

HEALTH MEANINGS, HEALTH STATUS, AND HEALTH NEEDS
OF
A GITKSAN AND WET'SUWET'EN ON-RESERVE POPULATION IN B.C.

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ABSTRACT

Stakeholders in the changing environment of health care include Indian people in B.C. and Canada who are grappling with long standing problems of lowered health status. Today, potential for health improvements may be found in an opportunity for health system change. However, this change process is seriously hampered by incomplete and non-current health information. This study addresses this information gap by obtaining and describing base-line information on the health status and health needs of two Gitksan and Wet'suwet'en Bands in B.C. via the meanings and interpretations they, themselves, attach to health.

Study design includes two complementary methodologies: phenomenology and epidemiology. Qualitative data from other sources (e.g., Focus Group) supplement findings. Data collection occurred over an eighteen week period, May to September, 1991.

In this study, phenomenology explores health meanings via in-depth interviews (N = 9; theoretical, non-random sample). This investigation draws upon Kleinman's explanatory model of the health care system to explore and discover a unique culture's perception of the health phenomena. Qualitative data from verbatim interview transcripts were analyzed utilizing an open-coding technique with conceptual categories forming key data elements.

Epidemiology, on the other hand, directs investigation into health status by means of a health survey questionnaire (N = 97; stratified, random sample). Quantitative data describing personal health experiences were cross tabulated according to stratified categories of age, sex, tribal ancestry, and key variables identified in an epidemiologic model. Data were further examined using the SPSSX statistical package.

It was found that Gitksan and Wet'suwet'en people, though two distinct societies, hold similar views regarding their health experience which they describe in terms of wellness and well-being. In only a few instances did ancestry make a difference in health status.

The Gitksan and Wet'suwet'en have a wholistic conceptualization of health with the spirit constituting a dominant force in the physical-mental-spiritual complex. The spirit also interconnects the individual with the family, house/clan, village, tribe, and the land. When well and strong one has the ability to carry out daily activities, to engage in preferred leisure activities, and to carry out social responsibilities. The wellness experience is accompanied by a positive sense of well-being. Though overlap exists in wellness and well-being, word usage suggests that well-being is a distinct experience and is as important as being well.

A majority of the Gitksan and Wet'suwet'en people in the study consider their health good and do not have limitations in their activities. However, strength may be seriously undermined by health related beliefs and choices that place people at risk for health problems. These health risks include poor nutrition, sedentary life-style, high rate of obesity, excess use of tobacco and alcohol, and low use of some preventive services including dental care and cancer screening for women. A lowered sense of well-being is also present and, at the extreme, is seen in frequent occurrence of suicide thoughts and some attempts.

These findings point to three areas of health needs: (1) mental health supports and services, of which there is little; (2) drug and alcohol initiatives that address beliefs regarding what is normal drinking and that capture family and spousal influences on preferred behaviours; and, (3) health education initiatives that extend beyond changing knowledge to build upon local health related beliefs and values in order to change behaviour.

Study findings have important implications for health care and for future research in theory development and testing of health meanings. In particular, health care providers are challenged to respectfully accept a wholistic world view that extends beyond individual health to include other domains affecting wellness and well-being. Wholistic healing of these interconnected beings may hold some potential for improving the health of Indian people.

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CHAPTER 1.0

INTRODUCTION

1.1 Refocusing Health Care in the Community

Change as a driving force in today's society is consistently present at the personal, community, and organizational levels. One of the most valued Canadian social programs - health care - has recently undergone scrutiny in most provinces with reports clearly outlining a need, if not intent, for change. These Health Commission Reports (Saskatchewan 1990; Quebec 1990; British Columbia 1991) recognize the inadequacies of the existing curative medical model for delivering health services and advance the belief of there being a need for a system that is centred upon the people it serves. The assumption is the potential for improving health increases if the health services and programs are responsive to and accessible within the social reality of consumers. This underlying assumption also influenced the 1978 policy decisions regarding health services for on-reserve status Indians (Health and Welfare Canada 1978). In fact, this Policy created an environment for substantial change.

Over the years, ongoing debate regarding health status of Indian people and means for both preventing and managing health problems has remained a perplexing issue (Hodgson 1980; Young 1982; Fritz and D'Arcy 1982). Even more central has been the question of how Indian people experience and respond to health and sickness (Hodgson 1980). Despite numerous studies, these health related questions remain largely unanswered. Failure to fully comprehend or describe these health experiences stem, in part, from use of biomedical frameworks that are interpreted by the researcher (Enarson and Grzybowski 1986; Mao, Morrison, Semenciw, and Wigle 1986; Young 1982; Thompson 1990).

This study addresses the above information gap by obtaining and describing base-line information on the health status and health needs of the Gitksan and Wet'suwet'en "on-reserve"

status population in British Columbia via the meanings and interpretations they, themselves, attach to health. These findings are intended to support movements for change among the Gitksan and Wet'suwet'en who, though two distinct cultures, share many common elements in their social organization and institutions (Gisday Wa and Delgam Uukwm 1989).

1.2 Health and Health Care for Indian People On-Reserve

The health of Indian people in Canada has been described as "alarming" and "deplorable" (Berger, 1980) this despite the facts that Canada is one of the most affluent Western nations; Canadians enjoy one of the highest levels of health; and, the health care system is viewed as one of the best in the world (Rachlis and Kushner 1989). Infant mortality rate, as a generally accepted indicator of population health, clearly demonstrate existing disparities in health. In 1985, infant mortality among Indian people was twice as high as for the general population, this despite marked improvements over the previous two decades (Statistics Canada 1991).

Repeatedly, research on Indian peoples in Canada demonstrate marked differences in health experiences when compared to the general population. Reports on health status show higher suicide rates among Indian people (Health and Welfare Canada 1988; Cooper, Karlberg, and Adams 1991); higher incidence of active tuberculosis (Enarson and Grzybowski 1986); higher death rates from cervical cancer (Mao, Morrison, Semenciw, and Wigle 1986); high prevalence of diabetes mellitus, hypertension, and obesity (Young 1991; Montour 1985); and, high rates of arthritis and diseases of the respiratory system (Atkins, Reuffel, Roddy, Platts, Robinson, and Ward 1988; Health and Welfare Canada 1988).

This persistent and unsatisfactory health status triggers major changes in the delivery of health care programs and services to the status Indians both in 1962 and 1978. In 1962 we saw Medical Services Branch of Health and Welfare being given the mandate for providing health

care to the on-reserve population. Again, in the late 1970s, political pressures stemming from the whole question of health status and health care initiate developments in Health and Welfare's policy to transfer "control" of health services to Bands or groups of Bands south of the 60th parallel (Weaver 1981; Castellano 1982; Berger 1980; Health and Welfare Canada 1989a). This invitation to engage in the health transfer process was multiconditional. The most immediate condition relates to development of a health service plan based on the community's assessment of its health and health needs.

1.3 Problem Statement

Ideally, any change in the health care system is driven by a clear, shared meaning of health and current health status data. However, there is no explicit health definition by Gitksan and Wet'suwet'en people themselves, nor is there literature describing the experiences of other tribal groups in Canada. Further, bands in general do not have complete or current health information for its band members. In the past decade, Medical Services Branch of Health and Welfare attributes this information gap to their inability to accurately count the status Indian population. Any Provincial or National initiatives to assess the health of Canadians generally exclude on-reserve people largely because of jurisdictional issues. Where bands do have an opportunity to take part in general studies, bands often self-select out because of beliefs that they have been over studied; the questions asked are considered an invasion of privacy; or, bands have no control over how the information is used. As a result, there is no existing health related instrument that has been either tested or used among Indian people.

1.4 Purpose of the Study

The existing gap in health information for two B.C. Bands is addressed in this study. Specifically, the purpose of the health study is to obtain base-line health services planning

information by assessing the health status and health care needs of a Gitksan and Wet'suwet'en on-reserve population. These findings are to be supported by investigation of health meanings.

1.5 Research Questions

This study addresses four research questions, as follows:

1. What does health mean to the Gitksan and Wet'suwet'en?
2. What is the health status of Gitksan and Wet'suwet'en people living on-reserve?
3. What are the health care needs of the on-reserve people?
4. What gaps, if any, exist between health and health needs?

1.6 Definition of Terms

In this study, the general term Indian is used when referring to the study subjects. Word usage conforms with how Gitksan and Wet'suwet'en people refer to themselves. Alternative terms include Native, Native Indian, First Nations, and Aboriginal. A reserve consists of a land area that the Federal Government has designated for use and benefit by a group of Indian people. This group of people is referred to as a Band with people having a common interest in the designated land and moneys held by the Federal Government (Hawley 1986).

Indian people living on-reserve are status Indians with status being confirmed through registration with Indian and Northern Affairs and subsequent entry on a Band list (Hawley 1986). Off-reserve people include status Indians living anywhere other than a designated reserve.

Though the terms reserve and reservation are often used to refer to a group of Indian people living on a specific land area, these terms have a negative connotation. The Gitksan and Wet'suwet'en people customarily refer to their communities as a village, as is done in this study.

1.7 Thesis Outline

This introductory Chapter provides background on both the nature and extent of the problem facing Gitksan and Wet'suwet'en people. Research questions posed in this study support movements for change by addressing existing information gaps in health meanings, health status, and health care needs of the study group.

Chapter 2 reviews existing knowledge relating to both health meanings and health measurement. From this review, it becomes clear that two approaches in investigation are necessary. First, a phenomenological perspective provides qualitative data relating to the health phenomena from the perspective of the Gitksan and Wet'suwet'en. Second, an epidemiologic approach yields quantitative data describing health status. These findings become relevant when analyzed in terms of what health needs are and how choices for change are influenced by the politics of health status and health care, both past and present. A brief social description of the Gitksan and Wet'suwet'en people provides background on the study population.

The methodology, sampling procedures, and data analysis are discussed in Chapter 3 and focus on the theoretical aspects of phenomenology and epidemiology. Further contextual information is provided with discussion of sampling procedures and limitations in methodology.

Chapter 4 summarizes the results of the study in three major sections. The first section summarizes findings related to health meanings while the second reports on results from the health survey questionnaire. The third second presents results from other data sources to support and extend information required to answer research questions posed in this study.

The findings in this health study are integrated, analyzed, and discussed in Chapter 5. Here, comparisons are made with current health data from other Indian and non-Indian people in Canada. Chapter 6 contains a summary of findings, concluding remarks, and discussion of implications to health care and further research.

CHAPTER 2.0

LITERATURE REVIEW

The literature review summarizes current knowledge relating to key aspects of the study being undertaken. In brief, the first two sections provide background information on health meanings and health measurement. The third major section directs attention to the study group through a summary description of current health statistics and health care responses to their health experience. Finally, the study is focused with a brief social description of the Gitksan and Wet'suwet'en people.

In this review, examination of health meanings show an evolving conceptualization of health that successively enriches the subjective nature of the definition but still leaves unanswered the question of what health means to different segments of society. In particular what does health mean to Indian people. This question guides inquiry into the health phenomena which, according to Kleinman (1978), consists of beliefs and values that are culturally organized by three overlapping sectors in the health care system: the professional sector, the popular sector, and the folk sector. This explanatory model for the health care system guides phenomenological research into the popular sector that has embedded in it the cultural beliefs and values that integrate the health experiences and responses to it.

The second section of this Chapter reviews issues relevant to the health measurement process. In particular, literature stresses the importance of minimizing potential error that may be introduced through indirect and subjective assessment of the health experience. This indirect approach assembles information on a multitude of factors that affect health. These factors are systematically organized in a generic epidemiologic model referred to as the Diamond Model. This Model guides the epidemiological component of the study which examines the distribution of disease and its determinants in a population. In this review of

factors affecting health, particular attention focuses on measuring nutritional status because of unique theoretical considerations. Measuring child health is also dealt with separately as the information completes the description of the health of a population.

Once synthesized, health information obtained through research establishes a basis for planning health programs and services. At this level, both planners and the study population must be able to distinguish between health care needs, wants, and demands since these concepts determine level of response to the identified gaps in health services. Within this context, health politics provides some explanation for who got what, when, where, and how. These politics are formalized through policy, an analysis of which takes on unique characteristics as Indian health policy is developed, implemented, and subsequently reacted to by Indian people. This discussion of health politics is extended with a brief examination of developments in health care for on-reserve people and existing programs and services. A general review of health outcomes experienced by Indian people demonstrate disparities and problems in the social and economic structures. In this literature review, a brief social description of the Gitksan and Wet'suwet'en people provides the reader with contextual information for the field work that is subsequently discussed in the next Chapter. First, background to relevant aspects of the study are examined in the following literature review.

2.1 What is Health?

If we are measuring health, what do we mean by "health"? While there are many generally accepted definitions for health in use today, there is no certainty that application to the Gitksan and Wet'suwet'en people is either relevant or appropriate.

An answer to this fundamental question - "What do we mean by health?" - is critical both from a research and health planning perspective. In research, the theoretical basis for

conceptualizing health guides selection of questions for inclusion in the health index or health measurement tool. When operationalized, this health definition supports an analytical rather than purely descriptive method for measuring health (McDowell and Newell 1987).

Over the past several decades, the World Health Organization's (WHO) broad definition of health has customarily been adopted in Canada and other countries. WHO's 1949 definition extends the concept of health beyond a focus on disease and illness by describing health as "... a state of complete mental, physical and social well-being and not merely the absence of disease or infirmity." ¹ While attempts have been made to operationalize this definition, the focus for measurement varies as there is no consensus on which aspect contributes most to health: the mental, physical, or social aspects of being. In addition, the concepts of disease and infirmity have not been clearly distinguished.

Despite the problems in operationalization, WHO's definition serves as an important bench-mark in conceptualizing health. In fact, it set the groundwork for a subsequent holistic health movement. This holistic approach to health began to receive increasing attention during the 1960s and 1970s and was refined by a 1974 Canadian document which clearly linked lifestyle and environmental factors to health and sickness. Here, Lalonde (1974) proposed that the health status of Canadians might be improved only through their assuming more responsibility for their health. A subsequent wellness movement focused on life-style, with individuals exhorted to make healthful choices in such areas as physical fitness, nutrition, and stress management. According to this conceptualization of health, health doesn't just happen, it is created (Dexter 1988).

This positive, holistic approach to health was expanded on by Health Minister Epp in

¹. World Health Organization, Basic Documents 38th Edition (Geneva: World Health Organization, 1990), 1.

1986. In particular, Epp asserts that health is an evolving construct that represents "...a resource which gives people the ability to manage and even to change their environment." ² Although the five challenges (e.g. equity) derived from this view of health remains largely unmet, the concept continues to be a central component to health initiatives being undertaken today. For example, Ontario's health strategy is based on a positive vision of health which directs planning in health promotion (Chenoy, Jackson, Hancock and Pierre 1989). More recently, B.C.'s Health Commission Report (1990) speaks of health in terms of "well-being and happiness".

Although WHO links the notions of health and well-being as early as 1945, the relationship remains poorly understood. According to Herbert and Milsum (1990) an emerging consensus is that "well-being implies an emphasis on the individual's perception or sense of wholeness." ³ These authors advance a conceptual model which demonstrates the overlap between health and well-being. They also conclude that well-being necessarily comprises a number of dimensions, including the physical, emotional, psychological, spiritual, and social aspects of being. In any case, works by McDowell and Newell (1987) and Herbert and Milsum (1990) clearly demonstrate that instruments used to measure health are distinct from instruments used to measure well-being.

Ultimately, the question remains, "what does health mean". More specifically, what does it mean to Indian people in Canada.

². Jake Epp, Achieving Health for All: A Framework for Health Promotion (Ottawa: Health and Welfare Canada, 1986), 3.

³. Carol Herbert and John H. Milsum, Measuring Health: The Documentation and Evaluation of Measuring Procedures Currently Used to Measure Well-being (Vancouver: University of British Columbia, 1990), 11.

This question remains largely unanswered. However, Tribes from different parts of Canada do show some similarities in how they to respond to and speak about health and sickness. For example, the Manitoba Cree have a word for well-being ("Minoyawin") that they consider to be synonymous with health. Among these people, health related treatment involves the body, mind, and spirit (Peguis First Nation, Manitoba 1991).

For the B.C. Nimpkish people, good health is related to personal strength which in turn is linked to the strength of the community (Billy 1980). Historically, the Kwakuitl's health related beliefs and practices were directed to ensuring strength and preventing sickness. They believed there were two major causes of sickness both of which may be caused by supernatural beings. Cause is diagnosed by a shaman who may also be referred to as a traditional healer. One cause was a loss of the soul which may be due to a sudden fright. A shaman is able to catch the soul and put it back into the sick person. The other cause was the presence of a material object in a specific part of the body; entry is accidental or thrown by a shaman. In some instances, the shaman was able to suck or pull out "what is bad" in a sick person, thus effecting a cure. Should the sick person die, the shaman loses social status. A lower class shaman, or healer, may cure a sickness but not cause it (Codere 1966). Treatment depended upon the cause and involved a shaman or healer and community elders (Speck 1987).

The Gitksan and Wet'suwet'en people in northwestern B.C. link being healthy with being strong in body and in spirit. In the past, specific aspects of a child's training focused on activities intended to develop strength. "As they [the child] matured, they were instructed to fast, rise before dawn, drink devil's club juice, run for miles and bathe in icy river water to

make them powerful and pure in mind and body." ⁴ Throughout life, adults followed specific practices and rituals to maintain power in the body and spirit (Harris 1989).

Among the Gitksan and Wet'suwet'en, all events, including sickness and death, have a clearly defined cause and effect. It is the shaman's responsibility to seek out the cause for a sickness and to institute treatment. Treatment may be at the physical or spiritual level, depending upon the cause. Herbal remedies were used for routine ailments but difficult problems required treatment by a medicine person (Gisday Wa and Delgam Uukw 1989; Harris 1989).

Besides health related matters, the underlying philosophies and values that tribes in Canada do have in common explain relationships to the land and the creator. Values include respect for nature/land and man and a related need for balance or harmony; esteem for elders; and, sharing and cooperation. A dominant belief relates to the spirit world and its linking of man, the creator, and nature/land (George 1991; Jones 1981; Gisday Wa and Delgam Uukw 1989). Each tribal group has its own history and belief system regarding health and sickness and the traditional treatment of sickness. These health related belief systems are imbedded in the larger cultural system. Here, a culture is considered to be a sum of the learned beliefs, practices, habits, rules, norms, customs, rituals, etc. This everyday culture is expressed in the ways the people speak, words they use, looks, gestures, silences and physical movements (Barrett 1984; Barclay 1986).

An appropriate framework for exploring perceptions of the health phenomena from the perspective of a unique culture is described in Kleinman's explanatory model of the health care system. Findings from his cross-cultural studies (Kleinman 1978; 1980) and other

⁴ Heather Harris, Children Are Our Future (Hazelton: Gitksan-Wet'suwet'en Education Society, April 14, 1989), 97. Personal communication from David Harris.

anthropological researchers lead him to conclude that health care is a systematically interconnected cultural system that integrates illness experiences and responses to it. He sees that " It [the health care system] is both the result of and the condition for the way people react to sickness in local social and cultural settings, for how they perceive, label, explain, and treat sickness." ⁵

Kleinman's conceptual model of the health care system (1980, p. 50; 1978, p. 422) focuses on internal factors that shape the system. While external factors such as political, social, economic, structural, historical and environmental determinants affect health care, his interest is in the inner workings of the system. These internal factors form the framework for his explanatory model of the Local Health Care System which, according to Kleinman, can be altered to analyze different cultural conditions (Figure 1). Although the Model is centred upon and activated by illness experiences, it also provides a framework for viewing and exploring health experiences and meanings.

The model of the health care system (Figure 1) consists of three distinctive and overlapping arenas of health and health care: the popular, folk and professional sectors of care. Within this model, the popular sector is represented as the largest in part because roughly 70-90% of all illness experiences are managed within this sector. The popular sector comprises several levels including the individual, family, social network, and community beliefs and activities. It is within this sector that the sick person and their family activate beliefs and values about health and illness which determine entry into either the folk or professional sectors of the health care system.

The professional sector comprises modern scientific medicine with social power resting

⁵ Arthur Kleinman, Patients and Healers in the Context of Culture (Berkeley, Cal: University of California Press, 1980), 26.

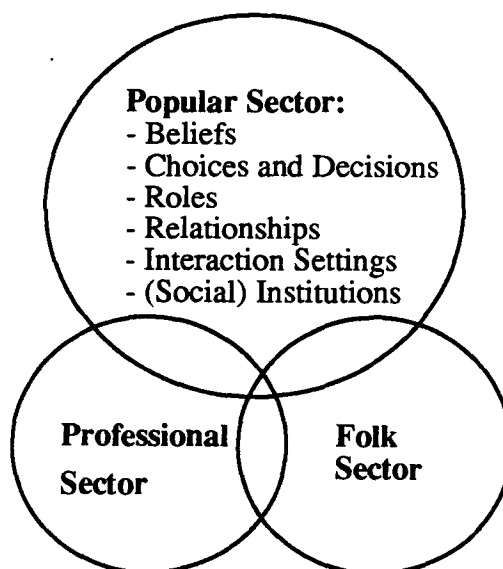


Figure 1: The Local Health Care System: Internal Structure (Kleinman 1980, p. 50).

in professionals and their organizations. The dominance of this sector is such that the health care system has been equated with modern medicine and professional activities to the exclusion of the popular and folk sectors (Kleinman 1980; Rachlis and Kushner 1989).

The third sector, the folk sector, includes such actors as shamans, herbalists, and healers. These non-professional, non-bureaucratic specialists practice folk medicine either overtly or covertly depending upon dominant society's attitudes and perceptions.

Kleinman's Model provides a useful framework for exploring perceptions of the phenomenon of health. In particular, it guides investigation into the Popular Sector of health care which, according to Kleinman (1980), is the least studied and most poorly understood. In his studies, he uses phenomenological research to investigate individual perceptions of health to provide explanations for the health experience. This same qualitative research method informs the research process for exploring Gitksan and Wet'suwet'en health meanings. Some understanding of cultural health meanings also provides a basis for

describing and analysing the health status of the study population.

2.2 Health Measurement

Considerable debate rests in how to measure health. This debate stems largely from the complexity and abstract nature of health itself. By definition, measurement involves assigning a generally accepted numeric value or scale to a variable; in this case, the variable is health. Since there is no standard scale for health, measurement must be indirect. This indirect approach involves assembling information on either single (e.g. body weight) or multiple health related variables (e.g. body weight, nutritional status) which represent all or a part of the concept under study (McDowell and Newell 1987).

According to Moriyama (1968), any instrument that is selected to measure health should be meaningful and understandable, sensitive to change, theoretically justifiable, and intuitively reasonable. Its component parts should be clearly defined, with each making an independent contribution to the whole and the data necessary to calculate the measure should be available or readily obtainable.

The instrument of choice must also be reliable and valid. Reliability is concerned with obtaining consistent responses. A reliability test score indicates what proportion of a response is the result of random error. Methods for testing reliability involve applying two similar instruments at the same time or repeating the same question during one application (i.e., internal reliability). The degree of reliability needed depends upon the purpose of the study. Generally, a higher reliability (e.g., 0.90) is required if an individual's measurement outcome determines treatment alternative in a clinical setting. Where group comparisons are involved, a lower reliability of 0.60 is considered acceptable (Bailey 1987).

An instrument is valid if it measures what it is supposed to measure. For example a

valid health measure provides information on health and not on level of intelligence. There are several ways of measuring validity with the choice depending upon what research information is to be obtained and how that information will be used. For example, a screening test may require a higher validity score than a general health measurement score (Ware, Brook, Davies, and Lohr 1981).

The easiest non-empirical validity test is face validity, also called content validity. Face validity is a matter of personal judgement and involves assessing whether items appear to measure what it is supposed to. In order to make this judgement, one must know the definition of the concept being studied and know whether items are relevant to that concept. According to Bailey (1987, p. 68), a face validity test of a health measurement instrument may be problematic because there is no generally accepted definition for health, the concept is multidimensional, and the measure can be lengthy.

More rigorous empirical validity tests (e.g., concurrent, construct) involve multiple measurements with test outcomes compared to a standardized instrument. Both lack of a standard health status measurement instrument and the nature of the current study places empirical validity testing beyond the scope of this work. While face validity is considered a weak test, it remains the most practical.

Over the past several decades, health information has been considered valid only if objective in nature. This preference derives from the dominant curative medical model where objectivity relates primarily to observable behaviour or instrumentation (e.g., check B/P with a sphygmomanometer) by a recognized technician (e.g., medical doctor). Today, with changing health values, subjective measures are becoming increasingly important. The most common personal judgement regarding health is the self-rating of health as: excellent, very good, good, fair, or poor. Recent literature has shown that self-rated health is a reliable

and valid indicator of health that corresponds well with other measures of health (Ware 1986). There are several advantages to using subjective measures to assess health status. Perhaps most critical is its validation of personal experiences in a system that is being re-oriented to focus on the people it serves. These insights into human concerns of pain and suffering extend the concept of health to focus on quality rather than quantity of life. Also, these personal judgements influence when and where an individual will access the health care system. From a research perspective, subjective assessment also reduces research costs because highly trained technicians are not required (McDowell and Newell 1987).

A major problem in subjectively measuring health is respondent bias. Individual response can vary with re-testing while responses may be exaggerated or under-estimated depending upon personality traits. However, if health is viewed as a dynamic state with individual traits forming a part of the health experience, then this variability remains a necessary part of the measurement process. Questions do arise, however, if measurement outcome determines kind and amount of treatment an individual will receive. Here, the purpose of the study requires a separation of subjective and objective measures. In this case instrument construction and statistical methods can disentangle these two distinct measures (McDowell and Newell 1987).

The instrument selected to measure health may be specific or multidimensional depending on the purpose of the study. An example of a specific instrument is the Survey of Smoking Habits: 1986 (Health and Welfare Canada 1986). This instrument focuses on a single public health risk factor and indicates the major trends in smoking behaviour.

In this current study, the general health of individual people is being assessed indirectly. Here, the abstract nature of health requires use of a multidimensional instrument. Such an instrument consists of several scaled variables that individually describe different

aspects of health. While attempts have been made to collapse multiple variables to a single score, this has had limited success because the single score becomes crude, difficult to interpret, and misleading (Ware et al 1981).

The following section reviews the multiple factors that affect health.

2.3 Health Determinants

The process for measuring health generally involves an examination of the sickness experience rather than the positive health experience. This emphasis is consistent with the epidemiological perspective which examines the distribution of disease and its determinants. In epidemiological research, the first level of study usually has a descriptive orientation. At this level interest rests in providing an indication of factors associated with a particular health state. Once associations and descriptions are established, the second level of study involves hypothesis testing to investigate causes of the health occurrences. Finally, the third level concerns itself with active intervention in the health condition (Long 1984).

A basic epidemiological model was proposed by Lalonde in 1974 to demonstrate major factors affecting health: Environment, human biology, lifestyle, and the system of health care organization. This basic model supports a first level, descriptive study. Since 1974, the basic model has been further refined through synthesis of works by other health researchers. One example of a synthesized, generic, epidemiological model is that proposed by Long (1984) and which he refers to as the 'diamond' model (Figure 2). In this model, health and illness is depicted as being determined by the independent and interactive effects of four variables: Genetics/constitution, behaviour or lifestyle factors, the social and economic environment, and the health care system itself.

According to the Diamond Model, the genetics and constitution determinants of health

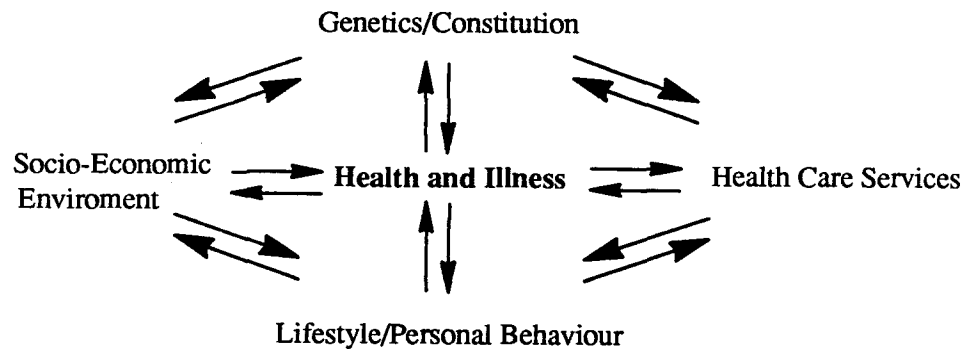


Figure 2: The Diamond Model of Illness Causation (Long 1984, p.4).

deal with two categories of human biology. One category involves intra-uterine factors including inherited genetic make-up (e.g., sex, hereditary disease) and maternal health (e.g., fetal consequences of maternal smoking, drug use, etc.). The second category involves extra-uterine factors and include achievement of physical and mental growth potential and physical changes resulting from the effects of aging, stress, nutrition, and disease (World Health Organization 1986; Long 1984).

Directly linked to this genetic/constitution component is the lifestyle factors. This component represents the thrust of Lalonde's model where individual actions and behaviour play a key role in health. This lifestyle and personal behaviour component includes such health determining factors as diet, smoking, alcohol consumption, drug use, physical activity, and sexual behaviour. Long (1984) suggests this component also involves personal choices that relate to an awareness of the availability of health care, perceptions of the value of health care, and individual perceptions of their health and tolerance of pain. Within this context, life-style may also involve reference to another group's behaviour - a reference group to whom the individual aspires to be like or to become a member of.

A second aspect of the environment involves social and economic factors. These factors include membership in a specific cultural group; upbringing that extends from culturally learned beliefs and practices; relationships with the dominant society, if one exists; place of residence; education, income and employment status; and, exposure to environmental and occupational hazards. These socio-economic determinants differ from the lifestyle dimension in that the individual has little control over the factors: i.e., the scope for personal choice is restricted (Long 1984). For example, a single, pregnant woman's income may not provide for a nutritionally adequate diet, even though she recognizes its importance to the developing fetus.

The final environmental factor involves the health care services. Within the context of health determinants, services may either improve or cause an illness. According to Long (1984), these services include diagnostic, curative, palliative, and preventive aspects of care as well as health education and promotion, and screening. An additional factor is a fundamental access to all the health care services.

In the Diamond model, the Figure (2) depicts a limited set of interactions. However, interrelationships form a complex web that is not readily portrayed. All of these factors act singly or in a complex multicausal manner to affect health and illness. While all potential health determinants may not be investigated during research, Long (1984) asserts they must be recognized and considered potential causes as study results are being interpreted.

In conducting the first level descriptive study, the four key health determinants guide selection of items for inclusion in the health measurement tool. These four determinants involve genetics/constitution, health care services, lifestyle/Personal Behaviour, and the Socio-Economic Environment. One important life-style health determinant is nutritional status, an investigation of which poses several methodologic problems that are discussed in the

following section. This discussion of health determinants is completed with a review of methodologic issues relating to the measurement of child health.

2.3.1 Nutritional Status

Over the years, the importance of nutrition in maintaining good health has gained increasing acceptance. The phrase "You are what you eat" describes health, in part, as current studies link excess or deficient nutrients with specific health conditions.

The kinds of nutrition advice provided to the public has kept pace with the evolving conceptualizations of health. It is generally recognized that improvements in health in the early 1900's is attributed in part to improved nutrition. With infectious diseases under control, advice progressed to focus on preventing nutrient deficiency and disease prevention. The preventative focus addresses specific etiology of a disease, as for example reducing the risk of iron deficiency anaemia by consuming sufficient quantity of iron rich foods.

More recently, in the 1980's there has been a shift in the focus of nutrition education from an exclusive focus on disease prevention to one of health promotion. This shift corresponds with a holistic conceptualization of health where health is viewed as a resource that is acted on by a multitude of forces including environmental and social factors (Dexter 1988; Epp 1986). This thrust in health promotion addresses the underlying environmental forces of daily life that promote or damage health. Within this context, adequate nutrition has an health-enhancing potential in that it contributes to the vigour and vitality of people thus improving this 'resource' called health (Dexter 1990). Similarly, chronic diseases currently present the greatest threat to health and receives increasing attention in nutrition education initiatives.

In responding to this changing environment, Health and Welfare Canada (1990a)

acted by revising and updating the Nutrition Recommendations for Canadians. These recommendations attempt to strike a balance between maximizing health potential and preventing chronic disease.

The Recommended Nutrient Intakes deal with recommended intakes of such essential nutrients as energy, protein, fat, vitamins, and minerals. The recommended intakes are designed to meet the needs of all normal individuals: in meeting the needs of all, the expectation is the recommendations exceed the needs of most. The related Nutrition Recommendations deal with food intake patterns that is expected to provide the essential nutrients in recommended amounts while also minimizing the risk of chronic diseases. Key statements in the Nutrition Recommendations for Canadians indicate: diet should provide energy consistent with the maintenance of body weight within the recommended range; the diet should include no more than 30% of energy as fat; and, the diet should provide 55% of energy as carbohydrate (Health and Welfare Canada 1990b).

Assessment of the adequacy of food intake may be achieved by utilizing one of three methodologies: surveys, surveillance, or screening. Of these three methodologies, the cross-sectional nutritional assessment best meets the study objective of describing the health of a group of people. Two principle methods for assessing the nutritional status of individuals involve (1) food recalls and (2) dietary history and the food frequency questionnaire. The 24 hour food recall is designed to measure the quantity of individual foods consumed over a one day period. By comparison, the dietary history attempts to estimate the usual food intake of individuals over a longer period of time. Similarly, the food frequency questionnaire provides qualitative descriptive information about usual food consumption patterns (Gibson 1990). This food frequency method was used in the current Ontario Health Survey (Ontario Ministry of Health 1989).

The 24 hour food recall is also an appropriate method for describing the average usual intake for a large group of people provided random sampling is used and all the days of the week are equally represented. However, there are several threats to reliability and validity. These threats include interviewer bias, memory lapses, incorrect descriptions of food, over or under-estimating portion sizes, and computational and coding errors.

Minimizing sources of both random and systematic error involve training the interview staff and developing standard interviewing techniques and questionnaires. Probing questions and visual aids may reduce error introduced by respondent memory lapses. More difficult to control are systematic errors from wrongly coded weights of foods (Gibson 1990).

Though dietary intake data has been severely criticized because of the random and systematic errors which occur and because of misinterpretations, the data provides important health related information. An evaluation of dietary data generally involves comparison with recommended intakes to determine adequacy and not nutritional status. In order to describe nutritional status, additional complementary methods must be used and include biochemical, anthropometric, and clinical indices. Gibson (1990) describes several methods for evaluating nutritional adequacy and estimating an at-risk group. However, she concludes that none of the methods can accurately define an individual's degree of nutrient adequacy. While the probability approach can provide an estimate of the prevalence of inadequate intake, data requirements and research methods are beyond the scope of this study (Gibson 1990).

Generally, an evaluation of single food recalls for a group of people involves describing intake as a percentage of the corresponding recommended nutrient intake. This descriptive method can overestimate the prevalence of inadequate intake since the Recommended Nutrient Intake can and does exceed requirements for some individuals. A complementary method involves describing individuals as being 'at-risk' if their intake falls

below an arbitrary 'cut-off' value. Though there is no rationale for the cut-off point, two-thirds of the recommended nutrient intake is frequently used. While this method reduces the potential for overestimating the actual prevalence of inadequate intakes, misclassifications still occurs and is presently unavoidable (Gibson 1990).

Directly related to food intake is current body weight which also provides an indicator of current health status. Studies have shown that excess weight is associated with hypertension, diabetes, and heart disease. A recommended method for assessing obesity is through calculation of the Body Mass Index. This measure has epidemiological validity, is precise, reliable, and accurate (Health and Welfare Canada 1988a).

The Body Mass Index (BMI) is calculated as weight in kilograms divided by height in meters squared. This measure has a high correlation with body fat and is independent of height. It's use is limited to men and women between the ages of 20 and 65 and is not valid for pregnant or lactating women or for individuals with gross abnormalities in leg-trunk length. Health and Welfare Canada has established guidelines to identify ranges of acceptable, excess, and low weights in relation to health risks. The same cut off points in this range is appropriate for both men and women between the ages of 20 and 65. These cut of points are (Health and Welfare Canada 1988a):

Under 20	May be associated with health problems for some people;
20 - 25	Good weight for most people with lowest risk to health;
25 - 27	May lead to health problems for some people;
Over 27	Increasing risk of developing health problems such as diabetes, high blood pressure and heart disease.

In this study, the above cut-off points are adopted in assessing body weight of men and women between the ages of 20 and 65 years.

Since good nutrition is consonant with good health, nutritional shortcomings or

inadequacies must be identified for at-risk groups. Information derived from a nutritional assessment provides a rational basis for meeting the program and service needs of those who pose a health risk because of nutritional deficiencies.

2.3.2 Child Health Status

When measuring the health of a group of people, information must necessarily include children as they tend to be one of the highest users of health services. In addition, measurement of children's health could potentially provide critical indicators for the general health of a population. Such a measure could prove useful in monitoring overall health, assessing differences in subgroups (e.g., non-Indian vs Indian), evaluating the impact of different delivery systems, and determining the efficiency and effectiveness of the delivery system (Lewis, Pantell, and Kieckhefer 1989). However, development of child health measurement tools has lagged behind that of adults because of unique methodologic and substantive problems.

Existing tools and methods for measuring children's health raise questions regarding specificity and reliability. According to Fink (1989) clinical examinations do not satisfy a requirement for measurement reliability because of variation in subject response and the examiner's approach. In addition, the selected tools and methods are dependent upon the purpose of the research. One widely used method involves obtaining information about child health from a primary caretaker - usually the mother - through interview format. The health interview generally seeks to obtain information in four major areas: "... reports of specific health conditions; reports on symptoms whether or not they are related to a specific health condition; reports on restricted life activities associated with health problems; and general

and subjective measures of health." ⁶ While each of the four distinct areas identified by Fink (1989) can potentially provide a health indicator, problem rests in classifying information in a meaningful way (Fink 1989).

Recently, research into the psychological, social, and behavioral aspects of children's functioning has received increasing attention (Fink 1989). An investigation of these three domains operationalizes the concept of a child's health as the ability to participate fully in developmentally appropriate tasks. Though this focus in assessing child health appears promising, significant questions remain regarding accuracy of information that is obtained and knowledge of what age-appropriate functioning actually is (Lewis et al 1989).

An additional problem arises where recent studies demonstrate low prevalence of functional limitations in the general population. Though instrument and method vary, an American study demonstrates functional limitations in 10% of children aged 0 - 13 years (N=2,152) (Eisen, Ware, Donald, and Brook 1979) while an Ontario Child Health Study show functional limitations in 19% of children aged 4 - 16 years (N=3,294) (Cadman, Boyle, Offord, Szatmari, Rae-Grant, Crawford, and Byles 1986). This low prevalence demonstrates a need for a large sample size before reliable conclusions can be drawn.

In pursuing the functional conceptualization of child health and its measurement, Lewis et al (1989) re-adapted an adaptation of the Rand Corporation's Measure of Children's Health (Eisen, Ware, and Donald 1979). Rand Corporation's instrument was designed to measure parents' perceptions of the impact of illness on their children's functioning. Lewis et al's re-adapted instrument distinguishes between well and ill children, is appropriate for ages 0 to 16, and is not affected by demographic features of the parent

⁶ Raymond Fink, "Issues and Problems in Measuring Children's Health Status in Community Health Research," Social Science and Medicine, 29:6 (1989), 716.

(e.g. age, race, occupational status and education). Lewis et al (1989) tested their adaptation on a small sample of children (113) with a single chronic illness (asthma). Application method differed from the original interview format through use of a short, self-completed questionnaire for parent use. Despite these limitations, authors conclude testing provides preliminary evidence of the internal consistency and construct validity of the adapted measures.

Portions of the Rand Corporation instrument was also used in a recent Ontario child health study. (Cadman et al, 1986) This study set out to determine the prevalence and distribution of mental health problems in Ontario children aged 4 to 16 years. Methodology included self-completed check-lists concerning 3294 children and, six months later, a blind clinical assessment of 194 randomly sampled children by a psychiatrist (Boyle, Offord, Hofmann, Catlin, Byles, Cadman, Crawford, Links, Rae-Grant, and Szatmari 1987). Results show that 20% of Ontario children had a chronic health problem, with children of lower socio-economic status being more likely to be affected. In addition, authors conclude their findings have implications for those who plan and provide services and programs for children (Cadman et al 1986).

While both instruments derived from the Rand Corporations Measure of Child's Health warrant further field testing, ultimately choice is determined by both purpose of the study and available resources. In this study, measurement of child health is not the primary purpose of the study. Rather, child health is explored because it completes a description of population health and ultimately affects kinds and amount of services provided.

2.4 Politics of Health Care Needs, Wants, and Demands

An assessment of health care needs involves identification and prioritization of those

needs. At face value, the process appears straight forward. Problems arise when it becomes necessary to distinguish between health care needs, wants and demands. An additional but unavoidable complicating factor is the politics of health care. Politics itself is a part of life and may be described as the art of creating the possible through skilful manipulation and compromise (Marmor 1983). In the face of this reality, responses to consumer needs, wants, and demands necessarily requires an examination of political issues. In this context, health politics provides explanation for who got what, when, where, and how.

Within the health care system, the need for or gap in health services is identified from a variety of sources including the health consumer, key informants with specialized knowledge of community health (e.g., health workers, pastor, police), and professionals. The process for identifying needs is conceptualized as an environmental monitoring system which provides early warnings for health service programs. The process also helps to identify unrecognized or unmet needs. The interrelationship between health needs and services are depicted in Figure 3. Here, a needs assessment is directed to describing previously unidentified needs and inappropriate programs services. Such a description contributes to an analysis of resourcing to meet current needs.

According to this conceptualization of health needs, an unmet need exists when a problem has been identified; judgement is made that possible satisfactory solutions are not accessible, are not currently adequate, or do not exist in the community; and, it is necessary to reallocate existing resources and/or appropriate new resources (Nguyen, Attkisson, and Bottino 1983).

One method of distinguishing between need and demand has an economic focus. According to Cordes (1978), a demand for services is based entirely on economics (e.g., an impoverished community can address its health needs only through provision of direct or

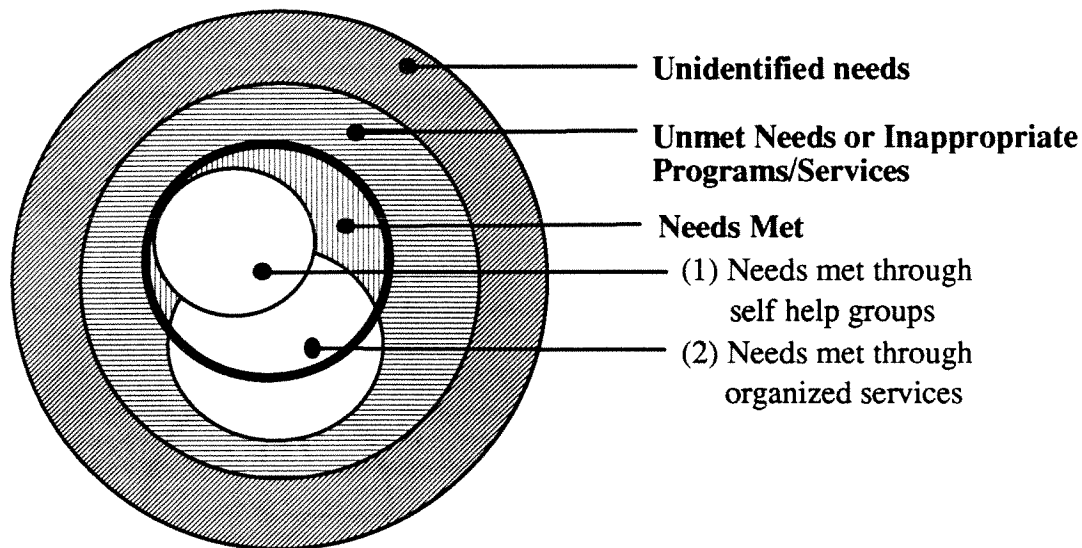


Figure 3: Relationship Between Health Needs and Health Programs and Services. (Adapted from Nguyen, Attkisson, and Bottino 1983, p. 97)

indirect subsidies). What is more relevant to the Canadian context of health care are the notions of fairness and equity. Here, a demand may be influenced by interests in equity irregardless of costs or potential health outcomes (e.g., X Hospital has acquired an advanced technology so Y Hospital demands the same). It is more difficult to distinguish health care 'wants' as value judgements become a predominant determining factor.

As health care needs are identified, recommended methods for addressing the need will vary according to whose perspective is dominant: health professionals, economists, or the afflicted individual. Cordes (1978) cautions planners to consider expected outcomes of health care. These outcomes relate to the conceptualization of health and how interventions contribute to or advance personal health experience to a higher desired level. As initiatives are undertaken to achieve a desired level of health, consumer input in identifying needs necessarily requires a consideration of both health related and health directed initiatives. For example, a health directed service may involve instituting pre-natal classes for single

teens while a health related initiative may involve community participation in providing literacy or mother-tongue classes for the same group.

Ultimately, distinguishing between and responding to health needs, wants, and demands becomes an arena of influence for politicians, policy makers, interest groups, and, to a lesser extent, planners. In health politics where important values are discussed, fought over and resolved, organizations play a key role in influencing outcome. These organizations possess important resources of time, information, and expertise where the individual or small interest group do not. According to Marmor (1983), small interest groups are not likely to influence decisions but they can become involved and influential in the political process and policy development.

Although politics and policy are commonly distinguished by definition and usage, Doern and Phidd (1988) argue they are, in many respects, the same thing. "... [Politics and policy] both deal with ideas and with the power to actually implement ideas in a world of large structures [i.e., government] and institutions and in the face of numerous uncertainties." ⁷ Accordingly, policy may be considered a formal expression of decisions which incorporate ideas, structures, and processes to achieve a desired change. The politics of health care then becomes a political/policy struggle where the stakes and contestants vary. The very act of putting a policy into effect extends the struggle because goals vary (Marmor 1983).

Policy itself is viewed in three different ways: there are policy statements or positions, policy actions, and policy outcomes. Gaps in these three levels can and do exist because a policy statement may be symbolic; it may express a real intent but produce no action; it may be altered in action; or it may be carried out but the desired results not achieved. Decisions

⁷. Bruce G. Doern and Richard W. Phidd, Canadian Public Policy: Ideas, Structure, and Process (Scarborough, Ont.: Nelson Canada, 1988), 19.

contained in a stated policy are the products of rationalization, bargaining, and the organizational process itself. When operational policies diverge from stated ones, an appraisal of stated policy provides misleading substitutes for judgements of the operational policy (Marmor 1983).

In Canada, where Government holds a key position in provision of health care, health policy appraisal must include political analysis of the social context of health care. Here, liberal beliefs in fairness and equity underpin the five conditions for the 1966 Medical Care Insurance program. These conditions require that the Program be (1) publicly administered, (2) comprehensive, (3) universal, (4) portable, and (5) accessible (Taylor 1986). A key element in this health policy focuses on access, this advancing a long standing belief that health may be improved through unhindered access to health care.

One policy analyst (Leichter 1991) suggests that health policies up to the 1970s have been shaped by the issue of accessibility. However, a shift in policy focus began in 1974 with Lalonde's discussion of a new perspective on health and health care. Here, Lalonde proposes health may be improved through better life-style choices and not through expanding access to health care. An underlying assumption is that "... a good deal of disease is self-inflicted, a product of our daily habits, and that individuals, through negligence, self-indulgence, and irresponsibility, contribute significantly to their own ill health or premature death." ⁸ A further assumption is we can no longer afford to be so foolish.

The new perspective on health sees the beginning influence of prevention and promotion on health policy which extends through the 1980s and into the 1990s. This perspective effectively creates a new domain for governmental involvement in health and

⁸. Howard M. Leichter, Free to be Foolish: Politics and Health Promotion in the United States and Great Britain (Princeton, NJ: Princeton University Press, 1991), 75 - 76.

health care. Political debate and conflict relates primarily to personal versus group rights. Unique policy conditions are directed at promotional practices that intrude at the personal level; life-style related initiatives assume individual's with a disease are guilty of making the wrong choice; and, health problems are seen to be a sign of a weak character or immorality. One consequence of this health promotion focus is the manner in which health problems become characterized and how they are responded to. We see this in the medicalization of a social problem, as in the case of alcoholism (Leichter 1991).

A harsher, socialist criticism of policy in prevention and promotion considers the life-style argument obscures sources of illness and disability in the environment. In addition, it places the burden of health on the individual and frees society from seeking the responsibility of seeking a collective solution to the health problems (Waitzkin 1983). Other authors illustrate problems arising from the life-style argument that often excludes a structural critique of contemporary society: for some, a healthy life-style may not be an option or hazards in the workplace are ignored (Small 1989; Marmor 1983; Leichter 1991).

This exclusion of social reality may represent a non-decision on the part of policy makers engaged in the political process. These types of non-decision reveal the biases in the system; decisions are made about what not to include or present because of a belief it will never get through the policy making process. Alternatively, stated policy may express the importance of social structures in relation to health, however, operational policy may not address these factors. This is demonstrated in Epp's 1986 Framework for Health Promotion which recognizes the relationship of economic status to health. The stated policy challenges Canadians to address the issue but does not establish a process for creating change.

An analysis of politics/policies in health care provides explanations for existing health programs and services. This process assumes a unique perspective as the issue of Indian

health in Canada is examined. Here, politics extends beyond health and inextricably incorporates struggle and conflict in the social and economic domains.

2.5 Developments in Health Services for On-Reserve People

Since 1867, with the signing of the British North American Act, health care for Indian people living on-reserve has been the responsibility of the federal government. During a subsequent 50 years, health comprised one component of Indian Affairs' general responsibility for matters relating to Indian and Inuit people in Canada. In 1945, responsibility for the health care of all Canadians, including Indian and Inuit, was transferred to the newly formed Department of National Health and Welfare. By the 1960's it became apparent that the health of Indian people remained significantly poorer than that of the general population. This poorer health is demonstrated by the Infant Mortality Rate. In 1960, the Infant Mortality Rate for Indian people was 82:1000 live births; in 1961, the rate for the general population was 27.2 (Statistics Canada 1991).

Governmental response to the disparity in the health of Canadian sub-groups was to increase efforts to narrow the health status gap by providing specialized programs and services to the status Indian and Inuit. In 1962, this specialization was assigned to the newly formed Medical Services Branch - a Branch that consists of several merged health programmes, including Indian health.

One of the first specialized programmes initiated by Medical Services Branch was the Community Health Representative (CHR) Program. Established in 1964, this Program involves the hiring and training of a community member to act primarily as liaison between village people and non-Indian health care workers. The CHR's major functions included interpreting and establishing links to enable the treatment oriented medical model to operate

within the context of the traditional culture.

Indian people maintain that health care is an enforceable right stemming from the Indian Act and the Treaty 6 "medicine chest" clause which states "... That a medicine chest shall be kept at the house of each Indian Agent for the use and benefit of the Indians, at the discretion of such Agent".⁹ However, the federal government asserts it holds neither statutory or treaty obligation in the provision of health services to Indian people. Rather, benevolent policy makers make it possible for status Indians to access "free medical care" (Health and Welfare 1974; Shawana and Taylor 1988).

Despite this position of limited and tenuous responsibility, the government demonstrates its "good faith" by withdrawing the 1974 Policy of the Federal Government Concerning Indian Health Services which was unanimously rejected by Indian people across Canada. This Policy, containing guidelines for uninsured health services (e.g., dental care and drugs), was seen to advance the intent of assimilation through federal government limiting the extent of responsibility for Indian health. Health and Welfare withdrew the guidelines for Provision of Uninsured Health Benefits and replaced the guidelines with professional or medical judgement. The goal of a subsequent and new Indian Health Policy was to increase the level of health of Indian communities, generated and maintained by the Indian communities themselves (Health and Welfare Canada 1978).

Besides modifying the contentious 1974 health policy, the government also responds to general questions about Indian health by instituting two Commissions of Inquiry. The Goldthorpe Commission at Alert Bay B.C. examined allegations of incompetence and

⁹ Alexander Morris, "The Treaties at Forts Carlton and Pitt, Number Six," in The Treaties of Canada with the Indians of Manitoba and the North West Territories, (Toronto: Belfords, Clarke, and Co., 1980), 355.

discrimination in local health services provided to Nimpkish Bands. The Berger Commission set out to determine methods of consultation that would ensure substantive participation by Indian and Inuit in decisions affecting the provision of health care to them. Conducted over a 10 week period, this national Inquiry recommends an allocation of funds to support a national consultative process and a national conference on Indian health (Berger 1980). This public commitment to consultation was also present within the Department of Indian and Northern Affairs during the 1970s: a commitment that did not translate to action (Bostrom 1984; Weaver 1981; Castellano 1982).

Though not a recommendation, the Berger Report discusses strategies for revising the health care system and Indian peoples' role in the revisions (Berger 1980: 13-15). These directions stem from a political analysis of the role of various tribal organizations: "... that the fit between needs and services, the appropriate distribution of services, and the countering of health destroying dependency can best be achieved by introducing community control of health programs and promoting community responsibility for sustaining health." ¹⁰

These strategies support a governmental ideology of placing responsibility for solving Indian problems in the hands of Indian people. Thus, the strategies develop into community demonstration projects. The expectation is the projects would provide a trial ground for testing the health benefits of community control: projects that are adapted over time could be extended to other communities and regions (Castellano 1982).

One Health Demonstration Project in Manitoba reported on progress in its participative efforts. While the Band appears to have met some of its health related objectives, it identifies specific problem areas. These problems relate to a restrictive time-

¹⁰ Marlene Brant Castellano, "Indian Participation in Health Policy Development: Implications for Adult Education," Canadian Journal of Native Studies, 2:1 (1982): 115.

frame that limits potential for success; a lack of training and resources, particularly for Health Committees; and restrictions created by inadequate financing and inflexible financial controls (Garro et al 1986). These problems and concerns are repeated and extended during a 1987 National Health Transfer Conference (Assembly of First Nations 1988).

The Health Transfer Policy was officially introduced in April 1986, the intent being to transfer the responsibility and funds for running most health care programs to the community. At this time, health services available for transfer include the nursing program, CHR programs, medical and dental advise and care, health education, nutrition programs, and environmental health services. Transfer does not include non-insured Health Benefits, however, communities have the option of administering the medical transportation program through contribution agreements. The transfer process involves (1) community assessment and planning, (2) negotiation, and (3) transfer (Health and Welfare Canada 1989a).

Though apparently rational at face value, the criteria and conditions for transfer evolved during the implementation process. This evolutionary process limited potentials for success in transfer. Conditions included demonstration of community input into the assessment; shifting requirements for proposals and reports; development of a community emergency response plan; and transfer at existing levels of resources (Assembly of First Nations 1988).

Despite political problems plaguing Health Transfer, the process is offered as one, if not the only means for improving the health of Indian people in Canada. This Policy assumes access to programs and services will improve health.

2.5.1 Health Care System for On-Reserve People

The on-reserve health care system involves Medical Services Branch, Provincial

Health, Indian and Northern Affairs, and Municipalities. This necessarily leads to jurisdictional disputes which result in inequality in service delivery and accessibility.

Since 1962, Medical Services Branch of Health and Welfare has held primary responsibility for providing specialized programs and services to status Indians living on-reserve. These programs and services are generally delivered out of a Health Station located on-reserve with co-ordination and administration provided through a local off-reserve Health Centre. A major component of health care has been and remains treatment oriented and is provided by nursing personnel. The nursing staff also provide health education which is largely preventive in nature. Major nursing programs include maternal and infant health (e.g. pre-natal counselling; post-natal visits and new born examination; Denver Development testing; and, immunization). Child and school health largely involve developmental follow-up, screening for specific conditions, and group education (e.g., sex education; AIDS awareness) (Health and Welfare Canada 1990c).

The Community Health Representative (CHR) Program remains one of the key programs provided through Medical Services. Instituted in the mid 1960s, the program is now administered by bands through transfer agreements undertaken between 1978 and 1980 (Health and Welfare Canada 1980). Though Band Council is the employer, in many instances the nurse provides supervision and direction. Today, the CHRs in B.C. receive modular training through the Sal'i'shan Institute for training. Training is general and largely disease and treatment oriented.

Community health services in B.C. are also provided by four health educators (staffing maximum: five) and one nutritionist. Direct services are limited by geography and number of bands (197) in the province. Both programs extend services through training and support for health nurses and CHRs. Bands also have access to Alcohol and Drug Councillors who are

part of the National Native Alcohol and Drug Abuse Program. A councillor may be on-staff or part of a shared service. When required, band members may be referred to a Treatment Centre in the Province.

A Dental Officer administers the Pacific Region's Dental Program. In isolated areas, direct services are provided by contracted Dentists and Dental Therapists; otherwise, mainstream services are accessed. In B.C., the Environmental Health Program is carried out by four Environmental Health Officers. Officers largely provide a surveillance function. While these Officers may advise bands of health risks, municipal or provincial standards are not enforceable because of jurisdictional issues (Health and Welfare Canada 1980).

The Department of Indian and Northern Affairs concerns itself primarily with social issues affecting Indian people living on-reserve. The Department jointly funds the Drug and Alcohol Abuse Program, supports the Social Assistance Program which parallels the Provincial Program, and through Welfare Services, provides adult home care and children-in-care services.

Health services provided to status Indians through the Provincial health care program is fully reimbursed by the federal government. These services relate primarily to implementation of the provincial health service plan and concern hospital services. In isolated areas, there is a federal-provincial exchange-of-service arrangement. In other instances, provincial services (e.g., mental health) are provided to on-reserve people, with the federal government compensating for costs. Submissions to the B.C. Royal Commission on Health Care and Costs (1991) indicate this type of arrangement results in restricted access and poorer quality of services.

The federal-provincial jurisdictional dispute stems from Section 92(7) of the Constitution Act, 1867 (Canada. Department of Justice 1983). The federal government's

position describes health care as a provincial responsibility; federal provisions for health are by custom alone. While the provincial government maintains it would be more efficient to provide one coordinated system of health care to all residents of the province such a proposal is rejected by Indian people. B.C. does not have an accepted policy relating to matters affecting Indian people, thus a transfer would jeopardize the federal-Indian relationship and could result in assimilation within provinces (B.C. Royal Commission on Health Care and Costs 1991; B.C. Ministry of Health 1979; Assembly of First Nations 1988).

This reluctant sharing of responsibility for Indian health contributes to inequities in kinds and amount of programs and services provided to status Indians. This systemic problem further undermines the health of on-reserve people.

2.6 Health of Indian People: A Summary Description

The health of Indian people has been alternatively described as deplorable and alarming. These extreme descriptors are borne out by documented health statistics where the health of Canadians provides a base-line for comparison.

Infant mortality rate, a generally accepted measure for population health, represents deaths of infants under one year of age. In 1985, the Infant Mortality Rate for Indian people was 17.9 per 1,000 live births, this over two times higher than the rate for Canada (7.9). The rank ordered six leading causes of infant deaths for Indian people were sudden unexplained death; congenital anomalies; and birth asphyxia, anoxia, and hypoxia. The high infant death rates experienced by Indian people remains high despite deaths having been virtually cut in half for both Indian people and the general population between 1976 and 1985 (Health and Welfare Canada 1988).

Life expectancy, the average number of years an individual is expected to live, has

also seen marked improvements for Indian men and women over the past several decades. However, by 1986 the gap between Indian and non-Indian life expectancy remains at 10.2 years. In 1986, Indian Women had a 74 year life expectancy (Canadian women: 80 years) and for men, 63 years (Canadian men: 73 years) (Indian and Northern Affairs Canada 1989; Statistics Canada 1991).

The suicide rate for Indian people is three times the national average, with suicide accounting for one out of every ten deaths. However, individual bands have experienced suicide rates that are significantly higher than the national average. These multiple suicides are referred to as a suicide epidemic. Males between the ages 15 and 24 comprise the high risk group (Health and Welfare Canada 1988; Cooper, Karlberg, and Adams 1991).

Age specific mortality rates for Indian people living on-reserve in seven Canadian provinces (excluding B.C.) show rates for all causes up to 50 years of age were two to three times higher than the general population. Between 1977 and 1982, causes include infectious and parasitic diseases; diabetes mellitus; alcoholic psychosis and alcoholism; pneumonia; kidney disease; and all major forms of accidents and violence. Mortality rates for all cancer sites was lower than Canadian rates for both sexes, but deaths from cervical cancer was significantly elevated (Mao, Morrison, Semenciw, and Wigle 1986).

Indian adults and children also experience excessively higher rates of infective and parasitic diseases. These diseases have been associated with conditions of socio-economic stress and over crowding and include hepatitis and tuberculosis (Enarson and Grzybowski 1986). Gaudette (1989) reports that between 1985 and 1987, the average rate for new and reactivated T.B. is at least 5 and may be 10 times higher among Indians than in the Canadian population as a whole.

Of growing concern to Indian people is the rapidly increasing prevalence of Non-

Insulin Dependent Diabetes Mellitus (NIDDM). Prior to 1930, NIDDM was an unknown condition among Indian people (Chase 1937; West 1974). Since then, most Canadian provinces, including B.C., are reporting increasing rates (Martin and Bell 1990). Similarly, many Indian people are increasingly concerned about the prevalence of arthritis and systemic lupus erythematosus (Atkins, Reuffel, Roddy, Platts, Robinson, and Ward 1988).

The contributing causes for poor health in general is related primarily to social and economic conditions. In 1988, 80% of native people lived below the poverty line with unemployment rates ranging from 60% in general to 90% in remote villages (Ramcharan 1989; Indian and Northern Affairs 1989). Approximately 80% of Native students do not complete high school. In B.C. 41% of status Indians have less than a grade 9 education (B.C. Provincial Advisory Committee 1990). Nationally, low levels of achievement suggest a conservative estimate for functional illiteracy for on-reserve people is 45% as compared to 30% for the general population (Canada. House of Commons 1990). Housing conditions are generally sub-standard this demonstrated in a 1990 report which shows 29% of 5,100 surveyed houses in B.C. villages were in poor overall condition (Melliship 1990).

Though the health of Indian people has improved over the past several decades significant disparities exist when comparisons are made to the general population. Many authors attribute poor health status to social and economic conditions specific to on-reserve and systemic inequities in the larger society (Berger 1980; Fredere 1988; Speck 1987).

2.7 Gitksan and Wet'suwet'en: A Social Description

In this study, the health of the Gitksan and Wet'suwet'en is being investigated. Oral histories of these peoples trace their presence in the valleys and mountains of the Skeena and Bulkley watersheds for about 10,000 years. Though two distinct cultures, their habitation

of the transition zone between coastal and interior tribes has, over the centuries, resulted in a distinctive form of confederation. These two societies share many common elements in their social organization and institutions. Similarities stem from inter-marriage, adoption, trade, and the adaptation and introduction of each other's ideas and practices (Gisday Wa and Delgam Uukw 1989; Glavin 1990).

The house and clan make up the central social units in the Gitksan and Wet'suwet'en society. A person is born into a particular house or clan according to laws of matrilineal descent: all inheritance passes through the mother's line. The Gitksan have four clans and the Wet'suwet'en, five: there are 76 Houses. Within each clan there are a number of related Houses: Houses derive their name from the fact that, in the past, members lived under one roof. Gitksan operate primarily within the House system while the Wet'suwet'en identify more strongly with clans. In the House, the members' relationships are known while in a Clan relationships may or may not be known but there is an assumption that members are related (Gisday Wa and Delgam Uukw 1989).

Authority rests with the hereditary chiefs of a House or Clan who may be female or male. This authority is validated and enacted primarily in the feast hall - a central institution of the Gitksan and Wet'suwet'en. The feast is given to mark all important occasions including death, marriage, settlement of disputes, inheritance of a name and territory. "The witnessing and validation of the House's historical identity, territorial ownership and spirit power is integral to the feast. But also integral is the House's demonstration of its prosperity through a distribution of its wealth. A House's wealth is directly linked to its territory." ¹¹

¹¹ Gisday Wa and Delgam Uukw, The Spirit in the Land: Opening Statement of the Gitksan and Wet'suwet'en Hereditary Chiefs to Chief Justice McEachern of the Supreme Court of British Columbia (Gabriola, B.C.: Reflections, 1989), 26.

In their land title court action, the Gitksan and Wet'suwet'en claim ownership and jurisdiction to 22,000 square miles of hereditary territory. This compares to the 45 square miles of reserve land assigned to the Bands in the early 1900s and presently inhabited by three Wet'suwet'en and seven Gitksan villages (Gisday Wa and Delgam Uukw 1989). In 1989, the Gitksan and Wet'suwet'en on-reserve population totalled 3,246: 117 males per 100 females (Indian and Northern Affairs 1990).

The Gitksan and Wet'suwet'en villages are located in a geographic area commonly referred to as the Hazeltons. Here, forestry is the backbone of the area's economy. Secondary industries include tourism, cattle ranching, and mining (B.C. Ministry of Health 1989). In 1990, unemployment in the northwest zone, including the Hazeltons, was quoted at 12%. This contrasts with unemployment among Gitksan and Wet'suwet'en which totalled 65% in the same time period (Personal Communication, MacDonald 1991).

Currently, the Gitksan and Wet'suwet'en Hereditary Chiefs are in Court to resolve the question of the people's title to traditional territories (Gisday Wa and Delgam Uukw 1989). This land mark court action is supported by local initiatives to exercise control in education, forestry, resource management, and the justice system (Gitksan and Wet'suwet'en Education Society 1989; Glavin 1990). Although there have been some discussions about opportunities in health transfer, none of the nine villages have documented information on the people's health and health needs. This descriptive study is intended to address the information gap.

2.8 Summary of the Literature Review

This review of existing knowledge shows that while health definitions have evolved considerably, there is no certainty that a universal definition of health reflects the beliefs and

values of the Gitksan and Wet'suwet'en people. This conclusion points to a need to explore their unique health meanings in order to both understand current health status and to establish a rational basis for responding to findings in the health measurement process.

Significant portions of this review provide background to key elements involved in the study being undertaken. This necessarily focuses on how health meanings may be conceptualized and how health itself might be measured. Two existing theoretical models guide research: Kleinman's explanatory Model of the health care system supports an examination of health meanings while the Diamond Model helps to organize the multitude of factors that are relevant to an assessment of health status.

An examination of the political nature of health care needs as well as developments in health care for Indian people provides some explanation for who got what, when, where, and how. These politics take on new meaning as Indian Health Policy institutes a process for change that is intended to improve health experiences of these health care recipients. However, prior to any change, information gaps must be addressed. The following Chapter provides details on the two approaches in research that address the information gap.

CHAPTER 3.0

METHODOLOGY

In the previous chapter, literature review points to the importance of having the health concept clearly defined prior to selecting an instrument to measure health status. Lack of an operationalized term, both for mainstream society and for the Gitksan and Wet'suwet'en in particular, points to a need for two approaches to this study. These complementary approaches are qualitative and quantitative in nature and utilize the phenomenologic and epidemiologic research perspectives.

The complementary nature of phenomenology and epidemiology becomes apparent largely within the context of the health care system which Kleinman (1978; 1980) describes in terms of three distinct but overlapping domains: the popular, professional, and folk sectors. In this study, phenomenologic inquiry focuses on the popular sector to gain some understanding of the Gitksan and Wet'suwet'en people's beliefs and values regarding the health and sickness experiences. The epidemiologic perspective, on the other hand, seeks to describe the distribution of disease among the same subjects but in a manner that is relevant to practices within both the popular and professional sectors (e.g., Gitksan and Wet'suwet'en people as well as health planners, doctors, nurses, etc). By combining these two methods of study, meanings and potential responses to the health/sick experiences are shared by both the popular and professional sectors, this effectively increasing the overlap described by Kleinman (Figure 1, page 13). These shared meanings establish a basis for centering health care upon the people themselves.

The following chapter briefly reviews the theoretical considerations in phenomenologic and epidemiologic research. Further details on study design demonstrate application of this theory. The Chapter finishes with a description of the limitations

encountered in applying the theory and how those limitations were handled to achieve the study objectives. First, a description of study design demonstrates how both qualitative and quantitative data contribute to the expressed purpose of this study: to obtain and describe base-line health information on the health status and health needs of the Gitksan and Wet'suwet'en people via the meanings and interpretations they, themselves, attach to health.

3.1 Study Design

In this study, concurrent investigations provide both qualitative and quantitative data. Figure 4 outlines key aspects of the study including methodology, Models (2) and methods, and analytic procedures, all of which are synthesized to provide a description of health meanings, health status, and health care needs of the study group.

At the outset, literature clearly supports the value of such a study. Upon initial contacts, the Gitksan and Wet'suwet'en tribal executives readily commit to the study proposal because it contributed to their short and long term plans for change. However, all nine bands in the tribal group expressing interest in the initial stages of planning were unable to carry through implementation of the study. In the end, two bands became primary study groups with supplementary data coming from the other Gitksan and Wet'suwet'en bands.

Qualitative data derives from an exploration of the health phenomena as viewed and experienced by the Gitksan and Wet'suwet'en people. This aspect of the study draws upon Kleinman's Model to guide the investigation. The principal method in this phenomenological research involves in-depth interviews. Nine men and women between the ages of 35 and 65 and from five different bands, alternatively referred to as villages, contribute their knowledge and experiences.

The quantitative data obtained through survey methods provide statistical data on the

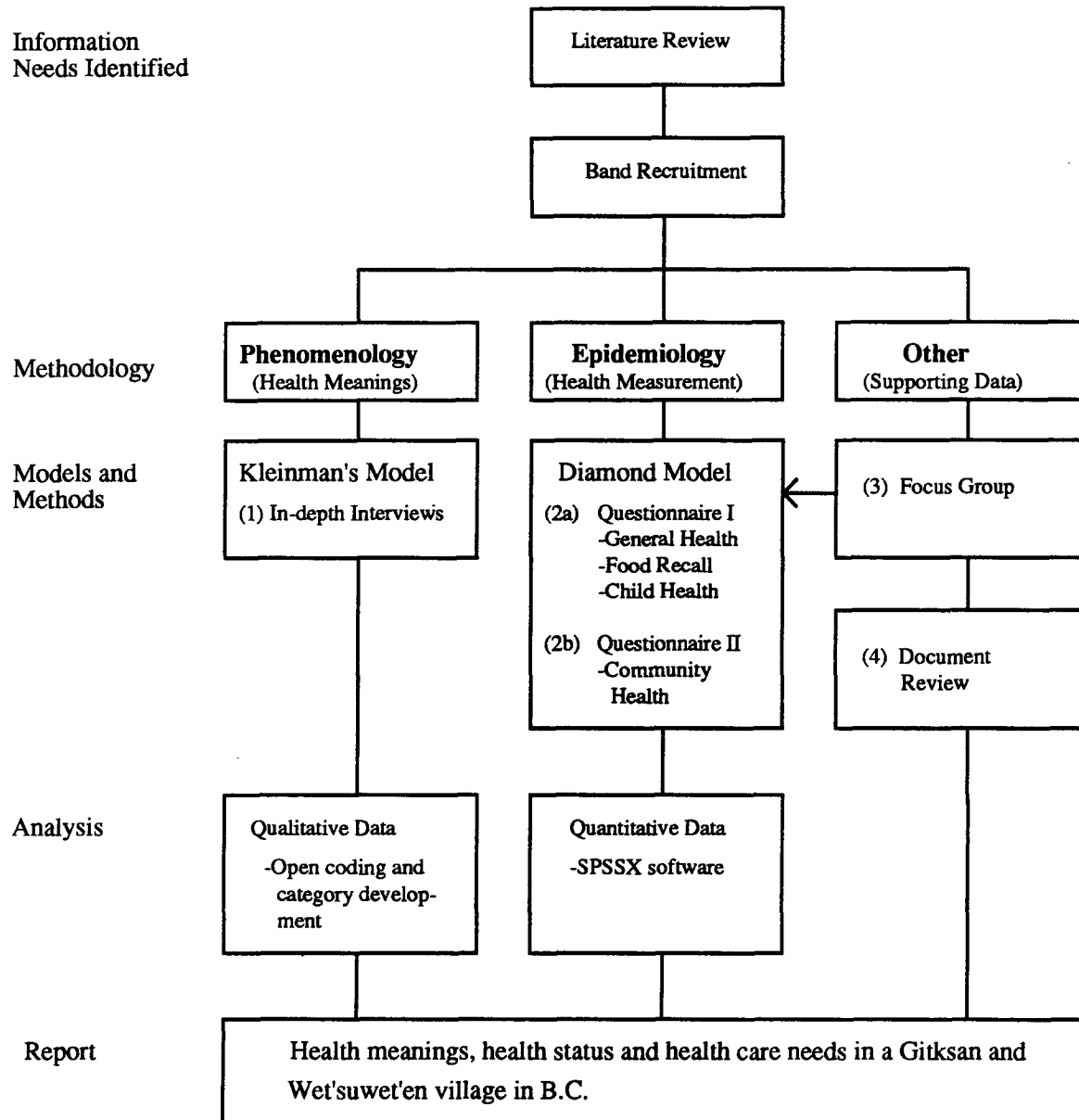


Figure 4: Study Design

health of the Gitksan and Wet'suwet'en people in three villages, two of which form primary study groups. Ninety-seven (97) randomly selected men and women between the ages of 15 and 72 take part in the health survey. This epidemiological approach focuses primarily upon the subjective experiences of the study population. A secondary health survey involved ten (10) men and women with extensive knowledge on community health. Two additional complementary methods to epidemiologic research involve the focus group and documentary examination. Data from all sources contribute to a description of the health meanings, health status, and health care needs in a Gitksan and Wet'suwet'en village.

The following sections of this Chapter review theoretical considerations for this study and extends the concepts through entry into the cultural scene via field work.

3.2 Investigating Health Meanings: Phenomenological Research

The phenomenological research design supports Kleinman's framework for explaining the health care system in that it provides a means for understanding the individual's health related perceptions and experiences. This qualitative research method utilizes individual responses as data source. Here, the researcher and study subject jointly explore the meaning of phenomena, thereby producing data. This exploration forms the basis for constructing a description of the experience under study - in this case, health (Oiler, 1986; Parse, Coyne, and Smith 1985).

Although qualitative research is receiving increasing recognition for its contribution to science, questions of rigor predominate the research process. In qualitative research, tests of rigor include (1) truth value, (2) applicability, (3) consistency, and (4) neutrality (Guba and Lincoln 1981). According to Sandelowski (1986) "The truth value of qualitative investigation generally resides in the discovery of human phenomena or experiences as they

are lived and perceived by subjects... ." ¹² In other words, the study subject defines truth and not the researcher. In this type of research, the issue is one of credibility and not internal validity.

Threats to external validity relate primarily to representativeness. A theoretical sampling process within a study population provides subjects who are members of or representative of that group. This sampling method ensures findings apply to the study population. Threats to representativeness are further minimized by rigorous handling and reporting of data.

Consistency addresses the issue of reliability. In quantitative research, reliability refers to the ability to duplicate findings. Guba and Lincoln (1981) argue that, in qualitative research, the issue is not reliability but rather auditability. That is, another researcher can follow an investigator's "decision trail" and arrive at the same or comparable conclusions (Sandelowski 1986).

The last tests of rigour Guba and Lincoln (1981) describe involves neutrality, or freedom from bias. They argue that it is possible for a researcher to minimize potential biases through confirmation of data. According to these authors, a researcher may achieve confirmability by establishing auditable data, truth value, and applicability to the study population (Sandelowski 1986; Guba and Lincoln 1981).

3.2.1 In-depth Interview and Theoretical Sampling

The principal technique in phenomenologic research involves the in-depth interview

¹². Margarete Sandelowski, "The Problem of Rigor in Qualitative Research," Advances in Nursing Science 8:3 (April, 1986), 30.

to explore the health phenomena. During the interview, subject response to descriptive, structural, and contrast questions pattern the speech event and facilitate a discovery of the subject's cultural knowledge. The in-depth interview focuses on word usage, the assumption being cultural meaning emerges from understanding how people use their ordinary language (Spradley 1979).

A theoretical sampling strategy guides data collection in the in-depth interviewing process. Concurrent analysis establishes categories in the health domain with sampling strategy ensuring representativeness of the categories and their relationships (Chenitz and Swanson 1986). According to this process, analysis guides decisions for follow-up interviews with existing subjects and for introduction of new study subjects. Sample sizes are typically small because of the large volume of data generated during the prolonged and intensive contacts with the subjects (Sandelowski 1986). Although there is no set rule for determining what constitutes sufficient data, another researcher suggests "The analyst can feel confident that the field has been thoroughly explored when no further categories emerge from the data, the categories are dense and well developed, the same patterns are seen repeatedly, and there is variation."¹³ These well developed and verified categories support a framework for conceptualizing the phenomena under study.

3.2.2 Theoretical Sampling Criteria

In this study, men and women 30 years and over were selected on the basis of their

¹³. Julie Corbin, "Qualitative Data Analysis for Grounded Theory," in From Practice to Grounded Theory: Qualitative Research in Nursing, by W. Carole Chenitz and Janice M. Swanson (Don Mills, Ont.: Addison-Wesley Publishing Company, 1986), 93.

ability to speak authoritatively on traditional health related practices, beliefs, and values. An priori exclusion criteria selected out member from the same family (one exception), individuals with a history of training in the health care field, and individuals not of Gitksan or Wet'suwet'en ancestry.

Potential respondents for the in-depth interviews were identified by Band Council and the CHR. An elite bias was avoided by their identifying band members whom they thought to be potential contributors but who were not always called upon in this type of study. Each potential respondent received a letter explaining the study and inviting them to participate. These initial contacts were made primarily by the Community Health Representatives (CHRs) to explain the purpose of the study and to provide some explanation of the kinds of information being sought. Potential study subjects indicated their interest by returning a consent to contact form (Appendix A-1). Upon receipt of consent to contact either a phone call was made or, when a phone was not available in a household, personal visits were made with the CHR present to make introductions.

Sixteen (16) men and women were contacted over an 18 week period, with new contacts sought as it became apparent more subjects were required to adequately explore the concepts being discovered. Two men and three women refused outright to take part in the study because they didn't have time or because they believed they did not know enough about the subject under study. Another woman avoided responding to the invitation while another man agreed but failed to keep two interview appointments. This man expressed relief when he was reminded that he was free to withdraw from the study whenever he wished. He immediately withdrew consent to participate. The 9 men and women who agreed to take part in the study were from two Wet'suwet'en and three Gitksan villages.

The nine consenting study subjects took part in 2 or 3 one hour tape-recorded

interviews. At the first interview, trigger questions were posed to initiate discussions.

(Appendix B) The set of predetermined questions helped to maintain a focus on the domain under study, however, the direction and content of the interview was according to responses of the study subject.

Generally, when conversing with another Gitksan or Wet'suwet'en it is considered impolite to either interrupt before speech is completed or to ask too many direct questions. Consequently, open ended questions initiated the conversation and non-verbal responses or brief interjections (e.g., "That's interesting"; "Oh") maintained the flow of conversation. In these directed conversations, meaning was sought through language usage, therefore, the question "Why?" was not used. In one instance, a 75 year old woman seemed to have trouble hearing and when she did hear a question, she often pursued a health related topic important to herself. Respect for her interests and needs required that this stream of conversation continue. In the end, her contributions proved rich in content.

Four of the Gitksan and Wet'suwet'en men and women were interviewed in either a band or tribal office where they worked. A 64 year old Gitksan woman was on holidays from work in the public school system. She and the remaining four were interviewed primarily in their homes. When in the home, it was not uncommon to have other family members around. However, they generally tried to discretely distance themselves from the interview to provide some privacy.

Often during the tape-recorded conversations, talk of health brought to the surface pain and grief associated with a recent or past death: deaths often associated with some tragic circumstance. An elderly woman spoke at length about the untimely death of her husband. At the second meeting, this woman was extremely uncomfortable and said she was being asked questions about things she took for granted. Rapport could not be re-

established because of her level of discomfort so she was assured further interviews would not be necessary.

It was not uncommon to have the subject state out-right they would not talk about traditional healing practices or specific herbal remedies. This subject area was not relevant to the study and so posed no problem. In some instances conversation touched on these areas: either the individual asked to have the recorder turned off or portions of the recording were erased. At the outset, participants were assured of the confidential nature of the interviews and felt freer to talk because their names would not be linked with the material. Confidentiality were maintained by limiting access of transcribed material to the researcher and thesis committee and by erasing the tapes at completion of the study.

Each interview was transcribed verbatim by the researcher herself and first level analysis undertaken prior to follow-up interviews. This follow-up contact was particularly important because a lengthy discourse by the study subject often produced material that was not captured and expanded upon during the same interview. In this case, the follow-up interview questions were directed at confirming, contrasting, and exploring concepts introduced at a prior interview.

A total of 22 transcribed hours of tape were obtained. Three individuals were interviewed on three separate occasions. Two were interviewed twice and indicated they had nothing more to add. Three others could only be interviewed twice because their time commitments did not allow follow-up. One woman receiving sedatives felt she could not contribute to her full potential and so was interviewed only once.

3.2.3 Data Analysis

Data analysis involved a process whereby the analyst interacts with data over time and

through various phases to generate an explanatory model for the phenomena under study. (Corbin, 1986) The constant comparative analysis technique initially involves a line-by-line, then paragraph-by-paragraph analysis. The process consists of iterative or repeating inductive and deductive thinking modes. Here, ideas or tentative explanations are derived and checked against existing data or new data sought to support or discount the hypothesis. Through this process, thinking moves to higher and higher levels of abstraction to arrive at an explanatory model for describing the phenomena (Corbin 1986).

Categories form the major unit of analysis in this constant comparative analytic method. These categories consist of abstractions of phenomena observed in the data and are derived through questions the researcher poses to herself or the data. This questioning strategy is complemented by the line-by-line analysis to identify health related events and facts. Similar events and facts are grouped to form a single unit: the single unit is referred to as a category. The researcher coins a word or phrase to identify the category and, by inclusion, establishes relationships to describe or explain the phenomena (Corbin 1986; Spradley 1979). Generally, the coined words remained as true to content of the original data as possible. During this analytic process, discovering and building or densifying categories is an ongoing process that is achieved through the researcher questioning herself and the data and simultaneously posing descriptive, structural, and contrast questions to the study subject.

The final stages of analysis involve developing linkages between categories and finally identifying the central categories of the phenomena. These themes form the basis for describing the phenomena under study.

Both interviews and first level analysis occurred during the same time period as did the health survey questionnaires. This epidemiologic perspective is described in the following section.

3.3 Epidemiologic Research: Methods and Sampling

The epidemiologic aspect of the study consists of a descriptive, cross sectional study design and provides quantitative data. The principal method involves two survey questionnaires (Appendix C-1, C-2). One Questionnaire examines personal health while the second examines community health. The questionnaires draw upon the Diamond Model (Long 1984) to order the factors affecting health. According to the Diamond Model, health and illness is determined by the independent and interactive effects of four variables: (1) Genetics/constitution; (2) behaviour or lifestyle factors; (3) the social and economic environment; and, (4) the health care system itself. These four groupings support examination of the health experience beyond a personal context and include critical environmental factors affecting health. The following section discusses the two questionnaires separately.

3.3.1 Survey Questionnaire: Personal Interviews

The personal health survey instrument stems from existing health measurement tools previously used in the general Canadian and American populations but not in the Indian community. Items included in the instrument have face validity in that they are theoretically justifiable and intuitively reasonable. Inclusion is not guided by pre-existing Gitksan or Wet'suwet'en definitions of health because there is presently no recognized or accepted definition. Sources for the questionnaire items are as follows:

1. The Ontario Health Survey (Ontario Ministry of Health 1989);
2. Community Health Needs Assessment: Community Members Survey Questionnaire (Health and Welfare Canada 1989b);
3. Functional Status II-R Measure [Child Health] (Lewis, Pantell and Kieckhefer 1989).

The resultant 200 item instrument (Appendix C-1) was modified according to findings from two Focus Group meetings. These small community meetings were exploratory in nature and provided information on common word usage and tentatively identified and confirmed health issues of relevance to the survey questionnaire and health needs assessment. For example, the term "sickness" is used rather than "illness," and health issues include poor food habits, lack of recreational facilities, and concerns about high rates of arthritis. The Focus Group is a distinct qualitative research method that is further discussed in this Chapter.

Upon revision, following Focus Group meetings, the instrument was pre-tested among 11 Gitksan and Wet'suwet'en people living in the lower mainland. This pre-test assessed the clarity and understandability of the questions as well as provided a check for the meaning of specific words and items. In most cases, these pre-test subjects had recent and ongoing contacts with families from their home village. As a result of this pre-testing, minor word changes were made prior to finalizing the instrument.

3.3.2 Randomized Sampling

The survey was conducted among the residents of a Gitksan and a Wet'suwet'en village with a combined on-reserve population of 425. The sample size was derived by formulae (Appendix D) and based on an estimated 60% of respondents 15 years and over rating their health as good or better. This sample was increased by 25% to adjust for an estimated 1 in 4 refusal rate. The sample frame (on-reserve men and women 15 years and over) was derived from a current Band Membership Registry which was loaded into D-Base III+ software and sorted by age and sex. A proportionate, stratified (band, age, and sex) random sample was obtained by applying a random numbers table to the sample frame. After stratification by band, sex, and age, and prior to randomization, the sample group in

ages 55 years and over was doubled to ensure adequate representation by this age group.

A secondary Wet'suwet'en village with an on-reserve population of 567 was included. A sample of 15 was obtained through application of a random numbers table to an unsorted current Band Membership Registry. Stratification was by sex.

The calculated sample size was 215 adults. However, the actual sample size was reduced to 180 as contacts in the village determined that roughly 20 percent of the sample group had moved out of the village either before or at the time of contact. This adjustment occurred despite on-reserve and off-reserve status being confirmed with Band Office employees prior to defining the sample frame.

People were very interested in how their name came to be on the list of potential study subjects. Upon explanation, they were satisfied with the random nature of their selection and in a few instances said all the people in the village should be involved because health is such an important issue. In one instance, a young male relative presented an aggressive front in wishing to protect a woman from possible intrusion into a particularly sensitive family concern. However, when learning of the random nature of selection (i.e., he had the same chance of being selected as did she) as well as the confidential nature of the information, he calmly left the room and allowed the interview to proceed.

Randomization also occurred in selecting a child for inclusion in the Child Health component of the Questionnaire. This randomization was employed to prevent respondent's selective reporting on sick kids. All respondents provided the name, age, and sex of dependent children under 15 years of age. These names were hand written on separate pieces of paper, placed in a bag, mixed, and the respondent withdrew one folded piece of paper. The child whose name was pulled from the bag was included in the study. Double reporting was avoided by documenting the child's age, sex, and name and cross-checking the

list before interviewing other adults from the same family.

3.3.3 Interviewing and Data Processing

Prior to beginning the health survey, two community interviewers received two days training. (Appendix E) These interviewers were provided in-depth background information in an attempt to establish and maintain their credibility as subjects raise questions regarding the content and purpose of the study. The interviewers received weekly supervision and completeness of questionnaires monitored on an ongoing basis. Where necessary, a respondent was re-contacted to complete specific items in the questionnaire.

General Band membership was informed of the health study through letters directed to the households. Selected respondents were further notified of their selection into the study and advised they would be contacted. Written consent was obtained from a respondent prior to an interview. Written parental consent was also obtained before approaching respondents 17 years and younger (Appendix A-2,3,4). Confidentiality was maintained by storing consent forms separate from the completed questionnaire.

Codes from the completed questionnaire were transposed to a coding sheet and batches of coded sheets submitted to the University of British Columbia Computing Center for data entry. Upon completion of data entry, the data file was converted to a DBase IV file and edited. Data were cross checked with the original questionnaire and the data base edited as required. The Food Recalls were re-tested for consistency in food item coding and accuracy in transposing figures to the coding sheets.

3.3.4 Data Analysis

Descriptive data were cross tabulated according to stratified categories of age, sex,

and ancestry (Gitksan or Wet'suwet'en) and key variables described in the Diamond Model. Data were further examined using the SPSSX statistical package.

The 24 Hour Food Recalls were analyzed with a customized nutrient analysis program (Nutrient Analysis Ver. 2.0: Margaret T. Behme). Prior to analysis, all consumed foods were uniquely coded according to Health and Welfare Canada's Nutrient Value of Some Common Foods (1987) the coding for which had been extended by Behme to include traditional foods (e.g., smoked, dry fish; moose meat; huckleberries, etc.). Adequacy of nutrient intake is assessed by comparison to Canada's Recommended Nutrient Intakes (Health and Welfare Canada 1990a). Respondents are considered at-risk for a nutrient deficiency if intake falls below 66 percent of the Recommended Intake.

3.3.5 Key Respondent Questionnaire

The Key Respondent Questionnaire (Appendix C-2) is derived from the Community Health Needs Assessment Manual prepared by Health and Welfare (1989b). This Questionnaire extends the exploratory process in identifying health care needs. Respondents consist of Band employees, a pastor and band policing personnel who are believed to have extensive knowledge on the general health of the village. Data are summarized with the DBase IV program.

3.4 Complementary Research Methods

The two complementary methods of research include focus groups and documentary review. These techniques extend information to include a community perspective.

3.4.1 Focus Group

The focus group comprised a preliminary research method to explore Gitksan and Wet'suwet'en common word usages for describing health. In addition, the method helped to identify and confirm relevant health problems and issues. This information guided both language usage and item selection when compiling the health measurement tool.

A focus group is a group interview where interaction within a group of 6 to 8 people is facilitated by a moderator. Interview transcripts comprise the data while group interactions provide insights into the topic of interest. The number of group interviews is determined by both research purpose and resourcing issues - time and money. Small groups of 6 - 8 people allow greater input by each participant. In addition, the moderator can focus attention on the substance of the interview rather than on process (Morgan 1988).

Sampling has a theoretical basis where selection concentrates on the population segment that will provide the most meaningful information. This technique introduces a sampling bias that can be minimized through recognition that data do not represent a full spectrum of opinions and experiences. Alternatively, recruitment may take into account the expected differences within and between groups (Morgan 1988).

In this study, group participants consisted of band members recruited by the Community Health Representative (CHR). Criteria for selection included age, sex and potential for contributing in a small group setting. Recruitment focused on ensuring participation by men. Two Focus Group meetings were attended by 5 and 12 band members. Data from these groups were summarized with findings complementing and enhancing other data sources.

3.4.2 Documentary Examination

Supporting documentation on social and health indicators was sought at the Gitksan

and Wet'suwet'en Office of the Hereditary Chiefs, Band Offices, and Medical Services' local Health Centre and Health Stations. Generally, there proved to be very little information available at any source. Where information did exist, access became a major impediment, particularly with regards to Medical Services Branch. Problems associated with access to information proved insurmountable given the political nature of the bureaucracy. In particular, not linking the study with a health transfer initiative did not give Medical Services sufficient reason to cooperate within existing constraints of confidentiality of health records. For example, the local Health Center could have provided information on chronic health problems without releasing names or birth date but chose not to. This lack of information poses real problems in any initiative to plan for health care in the villages.

3.5 Limitations

Potential problems in this study arise from study design as well as inevitable difficulties associated with applying theory in the real setting. This study is exploratory in nature and combines phenomenology and epidemiology. Limitations experienced in the field relate primarily to the General Health Survey Questionnaire.

Though research plans were endorsed at the tribal level, village responsibility for providing interviewers became a primary stumbling block. At the village level, funds were not available to hire interviewers. With one exception, community health workers were unwilling to undertake the responsibility for interviewing because of established commitment to day-to-day work. This problem was compounded by village people's over-riding concern about confidentiality. Personal health information could not be disclosed to an active community member where trust was a problem. However, they were prepared to undertake the interview with an individual whom they knew was associated with the Tribal Group and

whom they could trust. As a result, the majority of interviews (85 of 97) were completed by the researcher herself.

The Band List was used to develop the sample frame. However, this List is considered confidential information. Thus, in two cases, access to the Band List was provided on-site and only hard copies of the final sample removed from the Band Office. Prior to developing the sample frame, a band employee established whom on the list was actually living in the village during the time of the study. Despite this screening process, about twenty percent of the random sample were not currently living in the village when initial contacts were being made. Often, people were away travelling or were on day-trips. The sample size had not been adjusted to account for high mobility within the population.

Additional changes in the research plan related to application of the questionnaire. Concerns about literacy determined that the questionnaire be read out loud to the subject. The subject was provided with an enlarged print of response choices to limit the potential of their reading ahead and so possibly biasing their answer. However, both young and old often experienced hearing problems and did not appreciate having the question re-read. Consequently, after the first 15 interviews, all subjects were provided with a copy of the complete questionnaire and followed along as questions were read out loud. This type of participation increased their comfort level and speeded up the interview process. Read-ahead was not a problem.

The exploratory nature of this study poses problems in and of itself as there is not sufficient knowledge upon which to base formulation of questionnaire items and language usage. Selection of questionnaire items do not stem from the Gitksan and Wet'suwet'en views of health but rather are drawn from existing pre-tested instruments that address a multitude of factors that affect health. The appropriateness of these items with respect to

local views of the health experience can only be clarified through future studies. A fundamental consideration to future research is the distinction between measuring health status and measuring wellness and well-being (McDowell and Newell 1987; Herbert and Milsum 1990).

Because this study is exploratory, it largely lays the foundation for future work and extends knowledge only in a limited sense. For example, a concurrent exploration of health meanings and health status leads to development of analytic categories only after the general pattern of data has been looked at. This process necessarily underestimates the potential importance of critical elements relating to local views of the health experience.

Methodology also has limitations normally associated with questionnaires, interviews, and respondent-interviewer interactions. An unavoidable part of a survey is the time delay between start and finish of a questionnaire by a sample population. In this study, questionnaires were applied over an eighteen week period, this increasing the potential for respondent bias if individuals exposed to the questionnaire discuss the contents in public. In addition, the social context of respondents vary over this time period, and, if approached during a personal or family sickness experience, responses may be considerably different than when they are well. To minimize these potential biases, respondents were requested not to speak to others about questionnaire content. Generally, potential respondents were more concerned about whether questions would invade their privacy rather than specific content of a health related question. The social context of the health experience was minimized to some extent through respondent choice in participating. If unwell, they said so, and chose to participate at another time. In one case, a death in the village interrupted field work for a ten day period at which time a band employee indicated it would be socially acceptable to resume the survey.

Responses to the questionnaire are also influenced by the reference time period. In particular, questions referring to a previous twelve month period are subject to recall bias. Further problem arises in changing references in time from months to days to years. Time referencing problems are unavoidable given the nature of the factors being examined. For example, the adequacy of physical exercise can be assessed only over a period of months while dental health problems are relevant within a much shorter time frame.

An unavoidable factor in conducting a study is personal bias of the researcher. This bias may include personal health meanings associated with another culture as well as socialization into the medical care system. In this study, personal bias is lessened to some extent by this researcher being a member of Wet'suwet'en society. This familiarity required careful attention to phrasing of questions during in-depth recorded interviews to minimize assumptions and avoid leading questions based on either local views or the medical model. Acceptance of respondent views also limited potential bias.

These bias issues refer primarily to internal threats to validity. In qualitative research, Sandelowski (1986) considers truth value to be an appropriate test for rigor with credibility comprising the criteria for assessing study findings (Guba and Lincoln 1981). A qualitative study is credible if study subjects recognize and accept descriptions as being true to their experiences. Credibility is further demonstrated if other people reading the findings find confirmation when confronted with the experiences in the same study environment. A major threat to truth value is the long and close subject-researcher relationship that may be minimized by the researcher focusing on clearly separating his or her experiences from that of the subject and in handling and interpreting data (Sandelowski, 1986). In this study, truth value was tested by presenting and discussing findings with Gitksan and Wet'suwet'en people on several occasions. Territorial leaders further tested truth by discussing the concepts with

local, traditional healers who also affirmed acceptability of the descriptions.

Findings for both qualitative and quantitative data were brought to the attention of Gitksan and Wet'suwet'en leaders throughout the analytic phase of the study. In particular, this writer considered it important that presentation of findings remain true to data but do not create a situation that may have negative repercussions to the study group (e.g., create social embarrassment). For example, handling data relating to alcohol use became a major concern, and upon discussion with representatives in these two societies, a decision was made to let stand in a public document those findings relating to frequency, quantity, and beliefs in normalcy of drinking patterns. These factors describe areas for needed social change and are thought to be no different from experiences in other cultures where alcohol use constitutes a major social and health problem.

The concept of "saving face" is an important and significant factor to both Gitksan and Wet'suwet'en on a personal and public level. This concept had particular relevance to field work and recruiting respondents. When confronted with a question, people generally try to avoid giving a response that might embarrass the person asking the question or the one responding. This is seen where most people will not say "no" to an invitation to participate but will either evade the issue (i.e., won't say "yes" or "no"), avoid contact, or not keep appointments. Over time in the field, these types of responses became accepted as implicit refusals because of a need to distinguish between friendly invitation and perceived harassment. This perception of a researcher showing disrespect for decisions not to participate would alienate band members at large. It is not clear, however, what proportion of the study group represented implicit refusals and what proportion simply represented failure to contact at a mutually convenient time. This issue might have been clarified through longer time in the field, however, resourcing issues of time and money proved a

significant deterrent.

An a priori assumption to this study was that the use of the term "health" in the General Health Questionnaire was both appropriate and relevant. However, findings from the in-depth interviews show that the abstract term "health" has little relevance. Rather, people say they are well when healthy and they speak of a sense of well-being. Despite this apparent contradiction, items in the Questionnaire did not pose a problem because of the contextual nature of the questions.

In applying the General Health Questionnaire, some problems arose in word usage and wording of specific questions. For example, meaning of specific medical conditions were questioned by a few people, as for example "goitre, thyroid, cataract, glaucoma, and lupus." Most commonly, respondents questioned what the word 'normal' meant in relation to alcohol usage (Do you feel you are a normal drinker?) Negative statements regarding mental health caused the most confusion as, for example, "My health gave me no concern." There was also problem in understanding the meaning of such phrases as "I had no problem handling my feelings" and "Many interesting things happened." In several cases, the 14 phrases found in Question 120 generated what appeared to be a response set (Appendix C-1).

An extreme measure of mental health is the occurrence of suicide or attempted suicide. In examining this aspect of mental health, an introductory statement prepared the study subject for the topic and reduced threat by indicating this problem was not unusual. In addition, "taking your own life" was selected in place of "suicide" to soften the statement. No one refused to answer the questions, nor did anyone appear to become too uncomfortable or upset by the questions. The transitional statement reads:

"Health information on Indian people in Canada show that Indians take their own life more often than do white people. It often happens that a person who is feeling very bad or depressed and who cannot see a clear way to dealing

with life's problems, might either think about or try to take their own life. Have you ever seriously thought about taking your own life?"

Apparent discomfort did arise in areas the respondent felt especially sensitive about. For example, Question 2 relating to happiness in life caused a woman to cry and talk about problems relating to unresolved grief. However, she invited completion of the questionnaire at another time: This was done. In other cases, questions on alcohol use caused some discomfort on the part of only a few individuals.

Additional problem arose with the question relating to highest level of education. Many respondents attended some community college, however, the question structure does not distinguish between those who completed grade 12 and those who have some primary or secondary schooling. The extent of upgrading through community college is also not known.

Questions relating to work history was particularly sensitive. (Appendix C, Question 134-139,) In many cases, individuals considered their main activity to be working at a job even though this may have been 2-4 months in the past year. Attempts to clarify and correct the response met with some displeasure, consequently answers were accepted at face value. Wording of this type of question needs to be given careful consideration prior to use in another Indian population. A transitional paragraph to explain this question may be helpful.

Often, on completion of the questionnaire, the respondent commented on the value of the questionnaire from both a personal and community perspective. From a personal point of view, the questionnaire raised their awareness of health issues and in particular caused them to evaluate their own health and health practices. Despite some apprehension at the outset, respondents were increasingly willing to participate in the health survey after other Band members had assured them of the acceptability of the questionnaire. This social approval was an important factor in the response rate that was achieved.

3.6 Summary

This study consists of two components. The phenomenological research design guides the qualitative aspect of the study. Here, subjects for in-depth interviews are identified according to a theoretical sampling technique and transcribed interview data analyzed by a constant comparative process. Categories identified through this process form the framework for describing health according to the Gitksan and Wet'suwet'en.

The epidemiologic research component provides information on personal and community health via health questionnaires. The general health survey comprises the central technique and is complemented by findings from the focus group and documentary review. Though limitations in this study do exist both in the conceptualization and implementation phases, these problems do not seriously threaten the quality of data. The following Chapter presents the results of this study.

CHAPTER 4.0

RESULTS

The first section of this Chapter provides a description of health meanings according to the Gitksan and Wet'suwet'en. These health meanings are drawn from in-depth interviews (N = 9) and contribute to some understanding of the local health experience. Both an understanding and sharing of health values focuses attention on the desired state of being, provides a basis for developing health goals, and when applied in the health planning process, may facilitate an orderly and rational response to health care needs.

The second major section in this chapter contains a summary description of the health experiences of 97 randomly selected men and women 15 years and over. Here, a multitude of factors that can affect the health experience are examined in detail. This identification of personal health problems forms one component in the process of identifying health care needs. Supplementary tables summarizing results may be found in Appendix F.

These results from the in-depth interviews and the general health questionnaire are supported and strengthened by contributions from small community meetings referred to here as focus groups. A short summary of key points made during these small group meetings begins the discussion of health needs at the community level. Further information on community health needs is obtained from a questionnaire directed at key individuals who have broad based knowledge on health within the community. These results support and extend the process of describing areas for needed change within the community as a whole.

Finally, the chapter is concluded with an integrated summary of field notes and documentary review. These documents consist of findings from local health related reports. The field notes include excerpts from a daily journal as well as summary of discussions with Gitksan and Wet'suwet'en who were not selected into the study.

4.1 Gitksan and Wet'suwet'en Views on Wellness and Well-Being

Results from in-depth interviews involving nine men and women have been logically ordered following intense, repetitive comparison of categories within and between transcripts. Scrutiny of and reflection on the participant's uniquely subjective views uncovered both similarities and differences in the health experience. These similarities form the framework for analysis where emerging themes have been ordered according to their relationship to the central concepts of wellness and well-being. This framework supports and guides discussion of the similarities and differences in the health experience, a process that gives both specificity and depth to the Gitksan and Wet'suwet'en views. Truth value of this account is achieved through reference to individual descriptions as they occur in the data.

When both the Gitksan and Wet'suwet'en discuss or describe their state of wellness, they generally refer to their whole being. The whole being consists of physical, mental, and spiritual components with the spiritual nature being a dominant force. This spirituality threads throughout the well/unwell experience and grounds the beliefs and practices that either strengthen or weaken the experience.

4.1.1 A Conceptual Model for Data Interpretation

The key concepts of wellness and well-being are captured and expanded upon through exploration of five major themes:

- (1) wholistic interconnections - The individual is intimately connected to and affected by all aspects of the environment, extending from the family to the land itself;
- (2) wellness and well-being experiences - Individuals who are well describe themselves as strong and express positive experiences of well-being (e.g., happy);
- (3) wellness experiences strengthened and protected - Being well and strong are

considered a natural state with beliefs and practices directed at both strengthening and protecting that state of being;

- (4) wellness weakened - Factors that can weaken a state of wellness primarily involve emotions and attitudes. This weakening causes one to be unwell or exposes the individual to a sickness; and,
- (5) unwell or sick experiences requiring healing - Whether unwell and/or sick, it is generally recognized that a healing is required with the individual and extended family involved in resolving the sickness experience.

This wholistic view of wellness and well-being is outlined in Figure 5 with conceptual relationships showing movement towards the common goal of being well and strong. A detailed discussion follows this schematic representation. Data interpretations are substantiated by excerpts from transcripts to demonstrate a "decision trail." According to Sandelowski (1986), this decision trail would result in another investigator reaching the same or comparable conclusions given the same data and utilizing a similar analytic technique. In this report, specificity and depth is achieved through reporting on unique experiences that relate to a central that is common to the study group.

4.1.2 Wholistic Interconnections in the Wellness Experience

The everyday, social greetings in the local Gitksan or Wet'suwet'en dialects immediately provide the researcher with some sense of how health is viewed and experienced. The content of social greetings initiate exploration of the phenomena under study. In the following verbatim accounts, we see how the "well" concept is central to the experience and is expressed in terms of both the self and the environment.

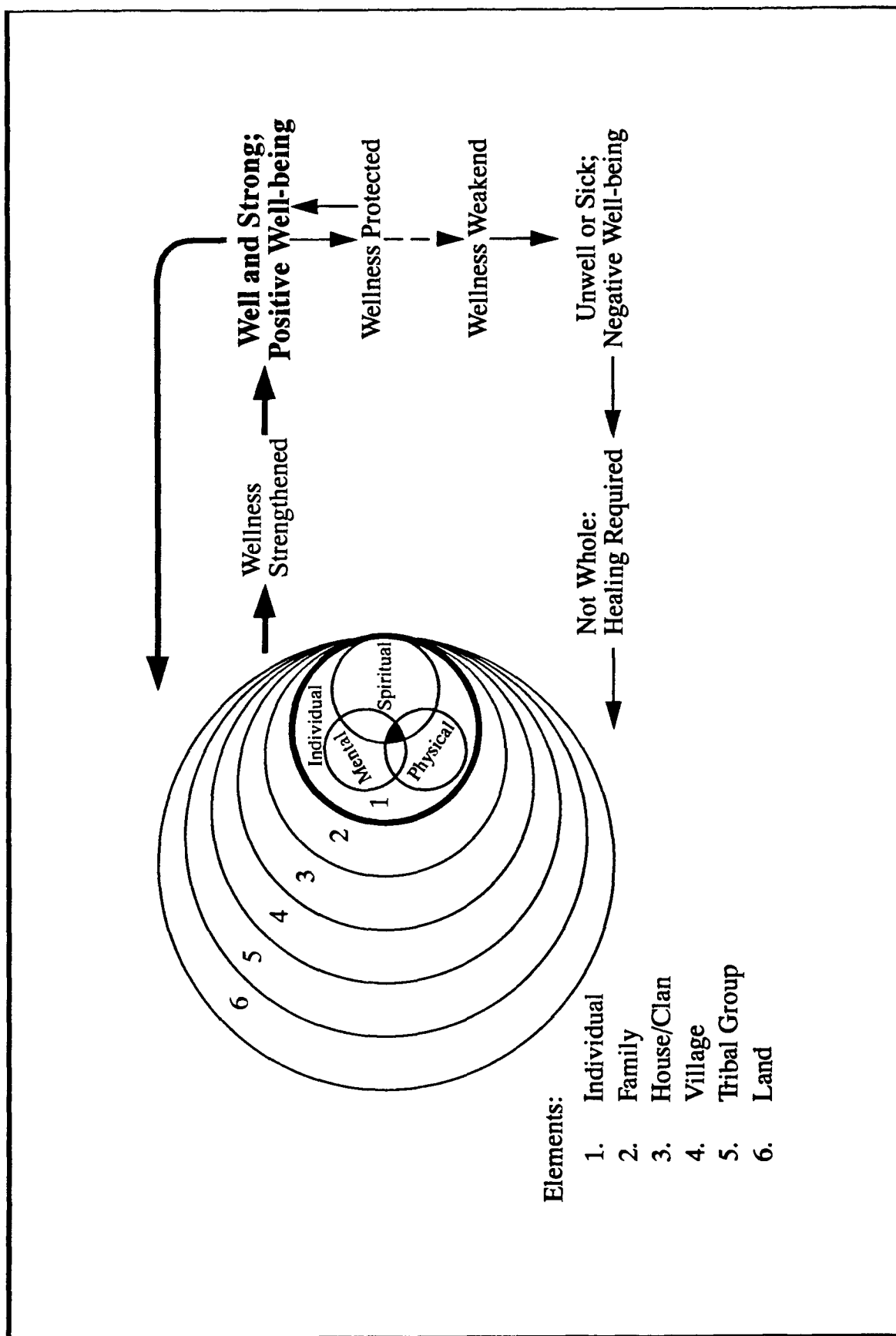


Figure 5: A Proposed Model for Describing Gitksan and Wet'suwet'en Views on Wellness and Well-being

(Note: P = Participant; P1, P2, etc. indicates different respondents; R = Researcher).

R "When you meet another Gitksan person and you greet them in your own language, what do you say - what do you usually say to them?"

P1 "How are you" or "[local dialect]".

R "And, you are asking them ..."

P1 "How are you? How they are doing ... [local dialect] covers the whole person."

R "And how might people answer you?"

P1 "A lot of them they don't ignore you when you ask them how they are doing. And if they're sick they usually tell that they are not feeling well."

R "Are you aware of any Gitksan word for health?"

P2 "For us, the well-being of a person ... when you meet somebody on the road, you greet them with the regular "Hello" but before that it used to be "How are you doing?" ... and then that person would answer "I am doing well" or he'd answer "I am not doing well" and then that would mean he is not feeling well ... that he's sick or is just tired or whatever ... he's having a bad day. They say "[local dialect]" ... that means my whole being is feeling good, my insides and everything ... my whole body feels good and my whole being." When they talk about feeling good, they talk about spiritually feeling good as well as their mental and physical beings feeling good. And that greeting that I mentioned, that's how you would find out if a person was feeling sick or just feeling good ... that's one way of finding out if they are healthy."

R "What do you say when you meet a Wet'suwet'en person?"

P3 [local dialect] "How are you" or "Are you well?"

These inquiries into the state of wellness of a Gitksan or a Wet'suwet'en individual ("Are you well?" or "How are you doing?") elicits response relating to either the 'whole being' or 'everything'. These responses directed exploration into two central concepts: the wholistic nature of the wellness experience as well as the wellness experience itself.

When referring to the whole being, most respondents speak of the physical, mental,

and spiritual aspects that form the whole, while a few make references to the body and spirit alone. Above, we see where one respondent includes social relations in the wellness experience. Further reference to economics occur during a conversation with a Wet'suwet'en woman who says "... and those who are poor people, they help each other until those who are poor get better."

An holistic conceptualization of the health experience is both explicit and implicit. Implicit references occur as the respondent talks about the spirit, the body, and the mind. Another example of an explicit description occurs as follows:

P1 "When we ask people about their health, we often ask them if they are strong. We will say "Is your strength back yet?" which indicates that when that question is asked someone has not been well physically and the question is asked to see if they had recovered from the illness that they had. As far as our view of health, we tend to look at it from a holistic point of view and in order for a person to be defined as being healthy we look at four areas of our being. We look at the body, mind, spirit and emotions ... these four parts of our being have to be aligned properly."

When one is well, all parts of one's being are even, aligned, or balanced. The relationship between the three central components of one's being are displayed in Figure 5. Here, the spiritual component is the largest to portray the apparent dominant nature of this aspect of being. Though the majority of respondents refer to the spirit as being part of the whole being, not all agree on the extent to which the spirit can negatively affect wellness. Some brush off the potential harm brought about by the spirit by saying the effect is purely psychological; others are convinced of the real powers of the spirit. Age is not a factor in either belief systems.

When speaking of their spiritual nature, reference is made to the "inner being," "soul," or "spirit." In the diagram, the inner being is represented by the shaded area. This small overlap between the body and spirit represents the precarious nature of this balance.

As will be shown, the physical and spiritual beings separate very easily and, if not re-aligned, sickness may result.

The spiritual level also provides focus for connection of the individual to their family, house/clan, people in the community, the tribal group as a whole, and ultimately, house/ clan or tribal territory. In Figure 5 this inter-connected relationship is portrayed as a spiral, with overlap occurring at the spiritual level. This inter-connection is described as a wholistic relationship and is built on a law of respect with the binding force existing within the spirit.

This concept of interconnectedness occurs throughout the interviews where wellness at one level affects the wellness of all others. This is seen in the following excerpts.

- P1 "I think I am very fortunate with my own immediate family ... I'm raising healthy children. I have a healthy marriage."
- P2 "All my life I was never sick cause I always worked so hard for my children doing garden and everything. ... I want my children to be healthy."
- P3 "In our society we are a communal society and the way we used to live before, communally, people still feel the attachments they had when we lived in a communal way and whenever they speak, they speak as if they are still in a communal way, and if they are not doing too well, they will tell you they are not doing too well, and that'll tell you they're in need of help ... for instance they may not have enough food for their children and they will tell you that "I am not doing too well."
- P4 "[Being well is] just getting doing a lot of things for yourself ... like looking after your family and also teaching younger ones how to do it. Cause I always relate it to my father cause he taught us to fish and to hunt and to show respect ... Respect for the land ... fish and garden. Cause everything comes from and goes back to the land."

From the data, it was noted that in the recent past, people were intimately linked with the seasonal round and were conservative in their use of plant and animal life - nothing was wasted. This conservative practice reflects a respect for animals and stems from the people's dependence upon animal life for their survival as well as their close association at the spirit level. The seasonal round intimately affects village life and continues to do so to this day.

These characteristics are seen in the following conversation excerpts.

- P1 "This elder was talking to me yesterday and he said ... "We fish, then we go pick berries, then we go hunt for our moose, and then we get the ground hog and goats."
- P2 "... they don't throw anything ... like bones, any kind of animal bones ... they don't throw it away. Animals they know everything; even what you think they'll know it."
- P3 "... To be a whole human being they still say you are strong if you uphold our laws and if you are productive and help a lot of people out ... its how strong you are in getting these things [berries and meat from wild life] from your land and using them and bringing them back and helping your own people and any excess would go into the feast."

Throughout the study, frequent references are made to training. Respondents indicate that training of both a general nature as well as specific health related practices and beliefs are undertaken primarily by grandparents, elders, and parents as well as aunts and uncles. It is generally recognized that grandparents and elders play a key role. However, with the loss of these people, training is becoming a general responsibility in the village.

When referring to training by an elder, a Gitksan man describes the intense repetition that is involved. In addition, training is often expected to have some future effect. These conversations occur as follows:

- P1 "Every day they will say it to you ... and even if you're tired of hearing it you still have to hear it because they say it to you every day ... even if you are a good person and you do listen every day ... they'll say it to you because they say "You'll remember what I am saying after I am gone" ..."
- P2 "Alcohol is one of the worst. One elder he talked about the alcohol ... "The Government is setting up a trap for us." And this was said in the 1920s. I guess that elder sat in the middle of a lot of young people ... sat around ... 11, 12, 13 years old. He said "If you don't listen to me, you're not going to be as old as I am. But, if you listen to me you can make it." And out of the 15 people that sat in the circle, there is only 3 alive today."

4.1.3 Wellness and Well-Being Experiences

Neither the Gitksan nor Wet'suwet'en dialects have a word for health. However, they

do speak of being either strong or tough both of which imply a state of being well. There is a marked preference for being strong as it represents considerable potential at all levels of the whole being. When strong, or tough, an individual is able to endure hardship or severe conditions with little negative effects; there is a capacity for hard work; the hard working person will not age as quickly though strength naturally diminishes with age; and, the individual is protected from getting sick and when sick will recover quickly. When strong, an individual is able to take care of themselves and is able to help others, fulfil their role, and contribute to family and society to their full potential.

These frequent references to being strong or tough are seen in the following conversations:

R "What is it like for you to be healthy?"

P1 "Working hard ... in the bush packing ... every day go in the bush and hunting. They never stay home ... always walk ... packing and walk. They tough you know ... nobody get any sickness, nothing. They used to be like that ... those who working hard they tough."

R "Is there a Gitksan word for health?"

P2 "Gitksan word for health. Yeah there is. I think they call it "[local dialect]" ... means healthy. I mean ... yeah, healthy is "[local dialect]". When a baby is really strong I always hear people say ..."

P3 "Usually you know if a person is sick they'll say he's strong, hell get through. And, when they are referring to somebody they'll say that person is strong and he will never get sick or anything. Another way to say this person will never get sick is another way of saying this person is healthy."

Strength is valued in reference to several other aspects of being. In one instance it seems to relate to the life-force within an individual. This life force is part of the inner-being. By way of further comparison, one woman associates strength with power: "We have

the power to overcome the illness that has hit you." In some instances, strength and toughness may relate specifically to level of energy and muscular capacity. One Gitksan man says that at the time of death, a person is advised to "be strong": this he considers nonsense in light of the negative effects of unresolved grief upon the level of wellness.

The value of strength extends beyond the individual and encompasses the family, house/clan, and tribal group. One man says that during a feast, strength of an individual and their house/clan is measured according to how well and extensively land, plant and animal life contribute to society and culture. Another says, "I think that once you get everybody healthy, you'll have a real strong village and in 15-20 years a strong Gitksan and Wet'suwet'en nation. This is my dream, my goal, my vision."

Although a few people interchange the word well and healthy, the abstract English word 'health' does not elicit a response. The possible irrelevance of the word health is demonstrated in usage where a Gitksan elder refers to "the health thing."

Being well or healthy is considered a normal state and is dynamic in nature: there are high and low levels of wellness. This normal and dynamic condition is apparent in the following conversations.

P1 "... I'm healthy ... I don't have high blood pressure like I used to do. And if I was lighter, I would be very healthy."

P2 "I would say [my health is] very good. Its just I'm battling my weight right now. But I feel good, other than my shoulder, still quite active doing different things."

R "What would lead you to say your health was fair or poor?"

P2 "I can't do anything that I like to do ... just doing things, slow right down."

R "Is being cured and healed the same thing?"

- P3 "... If a person was sick they would say "[local dialect]" and if a person got well again ... healed I guess you could say ... they say "[local dialect]" ... he's back to health again. "[local dialect]" means he is back to the normal way of living where as he was down before ... he is back to the normal way of living. If they say "[local dialect]" ... he is better ... he is back to normal."

- P4 "I have had a lot of surgery when I was younger but after that's all corrected, I live a normal life so I expect I will go on until I'm old enough to retire."

Level of wellness is assessed by both the individual and others. A person may be considered well according to their physical appearance and their level of independence. One man suggests that a large body size is preferred because you look strong and the large size infers wealth stemming from the land. Another woman gives an example of a 70 year old woman who refuses help in shovelling out her driveway in the winter and who is considered healthy or tough. Also, "... A 110 year old man is assessed as quite healthy even though he doesn't appear to be. He'll sit through feasts. He still speaks on issues and with quite a bit of clarity."

When well a person is able to do anything, especially what one wants to do, is independent, and contributes to family and society. Hard working people can maintain a high level of output with little rest and are not held back by minor problems, such as a cold. This ability to do anything or to do what one wants to do is expressed in several ways.

- P1 "When I am able I like to do what I want to do rather than be sickly you know and I'm not able to go and do what I want to do. To me its living a full life to be able to go and work and be healthy enough to do it. Really, its a joy to go out and do work."
- P1 "They always tell us to get up early in the morning, do our chores, get it over with, out of the way, out of your mind and then relax and enjoy yourself. Sometimes [...] and I would go fishing just to relax."
- P2 "Being healthy ... provide for your family and helping other people who are not well off and who are not healthy, especially elders. ... I think for myself, I can provide for my family and still have some fun doing the different things I need

to do for [myself]."

P3 "If you healthy you can do anything, even you work hard you can get up the same."

P4 "What is it like to be healthy? Well for one, it feels good to be healthy ... not being laid up in bed or sick in any way ... being able to get around and do the things you want to do."

Three individuals express their capability in terms of doing normal, routine activities.

What is normal is "... like working in the yard, everyday household chores, putting up food for the winter." Being able to do these things are taken for granted by many, though people are cautioned against doing so.

A Gitksan man speaks of a well family and a well community. Here, wellness involves providing support in crises, celebrating together, and open, trusting communication. Within Gitksan and Wet'suwet'en society, hard working people have a high social value. However, having fun and relaxing are also considered important to being a balanced, whole person. While individuals are expected to work hard and contribute to family (especially elders) and society to their full potential, it is recognized that potential varies according to level of wellness. Less than 100% participation is accepted with the understanding that the person is not completely well. However, an expectation is that participation will change along with improving circumstances. This need to work and be busy is further expressed by a 40 year old man who says his health is very good: "It's just I'm battling my weight right now. But I feel good, other than my shoulder, still quite active doing different things." By contrast, his health would not be too good if he couldn't move around and do things. By way of further comparison, two women suggest that when well, there is no pain and no sickness, and the mind is clear and free of guilt.

Often, the term "well-being" appears to be used in place of the word "well" or

"healthy." However, descriptors for a positive well-being are distinct from descriptions of wellness. This apparent interchange occurs as follows.

- P1 "I am in difficulty with my health" is what they mean. That's with their well-being ... it's not up to par in other words." "I'm not doing good with my well-being." Because there is no word that I could think of right now for health."
- P2 "There are people doing many different positive things like the study you are doing ... its addressing the well-being of our people ..."

The wellness experience is described in terms of a positive sense of well-being. When well, a person will say their whole being feels good, their body feels good, or they feel well. Many expressed the experience in terms of being happy with one Gitksan elder saying being healthy is a joyful experience. By comparison, a man describes the experience as a sense of physical lightness while a Wet'suwet'en elder says "It's just like nothing." One is also at peace and there is no guilt because responsibilities have been carried out. Feeling good about one's self and what one does is considered very important. This involves valuing self for unique gifts that are developed for individual and society benefit. This basis for sharing and cooperation strengthens the sense of interconnectedness within and between the two societies.

4.1.4 Wellness Experiences Strengthened and Protected

The importance of being well and strong is demonstrated in some of the beliefs and practices directed at strengthening and protecting this state. Many of these beliefs and practices touch upon the spiritual aspect of being and thread throughout both the well and unwell experiences.

The Gitksan, and to some extent Wet'suwet'en, believe that if you follow correct practices you can expect to be well. These practices relate primarily to the spiritual and

physical nature. Through developing the spiritual aspect of being, the mental side is strengthened. This is reflected in the notion that each person has an inner being that contains the potential for being well and can be strengthened to the benefit of the individual.

These references to strengthening the wellness experiences occur as follows:

- P1 "And to be a whole human being they still say you are strong if you uphold our laws and if you are productive and help a lot of people out."
- P2 "I think mentally ... spiritually you've got to start on that part first ... then the mental, then the physical I think. Cause once you start to deal with the spiritual part there are so many different things you can do and mentally you get stronger ... and physically, you can work on that later. But I say spiritually you have to work on that and you get stronger inside and mentally you get tough."
- P3 "If you want to maintain a healthy lifestyle it is really important to learn how to connect with the spirit level. Our creator does give very specific instructions to his people and sometimes problems come along because we have not been paying attention to the instructions given to us. If we worked at being healthy then we can't expect any other result than being healthy."

Practices that increase level of wellness involve meeting the physical needs and include eating properly, keeping clean, going to bed early to ensure adequate rest, and getting up early. The intent of getting up early is to work and be productive. Of particular value is the caring for and contributing to the immediate and future needs of the family and/or house/clan. This cooperation and sharing are important contributors to a sense of well-being.

The importance of work and keeping busy is demonstrated in a story for lazy people. This story further demonstrates the importance of respecting all living things and shows that connections at the spirit level can have both negative and positive effects.

- P1 "There was four brothers ... it was time for them to go mountain goat hunting. When the other brothers went up the mountain, they couldn't wake [the younger brother up] so they just left. I don't know what they did when they get mountain goats but they were told to just roll them down the mountain until they get to the bottom without skinning them." That night the youngest brother misused the head of the goat in a

disrespectful manner. The next day all four brothers went up the mountain again. When high above a drop, the youngest brother's foot slipped and he rolled down the mountain. "There was not a scratch on him ... just the blood filled up the skin ... cause he rolled down from way up the mountain. They all just went down and there their brother was laying by the camp. That's why they never laugh at anything what they eat. It doesn't pay to be lazy."

Respect for all forms of life establishes a foundation for being well. A part of respect involves the importance of talking nice and being kind to other people, particularly to those who are not well and in need. According to a Gitksan man and woman, both social relations and personal wellness are strengthened by focusing on positive thoughts, attitudes, and behaviours.

From a spiritual perspective, this aspect of being can be strengthened through purification rituals (e.g., sweat, bathe with herbs, fast, pray, smudge, and meditate). The Gitksan in particular may engage in a ritual preparation of the day to strengthen and balance the whole being.

Wellness protection occurs primarily at the physical and spiritual levels. Physically, an individual is responsible for staying healthy. One is expected to take care of one's self by eating properly, getting adequate rest, getting up early, exercising and working. The person is expected to read their body's needs and do what is needed to ensure he or she remains well. For example, "Some people need longer rest periods than others." In the past, when contribution by each member ensured survival, personal responsibility was critical ... "They count on every member to know how to take care of their health ... make sure that they stay healthy as much as possible." In addition, the Gitksan caution people against taking into their body anything that is not going to do them any good. This concept of protecting wellness occurs throughout the directed conversations with some examples as follows:

P1 "I know my parents were really interested in the health thing - that they make sure we drink our milk when we were young so that we don't get broken bones

and vegetables they were quite into that and get up early in the morning and do chores and go to school."

- P2 "My grandmother worried how we eat ... even though we eat a lot of fish I didn't get tired of it cause it was cooked differently. As a youngster I was told to go to bed early and get a good night's sleep ... don't run around late at night. And I did what they told me ... not to run around and not to drink."
- P3 "I rarely ever do [get sick] but then I always ... for me I'm always doing little things ... using traditional medicines. I did that ... I made a concoction of different Indian medicines and everybody got sick around me ... they all got the flu and a cold and everything and I was the only one who didn't get sick."

Herbs were used on a daily basis for protection against sickness and evil spirits or to improve luck. This involves boiling particular plants and drinking the tonic to, for example, clear the blood; or, bathing with the liquid; or, physically carrying special items on the person. This practice continues.

Some Gitksan undertake a daily, morning ritual to ensure the whole being remains balanced. The morning ritual is "... a time when you talk to the creator and ask him for assistance in what you need to do, ask him for direction, ask him for strength. And if there are rituals that you have to do to strengthen any special part of your being, then that is usually the time when it is done." Usually, these rituals would have been prescribed by a healer. This daily preparation and other purification rituals strengthen the physical, mental, and spiritual levels so that evilness around you can't touch you.

Carrying out family and social responsibilities protects and strengthens one's sense of wellness. For example, "I try to help others because I feel it is important to in my own mind ... in my own mind I have a clear mind, a healthy mind. You don't feel guilty about things if you go out and help." A Gitksan and Wet'suwet'en elder stress the importance of keeping kids from running around late at night to protect them from being harmed at the spirit level.

These distinct beliefs and practices that strengthen and protect wellness operate

largely at the physical and spiritual levels of being. However, wellness can also be weakened at the physical, mental, or spiritual aspects of being. Weakening at one level affects all others with potential harm ultimately extending beyond the individual into the family, house/clan, and community.

4.1.5 Wellness Weakened

Factors that detract from wellness relate primarily to attitudes and behaviours with attitudes referring to emotions and mental set. During the in-depth interview, many refer to a decrease in wellness, this suggesting there is a movement downward from a position of strength or a higher natural state. For example:

"If you can't contribute towards a house, strengthening the house, it is not productive and that to me is not healthy and even when you drink that is not healthy ... when you smoke that is not healthy ... it ... its no good ... it will shorten your life. A saying is "You are not doing the right thing, you are doing something that'll go against your health, it will weaken you and therefore it will shorten your days."

According to these beliefs, level of wellness is weakened by being cruel; being depressed, sad, or feeling bad; not respecting other people or animals; feeling hurt and angry from current or past situations (e.g., residential school); low self-esteem and being stereotyped; feeling guilty and unresolved grief; jealousy, bad-mouthing and gossiping; focusing on negative thoughts and experiences; dependency; and, poor or inadequate communication.

Particular note is made of the harm brought about by low self-esteem, no pride, and hurts from the past that reduce people's coping skills. "The people have no self-esteem and once they're taught that everyone is equal ... no one is better and that they have what's inside of them to attain goals other people have. It's a lot of coping skills." These effects are

reported on by two counsellors who describe "hit and run tactics" of those seeking help. The councillor becomes overwhelmed and oppressed by this negative experience and those seeking help do not develop coping skills and, in many cases, remain dependent.

From the physical perspective, not taking care of one's self will weaken one's level of wellness. The Gitksan say not to take certain things into your body because it will lead to an early death. This includes such things as alcohol and drugs. Being lazy and not engaging in hard physical activity or work of some type also presents potential problems. Within the villages, housing and crowded living conditions are a well recognized source of health and social problems. A Wet'suwet'en woman says "I believe that people need their privacy and its just not possible because of the shortage of homes. That tends to lead to a lot of alcohol problems too because people get so frustrated and rather than beat them, you join them ... that kind of attitude."

From the spiritual perspective, a major threat to wellness involves separation of the body and spirit/soul. If a person is startled or frightened, the soul leaves the body and the affected person becomes susceptible to other sicknesses, including death from accidents. This situation is related largely to lack of respect for another person that, in some cases, may result in negative or bad thoughts being directed toward the offender, this threatening and weakening their wellness. Many references are made to the possible causes of the soul leaving the body, and include the following:

- P1 "That's another way of getting sick ... when your soul leaves you and that has to do with the spiritual self. If for instance you had a car accident ... the soul leaves them ... these people they start getting ... they get really sick ... they get really sick ... deathly sick. If they don't remedy the situation again they will eventually die."
- P2 "And when your get sick by somebody you know like old people like him ... is a boy maybe scared him you know."

The transition from being well to unwell and/or sick involves an accident or simply getting sick (e.g., develop cancer). In three instances involving both Gitksan and Wet'suwet'en there is mention of an attack involving abrupt onset of the problem. The attack is by something at the physical or spiritual level, this taking away from wholeness and making a person sick. Here, cause and effect are clearly linked.

Results from the interviews suggest that in the past, sickness was not common. People died from an accident or lived to a very old age. Although a Wet'suwet'en elder says there was "... no sickness, nothing ... even the kids." she did go on to say "... A lot of kids between us [two sisters and a brother] they died you know and only 3 of us we're alive so my dad scared ... they don't want me to get died." Two types of sickness described by this woman involve snow blindness and skin rash, both of which have identifiable external causes and are of limited duration. From the spiritual perspective, a young girl beginning menstruation has considerable power that is both contained and strengthened through following highly restrictive food and social practices. During this time she has potential to inadvertently cause sickness for many, including the Indian doctor.

Today, a physical problem is referred to primarily as a sickness or, in some cases, an ailment. In a few instances, specific problems are referred to as an illness or disease (e.g., AIDS or lupus). When speaking of a sickness, there is no distinction between minor and major problems: a cold is a sickness as is arthritis and cancer. The sickness causes one to be sick. For example, when a Gitksan inquires about how another is doing, if the answer is "I am not doing good," the follow up question may be "What is hurting you," or another interpretation is "What is your sickness?" Also, in describing her experience, a Wet'suwet'en elder says "... my sore throat and that cold stuck ... can't spit it out."

At the physical level, cause relates largely to acquiring a sickness, such as diabetes,

lupus, arthritis, the cold, and flu. The cause of these sicknesses may be related to a germ, as in the case of TB; or, catching cancer from a sick person or acquiring it through use of contaminated land food or over use of store-bought foods. Alcohol use is considered a sickness and is seen as one of the biggest killers. Use usually marks the start of family breakdown, a situation that also causes sickness in the family especially when use becomes a way of life. Alcohol also interferes with the spiritual connection with the land. Today, people don't have "lingering illness"; rather, they die suddenly from tragic accidents related to alcohol. Sickness and death are referred to in the following manner:

- P1 "Cause we never used to get sick [the elder] said" ... he pointed that out to me ... "I think when we start buying all these store bought food, everybody is coming down with cancer, arthritis, everything. Before we never used to have that."
- P1 "I think its just a breaking down part of the body ... I guess its a disease setting into the joints. They talk about arthritis. I think they call cancer a disease cause a lot of people are scared to go near a cancer patient cause they don't want to catch it. I keep telling them its not contagious. They just stand by the door when they come to visit. I just tell them to go right up and talk about different things."
- P2 "Just only people die you know ... just an accident that's all, drown or grizzly bear kill or kill each other for jealous or for trap line ... that's only time people died they said, no sickness, nothing."
- P2 "These days I believe too much stuff you know ready cooked in a container and some freezing food, that's the one I believe a lot of people die on cancer. Lately its coming out you know. My daughter that's what they die on them."
- P3 "I've heard a few young people complain about being sick, not feeling well, all they want to do is sleep and they're hurting and they're always afraid it might be what I have. I've told them what I have [rheumatoid arthritis] is not contagious."
- P1 "Alcohol is one of the biggest killers of our people I think. You talk about family breakdown, that's where it starts ... alcohol."
- P4 "A B.C. Band did a survey of all the deaths that happened in the community and you could tell when it started not being a death from natural causes. It was alcohol and drugs. Now-a-days you very rarely hear of someone dying of natural causes."

Other factors that cause sickness include stress; an unbalanced life (e.g., push self and

become run down); residential school experiences; sexual, physical, or mental abuse; and unresolved grief. A Gitksan woman describes the deep and long lasting anger brought about by her husband's death in the hospital where he did not receive appropriate care. This anger coupled with an inability to grieve caused pain in her chest. The pain was finally relieved when she was able to cry.

Level of wellness also naturally decreases with aging. During this process, the physical being breaks down and the individual is said to be doing poorly. With age, breath becomes short and mobility decreases.

At the spiritual level, cause of sickness relates largely to separation of the body and soul or inner being. This may occur as a result of a minor fright, a traumatic experience, or inadvertent or deliberate harm brought about by someone with power. These occurrences are described as follows:

- P1 "And when your get sick by somebody you know like old people like him ... may a boy scared him ... they [gasp] ... just like some kind of wind get into you so thats from the old people done that. And the next day they get sick, real sick. Now, these days they don't care about each other ... they touch them at the back its the worst one ... its no good for old people."
- P1 "I remember myself I was about 12 years old, my dad trapping every year ... that place where we go just foot trail and later on that white guy they got land close to my dad's trap line. They make a road for wagon and some stems still on road and when we use that road we use team of horses. I was too young to walk long ways ... my mom he walk behind the team and myself, I was right by my dad. You know how it is ... a hill, big hill and the trees half burn and dry and you see way down. And the wagon just about tip over by that stump on the road. Thats where I get scared and I get sick."
- P2 "You have to be careful around people with strong power because they may take possession of your soul or even part of it. That's another way of getting sick ... when your soul leaves you and that has to do with the spiritual self. If for instance someone had a car accident ... a traumatic experience ... their soul leaves them and it may wander around that area where you had that accident. They get really sick, deathly sick. If they don't remedy the situation they will eventually die."
- P2 "Two years ago, my brother, my cousin, and another cousin of mine they nearly

drowned. They were just hanging onto the boat and my other cousin had a life-jacket on and he couldn't make it to the boat. The boat spilled over and he went down the rough side and he kept on going under the water ... he only had the life jacket on that's why he made it. And, he started getting sick, he was having nightmares. I told them that their spirit might have left them. I told my aunt there is a way of healing them."

- P3 "One of the things they tell us all the time is not to frighten an elder. Again, I never realized why until recently ... that it's because of the chance of a separation of the spirit from the physical body. If you do ... if you frighten them then you literally can scare them to death because of a separation that can occur between the spirit and the physical body."
- P3 "I think the Prairie people are very quick to handle separation of the body and spirit ... even if you were to trip and fall then they do it right on the spot. Our people tend to be slow in handling the realignment of the body, mind, spirit, and emotions."
- P4 "If you are cruel to an animal, it will bestow bad luck on you and you might get sick or break a leg ... in some cases you might even lose your life."

There is often a deliberate and extensive seeking of cause of a sickness. An example is provided by a Gitksan elder with a back problem who says ... "Sometimes I ask myself what did I do wrong to be like this. Or, what did I do to anybody." She frequently referred to the hard work she did in caring for her many children and finally, her deathly sick husband. Despite doing what she considered to be the right thing, two children died during early adulthood. She says "That's what gets me ... "Why me?" ... I look after my kids."

4.1.6 Unwell of Sickness Experiences Requiring Healing

An individual may be not well and sick or not well but not sick. Both Gitksan and Wet'suwet'en dialects have a word for 'sick'. A Gitksan description of the experience may be "I am in difficulty with my well-being" or "I am not feeling good, strongly" (literal translation) this response indicating they are very sick. Alternatively, they may say they are not sick, but are having other difficulties that are troubling them. These may relate to social or economic problems.

Measurement of level of un-wellness relates largely to limitations in physical mobility (e.g., bed-ridden or in a wheelchair). For example, a person tolerates a range of excess body weight as long as it does not interfere with what has to be done. By comparison, arthritis has greater restrictions on physical mobility and so has a greater negative effect on level of wellness. A Gitksan elder says:

- P1 "I've had cast on my feet before, but I used to manage to get around and take things and do things and sit and work with my hands. But when something is wrong with my hands that was really awful. So I'm so glad I don't have arthritis or anything like that."
- P2 "Usually our people will try to do things for themselves, you know they are very independent in that way. But sometimes they may be incapacitated in that they can't walk or their arthritis might be to the point where they can hardly stand up or lift something up. They'll say "I'm at the point where I can't really move around any more." And if they're sick they'll say the same thing, it doesn't have to be arthritis."

An additional indicator for being sick involves having to take pills or medication. The sick person may also experience pain.

The most consistent description of a sick experience has to do with separation of the body and spirit. With the spirit gone, one is not whole or "just a shell." At this time, the person doesn't want to eat, throws up, only wants to lay down, can't sleep, and has nightmares. If intervention does not occur, death may result.

When unwell and sick, an individual is described as being weak: they can't move around or have to stay in one spot. Weakness is related to both energy level and muscular strength. Weakening occurs with age, in sickness, and near death. This is seen in the following excerpts from conversations:

- P1 "If our elders are ill they also go very quickly when they get very low ... they don't linger. My grandmother didn't want to be a burden."
- P2 "The nearest thing would be how strong that person is would indicate how healthy they are. They say [local dialect] ... this person is not strong any more, and therefore you would get an indication of how old this person is. This person is elderly and they

can't get around as they used to do when they were younger. That would be an indication that they are no longer healthy and that they are getting on in age."

When unwell or sick, a person can't do anything or can't do what he/she likes to do. Responsibilities are not carried out, dependency develops, and one becomes a burden. In this state, the individual says they are "held back." Being held back refers primarily to the physical being but also relates to growth potential at the spiritual and mental levels. This decrease in ability is referred to in the following manner:

R "What do you consider the most troubling part about not being healthy?

P1 "Not being able to help yourself and not being able to do what you want to do that you enjoy. I can't even do much cooking because I couldn't lift anything hot. And that's really bothersome to me."

A negative sense of well-being commonly describes the unwell or sick experience.

Generally, an individual may say they are not feeling good or not doing too good. The sickness experience is described as depressing: the Gitksan have a saying that the heart is low. This sadness results in part because of possible restrictions in physical mobility and ability to do things. Also, a sense of guilt arises from being a burden to the family. One feels useless. An individual is described as hurting inside and there is a sense of social isolation: nobody cares. The following accounts illustrate descriptions of negative well-being:

P1 "Even doing your own hair is hard when you don't have a hand to do it. They say when you are healthy you don't even think of those things. You know, you just take it for granted that you can always do them until the time when you open your eyes. "Oh why did I think that just going to go on, that nothing would ever stop me from doing it." And then an accident happened and that was it. I felt really - how can you put it - feeling kind of trapped you know. I can't do the things I like to do."

R "So if you had people that were willing to come in and help you do these things, like fix you hair and put up fish and cook for you ... was that OK with you. Did you feel OK about that?"

- P1 "Ah it was OK but you still feel kind of useless. You feel like you are just there, you know. It is not really living as far as I am concerned, because when I can't do for myself, what is the point of being there. You know, I'd rather do for myself than to have people wait on me because that's not really living, that's really more like a vegetable as far as I'm concerned. I wouldn't want to be that way. I like to go on on my own, you know. To me, I'm not a person that wants to depend on other people ... even though it is kind of nice if they're willing to do things for me. In my own mind that's it, you know, being useless. I don't think I like that feeling."

- P2 "If they are sick they usually tell that they are not feeling well. And the bad one is when I feel my back hurts so much. I want to throw up and just cry."
- P3 "When you talk to people now it comes back to the way we were treated ... we're being kept on our thumb ... when you do that to people you don't feel good and don't eat properly ... there's just nothing, you just go through the motions of living ... there's no purpose in living."
- P4 "My grandmother's death was very, very quick ... she suffered the last month. I would always hear her tell people she was not feeling very good but her actions never tell me that. Like if you're not feeling good you usually go to bed but she got up and she worked continuously."
- P5 "In listening to our elders, a state of depression is an example of just hanging on to negative experiences and allowing it to pile up and allowing them to take control of you rather than you take control of the situation. They didn't have a word for depression ... we do have another phrase that describes your state of health or your feeling and that is when you say [local dialect] ... which means that your heart is low."

When a sickness occurs, everyone in the family, including children, are responsible for helping out and caring for the sick. A Gitksan elder describes how, when she was a child, she was responsible for disposing of the sputum from her aunts and uncles who had TB. In speaking about her grandfather, another Gitksan elder says "... his second wife was not able to look after him, so my Mom brought him in and he was really a sick man. He died at our place. He couldn't take care of himself, so my mother took care of him. Mom even put his bed up in the front room so that we'd be around him and then he won't be lonely."

This responsibility for the sick and elderly involves the immediate and extended family as well as the community at large. This participation in recovery and care is demonstrated

by the Gitksan where people go "to help the sick person." Excerpts from two conversations illustrate this point:

- P1 "Whenever anyone was ill different members of society would come and spend some time in the room where the sick person is. And as many people as possible were encouraged to be in the room."
- P2 "It is important to me to go and visit sick people and say nice things to them and try and get them to feel better for themselves as well."
- P3 "We like to see other people from the outside ... they make us feel better. This old man ... he never seen nobody around ... he live way up in the hill in village and nobody visit him and nothing. So he took that shotgun out and he went out to the platform and "bang." So start to everybody run up to the house ... they think he shot himself. They come in and ask him "What happen?" "Oh, you people never see me even say hello to me or nobody visit me, nothing. So, what you think. I shot: you everybody come in here. That's what I did for. I like to see you people."

While family and community contribute to the care of the sick and weak, an individual is also expected to help themselves in regaining their strength. The sick are expected to carry on and assume their responsibilities as much as possible despite aches and pains. Suffering from cancer is extreme and so legitimately interrupts family and social responsibility. By comparison, people who complain about minor aches and pains are not well regarded. A Gitksan elder says "Some tend to use any kind of disease as being a crutch that they hang onto just so that people feel sorry for them and instead of having their clear thoughts"

When engaged in struggle with a sickness, the affected person may undertake a course of action so the sickness does not beat them. On recovery, they may say they "beat it" as, for example, in the case of a Wet'suwet'en elder with diabetes. A Gitksan man describes his experience with a shoulder and back problem. Neither of these problems slow him down; he just has to look after himself and make sure he does everything right. He says "... and I have to move around ... I can't let this thing beat me. Even when I talk to people and they're suffering and they say "I can't let this thing beat me ... I can't let this pain beat me"."

Today, when a sickness occurs, there are several possible courses of action. Choice involves getting help at the hospital; seeing a traditional healer who has known and strong powers in healing; obtaining help within the family or house/clan where some individuals may have limited powers in healing; using self-care by, for example, taking herbs or repairing own dentures; or, doing nothing.

The arrival of the medical doctor marks the decline of the local, powerful, and practising Indian doctor or halait. Though there is an acknowledged dependency on Medical Doctors and the hospital, there is also some distrust. While level of distrust appears to be declining, some still believe there is an intent to harm: the people are turned away from the hospital and care is denied or inadequate even when the sick and their family perceive there to be a serious problem. This intent may be related to local views of inexperienced doctors in training who provide lower levels of care than in the city as well as prejudiced behaviour on the part of some doctors. However, there is also expression of gratitude for doctors who either do try or are willing to try to help and who are trusted.

One noted problem is Medical Doctors do not deal with the whole being. They don't relate to the whole body but rather to a sick part. A Gitksan elder relates her disastrous encounters when her husband was receiving dialysis. During the course of his treatment, he had frequent spells where he "falls sort of in a coma." He was brought to the hospital many times but just sent home because they couldn't find anything wrong. "And then they'd tell me that I am tired of taking care of him on the machine that's why I was seeing things that's not there. They even got me to talk to a psychologist trying to find out why I refused to look after him any more. And I said as long as you find out what is wrong with him, I will gladly take him home and take care of him the way I was doing before."

One of the coma like spells occurred in a Vancouver hospital: the nurses called the

orderly and put him to bed. "The next day that specialist came in ... "What are you doing here" he said, "There is nothing wrong with you, you can go." They didn't even check him out. They just released him and he said "Get me out of here." That's what really hurt, when they treat you like that ..." Six weeks later, when he fell in a coma he broke his elbow and required surgery: after surgery he died of a massive stroke. An autopsy showed, much to the amazement of the doctors, small blood clots in his lungs and brain: he had been having small strokes despite being on a medication to slow down blood clotting. "I'm laying a lot of shortcomings on the doctors at times. They take too long in trying to find out certain things. I knew there was not the kidney problem, it was something different. But, they know it all." In this situation, family input was not respected.

Of particular note is a story that demonstrates a Medical Doctor's inability to diagnose problems related to separation of the body and spirit. A Wet'suwet'en elder describes her experience as a child when she was frightened while riding in a horse drawn wagon with her father.

P1 "They took me down to hospital ... Dr. --- was there. They put me in the hospital for couple of days ... check me all over everything ... I'm not sick ... they send me home. Twice I was in hospital for that ... sometimes I cry at night ... I'm scared, cry when I woke up. ... [Strong Indian doctor and old people] they took it [object] back from my mouth... If they didn't do it to me, I gonna die no time."

A strong Indian doctor or halait can help a sick person by working at the physical and spiritual levels of being. Practice commonly involves seeing at the spirit level and dreaming. By these means, the problem is diagnosed, method of treatment identified, and sickness outcome predicted. The healers work together in a group with elders present and children excluded as observers. The sick person must believe and is often directly involved in the rituals: in some cases, the person causing the sickness also participates.

Today, there are no known local Indian doctors or halaits with this degree of power.

However, there are strong doctors located outside the territory. These people are most commonly sought by elders and by families where a serious sickness is present (e.g., cancer). More commonly, there are individuals who can dream and give advice (like a psychologist), who can recommend and provide herbal remedies, or who can intervene when the body and spirit are separated. There are a variety of techniques for returning the spirit to the body, however, these techniques are held confidential by the practitioner.

When healed, a sick person returns to a normal way of living or a whole life, and is well again. This return to normal is described as being strong once again. Although healing is most commonly referred to, some people interchange the words heal and cure. Healing generally occurs first at the spiritual level and can be complete. This is followed by physical and mental healing that may or may not be complete and depends upon the cause.

Besides personal healings, there is also a recognition of a general need for healing of the family, village, and tribal groups. At the house/clan and tribal level, a Gitksan suggests this healing is dependent upon strengthening connections with the traditional territories. Ultimately, strength is determined by adherence to cultural beliefs and practices.

These descriptions of the health phenomena according to the Gitksan and Wet'suwet'en correspond with Kleinman's cultural model of the health care system. In adopting his explanatory model of the health care system as a basis for exploring health meanings, we see how language usage provides some explanations of the local health experiences and responses to being well or sick. The intent was to focus only on the popular sector of this explanatory model, however, interviews progressed to provide some indications of the role of the folk sector or traditional healers and their practices. In the following section, further descriptions of personal health experiences are obtained from summary descriptions of findings from a multidimensional questionnaire.

4.2 General Health Status

The General Health Questionnaire comprises the second major information source in the health study. This section summarizes the multitude of factors that may affect health. These factors reflect the four categories contained in the epidemiologic model referred to in this study as the Diamond Model (page 18). The Four categories and examples from the Questionnaire are: (1) Genetics/constitution - e.g., sex and tribal ancestry; (2) Lifestyle/Personal Behaviour - e.g., tobacco use and physical activity; (3) Socio-Economic Environment - e.g., education and employment; and, (4) Health Care Services - e.g., physician visits and hospitalization. Both tables and text present a summary of findings. Additional supporting tables may be found in Appendix F. The following section describes in detail the findings for the General Health Survey. Some of the problems arising from the extensive Questionnaire have been previously discussed in Chapter 3.

4.2.1 Demographic Characteristics of Study Group

A description of the health experiences of Gitksan and Wet'suwet'en people reflect that of 97 men and women, 15 years and over. Overall participation rate was 54 percent with equal proportions of men and women being represented. Table 1 summarizes participant ancestry, a designation that is used to distinguish groups in this report.

A small proportion of respondents were of Gitksan-Wet'suwet'en ancestry or 'other.' People identifying their ancestry as Gitksan-Wet'suwet'en lived in a Wet'suwet'en village but have a Gitksan mother or can trace Gitksan ancestry in the maternal branch of the family tree. Nine women from other tribal groups had married into Gitksan or Wet'suwet'en society and include: two Carrier; one Coast Salish; one Shuswap; three Tsimshian; one Staloh; and one Metis.

TABLE 1
Demographic Summary for the General Health Survey, 1991

Sex	No. Respondents	Average Age	Tribal Ancestry (No. (%))			
			Gitksan	Wet'suwet'en	Gitksan - Wet'suwet'en	Other
Male	48	37.6	24 (50)	18 (38)	6 (12)	0
Female	49	33.3	17 (35)	21 (43)	2 (4)	9 (18)
TOTAL	97	35.4	41 (42)	39 (40)	8 (8)	9 (9)

Clans represent the central unit of social organization in the Gitksan and Wet'suwet'en societies and are potentially important health resources. Respondents in this study belong to four major clans: Wolf, fireweed, frog and small frog clans. The comparable House system is equally important, however, a total of 76 Houses within a small sample group limits its statistical usefulness (see Table F1, page 233).

Place of residence either on or off-reserve has often been a questionable factor regarding health status of Indian people. While about three-quarters of the people had lived off-reserve during the past 15 years (1975-1990), age was a factor with younger people living less time off-reserve than older people. About half the people living off-reserve had moved back within the past 5 years. Of this number, only a small proportion included people returning to the village because they had regained status through Bill C-31 (n = 10). Prior to implementation of this Bill in 1986, men and women who lost their status for technical reasons subsequently became eligible to apply for re-instatement on the Band Membership List (Hawley 1990). Overall, 12 percent of the population were Bill C-31 members. This subgroup could potentially provide useful answers to many questions regarding comparative health status. Unfortunately, numbers were too small to be of statistical value (see Table F2,

page 233).

Age was also a factor in educational achievement. When age did make a difference in hypothesis testing, age was subsequently controlled for by restricting educational categories to 45 years or less. This control removed the age effect. Neither sex nor tribal ancestry relates to highest level of educational achievement. About one-third of all respondents had some secondary or high school (between Grades 9 and 12); ten percent had completed Grade 12; 19 percent, some college; and 11 percent completed college or had some university. The eight point scale for educational achievement was subsequently collapsed to three categories for further analysis: (1) no formal schooling to Grade 8; (2) Grade 9 through to completed Grade 12; and, (3) some community college to a University degree (see Table F3, page 233).

A further factor relating to education and age involves attendance at a residential school. About one in four people reported having attended a residential school at some time. The average number of years in attendance by these respondents was 3.3 years (Standard deviation: 3.2 years; range 0 - 12 years). Generally, respondents over 45 years spent twice as many years in a residential school as did those between 25 and 44 years. Neither sex nor ancestry made a difference in attendance (see Table F4, page 234).

Respondent's main activity over the past 12 months comprised a final socio-demographic factor in assessing health. About 43 percent were working at a job, 19 percent looking for work, and 17 percent going to school. The remaining 21 percent were occupied in other ways, including keeping house and hanging around. Sex was a factor with more men either working or looking for a job and about half the women either going to school or keeping house (see Table F5, page 234).

In the following sections, the main socio-demographic factors utilized in assessing

health include tribal ancestry, age, sex, education, and main activity in the previous year.

4.2.2 Self-Rating of Health and Use of Health Care

Self assessment of health comprises one of the key variables in the study. This subjective measure is of particular value as it provides some indication of when an individual is likely to access the health care system. This subjective measure involved asking respondents to rate their health as "excellent," "very good," "good," "fair," or "poor." Health ratings by sex and age grouping are summarized in Table 2.

TABLE 2.
Self-Reported Health According to Sex, Age, and
Presence or Absence of Activity Limitations, 1991.

	No. Respondents	Self-Rating (%)				
		Excellent	Very Good	Good	Fair	Poor
All Ages	97	7.3	34.0	37.1	19.6	2.1
Male	48	10.4	31.1	31.1	22.9	4.2
Female	49	4.1	36.7	42.9	16.3	---
Age Groups:						
15 - 24	28	7.1	46.4	25.0	17.9	3.6
25 - 34	23	4.3	30.4	47.8	17.4	---
35 - 44	25	---	32.0	44.0	24.0	---
45 and over	21	19.0	23.8	33.3	19.0	4.8
Activity Limitation Present or Absent:						
Yes	11	---	9.1	36.4	45.5	9.1
No	86	8.1	37.2	37.2	16.3	1.2

Among the Gitksan and Wet'suwet'en, there were no significant differences in health ratings according to sex, age, education, tribal grouping, clan membership, band membership

re-instatement through Bill C-31, or attendance at a Residential school.¹⁴ Neither did the presence of pain nor degree of happiness affect perceived health. However, health rating was significantly different in the presence of limitations in kind or amount of activity. (Table

2) Hypothesis to explain differences in health rating stem from findings regarding health meanings. Hypothesis state the presence of pain, activity limitations, and experiences of happiness and interest in life made no difference in health rating.

As seen in Table 3, people rating their health as "good" or better tended to be most satisfied with their health. People rating their health lowest had limitations in activity and were also significantly less satisfied with their health. Conditions of happiness and stress are also summarized in Table 3.

TABLE 3
Self-Assessments of Health, Happiness/Interest in Life, Stress, and Satisfaction with Health

Questionnaire Item	Self-Rating by Scales * (No. Respondents)				
	1	2	3	4	5
1. Health rating	7	33	36	19	2
2. Level of happiness	47	37	8	4	1
3. Level of stress	8	45	37	7	N/A
4. Satisfaction with health	28	49	17	3	N/A

Note: Questions and Scales in Appendix C-1.

- * Scale 1: Excellent; Happy and interested in life; Not Very stressful; Very Satisfied
- Scale 2: Very good; Somewhat happy; Fairly Stressful; Somewhat Satisfied
- Scale 3: Good; Somewhat unhappy; Not very stressful; Not too satisfied
- Scale 4: Fair; Unhappy with little interest in life; Not at all stressful; Not satisfied
- Scale 5: Poor; So unhappy life is not worth while; Not Applicable

Most of the respondents (49 percent) were happy and interested in life. Both sexes were happier if working at a job, going to school or if retired. However, women tended to be less happy if keeping house (see Table F5, page 234).

¹⁴. In this thesis, "significance" refers to the 5% level as determined by the χ^2 test.

One-quarter of the people averaging 33 years did not plan to do anything over the next year to improve their health. Lack of a plan was not associated with perceived level of health: individuals with a fair-poor health rating were as likely to have no health improvement plan as those with higher health ratings (see Table F6, page 235). One explanation for this situation was provided by a 27 year old male who stated he has no plans for improving his health because he lives from day to day. By order of frequency from highest to lowest, individuals planned to: increase exercise, lose weight, improve their eating habits, quit or reduce smoking, and decrease alcohol intake. Those with a single health improvement plan most frequently cited a need to attend to a medical care matter that was being put off (e.g. take iron pills, have eyes checked, have knee operated on). About 10 percent of all respondent also cited social and economic plans involving higher levels of education and either going back to or continuing to work.

One indicator for health status involves use of health services. This examination of use of health services considered only four primary sources of care: Medical Doctors, Community Health Nurse, Community Health Representative, and traditional healers. The medical doctors have offices in the local hospital at Hazelton. The Community Health Nurse travels from the town of Hazelton and spends an average of two hours a week in the village. Distance to the villages range from 3 to 20 miles. The Community Health Representative is a band member who lives and works in the village full time. Finally, use of a traditional healers services would involve travel to a neighbouring tribal territory. Table 4 summarizes use of these services in a two week and one year period.

In the 14 days prior to completion of the questionnaire, over one-quarter of respondents (n=27) had gone to either see or talk to a medical doctor. The decision to see a physician was not influenced by age, sex, education or perceived level of health.

TABLE 4
Use of Health Services in a Two Week and One Year Period

Usage Over time	Sex	Services (Number)				
		MD★	CHN★	CHR★	Tradition al Healer	Nights In- Hospital
Past 14 days	Male	14	3	5	0	N/A
	Female	13	3	4	0	
	Total	27	6	9	0	N/A
Past year: Users by sex	Male	39	8	14	2	13
	Female	44	13	12	3	11
Past year: Total usage by sex	Male	178	11	33	3	80
	Female	283	46	31	5	61
Average usage in one year	Male (N=48)	3.7	0.2	0.7	0.1	1.7
	Female (N=49)	5.8	0.9	0.6	0.1	1.2
Overall yearly Average	Average	4.8	0.6	0.7	0.1	1.5

★ MD = Medical Doctor; CHN = Community Health Nurse; CHR = Community Health Representative

The main reasons for the visit concerned a sickness or health concern or a medical check-up (n=10). During this two week time period, both the Community Health Nurse (CHN) and Community Health Representative (CHR) had been seen or spoken to less frequently. Study participants who sought the services of the CHN were significantly younger than those who did not (28 versus 36 years). By comparison, those seeing or talking to the CHR were, on average, 55 years old. Reasons for seeing the CHN or CHR include obtaining: health advise, forms for glasses, follow-up care by the CHN, pain medication or medication for a cold; and, dental problems. None of the respondents had seen or talked to a traditional healer in this two week time period.

Over the long term, physician services had been utilized for an average of 4.8 visits per person per year (N=97). However, about 10 percent of the people had not seen a doctor at all; approximately half (47 percent) made between 1 and 3 visits; and, 4 individuals

receiving counselling attended the doctor's office once or twice a month. During this same time period, CHN and CHR services received comparable usage. Over three-quarters of respondents had not utilized CHN services at all while two-thirds had not sought care from the CHR. Respondents most frequently cited seeing the CHN and CHR either once or twice during the past year. During this same 12 month time period, five individuals sought help from a traditional healer for a total of eight visits.

Further use of health services over a one year period involved over-night stays in the hospital (see Table 4). One-quarter of respondents reported spending a night in the hospital. Approximately half of this in-patient time was three days or less. Three surgery cases required in-hospital stays of two and three weeks: the longest in-patient time followed emergency gall bladder surgery with post-operative complications. The total population of 97 respondents had an average in-patient time of 1.5 days per person.

4.2.3 Two Week Disability and Accidents and Injury

An assessment of short and long term disability resulting from sickness, accidents or injury supports an estimation of the number of bed-days or cut-down-days. This level of assessment shows that a two week short term disability had no effect on perception of health. Table 5 summarizes bed days and cut-down days by sex.

About one in five incidents requiring bed rest resulted from an accident or injury. Most people stayed in bed because of a cold or the flu. Others (6 percent) reported a chronic health problem including lupus, back problem, an ear problem that caused dizziness, anaemia, and varicose veins. Most of these people with a chronic condition had to cut down on things they usually do during the remaining two week period.

Overall, approximately one-quarter of respondents had to cut down on things they

usually do because of their health. Individuals generally limited in the kind or amount of activities they could engage in were most likely to have to cut down on things they usually do. (Chi-square: $p < 0.00057$) The most frequent cause for reduction in activity relate to back problems ($n=5$), weight problem ($n=3$), rheumatoid arthritis ($n=2$) and, anaemia/tired ($n=2$). About one in three attributed their health problem to an accident or injury.

TABLE 5
Two Week Disability

Bed-days or Cut-down days	Sex (No.)			Population Average (N=97)
	Male	Female	Total	
Bed-days	8	8	16	-
Total bed-days	36	17	53	0.5
Average bed-days	4.5	2.1	3.3	-
Cut-down days	11	11	22	-
Total cut-down days	73	77	150	1.5
Average cut-down days	6.6	7.0	6.8	-

Any assessment of accident or injury necessarily underestimates the occurrence as only survivors are included. This study found that approximately 50 percent of the men and women had an accident or injury over the previous one year period. Age was a significant factor for accidents involving bicycles ($n=6$; average age 21 years) and sport injuries ($n=14$; average age 25 years). Though not statistically significant, older people were more likely to be involved in accidents as a pedestrian or when walking (average age 41 years).

The most frequently occurring accidents involved a car, van, or truck ($n=5$); pedestrians; and, bicycle riders. Accidents serious enough to limit normal activities commonly involved falls, cuts, and alcohol. There were two cases of burns, one poisoning, one overdose, and one accident involving firearms. About one in five accidents were alcohol

related. Less than 10 percent of all accidents happened while working at a job or business.

Despite the high rate of accident or injury, less than one in five of the people reporting an accident sought care in the hospital's emergency department. The resulting injuries or health problem commonly involved muscle/joint injury or fracture (n=19), abrasions (n=7), or back injury (n=4): 6 cases reported no injury.

4.2.4 Health Status

This section on health status was designed to measure the usual ability in six areas of health: vision, hearing, speech, ability to get around, use of hands and fingers, and pain and discomfort. Table 6 summarizes results in each of these categories.

Age affected vision to some extent, with older people having difficulty reading small print (43 years) and younger people have difficulty seeing at a distance (39 years). None of the respondents indicated inability to read was a factor in not being able to see well enough to read newspaper type print. Three cases averaging 53 years could not read despite corrective lenses: one had cataracts. Though age was not a factor, significantly more women than men (33 versus 13 percent) had a problem with distance vision.

Two-thirds of the people with poor hearing were under 45 years. Almost all of those with a hearing problem said they could hear well when talking to one person in a quiet room and without a hearing aid. However, these people often required repetition of words or phrases and sometimes visibly strained to hear.

Although one in five people had trouble being understood when speaking to strangers, problems were entirely related to enunciation patterns: voice pitch was either too low or the individual mumbled or stuttered. Only one elder had a problem speaking English while two others believed their accent caused the problem. When adjusting for ages under

45 years, half with a speech problem were teenagers.

TABLE 6
Health Status According to Vision, Hearing, Speech,
Getting Around, Use of Hands and Fingers, and Presence of Pain

Category	Presence of Condition (No.)		
	Yes	No	Don't Know
<u>Vision:</u> Able to read			
- without corrective lens	60	37	0
- with corrective lens	33	3	1
<u>Vision:</u> Able to recognize friend across road			
- without corrective lens	75	22	0
- with corrective lens	22	0	0
<u>Hearing:</u> Able to hear in group conversation			
- without hearing aid	83	14	0
- with hearing aid	4	0	10
<u>Hearing:</u> Able to hear one person in quiet room			
- without hearing aid	12	2	0
- with hearing aid	2	0	0
<u>Speech:</u> Understood completely when			
- talking to strangers	78	19	0
- talking to people know well	19	0	0
<u>Speech:</u> Understood partially when			
- talking to strangers	17	2	0
<u>Getting Around:</u>			
Able to walk without difficulty and without mechanical support	94	3	0
Require mechanical support	2	1	0
<u>Hands and Fingers:</u>			
Need help due to limited use of hands and fingers	1	96	0
<u>Pain and Discomfort:</u>			
Usually experience pain or discomfort	38	59	0

Individuals requiring mechanical support (leg braces or wheelchair) to get around did not require the help of others. However, help was needed by the one case involving limitations in use of hands and fingers.

Experiences of some pain or discomfort was unrelated to age or sex. Half of the respondents experienced pain or discomfort of sufficient intensity that they could not take part in some or most activities. Activity limitations due to pain did not affect self-rating of

health (see Table F7, page 235).

4.2.5 Chronic Health Problems

Self-reported morbidity provides an indication of the prevalence of disease in the population. Table 7 summarizes the most commonly occurring conditions reported on. Age was a significant factor in self-reporting of several chronic conditions as demonstrated by the T-test level of significance. Ancestry was significant in allergy related diseases. Here, people with Gitksan or combined Gitksan-Wet'suwet'en ancestry reported the presence of allergies and arthritis. The single reported case of Lupus Erythematosus was of Gitksan-Wet'suwet'en ancestry. Sex was relevant only in the presence of recurring back pain.

TABLE 7.
Chronic Health Problems, 1991: Ages 15 Years and Over

Condition	No. Respondents	Average Age	T-Test for Age Significance
Skin allergies or other skin disease ★	11	44	p < 0.04
Hay fever or other allergies	17	39	
Arthritis ▲	15	45	p < 0.0004
Lupus Erythematosus	1	45	
Serious trouble with back pain	26	36	
Recurring back pain: not serious ♦	10	38	
Serious problem with joints or bones	30	44	p < 0.000
Chronic bronchitis or persistent cough	7	42	
TB - inactive/positive test	8	36	
High blood pressure	18	46	p < 0.000
Heart disease and circulatory problems	8	51	p < 0.025
Diabetes	2	51	
Urinary problems	7	51	p < 0.035
Stomach ulcer	4	48	
Other digestive problems	8	47	p < 0.043
Cataract or glaucoma	6	67	p < 0.000

Chi Square Tests: p < 0.05

★ Occurs with Gitksan (n=7) and combined Gitksan-Wet'suwet'en (n=4) ancestry.

▲ Occurs with Gitksan (n=10) and combined Gitksan-Wet'suwet'en (n=3) ancestry.

♦ On average, women (n=7) with recurring back pain are younger (20 yrs) than men (58 yrs).

There was a high rate of double counting in categories for arthritis, back pain, and serious problems with joints or bones. About one in three arthritis cases reported having serious back pain and serious problems with the joints or bones. When arthritis was not a factor, half the people with serious problems with the joints or bones also said they had serious back pain. Adjustments were not made in reportings for the three categories.

Age was a factor in reporting chronic conditions. The three leading conditions affecting men and women under 45 years are hay fever or other allergies, back pain, and, chronic bronchitis. For those over 45 years, the three main conditions involve high blood pressure, heart disease, and arthritis. Other conditions reported on include single cases with rheumatism, asthma, thyroid problem, and one report of abnormal cervical cells requiring minor surgery. There were no reports of either epilepsy or cancer. Health rating was significantly affected by the presence of serious problems with joints or bones. These individuals rated their health lower than those who did not have the problem. By comparison, neither the presence of arthritis, allergies, back pain, nor high blood pressure made any difference in self-assessment of health.

In a final check for reporting of long term health conditions, about one in six people said they had additional problems besides that previously reported on. The majority of reported conditions were associated with some degree of pain and include back pain, headaches (n=5), and aching joints. In addition, two men said alcoholism was a health related problem for them.

4.2.6 Activity Restriction

Questions relating to activity restriction distinguish people who have limitations due to an impairment or long-term physical or mental condition. These questions are intended to

identify groups of individuals whose health is poor enough to disable them or limit the quality of their life. The occurrence of activity restrictions are summarized in Table 8.

TABLE 8
Occurrence of Activity Limitations According to Sex

Type of Limitation	Sex (No.)		Total (%)*
	Male	Female	
Need help with personal care	2	1	3
Confined to bed or chair for most of day	4	2	6
Limited in kind or amount of activity	4	7	11
Activities limited at home	2	3	5
Unable to do most household chores	1	1	2
Activities limited at work or school	3	2	5
Unable to work or go to school	1	0	1
Limited in leisure pursuits	2	1	3

* Percentages and respondent numbers correspond because the sample size is 97

Half of the people confined to a bed or chair also required personal care. These respondents rated their health as "fair" with conditions involving lupus and wrist injury resulting from a suicide attempt: one was an elder of 77 years. Overall, 3 percent of the population has extreme limitations while 8 percent experience limitations at home and work or school. As shown in Table 2, these respondents with activity limitations rated their health significantly lower. The duration of the limitations, whether in months or years, had no effect on perceived level of health. An accident or injury caused the limitations in activity for two-thirds of the respondents (7 cases out of 11): half of these involved a back injury.

4.2.7 Lifestyle: Tobacco, Alcohol, Exercise, Nutrition, and Dental Health

Exercise and nutrition are important determinants of overall health while smoking and alcohol use are well known health risk factors. Smoking is a known risk for heart

disease, respiratory problems and cancer: alcohol consumption becomes a health risk factor when it is abused. Alcohol consumption is also related to accidents, social problems and family problems. These factors, as well as dental health and driving safety, are discussed in the following section.

Smoking Habits:

Approximately two-thirds of the respondents are current smokers. with an age trend occurring in smoking behaviour. (Table 9) Though smoking decreases with age, one in three adults over 45 years smoked cigarettes. Twenty percent (20 percent) had never smoked at all while 17 percent previously smoked daily but had successfully quit the habit. Education did not affect rates despite the fact that the less educated were mostly older people. When adjusted for age, education remained un-associated with smoking practices (Table 10).

TABLE 9
Smoking Behaviour of Men and Women Ages 15 Years and Over

Age	Current Smoker (No.)	Current Smoker Status (No.)		Non Smoker (No.)	Non-Smoker History (No.)	
		Daily	Occasionally		Smoked Daily	Never Smoked
15-24 years	23	11	12	5	2	3
25-34 years	17	9	8	6	2	4
35-44 years	14	7	7	11	5	6
45-54 years	6	2	4	5	3	2
55-64 years	1	0	1	4	1	3
65+ years	1	0	0	4	3	1
TOTAL	62	30	32	35	16	19

Men and women began smoking daily at an average of 18 years with initial use ranging from 10 to 41 years. These daily users smoked an average of 11 cigarettes a day: two out of three smoked 10 cigarettes a day while one-third smoked 12 - 30 cigarettes per

day. Almost all daily smokers believed it somewhat or very likely their habit would lead to a health problem. Half of these daily smokers tried to quit smoking in the past year. Neither age nor sex was a factor in this decision to try to quit smoking: most significant was belief in the potential harm of smoking. People who believed it very likely that smoking would lead to a health problem were more likely to try to quit smoking than those who believed it somewhat likely health would be harmed. Those who held strong beliefs about the potential harm of smoking and tried to quit smoking were primarily in the Grades 9 to 12 educational grouping (see Table F8, page 235).

Over half of the occasional smokers ($n = 32$) used to smoke daily. In this occasional smoking group, significantly more men than women used to smoked daily: they also smoked more (e.g. 40 to 60 cigarettes/day). Current occasional smokers used to smoke daily at an average age of 18 years and quit smoking daily at 24 years. These occasional smokers used to smoke an average of 14 cigarettes with a large proportion smoking 20 to 60 cigarettes a day.

Overall, men tended to have significantly more friends that smoked than women. People ages 15 - 24 had the most friends who smoked. This pattern corresponds with education level (see Table F9, page 236).

About 7 percent of the people smoked pipes, cigars or cigarillos, almost all of whom were men (average, 40 years). Less (4 percent) used snuff or chewed tobacco. Two men averaging 66 years used snuff daily while another 2 men averaging 25 years used snuff occasionally. About one in three people said some of their friends used snuff or chewed tobacco.

The well known association between smoking and alcohol consumption is observed among the Gitksan and Wet'suwet'en people (Table 10: $\chi^2 = 20.4$; $p < 0.03$). In this study, significantly more weekly drinkers are smokers (88 percent) than are non-drinkers (30

percent). None drinkers are also most likely to have not smoked at all. Table 10 summarizes drinking patterns. Also, see Table F10, page 236.

TABLE 10
Relationship Between Smoking and Drinking

Drinking Patters	Smoking Habit			Total
	Daily	Occasionally	Not At All	
More than twice a week	4	5	1	10
Once a week	7	5	2	14
1-2 times a month	9	11	11	31
Less than once a month	6	8	5	19
Non drinker	4	3	16	23

Alcohol Consumption:

For the purposes of this report, an individual is termed a current drinker if they reported consuming an alcoholic beverage at least once in the past 12 months. According to this definition, about eight out of ten people (76 percent) currently drink. (Table 4)

Generally, a drink was equivalent to one bottle of beer.

Not counting small sips, men and women began to drink at 17 years, with age ranging from 8 - 35 years. Significantly more men than women are drinkers and, though not statistically significant, more people in the 25 - 34 year age group regularly drink alcohol. In addition, men and women looking for a job tend to drink the most. Education appeared to be related to drinking, however, age adjustment to under 45 years eliminated the spurious association. Though 23 percent of respondents indicated they currently do not drink, approximately one in three of the former drinkers previously consumed more than 12 drinks on a regular basis.

Over the past 12 months, one in four people drank on a weekly basis while about 30

percent drank once or twice a month (Table 11). In assessing drinking patterns over a one week period, the weekly drinkers consumed 12 drinks per person while the monthly drinkers consumed 5 drinks per person (T-Test: $p < 0.023$). When averaged over the total sample group, the men and women drank 5 bottles of beer per person with women drinking significantly less than men (3 versus 7 drinks respectively). Sex was also significantly related to an assessment of friends drinking patterns. Women considered only a few or none of their friends drank too much while men thought most of their friends drank too much.

Overall, one in four of the current drinkers believed it very likely drinking would lead to health problems. However, the amount people drank significantly affected their beliefs in the potential harm of alcohol. On average, people drinking once a week or more often believed it somewhat likely their drinking would lead to a health problem for them. By comparison, people drinking less than once a month believed it very unlikely their drinking habits would harm them (Table 11). Men perceived significantly greater potential harm to their health than women: men also drank more frequently than women (Table F11, page 237).

An additional belief relates to normalcy of drinking patterns. People who drank most frequently were more likely to consider their drinking normal than those who drank least often (Table 11). This same significant gradient is seen when respondents report on how normal friends and relatives consider their drinking to be. In other words, if an individual believed their drinking was normal, then they perceived that friends and relatives had the same belief about their drinking pattern. People generally thought their drinking was not normal when compared to friends or parents who drank more than they.

Over 80 percent of the drinkers reported trying to reduce the amount they drink over the past year. However, this decision to try to reduce alcohol intake was unrelated to beliefs

about the potential harm of alcohol, sex, age, education, or drinking pattern. Rather, this attempt was directly and significantly related to a belief in personal control over drinking and occurrence of family or spousal problems arising from drinking. Almost all of the people who believed they could control their drinking or who reported a family problem actually tried to reduce intake.

TABLE 11
Beliefs Relating to Alcohol Use

Drinking Pattern:	Sex (%)		Potential Harm to Health (%)		Normal Drinker (%)		Try to Reduce Drinking (%)	
	Male	Female	Likely	Unlikely	Yes	No	Yes	No
Weekly (n=23)	67	33	65	35	79	21	79	21
Monthly (n=30)	16	15	50	50	58	42	87	13
Less Often (n=18)	26	74	33	67	34	63	79	21

Men and women hold similar beliefs about their drinking, however, men experience more negative effects from alcohol use (Table 12). Similar beliefs are held regarding normalcy of their drinking pattern, perceptions about family and friend assessment of their drinking, and both sexes believe they are able to stop drinking when they want to. However, men who drank on a weekly basis were more likely to report that families worried about their drinking; family problems occurred; they had trouble at work; and were arrested for drunk behaviour or drunk driving. Age was a factor in arrests for drunk driving with men over 40 being arrested. In addition, men who drank most frequently were more likely to be admitted to hospital.

Support systems used in dealing with alcohol problems, by order of highest usage, involve seeking help from another, attending AA meetings, and attending an Alcohol Treatment Center. The few who did attend a Center continue to drink alcohol. Attendance

TABLE 12
Problems Encountered by Drinkers in the Past Year

Alcohol Related Occurrences Past 12 Months	Sex		Comments regarding significance
	Male (n=39)	Female (n=35)	
% tried to reduce alcohol intake	80	85	
% feel are normal drinker	62	57	
% say friends and relatives consider their drinking normal	66	54	
% have families that worry	51	23	χ^2 : p < 0.01
% say able to stop drinking when want to	87	97	
% attended Alcoholics Anonymous	15	11	
% attended Alcohol Treatment Center	8	9	
% went to another person for help	21	14	
% experienced family or spousal problems	44	26	
% got into trouble at work	23	6	χ^2 : p < 0.04
% neglected obligations at home or work for two or more days	21	11	
% in a hospital for drinking	13	7	
% arrested for drunk behaviour	36	3	χ^2 : p < 0.0004
% arrested for drunk driving	31	3	χ^2 : p < 0.002

at either an AA support group or a Treatment Center is unrelated to drinking pattern or beliefs in the potential harm of alcohol. Only age was significantly related to attendance at AA meetings: men averaging 54 years were more likely to attend. In seeking informal support systems in the community, significantly more Gitksan people went to another for help in dealing with their drinking problem. There is also a trend showing more Gitksan people accessing support through attendance at AA meetings and Treatment Centers.

Seat Belt Use:

Drinking and driving is a well known high risk behaviour. Another noted risk relates to none use of seat-belts when driving or a passenger. Table 13 summarizes use of seat belt according to driver status in the previous 12 months. Both men and women are more likely

to use seat belts when driving on public highways. There is a significant age gradient in use of seat-belts when driving on public highways. Almost all drivers under 24 years and over 45 years always used seat belts: the 35 - 44 year age group were least likely to always use a seat belt. Most drivers said they buckled-up when driving public highways because of the frequent road-checks for seat belt use. There was no difference in usage according to classification as drivers or non-drivers. However, significantly more Gitksan people always used their seat belts when a passenger in a motor vehicle.

TABLE 13
Seat Belt Use by Men and Women Driving on Public Highways and in the Village

Driver Status and Location	Use Seat Belt (%)			
	Always	Most Times	Rarely	Never
Male Drivers: (n = 34)				
- driving on public highways	71	27	0	3
- driving in the village	44	18	21	18
Female Drivers: (n = 27)				
- driving on public highways	78	15	4	4
- driving in the village	44	33	7	15
Passenger Status: (N = 97)				
- drove vehicle past year (n = 61)	69	25	3	3
- non-driver (n = 36)	53	33	11	3

Physical Activity:

A third lifestyle choice affecting health involves regular physical exercise. Most benefit is achieved if the exercise occurs at least 3 times a week, takes place for a continuous 20 minutes, and is of sufficient intensity that it causes heart rate to increase to a targeted level. Though an attempt was made to screen for intensity according to sweating and breathing more heavily than normal, it is unclear if respondents were successfully screened in or out of subsequent exercise related questions.

Approximately three-quarters of respondents reported engaging in active physical

exercise during the previous 3 month period (Table 14). Women primarily walked for exercise while men jogged. Age was also a significant factor in choice of activity with people over 35 years walking and people under 35 jogging. With respect to duration, people over 45 years commonly walked for at least 30 minutes on a daily basis. Though many reported walking for long periods, it is unclear if this was a continuous exercise period or if there were many starts and stops. It also appeared that men exercised for significantly longer periods than women during each event. However, when controlling for sports such as baseball, there was no significant difference in duration of exercise between the sexes. These sport events are screened out because intense activity is sporadic and generally of short duration.

TABLE 14
Type, Frequency and Duration of Physical Activity in Past 3 Months

Occurrence	No. Resp.	Type of Activity (%)				
		Walk	Run/Jog	Class/Home	Ride Bike	Ball
<u>Sex:</u> *						
- Male	36	28	39	11	8	14
- Female	32	53	9	19	16	3
<u>Frequency:</u>						
- daily	17	53	12	18	18	0
- 4-6 times/week	22	41	32	14	5	9
- 1-3 times/week	29	31	28	14	14	14
<u>Duration:</u>						
- more than one hour	24	42	25	4	8	21
- 30 min. - one hour	33	49	18	18	12	3
- 15 - 30 min	11	9	46	27	18	0

* Sex made a difference in main activity (one choice): $\chi^2 = 12.3$: $p < 0.02$

Level of physical effort in work or daily activities as well as an assessment of adequacy varied significantly by sex (Table 15). Women's level of effort was light to moderate in intensity and was largely considered to be too little. Men on the other hand were satisfied with adequacy of physical effort regardless of intensity. Overall, people who

rated their level of physical effort as light also believed their activity was too little. In contrast, moderate to heavy daily effort was considered the right amount. About one in ten were unable to assess the level of effort in their physical activities.

TABLE 15
Assessment of Intensity and Adequacy of Physical Activity

Sex	Adequacy	No. Resp.	Intensity of Physical Activity (%)			
			Light	Moderate	Heavy	Don't Know
Male	Too little	17	41	24	18	18
	Right Amount	31	16	39	32	13
Female	Too Much	4	0	50	25	25
	Too Little	22	46	41	0	14
	Right Amount	22	14	73	9	5

Nutrition:

Energy expended through physical activity directly influences body weight. Two forms of activity account for energy expenditures: routine daily activities and planned leisure time activities. About half of the women who rated their daily physical effort as light to moderate had significantly higher body weights. Though men tended to have weight patterns comparable to women, their body weight was unrelated to perceived level of daily physical effort. In other words, men who considered their daily physical effort to be heavy were as likely to be overweight as those men who rated their effort as light. Neither men nor women's beliefs about adequacy of exercise was related to body weight.

Measure of weight status is important because of the association between weight and health. Body Mass Index (BMI) provides a means for assessing obesity and is calculated as weight in kilograms divided by height in meters squared. In this study, cut-off points for assessing body weight for both men and women between 20 and 65 years is according to that established by Health and Welfare (1988a). These cut-off points are as follows:

Under 20	May be associated with health problems for some people;
20 - 25	Good weight for most people with lowest risk to health;
25 - 27	May lead to health problems for some people;
Over 27	Increasing risk of developing health problems such as diabetes, high blood pressure and heart disease.

None of the women in the study were known to be pregnant; one breast-feeding woman was weaning; and, there were no noted abnormalities in leg-trunk length.

The height for men and women was significantly different, with men averaging 1.7 meters (5 ft. 7 in.) and women, 1.6 meters (5 ft. 3 in.). Gitksan or Wet'suwet'en ancestry made no difference in average heights. However, people with Gitksan ancestry are significantly heavier.

Table 16 summarizes current and desired body weight according to the above cut-off points. Age is a significant factor with over half of the men and women between 35 and 65 having a body weight that places them at risk for diabetes, high blood pressure, and heart disease (see Table F12, page 237). Through weight loss, 2 out of 3 people would achieve a low health risk status (i.e. BMI less than 25). Considerably more women (50 percent) than men (33 percent) want to lose weight. With success, the proportion of women at risk decrease, however, men tend to remain in an at-risk category (BMI 25 - 27).

TABLE 16
Body Mass Index (BMI) and Cut-Off Points
for Men and Women Between 20 and 65 Years

BMI	No. Resp. (n=76)	Current Weight Status (%)		No. Resp. (n=76)	Desired Weight Status (%)	
		Male (n=37)	Female (n=39)		Male (n=37)	Female (n=39)
Under 20	2	2	2	2	0	5
20 - 25	30	41	38	46	46	74
25 - 27	11	22	8	17	40	5
27 - 30	10	8	18	9	13	10
30 - 35	13	22	13	3	2	5
Over 35	10	5	21	1	2	0

About one in five men and women prefer a body weight that places them at greatest risk for developing health problems (BMI over 27). This preference is demonstrated by a wish to maintain current weight regardless of level of obesity. One young man had a current BMI under 20 but indicated he wished to gain weight. Two women showed a preference for a body weight which yields a BMI under 20.

Besides energy expenditure, body weight is also a direct result of energy intake. These two factors of "energy in and energy out" by no means completely explain an individual's body weight, however, other factors are beyond the scope of this study (e.g., efficiency of energy usage). In assessing their food intake, about 75 percent of respondents believed they could improve their health by changing their eating habits. Significantly more women than men held this belief, however, the belief was unrelated to their current body weight. Neither age, education, nor ancestry made any difference in assessing the potential benefit of changes in food patterns.

Total nutritional adequacy, including energy intake, was assessed by means of a 24 Hour Food Recall. This food recall was recorded for five days of the week, excluding Friday and Saturday. Attempts to carry out interviews during Saturdays and Sundays proved largely unsuccessful. Each of the five remaining days (Sunday to Thursday) represented approximately equal proportions of respondents.

An assessment of risk for nutrient inadequacy is based on a 66 percent cut-off point with intake compared to a Recommended Nutrient Intake (Health and Welfare Canada 1988) that is based on standardized age and weight. According to this criteria, people with an intake below 66 percent of the Recommended intake are considered at-risk (Gibson 1990). Table 17 summarizes data according to sex and nutrient while Tables F13 and F14

(page 238, 239) in the Appendix provide complete data by age and sex.

About two-thirds of the men and women were at risk for a calcium and Vitamin A deficiency while about half risk a Folate deficiency (Table 17). Women are also at high risk for an iron deficiency. Generally, people with energy intake below 1800 kcal are at risk of having insufficient intakes of such nutrients as iron and calcium. This is most apparent for women 25 years and over who have an average energy intake of 1600 calories and have considerably higher proportions at risk for a deficiency. Men on the other hand have higher energy intakes and are largely able to meet nutrient requirements with noted exceptions (Tables F13 and F14, page 238, 239).

TABLE 17
Proportion of Men and Women At-Risk for a Nutrient Deficiency
With Risk Determined by Intake 66 percent Less Than Recommended Amounts

Sex	Nutrient (%)						
	Energy	Calcium	Iron	Vitamin A	Vitamin C	Riboflavin	Folate
Male (N = 48)	14	62	6	65	26	19	44
Female (N = 49)	25	65	49	51	18	25	49
Average	20	64	28	58	22	22	47

Energy is provided by protein, carbohydrate, and fat. Nutrition recommendations for Canadians state the diet should include no more than 30% of energy as fat and no more than 10% as saturated fat. Also, the diet should provide 55% of energy as carbohydrate (Health and Welfare Canada 1990b). Food Recalls for the Gitksan and Wet'suwet'en people show that 33 percent of total energy is provided by fat: 35 percent of total fat consists of saturated fat. Salmon, in a variety of forms, was a major source of protein for about one in five men and women of all ages. Carbohydrate contributed to 53 percent of total energy. Generally, a high proportion of carbohydrate was in the form of simple sugars (e.g., regular

pop, table sugar, etc.).

Both fibre and cholesterol constitute important parts of a healthful diet. The high consumption of simple sugars may explain, in part, the fairly low intake of fibre for both men and women (average: 6 grams). Though not a nutrient, fibre plays an important role in regulating gastrointestinal function. Cholesterol, on the other hand, is a fatty substance found in animal fats. Men and women consumed an average of 340 mg of cholesterol per day (360 mg and 310 mg respectively). Because of its relationship with coronary heart disease, it is recommended that cholesterol intake be reduced to 300 mg per day or less (Health and Welfare Canada 1990a).

Dental Health:

Food choices form an important part of overall dental health. As important are dental hygiene practices and regular dental care from dentists or dental hygienists. Table 18 summarizes data on current dental health. Age is a significant factor with young people being most likely to have their own teeth and no dentures (average 28 years). By 40 years, one in three people have partial plates. There is a significant gradient in the proportion of people with partial plates up to 45 years. After 45 years, the majority of respondents had .

TABLE 18
Description of Current Dental Health by Age Groupings

Dental Health	No. Resp.	15 - 24 Years (%)	25 - 34 years (%)	35 - 44 Years (%)	45 Years plus (%)
Own teeth and no dentures	53	47	34	13	6
Own teeth and one or more denture(s) or bridge(s)	31	10	16	52	23
No teeth and full upper and lower dentures	12	0	0	17	83

complete upper and lower dentures (average 55 years): one woman of 50 years had no teeth and no dentures.

Ability to bite and chew some foods provide an indication of the condition of teeth or dentures. In this study, chewing an uncooked carrot or firm meats and biting and chewing a fresh apple was a problem for less than 10 percent of respondents. Again, age was a significant factor (average 58 years). These eating problems primarily affected people with complete upper and lower dentures. An elder with his own teeth and another elder with no teeth or dentures could not chew a fresh, uncooked carrot or bite an apple, but could chew firm meat.

During the past month, the most commonly occurring dental problem for people with some or all of their own teeth was pain in teeth from hot, cold, or sweet foods or liquids. (Table 19) In this sub-group (n=84), one-third reporting pain averaged 29 years and were younger than those who did not experience such pain (T-test: $p < 0.04$). Young people (average 25 years) also most commonly reported having a toothache. Neither pain in the jaw joints nor sore or bleeding gums were related to age. Sore or bleeding gums was the second most commonly reported dental problem.

About 30 percent of respondents had not seen a dentist in the past year with most saying they didn't go because there was nothing wrong. Age was a factor with older people (average 42 years) saying there was nothing wrong or they were too busy while younger people (average 24 years) said they were afraid or couldn't make an appointment. Two thirds of the people who had not seen the dentist in the past year said they only went to the dentist when they had pain or other trouble. A small proportion said they usually visited the dentist at least once a year for check-ups (see Table F15, p 240).

TABLE 19
Dental Problems and Patterns in Access to Dental Care

	Dental Health		
	Own Teeth: % (n = 53)	Own Teeth and Denture(s) or Bridge(s): % (n = 31)	No Teeth and Complete Dentures: % (n = 12)
<u>Dental Problems Past 12 months:</u>			
-Toothache	23	6	N/A★
-Pain in Teeth From Some Foods and Liquids	40	23	N/A
-Pain in Jaw Joints	11	16	33
-Pain or Discomfort From Dentures	N/A	19	67
-Sore or Bleeding Gums	32	13	25
<u>DENTAL CARE ACCESSED:</u>			
-Within Last 6 Months	51	42	8
-6 Months to 1 Year	24	32	33
-1 to 2 Years	22	13	8
-3 years or More	2	13	50

★ N/A = Not applicable

4.2.8 Life in General

Social and economic factors as well as mental health form an important part of total health. In this study, economic factors are assessed indirectly and focus only on employment or primary activities engaged in during the past year. Social factors include contacts with family and friends and community involvement. Finally, mental health factors focus on feelings experienced within the past year.

Less than one in four people working at a job were actually fully employed and worked more than 10 out of 12 months (Table 20). A discrepancy in respondent classification of work occurs where the respondent may be currently working full time but the job is a term project. Workers were equally divided between semi-skilled and skilled occupations. Two times more men than women listed working at a job as their primary

activity. An age gradient is seen in level of skill associated with type of work: people under 24 years were largely involved in unskilled activities; 25 - 34 years were semiskilled; and 35 - 44 were skilled.

TABLE 20
Employment Status of Men and Women Whose Main Activity
in the Past 12 Months Was Working At a Job

Employment Status	Number of Respondents	Sex (%)	
		Male (n=24)	Female (n=18)
<u>Months Worked:</u>			
0 - 3	3 (7)	8	6
4 - 6	11 (26)	25	28
7 - 9	7 (17)	20	11
10 - 12	21 (50)	46	56
<u>Work Was Mostly:</u>			
Full time	29 (69)	71	67
Part time	6 (14)	8	22
Seasonal	7 (17)	21	11
<u>Skill Level:</u> *			
Skilled	17 (40)	46	33
Semi-skilled	21 (50)	46	56
Un-skilled	4 (10)	8	10

* Skilled = small business operator, artisan, heavy duty mechanic, program manager, etc.
Semi-skilled = heavy machine operator, office worker, carpenter, cannery worker, etc.
Un-skilled = labourer, taxi-driver, etc.

About three-quarters of respondents lived in single family homes. The remaining one-quarter had two families or, in a few instances, three families living in the same house. Here, a family consists of a man, woman and their dependent children or a single parent and the children. Many households included a young, unmarried, male boarder. Single family households were least likely to feel crowded, however, one out of ten respondents in this group said their house was too crowded. Having two families in the house was generally not considered a significant problem. More problematic was having three families present.

Regardless of the number of family units present, about one in four respondents considered their living accommodation to be too crowded (see Table F16, page 240).

Social aspects of life that may affect health include contact with family and friends, social activities, and community involvement (see Table F17, page 241).

In assessing numbers of relatives that one felt close to, problem arose in defining a relative. Some respondents included children as a relative while others considered only their aunts, uncles, cousins, and grandparents to be a relative. Despite this definitional problem, respondents had an average of 12 relatives that they felt close to. One third of the respondents had 4 or less relatives that they felt close to. Sex made a significant difference with men counting more close relatives than did the women. Though not statistically significant, women who married a Gitksan or Wet'suwet'en man had less relatives that they felt close to. People generally saw their relatives at least once a week, an exception being women from other Tribal groupings such as Staloh or Carrier (See Table F17, page 241).

Another important source of social support involves friends. By definition, a close friend means people one feels at ease with, can talk to about private matters and can call upon for help. On average, respondents had 5 friends, however, respondents were more likely to have no friends (14 percent) than no family members (3 percent) that they felt close to. A majority of the respondents with no friends were women. Sex also made a significant difference with men reporting more friends than women. As in the case of family, respondents also saw their friends at least once a week (see Table F17, page 241).

Leisure activities respondents engaged in tended to be sedentary in nature. While the two most frequently identified activities for men and women involved walking or jogging and sports, these activities are largely seasonal. Non-seasonal activities involved art work and beading, watching TV, and bingo. Less than 5 percent had no leisure activity that they

regularly engaged in while one out of three identified at least 2 activities. Over the previous two months, people largely spent their leisure time with others. Less than 10 percent spent their leisure time by themselves. Women from tribal groupings other than Gitksan or Wet'suwet'en spent more of their time by themselves. On the whole, people were somewhat satisfied with their social life with neither age, sex nor ancestry making a difference.

About 70 percent of respondents had children of their own, the vast majority of whom (80 percent) were very satisfied with their relationship with their children. Neither sex, age, education, nor ancestry made any difference in this relationship. Over half of the respondents were presently married or living with someone. Only sex made a difference in degree of satisfaction with the relationship. Significantly more men than women were very satisfied (see Table F17, page 241).

Twelve (12) percent of respondents under 35 years have children and are currently not married or living with anyone. Three times as many women as men might be classified as single parents with women being younger than men (average 23 years versus 29 years).

Besides close family and friends, an important part of social support is having someone to confide in and help out in time of need. About eight out of ten people felt they had someone they could confide in or talk to freely about their problems. Education made a difference in this aspect of social support in that people with some post-secondary education were most likely to have a confidant. Though not statistically significant, the remaining 20 percent lacking this type of support were primarily under 24 years and over 45 years. It was more common for people to have someone to help them in a time of need rather than to have someone to talk to. Here, 88 percent considered they had either family or friends who could help them out (see Table F17, page 241).

Social support also extends into the community where involvement in voluntary and

support groups increases potential sources for help. Examples of voluntary groups include church and school groups, child care group, village fund-raising group, support group, or social club. Over half of the respondents were a member of a group or organization with about one in three people saying they regularly attended meetings. Education made a difference in participation with significantly more members having a grade 9 - 12 level of achievement. Ancestry was also a factor in that Gitksan people were most likely to attend group meetings on a regular basis. Other people were as likely to attend as not attend. Participation in committee work was influenced by age with people over 35 years being most likely to take active part in leadership. About one in four people under 35 years were actively involved in committee business. When controlled for age, education also made a difference in leadership with people having some post-secondary education being more likely to be involved at the committee level than people with grade 12 or less.

Only 15 percent of respondents actually participated in support groups. Support groups identified include Young Adults, Lupus, AA, Women's support, and Young Moms. Reported levels of participation were too low to be of statistical value.

One potential indicator of a need for support groups is that of mental health status. In this study an assessment of mental health consisted of a series of 14 questions referring to how the individual felt during the past 12 months (Questionnaire: Appendix C-1). Test for internal reliability gave a Cronbach Alpha score of 0.70 this demonstrating the index was reliable: that is, responses were similar when questions were asked in two different ways. The 14 statements relating to feelings, the proportioning of time, and responses are summarized in Table 21 with statistically significant factors noted.

Generally, about 40 percent of the respondents had some concerns about their health, had trouble handling their feelings, were lonely, and had lowered interest in daily events.

TABLE 21
Feelings Experienced During the Past 12 Months

Feelings	Proportion of Time (%)				Significance
	Hardly Ever	Less Than Half Time	More Than Half Time	Most Times	
A Full of pep, energy	3	28	40	29	* Women had low energy levels more often than men
B Health gave no concern	31	21	18	30	
C No problem handling feelings	17	26	23	35	* Older people are able to control feelings most times
D Life was rather boring	46	31	18	5	* People with Grade 12 or less found life boring more often
E Felt rather low	30	44	19	7	♦ Women felt low more often
F Felt tense	33	42	17	8	* Women felt tense more often
G Felt cheerful	7	13	39	40	
H Felt lonely	39	32	10	19	* Women felt lonely more often
I Took effort to control feelings	33	28	22	18	
J Interesting things happened	23	21	27	29	
K Worried about health	41	28	11	20	* Highest education of Gr. 9 - 12 worried more often
L Felt exhausted, worn out	43	34	17	6	
M Felt reasonably relaxed	9	21	36	34	
N Felt loved, appreciated	7	12	29	52	

* χ^2 $p < 0.05$

* χ^2 $p < 0.01$

♦ χ^2 $p < 0.007$

* T-test $p < 0.03$

About half that number, or roughly 23 percent of the people experienced lowered energy levels and often felt exhausted; felt low, tense, unhappy, and bored; and generally felt unappreciated. Within these categories, about 7 percent felt exhausted, sad, tense, unhappy, and unloved on a regular basis. Women in particular were troubled more often by lowered energy levels, and feeling low, tense, and lonely. Education made a difference in

worry about health and being bored. People with a Grade 12 or less tended to be bored more often and people whose highest educational achievement was Grades 9 - 12 worried about their health most. Age was a factor only in handling feelings with older people having less trouble than the younger people.

Creation of a mental health or well-being scale shows high or low levels of well-being made no difference in health rating. However, people experiencing lower well-being tended to be less happy, experienced more stress, and were less satisfied with their health. This scale is constructed through: reverse coding statements so high and low ratings are consistent (Table 21: D, E, F, H, I, K, L); summing and averaging scores for the 14 variables; examining a frequency table to determine cut-off points for high and low levels; and, conducting Chi-square tests for significance. Table F18 (page 242) in the Appendix summarizes results for tests of significance.

Mental health issues relating to suicide and thoughts of suicide may be found in Table 22. Approximately one in three people entertained serious thoughts of suicide at one time: half such events occurred in the past year. Over the long term, significantly more women than men had some serious thoughts about taking their own life. However, in the short term, or within the past year, thoughts of suicide were not affected by sex (i.e., men and women were equally likely to have seriously thought of taking their own life). In addition, neither age, education, nor ancestry made a difference in this type of thinking. What did make a significant difference was people who had thought of suicide often felt exhausted, worn out or at the end of their rope (Chi Square: $p < 0.02$).

About one in five (20 percent) actually tried to take their own life. These attempts at suicide were unrelated to current age, education, sex or ancestry. Over the past 12 months, there were four cases of attempted suicide (4 percent). Age made a difference in

TABLE 22
Occurrence of Thoughts and Acts Relating to Suicide

Events	No. Resp.	Sex (No. (%))	
		Male	Female
Ever seriously thought about taking own life	37	10 (18%)	27 (73%)
Thoughts of Suicide occurred in past 12 months	16	3 (19%)	13 (81%)
Ever tried to take own life	20	6 (30%)	14 (70%)
Happened in past 12 months	4	1 (25%)	3 (75%)
Family friend or relative took own life in past 12 months	10	1 (10)	9 (90%)

these recent suicide attempts where the small proportion who actually tried were an average of 19 years (range: 15 - 31 years) in comparison to 32 years for those who did not (T-test: $p < 0.03$). From a mental health perspective, those attempting suicide felt low most of the time, this significantly different than those who had not actually made the attempt. Statistically, neither sex nor ancestry made a difference in these attempts. About ten percent of respondents had a family member or friend take their own life in the past year with significantly more women than men reporting such an incident.

4.2.9 Women and Child Health

Health choices women may make relate largely to cancer prevention and involve breast examination and pap smears. Table 23 summarizes women's preventive health and breastfeeding practices.

Age was a factor in breast examination by a doctor or nurse with women receiving this type of care being significantly older than those who did not: 41 versus 30 years. (T-Test: $p < 0.004$). Although almost all women had seen a doctor at least once in the past year, examinations tended to focus on older women. However, only half of the women over 40 years reported having their breasts examined when they had gone to see the doctor at least once during the past year.

Neither age nor education was a factor for the 60 percent of women who had been

shown how to examine their own breast. About one third of these women carried out this health preventive practice on a regular basis. In this grouping, older women were most likely to examine their own breasts at least once a month: younger women self-examined once every two to three months (46 versus 29 years: t-test $p < 0.014$).

TABLE 23
Women's Health

	Age Grouping (No. (%))			Total
	15 - 19 Years	20 -39 Years	40 - 67 Years	
Breast examined by Dr./Nurse in past 12 months:				
Yes	1 (14)	9 (30)	7 (58)	17 (35)
No	6 (86)	21 (70)	5 (42)	32 (65)
Have been shown how to examine own breast:				
Yes	0 (0)	23 (77)	7 (58)	30 (61)
No	7 (100)	7 (23)	5 (42)	19 (39)
Frequency self breast exam:				
At least once/month	0 (0)	3 (14)	4 (57)	7 (23)
Once every 2 - 3 months	0 (0)	5 (23)	0 (0)	5 (17)
Less often	1 (100)	14 (63)	3 (43)	18 (60)
Pap Test done in past 2 years:				
Yes	2 (29)	25 (83)	9 (75)	36 (73)
No	5 (71)	5 (17)	3 (25)	13 (27)
Gave birth to child:				
Yes	1 (14)	25 (83)	11 (92)	37 (76)
No	6 (86)	5 (17)	1 (8)	12 (24)
Breastfed last child:				
Yes	1 (100)	20 (80)	4 (36)	25 (51)
No	0 (0)	5 (20)	7 (64)	12 (49)
Length of breastfeeding:				
1 - 3 months	1 (100)*	5 (25)	1 (33)	7 (29)
4 - 6 months	0 (0)	4 (20)	2 (66)	6 (25)
more than 6 months	0 (0)	11 (55)	0 (0)	11 (46)

* New born baby

Considerably more women reported having a pap smear in the past year. Over half had the test in the past year: three-quarters in the past two years. The average age for

frequent testers was 35 years.

There is a significant age difference in users and non-users of Oral Contraceptives (The Pill). Less than 20 percent of women use The Pill and are younger than non-users (25 versus 35 years: T-test $p < 0.003$). Excessive body weight and tobacco use are risk factors in the use of the pill. One Pill user was classified overweight (BMI 29) but was a non-smoker while other Pill users who smoked daily or occasionally had an average BMI of 23. In these instances, one of two potential risk factors were present.

The majority of women who gave birth breast fed for 6 months or more. Only age made a difference in this practice with younger women being more likely to have breastfed than older women (30 versus 43 years: T-test $p < 0.05$). There were 15 children born in the past 5 years (1986 - 1991) 13 of whom had been breastfed. This rate is roughly equivalent to 9 out of 10 children being breastfed. Over half of these women said they breastfed for more than 6 months. Children born before 1985 were more likely to be breastfed between 1 and 6 months. One woman thought she might be pregnant at the time the questionnaire was being applied.

Children's Health:

More women than men reported on the health of a child aged 14 years or younger. (24 women; 16 men) However, sex did not make a difference in responses (see Table F19, page 242). Sampling technique ensured that children were not double counted and well and sick kids had the same chance of being selected in. About 30 families were represented, 26 of which had 3 children or less under 14 years. These families had 64 children under 14 years, 40 of whom were included in the survey. Primary caretakers included two parents, single parents, and grandparents. Single parents generally lived with parents, thus children

were also under the care of grandparents. The survey did not distinguish status of the primary care taker.

One-third of the surveyed children were considered sick with the most frequently reported problem being a cold ($n = 7$). The four children with dental problems included three under 2 years who also had a cold: these 3 were said to be teething. The ages of the children and proportions reported sick are shown in Table 24.

TABLE 24
Children Under 14 Years Included in the Survey
and the Proportion Assessed as Sick

Age	Total (No.)	Male (No.)	Female (No.)	Assessed Sick No. (%)
0 - 12 Mo.	2	2	-	1 (50)
1 - 5 Years	11	6	5	4 (36)
6 - 10 Years	9	10	5	5 (26)
11 - 14 Years	8	6	2	1 (13)
TOTAL	40	23	17	13 (33)

An assessment of child functioning in the physical, psychological, and social domains distinguished the sick from the well. A functional problem is related to sickness if a high percentage of adults identify the problem and a high percentage also considers the problem to be related to a sickness. In Table 25, this is observed for the child who seems sick and tired. Forty (40) percent of the children seemed sick and tired: half these children (50 percent) were also thought to be sick.

Functional assessments were unrelated to sex, age, education, or caregiver's ancestry. Though numbers are small, trends indicate parents consider some of the functional problems to be the result of a sickness while others are not. For example, 75 percent of the children do not sleep through the night because of a sickness while only 10 percent react to things by

crying (Table 25). The three problems most frequently identified by parents include acting moody, seeming unusually difficult, and reacting to things by crying. The responsible adult frequently indicated these problems were the result of being spoiled. By comparison functional problems resulting from a sickness include seeming sick and tired; and, being irritable. The attributions of functional problems to a sickness may reflect, in part, the relatively minor nature of child sicknesses (e.g., cold, fever, ear infection, and dental/teething problems). The study did not include a 9 year old boy who had leukaemia and died during the latter part of the field work.

TABLE 25
Percentage of Caregivers Identifying Functional Problems
and Proportion of Problems Attributed to a Sickness (N = 45)

Problems	Percentage Identifying Problem (No. (%))	Percentage Attributing Problem to Sickness (No. (%))
Eat well	7 (16)*	1 (14)
Sleep well	10 (22)	2 (20)
Contented and cheerful	8 (18)	4 (50)
Act moody	31 (69)	6 (19)
Communicate what want	6 (13)	1 (17)
Seem sick and tired	18 (40)	9 (50)
Occupy self	17 (38)	3 (18)
Lively and energetic	2 (4)	1 (50)
Irritable	19 (42)	6 (32)
Sleep through night	4 (9)	3 (75)
Respond to attention	7 (16)	1 (14)
Difficult	29 (64)	4 (14)
Interested in what happening	6 (13)	1 (17)
React by crying	30 (67)	3 (10)

Note: 7 of 45 children (16%) did not eat well: Only 1 out of the 7 (14%) did not eat well because of a sickness.

When controlled for sick kids (n = 13), Cronbach's alpha for the 14 items assessing specific functional areas was 0.72. This score indicates the series of 14 questions had internal

consistency. That is, similar questions had similar responses (See Table 25 for 14 items). However, there was no correlation between the specific functional questions and all the general health questions. These general health questions included visits to the doctor, general health assessment, degree of parental worry, and pain or distress experienced by the child. Missing school days could not be assessed because of summer holidays. A testing of relationships between single general health questions and the 14 specific functional questions showed correlation only with the degree of pain or distress experienced by the child. Here, Cronbach's alpha was 0.75.

Only six of the reportedly sick children were brought to see a Medical Doctor during the previous 14 days. At this time, two colds were diagnosed as bronchitis. During this two week period, children were more likely to be brought to the Community Health Representative rather than the Health Nurse. Most visits related to obtaining medicine or advice for a child with a cold. None of the children were brought to see a traditional healer.

Long term assessment of the general health of the children was unrelated to acute sicknesses in a two week period. All of the children reported as sick had a health rating of good to excellent. On average, their health was considered very good. This child assessment was unrelated to the men and women's assessment of their own health. However, adults who rated the child's health as good to fair tended to worry somewhat about the child's health. An 18 year old woman who rated her 1 year old son's health as fair worried a great deal about his health. In general, adults worried the most if the child had experienced pain or distress in the previous 14 days or if they believed their child usually caught what was going around. More women than men believed the child was able to resist sicknesses very well. Few adults considered their child to be less healthy than other children regardless of the presence of a short term sickness.

This section on child health completes data summary for the general health questionnaire. In the following two sections, village health is the primary focus of discussions. First, findings from the village meetings are summarized and this is followed by a summary description of the Key Respondent Questionnaire. Finally, the Chapter is completed with field notes and a review of documents on health related matters.

4.3 Focus Group Results: Summary Report

Participants at two village meetings, referred to here as a focus group, involved both men and women between 20 and 75 years. These two hour meetings largely involved discussion of health experiences, health issues, and priority health concerns. Participants also rated the present and future, desired health of the village.

When discussing health experiences, both positive and negative terms are used. From a positive perspective, a healthy person feels good about him/her self, has a positive attitude about life, is happy, and there is love present. In addition, the individual, family, and village is strong and caring and help is available. Negative descriptors involve there being no physical problem, no pain, "no drawbacks," and one is not miserable. Participants further describe being healthy in terms of the individual being able to do anything and taking part in village activities.

The sick experience involves being depressed, worried, alone, a burden to the family, and there is pain. A problem arises in describing level of sickness in that there is no agreement on what being really sick means. Some might take this to mean near death while others might simply refer to there being a need for medical attention by a specialist.

Participants rated the health of their village as "fair" and in 2 - 5 years would like to see improvement to achieve a "good" to "very good" rating. However, the health of people in

their village was rated as "good" when making a comparison to other Gitksan and Wet'suwet'en villages.

Health issues and concerns refer to matters that negatively affect health and need to be resolved in order for level of health to be improved. Both groups identified numerous health concerns relating to the individual, family, and village. Time restrictions did not allow for consensus development as usually occurs in this type of setting. Therefore, issues are grouped under 3 headings, with the first considered the most important.

First Priority:

- high level of unemployment;
- drug and alcohol addictions;
- lack of traditional healing;
- poor education - it is too easy for kids to drop out of school and not enough is done to keep them in school;
- abusive behaviours;
- willingness to accept less than the best.

Second Priority:

- drug and alcohol addictions;
- hours at the bar are too long - want to shorten with no sunday openings;
- there are no health goals to work towards;
- youth have a self-identity problem with conflict between Gitksan and Western society;
- inadequate housing;
- unemployment;
- poor communication within and between families;
- physical health problems (described as physical breakdown).

Third Priority:

- poor education - it is too easy for kids to drop out of school and not enough is done to keep them in school;
- mental health problems;
- abusive behaviours;
- poor communication within and between families.

Though not listed as a priority, concern was expressed regarding care provided by the local hospital and medical doctors. One opinion was that if a sick person goes to the hospital for help and is not admitted despite empty beds, then the hospital and doctors are

not doing their job. In addition, the doctors do not demonstrate sufficient care and concern for the sickness experience of the people. They minimize the sick experience and tell the sick person to either come back in a week or to take an aspirin. There is also question about the extent to which prejudice results in poorer care being provided to Indian people who form a majority of the population in the area.

Possible means for improving health focus on the individual, family, and village. For the individual, there is a need for health education; improved communication and life/coping skills; support groups for both the young and old; and, prevention in alcohol, drugs, and gambling addictions. Healing in the family requires making home life a priority. Belief is that if there is a strong home, people will feel good and this will extend into the village. In order to strengthen the village, members have to be directly involved in the decisions affecting their current and future situation. Specific activities to bring the village together include examples of inter-generational sports and social gatherings to acknowledge contributions by members.

4.4 Key Respondent Health Survey Results

The key respondent questionnaire was self-completed by 10 individuals, 7 of whom were band employees: 5 Gitksan and 2 Wet'suwet'en. These individuals were selected on the basis of their broad based knowledge of health related matters. Respondents include Band Manager, Social Worker, Native Police, Pastor, Health Nurse, and Community Health Worker (CHR).

Respondents rated the health of the people in their village as being "good" in comparison to other Gitksan and Wet'suwet'en villages. However, people in the village were seen to live in a fairly stressful environment. The primary source of stress was

unemployment and alcohol abuse. The second leading source of stress largely involves social relations and includes poor communication, physical abuse, and level of responsibility. Of lesser importance, but nevertheless a source of stress, are family breakdown, poor nutrition, lack of recreation opportunities/ facilities, and lack of privacy coupled with gossip.

The 10 major health-related problems in the villages are seen to be: alcohol and drug abuse; poor nutrition; emotional illness; abusive behaviours; family planning and birth control; chronic illness due to old age; mental health problems; poor housing conditions; and, incidence of violence. When weighted, the five top priorities from highest to lowest are: alcohol and drug abuse, poor nutrition, emotional illness, abusive behaviours, and chronic illness due to old age. Although alcohol and drug abuse is consistently identified as a major health related problem, alcohol abuse is thought to be more serious than is drug abuse. Use of drugs such as marijuana and hash is viewed as a fairly serious problem.

Most respondents consider there are health needs in the village that are not being met. The major unmet need concerns counselling in both alcohol and drug abuse and in mental health. Additional needs relate to care for the elderly and family supports as well as a general need for health education. There is general agreement that there are no health services or programs that could be reduced. However, all believe there are programs and services that could be enriched. Areas requiring enrichment involve counselling for drug and alcohol abuse as well as mental health. There is also a need for improved recreational opportunities and more workshops in health education.

While voluntary self-help groups do exist, the most frequently cited example is Alcoholics Anonymous. There is also a weight watchers group and a support group for individuals affected by lupus and arthritis. Social support groups also exist for young moms, women, and youth. Band members will travel to another village to attend an Alcoholics

Anonymous Group meeting, however, most respondents did not know if band members do attend other types of group meetings in neighbouring villages.

4.5 Field Notes and Documentary Review

In this final section, the intent is to provide additional information on both health concerns and current health programs and services available to the study population. As planning is undertaken to respond to identified needs, a comparison of existing services to identified needs demonstrate areas for potential action. Source of data include field notes as well as a limited number of health related documents. These field notes have a journal format and consist of descriptions, impressions, and summary of informal discussions regarding health. Unfortunately, there was a distinct lack of documented health information available, or where available, proved inaccessible.

Regarding personal health, there is a particular concern about the prevalence of arthritis, lupus erythematosus and cancer. This village concern is seen in a "Submission to the Royal Commission on Health Care and Costs" where a call is made for a study to determine the probable [causes] contributing to the high prevalence of diseases such as lupus and cancer (Gitksan Wet'suwet'en Government 1990). At the time of this study, a working member of the Lupus Support Group indicate there are 12 known cases of lupus in the area, 9 of whom are from Gitksan villages and two from non-Indian communities. Most diagnosis occurred in the past 5 years though there is one known case with a 10 year history of lupus (Per Community Health Worker).

When lupus became a known health problem, people at first thought the condition was arthritis "coming on" and it took years for the doctors to pinpoint the problem. Affected people became highly frustrated because they went to the doctor frequently and began to

think the problem was in their head because the doctor could not identify the problem. Now it is felt the doctors will readily diagnose lupus. At present, it is not unusual to find more than one family member with lupus (e.g., father and daughter).

Beliefs about the possible cause of lupus vary. Some people talk about how the disease first became known following the presence of an affected woman from another country who was visiting in the area. A Gitksan-Wet'suwet'en man describes the start point of the disease with a time, five years previous, when he was working in the local forest and obtained what he thought to be a bug bite on his chest. Following this incident, "two small bruises" appeared on his chest and remained for several months. Another Gitksan man with a diagnosis of lupus experienced extensive progression of the disease. He believes his dreams saved him: he dreamt of a large steel hypodermic that he associated with penicillin he received as a child. He was able to convince the doctors that he needed penicillin to treat his sickness. He received "massive" doses of the drug and subsequently recovered. Today, some people are questioning if the real problem is Lyme Disease brought on by a bite from an infected deer tick.

The extent of the problem of arthritis is seen in the Gitksan study village where eight people have rheumatoid arthritis and two have arthritis (per Community Health Representative). In the Wet'suwet'en village, there is one woman with rheumatoid arthritis and another with arthritis, both of whom are disabled with the disease. It is not uncommon to have unaffected family members exhibit some degree of anxiety about developing the disease. In some cases the unaffected member seems fatalistic about getting arthritis because it is in the family. One unaffected, middle-aged man said he has taken to wearing gloves in cold weather to delay or prevent onset of the disease.

Though there were no reported cancer cases in the study, there is considerable

concern about an apparent increase in cancer related deaths. The most recent was a nine year old Gitksan-Wet'suwet'en male child who had leukaemia.

When an individual becomes sick, they generally utilize health services at the local hospital. Wrinch Memorial hospital is owned by the United Church of Canada. The Hospital has 28 acute and 4 extended care beds and has 6 salaried physicians, medical students, and visiting specialists. Associated with the hospital is a Dental Clinic and Mental Health Services. The Dental Clinic has 2 full time dentists and one dental hygienist and Mental Health Services has one full time and three part time counsellors.

Mental Health Services is primarily funded by Provincial Health with the Federal Government providing approximately one-third of the funding through a fee-for-service arrangement. Four Gitksan and Wet'suwet'en villages are party to this agreement, with a counsellor spending about one-half day per week in the village. People from the four remaining villages, including the two study villages, obtain services within the hospital setting. Often, people prefer to go to the hospital because of concerns about confidentiality. Generally, villages that make the most requests for services receive the most. The presenting problem for both the non-Indian and Indian community is alcohol abuse, however, underlying problems are said to include dependencies, sex abuse, and family violence. Local village prioritization of workshop topics for 1991-1992 identify family violence, parenting, self-esteem, self-healing programs, and teen programming as areas of need (Halkett 1991).

Village people attempting to deal with their alcohol problem have the choice of attending a Treatment Center in the local area or at other sites in the Province. This House of Purification focuses on the individual, has 16 beds, provides a six week program, and has a two month wait period. Other Treatment Centers in the Province have about a three month wait period, with at least one having a family orientation. The House of Purification

provides limited follow-up because of staffing constraints and the large geographic service area. Problem rests in measuring success following attendance at the Center because of a definitional problem regarding success. Generally, it is felt that a return to drinking is not a failure because people have acquired other skills. The two study villages have access to alcohol counsellors through the Community Access Program that is currently being evaluated. Both villages are requesting their own, on-site counsellors (per Director, House of Purification; Community Access Program Counsellor).

Informal care for the sick and troubled is also provided within and by the village. An example is the sweat lodge in a Gitksan village that is receiving increased usage despite it being an adapted Cree practice. In addition, an Elders Group and a Family Support Service with elder input seeks to address health and social matters in the villages (per Community Health Worker).

Perceptions of accessibility to services directly affects who seek and receive care in non-Indian settings. With regards to hospital services, a visiting 64 year old Carrier woman refused to see a doctor for a bladder infection because of her overriding fear of encountering discriminatory behaviour from a doctor she did not know and trust. Rather, she chose to travel several hours by car to reach her family doctor whom she knew would treat her well. By the end of her journey, the bladder infection extended into the kidneys and required lengthy bed rest and medication. In this case she chose to risk her health rather than risk discriminatory and potentially lower quality care. Another case involves the grandchild from the Wet'suwet'en study village. The 19 year old girl receiving an abortion at Mills Memorial Hospital in Terrace had her uterus perforated and, because of delayed treatment, subsequently died from complications resulting from haemorrhage. This case is currently being investigated by the B.C. College of Physicians and Surgeons (Bell 1992). The

family of the deceased girl indicate the Surgeon in question was known to relate to Indian people in a "cold" manner.

4.6 Summary

The Gitksan and Wet'suwet'en have a wholistic conceptualization of health. They say they are strong and well when they are able to do anything. This state is accompanied by a positive sense of well-being. Conversely, when sick or unwell the individual can't do what they want, are depressed, feel isolated, and feel they are a burden to their family. These findings correspond with the self-assessment of health where people limited in the kind of amount of activity they could engage in rated their health as "poor" or "fair." The presence of a health condition alone did not make a difference to self-rating of health, the exception being problems with the joints or bones.

Findings from the General Health Questionnaire show distinct problem areas including risks for nutrient inadequacies; excess body weight with an associated risk of heart disease, hypertension, and diabetes; high rate of tobacco and alcohol use; dental health; and, mental health. Data from other sources show marked agreement in areas of need including Mental Health Services, health education, initiatives to deal more effectively with the problem of alcohol abuse, family and social supports, poor nutrition, and unemployment. In the following chapter, these findings and issues are discussed within the context of change to better address health issues and so improve experiences of wellness and well-being.

CHAPTER 5.0

DISCUSSION

Today, Indian people in B.C. and all of Canada are faced with opportunities to change their health programs and services. However, these changes must be soundly based on health beliefs and current health status to ensure some degree of success in health improvements,. This study provides some baseline health information that can contribute to such a movement for change in the two study villages.

Change takes on a special character in Gitksan and Wet'suwet'en territory in light of the meanings and interpretations they, themselves, attach to health. Indeed, these views support a process for change that centers upon the strengths of traditional health related beliefs and practices. While these findings have merit in and of themselves, this writer acknowledges that initial descriptions of the Gitksan and Wet'suwet'en views on the health experience necessarily risks over-simplifying a complex issue. However, such a risk is necessary to begin exploring this uniquely cultural experience.

In this Chapter, discussion of study results first focus upon the Gitksan and Wet'suwet'en views on wellness and well-being. Particularly significant is the wholistic conceptualization that incorporates body, mind, and spirit at the personal level but also extends to the family, house/clan, tribal group, and, ultimately, the land itself. From an wholistic perspective, interconnectedness is critical because expressions of wellness are not limited to self but include significant others. This wellness experience may be strengthened and protected according to unique beliefs and practices. However, wellness may also be weakened and ultimately, sickness results. Both formal and informal responses to the well, unwell or sick experience constitute the [health] care system.

The second major area of discussion focuses on results of the health survey. In this

discussion, four categories in the Diamond Model provide a framework for organising factors that affect health status (see p. 18). The categories in this epidemiological model are: (1) constitution/ genetics, (2) life-style/behaviour, (3) social and economic factors, and (4) health care. These findings are compared and contrasted with health data for Canadians and other native Indians where ever possible.

The Chapter finishes with brief discussion of existing health services and gaps in services. The following Chapter summarizes findings, and identifies main conclusions of the study as well as implications to health care and future research.

5.1 Wellness and Well-being

Health semantics, or the way people talk about and view their health experience constitute a key element in the health care system. Health related words and how they are used to communicate a concept are society dependent. From this perspective, one of the inadequacies of the dominant medical model is a failure to extend the medical language beyond a technical, diagnosis based system to reflect the experience and beliefs of health care users (Good 1977). In order for health care to be successful, it must reflect the values and be responsive to the belief system of the service users. This is especially true to the Gitksan and Wet'suwet'en society.

When the Gitksan and Wet'suwet'en people speak of their health experience, they speak of being well, unwell, or sick: the active term "healthy" is also frequently used. The affective component is expressed as a sense of well-being, either positive or negative. These experiences, however, are seldom spoken of in isolation but rather also refer to and are influenced by social reality and extend from the personal to the land itself. According to this perspective, the Gitksan and Wet'suwet'en have an internal (personal) and external

(environment) conceptualization of wellness and well-being that are inextricably interconnected. This internal and external view constitute the wholistic nature of the health experience.

From an individual perspective, "wholistic" refers to the whole being and comprises a mental-physical-spiritual complex. This spelling form clearly reflects the Gitksan and Wet'suwet'en references to the whole being and contrasts with the common, mainstream form - "holistic" (LeShan 1984; Alster 1989). Though depicted as distinct entities (Figure 5, page 71) the whole being is a single unit. This integration is seen in the above references to the whole being as well as traditional healing practices where the halait or Indian Doctor, while operating from the spirit level, institutes a healing process that involves the body, mind, and spirit.

In mainstream society, the holistic movement is seen as something new and offers a multitude of teachings and activities to improve health. Both conventional and exotic responses in this movement include, for example, fitness, nutrition, homeopathy, and naturopathy, to name only a few. These practices operate from similar sets of beliefs and goals where the holistic perspective considers an individual to be more than a sum of its parts: a human being is a whole and any threats to that wholeness will cause him/her to sicken (Leshan 1984; Alster 1989).

Increasingly, these conventional and exotic responses to the wellness movement appear on the market. However, consumers are warned of possible bogus claims that have no scientific basis and where motivation may be pure profit. In a health care system where resources are finite, it becomes critical to evaluate both practitioners and procedures to ensure claims are valid. Safe-guards may include requiring practitioners to be part of a professional body and to have a recognized, sound scientific background (LeShan 1984).

Further safe-guards may include analysis to determine if teachings and practices conform with traditional beliefs and values.

Though the holistic movement claims to view the individual as whole, references to ones being necessarily speaks of parts: body, mind, or spirit. While the spirit is considered an integral part of being, little is said about how spiritual breakdown shows itself as a health problem and how it can be treated. Often, it is considered in conjunction with the psychological aspects of being. Proponents also consider human wholeness to be the normal state, however, activities focus on moving an individual toward wholeness or a greater degree of wholeness (Alster 1989).

Similarities and differences are found in the Gitksan and Wet'suwet'en experiences. Study findings show the individual consists of a mental-physical-spiritual complex, however, the spirit constitutes a dominant force that interconnects the individual with their environment. Another area of difference relates to the spiritual nature where problems manifest itself in distinct and negative physical experiences that, if left unattended, could either result in a sickness of increasing severity or even death.

Today, when the Gitksan and Wet'suwet'en people speak of being well, they relate this to an ability to do what one wants to do. This concept implies a goal setting and goal achievement orientation with a strong physical or functional component and is distinct from a view of health as an absence of disease. According to this perspective, people with activity limitations rated their health lower than those with no limitations. In addition, presence of a chronic health problem alone was not sufficient to negatively affect perceived health. This suggests perceived seriousness of a health condition may be related to the extent to which it interferes with an ability to do things.

This experience of being well reflects the notion of balance or harmony within all

aspects of being. Such a view must be distinguished from the wellness movement that extends from mainstream holistic perspectives and form a central part of Canada's Health Promotion initiatives. The operating premise in Health Promotion is the individual is responsible for their own health state and if the correct decisions for self-care are made, health and wellness will improve. Examples of morally correct choices include eating a low fat diet, exercising regularly, and not smoking (Labonte and Penfold 1981; Dexter 1988). These wellness promoting initiatives hinge upon education regarding best possible choices. However, adoption of this Health Promotion initiative in search of wellness poses problems to people such as the Gitksan and Wet'suwet'en. In their case, and many others, social reality does not support what is considered the best choice and can potentially create another victim-blaming episode. Examples of underlying inequities include a lack of physical exercise opportunities and recreational facilities, lower educational achievements, lowered employment potential and attendant poverty. These and other social and political inequities create an environment that do not support mainstream health promotion initiatives despite its sound and even noble goals of increasing wellness (Small 1989; Leichter 1991; Labonte and Penfold 1981).

"Wellness" and "well-being" are current buzz words that crop up repeatedly in health care today. At present, writers and researchers advance the notion that health and well-being are associated but distinct experiences (Nordenfelt 1987; Herbert and Milsum 1990; Alster 1989). This also appears to be the case for the Gitksan and Wet'suwet'en people where interchange of words and word usage suggests that while wellness and well-being overlap, they are two distinct experiences. For example, the statement "I am in difficulty with my well-being" suggests well-being is equally important.

Being well is usually associated with a sense of positive well-being. The Gitksan and

Wet'suwet'en may refer to their physical side feeling strong and good, they are happy, feel good about themselves, and are at peace. Though happiness describes the state of wellness, it does not appear to be either a necessary nor sufficient cause for being well. Put another way, happiness can occur in either the presence or absence of being well. One Wet'suwet'en woman says that though happiness is important it is not an essential part of the wellness experience. She says "... I guess our ancestors didn't dwell so much on being as happy as worrying about day to day existence and preparation of food for the winter." According to this description, where survival was a goal, the ability to carry out family and social responsibilities was more important than whether one was happy carrying out those duties. Today concern for survival is less an issue, this possibly changing the value or importance of happiness in the well-being experiences.

These concepts of ability and happiness are discussed in detail by Nordenfelt (1987). In his works, he proposes a holistic, welfare theory of health where, in a given set of circumstances, an individual is able to achieve their "vital" goals. Within this context, vital goals incorporate meeting basic needs (e.g., food and shelter) as well as achieving life goals that are set during the course of a lifetime (e.g., an athlete strives to win a medal). These vital goals "... are those states of affairs the realization of which are necessary and jointly sufficient for his minimal [happiness]." ¹⁶ According to this theory, some minimal level of happiness is part of goal achievement, with both standard circumstance and minimal happiness determined by a society. Where sickness is a complement of health, he further suggests that a person is sick to some degree if there is some vital goal that is not achievable

16. Lennart Nordenfelt, On the Nature of Health: An Action-Theoretic Approach, edited by H. Tristram Engelhardt Jr. and Stuart F. Spicker (Boston: D. Reidel Publishing Company, 1987), 145.

under a specific set of circumstances.

This [wholistic], welfare theory of health may have relevance to the Gitksan and Wet'suwet'en since considerable value is attached to being able to do anything, including being an active and contributing member of a family, house/clan, and society. Such a social context of wellness and well-being necessarily extends the concept into the economic, political, and educational spheres where inequities in Canadian Society may inhibit achievement of life goals that extend to mainstream society (Frederes 1988; Speck 1987) . When these goals are or remain unattainable, well-being may be negatively affected and, at the very least, result in some measure of unhappiness. Despite its apparent merit and relevance to Gitksan and Wet'suwet'en, the theory needs further exploration in research.

A critical question asked by a First Nation man regarding health was: "What makes a person healthy and what is it that keeps that person healthy?" ¹⁷ This question potentially finds its answer in a traditional view of wellness where cultural beliefs and practices are directed at both strengthening and protecting an inherent quality found in humans. That is, a person is born with the potential for being well but must comply with cultural laws and practices to strengthen that attribute. Such efforts maintain wholeness, balance, and harmony.

Wellness may be strengthened by attending to physical, mental, and spiritual needs. Examples of these needs include consuming a nutritionally adequate diet; getting adequate rest; practising good hygiene; working hard and productively; feeling good about one's self and personal achievements; and, respecting all forms of life this including human beings,

17. This question was posed during discussions at the Health Transfer Conference held in Montreal in 1987.

plants, and animals. This law of respect constitutes an important part of spiritual wellness and it is said that by strengthening the spirit, the mental side is also strengthened.

The process brings a person to a natural or normal state where one is then able to do what one wants to do. Aside from spiritual beliefs and practices unique to this study population, these practices are consistent with many described in the holistic movement (Leshan 1984; Alster 1989).

Being well is considered a natural state and when well, the objective becomes one of protecting wellness. Personal responsibility is an important part of wellness protection, however, individual choices are respected and, in a sense, one is free to be foolish. Where intervention is called upon because "the right thing" is not being done, such action is undertaken in a spirit of caring.

In some respects, wellness protection beliefs and practices compare to some health promotion activities in mainstream society. One of the characteristics of health promotion, and perhaps the source for greatest criticism, is the future orientation of outcomes that are difficult to measure. For example, the public is exhorted to refrain from smoking tobacco to prevent lung cancer (Dexter 1988). In Gitksan and Wet'suwet'en society, an example of a comparable health protection activity involves training of youth by elders. Intense repetition constitutes part of this training and in many cases is prefaced by the remark "If I didn't care about you, I wouldn't be saying this to you."

Presumably, training will have prepared adults to carry out their responsibility for protecting and maintaining their wellness. Unfortunately, this is not always the case. In many instances, social and mental health problems as well as poor coping skills are attributed to residential school experiences. It is not uncommon to hear residential school attendees being referred to as a "lost generation." People taken from their family at age 6 and kept in

Residential Schools for several years had limited if not incomplete exposure to their cultural training. The consequences of these losses are not restricted to former students themselves but extend into future generations (Moran 1987).

A loss of a sense of well-being, regardless of its cause, represents a movement away from a desired or natural state. This shifting from the desired state is often described as a downward movement. In this paper, this downward movement is described as a weakening of a former position of strength. Thus, wellness and well-being may be weakened, this resulting in an unwell and/or sick experience. In either case healing is required.

Factors that detract from wellness and well-being experiences relate primarily to negative mental and spiritual experiences, conditions or attributes. In addition, failure to take care of physical needs will also detract from the wellness experience. All of these factors threaten wholeness or a position of strength. This often results in a sickness.

Today, when Gitksan and Wet'suwet'en people consider themselves sick, they commonly seek help at the local hospital. Problems associated with this medical care system are well documented by many authors, most recently by Rachlis and Kushner (1989). It appears that, from a Gitksan and Wet'suwet'en perspective, one of these problems relate to health care workers, especially doctors, focusing on a specific part of the body to the exclusion of the whole being. This is seen in the case where kidney failure was a sole focus of attention, this possibly contributing to an untimely death. In addition, respect shown during interpersonal communications, especially with the sick has a direct effect on a sense of well-being. Though most physicians operate under real time constraints and heavy work loads, nevertheless, caring and consideration of subjective health experiences as well as the sick's expectations regarding modes of care/treatment constitute essential components of responsive health care. Within this context, access to health care will be influenced by either

perceived or real prejudiced attitudes and behaviours of health care workers. Where access to care is delayed because of an unwillingness to have to deal, once again, with prejudice, the sickness or disease may progress. Progression of a sickness or disease will affect recovery rate and costs, both financial and human.

These findings that relate to health meanings are extended in the following section where health status is discussed and comparisons made to other studies.

5.2 Health Status

An unavoidable consequence of conducting a health study is the sickness experience is focused on rather than the positive health experience. Though this focus has the potential of presenting a bleak picture it remains a necessary process in identifying health problems. These clearly explicated health problems establish a basis for initiating health care responses to effect change and so improve the health experience in the study population.

In the following section, findings are organized and discussed according to the four categories that make up the Diamond Model (page 18). This framework organizes factors affecting health into the following categories:

- (1) Social and economic factors including cultural background and up-bringing, place of residence, education, and income and employment status;
- (2) Genetics/constitution including sex, hereditary disease, and changes resulting from the effects of aging, stress, nutrition, and disease;
- (3) Life-style factors including diet, smoking, alcohol consumption, physical activity, and choices relating to peers or reference groups; and,
- (4) Health Care Services including use of diagnostic, curative, and preventive aspects of care as well as health education and promotion, and screening.

1. Social and Economic Factors:

A subjective evaluation of current health constitutes a key variable in this study with the expectation being that at least 40 percent of respondents would rate their health as "fair" or "poor." However, it was found that 22 percent rated their health in this manner. Hypothesis testing according to local explanations for the wellness experience provides partial explanation for the lower than expected rate of health assessment as "fair" or "poor".

Study findings show people rated their health lower if they had trouble with bones and joints and/or were limited in the kinds or amounts of activities they could engage in. This reflects local views on the health experience where one is well or healthy if one has the ability to do anything. Of note however, are findings that neither pain nor happiness and interest in life made a difference in health rating. It is possible that happiness and pain are part of but not conditional to the well or unwell/sick experience.

Health ratings in this study as "fair" or "poor" (22 percent) compare to findings for a Cree study group in northern Ontario (22 percent) but is lower than for a Nuuchahnulth group on Vancouver Island (47 percent) and is higher than for the Canadian population (12 percent) (Young 1982; Per Simon Reed, Manager Nuuchahnulth Health Board; Health and Welfare Canada 1988, page 31) This comparison suggests considerably more Indian people experience lower or poor health in comparison to the general population. This comparison also suggest the Nuuchahnulth may be worse off. What is not clear, however, is the basis for these self-assessment (aside from the subjects in this study).

Loss of human potential in a society is seen both in total hospital days as well bed or cut-down days. In this study, between 15 and 20 percent were not able to achieve their full potential because of a sickness or disability. Of particular note are the number of cut-down days associated with accidents resulting in back injury. About seven of the twenty-two people

who cut down on their normal activities had an accident or injury, five of whom developed back problems. This suggests back-injury prevention may be one area to focus on to maximize human potential and, perhaps more importantly, to improve well-being.

A well recognized factor affecting overall health is that of social support systems. Within this context, a social support consists of resources provided by other persons. These supports act to both enhance the health experience and protect against the harmful effects of sickness and stress (Cohen and Syme 1985). In this study, it was not surprising to find that respondents had more family members they were close to than friends. This is expected given the extended family relationships in the villages. Of note is the finding that women from other tribal groupings (e.g., Carrier, Staloh, etc.) had fewer family members that they felt close to, and, generally, women tended to have less friends. Such a restricted social support system may place women from other tribal groupings at some risk.

In Gitksan and Wet'suwet'en society, support systems occur at several levels. In these societies, the house and clan form the central units for social organization. Both published data and field observation clearly demonstrate responsibilities of a mother-clan and father-clan in the event of death. By way of explanation, if a Fireweed clan member dies, the mother-clan is Fireweed and the father-clan might be Wolf or any other clan. These clan roles and responsibilities are clearly distinguished at a death feast (Glavin 1990). From a community perspective, "rallying" to provide assistance and support in the face of tragedy was apparent in a drowning incident involving a non-Indian child. In addition, interviews in this study show where family responsibilities rest during a sickness. Less clear, however, are the responsibilities and roles of the house or clan members at the time of a sickness, though it is recognized there are both. These roles and responsibilities would have to be distinguished as initiatives are undertaken to improve wellness and well-being in an holistic manner.

Potential sources of social support also include voluntary and support groups. While many of the respondents indicated they were a member of some type of group, few attended regularly. In addition, participation in committee work seemed to be restricted to people over 35 years or members with highest levels of education. As community resources are developed both participation and leadership by all segments of society need to be developed to maximize potential contributions of society as a whole.

Sex made a difference in negative well-being experiences with women being more troubled by lowered energy levels, feeling sad, tense and lonely. Where thoughts of suicide provide an extreme indication of negative well-being it is also significant that more women than men entertained thoughts of suicide. However, attempts were unrelated to sex, age, or ancestry.

Study findings suggest women are at greater risk than men. Women tend to have fewer social supports; are less satisfied with their relationship if married or living with someone; have a more pronounced feeling of lowered well-being in specific areas; may be more prone to having thoughts of suicide; and may be more likely to attempt suicide. However, acceptance at face value may be erroneous. It is possible that women are more accustomed to assessing their condition and talking about it than men. A purely unscientific and intuitive interpretation of male responses to sensitive items in the questionnaire suggest men tend to give socially acceptable responses. These factors were explored in detail by Briscoe (1982) who shows that men and women express feelings and symptoms differently. While applicability of findings to Gitksan and Wet'suwet'en is justifiably questioned, nevertheless, sex differences in expression must be considered as responses to mental health issues are instituted. Accordingly, it would be safer to assume that men and women have comparable need.

These diminished well being experiences by women correspond with other findings in the literature. In B.C., where suicide rates are 3 to 5 times higher than the general population, suicide events show women are more likely to attempt suicide than men (Cooper, Karlberg, and Adams 1991).

Increasingly, reports on the health of Indian people in Canada show mental health to be a major concern, with health system responses generally considered inadequate (Assembly of First Nations 1989; Health and Welfare Canada 1988). The Gitksan and Wet'suwet'en provide an additional case in point. In this study, field notes, in-depth interviews, and questionnaires show many references to mental health concerns, including poor coping skills, poor or inadequate communication skills, family violence, and unresolved grieving. Where feelings experienced in the previous 12 months provided some indication of well-being, this study shows that about 40 percent of the respondents experienced some form of negative well-being. However, 7 percent appear to be most troubled by frequent feelings of exhaustion, sadness, tension, unhappiness, and isolation (being unloved). Though Mental Health Services at Wrinch Memorial Hospital provides counselling services to village people, several concerns seem to affect accessibility. These concerns include distance to the hospital, availability and expertise of counsellors, and need to keep personal problems private.

Other social and economic factors over which one has limited control include employment, education, and structure of a family unit. These factors pose risk to both the wellness/health and well-being experiences and must be considered as planning initiatives are undertaken. In this study, about 60 percent of men and women have less than a Grade 12 level of education and only 22 percent are fully employed (i.e., work at least 10 out of 12 months). Approximately 10 percent of households with children are single parent families with three out of four headed by a woman under 35 years.

Child health was determined through reports by parents, grandparents, and foster parents. In this study, it was found that one-third of the children reported on were considered sick with the sickness being relatively minor in nature (an exception is two kids with bronchitis). The series of 14 questions relating to functioning in the physical, psychological, and social domains successfully identified sick kids. Despite a statistically acceptable test for internal consistency, the relationship of lowered functioning to a sickness were somewhat weak this possibly reflecting the relatively minor nature of the sicknesses. Over the long term, the health of all children was rated as very good.

2. Genetics and Constitution

In this study, sex and ancestry rarely made a difference to findings. Where heredity was a factor, it appears that Gitksan may be more prone to developing arthritis, obesity, and hypertension. Literature shows arthritis has a known heredity component and obesity is influenced by heredity. In addition, hyper-tension is commonly associated with obesity (Young 1991; Atkins et al 1988; Bouchard, Perusse, Leblanc, Tremblay, and Theriault 1987). Sex made a difference largely in relation to mental health and drinking patterns.

With respect to overall health status, a particular area of concern relates to the high occurrence of hearing problems in the younger segment of the population. People under 25 years were as likely to have a hearing problem as people over 46 years. However, few have a hearing aid. Respondent straining to hear in a quiet room suggests they may be over-estimating their hearing capability. More people may need hearing aids than were reported.

Self-reporting is commonly used in determining prevalence of health conditions in the population and is also accepted here as an indication of the magnitude of health problems. Though self-reporting of chronic conditions raise questions regarding reliability, in part

because questions or conditions may not be understood, one study among B.C. sawmill workers suggest that reliability in self-reporting of some chronic conditions (e.g. arthritis and hypertension) is good (Teschke, Hertzman, Hershler, Wiens, Ostry, and Kelly 1992).

In this study, the occurrence of chronic health problems in the 45 years and over group parallels that occurring in the general population as well as other Indian groups in Canada. These include circulatory problems and high blood pressure (Health and Welfare Canada 1988; Rachlis and Kushner 1989; Young 1991). Tentative comparison of known Cree and Ojibwa hypertensives in northern Canada to this study group shows some similarity in prevalence (Cree/Ojibwa, 14.6 percent: Gitksan/Wet'suwet'en, 18 percent). Young (1991) concludes the Cree and Ojibway have a higher prevalence of hypertension compared to the Canadian population. His study also links hypertension to obesity and parental history, as have other studies (e.g., Dustan 1985). This association is also seen among the Gitksan and Wet'suwet'en between 20 and 65 years: people assessed as obese (Body Mass Index over 27) had the highest reporting of hypertension (11 of 16 cases, or 69 percent).

Other chronic conditions that are of concern to the Gitksan and Wet'suwet'en include arthritis (16 percent) and systemic lupus erythematosus (12 in a population of 3,500). The extent of the concern is seen in the call for investigation into a possible cause for the high rates of these two conditions. In this study, there are indications that people with Gitksan ancestry may be at greater risk than the Wet'suwet'en for acquiring both arthritis and lupus. A Vancouver Island, Nuw-Chah-Nulth study on Rheumatoid Arthritis show a prevalence rate of 1.4:1000, this comparable to other north American Indians (Atkins, Reuffel, Roddy, Platts, Robinson, and Ward 1988). Though the Gitksan and Wet'suwet'en report what appears to be a higher prevalence of arthritis, it is not possible to draw conclusions because of differing study methodology (e.g., self-reporting versus retrospective study). These Vancouver Island

people also report a 0.5 percent prevalence of systemic lupus erythematosus, this also comparable to other Indian groups. A crude estimate of prevalence for Gitksan and Wet'suwet'en suggest their rate may also be comparable. While there is no known cause for lupus, research shows there are hereditary and environmental factors involved (Morton, Gershwin, Brady, and Steinberg 1976).

Often, the health status of Indian people is compared to that of Third World Countries because of high rates of infant mortality and death rates from infectious and parasitic diseases (e.g., Postl 1986). Increasingly, it is becoming apparent that chronic health conditions of Western society are affecting Indian people in comparable or, in some cases, higher rates than the general population. This suggest Indian people are experiencing the worst health conditions of both worlds.

3. Life-Style Factors

Today, it is generally recognized that life-style choices are an important contributor to overall health status. These choices relate to tobacco and alcohol use, physical exercise, nutrition, and dental health. In this study, all of these choices pose some risk particularly when findings are related to cause-effect studies found in the literature. However, when assessed according to the Gitksan and Wet'suwet'en views where health/wellness is attributed to ability, there may be a perceived lower threat than literature would suggest.

Tobacco use has a long standing and well documented linkage with lung cancer (Collishaw and Myers 1979). In this study, it was found that there are twice as many smokers among the Gitksan and Wet'suwet'en (64 percent) as there were in the 1990 general Canadian population (32 percent). This Canadian telephone survey also showed B.C. to have the lowest prevalence of smokers: 28 percent (Health and Welfare Canada 1991).

Highest tobacco use occurs in the 15 - 24 year age group. This risk group and similar proportions of daily and occasional smokers indicate possible areas for action to decrease this risk behaviour. Here, action may focus on shifting the occasional smoking category into non-smoker groups, with education and peer pressure comprising possible thrusts in the initiative. These initiatives must necessarily consider the potential harm of smoke in the environment as well as access to the product.

Beliefs relating to alcohol use are the most perplexing. Overall, people seem to underestimate the potential harm of alcohol and consider it normal to drink regularly. This belief system may be a critical factor for women in child-bearing years who may drink infrequently but still may pose harm to a developing fetus.

About eight out of ten (76 percent) Gitksan and Wet'suwet'en currently drink alcohol. This is directly comparable to a 1989 Canadian telephone survey which showed that 78 percent of adult Canadians are current drinkers. However, in B.C. there were more drinkers (83 percent) in the general population (Health and Welfare Canada, 1990d). There are also differences in quantity of alcohol consumed. When compared to the 1989 Canadian drinking pattern of 3.8 drinks per person, Gitksan and Wet'suwet'en men and women consumed about twice as many drinks per person (Health and Welfare 1990d).

In this study, the term "normal" drinking was left to the respondent to define. Generally, those who reported their drinking pattern as not normal compared their habit to friends or parents. As important are the beliefs relating to ability to control drinking and social pressures that influence decisions to reduce alcohol intake. Alcohol users at highest risk for potential harm include men between the ages of 25 and 34 years. All of these factors, including the effectiveness of existing support and treatment systems (e.g., AA support groups, counsellors, and treatment centers), must be considered as the problem of

alcohol use and abuse are addressed in the villages.

About one in five reported accidents involved alcohol. This is particularly troubling given the high rate of deaths among Indian people due to injury and poisoning: between 1980 and 1984 the B.C. rate for status Indians was twice as high as for the general population. Studies suggest that alcohol is a contributing factor (Health and Welfare Canada 1988). More relevant, perhaps, is the real pain and sorrow expressed in the villages where recent and past tragic, untimely deaths are directly attributed to the effect of alcohol.

An additional health risk relates to excess body weight, this directly linked to physical activity and food intake. In this study, obesity was assessed through calculation of Body Mass Index with risk determined according to categories established by Health and Welfare Canada (1988a). According to this assessment, about half the men and women between the ages of 35 and 65 had a Body Mass Index of 27 or greater, this placing them at risk for hypertension (high blood pressure), diabetes, and heart disease.

It appears men are unclear about what an adequate level of physical activity is, what weight range is most appropriate for them (judged according to calculated BMI based on targeted weight), and the importance of food intake to overall health. In addition, the possible effects of heredity on level of obesity may be seen among the Gitksan who tend to be larger than the Wet'suwet'en. Energy intake alone does not offer a tentative explanation for excess body weight as total calories consumed tended to be comparable to or lower than recommended amounts. However, low activity levels coupled with an inherited predisposition may be contributing factors. This influence of heredity has been well documented and is seen most recently in a study by Bouchard and Tremblay (1990).

When addressing the health risk associated with obesity, these above factors suggest a target group might be men and women 35 years and over, with particular attention directed

to educational needs of the men. However, prevention must start in the younger age groups. This necessarily ties in with a lack of recreational facilities for the Gitksan and Wet'suwet'en communities where climate determines both amount and timing of physical exercise (e.g., walking and jogging) as well as leisure activities that tend to be sedentary in nature.

While physical activity provides some explanation for current body weight, as important is the kind and amounts of food consumed. A comparison of percentage distribution of total calories according to dietary content of carbohydrate, fat and protein shows that 4 tribal groups in northwestern B.C. may conform better with Canadian Nutrient Recommendations than the Canadian population in general. This is particularly true for dietary fat (Bell, P. 1992; Campbell and Horton 1991). Though the Gitksan and Wet'suwet'en people consume 52 percent of total calories as carbohydrate, a considerable proportion is in the form of simple sugars. These comparisons are summarized in Table 26. Some caution is necessary in interpreting findings as methodology is considerably different for each study group. Differences involve method (e.g., Food Recall versus food expenditure diary) and sampling (non-random, random, and census).

TABLE 26
Comparisons of Total Energy Intake and Energy Sources
in Indian and Non-Indian Populations

Energy and Energy Sources	NUTRIENT CONTRIBUTIONS TO TOTAL ENERGY		
	Gitksan/Wet'suwet'en *	Woyenne Health Center ^	Canadians *
Energy Intake (Kcal)	2163	2091	2433
Carbohydrate Gm (%)	284 (52%)	258 (49%)	287 (47)
Fat Gm (%)	88 (33%)	77 (33%)	108 (40%)
Protein Gm (%)	76 (14%)	90 (17%)	85 (14%)

* Current study: N = 97, ages 15 and over; Gitksan and Wet'suwet'en people.

^ Source: Bell, 1992; N = 198, ages 19 and over; Wet'suwet'en, Babine, and Carrier people.

* Source: Campbell and Horton, 1991; N = 4,774, all ages; general Canadian population.

In reporting the apparent nutrient intake of Canadians, Campbell and Horton (1991) call for a broad-based sustained effort to address the problem of high fat intake. Though the people in this current study could benefit from a further decrease in fat intake, perhaps equally as problematic is the sugar content of the diet. In this case, a target for action may more appropriately focus on increasing complex carbohydrates (e.g., whole wheat cereals) and decreasing simple sugars (e.g., table sugar). This change would contribute to an increase in total fibre consumed.

Besides modifying carbohydrate intake, Gitksan and Wet'suwet'en must also address potential problems in general eating patterns, particularly where total energy intake is inadequate. The high risk for a calcium deficiency is consistent with low intake of Milk and Milk Products. These findings are expected given the well known problem of lactose intolerance commonly experienced by people of Indian ancestry. However, with education and purposeful action, it is possible to modify eating habits to compensate for the intolerance. Low consumption of fruits and vegetables explain, in part, risks for inadequacies in Vitamin A, Vitamin C, as well as Folate. This low consumption of fruit and vegetables, as well as milk products further contribute to inadequacies in Riboflavin, a B Vitamin (Health and Welfare Canada 1990a).

4. Health Care Services:

Once describing themselves as sick, care is sought from local health care workers, including physicians, health nurses and Community Health Workers. Though recall may be a factor in describing access, this study suggests that use of physician and hospital services compares to that of the general population in B.C. and Canada (British Columbia Royal Commission on Health Care and Costs 1991; Institute for Health Care Facilities of the

Future 1987). Less clear is use of community health services since this study did not examine contacts within group settings as would occur in an educational workshop. Though these group interactions do occur, indications are that both quantity and quality of such interactions may not meet the expectations of the village people.

A preventive service that appears to be under-utilized is that of dental services. Dentition deteriorates with age, with most people over 45 years having partial plates. This may be partly attributed to the fact that people tend to go to the dentist only when there is a problem. Perhaps as important may be views on the aging process where it may be considered normal to lose teeth as one ages. Though the in-depth interviews suggest that aging is accompanied by a weakening and loss in physical capacity, these interviews did not explore all aspects of aging (i.e., dental health). Data from the study suggest access to a Dentist is not the problem, rather, there may be a need for education.

Further health issues relating specifically to women involve breast self-examination and pap smear test. Women who had seen a doctor in the past year were more likely to receive a pap test than to have their breast examined (26 percent versus 18 percent). Age is a factor with women over 40 at increased risk for breast cancer. Though about sixty percent of women had been shown how to self-examine for changes in breast tissue, only one out of three carried out the technique routinely, with older women checking more frequently than younger women. Potential targets for action include the 40 percent of women who had not been shown this self-care technique as well as the ten percent who had been shown but do not carry out the practice.

Results from this study suggest Gitksan and Wet'suwet'en women are high users of Pap testing for changes in cervical cells. However, confirmation from data other than self-reporting may be necessary to establish this fact. About 75 percent of women had a pap test

within the previous two year period. This self-reporting is considerably higher than that found in a recent B.C. study involving other native Indian women in the Province. In this B.C. study, about 50 percent of the sample (N = 4,400) had a pap test within a previous three year period (1988-1990). A further comparison to the general B.C. population suggests Gitksan and Wet'suwet'en women may use this screening program at a rate comparable to the general population. Over the same three years, about 85 percent of women in B.C. utilized the screening program (per Dr. Greg Hislop, publication pending).

Findings also show that over two-thirds of women breastfed their last child. Small numbers (four) prevent an assessment of breastfeeding practices for births in 1990-1991. However, over a five year period, there are indications that more women are breastfeeding and for longer periods when compared to the 1983 breastfeeding rates for B.C.'s on-reserve women (Health and Welfare Canada 1985). Promotion of breast feeding has been a long standing and apparently successful Maternal/Child health initiative by Medical Services field staff. However, continued efforts may be required to maintain these high rates.

In this health survey, numerous problems and potential problems have been identified. The Gitksan and Wet'suwet'en now face the challenge of prioritizing and responding to these issues. The following discussion presents one method for initiating these processes.

5.3 Gaps in Existing Programs and Services

Gaps in the health care system exist when a health need is identified and is currently not being addressed or is being addressed inadequately. For the purposes of this study, health care needs exist when a problem has been identified; judgement is made that possible satisfactory solutions are not accessible, are not currently adequate, or do not exist in the

community; and, it is necessary to reallocate existing resources and/or appropriate new resources (Nguyen, Attkisson, and Bottino 1983). According to this accepted definition of health need, study findings suggest need exists in several areas.

Repeatedly, findings show a major area of need rests in the area of mental health. This problem is compounded by Medical Service Branch not having a Mental Health Mandate: instead the Province is relied upon to meet needs (Community Mental Health Committee, Wrinch Memorial Hospital 1990). Problems with this type of servicing was identified in the B.C. Commission on Health Care and Costs (1991) and is repeatedly referred to in other studies and reports (Assembly of First Nations, 1988). This servicing problem is evident in the Gitksan and Wet'suwet'en territory where a few villages have a fee-for-service agreement with Mental Health Services. Service variability is explained in part by the fact that villages requesting the most services are likely to be included in this agreement. Here, politics explains who gets what kinds of services.

A general need for mental health services is raised throughout this report. Of particular concern is the apparently high rate of people who seriously think about suicide and who subsequently make the attempt. This whole issue of suicide necessarily ties in with reported concerns about the seriousness of unresolved grief (Community Mental Health Committee, Wrinch Memorial Hospital 1990; Cooper, Karlberg, and Adams 1991).

Closely linked to this issue of mental health is that of alcohol use and abuse. Though there are several existing programs and services for dealing with this issue, it is not clear if these initiatives are effective. The biggest challenge may rest in addressing beliefs regarding potential harm of alcohol and beliefs regarding a normal drinking pattern.

A second major area of need rests in the area of health education. Currently, local health staff provide health education, however, a general feeling is educational initiatives are

inadequate. Both health study results as well as supplementary data support the need for education in many areas including tobacco use, food habits, physical exercise and weight control, back injury prevention, and self-care practices for women. Rather than depending on "imported" health educators alone, it may be possible to capture the influence of elders and clan and house leaders in modifying health related beliefs and behaviours. This may be especially appropriate in the areas of tobacco and alcohol use as well as family violence.

Perhaps most critical to improving wellness and well-being are responses to educational and economic concerns. It is worth noting that village people don't focus only on more and better programs to improve their wellness/well-being experiences. Instead, education and employment issues hold prominent spots in prioritized needs. These social, mental health, economic, and educational issues are generally recognized contributors to the health condition of Indian people in Canada (Frederes 1988; Castellano 1982; Speck 1987) .

5.4 Local Responses to Health Issues

Since the Gitksan and Wet'suwet'en people hold an wholistic conceptualization of wellness and well-being, it is critical that health needs be identified within all levels of society and responses appropriate to each level be considered and addressed in an integrated manner. As such, needs identification must occur at the individual, family, house/clan, village/community, and tribal level. In this report, information relates primarily to the individual, with some references made to the family and village. Further attention must be directed to the house/clan system and tribal grouping. Such a process necessarily assumes that needs at one level may not be directly relevant to another level. For example, at the tribal level a need may relate to issues in self-government while at the personal level a need may relate to living with and managing diabetes. Regardless of which level of society

identifies and responds to an unmet need, all must advance local values regarding wellness and well-being (Nguyen, et al 1983).

Fragmentation of responses to identified needs may best be avoided by setting a clearly defined health goal. Findings from this study provide a basis for development of the goal, however, it will be important that community members be directly involved in the process. Concepts for consideration include the notions of strengthening and protecting wellness. Capturing these concepts to initiate responses to the many problems may support development of a system that focuses on the positive aspects of wellness rather than on the sick experience. These problems include tobacco and alcohol use, dietary inadequacies, excess body weight, low physical activity, sedentary leisure activities, and negative well-being experiences. Perhaps as important may be the appropriateness of these concepts to other domains including education and employment. This inclusion may help to break down the long standing problem of compartmentalizing issues and responses within the villages (Assembly of First Nations 1989).

5.5 Summary

This descriptive study set out to establish base-line data on the health status and health care needs of a Gitksan and Wet'suwet'en population. Findings are supported by an investigation into health meanings according to this same group of people.

The explanation of health meanings in this study provide some basis for more sensitive and improved communication between health care professionals and the Gitksan and Wet'suwet'en people. But, perhaps more importantly, this assembly and systematic organization of existing knowledge assists local initiatives in responding to the unwell or sick experience. Most promising is the wholistic conceptualization of the well/unwell experience

which presents a potential for establishing a positive response to challenges identified in this study.

The health survey clearly demonstrates several areas of needed action. Some problems may prove more resistant to change than others. Nevertheless, it is clear that there is a desire for improvement. Data from a variety of sources in this study continually recognize the importance of a coordinated, broad-based response that incorporates all aspects of the environment. This necessarily includes initiatives in education, employment opportunities, territorial land concerns, as well as social changes to modify or eliminate destructive attitudes and behaviours. Ultimately, the Gitksan and Wet'suwet'en people must prioritize the health problems and determine for themselves the best possible means for effecting change.

CHAPTER 6.0

SUMMARY, CONCLUSION, AND IMPLICATIONS OF THE STUDY

A need for health system change has received increasing prominence among health care analysts, planners, and researchers (British Columbia Royal Commission on Health Care and Costs 1991; Rachlis and Kushner 1989). However, in order for health planning to be truly responsive to the needs of consumers, there must be clear and shared meanings about health. These shared meanings increase the likelihood of health services and programs being responsive to and accessible within the social context of the consumer.

In the preceding chapters, the rationale for this study was established on the basis of a need for information to support health system changes within the health care system for a group of Indian people living in villages in northwestern B.C. This need for change is seen in the persistently low health status of Indian people as demonstrated by infant mortality rates that remain twice as high as for the general population. Though research continually describes the unsatisfactory health experiences, descriptions are hampered by many researchers' use of the biomedical framework for interpreting results. This study addresses this information gap by obtaining and describing base-line information on the health status and health needs of the Gitksan and Wet'suwet'en "on-reserve" status population in B.C. via the meanings and interpretations they, themselves, attach to health.

An examination of the current state of knowledge in the literature review clearly demonstrated a need for two research approaches in this study in order to both discover health meanings and to describe the health status of the population under study. These two approaches involve a phenomenological and epidemiological perspective. Phenomenology explores the health phenomena from the perspective of a unique culture via tape-recorded, in-depth interviews of nine Gitksan and Wet'suwet'en men and women. Epidemiology, on

the other hand, describes current health status by means of a health survey questionnaire involving 97 men and women. Additional qualitative data from a variety of sources (e.g., Focus Groups) substantiate and extend findings in order to describe health needs.

The qualitative data from the phenomenologic component of the study involved a constant comparative technique and occurred in several stages from the highly specific line-by-line analysis to increasingly abstract conceptualizations. Categories formed the primary data elements with word usage remaining true to that of study subjects (Corbin 1986; Spradley 1979).

Quantitative data from the epidemiologic aspect of the study were cross tabulated according to demographic characteristics and further analyzed utilizing the SPSSX statistical package. Supporting qualitative data from other sources were summarized and are incorporated in discussions of epidemiologic findings.

The following sections summarize key findings from these two aspects of the study.

6.1 Summary of Health Meanings According to the Gitksan and Wet'suwet'en

The Gitksan and Wet'suwet'en, though two distinct cultures, share many common elements in their social organization and institutions. This sharing of ideas and values has an extensive historical basis and, according to findings in this study, includes health meanings.

The Gitksan and Wet'suwet'en have a wholistic conceptualization of the health experience. At the personal level of this wholistic scheme, the whole being incorporates the physical, mental, and spiritual components with the spirit constituting a dominant force. Indeed, the spirit centres wholistic interconnections of the individual with the broader environment. This wholistic world view sees the individual intimately connected to the family, House/Clan, village, tribe, and land.

Though neither study group dialects have a word for health, they do refer to the experience in terms of wellness and strength where one has the ability to do anything. Being strong has considerable personal and social value. When strong, one is able to resist sickness and recover quickly once sick. From a social perspective a strong person is able to work hard, maintain independence, and contribute to family and society. When well and strong the Gitksan and Wet'suwet'en say they are able to do anything including carrying out normal daily activities, engaging in preferred leisure activities, and meeting social responsibilities.

A positive sense of well-being describes the state of wellness with descriptors including feeling good physically, being happy and at peace, and having high self-esteem. Though overlap exists between the wellness and well-being experiences, word usage suggests there is also a distinction that assigns comparable importance to both states.

The potential for being well and strong is thought to be an inherent part of an individual who then becomes responsible for both strengthening and protecting that state. This life-long process of strengthening and protecting wellness focuses largely on the physical and spiritual aspects of being.

The state of wellness may be undermined or weakened by factors that relate to the physical, mental, and spiritual nature. From the physical and mental perspective, these factors include attitudes and behaviours with attitudes referring to emotions and mental set (e.g., unresolved grief, low self-esteem, not respecting others). From the spiritual perspective, the spirit may separate from the whole being through fright, trauma (e.g., near drowning or car accident), or ill-will on the part of another. With the spirit separated, wholeness is lost, the individual experiences distinct physical symptoms, and becomes susceptible to sickness and even death if the spirit is not returned to the body.

When unwell or sick, a person is not able to do what he/she wants to do.

Responsibilities are not carried out, dependency develops, and one becomes a burden. The perceived seriousness of a condition relates to the extent to which it interferes with an ability to do things. For example, arthritis may be considered more serious than excess body weight because arthritis "holds you back". This unwell or sick experience is described as depressing, feeling useless, being socially isolated, and hurting inside. Pain may also be present.

An explainable cause is sought for any sickness. However, regardless of cause, healing is required. Today, healing involves both traditional and modern methods and medicines. Though there is an acknowledged dependency on modern medicine, some experiences in the health system provide grounds for loss of trust. The basis for these experiences stem from a lack of respect for the beliefs and practices of a unique culture and lack of respect for the view point of a lay person acting within the dominant medical model.

6.2 Summary of Health Status and Health Needs

The majority of Gitksan and Wet'suwet'en people (78 percent) say their health is "good" or better. Those who rate their health as "fair" or "poor" have limitations in the kinds of activities they can engage in. According to local views of health and the health experiences, Gitksan and Wet'suwet'en people are well in the sense that they are largely able to do what they want to do. However, level of wellness and strength are being undermined by several factors that pose risks.

Ancestry largely made no difference in the health experience with noted exceptions of a hereditary condition (arthritis) and obesity where both appear to primarily affect the Gitksan. Men and women also had comparable physical health experiences. There is a noted problem in hearing ability, this affecting many men and women under 45 years. Less than 5 percent of the population experience some level of disability resulting from a chronic

health condition or old age. Chronic conditions affecting those over 45 years include arthritis, heart disease and high blood pressure.

Both men and women over 35 years are at risk for heart disease, high blood pressure, and diabetes because of body weight. The problem of excess weight appears to relate more to a sedentary life-style rather than excess caloric intake. Energy intake generally met recommended amounts for age and standard body weight. However, both men and women are at risk for nutrient inadequacies (calcium, vitamin A, and folate) and women are more likely to be at risk for an iron deficiency.

Tobacco and alcohol use pose considerable health risks. Two out of three men and women currently use tobacco while four out of five currently consume alcohol. Sex made a difference only in patterns of alcohol consumption with more men drinking more alcohol more often. Smokers largely believe there is potential harm in tobacco use and try to reduce use in relation to this belief. While men believe there is greater potential harm in their alcohol intake than do women, this belief is unrelated to attempts to reduce alcohol intake. Generally, men and women were most likely to try to cut back on alcohol use because they believe they can control consumption and because use caused family or spousal problems. Perhaps even more significant is beliefs regarding normalcy of drinking where those who drink the most consider their drinking normal and those who drink least say their drinking pattern is not normal. Given high usage of alcohol by men, it is not surprising they are most likely to encounter problems within the family unit, at work, and with the law.

Both bed-days and cut-down-days show men and women are equally likely to take to bed when sick. However, men stay in bed longer once they have taken to bed while women stay in bed for shorter periods. Follow-up cut-down days is similar for both sexes.

Women have significantly different health experiences as well as sex specific health

protection choices involving use of pap testing for cervical cancer, breast self-examination, and breast feeding. Reports in this study indicate women are more likely to have pap testing done than to self-examine breasts for early detection of cancer. Few women use birth control and, upon birth of a child, breast feed for six months or more. Sex specific health information was not obtained on men. From a social and mental health perspective, women appear to be at greater risk than men. However, this must be interpreted with caution as differences may reflect male-female differences in communication patterns.

Social and economic factors over which an individual has limited control also affects health status and well-being. In this study, about 60 percent of men and women have less than a Grade 12 and only 22 percent are fully employed. Also, three out of four single parent families are headed by women under 35 years.

A final environmental factor involves use of health care services. In this study, use of both doctor services and hospital beds is comparable to the general population user rate. While people have access to both a Community Health Nurse and a Community Health Representative, these services have low individual user rates. Traditional healers are used less often because there is no local and powerful halait or Indian Doctor.

Preventive and screening aspects of care involve dental health and pap testing for early detection of cancer. Women in this study had cervical cancer screening rates that are comparable to screening rates for the B.C. population. Use of preventive dental health services appears to be low. Generally, men and women tend to seek dental care when a problem exists. This may explain the steady loss of teeth with age and eventual use of partial and complete dentures by almost half of the people over 45 years. An additional contributor is the high consumption of simple sugars.

A final description of population health involves the child. In this study about one in

ten children had an acute sickness that did not affect overall assessment of child health status by the care giver.

Additional supporting data identify both concerns and needs that relate to wellness and well-being. Of particular concern is high unemployment, poor educational achievement by the young, alcohol abuse, high incidence of violence and abusive behaviours, and mental health/emotional problems. Needs include health education, improved communication and life/coping skills, mental health services, and prevention in alcohol and gambling addictions.

6.3 Conclusions

According to their definition of health, Gitksan and Wet'suwet'en might consider themselves well because only one in ten are limited in their ability to do things. However, when well-being is a factor in assessing health, considerably more (four times higher) might be considered unwell. These interpretations differ from a biomedical framework where the vast majority of respondents may be considered at risk for many health problems (e.g., lung cancer, heart disease, diabetes, malnutrition, etc.).

The Questionnaire examining personal health experiences successfully described physical health. In this study, results of statistical testings for internal reliability suggest the instrument may adequately measure physical health. However, very little data were obtained on well-being or mental health experiences. Though data on physical health make important contributions to the existing model for health care, questions of validity arise since it examines only part of the total health experience. In order for health planning to be truly responsive to local consumer needs, both wellness and well-being may require equal weight and attention when health measurement is undertaken.

Gitksan and Wet'suwet'en views on wellness and well-being as well as their

experiences in the dominant health care system suggest there is a need for more than one model to both view and respond to sickness. This conclusion corresponds with Kleinman's explanatory model of the health care system where most sickness experiences are attended to in the popular sector and where the folk sector also contributes to care of the sick.

6.4 Implications for Health Care

Findings from this study have implications for health care providers, the medically dominated health care system in the larger society, and health and social planners in Gitksan and Wet'suwet'en territory.

The Gitksan and Wet'suwet'en highly value the show of respect accorded to one another when both well and sick. This respect and care becomes even more important during a sickness experience when a previously independent person has to ask for help from either doctors or nurses. Cultural sensitivity on the part of health care providers becomes an essential part of acceptable communication patterns and behaviours both of which affect the well-being experiences of the sick and their family.

Use of traditional healing practices has been largely private and hidden. Increasingly, however, practitioners are becoming known and, in some cases, will provide care in conjunction with a medical doctor. Respect for and acceptance of use of herbs and healing practices pose a challenge to all health care providers.

The Gitksan and Wet'suwet'en people hold an holistic conceptualization of the wellness experience which shows interaction at several levels and extends from the individual to the land itself. When unwell or sick, help is sought within the family, extended family, and other tribal groups as well as Medical Doctors. This necessarily requires a system response that incorporates and validates all components of the cultural system of health care. Such a

system presents a major challenge to health professionals who typically hold power and control and are generally unwilling to share these attributes with non-professionals (Rachlis and Kushner 1989). Though current health care funding requires participatory planning on the part of provider and consumer, the concept requires further testing to determine how far power holders in health care are actually willing and able to go in sharing decision making with non-professionals.

The Gitksan and Wet'suwet'en consider both wellness and well-being to be equally important. Today, the existing health care system focuses primarily on sickness and, though mental health is receiving increasing attention, initiatives are uncoordinated and inconsistent (B.C. Royal Commission on Health Care and Costs 1991). These mental health issues relate largely to well-being experiences. It is possible that initiatives to address well-being may be largely health related rather than health directed. An example of a health related activity involves providing Gitksan or Wet'suwet'en language classes for young mothers; a health directed initiative may include nutrition workshops to plan meals that provide adequate iron.

The wholistic conceptualization has particular implications for the Health Transfer Initiative by Medical Services Branch of Health and Welfare. Repeatedly, Indian people have pointed to problems that arise when health, social, and economic issues are compartmentalized and dealt with separately (Assembly of First Nations, 1988). It is possible that Transfer of Health Services within the existing framework and at existing level of resources would only perpetuate the system and continue to negate wholistic views of the wellness experience. Though Bands are invited to develop and apply new models for health care services potential for success is questionable given these limitations for Transfer.

6.5 Suggestions for Future Studies

This study provides a first level examination of the health experiences of a culturally distinct group of people. The descriptive nature of this study sets out only to provide an indication of factors associated with a particular health state. Though the study is based on theory, findings do not set out to either prove nor disprove these theories. Instead, findings support and extend existing knowledge. This is particularly true for Kleinman's explanatory model of the health care system. Kleinman describes the health care system as a cultural system where three sectors are activated by an illness experience: the popular, professional, and folk sectors. Extensive research has focused on the professional sector with little attention directed to the popular sector. According to his conceptualization, the popular sector includes the health beliefs, practices, and values of the people. (Kleinman, 1978; 1980)

In this study, an initial exploration of health meanings utilizes the phenomenological perspective of research. Findings suggest the Gitksan and Wet'suwet'en have a unique interpretation of the health experience. These descriptions establish a basis for a second level of study involving hypothesis testing. Data from this study and other sources may provide the basis for developing a theory that explains Gitksan and Wet'suwet'en views on wellness and well-being. Alternatively, it might be worthwhile to explore the appropriateness of Nordenfelt's holistic, welfare theory of health (1987). The Gitksan and Wet'suwet'en describe being well/healthy in terms of an ability to do anything, this similar to Nordenfelt's proposal that health involves a person's ability, under standard circumstances, to achieve their "vital" goals.

The second stage of research involving theory testing may also extend to other tribal groups in B.C. At face value, there are indications that the notion of well-being and value for strength is a feature that is present among other Indian people. (Billy, 1980; Peguis First

Nation, Manitoba, 1991) It would unquestionably be of benefit to health planners if it were clearly established that Indian people assess their health in terms of ability with seriousness of a condition determined by the extent to which physical mobility is interrupted.

Hypothesis testing may also extend to specific health conditions, including arthritis and systemic lupus erythematosus. Findings from this study suggest the Gitksan may have a genetic predisposition to these conditions, however, further investigation would be required to prove or disprove these findings. This type of a study would extend knowledge of these conditions and is unlikely to make a difference in either incidence or treatment. At present, there is no known cause for arthritis or lupus though both are influenced by genetic inheritance. Genealogy charts currently being developed in Gitksan and Wet'suwet'en territory provides a potential resource in studies involving hereditary factors and disease.

Quantitative data from this study refer only to the two primary villages of study. However, an absence of differences between the two major sample groups as well as a small supplementary Wet'suwet'en sample suggests common features may also be found in the remaining eight Gitksan and Wet'suwet'en villages. Rather than risk error through unsupported generalizations, it would be safer to extend the survey into the remaining villages. This may require a small random sample from each of the villages.

Qualitative data relating to health meanings is generalizable to the tribal groups because of the sampling technique. These findings extend Kleinman's (1978) concept of the health care system as a cultural system and contribute to greater understanding of the popular sector, in this case the Gitksan and Wet'suwet'en people. Clearly, however, there is value in extending this type of research to increase the likelihood of the health care system being responsive to consumer needs. Respect for consumer views and needs establishes a basis for culturally sensitive care that recognizes the existence of a whole being. sense.

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APPENDIX A (1)**Letter of Initial Contact and Consent for In-Depth Interview**

Dear _____

I am a graduate student at the University of British Columbia and am working towards a Master of Science in Health Services Planning and Administration. At present I am working on a thesis which involves a health study in the Gitksan and Wet'Suwet'En villages. My faculty advisor at UBC is Dr. Godwin Eni.

Part of this health study will involve my learning about what health means to the Gitksan and Wet'Suwet'En people. Information on what the word 'health' means will play an important part in understanding what the health survey shows about the health of the people.

I am inviting you to take part in the study to give your view of what health means and how you experience it. If you agree to take part, I would like to interview you in your home or any location convenient for you so that I can learn about your views.

Each interview will be tape-recorded so that I can pay full attention to what you are telling me. Each interview will last about one hour. I would like to interview you 3 or 4 times during a 4 month period. Repeat interviews will be done so that we can discuss your views in detail. All the information obtained in these interviews will be kept confidential; your name will not be identified in any conversation or written material.

You are under no obligation to take part in the study and would be free to withdraw at any time during the interviews. Withdrawal will in no way affect your access to either band or medical programs and services. You may refuse to answer any questions that I may ask you during the interviews, and you may request that any portion of the tape be erased.

If you have any questions or would like more information about this study, you may contact me at the following address or by telephone.

Rhea Joseph
New Hazelton, B.C.
V0J 2J0
Tel: 842-5372

OR Dr. Godwin Eni, Program Director
Thesis Supervisor
Department of Health
Care and Epidemiology
Faculty of Medicine
Mather Building
5804 Fairview Avenue
Vancouver, B.C., V6T 1W5
Tel: 1-228-4464
Attention: Rhea Joseph

If you wish to meet with me to discuss the study and your contribution, please sign the

If you wish to meet with me to discuss the study and your contribution, please sign the consent form attached below and drop it off at the Band Office. This form will be returned to me and I will then contact you to arrange a mutually agreed upon time for the meeting.

---CUT-----CUT---

Consent to Contact Form

I understand that Rhea Joseph will be carrying out the health study and that her Faculty Advisor at UBC is Dr. Godwin Eni (1-228-2366). I agree to allow Rhea Joseph (842-5372) to contact me regarding her study. I acknowledge receipt of this consent to contact form.

Name (Print): _____

Signature: _____

Date: _____

**A Study of the Health Status and Health Care Needs of a
Gitksan and Wet'suwet'en Population in British Columbia**

I have spoken with Rhea Joseph about her health study among the Gitksan and Wet'suwet'en people. I understand that her Faculty Advisor is Dr. Godwin Eni, UBC (1-228-2366).

I understand that the information obtained from this study will be used to plan for ways in which the health concerns and health care needs of the reserve people could be dealt with. My contribution to this study will involve giving my views of what health and being healthy means.

I understand that Rhea Joseph will interview me 3 or 4 times, for about one hour each time, and over a 4 month period (May to July). I understand that my identity will be kept confidential and my name will not be identified in any conversation or written material. I understand that I may refuse to answer any questions that I may be asked during the interviews, and that I may request that any portion of the tape be erased.

I understand that my decision to take part in this study will not affect my access to and use of any band and medical programs and services. If I withdraw from the study at any time, there will be no consequences to my access to and use of the band and medical programs and services either now or in the future. I acknowledge that this study has been adequately explained to me and that Rhea Joseph (842-5372) will answer any questions that I may have at any time during the study. I acknowledge receipt of the information and consent forms.

Print Name: _____

Signature: _____

Date: _____

APPENDIX A (2)
Letter of Initial Contact to Households

Dear Band Members

I am a graduate student at the University of British Columbia and a member of the Hagwilget Band. I will be doing a health study as part of the Master of Science Degree in Health Services Planning and Administration.

The health study will involve the Gitksan and Wet'Suwet'En villages. Chief and Council have given me permission to approach the people in _____ Band to include members in the study.

The study is being done to obtain information on the general health and health care needs of people living in the _____ village. This health information could be used to plan for ways in which the health concerns and health care needs of the village people could be dealt with. The study is not part of the Health Transfer Program for Medical Services.

Some of the Band members who are 15 years and older will be asked to take part in the study. Persons who have been chosen by chance will be asked questions about their health during an interview. The interview will be done by (name) and will last around 80 minutes. These interviews will be done during the months of May to July.

Band members have the right to refuse to take part or to withdraw at anytime. Withdrawal will in no way affect the person's access to or use of either band or medical programs and services either now or in the future. At no time will the name of an individual be connected with any of the answers to the questions.

In May, a letter will be sent to those persons who have been chosen to take part in the study. They will then be contacted by (name) to arrange an interview time.

If you have any questions you may leave a message for me at the Band Office (842-____) or contact me at the following address or by telephone:

Rhea Joseph
New Hazelton, B.C.
V0J 2J0
Tel: 842-5372

OR Dr. Godwin Eni, Program Director
Thesis Supervisor
Department of Health Care and
Epidemiology
Mather Building
5804 Fairview Avenue
Vancouver B.C. V6T 1W5
Tel: 1-228-4464
Attention: Rhea Joseph

APPENDIX A (3)
Letter of Initial Contact to Random Sample Group

Dear _____

I am a graduate student at UBC, in my final year of the Master of Science program in Health Services Planning and Administration. Part of my studies involves a health survey which will take place in the Gitksan and Wet'Suwet'en villages. Chief and Council have consented to participation by the _____ Band.

The complete study findings will be summarized in a report and a copy provided to Band Council. The health information in the report will be presented in a manner that is usable by band members, Band Council, or the Tribal Group. This health information may be used to begin planning ways to meet the health care needs that are identified in the study.

All of the Band members 15 years and older had an equal chance of being selected to take part in the study. YOUR NAME HAS BEEN SELECTED BY CHANCE. You will be contacted and the time for an interview arranged. During the interview, you will be asked questions about your health and health practices. Your viewpoint is important. The information that you provide about your health will help to ensure that a complete picture of the health of the Band is obtained.

During the months of May to July, _____ will be in touch with you to arrange a suitable time to interview you. The interview will take about 80 minutes. Your name will not be linked to any of the findings. You have the right to refuse to take part in the study or to withdraw from the interview at any time. Your withdrawal will in no way affect your access to and use of Band or medical programs and services either now or in the future.

If you have any questions or concerns, you may leave a message for me at the Band Office (842-____), or contact me at the following address or by telephone:

Rhea Joseph OR
 New Hazelton, B.C.
 V0J 2J0
 Tel: 842-5372

Dr. Godwin Eni, Program Director
 Thesis Supervisor
 Department of Health
 Care and Epidemiology
 Faculty of Medicine
 5804 Fairview Avenue
 Vancouver, B.C., V6T 1W5
 Tel: 1-228-4464
 Attention: Rhea Joseph

Any contribution you make to this study is important and appreciated very much.

APPENDIX A (4)**Consent to Participate in Focus Group**

Dear _____

I am a graduate student at the University of British Columbia and am working towards a Master of Science in Health Services Planning and Administration. Part of my course work involves a health study which will be done among the Gitksan and Wet'suwet'en people.

Chief and Council have given me permission to approach the people in the _____ Band to include members in the study. Health information obtained from this study may be used to begin planning ways to meet the health care needs that are identified in the study.

The first part of the study will involve a meeting with some band members so that I may learn more about the health views, health concerns, and health care needs of the band members. Information from this meeting will be used in the questionnaire for the health survey. I am inviting you to take part in this meeting. The date, time, and place for the meeting is as follows:

DATE: _____ (approximately 2 hours)

TIME: _____

PLACE: _____

Your participation in the meeting is voluntary. Your name will not be linked to information either in conversation or written material. At any time during the meeting, you may leave. Your withdrawal will in no way affect your access to and use of Band or medical programs and services either now or in the future. The meeting will be tape recorded so I can pay full attention to what is being said. However, the tape recorder may be turned off at any time or parts erased should any participant so wish. The tape will be destroyed within 6 months after the conclusion of the study.

If you have questions regarding this meeting or the study, you may contact me at the following address or by telephone:

Rhea Joseph
New Hazelton, B.C.
V0J 2J0
Tel: 842-5372

OR

Dr. Godwin Eni, Program Director
Thesis Supervisor
Department of Health
Care and Epidemiology
Faculty of Medicine
Mather Building
5804 Fairview Avenue
Vancouver, B.C., V6T 1W5 (228-4464)

Consent to Attend Community Meeting

I will attend the community meeting at the Band Hall, on (Date), and beginning at (time).

Name (print) _____

Signature: _____

Date: _____

Note: Return signed consent to _____.

Questions may be directed to Rhea Joseph, student investigator (842-5372), or Dr. Godwin Eni (1-228-2366) Faculty Advisor at UBC.

APPENDIX A (5)
Consent to Participate in General Health Survey

(Interviewer read to subject)

A health study is currently being done among the Gitksan and Wet'Suwet'En people. The study is being carried out by Rhea Joseph, a UBC Graduate Student (842-5372) and with the advise of Dr. Godwin Eni, UBC Faculty Advisor (1-228-2366). The study will obtain information on the people's health and health care needs. A select number of people ages 15 years and over will be interviewed to obtain this health information. Chief and Council have consented to participation by the _____ Band.

The health information obtained from this study can be used by the Band and Tribal Council to plan ways to assist people in becoming healthier and staying healthy.

It is estimated that the interview will take about 80 minutes and can be completed during two interviews, if you wish. During the interview I will ask you questions about your health and health practices. All of your answers will be kept confidential and your name will never be linked to any of the information. Your participation is voluntary. If you choose to stop the interview, your withdrawal will not affect your access to or use of Band or medical programs and services either now or in the future.

A: Parental Consent for Survey Participants Ages 15 to 17 years

I _____ (name of parent) acknowledge receipt of this consent form. I understand the nature of the study and I

(mark one) ☐ Consent to my child's participation in
 ☐ Do not Consent this study.

 (Date)

 (Print Name)

 (Signature)

B: All Survey Participants sign below:

I acknowledge receipt of this consent form. I understand the nature of the study and agree to take part.

 (Date)

 (Print Name)

 (Signature)

APPENDIX A (6)
Consent for Key Respondent Survey:

A general health study is currently being done among the Gitksan and Wet'suwet'en people by Rhea Joseph, UBC Graduate Student (842-5372) and with the advise of Dr. Godwin Eni, UBC Faculty Advisor (1-228-2366). The study will establish basic information on the Gitksan and Wet'suwet'en's health and health care needs. This community health study also includes a questionnaire which is to be completed by some band employees and health professionals. Information provided by these key individuals will provide additional information on the health and health care needs of the people on-reserve.

The health information obtained from this study can be used by the band and tribal group to plan ways to assist people in becoming healthier and staying healthy.

It should take you about 1/2 hour to complete the attached questionnaire. You have the right to refuse to participate or to withdraw at any time. Withdrawal will in no way affect your access to or use of Band or medical programs and services either now or in the future. All of your answers will be kept confidential and your name will never be linked to any of the information. Your participation is voluntary.

Name (print): _____

Signature: _____

Title: _____

Date: _____

APPENDIX B
Trigger Questions for Focus Group and In-Depth Interview

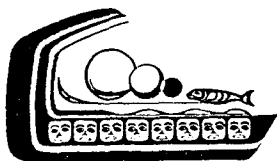
I. Trigger Questions for Focus Group:

1. Is there a Gitksan/Wet'suwet'en word for health?
2. What is it like for you to be healthy?
3. If you are not healthy, how do you describe yourself?
3. What are the main health concerns in the community?
4. In your view, what causes these health concerns?
5. In your view, what is needed to improve the health of the community?

II. Trigger Questions for In-Depth Interviews:

1. Is there a Gitksan/Wet'suwet'en word for health?
2. What is it like for you to be healthy?
3. When do you consider yourself to be healthy? ... Please explain
4. What things in life are important for your health? ... Give reasons
5. In your view, what causes or contributes to a loss of health?
6. In your view, what things in life are important for regaining health once it is lost?

APPENDIX C (1)



I. General Health Survey, 1991

The Health
of
The Gitksan and Wet'suwet'en People

IDENTIFICATION:

Band Name.....

Record Identification _____

Date.....

Thank you for agreeing to take part in this health survey. The completed questionnaire will provide proof of your consent to participate.

SECTION A: YOUR HEALTH

To begin, I would like to ask you some general questions about your health.

1 In general, compared to other persons your age, would you say your health is ...

- 1 ☐ Excellent
- 2 ☐ Very good
- 3 ☐ Good
- 4 ☐ Fair
- 5 ☐ Poor

2 Which of the following best describes how you usually feel?

- 1 ☐ Happy and interested in life
- 2 ☐ Somewhat happy
- 3 ☐ Somewhat unhappy
- 4 ☐ Unhappy with little interest in life
- 5 ☐ So unhappy that life is not worthwhile

3 As a whole, would you describe your life as ...

- 1 ☐ Very stressful
- 2 ☐ Fairly stressful
- 3 ☐ Not very stressful
- 4 ☐ Not at all stressful

4 How satisfied are you with your health?

- 1 ☐ Very satisfied
- 2 ☐ Somewhat satisfied
- 3 ☐ Not too satisfied
- 4 ☐ Not at all satisfied

5 Is there anything you plan to do over the next year to improve your health?

(specify 3 plans) _____

SECTION B: HEALTH CARE USE

Now, I would like to ask you some questions about your use of health care.

6 a) During the last 14 days, did you see or talk to a medical doctor about your health?

- 1 ☐ Yes
- 2 ☐ No -----> Go to Question 7

b) What was the main reason for this contact?

- 1 ☐ Sickness or health problem
- 2 ☐ Mental health problem
- 3 ☐ Medical check-up
- 4 ☐ Shots or vaccinations
- 5 ☐ Pre or post-natal care
- 6 ☐ Other (specify) _____

7 a) During the last 14 days, did you see or talk to the Community Health Nurse about your health?

- 1 ☐ Yes
- 2 ☐ No -----> Go to Question 8

b) What was the main reason for this contact?

- 1 ☐ Sickness or health problem
- 2 ☐ Mental Health Problem
- 3 ☐ Medical check-up
- 4 ☐ Shots or vaccination
- 5 ☐ Pre or post-natal care
- 6 ☐ Other (specify) _____

8 a) During the last 14 days, did you see or talk to the CHR (Community Health Representative) about your health?

- 1 ☐ Yes
- 2 ☐ No -----> Go to Question 9

- b) What was the main reason for this contact?

(specify) _____

- 9 a) During the last 14 days, did you see or talk to a traditional healer (Indian doctor) about your health?

1 ☐ Yes

2 ☐ No -----> Go to Question 10

- b) What was the main reason for this contact?

(specify) _____

Now, I'd like to ask you about your contacts during the last 12 months with the health care system.

- 10 During the last 12 months, how many times did you see or talk to a medical doctor about your health?

_____ Times (estimate number)

0 ☐ None

8 ☐ Don't know

- 11 During the last 12 months, how many times did you see or talk to the Community Health Nurse about your health?

_____ Times (estimate number)

0 ☐ None

8 ☐ Don't Know

- 12 During the last 12 months, how many times did you see or talk to the CHR (Community Health Representative) about your health?

_____ Times (estimate number)

0 ☐ None

8 ☐ Don't know

- 13 During the last 12 months, how many times did you see or talk to a traditional healer (Indian doctor) about your health?

_____ Times (estimate number)

0 ☐ None

8 ☐ Don't know

- 14 Did you spend any nights as a patient in a hospital during the last 12 months?

1 ☐ Yes

2 ☐ No -----> Go to Section C

- 15 How many nights did you spend in a hospital during the last 12 months?

_____ Nights (estimate number)

88 ☐ Don't know

SECTION C: TWO WEEK DISABILITY

The next questions refer to your level of activity in the past 14 days.

- 16 During the past 14 days, did you stay in bed all or most of the day because of your health? (Include any nights spent in hospital)

1 ☐ Yes

2 ☐ No -----> Go to Question 20

- 17 How many days?

_____ Days (estimate number)

- 18 What was the health problem responsible for your staying in bed?

(specify health problem) _____

- 19 Was this the result of an accident or injury?

1 ☐ Yes

2 ☐ No

- 20 Were there any other days during these 14 days that you cut down on things you usually do because of your health?

1 ☐ Yes

2 ☐ No -----> Go to Section D

- 21 How many days?

_____ Days (estimate number)

- 22 What was the health problem responsible for your cutting down on things you usually do?

(specify health problem) _____

- 23 Was this the result of an accident or injury?

- 1 ☐ Yes
 2 ☐ No

SECTION D: ACCIDENTS AND INJURY

The next few questions concern accidents and injuries which may have occurred during the last 12 months.

- 24 During the last 12 months, did you have an accident...

Yes No

- | | | |
|---|----------------------------|----------------------------|
| a) In a car, van, or truck | 1 ☐ | 2 ☐ |
| b) On a motorcycle | 1 ☐ | 2 ☐ |
| c) On a snowmobile or all-terrain vehicle (ATV) | 1 ☐ | 2 ☐ |
| d) As a pedestrian or when walking | 1 ☐ | 2 ☐ |
| e) On a bicycle | 1 ☐ | 2 ☐ |
| f) On a boat | 1 ☐ | 2 ☐ |

- 25 Other than the accidents already mentioned, did you have an accident while taking part in games or sports?

- 1 ☐ Yes
 2 ☐ No

- 26 Other than the accidents already mentioned, in the past 12 months did you have an accident serious enough to limit normal activities and involving...

Yes No

- | | | |
|-------------|----------------------------|----------------------------|
| a) Falls | 1 ☐ | 2 ☐ |
| b) Burns | 1 ☐ | 2 ☐ |
| c) Poisons | 1 ☐ | 2 ☐ |
| d) Cuts | 1 ☐ | 2 ☐ |
| e) Firearms | 1 ☐ | 2 ☐ |
| f) Overdose | 1 ☐ | 2 ☐ |
| g) Alcohol | 1 ☐ | 2 ☐ |

Interviewer check item:

- 1 ☐ Yes answer(s) to Questions 24 to 26
 -----> Go to Question 27

- 2 ☐ No answers to Questions 24 to 26
 -----> Go to Section E

- 27 Did any of the accidents already mentioned happen while working at a job or business?

- 1 ☐ Yes
 2 ☐ No

- 28 What were the injuries or health problems that resulted from the accidents?

(specify type of injuries or health problems)

- 29 During the past 12 months, did you receive health care in the emergency room of a hospital for any accident or injury?

- 1 ☐ Yes
 2 ☐ No

SECTION E: HEALTH STATUS

The next set of questions ask about your usual ability in certain areas, such as vision, hearing, and speech.

E-1 Vision

- 30 Are you usually able to see well enough to read ordinary newspaper type printing without glasses or contact lenses?

- 1 ☐ Yes -----> Go to Question 33
 2 ☐ No
 8 ☐ Don't know (i.e. not able to read)

- 31 Are you usually able to see well enough to read ordinary newspaper type printing with glasses or contact lenses?

- 1 ☐ Yes -----> Go to Question 33
 2 ☐ No
 8 ☐ Don't know (i.e. not able to read)

32 Are you able to see at all?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 35

33 Are you able to see well enough to recognize a friend on the other side of the road without glasses or contact lenses?

- 1 ☐ Yes -----> Go to Question 35
2 ☐ No

34 Are you usually able to see well enough to recognize a friend on the other side of the road with glasses or contact lenses?

- 1 ☐ Yes
2 ☐ No

E-2 Hearing

35 Are you usually able to hear what is said in a group conversation with at least three other people without a hearing aid?

- 1 ☐ Yes -----> Go to Question 40
2 ☐ No

36 Are you usually able to hear what is said in a group conversation with at least three other people with a hearing aid?

- 1 ☐ Yes -----> Go to Question 38
2 ☐ No

37 Are you able to hear at all?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 40

38 Are you usually able to hear what is said in a conversation with one other person in a quiet room without a hearing aid?

- 1 ☐ Yes -----> Go to Question 40
2 ☐ No

39 Are you usually able to hear what is said in a conversation with one other person in a quiet room with a hearing aid?

- 1 ☐ Yes
2 ☐ No

E-3 Speech

40 Are you usually able to be UNDERSTOOD completely when speaking with strangers?

- 1 ☐ Yes -----> Go to Question 45
2 ☐ No

41 a) Are you usually able to be UNDERSTOOD partially when speaking with strangers?

- 1 ☐ Yes
2 ☐ No

b) What is the main reason for you not being UNDERSTOOD when speaking to strangers?

(specify) _____

42 Are you able to be UNDERSTOOD completely when speaking with those who know you well?

- 1 ☐ Yes -----> Go to Question 45
2 ☐ No

43 Are you able to be UNDERSTOOD partially when speaking with those who know you well?

- 1 ☐ Yes -----> Go to Question 45
2 ☐ No

44 Are you able to speak at all?

- 1 ☐ Yes
2 ☐ No

E-4 Getting Around

45 Are you able to walk around the village without difficulty and without mechanical support such as braces, cane or crutches?

- 1 ☐ Yes -----> Go to Question 51
2 ☐ No

46 Are you able to walk at all?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 49

47 Do you require mechanical support such as braces, cane or crutches to be able to walk around the village?

- 1 ☐ Yes
2 ☐ No

48 Do you require the help of another person to be able to walk?

- 1 ☐ Yes
2 ☐ No

49 How often do you use a wheelchair ?

- 1 ☐ Always
2 ☐ Often
3 ☐ Sometimes
4 ☐ Never

50 Do you need the help of another person to get around in the wheelchair?

- 1 ☐ Yes
2 ☐ No

E-5 Hands and Fingers

51 Do you usually have the full use of two hands and ten fingers?

- 1 ☐ Yes -----> Go to Question 54
2 ☐ No

52 Do you require the help of another person because of limitations in the use of hands or fingers?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 54

53 Do you usually require the help of another person with...

- 1 ☐ Some tasks
2 ☐ Most tasks
3 ☐ Almost all tasks
4 ☐ All tasks

E-6 Pain and Discomfort

54 Are you usually free of pain or discomfort?

- 1 ☐ Yes -----> Go to Question 56
2 ☐ No

55 Which one of the following sentences best describes the effect of pain or discomfort you usually experience?

- 1 ☐ Pain or discomfort that does not prevent any activities
2 ☐ Pain or discomfort that prevents a few activities
3 ☐ Pain or discomfort that prevents some activities
4 ☐ Pain or discomfort that prevents most activities

SECTION F: CHRONIC HEALTH PROBLEMS

Now, I would like to ask you some questions about long term physical health problems that you might have.

56 Answer "yes" or "no" to the following questions.

Do you have:	YES	NO
a) Skin allergies or other skin disease?	1 ☐	2 ☐
b) Hay fever or other allergies?	1 ☐	2 ☐
c) Serious trouble with back pain?	1 ☐	2 ☐
d) Arthritis?	1 ☐	2 ☐
e) Lupus?	1 ☐	2 ☐
f) Rheumatism?	1 ☐	2 ☐
g) Other serious problems with the joints or the bones?	1 ☐	2 ☐
h) Paralysis or speech problems due to stroke?	1 ☐	2 ☐
i) Asthma?	1 ☐	2 ☐
j) Emphysema or chronic bronchitis or persistent cough?	1 ☐	2 ☐
k) TB	1 ☐	2 ☐
l) Epilepsy?	1 ☐	2 ☐
m) High blood pressure or hypertension?	1 ☐	2 ☐
n) Circulatory problems or problems with blood circulation?	1 ☐	2 ☐
o) Heart disease?	1 ☐	2 ☐
p) Diabetes?	1 ☐	2 ☐
q) Urinary problem or kidney disease	1 ☐	2 ☐
r) Stomach ulcer?	1 ☐	2 ☐
s) Other digestive problems?	1 ☐	2 ☐
t) Goitre or thyroid problems?	1 ☐	2 ☐
u) Eye problems, for example cataract or glaucoma?	1 ☐	2 ☐
v) Cancer?	1 ☐	2 ☐
If yes, what type? (specify type of cancer) _____		

57 Do you have any other type of long term health problem?

- 1 ☐ Yes
 2 ☐ No -----
 8 ☐ Don't know ----- } Go to Section G

58 What are your other long term or chronic health problems?

(specify other type of health problem)

SECTION G: ACTIVITY RESTRICTION

The next set of questions refer to restrictions in activity which are the result of health problems.

59 Do you need the help of another person with personal care such as eating, bathing, dressing, or getting around inside the house, because of any impairment or health problem?

- 1 ☐ Yes
 2 ☐ No

60 Do you need the help of another person in looking after personal affairs, doing everyday household chores, going shopping or getting around outside the house, because of any impairment or health problem?

- 1 ☐ Yes
 2 ☐ No

61 Are you usually able to go out in good weather?

- 1 ☐ Yes
 2 ☐ No

62 Are you usually confined to a bed or chair for most of the day because of your health?

- 1 ☐ Yes
 2 ☐ No

63 a) Compared to other people of the same age in good health, are you limited in the kind or amount of activity you can do because of a long-term physical or mental condition or health problem?

- 1 ☐ Yes
 2 ☐ No -----> Go to Section H

b) From what age have you been limited in your activities?

77 ☐ From birth
 _____ Age (write number)

64 a) Does your health limit your activities at home?

- 1 ☐ Yes
 2 ☐ No -----> Go to Question 65

b) Are you unable to do most everyday household chores?

- 1 ☐ Yes
 2 ☐ No

65 a) Are your activities at school or work limited because of your health?

- 1 ☐ Yes
 2 ☐ No -----> Go to Question 66

b) Are you unable to work or go to school?

- 1 ☐ Yes
 2 ☐ No

66 Are you limited in other activities such as leisure time pursuits or transportation to and from work and school because of your health?

- 1 ☐ Yes
 2 ☐ No

67 What is the main health problem causing you to be limited in your activities?

(specify health problem) _____

68 Was this the result of an accident or injury?

- 1 ☐ Yes
 2 ☐ No

69 a) Are there any other health problems which limit your activities?

- 1 ☐ Yes
 2 ☐ No -----> Go to Section H

- b) What other health problems causes you to limit your activities?

(specify other health problems besides that mentioned in Question 67)

SECTION H LIFESTYLE

The next set of questions ask about lifestyle choices and behaviours which can affect health.

H-1: SMOKING:

- 70 At the present time, do you smoke cigarettes ...

- 1 ☐ Daily
2 ☐ Occasionally
3 ☐ Not at all -----> Go to Question 75

- 71 At what age did you begin to smoke daily?

_____ Age

- 72 How many cigarettes do you smoke each day now?

_____ Number of cigarettes

- 73 How likely do you think it is that your smoking will lead to health problems for you?

- 1 ☐ Very likely
2 ☐ Somewhat likely
3 ☐ Somewhat unlikely
4 ☐ Very unlikely

- 74 Have you tried to quit smoking in the past 12 months?

- 1 ☐ Yes ----- }
2 ☐ No ----- } Go to Question 79

- 75 Have you ever smoked cigarettes daily?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 79

- 76 At what age did you begin to smoke daily?

_____ Age

- 77 At what age did you stop smoking daily?

_____ Age

- 78 How many cigarettes a day did you usually smoke?

_____ Number of cigarettes

- 79 How many of your friends smoke cigarettes?

- 1 ☐ All of them
2 ☐ Most of them
3 ☐ About half of them
4 ☐ A few of them
5 ☐ None of them

- 80 Do you smoke pipes, cigars, or cigarillos ...

- 1 ☐ Daily
2 ☐ Occasionally
3 ☐ Not at all

- 81 Do you use snuff or chew tobacco ...

- 1 ☐ Daily
2 ☐ Occasionally
3 ☐ Not at all

- 82 How many of your friends use snuff or chew tobacco?

- 1 ☐ All of them
2 ☐ Most of them
3 ☐ About half of them
4 ☐ A few of them
5 ☐ None of them

H-2: ALCOHOL

When the following questions refer to a drink it means:

- 1 bottle of beer (12 oz. or 360 ml.), OR
- 1 glass of wine (4-5 oz. or 120-150 ml), OR
- 1 small shot of liquor or spirits with or without mix (1-1 1/2 oz.)

- 83 Have you ever taken a drink of beer, wine, liquor, or other alcoholic beverage?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 92

- 84 Not counting small sips, at what age did you start drinking alcoholic beverages?

_____ Age

- 85 In the past 12 months, have you taken a drink of beer, wine, liquor or other alcoholic beverage?

- 1 ☐ Yes -----> Go to Question 87
2 ☐ No

- 86 Did you ever regularly drink more than 12 drinks in a week?

- 1 ☐ Yes ----- } Go to Question 92
2 ☐ No ----- }

- 87 a) In the past 12 months, how often did you drink alcoholic beverages?

- 1 ☐ Everyday
2 ☐ 4 to 6 times a week
3 ☐ 2 to 3 times a week
4 ☐ Once a week
5 ☐ Once or twice a month
6 ☐ Less than once a month

- b) Beginning with yesterday, how many drinks did you have in the last 7 days?

_____ Drinks (Estimate number)
77 ☐ Never

- 88 How likely do you think it is that your drinking will lead to health problems for you?

- 1 ☐ Very likely
2 ☐ Somewhat likely
3 ☐ Somewhat unlikely
4 ☐ Very unlikely

- 89 In your opinion how many of your friends would you say drink too much?

- 1 ☐ All of them
2 ☐ Most of them
3 ☐ About half of them
4 ☐ A few of them
5 ☐ None of them

- 90 In the past 12 months have you tried to reduce the amount you drink?

- 1 ☐ Yes
2 ☐ No

The next questions concern drinking and problems related to your drinking during the last 12 months.

- 91 a) Do you feel you are a normal drinker?

- 1 ☐ Yes
2 ☐ No

- b) Does your family worry or complain about your drinking?

- 1 ☐ Yes
2 ☐ No

- c) Do your friends or relatives think you are a normal drinker?

- 1 ☐ Yes
2 ☐ No

- d) Have you attended a meeting of Alcoholics Anonymous (AA) because of your drinking?

- 1 ☐ Yes
2 ☐ No

- e) Are you always able to stop drinking when you want to?

- 1 ☐ Yes
2 ☐ No

- f) Have you attended an Alcohol Treatment Centre because of your drinking?

- 1 ☐ Yes
2 ☐ No

- g) Has drinking created problems with your spouse or other family members?

- 1 ☐ Yes
2 ☐ No

h) Have you got into trouble at work because of drinking?

- 1 ☐ Yes
2 ☐ No

i) Have you neglected your obligations, your family or your work for two or more days in a row because you were drinking?

- 1 ☐ Yes
2 ☐ No

j) Have you gone to anyone for help about your drinking?

- 1 ☐ Yes
2 ☐ No

k) Have you been in a hospital because of your drinking?

- 1 ☐ Yes
2 ☐ No

l) Have you been arrested, even for a few hours, because of drunk behaviour?

- 1 ☐ Yes
2 ☐ No

m) Have you been arrested for drunk driving or driving after drinking?

- 1 ☐ Yes
2 ☐ No

H-3: EXERCISE:

The following questions refer to physical exercise.

92 In the past 3 months, did you take part in active physical exercise, that is, exercise which made you sweat or breathe more heavily than normal?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 96

93 What did you do? (check one)

- 1 ☐ Walk
2 ☐ Run or jog
3 ☐ Exercise in a class or at home
4 ☐ Ride a bicycle
5 ☐ Ride a stationary bicycle
6 ☐ Other (specify) _____

94 In the past 3 months, how often did you take part in this activity?

- ___ times per week
OR
___ times per month
7 ☐ Less than once a month
8 ☐ Don't know

95 About how much time did you spend on each occasion?

- 1 ☐ More than one hour
2 ☐ Between 45 minutes and one hour
3 ☐ Between 30 and 45 minutes
4 ☐ Between 15 and 30 minutes
5 ☐ 15 minutes or less
6 ☐ Don't know

96 Which of the following best describes the level of physical effort in your work or daily activities?

- 1 ☐ Light, such as office work, driving, sitting, ...
2 ☐ Moderate, such as carpentry, walking, ...
3 ☐ Heavy, such as pushing or carrying heavy objects, ...
4 ☐ Don't know

97 Overall, do you consider the amount of physical activity you get to be ...

- 1 ☐ Too much
2 ☐ Too little
3 ☐ The right amount

H-4: DRIVING AND SAFETY:

98 Have you been the driver of a car, truck, or van in the last 12 months?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 101

99 How often do you fasten your seat belt in a motor vehicle when you are driving off-reserve?

- 1 ☐ Always
2 ☐ Most of the time
3 ☐ Rarely
4 ☐ Never

100 How often do you fasten your seat belt in a motor vehicle when you are driving on-reserve?

- 1 ☐ Always
2 ☐ Most of the time
3 ☐ Rarely
4 ☐ Never

101 How often do you fasten your seat belt when you are a passenger in a motor vehicle?

- 1 ☐ Always
2 ☐ Most of the time
3 ☐ Rarely
4 ☐ Never

SECTION I DENTAL HEALTH

Now, I would like to ask you some questions about your dental health practices.

102 Which of the following best describes your current dental health?

- 1 ☐ I have my own teeth and no dentures
2 ☐ I have my own teeth and one or more denture(s) or bridge(s)
3 ☐ I have no teeth and full upper and lower dentures or plates
4 ☐ I have no teeth and no dentures

103 Are you usually able to:

a) Chew a piece of fresh, uncooked carrot?

- 1 ☐ Yes
2 ☐ No

b) Chew firm meats such as steaks or chops?

- 1 ☐ Yes
2 ☐ No

c) Bite off and chew a piece from a whole fresh apple?

- 1 ☐ Yes
2 ☐ No

104 During the past month have you had any of the following dental health problems?

YES NO

- | | | |
|---|----------------------------|----------------------------|
| Toothache | 1 ☐ | 2 ☐ |
| Pain in teeth from hot, cold, or sweet foods or liquids | 1 ☐ | 2 ☐ |
| Pain in the jaw joints | 1 ☐ | 2 ☐ |
| Pain or discomfort from dentures | 1 ☐ | 2 ☐ |
| Sore or bleeding gums | 1 ☐ | 2 ☐ |

105 How long has it been since you last saw a dentist, dental therapist or other dental care provider?

- 1 ☐ Within the last 6 months ---- } Go to
2 ☐ 6 months to 1 year ----- } Section J
3 ☐ 1-2 years
4 ☐ 3-5 years
5 ☐ More than 5 years
6 ☐ Don't know

106 What was the main reason that you did not visit a dentist in the last year?

- 1 ☐ Too busy
2 ☐ Nothing wrong
3 ☐ Afraid or dislike dentists
4 ☐ Don't know a dentist
5 ☐ Unable to make an appointment
6 ☐ A dentist's office is too far away
7 ☐ Physical or medical problems prevented you from going
8 ☐ Other (specify) _____

107 How often do you usually see a dentist or dental therapist?

- 1 ☐ Regularly (i.e. at least once a year for check-ups)
2 ☐ Less than once a year (i.e. every 2-3 years)
3 ☐ Only when I have pain or other trouble

SECTION J: YOUR LIFE IN GENERAL

The following questions refer to your life in general.

108 Not counting the people you live with, how many relatives do you have that you feel close to?

____ Relatives (estimate number)

109 During the past 12 months how often did you see any of these relatives?

- 1 ☐ More than once a week
- 2 ☐ Once a week
- 3 ☐ Once a month
- 4 ☐ Several times a year
- 5 ☐ About once a year
- 6 ☐ Never

110 Not counting the people you live with or your relatives, how many close friends would you say that you have? (By close friends, we mean people that you feel at ease with, can talk to about private matters and can call upon for help.)

_____ Close friends (estimate number)
00 ☐ None -----> Go to Question 112

111 During the past 12 months how often did you see your close friends?

- 1 ☐ More than once a week
- 2 ☐ Once a week
- 3 ☐ Once a month
- 4 ☐ Several times a year
- 5 ☐ About once a year
- 6 ☐ Never

112 During the past 12 months what types of activities or hobbies have you usually taken part in during your leisure or free time?

(specify type of activity or hobby) _____

8 ☐ Don't know

113 Which one of the following best describes how you spent your leisure time during the past 2 months?

- 1 ☐ Almost all of it by myself
- 2 ☐ More than half of it by myself
- 3 ☐ About half of it by myself and half of it with others
- 4 ☐ Almost all of it with others

114 How satisfied are you with your social life?

- 1 ☐ Very satisfied
- 2 ☐ Somewhat satisfied
- 3 ☐ Somewhat unsatisfied
- 4 ☐ Very unsatisfied

115 a) Do you have children of your own?

- 1 ☐ Yes
- 2 ☐ No -----> Go to Question 116

b) How satisfied are you with your relationship with your children?

- 1 ☐ Very satisfied
- 2 ☐ Somewhat satisfied
- 3 ☐ Somewhat unsatisfied
- 4 ☐ Very unsatisfied

116 a) Are you presently married or living with someone?

- 1 ☐ Yes
- 2 ☐ No -----> Go to Question 117

b) How satisfied are you with this relationship?

- 1 ☐ Very satisfied
- 2 ☐ Somewhat satisfied
- 3 ☐ Somewhat unsatisfied
- 4 ☐ Very unsatisfied

117 Among your friends or your family, is there someone you confide in or talk to freely about your problems?

- 1 ☐ Yes
- 2 ☐ No

118 Among your friends or in your family is there someone who can help you in a time of need?

- 1 ☐ Yes
- 2 ☐ No

119 a) Are you a member of any voluntary group or organization, such as church and school group, child care group, village fund-raising group, support group, or social club?

- 1 ☐ Yes
- 2 ☐ No -----> Go to Question 120

b) Do you regularly attend meetings of these groups?

- 1 ☐ Yes
- 2 ☐ No

119 c) Are you a member of any committees in these groups or organizations?

- 1 ☐ Yes
2 ☐ No

d) What support group (e.g. Lupus, Weight Control, Alcoholics Anonymous) do you belong to?

(specify) _____

0 ☐ None

Interviewer Instructions: Show the answer sheet and read out loud the four possible answers to the following statements. Have the person refer to this sheet and select his/her answer after you read aloud the following statements.

120 Would you tell us how you felt during the past 12 months?

	Hardly ever	Less than half the time	More than half the time	Most of the time
a) I have been full of pep and energy	1 ☐	2 ☐	3 ☐	4 ☐
b) My health gave me no concern	1 ☐	2 ☐	3 ☐	4 ☐
c) I had no problem handling my feelings	1 ☐	2 ☐	3 ☐	4 ☐
d) Life was rather boring	1 ☐	2 ☐	3 ☐	4 ☐
e) I felt rather low	1 ☐	2 ☐	3 ☐	4 ☐
f) I felt tense, or on edge	1 ☐	2 ☐	3 ☐	4 ☐
g) I felt cheerful and light hearted	1 ☐	2 ☐	3 ☐	4 ☐
h) I felt quite lonely	1 ☐	2 ☐	3 ☐	4 ☐
i) It took some effort to keep my feelings under control	1 ☐	2 ☐	3 ☐	4 ☐
j) Many interesting things happened	1 ☐	2 ☐	3 ☐	4 ☐
k) I was worried about my health	1 ☐	2 ☐	3 ☐	4 ☐
l) I felt exhausted, worn out or at the end of my rope	1 ☐	2 ☐	3 ☐	4 ☐
m) I felt reasonably relaxed	1 ☐	2 ☐	3 ☐	4 ☐
n) I felt quite loved and appreciated	1 ☐	2 ☐	3 ☐	4 ☐

121 Health information on Indian people in Canada show that Indians take their own life more often than do white people. It often happens that a person who is feeling very bad or depressed and who cannot see a clear way to dealing with life's problems, might either think about or try to take their own life.

Have you ever seriously thought about taking your own life?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 125

122 Did this happen during the past 12 months?

- 1 ☐ Yes
2 ☐ No

123 Have you ever tried to take your own life?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 125

124 Did this happen during the past 12 months?

- 1 ☐ Yes
2 ☐ No

125 Have you had a family member or close friend take their own life in the past 12 months?

- 1 ☐ Yes
2 ☐ No

SECTION K: SOCIO-DEMOGRAPHIC INFORMATION

The questions in the following section will allow comparisons to be made between different groups of people.

126 Are you...

- 1 ☐ Gitksan
2 ☐ Wet'Suwet'En
3 ☐ Other (specify) _____

127 What is your clan membership?

- 1 ☐ Wolf
2 ☐ Fireweed
3 ☐ Frog
4 ☐ Small frog
5 ☐ Eagle
6 ☐ Beaver
7 ☐ Other (specify) _____

128 a) Have you ever lived off-reserve?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 131

b) How many of the past 15 years (1975-1990) have you lived off-reserve?

- 1 ☐ 1 year or less
2 ☐ 2 to 5 years
3 ☐ 6 to 10 years
4 ☐ 11 years or more

129 Did you establish residence on-reserve before or after 1986?

- 1 ☐ Before 1986
2 ☐ After 1986

130 Have you established residence on-reserve as a result of changes to the Membership Section of the Indian Act (Bill C 31)?

- 1 ☐ Yes
2 ☐ No

131 What was your date of birth?

____ Month ____ Day ____ Year

132 What is the highest level of education that you have ever completed?

- 1 ☐ No formal schooling -----> Go to Question 134
2 ☐ Some primary school (grades 1 to 8)
3 ☐ Primary school (completed grade 8)
4 ☐ Some secondary or high school (grades 9-12)
5 ☐ Completed secondary or high school (completed grade 12)
6 ☐ Some community college, technical college, or nursing program
7 ☐ Completed community college, technical college, or nursing
8 ☐ Some university (not completed)
9 ☐ University degree (completed)
Bachelor, Masters, or PhD

133 a) Did you ever attend a Residential School during grades 1-12?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 134

b) At what ages did you attend Residential School?

____ Age (estimate: e.g. 10-16 years of age)

134 What was your main activity during the last 12 months? Was it... (Mark only one)

- 1 ☐ Working at a job -----> Go to Question 137
2 ☐ Looking for work
3 ☐ Going to school
4 ☐ Keeping house
5 ☐ Retired
6 ☐ Not working, not looking for work, not going to school (i.e. hanging around)
7 ☐ Other (specify) _____

135 Have you ever worked?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 140

136 Did you work at a job or business at any time during the last 12 months?

- 1 ☐ Yes
2 ☐ No ----- Go to Question 140

137 During how many of the last 12 months were you working?

_____ Months (estimate number)

138 Was the work mostly...

- 1 ☐ Full time
2 ☐ Part time
3 ☐ Seasonal

139 What type of work was this?

(specify) _____

140 How many families live in the same house as you on a permanent basis? (One family includes a man, woman and their dependent children; or, a single parent and the children)

_____ Families (specify number)

141 Overall, do you feel overcrowded in the house in which you live...

- 1 ☐ Most of the time
2 ☐ Often
3 ☐ Sometimes
4 ☐ Occasionally
5 ☐ Never

SECTION L: WOMEN'S HEALTH

142 Interviewer check item:
Respondent is:

Female 1 ☐ -----> go to Question 143

Male 2 ☐ -----> go to Section M

143 In the past 12 months have you had your breasts examined by a doctor or nurse?

- 1 ☐ Yes
2 ☐ No

144 Have you ever been shown how to examine your breasts?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 146

145 How often do you examine your own breasts? Would you say...

- 1 ☐ At least once a month
2 ☐ Once every 2-3 months
3 ☐ Less often
4 ☐ Neve

146 When did you last have a Pap smear test for cancer?

- 1 ☐ Within the past year
2 ☐ 1 or 2 years ago
3 ☐ More than 2 years ago
4 ☐ Never
5 ☐ Don't Know

147 Do you take either of the following types of pills?

a) Oral contraceptives (THE PILL)

- 1 ☐ Yes
2 ☐ No

b) Female hormones

- 1 ☐ Yes
2 ☐ No

148 Did you ever give birth to a child?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 151

149 a) When was your last child born?

_____ Month _____ Year

149 b) Did you breast-feed your last child?

- 1 ☐ Yes
2 ☐ No

c) How long did you breastfeed your last child?

- 1 ☐ Less than 1 month
2 ☐ 1-3 months
3 ☐ 4-6 months
4 ☐ More than 6 months
5 ☐ Don't know

150 Are you pregnant now?

- 1 ☐ Yes
2 ☐ No
8 ☐ Don't know (i.e. might be, but not sure)

SECTION M. NUTRITION

151 How tall are you without shoes?

_____ OR _____
Feet Inches Centimetres

152 How much do you weigh?

_____ OR _____
Pounds Kilograms

153 How much would you like to weigh?

_____ OR _____
Pounds Kilograms

88 ☐ Don't know

154 Do you think you could improve your health by changing your eating habits?

- 1 ☐ Yes
2 ☐ No
8 ☐ Don't know

155 A person's health can be affected by the kinds and amounts of food they eat and the beverages they drink. In the next section you will be asked to identify all the foods you ate and drank in the past 24 hour period (i.e. yesterday).

Interviewer check item:

The 24 HOUR FOOD RECALL is for

- | | |
|--------------------------------------|-------------------------------------|
| 1 ☐ Monday | 5 ☐ Friday |
| 2 ☐ Tuesday | 6 ☐ Saturday |
| 3 ☐ Wednesday | 7 ☐ Sunday |
| 4 ☐ Thursday | |

156 24 HOUR FOOD RECALL

TIME	FOOD	DATA ENTRY INFORMATION	
		NUTRIENT	QUANTITY
	List kinds and amounts of foods eaten in 24 hours. Include all fluids as well as such items as sugar, margarine, salad dressing, etc.	Energy (kcal)	_____
		Energy (Kj)	_____
		Protein (g)	_____
		CHO (g)	_____
		Fat (g)	_____
		Sat'd fat (g)	_____
		Cholesterol (mg)	_____
		Calcium (mg)	_____
		Iron (mg)	_____
		Vitamin A (RE)	_____
		Thiamin (mg)	_____
		Riboflavin (mg)	_____
		Niacin (NE)	_____
		Folacin (mcg)	_____
		Vitamin C (mg)	_____
		Fibre (g)	_____
		Trad. Food	_____
	Trad. Food	_____	
	Trad. Food	_____	
	Trad. Food	_____	

SECTION N: CHILD HEALTH

This final section concerns the health of children 14 years and younger.

157 Are you responsible for the care of a child 14 years or younger?

1 ☐ Yes

2 ☐ No -----> Close the interview by thanking the individual. Read the statement at the end of the interview form.

158 The ages and sex of all children 14 years and younger are... (Male=M; Female =F)

Age	Sex	Age	Sex
---	---	---	---
---	---	---	---
---	---	---	---

159 I would now like to ask you some questions about the health of the male / female (Interviewer circle one) child aged ____ years. This child's name is _____.

160 The following are some statements that mothers have made to describe their children. Answer these statements thinking about (child's name) the last 14 days.

Ask questions in Part 2 if a starred (★) answer was chosen in Part 1.

Part 1 During the last 14 days how often did (child's name)				Part 2: Was this due to a sickness?		
	Never or rarely	Some of the time	Almost always	Yes	Some- times	No
a) Eat well	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
b) Sleep Well	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
c) Seem contented and cheerful	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
d) Act moody	1 ☐	2 ☐ ★	3 ☐ ★	1 ☐	2 ☐	3 ☐
e) Communicate what he/she wanted	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
f) Seem to feel sick and tired	1 ☐	2 ☐ ★	3 ☐ ★	1 ☐	2 ☐	3 ☐
g) Occupy him/herself	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
h) Seem lively and energetic	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
i) Seem unusually irritable	1 ☐	2 ☐ ★	3 ☐ ★	1 ☐	2 ☐	3 ☐
j) Sleep through the night	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
k) Respond to your attention	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
l) Seem unusually difficult	1 ☐	2 ☐ ★	3 ☐ ★	1 ☐	2 ☐	3 ☐
m) Seem interested in what was going on around him/her	1 ☐ ★	2 ☐ ★	3 ☐	1 ☐	2 ☐	3 ☐
n) React to things by crying	1 ☐	2 ☐ ★	3 ☐ ★	1 ☐	2 ☐	3 ☐

Interviewer check one item:

- 1 ☐ Yes or Sometimes answer(s) to Part 2 above
-----> Go to Question 161
- 2 ☐ No answers to Part 2 above
-----> Go to Question 162

161 In your opinion, what kind of sickness did (child's name) have? (i.e. name the sickness)

(Specify) _____

162 a) During the last 14 days, did you take or send (child's name) to a medical doctor because of his/her health?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 163

b) According to the medical doctor, what was the health problem that caused (child's name) to be sick?

(specify) _____

8 ☐ Don't know

163 a) During the last 14 days, did you see or talk to the Community Health Nurse about (child's name) health?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 164

b) What was the main reason for this contact?

(specify) _____

164 a) During the last 14 days did you see or talk to the Community Health Representative about (child's name) health?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 165

164 b) What was the main reason for this contact?

(specify) _____

165 a) During the last 14 days, did you see or talk to an Indian doctor about (child's name) health?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 166

b) What was the main reason for this contact?

(specify) _____

166 a) Does (child's name) attend school?

- 1 ☐ Yes
2 ☐ No -----> Go to Question 167

b) How many days of school did (child's name) miss in the last 14 days because of his/her health?

_____ (estimate number)

167 In general, would you say (child's name) health is ...

- 1 ☐ Excellent
2 ☐ Very good
3 ☐ Good
4 ☐ Fair
5 ☐ Poor

168 During the last 3 months, how much have you worried about (child's name) health?

- 1 ☐ A great deal
2 ☐ Somewhat
3 ☐ A little
4 ☐ Not at all

169 During the last 3 months, how much pain or distress has (child's name) health caused him/her?

- 1 ☐ A great deal
2 ☐ Some
3 ☐ A little
4 ☐ Not at all

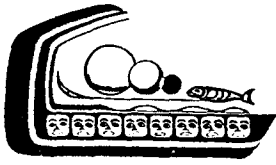
170 Would you say...

	True	Mostly true	Don't Know	Mostly False	False
a) <u>(child's name)</u> health is excellent	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b) <u>(child's name)</u> seems to resist sickness very well	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c) <u>(child's name)</u> seems to be less healthy than other children you know	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d) When there is something going around, <u>(child's name)</u> usually catches it	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

These questions end the interview. Thank you for the time you have contributed to this study of the health and health care needs of the Gitksan and Wet'suwet'en people.

COMMENTS;

APPENDIX C (2)



II. Key Respondent Health Survey, 1991

The Health
of
The Gitksan and Wet'suwet'en People

Name of Village: _____

Record Identification _____

Date: _____

Thank you for taking part in the health study. The completed questionnaire will provide proof of your consent to participate.

INSTRUCTIONS: Use a ballpoint pen and make a check mark in spaces provided for your answer (e.g. ☐ Yes). Where a written answer is required, print clearly.

- 1 In general, compared to neighbouring Gitksan and Wet'suwet'en villages, would you say the state of health of the people in _____ village is ...

- | | | |
|---|--------------------------|-----------|
| 1 | ☐ | Excellent |
| 2 | ☐ | Very good |
| 3 | ☐ | Good |
| 4 | ☐ | Fair |
| 5 | ☐ | Poor |

- 2 a) As a whole, would you describe life on-reserve as ...

- | | | |
|---|--------------------------|---|
| 1 | ☐ | Very stressful |
| 2 | ☐ | Fairly stressful |
| 3 | ☐ | Not very stressful |
| 4 | ☐ | Not at all stressful ----- Go to Question 3 |

- b) What do you consider to be the 3 main sources of stress for people living in the village?

(specify; (1) is the most important)

(1) _____ (most important)

(2) _____

(3) _____

- 3 a) What in your opinion, are the major health-related problems in the village? (Check all that apply)

- 01 ☐ Physical impairments (handicaps)
- 02 ☐ Poor nutrition
- 03 ☐ Alcohol or drug abuse
- 04 ☐ Problems related to childbirth
- 05 ☐ Problems related to post-natal care
- 06 ☐ Family planning and birthcontrol
- 07 ☐ Physical illness
- 08 ☐ Emotional illness
- 09 ☐ Unsanitary conditions on-reserve
- 10 ☐ Poor housing conditions
- 11 ☐ Accidents and injuries
- 12 ☐ Incidence of violence
- 13 ☐ Child sexual abuse
- 14 ☐ Chronic illness due to old age
- 15 ☐ Personal hygiene
- 16 ☐ Mental health problems, e.g. suicides, violence
- 17 ☐ Other (specify) _____

- b) Of the problems identified above, what do you consider to be the 5 most important health related problems?

(specify; (1) is the most important)

- 1 _____ (most important)
- 2 _____
- 3 _____
- 4 _____
- 5 _____ (lesser importance)

- 4 a) In the past 4 months, are any band members known to have used any of the following drugs while on-reserve? (Mark all that apply)

- 1 ☐ Marijuana or hash
- 2 ☐ Cocaine or crack
- 3 ☐ LSD (acid)
- 4 ☐ Speed (amphetamines, uppers)
- 5 ☐ Heroin (dust, horse, junk, smack)
- 6 ☐ Glue, solvents or gasoline
- 7 ☐ Other (specify: _____)
- 8 ☐ Don't know -----> Go to Question 5

b) How serious a health related problem do you consider the use of drugs on-reserve?

- 1 ☐ Very serious
 2 ☐ Fairly serious
 3 ☐ Not very serious
 4 ☐ Not at all serious

c) Do you consider drug use or alcohol use to be a bigger health related problem? (mark one)

- 1 ☐ Drug use
 2 ☐ Alcohol use

5 a) Are there health needs in the village that are not being met?

Note: An unmet need exists when a problem has been identified; judgement is made that possible satisfactory solutions are not accessible, are not currently adequate, or do not exist in the village.

- 1 ☐ Yes
 2 ☐ No -----
 8 ☐ Don't know ----- Go to Question 6

b) In your opinion, which health needs are not being met?

- (specify) (1) _____
 (2) _____
 (3) _____
 (4) _____
 (5) _____

c) Which 3 unmet health needs do you consider the most important?

(specify; (1) is the most important)

- 1 _____ (most important)
 2 _____
 3 _____

- 6 a) In your opinion, are there any health services or programs for village people that can be reduced?

1 ___ Yes
 2 ___ No -----
 8 ___ Don't know ----- Go to Question 7

- b) Which health services or programs can be reduced?

(specify) _____

- 7 a) In your opinion, are there any health services or programs for village people that should be expanded or enriched?

1 ___ Yes
 2 ___ No -----
 8 ___ Don't know ----- Go to Question 8

- b) Which health services or programs in the village should be expanded or enriched?

(specify) _____

- 8 a) Are there any voluntary, self-help groups (e.g. weight control) in the village?

1 ___ Yes
 2 ___ No -----
 8 ___ Don't know ----- Go to Question 9

- b) What are the known voluntary, self-help groups in the village (i.e. on-reserve)?

(specify) _____

9 a) Do band members attend any self-help groups off-reserve?

- 1 ____ Yes
2 ____ No _____
8 ____ Don't know ----- Go to Question 10

d) What self-help group(s) do band members attend off-reserve and what is the location (e.g. town or other village)?

(Specify)	Name of Self-Help Group	Location
-----------	-------------------------	----------

10 **Are you...**

- 1 ___ Gitksan
2 ___ Wet'Suwet'En
3 ___ Other (specify) _____

COMMENTS:

[illegible]

APPENDIX D

Estimated Sample Size for General Health Survey

An estimate of the sample size is based on the key study variable self assessed health which is scaled on a five point scale (excellent, very good, good, fair, and poor). For the purposes of this study, it is estimated that 60% of respondents would rate their health as good or better. The estimate is derived from two studies involving on-reserve people aged 15 years and over: (1) in isolated villages in nor-western Ontario, 74% (N=477) rated their health as good (Young, 1982); and, (2) among the Nuu-Chah-Nulth people on Vancouver Island, 53% (N=427) rated their health as good to excellent (per Simon Read, Manager of Nuu-Chah-Nulth Health Board)

Calculations are according to the Krejcie and Morgan (1970) formula with computations demonstrated by Isaac and Michael (1989, p.192). The formula is as follows:

$$S = \frac{X^2 NP (1 - P)}{d^2 (N - 1) + X^2 P (1 - P)}, \text{ where}$$

S = required sample size

N = the given population size

P = 0.6 or the proportion of population that rates its health as good or better

d = 0.08, or 8% allowable error

X² = 3.066 for one degree of freedom at a 92% confidence level.

In application, where N=210, a sample size is as follows:

$$S = \frac{(1.751)^2 210 (0.6 (1 - 0.6))}{(0.08)^2 (210 - 1) + (1.751)^2 (0.6 (1 - 0.6))} = 75$$

In this study a random sample size of 75 is needed for a population of 210 such that 60% of the sample will be within +/- .08 of the population with a 92% level of confidence.

If the estimated response rate is 75%, then the adjusted sample is: $S = 75/0.75 = 100$

There is no adjustment made for a sample design effect. The technique involving stratified random sampling reduces the likelihood of random error. Therefore, if a sample design effect had been calculated, then a smaller sample size would be required.

APPENDIX E

Interviewer Training: Agenda

A Study of the Health Status and Health Care Needs of a Gitksan and Wet-suwet-en On-Reserve Population in B.C.

Date: May 15 and 16, 1991
 Time: 0900-1630 hours
 Place: GWES Office, Main floor classroom
 Hazelton, B.C.

AGENDA:

Time	Topic
<u>Wednesday, May 15</u>	
0900-0930	Introduction Description of study - 4 parts
0930-1100	Techniques and procedures in interviewing. Rule: Confidential Information
1100-1200	Questionnaire structure and purpose of nine sections
1200-1300	Lunch
1300-1330	Self-complete questionnaire
1330-1600	Detailed review of Questionnaire
1600-1630	Closure: Review main points covered and answer questions
<u>Thursday, May 16</u>	
0900-0930	Review day plan Discuss interview techniques and procedures
0930-1130	24 Hour Food Recall - Lecture and Practice Demonstration and Practice of food measurement
1130-1200	Discussion - Questionnaire and Food Recall
1200-1300	Lunch
1300-1500	Role Play to Practice an interview - form pairs
1500-1600	Feedback and discussion of interview practice
1600-1630	Handout interviewing kit Discuss time plan for interviewing and weekly follow-up. Closure.

APPENDIX F

Supplementary Tables: General Health Survey

Table F1
Clan Membership and Age Groupings According to Tribal Ancestry

Category	Gitksan (No.)	Wet'suwet'en (No.)	★Gitksan- Wet'suwet'en (No.)	Other Tribes (No.)	Total (%)
Clan Membership:					
Wolf	15	7	4	0	27
Fireweed	11	3	2	4	21
Frog	15	11	2	1	30
Small Frog	0	15	0	0	15
Other	0	3	0	4	7
TOTAL	41	39	8	9	97 (100%)
Age Groupings:					
15-19 years	2	8	2	2	14
15-24 years	7	7	0	0	14
25-34 years	12	7	2	2	23
35-44 years	10	11	1	3	25
45-54 years	5	4	2	0	11
55-64 years	2	0	1	2	5
65+ years	3	2	0	0	5

★ Respondents identifying a combined Gitksan-Wet'suwet'en ancestry were members of the Wet'suwet'en village.

Table F2
History of Living Off-Reserve Between 1975-1990 and Bill C-31 Status

Lived Off-Reserve Past 15 Years:	Residence Established as Result of Bill C-31			
	Yes (No.)	No (No.)	Not Applicable (No.)	Total (%)
Yes	10	60	2 ★	74
No	0	0	25	26
Total	10	60	27	97 (100%)

★ Respondents had lived on-reserve prior to regaining status through Bill C-31

Table F3
Educational Achievement by Age

Educational Categories	15-24 Years (No.)	25-34 Years (No.)	35-44 Years (No.)	45+ Years (No.)	Total(%)
No Formal Schooling	0	0	0	1	1
Some Primary School	3	0	2	8	13
Completed Grade 9	2	1	2	4	9
Completed between Gr. 9-12	13	10	5	6	35
Completed Grade 12	5	4	1	0	10
Some College	3	4	11	1	20
Some University	2	4	2	1	9
Completed University	0	0	2	1	2
Total	28	23	25	21	97(100%)

Table F4
Attendance at Residential School According to Demographic Characteristics and Health Assessment.

		History of Attendance (No. and Average Years)	Non Attendance (No)
Ancestry:	Gitksan	9 (3.8 years)	31
	Wet'suwet'en	12 (2.3 years)	28
	Other Tribes	6 (5.0 years)	11
	Total	27 (3.3 years)	70
Age:	15-24 Years	1 (2.0 years)	27
	25-34 Years	9 (1.6 years)	14
	35-44 Years	7 (2.1 years)	18
	45 Years plus	9 (6.1 years)	11
Sex:	Male	13 (3.2 years)	34
	Female	13 (3.4 years)	36
Health Rating	Excellent	2	4
	Very Good	9	24
	Good	12	24
	Fair	3	16
	Poor	0	2

Table F5
Sex Differences in Experiences of Happiness and Interest in Life
as Affected by Main Activity in Past 12 Months.

Happiness	Sex	Main Activity in Past 12 Months (No. Respondents)						Total No. (% overall)
		Working	Looking for Work	Going to School	Keeping House	Retired	Other	
Happy and interested in Life	Male	14	4	3	0	4	2	27 (49%)
	Female	11	1	4	2	2	0	20
Somewhat happy and interested in life	Male	9	7	0	0	0	0	16 (38%)
	Female	7	2	4	7	0	1	21
Somewhat unhappy	Male	1	0	2	0	0	0	3 (8%)
	Female	0	2	2	1	0	0	5
Unhappy with little interest in life	Male	0	0	2	0	0	0	2 (4%)
	Female	0	0	0	1	1	0	2
So unhappy life is not worthwhile	Male	0	0	0	0	0	0	0 (1%)
	Female	0	1	0	0	0	0	1
Total by activity	Male	24	12	6	0	4	1	48 (49%)
	Female	18	6	10	11	3	1	49 (51%)
	Total	42	18	16	11	7	3	97 (100%)

Table F6
Relationship Between Health Rating and Health Improvement Plan

Health Improvement Plan	Self Rating of Health (No. of Respondents)					Total (%)
	Excellent	Very Good	Good	Fair	Poor	
Yes One Plan	0	5	3	4	0	12%
Two Plans	0	11	10	5	1	29%
Three Plans	6	9	10	8	0	33%
No Plans	1	7	13	3	1	26%

Table F7
Self-Rating of Health According to Effects of Pain or Discomfort

Pain or Discomfort	Self-Rating of Health					Total
	Excellent	Very Good	Good	Fair	Poor	
Does not prevent activities	0	3	3	1	0	7
Prevents a few activities	0	4	3	3	0	10
Prevents some activities	0	5	4	5	0	14
Prevents most activities	0	0	3	2	2	7
Total experiencing pain or discomfort	0	12	13	11	2	38
No pain or discomfort	7	21	23	8	0	59

Table F8
Daily Smokers Use, Beliefs Regarding Potential Harm, and Attempts to Quit the Habit

Factors	No.	No. Cigarettes Smoked (Range)	Beliefs in Likelihood of Harm to Health				Tried to Quit Past 12 Months	
			Very Likely	Somewhat Likely	Somewhat Unlikely	Very Unlikely	Yes	No
<u>Age:</u>								
15-24 years	11	9 (3-15)	4	6	1	0	8	3
25-34 years	9	12 (5-30)	3	5	0	1	4	5
35-44 years	7	13 (3-20)	3	3	1	0	1	6
45+ years	3	11 (6-20)	2	1	0	0	2	1
Total	30	11 (3-30)	12	15	2	1	15	15
<u>Education:</u> *								
Grade 1-8	2	18 (15-20)	2	0	0	0	0	2
Grade 9-12	15	10 (3-20)	6	8	0	1	9	6
Post Secondary	10	12 (3-30)	2	6	2	0	4	6
<u>Sex:</u>								
Male	12	11 (5-20)	5	7	0	0	5	7
Female	18	11 (3-30)	7	8	2	1	10	8

* Adjusted for age under 45 years.

Table F9
Proportion of Friends Who Smoke

Categories	Proportion of Friends Who Smoke					Total
	All	Most	Half	A Few	None	
<u>Sex</u> - Male	9	28	5	5	1	48
- Female	11	15	9	14	0	49
<u>Smokers</u> - Male	7	20	3	1	1	32
- Female	10	9	7	4	0	30
<u>Age:</u> *						
15-24 years	10	14	1	2	1	28
25-34 years	2	11	5	5	0	23
35-44 years	3	12	6	4	0	25
45+ years	5	6	2	8	0	21
<u>Education:</u> **						
Grade 1-8	3	5	0	1	1	10
Grade 9-12	10	19	4	6	0	39
Post secondary	2	13	8	5	0	28

* Chi Square = 20.8: $p < 0.05$

** Chi Square = 15.8: $p < 0.05$: Controlled for age under 45 years

TABLE F10
Distribution of Smokers and Drinkers

Category	No. Respondents	%	
		Smokers	Drinkers
Total	97	64	76
Male	48	67	81
Female	49	61	71
Age Group:			
15 - 24 years	28	82	79
25 - 34 years	23	74	87
35 - 44 years	25	56	84
45 years and over	21	38	52
Education:*			
Grade 8 and less	13	71	70
Grade 9 - 12	42	72	76
Post Secondary	30	63	93

* Age adjusted for under 45 years

Table F11
Beliefs of Potential Harm of Alcohol in Relation to
Drinking Patterns of Men and Women

Drinking Pattern	Beliefs Regarding Potential Harm of Alcohol				
	Very likely	Somewhat likely	Somewhat unlikely	Very unlikely	Don't know
<u>Male:</u>					
Weekly	15	9	7	2	0
Monthly	9	2	4	2	1
Less Often	1	2	0	1	1
<u>Female:</u>					
Weekly	0	2	5	1	0
Monthly	2	2	4	5	0
Less Often	2	1	0	11	0

Sex makes a difference in beliefs: Chi square = 33.3; $p < 0.007$

TABLE F12
Body Mass Index (BMI) for Current and Desired Body Weight
for Men and Women Between 20 and 65 Years

BMI	No. Resp.	Age Groupings in Years (No.)				
		20 - 24.9 (n = 14)	25 - 34.9 (n = 23)	35 - 44.9 (n = 25)	45 - 54.9 (n = 11)	55 - 65 (n = 5)
<u>Current: *</u>						
Less than 20	2	2	0	0	0	0
20 - 25	32	11	8	6	4	3
25 - 27	11	0	8	2	1	0
Greater than 27	33	1	7	17	6	2
<u>Desired:</u>						
Less than 20	2	1	0	1	0	0
20 - 25	46	10	13	14	6	3
25 - 27	17	2	8	4	3	0
Greater than 27	13	2	2	6	2	2

* Chi Square = 36.1: $p < 0.0003$

TABLE F13G
Average Nutrient Intake for Men 15 Years and Over:
Comparison of Mean Intake to Recommended Nutrient Intake* (RNI) and
Risk for Inadequacy Assessed According to Nutrient Intake Less Than 66% RNI

Nutrient	15 - 24 Years (n = 13)			25 - 49 Years (n = 25)			50 Years and Over (n = 10)			TOTAL	
	MI $\pm$ SD*	MI/RNI (%)	% At-Risk: Below 66% RNI	MI $\pm$ SD	MI/RNI (%)	% At-Risk: Below 66% RNI	MI $\pm$ SD	MI/RNI (%)	% At-Risk: Below 66% RNI	% At-Risk:	Risk:
Energy (kcal)	3175 $\pm$ 1070	89	8	2610 $\pm$ 979	97	19	1911 $\pm$ 642	106	10	14	
Protein (g)	97 $\pm$ 25	159	0	103 $\pm$ 38	161	0	78 $\pm$ 27	142	0	0	
Carbohydrate (g)	411 $\pm$ 203	N/A*	N/A	332 $\pm$ 175	N/A	N/A	247 $\pm$ 123	N/A	N/A	N/A	
Fat (g)	120 $\pm$ 64	N/A	N/A	93 $\pm$ 40	N/A	N/A	71 $\pm$ 27	N/A	N/A	N/A	
Cholesterol (g)	380 $\pm$ 279	N/A	N/A	478 $\pm$ 301	N/A	N/A	250 $\pm$ 150	N/A	N/A	N/A	
% Protein	12 $\pm$ 3	N/A	N/A	16 $\pm$ 6	N/A	N/A	16 $\pm$ 6	N/A	N/A	N/A	
% Carbohydrate	52 $\pm$ 6	N/A	N/A	51 $\pm$ 27	N/A	N/A	52 $\pm$ 26	N/A	N/A	N/A	
% Fat	34 $\pm$ 18	N/A	N/A	32 $\pm$ 14	N/A	N/A	33 $\pm$ 13	N/A	N/A	N/A	
Calcium (mg)	388 $\pm$ 199	38	85	581 $\pm$ 355	73	56	391 $\pm$ 182	49	70	62	
Iron (mg)	12 $\pm$ 4	116	8	14 $\pm$ 6	150	8	10 $\pm$ 3	115	0	6	
Vitamin A (RE)	345 $\pm$ 305	35	92	1311 $\pm$ 2158*	131	56	731 $\pm$ 569	73	50	65	
Thiamin (mg)	1.3 $\pm$ 0.7	109	15	1.5 $\pm$ 0.7	133	16	1.1 $\pm$ 0.3	120	0	12	
Riboflavin (mg)	1.2 $\pm$ 0.6	77	38	1.6 $\pm$ 0.9	132	12	1.1 $\pm$ 0.3	98	10	19	
Niacin (NE)	47 $\pm$ 15	213	0	41 $\pm$ 16	215	4	33 $\pm$ 11	218	0	2	
Folate (μ g)	228 $\pm$ 90	104	23	198 $\pm$ 135	86	44	161 $\pm$ 110	70	70	44	
Vitamin C (mg)	66 $\pm$ 70*	165	31	119 $\pm$ 158*	298	20	86 $\pm$ 72	214	33	26	
Fibre (g)*	5 $\pm$ 4	N/A	N/A	6 $\pm$ 8	N/A	N/A	6 $\pm$ 4	N/A	N/A	N/A	

▼ Source: Health and Welfare Canada, 1990a

* MI = Mean Intake; SD = Standard Deviation

† N/A = Not Applicable

‡ SD exceeds MI and represents wide range of Vitamin A and C intake resulting from consumption of Vitamin rich foods by some respondents

* Fibre is not classified as a nutrient but is an important part of a healthful diet

TABLE F14
Average Nutrient Intake for Women 15 Years and Over:
Comparison of Mean Intake to Recommended Nutrient Intake* (RNI) and
Risk for Inadequacy Assessed According to Nutrient Intake Less Than 66% RNI

Nutrient	15 - 24 Years (n = 15)			25 - 49 Years (n = 29)			50 Years and Over (n = 5)			TOTAL % At-Risk:
	MI ± SD*	MI/RNI (%)	% At-Risk: Below 66% RNI	MI ± SD	MI/RNI (%)	% At-Risk: Below 66% RNI	MI ± SD	MI/RNI (%)	% At-Risk: Below 66% RNI	
Energy (kcal)	2063 ± 834	103	27	1772 ± 688	93	21	1447 ± 640	18	40	25
Protein (g)	68 ± 33	144	13	65 ± 35	126	14	47 ± 26	86	40	17
Carbohydrate (g)	286 ± 142	N/A*	N/A	221 ± 103	N/A	N/A	208 ± 88	N/A	N/A	N/A
Fat (g)	73 ± 28	N/A	N/A	72 ± 34	N/A	N/A	50 ± 27	N/A	N/A	N/A
Cholesterol (g)	353 ± 260	N/A	N/A	291 ± 212	N/A	N/A	285 ± 249	N/A	N/A	N/A
% Protein	13 ± 6	N/A	N/A	15 ± 8	N/A	N/A	13 ± 7	N/A	N/A	N/A
% Carbohydrate	55 ± 28	N/A	N/A	50 ± 23	N/A	N/A	58 ± 24	N/A	N/A	N/A
% Fat	32 ± 12	N/A	N/A	37 ± 17	N/A	N/A	31 ± 17	N/A	N/A	N/A
Calcium (mg)	769 ± 746	96	40	328 ± 147	47	79	458 ± 306	57	60	65
Iron (mg)	11 ± 5	82	47	9 ± 5	69	52	7 ± 3	83	40	49
Vitamin A (RE)	1037 ± 753	130	33	733 ± 802*	91	62	608 ± 347	76	40	51
Thiamin (mg)	1.3 ± 0.7	109	15	1.5 ± 0.7	133	16	1.1 ± 0.6	138	20	16
Riboflavin (mg)	1.5 ± 1.1	134	7	0.9 ± 0.4	92	31	1.0 ± 0.6	104	40	25
Niacin (NE)	29 ± 14	191	7	29 ± 17	208	0	19 ± 10	137	20	4
Folate (µg)	163 ± 75	96	27	134 ± 85	72	62	158 ± 107	81	40	49
Vitamin C (mg)	104 ± 84	346	20	69 ± 73	231	14	141 ± 177*	471	40	18
Fibre (g)*	4 ± 2	N/A	N/A	4 ± 2	N/A	N/A	7 ± 4	N/A	N/A	N/A

▼ Source: Health and Welfare Canada, 1990a

* MI = Mean Intake; SD = Standard Deviation

† N/A = Not Applicable

‡ SD exceeds MI and represents wide range of Vitamin A and C intake resulting from consumption of Vitamin rich foods by some respondents

* Fibre is not classified as a nutrient but is an important part of a healthful diet

Table F15
Reasons for Not Seeing a Dentist in the Past 12 Months
and Usual Practices in Dental Visits

	No. Resp.	Sex (%)	
		Male	Female
<u>Reasons:</u>			
Too busy	6	50	50
Nothing wrong	11	82	18
Afraid or dislike dentists	3	66	33
Don't know a dentist	1	0	100
Unable to make appointment	3	33	66
Other	4	33	66
<u>Usually see a dentist:</u>			
Regularly	7	29	71
Less than once a year	1	100	0
Only when have pain or trouble	20	70	30

Table F16
Feelings of Overcrowdedness in Single and Multiple Family Homes

No. Families	No. Resp.	Feeling of Being Overcrowded (%)				
		Most times	Often	Sometimes	Occasionally	Never
One	71	10	4	16	11	59
Two	21	29	5	28	10	28
Three	5	60	20	20	0	0
Total	97	16	5	19	10	50

Table F17
Social Conditions and Experiences of Men and Women 15 Years and Over

Conditions and Experiences	No. Resp.	Sex (No. (%))	
		Male (N = 49)	Female (N = 48)
Average No. family members feel close to *	97	15	10
<u>Frequency in visiting family members:</u>			
More than once a week	56	25 (45%)	31 (56%)
Once a week	18	13 (72%)	5 (28%)
Once a month	7	6 (86%)	1 (14%)
Several times a year	9	3 (33%)	6 (67%)
About once a year	3	1 (33%)	2 (67%)
Average No. close friends **	97	7	3
<u>Frequency in visiting close friends:</u>			
More than once a week	42	20 (48%)	22 (52%)
Once a week	22	10 (46%)	12 (54%)
Once a month	6	4 (67%)	2 (33%)
Several times a year	6	3 (50%)	3 (50%)
About once a year	5	5 (100%)	0 (0)
<u>How spent leisure time:</u>			
Almost all by self	5	4 (80%)	1 (20%)
More than half by self	5	0 (0)	5 (100%)
Half by self, half with others	40	19 (48%)	21 (52%)
Almost all with others	46	24 (52%)	22 (48%)
<u>Satisfaction with social life:</u>			
Very satisfied	27	18 (67%)	9 (33%)
Somewhat satisfied	55	25 (45%)	30 (55%)
Somewhat unsatisfied	12	3 (25%)	9 (75%)
Very unsatisfied	3	2 (67%)	1 (33%)
Have children of own	67	29 (43%)	38 (57%)
<u>Satisfaction with relationship with children:</u>			
Very satisfied	53	24 (45%)	29 (55%)
Somewhat satisfied	12	4 (33%)	8 (67%)
Somewhat unsatisfied	12	1 (50%)	1 (50%)
Presently married or living with someone	54	25 (47%)	29 (53%)
<u>Satisfaction with relationship:</u>			
Very satisfied	30	20 (67%)	10 (33%)
Somewhat satisfied	18	5 (28%)	13 (72%)
Somewhat unsatisfied	6	0 (0)	6 (100%)
Have someone to confide in	79	36 (46%)	43 (54%)
Have someone to help in time of need	86	44 (51%)	42 (49%)
Member of a voluntary group	51	26 (51%)	25 (49%)
Regularly attend meetings	34	18 (53%)	16 (42%)
Member of a committee	26	13 (50%)	13 (50%)

Table F18
High and Low Levels of Well-Being and Relationships to Health Experiences

Health Experience	Well-Being		Significance
	Low (%)	High (%)	
<u>Health Rating:</u>			
Excellent	1 (3)	6 (10)	$\chi^2 = 2.7; p < 0.61$
Very good	12 (32)	21 (36)	
Good	15 (39)	21 (36)	
Fair	9 (24)	10 (17)	
Poor	1 (3)	1 (2)	
Total	38 (100%)	59 (100%)	
<u>Happiness and Interest in Life:</u>			
Happy	10 (26)	37 (63)	$\chi^2 = 15.6; p < 0.003$
Somewhat happy	18 (47)	19 (32)	
Somewhat unhappy	6 (16)	2 (3)	
Unhappy with little interest	3 (8)	1 (2)	
So unhappy life not worthwhile	1 (3)	0 (0)	
<u>Level of Stress in Life:</u>			
Very stressful	6 (16)	2 (3)	$\chi^2 = 11.3; p < 0.01$
Fairly stressful	22 (58)	23 (39)	
Not very stressful	9 (24)	28 (47)	
Not at all stressful	1 (3)	6 (10)	
<u>Satisfaction With Health:</u>			
Very satisfied	5 (13)	23 (39)	$\chi^2 = 13.3; p < 0.004$
Somewhat satisfied	19 (50)	30 (51)	
Not too satisfied	12 (32)	5 (8)	
Not at all satisfied	2 (5)	1 (2)	
<u>Thought of Taking Own Life in</u>			
<u>Past 12 Months:</u>			
Yes	10 (56)	6 (32)	$\chi^2 = 2.16; p < 0.14$
No	8 (44)	13 (68)	