan	No	Yes	No	Yes	
15	11	Uganda	No	No	No	No	
16	12	UAE	No	No	Yes	Yes	Working on an integrated NCD plan and topic specific action plans
17	13	Argentina	Yes	No	Yes	Yes	
18	14	Australia	Yes	Yes	Yes	Yes	NCCP released 2003. Has developed a cancer strategic plan 2011-14
19	15	Belgium	Yes	Yes	Yes	Yes	Integrated NCD Plan outlined 2008; Preparing the 2011-15 cancer plan with an evaluation mechanism
20	16	Brazil	Yes	Yes	Yes	Yes	Has an integrated NCD Plan, April 2011 National Plan launched to control cervical and breast cancer
21	17	Canada	Yes	Yes	Yes	Yes	Has an integrated NCD plan; Canadian Strategy for Cancer Control 2002--being shaped and implemented by Canadian Partnership Against Cancer estb. 2006
22	18	Cambodia	Yes	No	Yes	Yes	Has an integrated NCD Plan
23	19	Cameroon	Yes	No	No	No	NCCP released 2004, revised in 2006
24	20	China	Yes	Yes	No	No	Program for Cancer Prevention and Control launched 2003

	A	B	C	D	E	F	G
25		Country	Has a cancer plan/program	Has a national population-based cancer registry	Any other topic specific chronic disease plan	Tobacco Control Plan	Additional Information from Web
26	21	Egypt	Yes	No	Yes	Yes	Has an integrated NCD plan ;Cancer action plan developed in 2010
27	22	Estonia	Yes	Yes	Yes	Yes	Integrated NCD Plan developed in 2007
28	23	Finland	Yes	Yes	Yes	Yes	Has an integrated NCD plan
29	24	France	Yes	Yes	Yes	Yes	Plan developed in 2003
30	25	Gautemala	Yes	No	Yes	Yes	Has an integrated NCD plan
31	26	Iran	Yes	Yes	Yes	Yes	
32	27	India	Yes	No	Yes	Yes	Has an integrated NCD plan ; NCCP developed in 1976, revised in 2004. Strategy for Cancer Control 2007-11
33	28	Indonesia	Yes	No	Yes	Yes	Has an integrated NCD plan ; NCCP developed in 2006
34	29	Ireland	Yes	Yes	Yes	Yes	Strategy for Cancer Control in 2006
35	30	Italy	Yes	No	Yes	Yes	Has an integrated NCD plan; Cancer Plan in 2006
36	31	Japan	Yes	Yes	Yes	Yes	Has an integrated NCD plan; Cancer Control Act launched 2007
37	32	Latvia	Yes	Yes	Yes	Yes	Cancer Control Program 2009
38	33	Malaysia	Yes	Yes	Yes	Yes	Has an integrated NCD plan; NCCP also
39	34	Lithuania	Yes	Yes	Yes	Yes	Has an integrated NCD plan; National Cancer & Prevention Control Program 2003
40	35	Mongolia	Yes	Yes	Yes	Yes	Has an integrated NCD plan; National Cancer Registry launched 2010
41	36	Nepal	Yes	No	Yes	Yes	
42	37	Netherlands	Yes	No	Yes	Yes	NCCP 2010
43	38	New Zealand	Yes	Yes	Yes	Yes	NZ Cancer Control Strategy in 2003
44	39	Nicaragua	Yes	No	No	No	2008 with the help of WHO-PAHO
45	40	Nigeria	Yes	No	Yes	Yes	Has an integrated NCD plan
46	41	Peru	No	No	No	No	
47	42	Philippines	Yes	Yes	Yes	Yes	Has an integrated NCD plan
48	43	Poland	Yes	Yes	Yes	Yes	Has an integrated NCD plan; NCCP in 2005

	A	B	C	D	E	F	G
49		Country	Has a cancer plan/program	Has a national population-based cancer registry	Any other topic specific chronic disease plan	Tobacco Control Plan	Additional Information from Web
50	44	Republic of Korea	Yes	Yes	Yes	Yes	Has an integrated NCD plan; First NCCP in 1996, revised in 2006
51	45	Romania	Yes	No	Yes	Yes	Has an integrated NCD plan; First NCCP in 1996, revised in 2007
52	46	Russian Federation	Yes	No			Has an integrated NCD plan
53	47	Saudi Arabia	Yes	Yes	Yes	Yes	Has an integrated NCD plan
54	48	Singapore	Yes	Yes	Yes	Yes	Has an integrated NCD plan
55	49	Slovakia	Yes	Yes	Yes	Yes	Has an integrated NCD plan
56	50	S. Africa	Yes	Yes	Yes	Yes	Has an integrated NCD plan
57	51	Spain	Yes	No	Yes	Yes	NCCP in 2006, revised 2010
58	52	Sri Lanka	Yes	No	Yes	Yes	Has an integrated NCD plan, NCCP 2010
59	53	Sweden	Yes	Yes	No	No	
60	54	Switzerland	Yes	No	No	Yes	NCCP 2005-10
61	55	Thailand	Yes	Yes	Yes	Yes	Has an integrated NCD plan
62	56	Turkey	No	Yes	Yes	Yes	
63	57	UK	Yes	Yes	Yes	Yes	Has an integrated NCD plan; Has cancer reform strategy starting 2007 built on NHS Cancer Plan 2000
64	58	Tanzania	Yes	No	Yes	Yes	Has an integrated NCD plan; NCCP built with help of WHO-AFRO 2008
65	59	USA	Yes	Yes	Yes	Yes	Has an integrated NCD plan; Comprehensive Cancer Control Programs one for each state
66	60	Vietnam	Yes	No	Yes	Yes	Has an integrated NCD plan; NCCP since 2008; has a national Cancer Control Strategy 2010-20
67	61	Zimbabwe	Yes	Yes	No	No	
68							
69	Total		48	33		47	
70	NR= No Response						
71							
72							

APPENDIX H

This offers a table of “Missing Elements” from the Congresses.

APPENDIX H

MISSING ELEMENTS

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
<p>Address Issues</p> <ul style="list-style-type: none"> • Developing country concerns e.g. mortality data etc • Psychosocial issues • Funding issues • LMIC issues • issues around partnerships, public policy and advocacy • Human Resources • Current global concern?– Future? 	<p>Address Issues</p> <ul style="list-style-type: none"> • Electronic record of the patient • Focus on CC issues most pertinent to the region where the conference is held (and most participants come from). • health communication for prevention and promotion • Continuum of cancer control from primary prevention all the way to rehab/palliation; • Tobacco control • more in-depth discussions of evidence • Future priorities • Networking time • create or articulate an action plan at regional level ,aimed to evaluate the progress of activities • Cancer treatment • Knowledge transfer - treatment knowledge, expertise and resources to the developing world • Clinical trials - how to? • More emphasis on posters • Engage nations, organizations and people • Workshop sessions – more organization 	<p>Address Issues</p> <ul style="list-style-type: none"> • Developing country • Monitoring issues • Evaluation issues • Funding issues • LMIC issues • issues around partnerships, public policy and advocacy • Human Resources • Low number of participants 	<p>Address Issues</p> <ul style="list-style-type: none"> • Address funding issues and provide Funding Examples • More focus on developing countries • Communication issues • Capacity building issue of not enough people who are trained in low-middle income countries as needed for screening, cytology <pathology, etc. • Governmental policy issues • Not so much the "getting funding" but how to optimize allocation of control budgets by stages of development

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
	<ul style="list-style-type: none"> major focus on primary prevention aside from screening cancer control programme devoted to the elderly 		
Engagement & Participation <ul style="list-style-type: none"> Govt. Representatives Policy makers Patients Nurses, Rehab etc Educators Other interest groups NGOs Organized society Other health professionals 	Engagement & Participation <ul style="list-style-type: none"> Govt. Representatives Developing Marketplace of ideas for knowledge exchange 	Engagement & Participation <ul style="list-style-type: none"> Govt. Representatives Policy makers Patients & advocates Nurses, Rehab etc Educators Other interest groups NGOs Organized society Other health professionals Media Non-industry Pt interest organizations 	Engagement & Participation <ul style="list-style-type: none"> Cancer patient(s) & survivors Advocates Govt. Representatives More policy makers will link knowledge of participants with implementation at the country level Opportunities to explore private sector engagement in primary prevention Participation by a diversity of audiences- include all fields of health professionals, patients, advocates, members of the community etc. The decision makers at the national level should attend the ICCC meetings Government participation from various developing countries, especially those who are policy makers Greater representation from advocacy and the private sector
Involvement <ul style="list-style-type: none"> more involvement with govt and NGO's 	Involvement <ul style="list-style-type: none"> more involvement with govt and NGO's 	Involvement <ul style="list-style-type: none"> more involvement with govt and NGO's 	Involvement <ul style="list-style-type: none"> more involvement with govt and NGO's

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
	<ul style="list-style-type: none"> • Real expert missing from some plenary sessions • Participation of charities potentially interested in supporting new programs/projects 	<ul style="list-style-type: none"> • civil society • key people from specialty services • Coalition meeting between government, professionals, NGOs, physicians, agencies and others • Regional meeting on cancer control to make general strategy and action plan within regional countries 	<ul style="list-style-type: none"> • Involvement of public policy development partners and experts • Media • Few participants from less developed countries
Arrangements <ul style="list-style-type: none"> • Press & media coverage required • Increase representation from developing countries 	Arrangements <ul style="list-style-type: none"> • Posters co-located with coffee • Sponsored participant left directionless • Direction clarity 	Arrangements <ul style="list-style-type: none"> • Congress organised to retrofit space – lacked interaction in plenary & workshops • Hotel & conf. venue distance • Location of plenary, workshop & poster rooms. Need to be in one place 	Arrangements <ul style="list-style-type: none"> • Interaction of "senior" cancer control leaders with others newer to the community e.g. each dinner table include one "host" who then can engage others • Better display of information of Programs and workshops • Challenging to be so spread out in terms of the facilities • Tour of the cancer institute
Sessions <ul style="list-style-type: none"> • Best practice sessions • Tobacco Prevention & Control • Realities of cancer in low income countries • Cancer Prevention • Methodological sessions 	Sessions <ul style="list-style-type: none"> • Best practice • Workforce building • Evaluation of cancer policies in practice • 'Free paper' presentation (less workshops) 	Sessions <ul style="list-style-type: none"> • Primary prevention • Best practices for cancer control & cancers • Screening evidence bases • Lack of interactive participation – didactic lectures • Plenary & workshops lacked what kind of activities are being conducted, impact of those programs, targets, 	Sessions <ul style="list-style-type: none"> • Occupational and environmental risk • A focused country assessment to see what worked and what didn't during a fixed period. Select some countries to present their experience in detail and then analyze it! • Discuss best practices

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
		measures and if short term targets achieved <ul style="list-style-type: none"> • Monitoring & evaluation – how to do it • Advocacy session • Policy and political engagement • Patient and public engagement • Health technology assessment and health services research • Presentations from other multidisciplinary areas - economics, social science, political science • 	on how to disseminate information to masses: best practices on how to disseminate information to the masses. How do we engage the public to make them want to take positive action with regards to changing their lifestyle habits. <ul style="list-style-type: none"> • Prevention of NCDs using traditional lifestyle practices • Survivorship
Workshops <ul style="list-style-type: none"> • Training in evaluation & implementation • Clinical workshops • Trg. in data processing & interpretation • Reduce # presentations 	Workshops <ul style="list-style-type: none"> • Training Workshops with focus on skill building in developing an NCCP • Rapporteurs during the workshop • more workshops in psycho-oncology • Workshop on optimal use of human resources 	Workshops <ul style="list-style-type: none"> • Missed interactive round table sessions • Lack of clear directions by workshop facilitators • Abstracts unrelated to workshop sessions e.g. in survivorship • Lack of questions predetermined as a place to start for each workshop • Interactions between participants • Interactions with speaker & panel • Leaders to stay on agenda • Flexibility 	Workshops <ul style="list-style-type: none"> • Training • Workshops that extend over two days • More focused workshops • Increase time and workshop • Clear communication of the scope of the workshops. Some workshop topics didn't match actual content • New professional methods of analysing cancer data could be one workshop at ICC3 • Allow more time for open discussion with participants during workshops • Discussion on sustainable funding or utilising Social Media as a tool for fundraising • Collaborative work for Asian countries • Give more opportunity

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
			<p>to all countries, what they have done in cancer control</p> <ul style="list-style-type: none"> • Round-table interactive workshops after each plenary with specific issues for discussion around the workshop theme • Focus on the worktable strategy
<p>Implementation</p> <ul style="list-style-type: none"> • Clear Toolkit for recommended • “how-we-did-it” – not only studies but real experiences • ‘the how to’ • How implementation in accordance with WHO guidelines can be done and has been done in low, middle and high resource countries - in plenaries by peers! 	<p>Implementation</p> <ul style="list-style-type: none"> • Toolkit 	<p>Implementation</p> <ul style="list-style-type: none"> • Toolkit • How to implement a cancer control plan? • Write and make publications • Share Barriers & Challenges during implementation and strategies to deal with them 	<p>Implementation</p> <ul style="list-style-type: none"> • Toolkit • Strategy to implement policy from epidemiological evidence
<p>Posters</p> <ul style="list-style-type: none"> • Attention to quality • Promotion 	<p>Posters</p> <ul style="list-style-type: none"> • Attention to quality • Posters hidden to an extent, limited discussion 	<p>Posters</p> <ul style="list-style-type: none"> • Attention to quality • Little viewing time • 	<p>Posters</p> <ul style="list-style-type: none"> • Attention to quality • Larger space for poster presentation and time for discussion • Missed focusing and discussion on the content of the posters • More emphasis and better integration of poster sessions
<p>Connect ICCCs</p> <ul style="list-style-type: none"> • Connect outcomes of previous ICCCs - demonstrate changes that have occurred 	<p>Connect ICCCs</p> <ul style="list-style-type: none"> • Connect all ICCCs 	<p>Connect ICCCs</p> <ul style="list-style-type: none"> • Connect all ICCCs • Location of posters 	<p>Connect ICCCs</p> <ul style="list-style-type: none"> • Connect desired outcomes to changes that have taken place following last ICCC
<p>Presentations</p> <ul style="list-style-type: none"> • Middle income country 	<p>Presentations</p> <ul style="list-style-type: none"> • Middle income country 	<p>Presentations</p> <ul style="list-style-type: none"> • Middle income country 	<p>Presentations</p> <ul style="list-style-type: none"> • Middle income country

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
<p>presentations</p> <ul style="list-style-type: none"> • HIV/AIDS as a cause • Patient perspectives • Pathway of patient community – tertiary & community • Specific screening program & how it works • Communication of results of study • Provide template for workshop presentations so they are focused • Models of care from LMIC, not developed • Progress made in different countries • Models, best example cases, case studies 	<p>presentations</p> <ul style="list-style-type: none"> • Policy maker s share position papers on situation report from countries • current global cancer prevention programmes • Coordination of cancer care • Childhood, adolescent and young adult cancer • How to Develop palliative care program • Specific content for \Asia and developing countries • On going comparable (at EU or international) monitoring system • 	<p>presentations</p> <ul style="list-style-type: none"> • How to identify the quality indicator dots spoken in a Plenary presentation? • Coalition - new projects between countries • Best buys from LMICs • 	<p>presentations</p> <ul style="list-style-type: none"> • More of successful examples on implementation at low + middle income countries • More presentations on cancer screening activities • Sharing best practice on cancer prevention and control through presentation by countries that success in their countries
<p>Information</p> <ul style="list-style-type: none"> • Cancer Prevention • Share information of workshops missed • Funding opportunities • NGO actions in the field • Balance between basic s and advanced info on implementation • Info on Innovative technology 	<p>Information</p> <ul style="list-style-type: none"> • Cancer Prevention • Info on Innovative technology • Role of social worker in cancer control 	<ul style="list-style-type: none"> • Information • Cancer Prevention • How to motivate the ministry of health? • Explanations on ‘how to do’ or ‘what was done’ for each study or case presented • How to write a proposal to start a research program, find funding, set up networks etc • Info on Innovative technology • Information about actual strategies : prevention, early detection, screening, treatment • Resource mobilization strategies 	<p>Information</p> <ul style="list-style-type: none"> • Cancer Prevention • Info on Innovative technology
<p>NCCP & Cancer Control</p> <ul style="list-style-type: none"> • Barriers/successes – lessons learned 	<p>NCCP & Cancer Control</p> <ul style="list-style-type: none"> • How do countries with established national 	<p>NCCP & Cancer Control</p> <ul style="list-style-type: none"> • How to incorporate rehabilitation into cancer 	<p>NCCP & Cancer Control</p> <ul style="list-style-type: none"> • More discussions about ongoing cancer control

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
	<p>Cancer Control Plans ensure that they remain current</p> <ul style="list-style-type: none"> • Cancer control – what does it mean at different geographical levels. • Effect of a NCCCP: in terms of efficiency (money, capacity...),effect on survival, on costs (the more evidence based guidelines are existing, the more expensive chemotherapy will be given!!), on quality of live of patients. 	<p>control?</p> <ul style="list-style-type: none"> • How to develop a cancer control program? • How to incorporate cancer control data into the cancer registry? • What do you do if you have a plan and it stopped? • Engaging civil society in promoting cc program • Hospital based cancer control activities 	<p>programmes in different settings, at least a change in discussion in informal gatherings may be not as part of the main agenda</p> <ul style="list-style-type: none"> • How to evaluate the cancer control program • Regional collaboration/meeting to share best practice on cancer control • Health economics of population based cancer control programs • Strengthened a collaborative community-based cancer control pilot project • Barriers to implementation of NCCP • Breast cancer control in developing countries • More focus on cancer control in less developed countries • Priorities of cancer and NCD control on planning and implementation • Role of UN agencies and multinational NGOs in cancer control • How to implement for cancer control + screening • If possible, highlighting international cancer control collaborations and/or countries implementing best

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
			practices from other partnership countries •
Weak links • Palliative care • Discussions with policy makers/politicians and finding their contributions to cancer control	Weak Links	Weak links • Presenters gave country updates, not what they had done, how was it done, how were the programs put into place, what strategies and indicators did they use, what model, tools or approaches were used and at various milestones what did the results show, how did they improve upon each result	Weak Links • Lack of Free Discussion • Discussion in the workshop which was coordinated by the chair in that section • Knowledge transfer
Research • More research results	Research • More research results	Research • More research results • More epidemiological evidence discussions	Research • More research results • Cancer epidemiology (statistics) field • Clinical research mainly in new method of early cancer detection which applicable in developing countries
Speakers • Broader range of speakers/fields of expertise - a stronger mix of points of view on single topics/themes needed	Speakers	Speakers • No presentation on actual cancer control programs or indicators that have been put into place, how were these indicators/programs established - lessons learned	Speakers • Link speakers to topics better
Missed Connections •	Missed Connections • No	Missed Connections • No one org to action ICCC collective action recommendation • Not a platform for knowledge transfer •	Missed Connections • No one designated body to action ICCC consensus statements • Evidence-based guideline recommendation

ICCC3	ICCC3 Follow-Up	ICCC4	ICCC4 Follow-Up
			<ul style="list-style-type: none"> More Clinical Application
Program Design	Program Design	Program Design <ul style="list-style-type: none"> Missed clarity on - What is in it for policy makers? for patients? clinicians? Variety of health professionals? for govt. officials? researchers? 	Program Design <ul style="list-style-type: none"> A session where physically people would meet when interested in collaborating i.e. building bridges sessions or Let's partner sessions or Collaboration sessions. Have rooms separated by topics, and people meet there with concrete interests and suggestions, with a concrete demands and/or concrete offers. The final product of the sessions could be presented at the end of the conference, announcing new collaborations (or promising collaborations) established.