How do medical educators think about capacity building through graduate medical educational programs?

by

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Abstract

Medical education in the twenty first century is a complex undertaking and is occurring in a setting of rapidly increasing change. Training students and residents to the point of clinical proficiency requires educational skills and knowledge that are rarely taught to most physicians. Academic health centers are increasingly part of a 'health-industrial complex' which often places their educational missions in conflict with the revenue-generating requirements of patient care and research. The increasing role of commercial forces in medicine poses threats to the societal obligations of physicians such as patient and healthcare advocacy. Neither has medical education escaped the forces of globalization that have radically transformed much of the planet.

Medical educational leaders are therefore going to require skills and knowledge to respond to these challenges. These are capacities that go beyond the scope of most faculty development programs, which usually provide minimal instruction in educational theory and research. Graduate programs in medical education can however satisfy many of these leaders' educational needs.

The capacities that these programs will require to address these needs were conceptualized in a framework having outcomes at four levels: 1) individual 2) institutional 3) societal and 4) global. Three focus groups of North American medical educators were asked to discuss these capacities in the context of this framework. Data were also obtained from the mission statements of 21 English-language masters programs in medical education.
The focus groups confirmed the importance of graduate educational training for physician-educators, emphasizing topics with individual and institutional implications such as curriculum planning, student assessment, program evaluation and educational research. There was minimal discussion about the societal and global ramifications of medical education. The only significant references to these notions emanated from the mission statements of the minority of medical educational programs located in faculties of education.

When characterizing what capacities were important for graduate programs in medical education to develop, medical educators adopted an approach best understood via a framework derived from the adult educational program planning literature. They were reluctant to embrace the broader societal and global notions that have informed adult education over the past few decades.
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Dedication

This thesis is dedicated to my wife Jennifer and my children Lindsay and Gregory who have all constantly encouraged and motivated me to complete this work.
Chapter One - Introduction

Medical education in the twenty-first century is a complex undertaking and is occurring in a setting of rapidly increasing change. These developments can be conceived of as occurring at four different levels: 1) At an individual level with regard to the knowledge and skills required to be a competent educator and educational research (Eitel, Kanz, & Tesche, 2000); 2) at an institutional level, where medical education is increasingly depending on and interacting with extraneous agencies that have not traditionally been its partners (Eggertson, 2005); 3) at a societal level, where it has a responsibility for the preservation of ethical and professional values which are being threatened by market-driven forces (McGregor et al., 2005); 4) and at a global level, where there are emerging imperatives to globalize the process and standards of medical education (Karle, 2004). Future medical educational leaders are therefore going to require skills, knowledge and training that they have not received during the course of their undergraduate and residency years, and that go beyond the scope of most faculty development programs. Graduate programs in medical education can provide many of these future leaders’ educational needs. To do so however, these programs must develop broad-based capacities at individual, institutional, societal and global levels. This thesis conceives these capacities as the ability of the programs to instill faculties and talents in their students which address these multi-level needs.

This introduction outlines in detail the challenges at these four levels from both theoretical and practical perspectives with the specific purpose of emphasizing the knowledge and skills base that future medical educators will need. It portrays these needs in the context of the increasing professionalization of medical education, and
outlines the avenues open to physicians who wish to increase their knowledge and skills in the field, emphasizing the central role played by masters programs in medical education in this regard. It stresses the paucity of knowledge by which current masters programs in medical education might be analyzed and on which future programs might be designed. And it concludes by making the case for this study, which aims to add to that conceptual and theoretical core of knowledge by exploring those capacities which are important for masters programs in medical education to develop.

Problems facing medical educators

Key concepts: Flexner and reform in academic medicine; academic medicine's increasingly complex operating milieu; conflict between teaching, research and patient care; the International Committee for the Revitalization of Academic Medicine (ICRAM).

Academic medicine has been defined as: ‘The capacity of the healthcare system to think, study, research, discover, evaluate, teach, learn, and improve’ (Clark, 2005). As such it provides the intellectual and organizational focal point from which medical education will evolve’. A century ago Flexner highlighted the gross deficiencies in North American academic medicine and medical education in his landmark report and suggested methods for improvement (Flexner, 1910). His reforms had a major impact on medical education in the twentieth century and ensured that the training of physicians was based on sound scientific principles. But since Flexner’s time the academic medical milieu (and hence medical education) has become increasingly complicated. Flexner was well aware of the relationships between patient care, clinical/basic science research and medical education, and in particular cautioned how the demands and rewards of patient care could negatively impact on the education of medical students and residents. He
viewed the scientific research tradition as a model on which medical education should be based, but probably could not have guessed that it would come to compete for resources with the medical educational mission. Similarly it would have been extremely difficult for him to conceive of the increasing complexities which confront the academic medical mission in the twenty-first century.

Ahmed, Awasthi, Clarfield, Dandona and Howe et al. (2004a, 2004b) on behalf of the International Campaign to Revitalize Academic Medicine (ICRAM), cautioned that academic medicine is facing serious challenges, and alluded to some of the problems that have to be considered. They acknowledged the tripartite nature of the academic medical mission (teaching, clinical service and research), but perceived that there needs to be a synergy between these three modalities that is now absent, particularly with regard to serving patients and healthcare services. Other problems they identified were the undervaluation of teaching and an imbalance between clinical and basic science research, with basic science often consuming significant resources but failing to contribute significantly to improved health outcomes. The current academic system is not perceived by the ICRAM to support excellence in clinical practice, leading to significant differences in practice standards. They pointed to significant global inequities in health care and medical education which had not been adequately addressed by the academic medical system of the developed world, and cited China as an example. China has 2.2 million doctors, a third of the world’s total. Problems there included the need for an increased academic workforce and structures to support continuing medical education and the production of high quality, licensed doctors; disproportionately low funding for clinical science research; the poor visibility of most domestic research; and an uncertain
role for academic medicine in the changing finances of the Chinese health system. Schmidt and Duncan (2004) and Sewankambo (2004) have provided additional evidence to show that the worldwide burden of disease is disproportionately born by developing nations.

Ahmed et al. (2004b) have also identified not only a significant lack of future ‘person power’ in the medical academy but also a maldistribution of this valuable resource both by age and gender. They cite a study by Smith and Sime (2001) in the United Kingdom where 10-20% of posts designated for senior medical academics were noted to be vacant. A study from Canada revealed that a quarter of faculty members in the Department of Medicine at the University of Toronto will be over the age of 65 by 2011 (Phillipson, 2001). A recent U.S. survey showed that females comprised about 50% of medical students but only 11% of professors (Ash, Carr, Goldstein, & Friedman, 2004). And finally Ahmed et al. comment on how the pharmaceutical, biotechnological and medical device industries are impacting academic medicine and cite Ioannidis (2004), who noted that a significant majority of recent randomized trials either received industry sponsorship, were co-authored by individuals with industry connections or were more likely to demonstrate results favorable to sponsors compared to those that were non-industry funded.

Amelioration of these problems will require a fundamental redefinition of roles and restatement of values by the academic medical community, coupled with an assurance of greater commitment to patients, healthcare systems and society. This will necessitate partnerships with multiple agencies that will cut across traditional institutional and disciplinary boundaries. The ICRAM initiative was founded in the belief that it will
take large scale efforts at reform by the worldwide academic medical community to bring about significant change, and that this change will have to include agencies and groups that previously have not had a voice at the academic medical table.

Clark and Tugwell (2004) echoed the concerns expressed by Ahmed et al., and additionally made the case for strong academic leadership, without which these initiatives will not succeed. They also discussed the need for this leadership to protect the academic freedom of clinicians, and cited Wright and Wedge (2004) in cautioning against the conflict of interest sometimes experienced by physicians who function both in university and hospital settings. The Canadian Medical Association Journal (Editorial, 2004) noted how the milieu of academic medicine has changed from one which permitted the leisurely teaching of students and residents to co-exist comfortably with patient care and research to one that frequent needed to juggle academic freedom with the demands of government and the private sector. One of the beneficial consequences has been increasing accountability toward the public and health care system. Deleterious effects have included a move away from clinical to bench research and a loss of overview for students resulting in the practice of medicine according to guidelines and protocols rather than from a more holistic perspective. Patients themselves have become more empowered by the ready availability of unfiltered knowledge over the Internet, which challenges the authority of many physicians.
The increasingly complex institutional environment facing medical educators

Key concepts: Financial pressures faced by academic health centers' (AHCs); demands on and requirements of AHC leaders; the Commonwealth Fund and Institute of Medicine Task Force reports on AHCs; mergers between AHCs.

One of the notable trends that has affected the private sector worldwide over the past few decades has been the increasing movement toward consolidation and mergers. This has been prompted in part by globalization and the increasing ease of conducting business remotely, but to a larger extent by the relentless desire of corporations to exploit the potential benefits of economies of scale in increasing corporate profitability. This potential has not escaped the attention of the administrators responsible for managing academic health centers (AHC's). As costs have escalated so has the financial and overall future of these institutions often been placed in jeopardy (DeAngelis, 2000). One of the proposed solutions has been to emulate the actions of the private sector and facilitate institutional mergers in the hope of increasing efficiencies and reducing costs (Weiner, Culbertson, Jones, & Dickler, 2001). These changes can very significantly impact the academic medical community working in these institutions, and it places an obligation on their leaders to understand and be able to respond to the managerial and financial issues involved. The recent search for a new dean at the Faculty of Medicine at McGill University illustrates this reality. The initial search was abandoned after 18 months due to the inability to recruit a suitable candidate, and the university was forced to strike a new search committee. The original committee had unsuccessfully screened over 200 candidates but was not able to locate an individual with the specific credentials for the
position, which included 'the ability to work closely with the Quebec government and local health networks and be involved in hospital projects' (Eggertson, 2005).

Whitcomb (2005a) commented on some of the challenges with regard to the education of medical students and residents that are going to affect academic health centers. He emphasized the importance of the apprenticeship experience that will allow them to 'observe master clinicians interacting with and providing care to patients'. For those experiences to be effective, patients must have conditions that are relevant to the learners' particular stage of education and training. He went on to note that the nature of the patients admitted to academic health centers had changed significantly in recent years, as had the composition of the health care teams that care for these individuals. As a result, learners were often not encountering the kinds of patients that they were most frequently going to see in practice, and their place on the inpatient teams had been marginalized. He contended that academic medical leadership must recognize and respond to these changes if they were to ensure competence in their trainees, and that a redesign of clinical education would involve a thorough understanding of the dynamics of the modern AHC.

Some of the other challenges facing AHC's, and thus their academic leaders, have also been outlined in two recent reports from the U.S. The first was from the Commonwealth Fund Task Force on Academic Health Centers (Thier et al., 2003). The Task Force posed fundamental questions about the future role of the AHC, including whether their mission was still relevant in a social and societal context; and if so, the methods by which they should be organized, financed and managed. The consensus was that these centers would always be needed to provide education, specialized care and
research in the communities they served, and that their basic mission remained intact. For these goals to be achievable and sustainable, significant innovations would be needed. These included the ability to demonstrate leadership at a national health care level, strengthen academic ties, maintain academic freedom, institute proven yet flexible management techniques, encourage interdisciplinary study and use informatics efficiently. Informatics, according to the Task Force, included the ability to educate students and residents remotely and by using simulation. It was foreseen that many AHC's would become specialized, and would not attempt to remain proficient at patient care, research and teaching; strategic planning would be vital in achieving these ends. The identification and training of appropriate leaders was seen as crucial, as was the adoption of non-traditional areas of research such as the behavioral sciences. Relationships with industry would need to be managed to protect academic values, sustain public confidence and uphold research objectivity. Increased social responsibility was viewed as crucial, particularly with regard to providing culturally competent care and attempting to reduce pre-existing societal disparities.

The report of the Institute of Medicine (IOM) Committee on the Roles of Academic Health Centers (Porter et al., 2003) considered similar themes. The report emphasized AHC-fostered inter-disciplinary cooperation amongst the health professions as a priority. There would have to be significant action at a public policy level to support the vital societal role of AHC's, with cooperation amongst private and public payers as well as foundations. This was stressed particularly with regard to the educational component of the AHC mission, and the report recommended that Congress give high priority to allocating funds for medical education. Of particular note was the
recommendation to ‘develop, recognize, and reward those who teach and conduct research on clinical education’. The report concluded with a plea for appropriate information and management systems to be in place, and stressed the importance of leaders who could ‘manage the organizational and systems changes necessary to improve health through innovation in health professions education, patient care, and research; foster integration and cooperation within and across the AHC enterprise; and improve health by providing guidance on pressing societal problems, such as reduction of health disparities, responses to bio-terrorism, or ethical issues that arise in health care, research, and education’.

It is somewhat ironic to note that the most important public policy issue in the year both these reports were issued was the decision by the U.S. government to invade Iraq, and one can only speculate on the opportunity cost to academic medicine that resulted from this action. This also suggests that academic medical leaders need to assume a more active lobbying role at a societal level to protect vital sources of funding for their mission.

Is there evidence to suggest that any of the recommendations in the Commonwealth Fund and IOM reports are being implemented, and if so, how successful have these initiatives been? Sostman et al. (2005) described the recent affiliation of The Methodist Hospital in Houston with Weill Medical College of Cornell University and NewYork-Presbyterian Hospital, the first transcontinental primary affiliation between major, not-for-profit AHCs in the United States. The rationale for the affiliation was a common mission of progress in clinical care, education, and research, based on compatible institutional cultures. The parties shared the view that this situation offered an
opportunity to explore new models for AHCs. The principal areas of collaboration were intended to be education, research, quality improvement, information technology, and international program development. The principal challenge was the physical distance between the parties and extensive use of videoconferencing was made in facilitating the merger. This merger was only finalized in June of 2004, so no progress or outcome data are available yet.

Not all such ventures are successful. Mallon (2003) reported on the failed merger between the Pennsylvania State University and the Geisinger Health System. Key factors cited for this failure included a lack of engagement of all levels of management in sustaining the new venture; conflicts in the newly established governance, administrative, and operational structures; and insufficient attention to the very different organizational cultures that were merged.

The professionalization of medical education

Key concepts: The increasing specialization of medical education; medical education and professionalization; lack of medical educator expertise; the role of educational research in the professionalization of medical education; the Best Evidence Medical Education (BEME) initiative

The above examples highlight some of the problems that academic medicine will face in the future, and the steps considered necessary to ensure its survival and prosperity. They underscore the need for leaders who are more than just physicians with a passing interest in the educational mission of their schools. It is not conceivable today for an individual like Flexner, who possessed only an undergraduate degree in Greek and Latin and some secondary school teaching experience (Bonner, 2002, p.25), to attempt the
complex remedies medical education will require. What will be needed are individuals who are dually qualified, and who possess training and certification as both physicians and educators.

The professionalization of medical education is not new, and there is evidence that it is gaining momentum. In a North American context this movement was started by Flexner (1910). He demanded more rigorous and standardized curricula, and also insisted that teachers be solely hospital-based and salaried to avoid conflict with their private practices. In 1955 the Schools of Medicine and Education at University of Buffalo collaborated on an intervention to raise the quality of the education received by medical students (Hitchcock, 2002). This collaborative experiment hired the first professional educators in a medical school. By 2002 half of the schools of medicine in the U.S. had offices of medical education employing professionally trained educators as faculty to support the medical school's educational mission. Today, some consider departments of medical education a necessity to deal with the multiple educational issues that confront medical schools. (Davis, Karunathilake, & Harden, 2006).

Eitel, Kanz and Tesche (2000) studied the professionalization of medical education based on their perceptions of insufficient expertise in the field. A literature-derived concept map showed that faculty development was a prerequisite for professionalization. The authors made no mention of the role and relevance of masters programs in medical education in this regard. Other variables related to professionalization were resource allocation, intrinsic motivation to learn, educational research, study time, financial policy, organizational and staff development, and the development of specialized roles such as clinician-educators. They concluded that further
professionalization of medical education was needed, and that this should be based on conceptually sound research.

The Best-Evidence Medical Education (BEME) movement (Hart, 1999), lends significant support to the increasing professionalization of medical education. It posits that there is a large body of educational knowledge based on quasi-experimental and qualitative methodologies which can usefully inform the practice of medical education. The decision to utilize this knowledge base involves a professional judgment by the teacher, taking into account a number of factors such as the quality, utility, strength and extent of the educational research evidence available, together with other factors such as its educational context and attributable outcomes (Harden, Grant, Buckley, & Hart, 1999). Lewis & Wissow (2004) echoed the need for the professionalization of the medical educational mission by asking ‘Who will train the trainers?’ In doing so they made the case for adequate recognition of clinical educational activities, the linkage of education to quality of care, the use of non-clinician educators and research into the effects of changes in education on clinical outcomes.

What might happen if medical educators do not respond to these challenges?

Key concepts: The ICRAM scenarios: 1) privatization of medical education; 2) community-based medical education; 3) public and media-driven commoditization of medical education; 4) equity in medical education; 5) stakeholders' roles in medical education

All this introduction has accomplished so far is to outline the current practical and theoretical challenges faced by medical educators and the evidence supporting the
increasing professionalization of medical education. In doing so it has made a case for the further educational training of physicians who wish to be educational leaders in their institutions, and has implied that medical education should not remain an activity pursued on the sideline by otherwise harried physicians too busy caring for patients and writing grants to fund scientific research that will bolster their chances of promotion. But what might happen if the status quo persists and these issues are not addressed? The ICRAM has recognized the gravity of the situation and the consequent threats to the medical educational mission. It acknowledges that much of what will happen in the future has been predetermined by past events, but that there is a small yet significant opportunity to try and manipulate the current situation to ensure better outcomes.

To accomplish this the ICRAM needed to know what the future might look like, and consequently developed five scenarios of what might eventuate if the medical profession did not take a proactive stance toward its educational future (Clark, 2005). In Scenario One academic medicine became largely privatized due to the inability of the public sector to finance it. Students and residents paid significantly more for their tuition, and outcomes were as much driven by shareholder profit as they were by educational priorities. Scenario Two was labelled 'reformation', and saw the movement of academic medicine away from big AHC’s and toward the community and hence the mainstream of healthcare. Scenario Three envisaged the descent of academic medicine from its intellectual platform toward a more publicly responsive and media-driven commodity. Scenario Four envisaged an enterprise driven largely by the desire for equity in world health and accomplished by academic partnerships between the developing and developed world. And Scenario Five envisaged academic medicine as being driven by its
stakeholders, i.e. patients, populations and healthcare systems, rather than by academics in search of intellectual reward or corporations in search of greater profits.

The ICRAM and its Working Party realized that none of these scenarios were likely to eventuate in their entirety, but that the future might contain some of each of them, some outcomes desirable and some not. As such the Scenarios provided a useful working objective for re-focussing the telescopes of medical educators. In the context of this thesis they provide them with a map by which to plan and build a knowledge and skills base for the future.

**How should medical educators respond to these challenges?**

Key concepts: Medical education and interdisciplinary study; fellowships in medical education; academies of medical educators; faculty development; curriculum and adult educational studies; graduate programs in medical education

The training of physicians as medical educators has usually commenced only after residency, and there are no undergraduate medical programs that offer combined medical and educational degrees. This is in contrast to the bio-physical sciences, public health and business, where combined MD/PhD, MD/MPH and MD/MBA degrees are commonplace. A recent report from the medical school at the University of Western Ontario has even described a combined engineering and medical undergraduate degree (Barfett, Lanting, Margaritis, Herbert, & Silcox, 2005). However the situation with regard to medical education is starting to change, and a recent report describes the introduction of a fellowship in medical education at the University of California in San Francisco which is being offered to senior medical students and junior residents (Lockspeiser, Hart, &
Loeser, 2005). Another report outlines a mandatory course in health system change given to third year medical residents at New York-Presbyterian Hospital/Weill Cornell Medical Center (Callahan, Fein, & Stocker, 2000).

'Academies' of medical education are newly emerging entities at a number of medical schools whose primary aim is to advance the school-wide mission of education (Irby, Cooke, Lowenstein, & Richards, 2004; Rifkin & Smith, 2005) They do not teach structured courses or grant degrees, but go some of the way to promoting the overall educational mission of the medical school. In particular they have been involved in curricular reform, the promotion of educational scholarship and harnessing resources to support teaching. It is not yet clear how these academies integrate themselves into schools that already have offices of medical education.

Other options are open to physicians who wish to increase their educational expertise. Faculty development programs at many academic medical institutions have gone part of the way to meeting these needs, but are usually aimed at a more practical level and provide little if any instruction in educational theory and research. University-based schools of education commonly have departments of curriculum studies giving instruction in specific areas, but these are usually aimed at the elementary or secondary educational levels. Similarly, programs in adult education are an option, but the field is vast, usually directed toward the social sciences and lacking content specific to medicine such as curriculum planning, evaluation and student assessment. The unique demands of medical education thus suggest the need for a masters degree specific to medical education and aimed both at a higher level than that provided by faculty development
initiatives and more specifically than programs offered by departments of adult education. But where are such programs to be found?

Cusimano and David (1998) reported on existing opportunities in health professions education and identified fifteen programs. However, only nine of these programs offered masters degrees in medical education. The remainder were either PhD's, were more specialty directed (family practice or dentistry) or aimed specifically at medical informatics. Cohen, Murnaghan, Collins and Pratt (2005) have recently updated the information on masters programs in medical education in the English-speaking world. They found a total of 21 programs, of which 8 were in the UK, 6 in the US, 3 in Canada, 3 in Australia and 1 in the Netherlands. These authors have provided detailed logistical information about each of these programs, particularly with regard to their URL's, which significantly facilitates the task of obtaining detailed program information for physicians interested in further medical educational studies. A few of these programs are now offered entirely online, which makes this graduate training more accessible to larger numbers of physicians.

The problem

Key concepts: Program planning in adult education; planning programs in medical education; planning a program in medical education at the University of British Columbia

There is an extensive literature on the planning of programs in the broader field of adult education, but once again this is directed at the social sciences and humanities, and has little direct relevance to medicine. Lewis and Baker (2005) reported on the
development and implementation of an online masters program in medical education. This project was a joint venture between the Department of Pediatrics and the College of Education at the University of Cincinnati. This paper however dealt largely with the practical and logistical problems encountered such as marketing, financing and particularly issues related to online learning. Mention was made of the need by medical educators for a formal knowledge base on which to base their activities, but the theoretical and philosophical underpinnings on which graduate programs in medical education might be designed were not discussed.

How could one therefore undertake a more detailed analysis of all the factors, including the theoretical and philosophical, on which graduate programs in medical education should to be designed? This question was even more significant in the context of the intent by the University of British Columbia to develop an Office of Medical Education, one of whose functions would be graduate training in medical education (Page, 2004).

**Summary and research question**

This introduction has highlighted the increasing complexity of the medical educational enterprise and some of the challenges medical educators face in the future if they are to succeed not only amongst their traditional constituencies, but also at broader societal and global levels. It has underscored the increasing specialization of medical education and posited that medical education should optimally be directed by physicians with specialized training and knowledge, and not by physicians with only a peripheral interest in the field. The dangers of medical educators not responding to these challenges
have been highlighted in the ICRAM scenarios (Clark, 2005). These included, amongst other possibilities, the commercialization of medical education and the increasing roles of other stakeholders such as governments and the public-at-large. The importance of the ‘education of the educators’ has been emphasized. The introductory chapter has outlined avenues open to aspiring medical educational leaders to acquire the necessary knowledge base and skills to function effectively and particularly has emphasized the central role of graduate programs in medical education in fulfilling these needs. A brief update on these programs has been furnished, and reference made to the paucity of theoretical and philosophical knowledge on which new medical educational programs might be designed.

With these considerations in mind this thesis undertakes a fresh look at graduate programs in medical education, particularly with regard to their theoretical and philosophical underpinnings. It employs a conceptually broad-based framework at individual, institutional, societal and global levels to identify those capacities, those faculties and talents (Barber, 1998 p.210), that are important for such programs to develop themselves and impart to their students. These students will then hopefully not only benefit individually but also become agents of change at institutional, societal and global levels.
Chapter Two - Literature Review

Introduction

Chapter One outlined the problems that medical educators will face in the future and what might eventuate if those problems were not adequately addressed. It stressed the increasing professionalization of medical education, made the case for medical educational leaders receiving further training in the field, and outlined how this might be accomplished. Masters programs in medical education were considered a valuable resource in providing this training. This thesis was then problematized on the basis of the scant conceptual, theoretical and practical knowledge base on which to plan these programs, and consequently the need for more information in the field. The first chapter also stressed the relevance of this information to the intent by the University of British Columbia to establish a graduate program in medical education (Page, 2004).

The introductory and concluding paragraphs of Chapter One alluded to a conceptual framework at individual, institutional, societal and global levels for stratifying potential capacities that should be developed by graduate programs in medical education. These levels refer both to the scope of the knowledge base that medical educators will require as well as to the various levels of intended outcome. It serves only as a useful framework on which to base further thought and the levels are by no means mutually exclusive. ‘Capacities’ therefore refers both to the program and the learners enrolled in it, at individual, institutional, societal and global levels.

This chapter explores the literature that supports the conceptualization of ‘capacities’, as defined, at each of these four levels. It must be emphasized again that
these levels only provide a convenient if somewhat artificial framework from which to view 'capacities'; in reality there will be significant overlap.

**The individual level**

*Key concepts: The roles and responsibilities of medical educators in Academic Health Centers (AHCs); the tri-partite nature of the academic medical mission – patient care, teaching and research; what is teaching in medicine; mentoring; curriculum design and implementation, assessment and evaluation; the scholarship of teaching with reference to medical education; medical educational research as scholarship*

What capacities should graduate programs in medical education strive to produce in their enrollees? To answer this question adequately one needs to know more about the roles and responsibilities of medical educators in academic health centers. What will they be required to do to ensure not only exemplary care of their patients but also the education of their students and residents, their own academic advancement and the ongoing intellectual renewal of the academic mission of the medical school?

The Lancet (Editorial, 2001a) viewed patient care, teaching and research as the tri-partite foundations of the traditional academic medical mission. The editorial pointed out the dangers of medical educators trying to perform all three functions satisfactorily, but this review does not intend to address that issue. It does not review patient care as a 'capacity' to be developed by graduate programs in medical education. These programs are not intended to produce competent physicians, and it is assumed that academic physicians will have acquired these skills through the usual routes of undergraduate and residency training. It does however review the nature of two of these activities, teaching
and research, in the context of the academic health center (AHC) and what medical
educators need to know about each of these. In doing so, it discusses the significant
implications of teaching and research with regard to educational scholarship, and hence
the career aspirations of academic physicians. For the purpose of this discussion
‘research’ means educational and not clinical or basic science research. However, this is
in no way meant to diminish the import of these two activities.

Teaching students and residents should constitute the core of the academic
medical educational mission (DeAngelis, 2004; Ludmerer, 2004). These are the
individuals who are going to care for patients in the future, and it is difficult to justify the
existence of the academic medical mission without placing patients at centre stage. But
what is ‘teaching’ in medicine? Is it simply the transmission of knowledge and a
prescribed set of cognitive and motor skills that will allow physicians to make diagnostic
and effect therapeutic decisions, hopefully intended to improve patient outcome? Or are
there other intentions such as the inculcation of professional and ethical values and
mentoring skills, the instillation of empathy and the knowledge that the ‘care of the
patient is caring for the patient’ (Peabody, 1927). Teaching involves all of these, but it is
the first which arguably lies at the heart of the medical educational mission. This does not
diminish the importance of the other functions, but they all fit somewhere into a
functional framework that is built on decision-making and critical-thinking abilities
(Higgs & Jones, 2000, p.3).

Critical thinking in medicine is predicated on knowledge (Ausubel, 1977; Higgs
& Titchen, 2000, p.29), and it is impossible to make rational clinical decisions without
significant knowledge of the basic and clinical sciences. Or as Osler surmized: ‘it is
amazing with how little knowledge one can practice medicine, but what is not amazing is how badly one will do it'. It is therefore reasonable to assert that all medical educators who are going to be involved in teaching and the development of curricula know something about the relationship between knowledge and clinical reasoning. This is therefore a capacity that both individual educators need to acquire and that graduate programs in medical education should develop.

Mentoring has always played a significant role in teaching at all levels of the medical educational continuum (Duda, 2004a). Most physicians probably remember one or more senior colleagues who they would describe as outstanding mentors; individuals who not only taught them cognitive and technical skills, but also served as outstanding professional role models, and helped them acquire appropriate behaviors, values and attitudes. Just as other skills and crafts have disappeared because of lack of demand, so could the art of mentoring in medicine disappear. This ideal of ‘giving back’ to the next generation could be jeopardized by the financial and other bureaucratic pressures associated with modern practice. Just as one generation of physicians remembers their teachers, so might the next generation be forgotten because they failed to reciprocate (Papadimos, 2004).

Mentoring was also addressed by Ludmerer (2004). He pointed out the central role medical students used to play in academic health centers, and how this role had increasingly become a byproduct of their operations. He blamed medical schools for changing curricula without larger educational objectives in mind, the most important of which he believed was a ‘true learner-centered environment that makes active, self-directed learning under the close tutelage of interested faculty members the core of the
experience’. To explain this notion further he quoted Osler (1932): ‘An academical system without the personal influence of teachers upon pupils is an Arctic winter.’ This crucial influence of teachers upon students with regard to values, beliefs and behaviors is often covert, and forms a significant part of the hidden curriculum in medical education (Bligh, 2005).

Is it necessary to take a masters degree in medical education to learn teaching skills? Faculty development programs at many medical schools have gone a good part of the way to providing a practical, ‘hands on’ approach to meeting the educational skills and techniques that faculty will need to teach adequately. Bligh (2005) regarded faculty development as instrumental in helping medical educators ‘improve teaching performance’ which in turn would result in ‘better learning outcomes for students and doctors’. The skills necessary to effect these outcomes include the ‘development of new teaching skills or assessment techniques’. Another recent study (Houston et al., 2004) reviewed the results of a Health Resources and Services Administration funded national initiative which trained 110 teams from U.S. teaching hospitals to implement local faculty development (FD) teaching skills initiatives. The median follow-up was 18 months. Fifty-nine of the teams (54%) implemented their local FD project and subsequently trained over 1,400 faculty, of whom over 500 were in community-based hospitals or clinics. They concluded that a national initiative was able to disseminate teaching skills training to large numbers of faculty at modest cost, but noted that smaller teaching hospitals had limited success.

Thus the knowledge and skills provided by faculty development programs at medical schools are likely adequate for most faculty who teach daily in classrooms,
clinics or on the wards. However, those individuals who wish to move up the academic medical ladder to become program directors, assistant deans, associate deans or deans, will bear the responsibilities for other functions in the medical school which require skills and knowledge not taught in most faculty development programs. Although not considered ‘teaching’ per se, they are nevertheless vital to the educational continuum. Among others these include designing, implementing and evaluating curricula, the written and clinical assessment of students and the use of technology in education. A study by Boehler, Rogers, Schwind, Williams and Dunnington (2003) surveyed surgical clerkship directors in the U.S. and Canada, and found that their perceived educational needs related primarily to the development and management of the student educational curriculum. Another study (Mendoza, Hauge, & DaRosa, 2004) examined the roles of professional educators in departments of surgery and found that educators’ contributions included improvements in assessment and evaluation, attendance at educational conferences, recruitment, and research productivity.

There is evidence to suggest a gradual diminution of the importance attached to the role of teaching in medical schools, particularly in the U.S (Barzansky & Etzel, 2004; DeAngelis, 2004). While a detailed review of this trend is not relevant to the question of this thesis, it is important for medical educators to have some idea of its possible consequences. The first ICRAM scenario (Clark, 2005) envisaged this possibility and what emerged was the commercialization of medical education. For-profit medical schools would educate students and residents and shareholder benefit would be as much a consideration as educational outcome. This is exactly the situation that Flexner (1910) encountered a century ago when he embarked on his reforms. However, the irretrievable
loss of the art of mentoring might result from this re-commercialization of medical education.

This discussion has so far explored the activities of medical educators and identified teaching as a crucial component of the academic medical mission. It has further examined the nature of teaching in medicine and identified other aspects of 'teaching' such as curriculum design and mentoring. It has highlighted the threats to the medical teaching mission and speculated as to what might happen if these are not countered. But does teaching per se offer individual faculty any rewards in terms of promotion and tenure, and if so, how has this been rationalized? What 'teaching and learning capacities' do medical educators need to develop to ensure their own career advancement? A satisfactory answer to these requires an understanding of the criteria universities require for granting promotion and tenure.

Guidelines from the University of British Columbia provide one example (UBC, 2005/2006). These guidelines make it quite clear that excellent teaching by itself is a necessary but insufficient criterion for the granting of promotion and tenure; additional evidence of scholarship is required. Scholarship has traditionally been defined in terms of research output both because it provides a relatively easy criterion to evaluate and quantify and because it is usually already peer-reviewed. The scholarship of teaching has recently been identified and promoted as being equivalent to the scholarship of research. UBC acknowledges this in its document by stating: 'Under the definition of “Scholarly Activity”, the scholarship of teaching ranks equally with scholarly research'.

What is the scholarship of teaching and how has it come to be defined and applied in the context of medical education? Boyer (1990) in his seminal work
Scholarship Reconsidered: Priorities of the Professoriate grappled with a new definition of scholarship while exploring ways to ensure renewal of the U.S. undergraduate educational system. This was in the context of faculty whose roles were vital to the teaching process but who had increasingly needed to engage in 'traditional' scholarship to ensure their academic advancement, often at the expense of their teaching roles. He devised a new definition of scholarship that included four sub-categories; the scholarships of discovery, integration, application, and teaching. The scholarship of discovery is very close to what would otherwise be called 'research'. The scholarship of integration involved research on the boundaries of various converging fields, placing research in its appropriate interdisciplinary context, and interpreting it in the context of intellectual patterns. The scholarship of application is what the University of British Columbia refers to in its document as 'service to the University, the discipline and the broader community', and relates acquired knowledge to the community at large. Boyer contended that application need not always follow discovery; the act of application can and should initiate new discovery. The scholarship of teaching according to Boyer 'both educates and entices future scholars'. Faculty engaged in this enterprise must be knowledgeable in their field and Boyer asserted that 'teaching, at its best, means not only transmitting knowledge, but transforming and extending it as well.' He claimed that these four categories of scholarship were intimately linked and rested upon the 'recognition that knowledge is acquired through research, synthesis, practice, and teaching.' Boyer concluded: 'We need scholars who not only skillfully explore the frontiers of knowledge, but also integrate ideas, connect thought to action, and inspire students.'
Boyer's work was widely and enthusiastically received by the academic community as a potential solution to the 'teaching versus research' problem. There were difficulties however from the outset in defining the quality of each of his four criteria, and in particular the nature of teaching scholarship remained elusive. Based on further surveys of the academic community, six standards of excellence in scholarship were derived: Scholars whose work is published or rewarded must have clear goals, be adequately prepared, use appropriate methods, achieve outstanding results, communicate effectively, and then reflectively critique their work (Glassick, 2000).

Have these advances in assessing scholarship in the academic community at large been received and/or applied by the medical educational community, and if so, with what success? Fincher et al. (2000) agreed that the definition of scholarship generally applied by medical schools was unnecessarily narrow. They considered areas of academic activity such as carefully documented creative teaching and educational leadership with demonstrable results to constitute legitimate educational scholarship that should be rewarded by academic advancement. They also noted that only a minority of medical schools had adopted these broader definitions of scholarship. Shapiro & Coleman (2000) reviewed the scholarship of application from a medical perspective and concluded that it encompassed a broad range of different types of scholarship that involved application of new knowledge to solve individual and societal problems. They did not consider routine use of knowledge in patient care as scholarship, whereas a systematic review of knowledge with the intent of benefiting the population as a whole did. Dauphinee & Martin (2000) reviewed the scholarship of integration in the context of medicine and
concluded that greater interdisciplinary cooperation with the physical sciences, engineering, and the social sciences was needed.

Selected AHC’s have attempted to apply the principles of educational scholarship enunciated above, with varying success. Sherertz (2000) investigated the application of an ‘educators’ pyramid’ (Sachdeva et al., 1999) to promotions at Wake Forest University Medical School, and found that it was generalizable to medical faculty being promoted on a teaching pathway. Richards et al (2002) reported on the successful implementation of a program at Baylor College of Medicine to recognize faculty educational contributions which relied on peer review, established criteria for assessing quality of scholarship and structured formats to facilitate preparation and review of mini portfolios. They recognized four distinct categories of educational endeavors including teaching and evaluation, educational leadership, development of educational materials and educational research. Another initiative even attempted to recognize community-based work by faculty as scholarship (Calleson, Jordan, & Seifer, 2005). However, some attempts to integrate this broader interpretation of scholarship into the promotion and tenure process at medical schools have been unsuccessful. Schweitzer (2000) described the adoption and failure of the Boyer model at the University of Louisville School of Medicine.

Sixteen years after Scholarship Reconsidered most would agree that other methods of defining scholarship are very appealing and necessary. But what is uncertain is whether these ideas will ever materialize to the point where faculty can reliably depend on alternative definitions of scholarship to assure their academic futures (Gros Louis, 2000). Faculty can however still rely with certainty on traditional notions of scholarship, which in medicine has implied clinical and basic science research. The acceptance of
educational research as a legitimate form of scholarship in medicine has followed the proliferation of offices of medical education in medical schools many of which are staffed by professional educators (Hitchcock, 2002). This trend is in keeping with the positivist perspective of the medical profession itself, which is perpetually seeking external evidence to bolster its knowledge claims and practice. Knowledge of medical educational research methods is therefore vital to the academic futures of medical educators. This idea has received recent support from the Best Evidence Medical Education (BEME) initiative (Hart, 1999) which posits that medical education should as far as possible be evidence-based. This movement is not unique in education, and to some extent follows the lead set by the Campbell Collaboration in this regard (Schuerman et al., 2002). Because of its positivist perspectives medicine has traditionally embraced a quantitative approach to clinical and basic science research which is often difficult to emulate in education and the other social sciences. Carney et al (2004) have made a plea for greater efforts in integrating traditional quantitative epidemiological methods into medical educational research. On the contrary, Harden (1999) has pointed out the value and importance of qualitative research in informing medical educational practices. Several authors (Nierenberg & Carney, 2004; van der Vleuten et al., 2004) have described the educational research efforts at individual medical schools.

It therefore appears crucial for both graduate programs in medical education and medical educators to develop an appreciation of teaching in all its guises, educational scholarship and educational research. However, there are other philosophical concepts with educational ramifications that medical educators should familiarize themselves with (Cooper & Tauber, 2005; Musick, 2005). Cooper and Tauber go so far as to posit that
physicians should adopt an entirely different theoretical perspective with the intention of improving patient care. These authors were concerned that humanity and empathy were often absent from the physician-patient relationship. They believed this deficit originated from the positivist and/or reductionist scientific paradigm out of which much of modern medicine developed. Cooper and Tauber believed that fundamental changes to physicians' education would be needed to rectify these imbalances. These included placing medical ethics at the core of clinical medicine, recognizing the centrality of values in clinical decision making and stressing humane care. They suggested that the public would be better served by physicians adopting a more interpretivist perspective. An appreciation of non-positivist theoretical perspectives represents a radical paradigm shift in the worldview of most physicians, one that likely does not come naturally and has almost certainly not been inculcated during training. It would have to be learned from programs that devote themselves to education and the humanities, and provides an example of another capacity that could be developed at an individual level by graduate programs in medical education.

**The institutional level**

*Key concepts: Leadership, management and governance; leadership in medical education and academic medicine; capacities required by leaders; identifying and training leaders; techniques for leader and leadership development; challenges to leadership*

This thesis was rationalized in Chapter One in the context of the increasingly problematic nature of the academic medical mission. One of the central features of this
complexity was the increasingly convoluted environment that AHC’s found themselves in. Survival strategies that various AHC’s had utilized were outlined. It was suggested that some of these measures, such as institutional mergers, resembled those utilized by the private sector to minimize cost and maximize efficiency. Physicians who aspired to leadership positions in AHC’s were not conventionally trained to deal with these eventualities (Eggertson, 2005). It was postulated therefore that graduate training in educational leadership might be one avenue open to medical educators to attain the necessary knowledge and skills. But these leadership skills, although garnered by the individual educator, would be of benefit to more than him or herself. They would additionally benefit the institution and hence could be conceived of as a capacity to be developed at the institutional level.

Educational leadership can be conceived of in a number of ways. Conroy (2000) traced educational leadership from philosophical and historical perspectives from the fall of the Roman Empire to modern times. He maintained that this leadership must come from university teaching faculty, amongst others, and required ‘intellectual authority, which is located in the community of researchers and practitioners, not in individuals’ (p.13). He claimed that intellectual development in the social sciences had ethical, cognitive and community components. Schon (1995) has pointed out that scholarship which goes beyond telling practitioners ‘how’ requires a new epistemology, one that examines the theoretical foundations and rationale behind educational practices and which focuses on the philosophical justification for specific educational outcomes.

Do physicians have this background necessary to ensure medical educational leadership from theoretical and philosophical perspectives? Conventional under- and
postgraduate medical training contains none of these elements. Therefore this knowledge, this capacity, will have to come from outside of medicine if medical educational leaders are going to assume these leadership roles. Graduate training in medical education beyond the faculty development level provides an opportunity to do so.

There are other more pragmatic ways of conceiving leadership that are also relevant to medicine. McLaughlin (2004) distinguished between leadership, management, and governance. She characterized leadership by a focus on the 'values, purposes and meaning of the institution' – why it existed and why it might have to change. Management was more concerned with accomplishing specific tasks. Leaders 'articulate vision' and managers 'develop strategies and plans'. Finally she described governance as the process of consensus building amongst a diverse group of individuals at a university who often have conflicting priorities and values, so that the institution can progress and not get bound down in beaurocratic and ideological logjams. Leadership answered the question 'what', management answered the question 'how', and governance answered the question 'who'. She contended that skilled academic leaders needed to assume all three roles, and quoted Zaleznik (2004) who asserted that 'leadership and management are two separate sets of attitudes, behaviors, and orientations found in two different kinds of people with divergent personal histories, temperaments, and psychosocial needs'.

What of leadership in academic medicine? Souba (2004a, 2004b) reiterated the increasingly difficult and complex environment facing physician-leaders in academic health centers, stressing the simultaneous increase in demands and expectations of them. At the same time he emphasized that their capacity for independent action had decreased significantly and contended that these forces had led to a 'culture of denigration' amongst
academic medical leaders which needed to be reversed. He perceived leadership not as ‘about someone in charge’ because it was impossible for any one individual to manage the complex and unpredictable environment of the modern AHC. Rather, it involved the ability to work with others individuals and groups in the same organization who espoused different values, priorities and work ethics. Successful AHC’s would make use of a broader repertoire of leadership strategies – besides developing leaders, they will develop leadership as a property of the system, as an organizational capacity. To make leadership happen more effectively, academic medical centers will have to identify and study the ingredients that catalyze and enhance human connectivity, augment social capital and activate leadership. Leadership is a uniquely human activity—studying it and how it works is core to the learning organization (2004b, p.177).

Staveley-O’Carroll et al.(2004) posited that leadership in academic medicine was not a genetic trait that could be turned on when necessary. They believed it was a skill that had to be nurtured in the career context of young academics whilst competing with the time constraints posed by the other demands of their careers. Mentoring by senior colleagues was a vital component of this process, and each individual would require a unique training to develop the necessary skills.

Gray and Armstrong (2003), in a Canadian context, commented on a ‘leadership gap’ not only within AHC’s but also affecting the medical profession as a whole. This deficit affected institutions, societies and potential future academic leaders. Academic leaders in particular needed protected time and mentoring not only to develop their academic careers, but also to hone their future leadership skills. Tyrell (2003) outlined the issues that leaders will have to address including the societal responsibilities of medical schools, health workforce shortages and how to foster professionalism in juniors in an increasingly hostile academic environment. He noted the multiple and complex
roles required of deans of medicine: ‘visionary, team builder, negotiator, educator, researcher, politician, fundraiser, financier, facilitator, lawyer and mentor’. And Phillipson (2003) noted the challenges to leadership in sustaining a culture of excellence in teaching in medicine. He described how the Department of Medicine at the University of Toronto had surmounted this by creating a special clinician-educator career path, part of which required physicians to obtain a masters degree in education.

What faculties and talents are medical educational leaders going to require in an institutional context? Souba and Day (2006) interviewed 18 deans at U.S. colleges of medicine or AHCs to gain a deeper understanding of the values they considered essential to address the major leadership challenges that confronted them. Financial difficulties were identified as their most pressing problem, followed by weak institutional organization, staffing problems and poor morale. Candid communication was reported as the most effective means of addressing these complex problems. Facilitating shared values and projecting a positive attitude were identified as the most important enablers of systemic leadership, whereas micromanagement and difficult people were the major restraints. Participants considered integrity essential. Integrity was positively correlated with humanistic values and negatively correlated with results. Vision, another highly espoused value, correlated strongly with performance-oriented values but negatively with humanistic values. They concluded that a conflict existed in AHCs between humanistic and performance-based values, and that the ability to manage that tension was crucial.

The importance of training in educational leadership and management has even started to impact the undergraduate medical curriculum. Martins, Detmer and Rubery (2005) conducted a survey of undergraduate medical students and other stakeholders from two
medical schools, one in England and the other in Portugal, to ascertain their ideas on the value and structure of a management and leadership course in medical school. Portuguese medical students attributed higher relevance to leadership/management education than their English counterparts. For both groups, such a course would be best: (1) situated in the clinical years, (2) optional and (3) one term/semester long. The main topics desired were ‘Managing people/team management’, ‘The National Health Service’, ‘Doctors & Leadership’ and ‘Cost/price and resource management’.

Evidence supporting the relevance of educational leadership in general and medical educational leadership in particular has been presented, as have skills that medical educators are going to require. Is there any evidence to support the notion that potential leaders can be identified and trained? Day (2001) made an important distinction between leader- and leadership development. Leader development attempted to develop ‘human capital’ (a focus on individual knowledge, skills, and abilities) whereas leadership development attempts to develop ‘social capital’ (a focus on building networked relationships among individuals to enhance cooperation and resource exchange in an organization). He reviewed five techniques for leadership development: 1) 360-degree feedback – the systematic collection of perceptions of an individual’s performance from the entire circle of relevant viewpoints 2) executive coaching - practical, goal-focused forms of one-on-one learning and behavioral change 3) mentoring – on the job experience in the setting of a formal developmental relationship 4) networking – developing abilities to exploit social capital throughout an organization, and 5) job assignment and action learning – learning by the roles, responsibilities and tasks encountered daily in the workplace. He concluded that there was little objective evidence
to support a claim for efficacy for any of these modalities and believed that ‘leadership is developed through the enactment of leadership’ (p.605).

Rogers (2005) reviewed the literature from several fields, including medicine, teaching, engineering, business and the military with regard to the challenge of identifying potential leaders in medical education. The need for autonomy and the motivation to achieve consistently distinguished leaders from non-leaders in several studies, as did the need for affiliation and esteem in two studies. He proposed that these models be used to identify and recruit teacher-leaders at key geographic sites within medical schools, and provided a framework for the development of teacher-leaders. Hill & Stephens (2005) reported on a generic framework of tasks for the development of a successful leadership training program for course coordinators and concluded that leadership training for course coordinators was crucial to the success of undergraduate medical programmes. Duda (2004b) believed that a number of principles were necessary for any individual embarking on a leadership path in academic medicine. These included developing a vision and a plan, focusing on outcomes, seeking advice from senior colleagues and periodically reassessing priorities.

Despite best efforts on the part of both individuals and AHC’s difficulties and challenges to effective leadership still emerge. Yedida (1998) reported on a study commissioned by the Council of Deans of the Association of American Medical Colleges which was precipitated by a recognition of a decline in average tenure time of medical school deans and the consequent implications for medical school leadership. He conducted interviews with 22 current and former deans who identified several factors in the health care environment that had had profound impacts on their roles: 1) a decline in
the resources available to medical schools 2) unprecedented competition in the clinical arena 3) an imbalance between the breadth of their responsibilities and their authority to manage 4) a lack of clarity in the dean's mandate 5) inadequate institutional support for pursuing the missions of the school and 6) a search process that did not identify the requisite expertise and abilities to respond to these demands.

The societal level

Key concepts: Physicians' sometimes conflicting obligations to their patients and society; defining the societal obligations of physicians; the societal obligations of medical education; Canadian medical education's societal obligations; the medical-industrial complex; the negative relationship between for-profit healthcare and healthcare outcomes; implications of Chaoulli vs. Quebec and the Canada Health Act for medical education; the role of CanMEDS in promoting medical education's societal advocacy role

The medical profession has long acknowledged its primary ethical responsibility toward individual patients. On the other hand it is also apparent to physicians that some of their patients are a source of problems for society at large. In this scenario their ethical obligations might extend beyond and conflict with the individual wishes of their patients. What of the patient who has an infectious disease that might be transmitted to members of the public if the disease is not reported and treated by public health authorities? Or of the patient who has a psychiatric condition that manifests as violent behavior and who might injure members of the public if not restrained against his or her wishes? And of the patient who presents to the emergency department with a gunshot wound which they do
not wish reported to the police? These are some situations where physicians have an
accepted societal duty of care which extends beyond and may conflict with the care and
confidentiality they offer their individual patients.

There is significant evidence however to suggest that physicians’ ethical
obligations to society extend beyond the scope of direct patient care. The Canadian
Medical Association Journal (Editorial, 2005) discussed this issue in the context of a
physician who gave an interview to the press about adverse conditions in an emergency
room where she worked, contrary to the wishes of the hospital administration. The
Journal concluded that all health professionals had to consider the sometimes conflicting
ideals of loyalty to their institution with their obligations to individual patients and
society. The authors maintained that although the primary expectation on the part of the
public was competent individual care, there were also expectations that extended beyond
this to research, education and societal considerations in the provision of this care. They
claimed that ‘the public expects physicians to advocate for their individual and collective
well-being’. Sullivan (2000) commented: ‘it is the function of medicine as a profession to
safeguard and promote this trust in society at large’. This societal obligation was alluded
to in the Canadian Medical Association’s Code of Ethics, which stated that ‘advocating
on behalf of the public’ is one of the ‘fundamental responsibilities’ of physicians (CMA,
involvement by the medical profession in improving systems of care and the health of the
population. They believed that neither medical education nor the milieu of practice has
promoted such engagement because of unclear definitions of expectations and limits of
engagement. They proposed a model for physician engagement in public health policy
There is evidence to suggest that the medical profession has recognized its greater societal responsibilities, if only relatively recently. There are also data to suggest that this recognition has been framed not only in the context of the practicing physician and the professional organizations that represent them but also at the educational level. It is now accepted that medical schools have a duty to the public to ensure that the education of future physicians incorporates not only expectations of excellent care but also those of societal advocacy. The Edinburgh Declaration by the World Federation for Medical Education (WFME, 1988) was one of the first attempts to link this notion of the general societal obligations of the profession with medical education. It posited that medical schools could attempt to fulfill these obligations by, amongst others, widening educational settings, incorporating national health care needs as the context for curricula, requiring professional competence (versus mere knowledge recall), training medical teachers as educators, selecting applicants for non-intellectual as well as intellectual attributes and insisting on provisions for continuing medical education. The World Health Organization (WHO, 1996) defined the social accountability of medical schools as 'the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public.'

Cappon et al. (2001) subsequently adapted this concept of social accountability for use by Canadian medical schools. They proposed that medical schools had an
important role to play in meeting public expectations of governmental and professional collaboration to ensure that the Canadian health care system continued to provide the necessary access and quality to meet population needs. They enunciated a set of social accountability principles for Canadian medical schools: 1) Promoting competence and understanding the importance of the patient-physician relationship and professionalism and its obligations. 2) Emphasizing the importance of responding to changing community needs by developing mechanisms to maintain awareness of these needs and advocate for them to be met 3) Emphasizing the importance of translating research results into practice and 4) stressing the importance of developing a shared vision with community organizations, the public and governments to ensure sustainability of the health care system.

Solyom (2005) expanded on the theme of the social accountability of the medical educational mission. Writing from a U.S. perspective, he claimed that the medical profession had never adequately addressed fundamental dilemmas of 'unrealized rights and justice in health care that had resulted in explicit harm to the health of a large portion of the population'. He believed this situation had arisen because physicians had not traditionally received adequate training with regard to their civic responsibilities. They had received the background knowledge and skills necessary to ensure their competence to practice in a 'technical-rational' sense with regard to individual patients. They would however require additional moral and philosophical grounding if they were to fulfill their more fundamental societal obligations. This would entail significant changes to the content of traditional under- and postgraduate medical curricula.
Why is this social accountability of the medical profession and medical education so important? The intrusion of the free market into the provision of health care in many jurisdictions has led to situations where health care has become a commodity from which profits can be made. In this scenario, private sector corporations and the profits they owe their shareholders often become the determining factors in not only who gets healthcare, but also in determining the quality and outcome of this care. Can governments, individual physicians and/or their professional organizations be counted on to speak for the individual patient and the population at large in ensuring equitable access to healthcare? Eisenhower warned in 1961 of a ‘military-industrial complex’ where corporations in the defense sector, driven by profit, might end up having a significant say over U.S. foreign policy. A similar potential problem has been identified with regard to healthcare. Relman (1980) cautioned against the ‘medical-industrial complex’ which he saw emerging and not only threatening fundamental principles of distributive justice but also producing conflicts of interest for physicians. He outlined the rise of ‘for profit’ healthcare in the U.S., where a host of healthcare providers ranging from hospitals to homecare services where generating annual gross incomes of $35 billion to $40 billion. Efficiency aside, this new force created a fundamental ethical problem. Was the delivery of healthcare ultimately for the good of the patient or the good of a corporation and its stockholders? He went on to caution how the continued growth of the for-profit healthcare industry might lead to its increasing political power and hence might influence national health policy. He also reminded physicians of their primary ethical responsibility to ensure their patients had access to the highest quality care and cautioned them of the need to avoid conflicts of interest in a profit-driven environment. Faunce & Gatenby (2005) echoed this
caveat to the profession in the particular context of the globalization of pharmaceutical companies. They made reference to the increasing international reach of these major players and their abilities to ensure patent protection for their products by spending large amounts on political lobbying to ensure patent protection. This had led to a situation worldwide wherein many underprivileged and/or underinsured individuals could not access the medications they need. They presented this as another example of the 'medical-industrial' complex, and according to them it was ethically imperative for physicians to ensure all their patients had equitable access to pharmaceuticals irrespective of financial status.

There are a number of other reports documenting how for-profit healthcare, access to which is determined by an individual’s ability to pay, might end up having a significant impact both on patient outcomes and the associated costs. Adequate private insurance is crucial to the ability to pay for this care. This insurance coverage may be unavailable to large numbers of people either because they cannot afford it or because they are excluded from obtaining it by a pre-existing condition. Green, Showstack, Rennie, and Goldman (2005), noting that public hospitals and AHC’s might admit more poorly insured transfer patients than other institutions, investigated the relationship of patient insurance status, hospital ownership, and hospital teaching status with interhospital transfers in California in 2000. Their data showed that the likelihood of a hospital admitting a transfer patient was affected by both the patient’s insurance status and the hospital’s ownership. In general, patients with adequate insurance were more likely to be transferred than were those without, and patients without insurance were more likely to be admitted to publicly owned hospitals. Rice & Fineman (2004) examined
the economic implications of a demographically ageing U.S. population, and noted that the incidence of chronic illness and disability increased with age. This would have a significant negative effect on overall health care costs, placing a further strain on an already stretched Medicare program. They posited that if the government and society did not come up with an adequate financial solution to the problem, significant numbers of elderly people, unable to afford private insurance, might not receive adequate medical care.

McGregor et al. (2005) examined staffing ratios for direct-care and support staff in publicly funded not-for-profit and for-profit nursing homes in British Columbia. Not-for-profit facility ownership was associated with higher staffing levels. This finding suggested that public money used to provide care to elderly people purchased significantly fewer direct care and support staff hours per resident day in for-profit long-term care facilities than in not-for-profit facilities. They noted the difficulty correlating time spent on care with quality of care, but made reference to literature suggesting that higher direct staffing care levels were associated with better care outcomes (Schnelle JF et al., 2004; Spector & Takada, 1991). Similarly, Devereaux et al. (2004) undertook a systematic review and meta-analysis comparing payments for care at private for-profit and private not-for-profit hospitals. Private for-profit hospitals resulted in higher payments for care than private not-for-profit hospitals. No mention of patient outcomes was made in this study. The most damning evidence against private for-profit healthcare comes from another meta-analysis by Devereaux et al. (2002). On this occasion these authors compared mortality rates in private for-profit hospitals with those of private not-
for-profit hospitals. Their data suggested a higher risk of death for patients in the for-profit hospitals.

Nowhere is the situation with regard to the societal obligations of physicians more relevant than in Canada at present. The recent Chaoulli vs. Quebec decision by the Supreme Court of Canada (McFarlane, 2005; SCC, 2005) has potentially opened the door to both private health insurance and the private provision of health care throughout the country. This means that it will now be possible both for for-profit healthcare service companies and insurers to offer their services in this country. What are the implications for the average Canadian, and why should he or she be potentially concerned? And more importantly, what are the ethical ramifications for the medical profession? According to some of the terms of the Canada Health Act of 1984, Canadians were assured of equal access to health care, and that this care is to be publicly administered. This meant firstly that care was guaranteed irrespective of whether individual patients have the ability to pay or not, and secondly that this care was administered in the public domain and hence was not-for-profit. These provisions have now been removed with regard to private care, which is not regulated by the provisions of the Act. If the provision of private insurance and care gain ground in Canada, and if the public system deteriorates, many Canadians would be in the position of not being able to afford care and/or would not qualify for it because of preexisting health conditions. This scenario places the medical profession in a potential conflict between their own financial interests in providing lucrative private care and those of their patients who might not be able to afford it. It also imposes a significant societal obligation on them to ensure that no Canadians are denied care for the reasons outlined above.
Are physicians in general and Canadian physicians in particular up to this task, and if not, how are they to be educated about this duty of care they owe to society? Before there can be any education of students and residents about these obligations, there has to be both a recognition of the importance of the topic and a willingness to incorporate it into curricula. Fortunately this recognition seems to be gaining a foothold, at least in the mindsets of North American medical educators. The Royal College of Physicians and Surgeons of Canada has included ‘Health Advocate’ as one of the competencies in its CanMEDS framework (Frank, 2005). A health advocate is defined as a physician who ‘uses their expertise and influence to advance the health and well-being of individual patients, communities, and populations.’ Physicians should be able to ‘recognize their duty and ability to improve the overall health of their patients and the society they serve’. The Royal College thus recognizes advocacy at a least two levels: 1) that of the individual patient whose physician helps him/her identify and access the complicated machinery of a modern healthcare system, and acts as his/her advocate while navigating the system; and 2) at a societal level, where physicians play an expert role in identifying and helping develop solutions to all the problems that will impact the health of their patients. Whitcomb (2004) elaborated on this perceived need for medical students to learn about how health care is organized, financed, and delivered in the U.S. He believed that such knowledge was necessary for them to meet their professional obligations to their communities. Specific advantages of such knowledge would include making doctors more efficient advocates both at individual and public policy levels. He cited an unpublished study by the Association of American Medical College which showed that very few medical schools actually include such material in their curricula
and another study by Agrawal et al. (2005) which showed that many medical students had significant deficits in their knowledge of the U.S. healthcare system. Whitcomb urged medical educational leaders both to accept the importance of this material and to integrate it into future curricula in a manner that students would find relevant.

The global level

Key concepts: Globalization and higher education; globalization and medical education; understanding physician migration; the metric of the physician brain drain; origins of international medical graduate (IMGs) in British Columbia; globalization of medical educational standards; the role of the World Federation for Medical Education (WFME) and the Institute for International Medical Education (IIME) in global standard setting for medical education

The past few decades have ushered in revolutionary developments in technology, communications, finance and travel which have significantly impacted many aspects of daily life. The advent of the Internet has made it possible to gain access to a vast amount of scholarly material that previously was only available physically in libraries, to shop without ever have to set foot inside a store, to trade stocks and bonds without having to speak to a broker and to book travel without the help of a travel agent. Banks trade billions of dollars daily at the click of a mouse. Advances in commercial airplane design have enabled flights between any two cities on the planet without the need to refuel (Boeing, 2006). These developments, amongst others, have facilitated the complex social, political, economic and geographic phenomenon known as globalization (Hochschild, 2006).
Higher education has not been immune to these changes. An extract from the mission statement of the University of British Columbia, 'Trek 2010: A Global Journey' gives some appreciation of the commitment to globalization by academia:

In a world where countries are increasingly interdependent, we share a common responsibility to protect and conserve natural resources, promote global health and well-being, and foster international cooperation. UBC is already part of a growing network of learning that encompasses the globe; we must strengthen established links and develop new ones through enhanced student mobility and study abroad programs, faculty and staff exchange opportunities, and educational consortia. We shall encourage research projects that link UBC faculty and students with their peers around the world, including projects that address global problems in health, safety, economic opportunity, human rights, and environmental integrity. The University will seek to broaden global awareness both on and off the campus through innovative programs and educational outreach in a variety of formats. We shall also attempt to make the concept of global citizenship an integral part of undergraduate learning through its introduction into our core programs. We shall work to increase understanding of Aboriginal cultures in other parts of the world, and bring scholars from many different cultures to UBC.

This section of the literature review presents evidence to support the inclusion of capacities at a global level into the planning of graduate programs in medical education.

Medical education has a long history of global interconnectedness. Stevens (1995) documented how different countries have intellectually dominated medicine and medical education, both internationally and regionally. Contemporary Western thinking and teaching in medicine started in England and France at the beginning of the 19th century (Ackerknecht, 1967). By the end of the nineteenth century Germany dominated medical education and Flexner was impressed by what he observed (Bonner, 1963). Many North American physicians received training there during this period. The German lead was
abolished by defeat in 1918, and the latter part of the twentieth century witnessed the emergence of the U.S. as a global medical leader.

The above provides a very brief historical account of intellectual leadership in medical education prior to globalization. Why now the need to think globally in medical education, and what should medical educators bear in mind when doing so? Prideaux (2005) pointed out how medical educators form a global community who met regularly at international conferences, shared a common educational terminology and had attempted to standardize processes to promote quality control. He cautioned that this process should not proceed unchecked, and that what worked in one part of the world might not work as well in another. To counter this he advocated the formation of regional networks of medical educators who could take the best of the ‘global’ and adapt it for local consumption. Sewankambo (2004) posited a number of avenues where he believed academic medicine had global responsibilities. These included: 1) research into illnesses such as AIDS, tuberculosis, malaria, other communicable diseases and the challenges of drug resistance; 2) turning evidence into action by endeavoring to close the ‘research to action/policy’ gap; 3) addressing the problem of inadequate numbers of trained health care workers in the developing world, and 4) playing an activist role in addressing global inequities caused by disease. The problems he addressed were not those of intellectual leadership, but more practical ones that have been raised by globalization. They included, amongst others, infectious diseases which are now spread much more easily by facilitated travel, researchers who created intellectual capital for themselves by conducting research in the developing world but not ensuring that results were translated into benefits and healthcare workers who moved from the developing to the developed world to seek better
opportunities. He perceived the problem as one of movement - movement of people and diseases as a function of globalization and this is where he saw academic medicine as having its global responsibilities.

The need for global capacity in medical educational training is nowhere more relevant than in understanding and dealing with the migration of physicians. Medicine has always been a mobile profession (Stevens, 1995) but it is the direction of this mobility that can have devastating consequences for the 'donor' nations. One traditional reason for moving has been to receive training and acquire expertise that was not available in a particular country. If the physician returned after training he or she would continue to contribute both to the medical workforce and also to the increased pool of expertise. The reverse implied not only the loss of a highly skilled worker but also the cost of training a replacement, something that the 'donor' country might not be able to afford. Unfortunately most physicians migrate from the developing to the developed world (Dodani & LaPorte, 2005; Sullivan, 2005). A more detailed discussion of the reasons behind physician migration is beyond the scope of this thesis, but it is important for medical educators to have some understanding of the extent of this phenomenon.

Mullan (2005) noted the potential problems caused by this migration and set out to determine its magnitude. He collected data on the countries of origin, based on countries of medical education, of international medical graduates practicing in the United States, the United Kingdom, Canada, and Australia. Using World Health Organization data, he computed an emigration factor for the countries of origin of the immigrant physicians to provide a relative measure of the number of physicians lost by emigration. The emigration factor was computed as $[A/ (A+B)] * 100$, where $A$ was the
number of physicians from a source country practicing in the recipient countries and B
the total number of physicians practicing in the source country. He found that
International Medical Graduates (IMG’s) constituted between 23 and 28 percent of
physicians in the United States, the United Kingdom, Canada, and Australia. Developing
countries supplied between 40% and 75% of these international medical graduates. India,
the Philippines, and Pakistan were the leading sources of international medical graduates.
The United Kingdom, Canada, and Australia drew a substantial number of physicians
from South Africa, and the United States drew very heavily from the Philippines. Nine of
the twenty countries with the highest emigration factors were in sub-Saharan Africa or
the Caribbean.

Tables 2.1 and 2.2 provide similar data from the 2006 Annual Report of the
College of Physicians and Surgeons of British Columbia (CPSBC). This report supplied
information about the number of new licenses, both temporary and permanent, issued to
physicians who commenced practice in British Columbia each year.

Table 2.1 Permanent licences granted between 2003 and 2005 by the College of
Physicians and Surgeons of British Columbia by country of origin of the MD degree

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<tr>
<td>Canada</td>
<td>279</td>
<td>291</td>
<td>265</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>United States</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>South Africa</td>
<td>31</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>Australia and New Zealand</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Others (not specified)</td>
<td>40</td>
<td>45</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>374</td>
<td>334</td>
</tr>
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*Note:* From the 2006 Annual Report of the CPSBC, p.34

*Country indicates origin of the degree*
Table 2.2  Temporary licences granted between 2003 and 2005 by the College of Physicians and Surgeons of British Columbia by country of origin of the MD degree

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<tr>
<td>Canada</td>
<td>79</td>
<td>66</td>
<td>65</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>14</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>United States</td>
<td>9</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>South Africa</td>
<td>38</td>
<td>50</td>
<td>49</td>
</tr>
<tr>
<td>Australia and New Zealand</td>
<td>11</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Others (not specified)</td>
<td>40</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>191</td>
<td>202</td>
<td>190</td>
</tr>
</tbody>
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*Note: From the 2006 Annual Report of the CPSBC, p.34*

*a Country indicates origin of the degree*

These data show that South Africa has supplied British Columbia with more IMG’s in both the fully licensed and new temporary registrant categories than the U.K., the U.S., Australia and New Zealand combined for the most recent three years for which statistics are available. The only exception was 2004 in the temporary registrant category where the numbers were virtually equal. The College does not provide information as to where the other registrants came from. Therefore these data possibly underestimate the draining effect British Columbia has on medical personnel from other underdeveloped countries. South Africa is unusual in that it is considered a developing nation from an economic standpoint but has traditionally had a sophisticated medical educational system. Nevertheless the losses of large numbers of its physicians abroad present it with significant challenges, particularly given the problems the country is experiencing with HIV/AIDS.

Lawson (2005) presented data about the dependence of the U.S. on IMG’s to fill residency positions. In 2005 there were 19,760 residency slots in the U.S. filled. Of these, 13,798 were filled by US medical school graduates, 1,143 were filled by US citizen
graduates from off-shore medical schools and 3,087 residency slots were filled by non-US citizen graduates from off-shore medical schools. Therefore in 2005 about 15% of U.S residency spots were filled by IMG’s. No indication was given as to the country of origin of these graduates.

Another potential problem that globalization poses for medical education is that of maintenance of practice standards within trade-blocs such as the European Union (EU). According to current legislation workers from any part of the EU can work in any other member country without having to obtain a work visa. This means theoretically that a surgeon from Slovenia or Slovakia could work in the U.K. or France without a visa. Practically such an individual would have to obtain a medical license to practice, and the licensing body in each jurisdiction would determine his or her qualifications to do so. But in the future there may be pressure on EU member states to recognize licenses granted in other member states. In this context, Leinster (2003) maintained that the only way to insure equivalency of educational programs in medicine was to set standards that were enforceable across jurisdictions. This would enable evaluation of programs and comparison between countries. He cited EC Directive 93/16 which set the standards for both the duration and content of basic medical education in the European Union. He contended however that the directive was open to wide variations in interpretation and therefore perceived the need for a new approach toward the development of standards defining common learning outcomes at all stages of medical education throughout the EU. The need for standardization of medical education in Europe has been endorsed by the International Federation of Medical Students’ Associations and European Medical Students’ Association (Onur, Westbye, & Kovac, 2005).
This section of the literature review has reviewed the international context of medical education from historical and educational leadership perspectives. It has also outlined some of the global challenges medical educators are facing and hence the need for global capacities in graduate programs in medical education. Is there any evidence that the medical educational establishment is responding to these needs, and that medical educators are starting to think globally? The Lancet (Editorial, 2001b), amongst others, provides some affirmative answers to this question. They cited an article by Bateman, Baker, Hoornenborg, & Ericsson (2001) pointing to a significant change in interest about medicine in international settings. These authors described how medical students from more than 50 countries have gathered twice each year to discuss problems in international health and gave examples of how medical curricula across Europe were changing to accommodate these issues. They also mentioned the International Health and Medical Education Centre initiative at University College London that tied global health into the medical curriculum. The Centre provided students with an understanding of international health and trained physicians to have a multicultural perspective on health and health care. The program consisted of an integrated degree in international health, study modules in the first and final years of the medical course, and an elective in Tanzania.

Prideaux and Gordon (2002) reported on an international consortium headquartered in Hong Kong which aimed to enhance quality in medical education by establishing an assessment bank. They noted the challenge of recognizing those educational outcomes that should be universal and those that need to vary in response to local needs, and stressed that international standards must be capable of being applied in local contexts. Important principles in attaining these goals were that members of the
consortium volunteer for membership, that decision-making about the workings of the consortium be participatory and that local issues be respected. It was deemed crucial that all members have a shared vision. Other authors (Norcini, Burdick, & Morahan, 2005; Verhoeven et al., 2005) have also described consortia promoting international cooperation in medical education.

The two most significant examples of global cooperation in standard setting in medical education have been the initiatives of the World Federation for Medical Education (WFME) and the Institute for International Medical Education (IIME), the IIME sponsored by its parent body, the China Medical Board of New York. The WFME started its work over two decades ago (Walton, 2003) when it was called on by its parent bodies, the World Medical Association and World Health Organization, to reform medical education internationally. After extensive international consultation the blueprint for this reform was laid out in the Edinburgh Declaration (WFME, 1988). These efforts finally culminated in the publication of a Trilogy of Global Standards for Quality Improvement (WFME, 2003) which covered basic and graduate medical education as well as continuing professional development. These standards were principally directed at institutional rather than individual parameters that were deemed crucial to the medical educational process. Subsequent pilot testing of the WFME standards for basic medical education in 11 demographically diverse schools showed that the standards were usable, adaptable and appropriate (Grant, Marshall, & Gary, 2005).

By way of contrast, the efforts of the IIME were directed at the essential competences, or ‘global minimum essential requirements’ that students must demonstrate at graduation and that all individual physicians should possess regardless of where they received their general medical training (Armstrong et al., 2002; Schwarz & Wojtczak,
These competences were developed to help indicate what teachers were supposed to teach, what students were expected to learn and what educational experiences all physicians should have. In the first phase of the project, seven domains were identified with subsets of sixty learning objectives. The seven domains were scientific foundations, clinical skills, critical thinking, communication skills, information management, professional values and attitudes and population health. In the second phase of the project, the 'global minimum essential requirements' were successfully implemented and evaluated experimentally in eight leading medical schools in China (Stern et al., 2005).

**Summary**

This literature review commenced with a brief explanation of how this thesis was conceived and what concepts it was trying to illuminate. It stressed the importance of the planning of future graduate programs in medical education from practical, theoretical and philosophical perspectives. The thesis question was based on the word 'capacities' which was chosen to represent these concepts. Capacities were then defined at individual, institutional, societal and global levels, stressing that these only provided a convenient framework and were not mutually exclusive.

The body of the literature review has provided significant evidence to support the conceptualization of capacities at these four levels. At an individual level it outlined the roles and responsibilities of medical educators in Academic Health Centers, exploring notions of teaching, mentoring and the scholarship of teaching with specific reference to medical education. At an institutional level it discussed concepts of leadership, management and governance as they relate to medical education. It made the case for the
societal obligations of medical education, and discussed how medical education could be impacted by the ramifications of globalization, particularly with reference to global standard setting and physician migration. It must be stressed that the societal and global issues that have been cited as examples of why capacities should be developed at these levels are solely the author’s ideas. Other examples of societal and global issues would be just as relevant in this regard.
Chapter Three - Research Design

‘There are more things in heaven and earth, Horatio, than are dreamt of in your philosophies.’ (William Shakespeare, Hamlet)

Positionality and uncertainty in research

One hundred years ago Einstein published a paper entitled ‘On the Electrodynamics of Moving Bodies’ in which he outlined his Special Theory of Relativity. The theory stated that all motion was relative and had to be interpreted in light of the observer’s position (frame of reference). Observations made from reference frames moving at significantly different velocities would result in different conclusions about the same phenomenon. It was also postulated that the velocity of light remained constant irrespective of the observer’s reference frame. Twenty years later, Heisenberg postulated his Uncertainty Principle, which became a central tenet of Quantum Mechanics. This Principle posited that it was impossible to know simultaneously everything about an electron’s position and its momentum. The act of observation interfered with the inherent properties of any system, and the more one knew about one variable the less one consequently could know about the other. ‘Total knowledge’ about any phenomenon was therefore never possible.

What, if anything, do two concepts from early twentieth century theoretical physics have to do with research in education and the humanities? Can the inferences from two fundamental theories in the physical sciences be utilized in helping understand methodological and perspective issues faced by a completely different field of enquiry? The humanities accept that researcher positionality in a social sense is crucial to
interpreting research (Altheide & Johnson, 1998; King, 1996). All subsequent knowledge claims based on these results have to be made explicitly in light of the author’s positionality for them to be considered valid. For example, the observations that a male Caucasian researcher might make about African-American female sex-trade workers might be very different from those an individual of a similar background might make in the same situation. Subsequent knowledge claims have to acknowledge this discrepancy of positionality and the effect that it might have on data interpretation. In the same vein, can a researcher ever accurately appreciate the totality of the life experience, with all its nuances, in a group from a totally different cultural and ethnic background to him/herself? Can a physician ever truly appreciate the symptoms suffered by a patient without experiencing them? Ethnography has attempted to solve this problem by having the researcher ‘go native’, or try to become one of the group that is being researched. To learn their language, live with them, join in their rituals and customs and hence insinuate him (her)self as much as possible into the complex cycle of their lives. Although this approach could potentially overcome the problem of positionality, what it does do is reduce the contrast that would have been present if the researcher had maintained their original position, and hence it potentially reduces the power of the observations that will be made. Contrast is vital to observation, and if it is absent our appreciation of phenomena is blunted. Uncertainty is therefore introduced, and the more one knows from one perspective the less one knows from another, rendering total knowledge impossible.

These two scenarios provide examples of methodological issues with regard to positionality and uncertainty that the social sciences have addressed in the middle and latter half of the twentieth century. It can therefore be argued that the physical sciences
preceded the social sciences in appreciating the complexities that positionality and uncertainty bring to observations. No field of human enquiry is devoid of these problems.

**Epistemology, theoretical perspective, methodology and method in social science research design**

How have the social sciences attempted to integrate these and other complex issues into a framework of thinking about the research process? Crotty (1998) suggests researchers ask themselves four questions prior to the design of any piece of research:

1) What *methods* do I propose to use? Methods refer to the techniques and procedures used to gather and analyse data, and could include, amongst others, use of focus groups, interviews and statistical or qualitative analytical software.

2) What *methodology* will I employ? He defines methodology as the ‘strategy, plan of action, process or design underpinning the choice of any one or more methods, and linking the chosen method to the desired outcome.’ Examples of methodologies include Grounded Theory, experimental research, phenomenological research and ethnography.

3) What is my *theoretical perspective*? What is the philosophical stance informing the methodology? What assumptions about reality does the work make? Examples of different theoretical perspectives include positivism, the fundamental tenet of which is an ‘assurance of accurate and unambiguous knowledge of the external world’ (p.18). Other perspectives include interpretivism (of which hermeneutics and phenomenology are examples), critical enquiry and feminism.

4) What theory of knowledge, or *epistemology*, is embedded in the theoretical perspective, and thereby in the methodology? Examples of different epistemologies
include objectivism (meaning can exist apart from consciousness) and constructionism (truth and meaning can only be appreciated in the context of conscious engagement with the world).

**Medicine's philosophical stance toward research and practice**

Western medicine has traditionally adopted a positivist perspective and objectivist epistemology with regard to both practice and research (Cooper & Tauber, 2005). This trend developed from the positivist philosophy embodied in the Age of Reason that began in England in the seventeenth century and was subsequently perpetuated by thinking and writing in France and other centers in Europe. This philosophy was propounded by amongst others, Auguste Comte and the Vienna School (Crotty, 1998). This model of teaching and researching in medicine was first introduced to North America at Johns Hopkins Medical School at the end of the nineteenth century, which copied practice in Germany at the time (Bonner, 1963).

What about medical educational research, a discipline which lies at the crossroads of the humanities and biological sciences? Prideaux (2002a) noted that research in medical education was a relatively newly developed field, one that had attracted participants from a diversity of backgrounds, including the clinical and biological sciences, education and psychology, amongst others. Each of the participants from these diverse backgrounds brought knowledge of a particular set of methods, methodologies and perspectives, all of which might display utility in answering some of the large scale outcomes questions that research in medical education had been tasked with. There was no longstanding research tradition in medical education that had to be
slavishly followed, and the discipline might be best served by embracing an eclectic approach to research methodology. Prideaux believed the only prerequisite for medical educational research was rigor and explicitness in design; he considered uniformity of methodology unnecessary. In this regard he echoed the views of Irby (1990) who viewed the medical educator as a 'generalizer', someone who would take concepts and ideas from a range of disciplines and research paradigms and apply them to the pursuit of medical educational problems and investigations. This, however, would require a significant ability to think across a range of research traditions. Cooper and Tauber have even postulated the need for new paradigms in thinking about the way that clinical medicine is taught and practised. They believe that clinical medicine has to some extent been corrupted by the too rigid embrace of positivism and objectivism, which has resulted in the loss of the humanistic face of the profession. They believe that new physicians will need to be schooled in a way whereby 'facts and skills are taught within the context of ethics and values.' This will require the current positivist/objectivist stance of medical education be coupled with strategies that deal with ambiguity, uncertainty, communication, empathy and physician self-awareness. However, the topic of which research approach is best suited to medical education remains hotly debated, and several authors have argued for the desirability of quantitative (Carney et al., 2004; Fitz-Gibbon, 2002; Torgerson, 2002) or qualitative (Malterud, 2001; Prideaux, 2002b) methodologies.

Theoretical perspective, methodology and method utilized by this thesis

The author is a physician in the field of respiratory and critical care medicine, a specialty that utilizes highly quantitative techniques and which functions in an objectivist
epistemological framework and from a positivist theoretical perspective. This thesis builds on the paper by the author (Cohen et al., 2005) which identified 21 existing English-language graduate programs in medical education. Rather than take a direct approach to planning graduate programs in medical education by analyzing these programs, this thesis attempted to utilize an interpretivist theoretical perspective to ‘try and represent a way of thinking about the foundation, structure and provision of graduate training in medical education, and hence what might inform these programs both theoretically and conceptually’ (Pratt, 2004). No assumptions were made about the existing programs, and they did not provide the direct focus of this work. Instead, this thesis attempted to adopt an approach to the analysis and planning of graduate programs in medical education that was unencumbered by previous research or thinking. The methodology could therefore be described as phenomenological. Crotty (1998) defines phenomenology as ‘back to the things themselves’ (p.78). It is a technique at whose core lies the investigation of phenomena as they immediately present themselves to humans as conscious beings. Researchers have to discard the ‘prevailing understandings’ of those phenomena, and in doing so a new and fresh understanding of them is intended to emerge. Focus groups were the method chosen for collecting the data that would inform this thesis.

The focus group as method

The use of the focus groups as a research method dates back to the first half of the twentieth century. Social scientists at the time had concerns about the conventional one-on-one interview and perceived that the questioner might take too much of a lead and
consequently data taken from an interview were likely to embody the preconceived ideas of the interviewer (Krueger, 1988, p.561). This led to the development of the ‘focused group interview’ by Merton in 1941 who used it to evaluate audience response to radio programs (Stewart & Shamdasani, 1990). It was perceived as a less direct approach to interviewing with the emphasis shifted from the interviewer to the interviewee. The method was initially used for commercial and marketing purposes, and it is only over the past few decades that it has come to be employed as a research tool in the social sciences.

The advantages of focus groups include the ability to obtain exploratory data, look for unanticipated consequences to interventions and help develop other instruments such as questionnaires (Palys, 1997). Focus groups can also serve as a forum for discussion of an initial piece of research which might help the researcher generate alternative explanations or additional hypotheses and design further studies. The other distinct advantage is that the method is intended to provoke a group dynamic that could not exist within the framework of a one-on-one interview. Ideas are laid out for the group to consider, and hence multidimensional insights are gained that would not otherwise be possible. Another perceived benefit is the ability of the researcher to witness the interaction of the participants in a relatively short space of time.

There are distinct disadvantages to the method; amongst these are the differing personalities of the participants and their willingness or otherwise to speak out in a semi-public forum, especially since confidentiality cannot be guaranteed in this setting. Individuals who hold extreme views on either side of an issue might be less likely to divulge these because of a fear both of being judged during or their confidences betrayed.
after the session. Maintenance of self-image thus takes precedence over engagement with the group, and content might be lost.

This thesis specifically sought to employ the dynamic present in three separate groups of medical educators to help answer its question, ‘What capacities should be developed by graduate programs in medical education?’ This dynamic could not exist within the framework of a series of one-on-one interviews.

**Primary data sources**

This study utilized two sets of primary data:

1) The mission statements from the graduate programs in medical education that were identified in the paper by Cohen et al. (2005). (Appendix, p.172)

2) Recorded data from a series of three focus groups held in January, May and June 2005. The first was held at monthly rounds of the University of British Columbia’s Medical Education Research Group (MERG) on the 21st January 2005 in Vancouver, British Columbia (thirteen participants). The second was held at the annual meeting of the Canadian Association for Medical Education (CAME) in Saskatoon, Saskatchewan on the 3rd May 2005 (twelve participants). The third was held at the annual meeting of the Society of Directors of Research in Medical Education (SDRME) in Semiahmoo, Washington on the 21st June 2005 (twenty participants).

Each focus group commenced with a ten-minute PowerPoint presentation by the author outlining the logistical features of existing graduate programs in medical education (Appendix, p.165). The question asked by this thesis, “What capacities should be developed by graduate programs in medical education? And why?” was explicitly
posed on the initial and penultimate slides of the introductory presentation. The final slide was a diagram representing the different dimensions by which the author had conceived capacities, i.e. individual, institutional, societal and global. Participants were not given any further explanation as to the interpretation of the word ‘capacities’.

The first focus group proceeded directly to a discussion of the question for a period of 45 minutes. The format of the second and third groups was slightly different. After the introduction, the larger group split up into two (CAME) and three (SDRME) smaller groups, who then discussed the question amongst themselves. A group recorder was appointed who kept flipchart notes of the discussion, and at the end of thirty minutes another individual gave a 10 minute summary of each group’s deliberations. The session concluded with a 15 minute synopsis of the proceedings by Dr. Yvonne Steinert of McGill University (CAME) and Dr. David Cook of the University of Alberta (SDRME). The three small groups at the Semiahmoo session were also tasked with developing a mission statement for a putative graduate program in medical education.

**Ethics approval and consent**

The project received approval from the University of British Columbia Behavioral Research Ethics Board (Appendix, p.185). Verbal consent for audio recording and transcription of each focus group was obtained from all participants prior to commencement of the session. (Appendix, p.183).
Recording, transcription and downloading of data into Atlas.ti

Each focus group, including the small group discussions, was recorded in its entirety. The recordings were transcribed, and the transcriptions were checked by the author for accuracy against the original recordings. However, the recordings of the two small groups at CAME and the three group summaries at SDRME were significantly inaudible due to technical problems, and could not be used for transcription. All the remaining transcriptions were downloaded into Atlas.ti, a qualitative analytical software program.

The mission statements of the graduate programs in medical educational programs were copied directly from the program websites and downloaded into Atlas.ti.

The analytical framework

Table 3.1 The analytical framework

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Why was this particular framework utilized, and how were its component terms selected?

It became apparent to the author during the literature review for this thesis that one way of conceiving ‘capacities’ of graduate programs in medical education was at individual, institutional, societal and global levels. ‘Capacities’ referred to intrinsic properties developed by the program conferring beneficial outcomes at individual, institutional, societal and global levels. Individuals, as well as benefiting themselves, would however always be the ultimate agents of change at institutional, societal and global levels. It subsequently became apparent during the initial review of the focus group transcripts that participants had not fully embraced the concept of capacities at individual, institutional, societal and global framework that had been presented to them during the initial PowerPoint presentation. They had discussed individual and institutional issues to some extent, but had almost completely ignored the societal and global. It also became apparent that the data could be much better understood using a framework derived from the adult educational program planning literature (Sork, 2000). Program planning was never intended to be a ‘capacity’, but the participants appeared to interpret the question as an exercise in program planning. Hence the final analytical framework, which emerged only after initial interpretation of the data, incorporates the notions of ‘capacities’ from both the author’s and participants’ perspectives. It also attempts to integrate these disparate views by listing them on the two axes of the framework.
What does each term in the framework represent?

The horizontal axis of the framework, representing beneficial outcomes from these programs at individual, institutional, societal and global levels, was derived empirically from the literature during the course of the literature review. 'Individual' refers to learners in the programs, 'institutional' to the medical educational enterprise at a medical school and academic health center level and 'societal' to the jurisdiction in which any particular school is located; this could be construed at municipal, provincial/state or national levels, or any combination of these, but confined by national borders. And finally 'global' refers to the increasing number of medical educational initiatives that are worldwide in scope.

The vertical axis is derived from the literature of adult educational program planning (Sork, 2000). 'Context' refers to the social, political, organizational and economic environment in which planning and implementing a program takes place. 'Learners' are the prospective students in the program, 'needs' a simplified representation of the justification for and focus of the planning, and 'outcomes' the ultimate intent of the program. 'Structure' includes the sub-topics course content, administration, financing, instructional design and modes of delivery, teachers and evaluation. 'Course content' was included in the 'structure' field to conform with Sork's framework. 'Philosophy' denotes the ethical and socio-political implications of the program and/or its 'raison d'être'.

How was the framework applied to the mission statements and focus group transcripts?

The author identified passages in the transcripts that cohered in meaning and context. During initial coding (the application of terms, or codes, from the framework to the transcripts) each passage thus identified was carefully scanned and coded with all possible codes that might apply. There was no attempt on the initial reading to combine codes; if there was any hint of the passage referring to 'individuals', it was coded as such. Likewise, if there was any suggestion of an 'outcome', this was also coded for. There was no attempt to combine 'individuals' and 'outcomes'. This initial coding was very liberal and inclusive – any hint of attributable meaning in a passage was coded as such.

Once the initial coding was completed, a series of combination codes were created by using the 'Query' tool imbedded in the software. These combination codes were formulated using the analytical framework in Table 3.1. With regard to the codes on the vertical axis of the table, it was not felt meaningful in the context of the data to group the codes 'context', 'learners', 'structure' and 'philosophy' with any of the codes on the horizontal axis. For example, it did not make sense in the context of the data to search for 'individual learners', 'institutional learners', 'societal learners' and 'global learners'. Alternatively, it did appear important to combine the codes 'needs' and 'outcomes' with each of the codes on the horizontal axis, i.e. 'individual', 'institutional', 'societal' and 'global'. A series of eight combinations of codes was thus created, using the Boolean search function in the software. These were: 'individual AND needs', 'individual AND outcomes', 'institutional AND needs', 'institutional AND outcomes', 'societal AND needs', 'societal AND outcomes', 'global AND needs', and 'global AND outcomes'. 
This resulted in a total of twelve codes that were ultimately used to search the transcripts – the aforementioned eight, plus the single codes ‘context’, ‘learners’, ‘structure’ and ‘philosophy’. The code combinations are indicated with an ‘X’ in Table 3.2, and all twelve search codes are highlighted by shading in Table 3.2.

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The transcripts were then searched using each of 12 codes. This resulted in a list of passages appearing for each code. Each of these passages was then carefully re-read and re-coded if necessary; i.e. if the original coding was not felt appropriate, it was changed to reflect better the intended meaning of that particular passage. The software automatically updated these changes. Thus the coding was an iterative process, each passage being read on several separate occasions and always in the context of other passages. Once the coding for a passage was finalized, a memo was created, saved and labeled so that it could be easily referenced back to the passage and code. The memo was either a direct quote from the text or a short summary by the author. Each memo
represented the crucial idea(s) relevant to that particular code in that passage. These memos were then stored in ‘memo families’ created according to their underlying codes. The memo families were then retrieved and exported into the ‘results’ section of the thesis. These memos represented the ‘capacities’ asked for by the original question, after extraction from the transcripts, utilizing the framework as a filter. For example, the following passage:

I think the chief point was to educate health care practitioners to become reflective educators, to help their institutions, and the third one had some subsections to it which was to design, implement and assess educational programs to contribute to the knowledge base and to effect change at the institutional, societal and international level. I divided what we said up into three bits. The first I called consensus. The primary target for this seems to be existing health care professionals. And I put the word primary there because that doesn’t mean that we can’t admit others. The much maligned basic scientists might even take advantage of this.

was coded with the ‘individual’, ‘institutional’, ‘societal’, ‘global’, ‘learners’, ‘outcomes’ and ‘philosophy’ codes. This passage was therefore identified under the ‘learners’, ‘individual AND outcomes’, ‘institutional AND outcomes’, ‘societal AND outcomes’, ‘global AND outcomes’ and ‘philosophy’ codes and combination codes when searched. The following memos were then created for each specified code; the memos are mostly direct quotes from sections of the passage:

learners

‘The primary target for this seems to be existing health care professionals. And I put the word primary there because that doesn’t mean that we can’t admit others. The much maligned basic scientists might even take advantage of this.’
individual AND outcomes

'Reflective educators; help their institutions; design, implement and assess educational programs; contribute to knowledge base; effect change at multiple levels'.

institutional AND outcomes

'to effect change at the institutional, societal and international level; help their institutions; design, implement and assess educational programs; contribute to knowledge base; effect change at multiple levels'.

societal AND outcomes

'to effect change at the institutional, societal and international level.'

global AND outcomes

'to effect change at the institutional, societal and international level.'

philosophy

'I think the chief point was to educate health care practitioners to become reflective educators, to help their institutions'

The memos were then summarized to produce the final results. The software enabled all memos for a given code to be displayed simultaneously, so for example all the memos for the code 'learners' could be viewed while synthesizing the results for that
code. There was a constant tension between refining the data and losing sight of its original context. At all times a concerted effort was made to keep the original context of the memos in mind while summarizing. This was accomplished by displaying the original transcripts in a window alongside the memos during the process of summarization.

Summary

This chapter commenced by outlining the critical role that observer positionality plays in the interpretation of research results. It also stressed that uncertainty is present in all fields of human enquiry, and that total knowledge about any phenomenon is difficult if not impossible to obtain. It outlined the importance of knowing what epistemology, theoretical perspective, methodology and method have been employed in any research, and emphasized how clinical medicine/research traditionally functions from an objectivist/positivist position. The chapter then explained the theoretical perspective, methodology and methods utilized by this thesis, and also outlined the strengths and weaknesses of the focus group as a method. The primary data sources were clarified, and considerable time was spent explaining how and why this particular analytical framework was chosen, and how it was applied to the data using Atlas.ti, a qualitative analytical software program. The data extraction process has been clarified by providing examples of the relationships between passages from the transcripts, applicable codes and memos.
Chapter Four - Results

The results represent a summary of the memos created by the author from the relevant passages in the transcripts that were identified by searching the transcripts using each of the 12 codes described in Chapter Three. These memos represent the 'capacities' asked for by the original question, after extraction from the transcripts, utilizing the framework as a filter.

The results have been organized into twelve sub-sections, each sub-section corresponding to a code represented by one of the shaded cells in the analytical framework outlined in Table 3.2. Within each sub-section the results from the mission statements have been discussed first followed by the results from the focus groups. The discussion from the focus groups has been blended for brevity. In doing so, care was taken not to lose any content. The absence of results for any one or more program mission statements or focus groups in any sub-section indicates there was no relevant discussion on that topic from that source.

A numbered summary for both the mission statements and focus groups has been provided at the end of each sub-section. The mission statements are included in the Appendix (p. 172).

Abbreviations used with regard to the mission statements are:

OISE    Ontario Institute for Studies in Education
QUB     Queens University Belfast
UIC     University of Illinois at Chicago
UNSW    University of New South Wales
USC     University of Southern California
All other institutional names are spelled in full.

Table 3.2 Individual and combination codes used to analyze the missions statements and focus group transcripts.

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Context

Context was defined in Chapter Three as 'the social, political, organizational and economic environment in which planning and implementing a program takes place.'

The mission statements

1) Cardiff stressed that it was the first medical educational program in the United Kingdom, having commenced in 1988. The program was founded because of a perceived need to change 'what' and 'how' health professionals were educated at that time. However the mission statement did not specify what these terms represented, or what circumstances had given rise to the need for change.
2) Three themes related to context emerged from the Cincinnati mission statement. The first was that the program was a collaborative effort on the part of the faculties of medicine and education. The second that the course was delivered entirely via the Internet; this was justified by the increasing power of this medium to deliver teaching materials and courses to learners at a distance. The need for lifelong learning by health professionals was also cited as a reason for developing the course, but no rationale was provided to make the link between a degree program lasting two years and ‘lifelong learning’.

3) Flinders designed their course in the context of challenges posed by deficiencies and changes in the health workforce, but did not state what these were. They viewed partnerships with external agencies such as other universities, professional organizations and state-sponsored health services as key to the learning process, describing this as a ‘symbiotic’ relationship, and believing it led to more effective learning. No empiric evidence for this was cited.

4) Maastricht emphasized the critical importance of adequate health professional education to improved individual physical and psychological wellbeing.

5) Nottingham also stressed that their course was a joint effort of the schools of medicine and education and stressed the importance of a working knowledge of educational theory, behavior and learning. The mission statement did not elaborate further.

6) The Pittsburgh program was promoted as a collaborative effort between the schools of medicine and education. The mission statement described the ‘expertise, strength and commitment’ of the faculty in these two schools, but no reasons were given as to why this joint venture was undertaken.
7) The OISE masters in education emphasized the study of institutions of higher education in Canada, and the relations between these and Canadian society. Mention was made of the masters of education specializing in health professions education, but no information was provided as to how this related to the overall context of the degree.

8) The Sheffield program was predicated on the increasing need for physicians with an additional educational qualification. This was justified by citing the major changes that had occurred at all levels of medical education – undergraduate, postgraduate and continuing professional development, and specific examples were cited in each category.

In summary, the themes with regard to ‘context’ that emerged from the mission statements were:

1) Collaboration between faculties of medicine and education

2) The need for educators to be trained to respond to changes mandated externally at all levels of the health professions continuum.

3) The importance of the relationship between institutes of higher education and broader society

4) The importance of basic educational knowledge to all educational endeavors

5) The relevance of health professionals’ education to individual healthcare outcomes

6) The importance of educational partnerships between universities and health service delivery organizations

7) The increasing importance of the Internet in program delivery
The focus groups

A number of themes emerged from the focus group discussions that related to the context in which graduate programs in medical education were planned. The first of these was the perceived need for a core of material that would anchor and inform the remainder of the program. It was felt that this core would likely come from education rather than from medicine, but a note of caution was sounded by a participant who raised the issue of fundamental epistemological differences between education and medicine. These differences were not elaborated on. This notwithstanding, the same speaker felt that more specific topics, such as curriculum planning, could be taken from education and adapted for use in the context of medicine. Another participant echoed the need for a core theoretical perspective, and agreed that this should come from the social rather than the biophysical sciences.

A suggestion that arose from discussion was to consult other areas of academic endeavor, such as commerce, for ideas that would help in the planning of a degree program in medical education. Specifically it was suggested that Masters of Business Administration (MBA) programs be examined with regard to the balancing of professional and research/academic interests within an individual medical educational program.

An international perspective was required when constructing a mission statement. This was both because of the need for international medical graduates to train in the medical educational field and the perceived need to infuse an international educational perspective into local medical educational programs. These ideas had been informed by the speaker's experiences with international leadership programs.
A group discussion focused on the concept of ‘change’. The speakers acknowledged that change was largely a political and not an educational issue, but had difficulty articulating exactly what they conceived change to mean. They discussed the concept of advocacy in education, concluding that it implied being an advocate for improvement to the educational process. There was reluctance to embrace a broader, international connotation to the change concept.

Other discussion centered on whether the program should physically and intellectually be located in education or medicine. The consensus was that these programs were joint ventures between education and medicine but the group could not define who had primary responsibility. The option of housing the degree in a school of public health or continuing studies was also considered. Inbreeding was the danger of locating it in medicine, but this had to be balanced with loss of context if it was in education. Discussants did agree however that a masters in medical education was primarily a professional rather than a research degree.

Several other themes emerged with regard to location. The first was financial – who owned the tuition that flowed from the program? The second issue was the perceived lack of experiential depth in an education faculty to support teaching in what was primarily a medical field. Cultural differences between the two faculties were cited as potentially problematic, but no hint was given as to what these differences might be. Along the same lines, someone commented on the need for adult educators to understand the context of medicine before getting involved in the medical educational process. This respondent felt that many adult educators did not understand the day-to-day language of medicine.
One group commented on the differences in the training between medicine and education. Medical education was perceived as having at least two components – didactic and ‘care-in-action’, whereas education was perceived as resembling the ‘care-in-action’ model. These differences might lead to potential problems in a graduate program.

A participant commented on the new Masters in Teaching program at Baylor College of Medicine. He indicated that this program was imported directly from the School of Education into the Medical School. Concepts had been imported directly from education into medicine, and the program had not originated from the perceived needs of medicine/health sciences. He also emphasized that this might have made the program too didactic and theoretical, but did not explain why this approach was chosen.

In summary, the themes that emerged from the focus groups with regard to ‘context’ were:

1) Location of the program

   a) These were joint ventures between education and medicine

   b) The danger of locating the program in medicine or public health was intellectual inbreeding which had to be balanced with a possible lack of contextual understanding and experiential depth if the program was housed in education.

   c) An appreciation of fundamental epistemological differences between education and medicine

   d) How would tuition revenues be divided?
2) The need to import core concepts from education into medical education, although these concepts were not defined
3) The need for a masters in medical education to balance theoretical with practical perspectives
4) The hazards of importing programs directly from adult education into medical education without first ascertaining medical education's needs
5) The need to consult other faculties such as commerce for ideas on how to balance theoretical and practical content in a professional degree
6) The importance of students being able to locate courses in a medical educational program that was located outside their home faculty or department
7) The need for maintaining an international perspective when planning these programs
8) The importance of advocacy by medical educators with regard to continual improvement of the educational process
9) These were primarily professional rather than research degrees

Learners

Learners were defined in Chapter Three as the prospective students in graduate medical educational programs.

The mission statements

1) Bristol stated 'the program is aimed at all types of health professionals wishing to enhance their educational skills and knowledge.' They also specifically mentioned
improved teaching skills, but did not explain why these enhanced skills might be important to learners.

2) Cardiff stated that they had enrolled more than 150 health professionals from around the world as students, but did not define a health professional.

3) Cincinnati enrolled health-care professionals, but once again did not define the term.

4) Dundee professed a major interest in providing courses for teachers in the health care professions and also mentioned those who supported learning. They did not specify whether the teachers were health care professional themselves.

5) The Flinders program was directed at health professionals in medicine, nursing, and ‘allied health’, but did not define ‘allied health’. It was also directed at those involved in teaching at all levels of the curriculum, and specifically targeted individuals involved in establishing new schools of health professions education, curriculum change and expansion into new teaching areas.

6) Maastricht made mention of ‘those that teach’ in the whole health education process, but did not define who would be suitable candidates for admission to their program.

7) Newcastle enrolled individuals involved in the undergraduate and postgraduate clinical teaching and training of health professionals, without defining ‘health professionals’.

8) The Pittsburgh degree was intended for individuals with clinical degrees in the health sciences, such as MD’s, dentists, psychologists, pharmacists, nurses and chiropractors, at any stage of their careers. Potential students’ career focus should be on medical education and teaching. Applicants must have demonstrated a significant interest in a long term commitment to teaching and leadership positions in medical
education programs, but they did not specify how this commitment was to be ascertained.

9) UIC recruited health professionals but did not specify who these might be. They stressed the relevance of their program to individuals interested in educational leadership positions who lacked formal training in education and management. They acknowledged that learners might come from a wide diversity of educational and professional backgrounds, but did not specify what these had been or might be. They recognized that prospective learners would probably be working concurrently, and offered some flexibility in both tailoring the program to individual needs and using the individual’s institution as a source of learning.

10) UNSW only mentioned that their course was for ‘clinical educators’, but did not elaborate further.

11) USC targeted ‘busy’ healthcare professionals. Previous students had been academic deans and medical and allied health-sciences educators such as ‘residency directors, physicians, dentists, physician assistants, nurses and physical therapists.’ Their program enabled learners to complete the degree while working.

In summary, the themes that emerged from the program mission statements with regard to ‘learners’ were:

1) These programs were intended for healthcare professionals at any stage of their careers

2) Health professionals, where defined, had included physicians, nurses, physician assistants, physiotherapists, dentists, pharmacists, chiropractors and psychologists.
3) Some programs were aimed specifically at those individuals who were interested in careers in educational leadership, medical education/teaching and educational innovation. Examples of educational innovation included the establishment of new schools of health professionals’ education or innovation in areas such as rural medicine.

The focus groups

The focus group discussions concurred that learners would include physicians and any other healthcare professionals seeking experience and training in medical education. Individuals might also want educational qualifications at an early stage of their careers to facilitate their academic advancement. There was also consensus that these were professional and not research degrees, and hence primarily targeted at faculty.

The discussions emphasized the importance of program flexibility to accommodate learners from diverse sources. Knowledge of this target audience was identified as being crucial to program planners.

It was also felt that the majority of learners would come from the existing pool of workers in medical education, and that students from outside would be less likely. There was also consensus however that anyone with a general undergraduate degree and three years experience in a healthcare setting could apply provided they had satisfactorily completed the Graduate Record Examination (GRE).

The focus groups emphasized the increasing logistical difficulty of completing a graduate degree in medical education the further an individual got away from residency training. A Masters in Public Health was cited as being easier to complete in this setting.
than a PhD. This was then discussed in the context of the learners' careers, and the group felt that individuals who would eventually take on deanships might need a different kind of training, perhaps more research oriented, than a masters in medical education. A masters in medical education was perceived more appropriate for someone on an administrative or educational path who wanted the ability to move quickly up the educational ranks. It was generally agreed that a masters in medical education was not intended for someone who only desired to improve their teaching skills. Faculty development programs were an easier way to accomplish this.

There was discussion about whether a masters program was primarily targeted at learners from within or outside the institution. It was deemed important to have outside influence in order to infuse different perspectives both from a student and planning point of view. External students were perceived as an important source of potential revenue.

It was considered vital to think creatively when recruiting learners to graduate programs in medical education. One approach would be to offer medical educational training during residency. This comment was supported by empiric evidence from an internal medicine residency which offered the option of integrating a degree in medical education.

There was consensus that a significant majority of learners would continue working while studying. The flexibility of the program with regard to delivery mechanisms and time constraints would therefore in part determine who the learners were. Specifically the Cincinnati program was singled out as being entirely online and easily accessible. The flexibility of the program with regard to content relevant to learners' careers would also determine the pool of learners. Specific examples cited
included individuals working with standardized patients or in the fields of student assessment, educational measurement and curriculum development. However it was impossible to cater to all needs, and choices would have to be made.

In summary, the themes that emerged from the focus group discussions on 'learners' were:

1) The learners were most likely to be individuals from the health professions as broadly defined above, but educators and basic scientists might also be interested, and should be encouraged to take the program.

2) These programs would often be directed at individuals seeking a career in teaching and educational leadership where research was not the primary priority.

3) Individuals with a non-professional bachelors degree and at least three years of work experience in the health sciences should also be accommodated. They would first have to satisfactorily complete the GRE.

4) These programs might be taken at any stage of an individual’s career.

5) These programs were not intended for individuals seeking only to improve their teaching skills; this could be better accomplished through faculty development programs.

6) Learner enrollment from outside the institution should be encouraged. This would serve to broaden both the financial base of the program and its educational perspectives. This issue should be addressed in the marketing of the program.
7) Learners were likely to come from a diversity of backgrounds and to continue their regular employment while taking the program. Hence the program should be as flexible as possible both from content and delivery perspectives.

8) Consideration should be given to integrating these programs into residency training both as a means of starting educational careers early and retaining faculty with educational training.

Individual needs

The mission statements

1) Cardiff stated that some of their course content catered to individual needs. Learners were encouraged to set their own aims and focus their independent study around them.

2) Cincinnati stated that they would meet the health professional’s lifelong learning and educational needs. They also stated that lifelong learning was a necessity. They did not explain why, nor did they attempt to define how individual needs would be determined.

3) Dalhousie stated that a needs assessment of learners would in part determine the topics for discussion in the course. They did not say how this would be accomplished.

4) Dundee spoke about skills development in an area of medical education related to individual needs. They did not mention how this would be achieved.

5) Maastricht questioned the needs of health professional educators in the context of the entire healthcare system. They mentioned the ‘vision, knowledge and skills necessary
to plan, deliver and improve the education of health professionals’, but did not say what these might be or how they might be determined.

6) Michigan stated that educators ‘need to adapt to change and develop a vision of higher education for society’. They did not explain how these goals might be achieved.

7) Newcastle spoke of the need for ‘training in the theory and practice of education’, but did not elaborate as to why this need existed in the context of medical education or how it could be fulfilled.

8) Nottingham mentioned the need for students to ‘develop a training program relevant to their practical area’, but did not state what this might look like or how it would be accomplished within the program.

9) Sheffield spoke forcefully of the benefits of educational qualifications as an asset to a career in academic medicine, but did not cite evidence to support this.

10) UIC promised some leeway to learners with regard to designing a curriculum that suited their needs, but did not say how this would be achieved in the context of their curriculum.

In summary, the themes that emerged from the mission statements with regard to individual needs were:

1) Medical educators needed a practical and theoretical background in education, and one way to obtain this was by completing a masters degree in medical education.

2) Some programs promised to meet individual educational needs outside their curriculum.

3) Educational needs were lifelong
4) One method of determining the individual needs of health professional educators was by examining overall healthcare outcomes.

5) Educators needed to be able to adapt to change and to develop a vision of higher education from a societal perspective.

The focus groups

The focus groups emphasized that clinicians needed a broader background in education to become medical educators. Specific reasons cited were the ability to better understand educational contexts and to help them view educational issues from a broader perspective. This was particularly relevant with regard to institutional change and the ability to advocate for educational improvements. In this regard knowledge of institutional politics and the acquisition of leadership skills were deemed critical, as most of the educational change that occurred within institutions was felt to be political and not educational in nature. Leadership skills were defined in this mini-conversation as 'having a vision and getting other people to follow you'. The concept of a 'vision' was not elaborated upon by the focus groups.

The respondents also thought it important to distinguish program capacities/needs from individual capacities/needs. Individual needs could be determined in part by examining the future academic activities of medical educators, and in this regard it was felt important to distinguish adult from medical educational needs. It was emphasized that the core requirements of the program had to be balanced with the specialized needs of individuals. The core was still essential, and should not be influenced too much by the individual. Individuals' academic needs changed according to their career stage and age,
and these had to be balanced with the needs of institutions. There was a perceived tradeoff between an individual's need for specific medical educational content versus a more general adult educational training. Adult educational training would help educators think more broadly.

Specific course content that was felt relevant included basic pedagogical skills, knowledge of learning theory and curriculum planning, and an approach to evidence-based education. No reasons were provided as to why these might be important.

Medical educators needed research skills to be able to collaborate with teams of educational researchers, but did not necessarily need to be fully-fledged and independent educational researchers themselves. In this context it was felt that most medical educational research was team-based, because of the need for a wide variety of skill sets. There was a perceived need on the part of individuals for additional qualifications to facilitate advancement up the academic ladder.

Learners would likely gravitate to programs that met their individual educational needs. One method of determining individual needs might be to ascertain what learners intended to do with the educational product. All individuals would have different needs and thus there was no perfect or best way to design a medical educational program. Learners' needs depended, inter alia, on their professional background and career stage and aspirations. The consensus from this section of discussion was that these degrees were not for younger individuals straight out of a bachelors degree, but rather for individuals already within the health sciences. Younger graduates were perceived to have different needs, perhaps leaning more toward research.
The experience of two medical educators who used sabbaticals to complete MBAs was cited. This apparently gave them a broader approach to medical education, something that was lacking in many physician-educators. It was pointed out that their approach was still outside the mainstream, and most educators would choose conventional topics. Another example was cited of a physician who took the Masters in Education at Baylor Medical College during a sabbatical. He chose elective courses in leadership and organization which were perceived to be very different from the usual courses offered by this program.

The need for program flexibility was stressed, particularly as there were many individuals within an institution who might be interested, each with their own specialized needs. This led to discussion about a masters degree in medical education with a sub-specialization in, for example, technology or simulation.

In summary, the themes that emerged from the focus groups with regard to individual needs were:

1) The need for health professionals educators to have a broader educational background
2) A comprehension of the differences between individual capacities and needs from program capacities and needs
3) The recognition that individual needs should not influence core program capacities.
4) An appreciation of the tradeoff between individuals’ medical educational and adult educational needs.
5) Individual needs might be determined by examining learners’ future activities in medical education.
6) Learners were most likely to choose a program that met their individual needs.

7) The individual need for program flexibility both with regard to content and delivery methods

8) Medical educators should consider looking outside medicine at disciplines such as business administration to broaden their perspectives when planning graduate programs in medical education.

Institutional needs

The mission statements

1) Cardiff promised to provide future leaders in the field of health professions education, implying, but not stating definitively, that that is what institutions needed. Their program was founded in response to significant changes in health professions education, but they did not elaborate.

2) Michigan stated their chief objective for graduate training was to prepare individuals for leadership in directing the future of higher education. One of the ways this would be achieved was by 'improving institutional practice'. They did not elaborate any further on the link between improving institutional practice and the future of higher education.

3) Sheffield made a broad assumption of the need for physicians who were dually trained in medicine and education. This was based on changes to medical education that had occurred at undergraduate, postgraduate and continuing professional development levels. Some of these changes would have institutional implications, although these were not explicitly stated.
4) UIC pointed to the need for leaders who could manage change and overcome organizational barriers. Both of these concepts had institutional implications, although medical schools were not specifically mentioned in the mission statement.

5) USC mentioned that, amongst others, 'academic deans and residency directors' had benefited from their program. They did mention course goals of improving teaching and learning, and fostering educational leadership and innovation, all of which had institutional connotations.

In summary, the themes that emerged from the programs with regard to institutional needs were:

1) Improved teaching and learning
2) Fostering educational leadership and innovation
3) Managing change
4) Overcoming organizational barriers

The focus groups

One of the most important issues that arose from the focus group discussions were that medical educational programs could have their own agenda distinct from learners' individual needs. Consequently, institutions needed to define what capacities were important to them and these had to be harmonized with learners' needs.

Specific issues were raised that the groups felt important from the institutional perspective, including curriculum planning and program evaluation, student assessment
and teaching. Other institutional themes that emerged were leadership, governance, finance, economics of health education and change theory.

Comments were made about the narrow perspectives of some medical educational leaders toward educational and health care issues. It was felt that a masters degree in education could help broaden that perspective. This was echoed in a comment about a medical school dean who had no background in education, and how this was perceived to be a problem from an institutional perspective.

‘Institutions needed leaders, advocates and champions.’ This was articulated in the context of a discussion about the multiple levels at which these individuals might have an impact. A leader was defined from an institutional perspective as ‘somebody who sets a vision and establishes a new program and carries it forward.’ Someone postulated that the more people knew about education, the greater the chance to improve the ‘system’. The ‘system’ was not defined, nor was the connection made between knowledge of education and these potential improvements.

There was discussion re the differences between managing and leading, and the strategic notions embedded in the concept of leadership. Someone drew a parallel with the National Defense University in the U.S. which aimed to produce strategic military leaders. There was a comment in support of this related to an individual’s choosing to do broader training in leadership and organization during the course of an educational masters at Baylor. This was felt to be more beneficial to the institution.

It was suggested that institutions needed to retain graduates from medical educational programs, particularly at the junior faculty level. One way to accomplish this would be to encourage residents to take educational training during their residency. This
idea was echoed in another comment about programmatic intentions in terms of output. Was the mission, in human capital terms, designed for the institution, or more broadly for national or international consumption? It was considered vital for institutions to define their needs with regard to the output they wanted from medical educational programs.

In summary, the themes that emerged from the focus groups with regard to institutional needs were:

1) Institutions needed to define the educational capacities they required.

2) Institutional capacities deemed important were innovation, curriculum planning, program evaluation, student assessment, teaching, leadership, governance, finance, change theory and the economics of health education.

3) A leader was defined as 'somebody who sets a vision, establishes a new program and carries it forward.'

4) Leaders needed to broaden their perspectives, and one way of doing this was to look at models utilized by commerce and the military.

5) Inter-institutional research capacity was regarded as a priority.

6) Institutions needed to retain graduates of medical educational programs. One method of achieving this was to integrate these programs into residency training.
**Societal needs**

The mission statements

None of the mission statements addressed societal needs.

The focus groups

Very few ideas emerged from the focus groups with regard to societal needs. Those that did were the economics of health professions education, the need for more training in the social sciences from a research perspective and courses offered by adult education programs that addressed societal issues not usually covered in conventional medical education syllabi.

Someone also commented that it would be beneficial for medical educational leaders to aspire to a more international perspective. The current leaders were felt to be very narrowly focused on medical education and approaches to the healthcare system.

In summary, the themes that emerged from the focus groups with regard to societal needs were:

1) The relevance of knowledge of the economics of health professions education

2) A need to increase training for medical educators in social science research methodology

3) The relevance of course content from adult educational programs to medical educational programs

4) The need for medical educational leaders to embrace broader perspectives
Global needs

The mission statements did not address global needs

The focus groups

There was very little discussion in the focus groups about global needs. The only theme that emerged from the focus groups with regard to global needs was the perceived need for medical educational leaders to adopt a broader, more global perspective.

Individual outcomes

The mission statements

1) Bristol provided training in teaching skills for health professionals. No reason was given why this might be important.

2) Cardiff promised to develop educational leaders, and would accomplish this by improving educational skills (not qualified), developing abilities to design, deliver, manage and evaluate courses, providing an understanding of educational theories, methods and practices, helping to appreciate and evaluate medical educational innovation and teaching how to implement and manage change in medical education.

3) Cincinnati aimed to help health-care professionals meet their educational and professional career goals through online learning. This would be achieved by providing advanced education in the areas of medical teaching and learning.
4) Dalhousie promised to provide its students with knowledge of educational theories as they pertained to skills development, expertise and curriculum change in medical education. There was no statement as to how this might be achieved.

5) Dundee offered outcomes related to effective teaching and learning, as well as specialized skills within specific, although undefined, areas of medical education.

6) Flinders promised the ability to deliver clinical education in health service settings. This would be achieved by providing authentic learning experiences using health professional teams.

7) Keele promised a learner-centered approach with applications to requirements for clinical competence. An understanding of educational theory would be emphasized as the basis for developing skills in teaching and assessment. Reflective practice using portfolios and work-based assignments would also be utilized, and evidence-based education would be promoted. They did not comment on what educational theory or reflective practice encompassed.

8) Loma Linda promised recognition of excellence in health professions education, improved classroom skills, enhanced student learning and increased knowledge of academic administration.

9) Maastricht promised the intellectual means needed to both develop education for health care professionals and ensure subsequent healthcare delivery. They did not say how this would be achieved.

10) Michigan prepared individuals for a role in directing the future of higher education. They claimed this could be accomplished by research, the application of knowledge, by promoting the role of education in supporting the public good and by improving
institutional practices. Students would acquire a sense of the work needed in higher education and also the desire to promote change in their own fields. The mission statement did not attempt to define the ‘public good’.

11) Nottingham promised ‘to prepare participants for a role in undergraduate and postgraduate clinical education as teachers and trainers, according to the best clinical and educational standards.’ Students would ‘acquire an understanding of the theoretical basis of learning and teaching and the practical application of the technology required for efficient and innovative postgraduate teaching. Students would acquire basic inquiry skills and would investigate or develop a training program relevant to their practical area.’ They did not say how any of this would be achieved and no further definition of terms was offered.

12) OISE promises an understanding of Canadian higher education, as well as optional insights into international and comparative education. They did not qualify how their Masters of Education specializing in Health Professions Education was integrated into these objectives.

13) QUB stated that on completion learners should be able to understand a variety of teaching methods and media, design learning materials, evaluate students, implement and evaluate curricula and assess colleagues.

14) Sheffield stated that they expected their students to go beyond the usual language associated with education and teaching. They spoke of acquiring higher intellectual attributes related to education, specifically mentioning an awareness of educational issues outside of medicine, socio-political forces shaping medical education, an
understanding of the philosophical basis of education and an ability to contribute to knowledge in the field by undertaking research.

15) Sydney was more emphatic and said students would emerge with skills related to curriculum development and evaluation, a proactive approach to quality improvement in medicine, an understanding of fundamental principles underpinning medical education, and an appreciation of learner-centeredness and best-evidence as applicable to medical education.

16) UIC stated that they would provide training necessary to produce effective leaders in health professions education, but did not qualify what they meant by leaders.

17) USC promised skills related to curriculum design, teaching, evaluation of learners, faculty and curriculum, recognition of problem learners, educational research, change management and conflict resolution.

In summary, the individual outcomes promised by the mission statements were:

1) Leadership skills
2) The ability to innovate and manage change
3) Improved teaching skills leading to enhanced student learning
4) Knowledge of educational theory pertinent to medical education
5) The ability to design curricula, evaluate learners, peers and programs and undertake educational research
6) Promotion of reflective practice
7) Enhanced knowledge of academic administration
8) The ability to deliver clinical education in a variety of health service settings
9) An appreciation of evidence-based education

10) An ability to help shape the future of higher education

11) An appreciation of the role of technology in teaching and learning

12) Insights into international and comparative education

13) An awareness of the socio-political forces influencing medical education

14) Improved healthcare delivery through better training of health professionals

educators

The focus groups

There was consensus that an individual completing a masters program should ideally dedicate a career to medical education at a higher level. A masters program was not necessary where improved teaching skills were the only desired outcome, although some teaching skills were deemed necessary even if learners did not become expert teachers. Other competencies considered important were knowledge of curriculum development, implementation and evaluation, student assessment, peer mentoring and evaluation, some knowledge of learning theories (not defined), an appreciation of educational scholarship, an ability to critically appraise the literature and manage change and finally an appreciation of the role of technology in education. It was not stated why these competencies were important. It was also considered essential for faculty to have some understanding of educational politics as institutional change was considered largely political rather than educational in nature.

A participant was under the impression that most masters in medical education programs were directed at educational administration and theory rather than research.
This was perceived as a failing, but no reasons for the position were given. The same individual felt that senior educators needed a broader and more theoretical perspective, but no explanations were given. It was also hoped that the program would motivate individuals to remain at the institution and contribute to the academic community.

Someone remarked how leaders in academic medicine might benefit from a broad-based masters degree. This individual noted how insular some leaders were with regard to broader national and international issues. It was also noted that many physician-educators had no educational background and did not understand the context of education. Giving them an educational background might help them see educational issues from a broader perspective, equip them with rationales for tackling educational problems and make them more effective advocates for education. It was debated but not agreed whether medical educational leaders should be advocating for better patient outcomes. It was also felt beneficial for programs to attempt to enroll students internationally, both because of the demand and also because it enhanced the local perspective. The question of research capacities in these programs was discussed at some length. The consensus was that some knowledge of research methodologies was necessary, even if the programs did not intend to produce fully-fledged researchers. It was considered vital for learners to be able to collaborate with teams of educational researchers and hence to contribute to the knowledge base in medical education. The importance of medical educators being able to collaborate nationally and internationally across all facets of the educational enterprise was also stressed.
The concept of reflective practice was raised on a number of occasions, not only with regard to content, but also self-awareness and the ability to 'learn, grow and return to lifelong learning issues.'

The gap between theoretical learning in a degree program and learning in the real world of medical education was emphasized, and it was emphasized that there was no substitute for work experience in producing seasoned medical educators.

In summary, the individual outcomes that were considered important by the focus groups were:

1) The development of leadership skills in health professions education
2) The development of 'educational awareness' at local, national and international levels
3) The ability to innovate and effect educational change at multiple levels
4) The ability to collaborate nationally and internationally
5) Some element of positive recognition for the graduates of these programs such as academic promotion or career advancement
6) Some ability to teach, present data and contribute to the knowledge base in medical education
7) A respect for evidence-based education
8) An ability to practise as reflective educators
9) An ability to help others as educational coaches, consultants and mentors
10) An ability to design, implement and assess educational programs, assess students, mentor and evaluate peers, and appreciate the role of technology in education
Possession of some understanding of the relationship between education and politics within institutions

**Institutional outcomes**

The mission statements

1) Cardiff promised to provide leaders with abilities to design, deliver, manage and evaluate courses and programs, recognize and evaluate innovation and implement and manage educational change. No definitions were provided.

2) Flinders spoke of the ability to deliver clinical education in health service settings, although ‘health service settings’ were not defined. It emphasized educational partnerships between universities and the professions, and viewed students as a resource for the institution. These attributes were considered useful for individuals who might be involved in the planning of new schools of health professions education or the (re)design of courses.

3) Keele promised to improve the overall quality and effectiveness of medical education by a number of means, among others by the development of skills in teaching and assessment, knowledge of educational theory, and the promotion of reflective practice and evidence-based education. None of these terms were defined.

4) Loma Linda spoke about enhancing knowledge of and skills in academic administration.

5) Michigan promised to help shape the future of higher education by ‘improving institutional practice’, although they did not qualify what was meant by ‘institutional practice’.
6) OISE promoted the study of higher educational institutions, but did not say how the specialization in health professions education was related to the overall aims of the masters program.

7) Pittsburgh spoke about producing leaders in medical education, but they did not qualify this.

8) QUB promised a range of competencies at the completion of their program. Those with institutional implications included the ability to design a variety of learning materials, assess students and colleagues, and implement, evaluate and change curricula.

9) Sheffield spoke about producing ‘rounded professional educators’ by fostering a broad range of attributes, but they did not define these, apart from the ability to think critically.

10) Sydney promised increased skills in curriculum development and evaluation, student assessment and an approach to quality improvement in medical education.

11) UIC promised to provide leaders in the health professions who were able to manage change and direct the future of health care delivery.

12) USC emphasized educational leadership, innovation and the ability to impact educational practice. This would be accomplished by teaching, among other subjects, educational program design, an approach to change and how to evaluate faculty.
In summary, the themes that emerged from the mission statements with regard to institutional outcomes were:

1) Leadership in health professions education specifically with regard to managing educational change, innovation and directing the future of health care delivery
2) Curriculum development, implementation and evaluation
3) Assessment of students and evaluation of peers
4) The Michigan and OISE programs, both based in faculties of education, spoke of the study of institutions of higher education and improvement to their functioning
5) Knowledge of and skills in academic administration
6) Improvements to the overall quality and effectiveness of medical education
7) The delivery of clinical education in health service settings utilizing educational partnerships between universities and the professions.

The focus groups

The respondents concluded that many institutional outcomes were related to and would be determined by individual outcomes. Individuals with graduate training in medical education were a useful resource for the institution with regard to educational knowledge, particularly from a theoretical perspective.

There was consensus about the need for an expanding cadre of medical educational leaders, although it was not explicitly stated how this would be accomplished. Leaders had to, amongst other attributes, be able to adapt constantly to new ways of thinking about medical education, and to incorporate those thoughts into models of delivering this education. The only definition of leadership provided was the
ability to 'set a vision' although 'setting a vision' was not defined. In this regard parallels were drawn between leadership in the military and medical education and the role played by the U.S. National Defense University was reiterated in this regard. It was noted that one of the methods used to teach strategic leadership was plot writing.

It was also felt that institutions needed individuals who were 'educationally aware', although this term was not defined. One way of accomplishing this was to recruit graduates of their own medical educational programs. Learners needed to appreciate the role played by institutional politics in education.

Caution was expressed about using terms such as 'change agent' because change for its own sake was not felt appropriate. There was no agreement on how the need for change would be determined. Likewise there was hesitation about use of the term 'excellence', because it was difficult to define.

From an institutional perspective there was agreement with regard to the need for reflective educators able to design, implement and assess educational programs. They should also be able to contribute to the knowledge base through research, disseminate educational material in a scholarly fashion and spread the educational message to other parts of the institution. Individuals who could function in supportive educational roles as mentors and consultants within an institution were also deemed necessary.

The notion of inter-institutional collaboration, both national and international, was deemed vital. This was based on a model at the National Institutes of Health where PhD students had to have mentors at other institutions. There was no comment as to whether this had been successful.
In summary, the themes that emerged from the focus groups with regard to institutional outcomes were:

1) The importance of leaders who were educationally aware, able to articulate a vision, establish and implement new programs, adapt constantly to new ways of thinking about medical education, and to incorporate those thoughts into models of delivering this education

2) Institutional outcomes were related to and would be determined by individual outcomes

3) The importance of inter-institutional collaboration, both national and international

4) The need for reflective educators able to design, implement and assess educational programs. They should also be able to contribute to the knowledge base through research, disseminate educational material in a scholarly fashion and spread the educational message to other parts of the institution.

5) Individuals were needed who could function in supportive educational roles as mentors and consultants within an institution

6) The importance of examining other models of education, for example those used by the military

Societal outcomes

The mission statements

1) Flinders promised the ability to deliver clinical education in ‘health service settings’, but did not define this concept. They viewed clinical education as occurring optimally in a partnership between the professions, the university and the community. Amongst
others, they regarded their program as appropriate for learners who were interested in contributing to rural healthcare.

2) Maastricht aimed their program at the interface between the wellbeing of individuals and populations and the education of healthcare professionals.

3) OISE promoted the study of higher educational institutions both in Canada and abroad, but did not specify how the specialization in health professions education interfaced with this.

4) Sheffield promoted an awareness of the socio-political forces that were influencing medical education. They considered this one of the keys to becoming a competent medical educator.

In summary, the themes related to societal outcomes that emerged from the mission statements were:

1) The ability to deliver clinical education in health service settings using partnerships between the professions, the university and the community

2) An awareness of the socio-political forces that influence medical education

3) The study of higher educational institutions nationally and internationally

4) The importance of the relationship between the wellbeing of individuals and populations and the education of healthcare professionals
The focus groups

There was very little discussion in the focus groups about societal outcomes.

The themes that emerged from the focus groups with regard to societal outcomes were:

1) ‘Societal’ might be construed as a capacity ultimately residing in the individual rather than the program

2) Courses embracing societal capacity were likely to be found in adult educational rather than medical educational programs, and their relevance to medical education was not immediately apparent

3) Controversy about the advocacy role of medical educators both with regard to promoting the medical educational mission at a societal level and its linkage to patient outcomes

4) Controversy about whether the mission of a medical educational program was in part to provide faculty at a national/societal level.

Global outcomes

There was minimal content related to global outcomes in either the mission statements or focus groups. The themes that did emerge were:

The mission statements

1) Flinders stated that there was a move internationally for health faculties to change curricula to meet challenges posed by reform and shortage in the health workforce.

They did not elaborate on these challenges.
The focus groups

1) An appreciation that global capacities ultimately resided in individuals empowered to act at a global level

2) The importance of being able to effect change at the global level

3) The relevance of keeping an international perspective when designing a medical educational program

Structure

The topics course content, physical location of the program, delivery mechanisms, financing, marketing, class size, size of potential learner pool and whether certificate and diploma modules were offered were all included in the structure sub-section. Course content was included in this section to conform more accurately with Sork’s original framework (Sork, 2000).

The mission statements

1) Bristol employed a modular format with units that could be built up into a certificate, diploma or masters in medical education.

2) Cincinnati offered modules in adult learning, curriculum planning and evaluation, teaching methods, and educational research. The degree was offered online only and they emphasized the growing importance of online learning with regard to information delivery to a diverse population. ‘Diverse’ was not defined.

3) The Flinders program was multidisciplinary (including medicine, nursing and allied health sciences and offered at all levels of the educational continuum. Partnerships
with health services and the community were emphasized. Learning was promoted as being authentic by involving students in a healthcare team. All courses were offered entirely online, although intensive workshops were available. The program was available part-time and was modular with certificate, diploma and masters levels offered. There was a research component to the masters.

4) Nottingham offered course content basic to education, behavior and clinical enquiry. These included an understanding of the theoretical basis of teaching and learning, the practical design of teaching methods, and an understanding of the development of postgraduate education in the healthcare system. There were courses on basic research methods as well as technology in education.

5) Pittsburgh offered courses on adult learning, teaching skills, curriculum development, leadership, professional development, medical administration and research skills. There was also a research project.

6) UIC promoted the flexibility of its degree program, but did not define this. The learner's home institution was to be used as a venue for the application of concepts. The program was part-time, so individuals could continue working.

7) The UNSW masters of medical education was entirely thesis-based.

8) USC offered a combination of distance and face-to-face learning requiring physical attendance six weekends per year. It was part-time, so learners could continue working.
In summary, the themes that emerged from the mission statements with regard to ‘structure’ were:

1) Modularity – the ability to exit the program at the certificate or diploma level, and return later to complete a masters degree

2) The ability to deliver the program partially or entirely online

3) Catering to learners who had to continue working at their regular jobs

4) Using the learner’s institution as a venue for projects

5) Course content included the theoretical aspects of adult learning, teaching skills, curriculum development, implementation and evaluation, leadership, professional development, medical administration, technology in education and research methodologies

6) Authentic learning utilizing partnerships with health service providers and the community

The focus groups

The groups discussed a number of topics relevant to the ‘structure’ category. Emphasis was placed on differentiating theoretical from ‘skills training’ content in a graduate program; educational administration and information technology, for example, were felt to fall into the ‘skills training’ category. It was suggested looking outside of medicine, for example at masters of business administration programs when attempting to balance theoretical and practical/professional content in a program. Individuals with this theoretical knowledge were felt to be an especially useful resource for other faculty members, although no reasons were given.
The focus groups felt that research content was a vital component of these programs, even if learners did not intend to become fully-fledged researchers. This research component was deemed important, if not to produce independent researchers then to foster an understanding of research methodology related to the social sciences and a respect for evidence-based practice. Research was also perceived necessary to inform practice in health sciences education. Participants considered it difficult for any one program to excel both at research and teaching other educational content. Discussion then moved on to the concept of core versus specialty areas of the program. There was consensus that programs needed a core, or some broad and theoretical base to anchor the program, rather than a ‘flavor of the month approach’ such as technology. The belief was expressed that the core should be fairly rigid otherwise it would be in danger of being influenced by current trends rather than fundamental educational tenets. It was suggested that one method of determining the core of the program would be to look at what medical educators did in the workplace; another was to define fundamental methodologies and theories applicable to educational practice. From a content perspective someone viewed the core as composed of learning theory and research methodologies, whereas someone else saw educational administration and medical informatics as vital. There was discussion as to whether the core should be determined empirically or prescribed, but ultimately there was no consensus either on how to define it or what its composition should be. Someone even questioned whether the core might differ amongst individuals.

In the same vein there was discussion on the context of general health professions versus medical education and the consensus was that there should be some interdisciplinary content that would help bridge the contextual gap between the different
disciplines if this program was intended for the broader health professions. This content was not defined.

Significant content differences between adult educational and medical educational masters programs were noted. The adult educational content was more general and oriented to the social sciences, and its relevance to medical education might not be immediately apparent.

There was no consensus as to whether the program should be generalized or focused; for example, should non-traditional content such as management and finance be included, or should the focus be entirely educational. There was agreement as to the unlikelihood of uniformity in program appearance amongst institutions.

Specific content was divided into three main areas: (a) Traditional - curriculum planning, teaching, program evaluation, teacher evaluation, educational administration (b) Management and business: Educational leadership, governance, finance, economics of health education, change theory – potential leaders should ideally know something about all of these (c) An understanding of basic research methodology. Interdisciplinary study was felt crucial to the success of the program. A plea was made for programs to employ authentic learning situations and balance with regard to theory and practice and teacher and learner input. There should also be collaboration with other institutions.

It was emphasized that the structure of program could in part be determined by the learners, their needs, the desired outcomes and what resources the program had to meet those needs. This would also help determine class size. It was unlikely that one graduate program could match all needs, and there might even be more than one program
at any one institution. There were many choices for planners to make, some of which would have to be arbitrary.

Knowledge of learning theories and curriculum planning was deemed necessary in a masters program, but no reasons were given. There was consensus that courses in teaching skills were less important unless the masters degree was specifically devoted to teaching. Teaching skills should be taught in faculty development workshops. Other non-traditional content that was felt relevant were organizational theory, change theory, resource utilization and budgeting but no further explanations were provided apart from anecdotal evidence about a physician-educator who completed an MBA while on sabbatical and found the course content very useful. It was considered potentially useful to teach strategic leadership as a concept. An analogy was drawn with the National Defense University in the U.S. where scenario-playing and plot-writing were used in this regard.

Participants felt that learning in the program should be largely assignment-driven, particularly because this promoted active learning. Critical reflection was also considered fundamental to good teaching and leadership.

A cautionary note was sounded about the new Masters of Teaching program at Baylor College of Medicine. It was intended to serve a number of regional medical institutions, and had been imported directly from the School of Education at the University of Houston. It did not primarily set out to address the needs of health sciences, and no explanation was offered why this approach had been taken.

Financing the program would in part determine who the target audience was both in terms of the need to recruit outside students and the cost of tuition. The case for an
online program was discussed. This was rationalized on the basis that many potential candidates might already be well advanced into their careers with commitments that would prevent them from easily relocating. This could be overcome by offering the program largely online, with the caveat that learners might have to attend occasional practicum sessions over weekends. An online program might be worth considering from a marketing perspective, as it was felt this would attract significantly more learners than a face-to-face and institution-based program. Offering it online would probably increase the tuition dollars that flowed into the program. A caveat was raised with regard to difficulties encountered in providing online medical educational programs; anecdotal evidence was cited about a particular U.S. program had proven very time consuming and labor-intensive to design and deliver.

Consensus reigned on the need for flexibility in a medical educational program. Multiple potential audiences existed even within a single institution. Examples cited were individuals working in the standardized patient field who might be interested in educational measurement, researchers, those on a leadership track and individuals involved with curriculum development and management. The concept of a masters program with an educational core and subspecialty areas was floated but not elaborated on. Cross-listing of courses was an issue and individuals had to be able to find courses that might be in academic locations they were not familiar with. This had to be taken into account during planning and marketing. There was also commentary on the value of having people from outside an institution being able to access the program on a course-by-course basis if necessary. This was contrasted to the UIC model which was felt to be very prescriptive.
In summary, the themes that emerged from the focus groups with regard to the structure of medical educational programs were:

1) The recognition that these programs were geared more toward professional practice than research, but that some knowledge of research was essential

2) Consensus with regard to the need for program flexibility to satisfy the educational requirements of a diverse group of learners

3) A respect for evidence-based education

4) Consensus that some online delivery capability was necessary

5) Consensus that there would not be a ‘one size fits all’ program

6) Content deemed essential included knowledge of educational theory, curriculum planning, student assessment and program evaluation.

7) The need to consider program finances during the planning process

8) Agreement as to the benefits of a modular design which learners external to the program should be able to access on a course-by-course basis

9) The recognition that these programs were often joint ventures between medicine and education while at the same time appreciating the importance of fundamental differences between these disciplines

10) The need to ensure that all content addressed health professionals’ educational requirements

11) The need for a theoretical core to anchor the program

12) The benefits of consulting other disciplines such as business administration and the military during the planning process

13) The advantages of authentic, balanced and collaborative programs
**Philosophy**

Philosophy was defined in Chapter 3 as 'the ethical and socio-political implications of the program and/or is raison d'etre.'

The mission statements

1) The Cardiff program stated that it came into being in the late 1980s as a result of significant changes to methods of effective health professions education. These were not enumerated.

2) Cincinnati claimed to help health-care professionals meet their educational and professional career goals by utilizing online learning.

3) Dundee’s Centre for Medical Education undertook research aimed at making teaching and learning more effective, and as a consequence had a major interest in providing courses for teachers in the healthcare professions.

4) The Flinders program was designed to provide health professionals with knowledge and skills enabling them to deliver clinical education within the context of the health services. This was in part a result of changes to curricula consequent to health workforce reform and logistical shortcomings, but these were not enumerated.

5) Keele’s overall aim was to improve the quality and effectiveness of clinical teaching and medical education.

6) Maastricht’s philosophy was based on the fundamental importance of healthcare professionals’ education to the wellbeing of the population. Consequently they aimed to ensure that healthcare educators were adequately trained.
7) Michigan stressed the importance of adult educators developing a vision of the role of higher education in society. They did not elaborate.

8) The Sheffield program had arisen as a result of fundamental changes to medical education at undergraduate, postgraduate and continuing professional development levels. These developments had spawned the need for physicians dually trained in medicine and education. This training was envisaged as going beyond traditional educational topics, and required study and understanding of the socio-political forces that had shaped medical education.

9) The UIC program was founded on the belief that the medical educational enterprise required leaders. They claimed to provide the necessary training to prepare those leaders.

In summary, the themes that emerged from the mission statements with regard to ‘philosophy’ were:

1) The need for leaders in medical education
2) An understanding of the socio-political forces that had shaped medical education
3) An appreciation of the role of adult education in society
4) An appreciation of the importance of healthcare professionals’ education to the wellbeing of people
5) Research and practice aimed at improving the quality of teaching and learning in the health sciences
6) The importance of integrating health professionals’ education into a societal context
7) An understanding of new methodologies, including the Internet, employed in health professions education

The focus groups

There was divergence of opinion within the focus groups as to the raison d’etre of these programs. Someone was of the opinion that one of the purposes of a masters program was to create some form of institutional unity and loyalty that might entice people to remain at the institution. Another individual regarded graduate programs in medical education as one form of legitimization of the educational mission of the medical school. There was also a belief that one of the reasons for masters programs was to provide educationally informed individuals to an institution who could provide a theoretical support base for its educational mission.

Another individual believed that one of the objectives of masters programs should be to broaden the socio-political perspectives of medical educators. Someone else believed that there was a socio-political advocacy role inherent in the medical educational mission, although there did not appear to be group consensus on this. There was debate about importing concepts with socio-political connotations from adult education that might help inform the core of a medical education program, but no consensus was reached.
In summary, the themes that emerged from the focus groups with regard to 'philosophy' were:

1) The fostering of institutional loyalty
2) Legitimization of the educational mission of the medical school
3) The provision of educationally informed individuals who could provide a theoretical base for health professionals' education in an institutional setting
4) A need to broaden the socio-political perspective of medical educators, and hence the relevance of socio-political concepts to the core of medical educational programs
Chapter Five – Discussion and Conclusions

Introduction

This thesis is predicated on two questions: “What capacities should be developed by graduate programs in medical education? And why?” The rationale behind the topic of graduate programs in medical education in general and the wording of the question in specific were explained in detail in Chapters One and Three. Chapter Four presented the results as they had been extracted from the primary data according to the analytical framework. It was stressed that this framework was in part pre-determined, but also emerged in part during initial analysis of the data. Careful inspection of the results revealed that in some instances they were not category-specific and were repeated across a number of the categories in the framework. For example, the topic of ‘leadership’ might have arisen both in the ‘institutional needs’, ‘individual outcomes’ and ‘structure’ categories. Therefore this chapter will identify and discuss the results both as they fell into the predetermined analytical framework and as they fell into broader themes that emerged and appeared across categories. Where possible this discussion will highlight the similarities or differences between the mission statements and focus groups.

It must be emphasized again that a discussion of ‘capacities’ in the context of graduate programs in medical education was never intended to be construed as an exercise in program planning. The focus group participants were specifically asked to think about capacities in individual, institutional, societal and global contexts. In general, however they did not accomplish this, and their deliberations about capacities were best understood using an adult educational program planning framework rather than the framework that had been conceived by the author.
This chapter then discusses what did not emerge from the data. Stated differently, where did the analytical framework fail to produce significant findings from either the mission statements or focus groups? This chapter also seeks to identify an overarching theory that might help to explain the findings, discusses the limitations of this work, summarizes the implications for the design of future graduate programs in medical education, outlines avenues for future research in the field and draws overall conclusions.

What can be learned from the results?

Context

The relationship and cooperation between departments of adult and medical education in providing graduate training in medical education was a central contextual theme that emerged throughout the data. Both the mission statements and focus groups were unanimous in their statement of the need by medical educators for a practical and theoretical background in adult education, but neither specified what this entailed. Seventeen of the twenty one programs located by Cohen, Murnaghan, Collins, & Pratt (2005) were in faculties of medicine or colleges of health sciences and only four, those at the Universities of Toronto, Michigan, Cincinnati and Dalhousie/Mount Saint Vincent were located primarily in faculties, colleges or departments of education. A few of the mission statements emphasized that their programs were joint ventures between departments of adult and medical education, and that both disciplines played vital roles in establishing and contributing to the ongoing functioning of these programs. Unsurprisingly, most of the programs that made this claim were already located in faculties/schools of education. Only three programs located primarily in health sciences
faculties, those at the Universities of Pittsburgh, Nottingham and Sheffield, made any reference to adult educational input or the involvement of departments of education in the design and/or delivery of their curricula.

A preliminary course content analysis of the programs identified by Cohen et al. revealed most of the material to be devoted to courses such as curriculum design, student assessment, program evaluation and research methodologies. Educational and learning theory was the only regularly encountered broader educational topic.

The focus groups elaborated further with regard to the physical and intellectual location of the program, and whether it should be housed within an adult or medical educational setting. The advantage of the first option was intellectual ‘cross-pollination’, with new concepts and ideas being introduced into medical education. Expanding on this theme, the focus groups foresaw the need for medical educators to import concepts from adult education if they were to have a broader appreciation of the socio-political issues relevant to education in general, and medical education in particular. Content of this nature had not traditionally been found in programs devoted to medical education. This additional content had to be balanced with the traditional medical educational needs of individuals taking these graduate courses, and in a broader sense this was viewed as a tradeoff between practical and theoretical content. Once again this theoretical content was not defined, but as already outlined, educational and learning theory was the only commonly encountered adult educational topic. It was suggested that medical educators employ an interdisciplinary perspective to balance practical and theoretical context, and that consulting disciplines such as business administration might be useful in this regard.
Three caveats were expressed with regard to the importation of adult educational content. Firstly, medical education should not indiscriminately import concepts from adult education without first ascertaining its intrinsic needs. Secondly, both adult and medical educators had to appreciate the fundamental epistemological differences between medical and adult education, but these differences were not defined. The assumption that any or all adult educational knowledge and perspectives were automatically relevant to medical education was not felt to be tenable by the focus groups. Prideaux (2002a) has commented on this with regard to the theoretical perspectives adopted by medical educational researchers. He noted that research in medical education was a relatively new field that had attracted participants from a diversity of backgrounds, including the clinical and biological sciences, education and psychology, amongst others. Each of the participants from these diverse backgrounds brought knowledge of a particular set of methods, methodologies and perspectives, all of which were significantly different and had to be accommodated. Thirdly, the lack of experiential and contextual understanding of the medical profession by many adult educators had to be taken into account. This could become problematic when it came to relating educational principles and perspectives to medical practice.

On the contrary, the focus groups considered intellectual inbreeding the principal disadvantage of locating graduate programs in medical education within faculties of medicine. This could result in a failure to infuse new ideas into medical education. Practical contextual problems such as the division of tuition revenues between education and medicine also had to be resolved.
The focus groups specifically alluded to a need for increased training in social science research methodologies, but again cautioned against the indiscriminate importation of concepts from adult to medical education without first specifically ascertaining medical education's needs.

**Learners**

The focus groups were much more specific and exhaustive than the mission statements in their discussion of this topic. The mission statements specified their inclusion criteria as anyone with a broadly-defined health-professionals background at any stage of their professional career. A few of the mission statements suggested that those individuals specifically interested in educational leadership and/or innovation might benefit from these programs.

The focus groups concurred, stressing that these programs were intended to produce professional educators rather than researchers. However they went on to add that individuals from non-health professional backgrounds, such as basic scientists and adult educators, should also be encouraged to enroll. In addition, the focus groups recommended that individuals with a non-professional bachelors degree, three years of health sciences work experience and a suitable score on the Graduate Record Examination should be encouraged to enroll. These comments might be construed as autobiographical in that some of these focus group participants could have come to their current positions as medical educators from the basic sciences without specific training in the field of medical education, and could retrospectively appreciate the value of a formal program in health professions education. Likewise, the suggestion that post-bachelors
degree students with some work experience in the health sciences be permitted to take
masters programs in medical education might reflect the reality of the contemporary
medical educational workforce and workplace.

Individual and institutional needs and outcomes

Both the mission statements and focus groups stressed the relevance of ‘basic
educational knowledge’ (mission statements) or a ‘theoretical core’ (focus groups) to all
medical educational endeavors and the need for this to anchor all programs in medical
education. However the nature and content of this ‘basic knowledge’ and ‘core’ were
never defined by either source.

The relationship between a program’s core curriculum and individual learners’
professional needs in the context of their workplaces emerged as another theme in this
category. Some mission statements offered a degree of flexibility and promised to meet
learners’ individual educational needs outside of this formal curriculum, but did not
specify how they would accomplish this. The focus groups’ discussions on this topic
were more concerned both with the importance of distinguishing core program capacity
from individual learners’ needs, and felt strongly that the individual needs should not
unduly influence the program’s core capacity. Once again, no concrete mechanism for
establishing core program capacities was proposed, but it was suggested that some adult
educational content was part of this core. Learners’ individual needs might be determined
by examining their future activities in medical education and learners were most likely to
choose a program that met their individual needs. Given finite time constraints, there
would also be an inevitable tradeoff between adult and medical educational content.
The focus groups also spoke of producing medical educators who were ‘educationally informed and aware’. Whether this meant having completed a graduate program in medical education, acquiring an appreciation of the roles and responsibilities of adult education in a societal sense, appreciating the relationship between education and politics in the institutional setting or even being an educational advocate within the institution is not clear. The sense however was that it denoted some of each of these concepts, and that it went beyond just the educational core or educational knowledge already alluded to. The impression was that it might denote an aptitude, or collection of aptitudes just as well acquired via workplace experience rather than by completing a masters program in medical education.

The mission statements claimed that sufficient educational knowledge could be obtained by completing a masters degree in medical education, but a preliminary analysis of the programs identified by Cohen et al. suggested that the only fairly constant general educational concept was ‘educational and learning theory’, whatever this meant. Therefore this promise cannot be verified until a more detailed study of the content of these programs has been completed, and until a more rigorous theoretical and conceptual base for these programs has been defined. The mission statements also suggested looking to society-at-large for a broader definition of medical educators’ educational needs, whereas the focus groups suggested looking more toward the individual and other academic disciplines such as commerce to determine these basic educational needs. They differed with regard to willingness to accommodate learners’ individual needs – some programs stressed flexibility in this regard, whereas the focus groups viewed core program content as more important than the individual.
What were the educational outcomes that each source viewed as important?

Improved teaching skills were felt to be important by the mission statements and only somewhat important by the focus groups, although the focus groups emphasized the importance of the ability to present data and at least understand and contribute to the medical educational research process.

Both sources were unanimous about the need to be able to design, implement and evaluate curricula, assess students, evaluate peers and appreciate the increasing role of technology in education. The focus groups also stressed that graduate programs in medical education should be primarily professional and not research in orientation. Medical educators who had completed these programs should have knowledge of educational research that would enable them to collaborate with researchers, but these programs were not expected to produce fully-fledged, independent researchers. Graduates should also receive academic/career recognition for their achievement. This conception of graduate programs in medical education as being primarily professional in intent is extremely important, and will be alluded to again later in this discussion.

Finally the programs stressed the need for medical educators to have an appreciation of evidence-based education. This is a theme that was raised in chapter three with regard to the theoretical perspectives employed by medical educational researchers. It was pointed out that medical educational research does not have any single dominant theoretical perspective or methodology, and that some believe it does not need these provided research techniques were sound (Prideaux, 2002a, 2002b). Another interpretation of this demand for evidence-based education would be that only educational methods proven in randomized, controlled trials were valid (Carney et al.,
2004), but once again the mission statements do not provide sufficient evidence and information upon which to base a firm opinion.

**Societal and global needs and outcomes**

The focus groups specifically noted the need for educators to be both attuned and responsive to the need for ‘externally mandated change’ at all levels of the health professions’ continuum. This was echoed in comments by some of the mission statements in faculties of adult education about the importance of the relationship between institutes of higher education and society-at-large. For example, the University of Michigan believed ‘the challenges that face higher education require that educators not only adapt to change but also engage in developing a vision of higher education for society’ (UM, 2006).

This educational obligation to society was further expanded on by some of the mission statements by their allusion to the relationship between health professions education and individual healthcare outcomes, and by stressing the importance of educational partnerships between medical schools and health service delivery organizations. The Flinders program alluded to a ‘symbiotic’ approach: ‘Effective education is not merely a product of a one-on-one relationship between clinician and student; rather effective clinical education requires partnerships between universities, the professions, health services and the community’ (Flinders, 2006). This would enable delivery of clinical education in relevant societal settings which might lead to improved healthcare delivery and outcomes.
Both the focus groups and the programs identified the need for medical educators to broaden their socio-political perspectives nationally and globally. This was particularly emphasized with regard to the societal forces and expectations that were operating to shape the future of medical education (Cappon et al., 2001). A few mission statements urged medical educators to adopt a more expansive vision of what medical education entailed in a societal sense. For example, the mission statement at the University of Sheffield cited the UK General Medical Council’s document ‘Tomorrow’s Doctors’ (GMC, 2003) as having significantly changed the way that undergraduate medical education was delivered in the UK. Some of the programs located in faculties of education went further, emphasizing the potential for higher education to exert socio-political forces for the greater societal good. Specifically the Michigan mission statement noted: ‘Our main goal for graduate training is to prepare individuals for leadership in shaping the future of higher education through generating and applying knowledge and advancing the role of higher education in supporting the public good....’

The focus groups were more practical and suggested medical educators look outside medicine at other academic disciplines such as business administration to broaden perspective. They also suggested the need for some knowledge of the economics of health education as well as training in social science research methodology, both of which could be construed as being relevant to societal needs. They recommended that medical educators maintain a broader international perspective when planning graduate programs in medical education, but this was not further elaborated upon.
It must be stressed however that most of the commentary with regard to the societal responsibilities of graduate programs in medical education came from the select few mission statements of programs located in departments of education.

**Structure**

**Content**

What were the educational outcomes that each source viewed as important? Improved teaching skills were felt to be important by the mission statements and only somewhat important by the focus groups, although the focus groups emphasized the importance of the ability to present data and at least understand and contribute to the medical educational research process.

Both sources were unanimous about the need to be able to design, implement and evaluate curricula, assess students, evaluate peers and appreciate the increasing role of technology in education. The focus groups also stressed that graduate programs in medical education should be primarily professional and not research in orientation. Medical educators who had completed these programs should have knowledge of educational research that would enable them to collaborate with researchers, but these programs were not expected to produce fully-fledged, independent researchers. Graduates should also receive academic/career recognition for their achievement from their institutions.
Marketing

Marketing of graduate programs in medical education emerged as an important topic within the broader field of ‘structure’, both from the mission statements and focus groups. It is an issue that should not be ignored by planners, particularly given the increasing number of these offerings worldwide, some of which are available entirely online (Lewis & Baker, 2005). The focus groups believed that learners would choose programs that best suited their needs with regard to content and delivery mechanism because they would likely come from a variety of backgrounds and work concurrently; therefore programs had to be flexible. Students outside the home faculty needed to be able to easily locate the program and its constituent courses, and these courses should be offered on an individual basis. Attention should also be focused on recruitment of learners from outside the home institution, both to introduce outside perspectives and to broaden the financial base of the program. They recommended consideration be given to integrating programs into residency training both as a means of starting educational careers early and retaining faculty with educational training.

There was speculation on the part of both the mission statements and focus groups about how to determine learners’ needs in the context of designing a curriculum tailored to the individual. The mission statements suggested looking at overall healthcare outcomes, the focus groups suggested enquiring about learners’ future activities in medical education, as much as these could be determined ahead of time. The conflict between core program capacity and individual learners’ needs was discussed above.

Finally, some of the mission statements made reference to the growing importance of the Internet in program delivery. Lewis and Baker (2005) described the
planning and implementation of the first entirely online masters degree in medical education, a co-operative venture between the College of Education at the University of Cincinnati and the Cincinnati Children’s Hospital.

Two additional themes were detected across multiple sites within the analytical framework:

1) Leadership, governance, management, innovation and change

‘Leadership’ emerged as one of the most important commonalities between the mission statements and the focus groups, with both data sources making the case for leadership and the ability to innovate and effect change as important outcomes. Neither source defined what they meant by these terms. Nevertheless they appear very relevant, given the frequency with which these themes recur. Both sources were specific however as to what they wanted their leaders to accomplish.

The mission statements spoke specifically of the need for these individuals to ‘foster educational leadership and innovation’, ‘improvements teaching and learning’, ‘manage educational change’, ‘innovate’, ‘direct the future of healthcare delivery’, ‘effect improvements to the overall quality and effectiveness of medical education’ and ‘overcome organizational barriers’ without defining what many of these concepts meant in the context of medical education, or even why they were institutionally relevant. In addition and in isolation, the mission statements called for knowledge and ability with regard to academic administration.

On the contrary, the focus groups tended to be more specific although they also did not define some of the ‘leadership’ capacities they saw as priorities. The focus groups
again called for leaders who were 'educationally aware' without defining it. In this context one could additionally speculate that it implied receiving educational training over and above one's usual professional background. Other possible interpretations of 'educational awareness' were discussed above. Additionally, the focus groups acknowledged the importance of leaders who were also educational scholars in the broader sense (Boyer, 1990). The focus groups believed that institutions needed to define a priori what educational leadership capacities were needed – without this there was no ability to plan and move forward. Institutions also needed to retain graduates of medical educational programs and offer them some element of positive recognition such as academic promotion or career advancement. They also recommended integrating these programs into residency training.

They enumerated the specific relevant capacities, including change theory, innovation, leadership and governance. The focus groups defined a leader as someone who 'sets a vision, establishes a new program and carries it forward.' They recommended that medical educational leaders look to the military and commerce for perspective. They also recommended that institutions attempt to retain graduates from medical educational programs to satisfy their own leadership needs. Included in this theme by the focus groups was the notion of continual advocacy by medical educators, specifically with regard to improvements in the educational process mandated by external factors.

McLaughlin (2004) distinguished between leadership, management, and governance. She characterized leadership by a focus on the 'values, purposes and meaning of the institution' – why it exists and why it might have to change. Management was more concerned with accomplishing specific tasks. Leaders 'articulate vision' and
managers ‘develop strategies and plans’. Finally she described governance as the process of consensus building amongst a diverse group of individuals at a university who often have conflicting priorities and values, so that the institution can progress and not get bound down in beaurocratic and ideological logjams. Zaleznik (2004) defined management further as ‘rationality, control, tactics, results and how to get things done’.

Given these definitions it seems reasonable to conclude that medical educational leaders would need all three sets of attributes, although Zaleznik cautioned that it is unusual to find one individual who can successfully combine all these traits.

2) Collaboration

Collaboration emerged as a common thread throughout the framework, both from the mission statements and focus groups. Collaboration was conceived at multiple levels – between individuals, between institutions and between disciplines at local, national and international levels. This capacity was deemed particularly relevant with regard to research. The programs furthered this concept by highlighting the need for an insight into comparative education.

Both sources recommended that medical educational leaders look to the military and commerce, amongst other disciplines, for perspective and useful insights. The focus groups perceived a need to balance practical and theoretical content in medical educational programs, and suggested that one method of accomplishing this was by collaborating with other faculties such as commerce. They emphasized the importance of medical educational graduates collaborating with and helping other educators within their institutions. These individuals could act as educational consultants and mentors who
could assist others with the multiple functions that required educational expertise within a modern academic health centre.

Collaboration was also identified as important in the context of educational partnerships between universities and health service delivery organizations. This was viewed as a method of bridging the gap between theoretical knowledge and outcomes at the individual level.

**What failed to emerge from the data?**

The framework utilized to analyze the data was created in two phases, and at different stages of the project. The first phase occurred when the author conducted a preliminary literature survey while writing a proposal after the thesis question had been defined. What emerged were a large amount of apparently disparate data related to the term ‘capacities’. These data were all relevant to the topic of graduate programs in medical education, but the separate pieces were not obviously related to each other. This led to the conception of ‘capacities’ at individual, institutional, societal and global levels. These categories were never intended to be rigid or mutually exclusive entities. They were planned as a rough framework around which participants could focus their thoughts while pondering the response to one very broad rather than a series of more focused questions.

The second part of the framework emerged during the preliminary analytical phase when the author was checking the transcripts. It became apparent that the findings best fitted a model conceived according to the adult educational program planning literature. The two frameworks were then combined as described in Chapter Three.
It became increasingly apparent that both the mission statements and focus groups, but particularly the focus groups, had less and less to say as the analytical framework moved away from individual and institutional and toward societal and global considerations. Additionally, those few mission statements which addressed societal and global issues were predominantly located in faculties of education. Possible reasons for this failure to embrace a societal and global role are discussed in greater detail below.

The other information that failed to emerge from the results was a theoretical, philosophical and conceptual framework for the provision of graduate training in medical education. There are a number of possible explanations for this. Firstly there was significant deliberate ambiguity imbedded in the choice of the word ‘capacities’. This word was chosen so as to specifically allow a wide-ranging and general discussion on the topic of graduate programs in medical education, and in one sense it did achieve that end. But in another sense, the question was not specific enough to provoke participants into contributing information relevant to that particular concept. The participants might not have understood what was wanted of them, and their answers to the question were not ‘appropriate, meaningful and useful’ in illuminating that particular concept. Therefore the question might not have been valid in one specific regard (Hubley & Zumbo, 1996). The other reason is that the concept of theoretical and philosophical educational frameworks is rooted in and dependant on a deep and sophisticated knowledge of adult educational philosophy and history. Such a task might have been difficult for the medical educational community, for whom this thesis was intended from the outset.

Finally, and of even greater significance was the failure by the participants on many occasions to provide their responses to the ‘And Why?’ which was an integral part
of the question presented to them at the beginning and end of the introductory presentation. They were quite capable and willing to describe ‘how’ graduate programs in medical education should be designed, but did not supply the reasons, or stated differently, they supplied the model but not the underlying theory. This failure has already been noted above, and perhaps speaks to the need for a deeper appreciation of adult educational philosophy and history by medical educators; or perhaps the focus group participants did not have enough time to address this part of the question.

Is there any pre-existing theory to account for the findings?

What is a profession and how do professionals obtain the knowledge, the skills and the ‘mindset’ that enables them not only to practice, but also to garner the necessary support and status from the public amongst whom they practice? This status and support is however not unconditional - witness the litigation against the medical profession as an example. It is also governed by strict codes of conduct which are enforced by licensing authorities. But the underlying notion of professional credibility must still exist. Any one profession must be doing something for the public-at-large otherwise it would cease to exist. The paying public does not support the medical, or any other profession for that matter, because they pity the professionals or feel they deserve a living. There has to be some notion of utility, of benefit received, otherwise that profession would not be able to survive in an evolutionary sense.

But more academically fundamental to the question of what constitutes a profession has been the issue of how any profession comes to the knowledge base on
which it depends; what epistemology of practice does it espouse, and how does it come to this? Moore (1970, p.56) described a profession as 'involving the application of general principles to specific problems, and it is a feature of modern societies that such general principles are abundant and growing'. He went on to state that the 'the two primary bases for specialization within a profession are (1) the substantive field of knowledge that the specialist professes to command and (2) the technique of production or application of knowledge over which the specialist claims mastery'.

One of the most powerful theories proposed to explain the phenomenon underlying professional epistemology is that of Technical Rationality, originally defined by Donald Schon, whose main areas of research were in the fields of professional learning, learning processes in organizations, and with developing critical, self-reflecting practice. It was the last of these areas that provided the focus for his book *The Reflective Practitioner* (Schon, 1983). Schon sought to offer an approach to an epistemology of practice based on a close examination of what practitioners actually did. The heart of his study was 'an analysis of the distinctive structure of reflection-in-action' (1983: ix). All occupations applied specific techniques to specific ends, but it was only those that had come to be defined as 'professions' that specifically practice problem-solving based on specialized scientific knowledge. Schon subsequently defined Technical Rationality as 'professional activity consisting of instrumental problem solving made rigorous by the application of scientific theory and technique' (1983, p.21). This definition succinctly describes what a profession sought to accomplish, which according to Schon was the application of general principles, or theory, which contained rules for solving problems encountered in practice.
Schon's ideas were enthusiastically adopted by many individuals researching the topic of the professional development of educators, particularly with regard to the planning of programs in adult education. His views of professional and scientific practice received further endorsement from Forester (Forester, 1989). Forester regarded traditional program planning exercises in adult education as based on a 'rational-comprehensive' model of scientific enquiry which embodied the concepts of a well-defined problem, considering a variety of solutions, obtaining information about consequences and possessing the necessary resources to conduct the enquiry. Wilson and Cervero (1997) believed these lines of thought key to understanding the professionalization of adult education as a field of practice during the twentieth century. It is important to bear in mind that it was not only program planning that suffered from this one-sided view. Much of twentieth century research in education was rooted in the scientific method and an experimental or quasi-experimental approaches to defining concepts such as 'best practice' and causality (Campbell & Stanley, 1963).

This explanatory model of professional practice is based on the Positivist philosophical stance that was alluded to in Chapter Three. The professions did not automatically come by this association with Positivism. Up until the first part of the twentieth century there was significant resistance to incorporating professional schools into universities, which were considered institutes of higher learning devoting themselves to the pursuit and creation of knowledge on a higher plane than that embodied in professional practice. The 'professions' were not considered worthy enough to be admitted to this elite environment (Veblen, 1962). This trend was reversed at the start of the twentieth century by the introduction of the German medical university model by
Americans who had trained in Germany and subsequently returned to the US. Johns Hopkins was the first US university to implement this change (Bonner, 1963). Students were now taught, at least in the first part of their professional careers, by full-time research-oriented academics who were equipped to supply them with the scientific knowledge base deemed necessary for competent practice.

Technical Rationality as a theory on which professional practice is based has had a much more difficult time during the latter half of the twentieth century. This has in part been due to the decline in popularity of Positivism as a perspective and in part due to credibility problems the professions have experienced (Schon, 1983). There has also been a realization that the practice of a profession, as distinct from the 'science' on which it is based, is not readily amenable to the application of scientific principles. It often involves induction from the specific rather than deduction from the general, a condition that science seeks to eliminate. Along with this comes significant uncertainty (Montgomery, 2006).

How does a discussion of the epistemological basis of the professions inform this thesis? Is medical education a profession in the Technical Rational sense, and can this account for the approach medical educators adopted when considering which 'capacities' should be developed by graduate programs in medical education? The first piece of evidence supporting a designation of medical education as a profession in a technical rational sense is the fact that the focus group participants unanimously perceived programs in medical education as professional rather than research initiatives. These were to be degrees that prepared individuals for careers as practising medical educators, and not as medical educational researchers. The selection of individual and institutional
outcomes by the focus groups was also telling in this regard. Participants universally regarded the ability to design and implement curricula, evaluate educational programs, assess students, mentor and evaluate peers and teach as important. These topics match a preliminary analysis of the content of the programs identified by Cohen et al. (2005), and suggest that there is a body of knowledge and set of skills that must first be acquired before the practitioner (the future medical educator) can practice his or her profession. Additionally, the contents of the Handbook of Research in Medical Education (Norman, van der Vleuten, & Newble, 2002) illustrate the vast body of information on which the practice of the ‘profession’ of medical education rests. This information may not have been generated according to strict scientific protocols in the Positivist tradition, but it does exist to inform practice. Medical educators have been employed professionally for decades in medical schools to help direct the increasingly complex educational issues associated with the under-and postgraduate training of physicians (Hitchcock, 2002).

However the most compelling evidence for medical education as a profession still adhering to a technical rational perspective comes from the framework through which the results were best understood. This was derived from the adult education program planning literature, and goes a long way toward explaining the results. The medical educators in this study appeared to engage in a program planning exercise modeled on the adult educational literature in the field (Sork, 2000). Program planning as an activity and research tradition in adult education stretches back at least a century, and has been described as a technical rational exercise in its formative and middle years (Wilson & Cervero, 1997). It is only in the latter part of the twentieth century that it adopted a more
humanist perspective, influenced in part by several authors in the field (Burrell & Morgan, 1979; Freire, 1970; Paulston, 1996; Wilson & Cervero, 1996).

Thus medical education might be regarded as a profession according to the technical rational tradition. And medical educators, at least as exemplified by the participants in this study, continued to embrace this tradition when thinking about graduate training in medical education.

**Limitations of this study**

This study has a number of limitations which must be acknowledged. The first relates to the technical issue of data collection at the focus groups. The recordings from the two individual group discussions at the CAME meeting in Saskatoon were inaudible despite attempts by experts to boost the volume and clarity of the recordings. The summaries from the two groups were captured however, but it is impossible to know whether the summaries faithfully represented all the nuances of the group discussion, or merely represented what the group presenters wanted them to represent. Unfortunately the reverse situation occurred at the SDRME focus groups – the three individual group discussions were clearly audible, but the group summaries were not. Clearly the scenario at the SDRME meeting was the better - to have the individual discussions in their entirety.

What emerged from these mishaps was the knowledge that it is not adequate to have a centrally placed microphone, however sophisticated, at a focus group and have participants speak at a distance from it. One solution would be a portable microphone/recorder which can be easily passed to each participant, and into which they
should speak directly. It is not adequate to have the participants step up to a centrally placed microphone – this would be too time consuming, and would also likely significantly interrupt the flow of dialogue so crucial to this method. Ideally each participant might have their own lapel microphone.

Were focus groups the correct method to employ and were the participants the correct ones in seeking an answer to the question? The thesis question was very general and in this regard lent itself to a wide-ranging discussion that would be more appropriate to a focus group format rather than a series of one-on-one semi-structured interviews. Thus the focus group as a method appeared appropriate. However the method of selection of the focus group participants themselves might have added bias to the study findings. They were chosen because they happened to be participants at conveniently located medical educational meetings, which greatly facilitated the organization of the focus groups. Although all the focus group participants were involved in medical education, they were not necessarily experts in the field of graduate training in medical education. Most of them had neither completed formal training in medical or adult education nor had any direct experience of teaching in or directing graduate programs in medical education. Graduates and program directors of or teachers in medical educational programs might be considered true experts. Thus if one wanted a detailed account of capacities, or more specifically how to optimally plan a graduate program in medical education, what pitfalls to avoid, what specific courses to deliver and how to deliver, them then one should turn to graduates, program directors and teaches for an opinion that might best be obtained via one-on-one semi-structured interviews. This would however have been logistically more difficult to accomplish. Perhaps video-conferencing will eventually help bridge the gap
between convenience and expertise by facilitating 'remote' focus groups of experts. Likewise, focus groups consisting of adult educators might have approached the question from a very different perspective and rendered an entirely different conceptualization of 'capacities'.

The author's positionality provides another source of bias, and hence a potential limitation to this thesis. Chapter Three alluded to the fact that the author is a physician in the field of respiratory and critical care medicine, a specialty that utilized highly quantitative techniques and which functioned in an objectivist epistemological framework and from a positivist theoretical perspective. This could conceivably lead to the author adopting a positivist approach to capacity building through graduate programs in medical education which he chose not to do, perhaps influenced in part by his experiences as an International Medical Graduate. However his professional positionality might have led him to view the approach of the focus group participants from a positivist, program planning perspective rather than from a more interpretivist perspective.

**Implications for medical educational practice and avenues for future research**

This study carries several significant implications related to planning graduate programs in medical education. There is virtually no literature on the topic and that which does exist has examined extant programs from a logistical standpoint. Cusimano & David (1998) and Cohen et al. (2005) have described existing programs in medical education. These descriptions have been purely 'geographic' in intent, and serve only as roadmaps for individuals who wish to complete a higher degree in medical education. They contain
no significant information about the content of such programs or on what theoretical concepts such content is based.

Lewis & Baker (2005) described the process behind the design and implementation of an entirely online masters program in medical education at the University of Cincinnati. They acknowledged that this initiative was largely inspired by the effect of technological advances, particularly the Internet, on educational practice. The authors regarded these advances in technology as an opportunity to expand ‘learning opportunities for intellectual growth and professional development’ within medical education, particularly for those who had difficulty attending face-to-face classes because of ‘busy schedules’. They described the needs assessments they undertook prior to implementing this program, and then presented the evolution of the program and the problems, challenges, and solutions associated with its development and implementation. They highlighted the importance of collaboration (often difficult) between faculties of medicine and education and spent a significant amount of time discussing issues related to online learning. In essence however, the paper describes ‘how to’ rather than ‘why’, and in doing so provides a model without significant theory to support it. Nevertheless it adds much useful information to the field.

The intent behind this thesis was dual; firstly to conceptualize a theoretical and philosophical base for graduate programs in medical and secondly to help design such a program at the University of British Columbia. The first objective was not achieved, but what useful insights were gleaned about designing future programs that were not already in the public domain? Chapter Four provided a detailed discussion of the findings, but many of these concepts and ideas have already been incorporated into extant masters
programs in medical education. The topics discussed at the beginning of this chapter provide a more novel synthesis of the concepts that should be considered when designing such programs. The relationship between adult education and medical education emerged as one of the most important themes to consider. A more detailed examination of why it is important to have adult educational content in medical educational programs might eventually provide some of the clues to the theoretical and philosophical base that was originally sought in this work. The other topics with significant implications for the design of masters programs in medical education include those of incorporating leadership teaching, the need to broaden perspective by turning to other disciplines such as commerce and the military, and the need to consider carefully the many issues involved in the marketing of these programs. Marketing is of particular importance, and a preliminary content analysis of the programs identified by Cohen et al. showed striking similarities to the content deemed essential by the participants in this project.

How might one therefore design a new graduate program in medical education so that it is not only significantly distinctive, and therefore more attractive, than the competition but at the same time provides the content deemed essential? There are two at least two possible solutions to this problem. The first is to offer content that goes over and above that traditionally offered, and most importantly that is interdisciplinary in nature. The findings from this project highlighted the relative absence of social and global considerations from the thinking of the participants. Therefore a novel approach would be to offer courses such as ‘Medical education and society’ and ‘Global trends in medical education’. There is precedent for this approach. Simon Fraser University (SFU) has recently offered a Masters Degree in Global Health through its Faculty of Health
Sciences (SFU, 2006). Rather than offer a traditional course in epidemiology, this program is designed to:

respond to a new urgency regarding health issues that cross national boundaries. This program analyzes the processes that influence global health, health systems, and disease patterns worldwide. Key elements of the program include its interdisciplinary, community-based, and problem-based learning approach to examine the mechanisms whereby globalization impacts health, health systems, and determinants of health. Issues of cultural sensitivities, local participation, and ethics will always remain in the forefront.


This program therefore provides students with the information they would acquire in a conventional epidemiology program, but in a global context. Elaborating on the ‘collaboration’ theme identified by the focus groups could lead to joint courses offered by a Masters in Global Health at SFU and a putative Masters in Medical Education at UBC.

The other method of distinguishing a program in medical education from its competitors would be by its timing relative to the careers of its students. All of the existing programs are currently offered on a postgraduate basis only. One method of increasing the profile of medical education early on in a career would be to offer a combined MD/Masters in Medical Education. Combined MD/PhDs, MD/MPHs and MD/MBAs are now standard at many medical schools, and the University of Western Ontario even offers a combined degree in medicine and engineering (Barfett et al., 2005).
Another approach identified by the focus groups would be to incorporate a masters degree in medical education into a residency program.

This project furnishes the results of a survey of a broad group of medical educators on the topic of programs devoted to graduate training in medical education. But as pointed out earlier, these individuals are not necessarily experts in this specific field and they might not have taken similar programs themselves. Further research should be aimed directly at the currently operating programs in medical education with regard to a detailed examination of their course content. Interviews with the program directors and graduates of the programs would answer questions related to which professionals are taking these programs, preferred delivery mechanisms, marketing and financial issues and program impact on individual careers and institutional practice. As has also been pointed out, a greater understanding of the theoretical and philosophical basis of these programs would likely best be obtained via a theoretical piece of research examining the relevant intersections of medical and adult educational history and philosophy.

Conclusions

Imagine yourself a botanist on a ship with Magellan, Drake or Cook. Their aim is discovery of new trade routes and new colonies to fuel industry in the home country. Your aim is discovery of new flora. You come from a country that has a tradition both of horticulture and scientific enquiry but you have never been abroad and therefore have no knowledge of other lands. During your journey you encounter new species of trees, flowers and shrubs which you admire and wish to import. You possess significant knowledge of the soil and climatic conditions in your native country and think that these
new species will flourish and esthetically enhance the local flora. There is the possibility of cross-breeding to strengthen and improve the indigenous species. You take seeds and cuttings which you plant on your return, but are confronted by a number of potential pitfalls. The first is that the climatic conditions in your native land will not support some of these new species, and they die. The second is that these new flora survive but your fellow citizens do not appreciate them esthetically or functionally. In a third scenario, the new species not only survive but flourish to the point that they become weeds and destroy significant amounts of indigenous flora.

This botanical metaphor serves to illustrate to some extent the process and outcomes of this thesis. The author, a physician, undertook studies in adult education and encountered new ideas he considered useful, and which he thought would enhance graduate training in medical education. These ideas were specifically related to the societal and global scope of adult education which had existed in the adult educational literature for decades. But when asked to discuss capacities to be developed by graduate programs in medical education, medical educators chose those best understood by a technical rational framework developed from the adult educational program planning literature. They embraced the concept of individual and institutional needs and outcomes of these programs. But despite being prompted to do so, they did not consider the societal and global roles and responsibilities of graduate training in medical education to be significant factors when conceiving and planning such programs. It is hoped that this perceived focus will not remain a permanent state of mind, and that medical educators will come to embrace the societal and global considerations that have informed adult education over the past few decades.
Bibliography


Callahan, M., Fein, O., & Stocker, M. (2000). Educating Residents about Managed Care: A Partnership between an Academic Medical Center and a Managed Care Organization. *Academic Medicine, 75*, 487-493.


Evidence/rural/education/postgrad/clinicaled/index.htm


Tyrell, L. (2003). Academic leadership today: the demographics and factors that will impact the development of leadership in the next decade. *Clinical and Investigative Medicine, 26*(6), 316-318.


Appendix One – introductory PowerPoint slideshow

Slide 1

What capacities should be developed by graduate programs in medical education?

And why?

Slide 2

Background

Degrees in adult education vs. degrees in medical/health professions education?
Slide 3

"An Update on Masters Degrees in Medical Education"
*Medical Teacher* (in press)

*Richard Cohen*

*Lucas Murnaghan*

*John Collins*

*Dan Pratt*

Slide 4

Initially aware of limited no. of programs

- *University of Dundee*
- *University of Illinois at Chicago*
- *Ontario Institute for Studies in Education (University of Toronto)*
Slide 5

Were there other degrees in medical education?

• Where were they located geographically?
• Educational content?
• Delivery methods?
• How could we learn more about them?

Slide 6

Cusimano and David
Acad. Med. 73, 1998.

• had only been cited twice in six years.
• included degrees not directly relevant to our question e.g. medical informatics.
• before widespread application of the Internet.
Slide 7

Other search methods

• Medline
• Other Internet search engines
• Contact with AAMC, AMEE, ASME, ACMC, ASE
• Contact with ten medical schools in the U.S.

Slide 8

Difficulties/Limitations

• Varying responses from program directors
• Varying quality of information on websites
• Some programs did not have websites
• Search limited to English language (including Maastricht program)
Slide 9

Results

21 programs

Canada  3
U.S.A.   6
U.K.     8
Holland  1
Australia 3

Slide 10

Academic Location

• Seventeen in a faculty/school/college of medicine, or school of health sciences.
• Four in faculties of education.
Slide 11

Degree Titles

- Majority "Masters of Medical Education"
- A few "Masters of Health Professions Education"
- Those in Education Faculties – "Masters of Education, with a specialization or concentration in the health professions"

Slide 12

Program delivery

- Fifteen combination of distance (online) and face-to-face
- Five face-to-face only
- One online only (Cincinnati)
Slide 13

What capacities should be developed by graduate programs in medical education?

And why?

Slide 14

A Framework for ‘Capacities’?

*Individual*  *Institutional*

*Societal*  *Global*
Appendix Two – graduate medical educational program mission statements

Bristol

The Teaching and Learning in Health Programme has been set up to provide training in teaching skills for health professionals. The format is modular units that can be built up into a certificate, diploma or Masters in Medical Education. The programme is aimed at all types of health professionals wishing to enhance their educational skills and knowledge.

Cardiff

Course Background

The first United Kingdom taught mastership in medical education was established here in 1988 with the Diploma program in response to demands for a major alteration in "what" and "how" we educate future health professionals. The program addresses the issues fundamental to effective health professions education, providing future leaders in the field. The program continues to develop both in quality and reputation. Over 150 health professionals have been members of the course from around the World making us An International Centre for Courses in Medical Education promoting excellence in teaching & learning for health professionals.

Aims & Objectives

The course is aimed at developing educational leaders both nationally and internationally and will:

Improve your educational skills
Develop you ability to design, deliver, manage and evaluate courses and programmes
Provide you with an understanding of educational theories, methods and practice
Help you to appreciate and evaluate innovations in medical education
Develop and formally recognize your experience and skills in medical education
Teach you how to implement and manage educational change

Course Philosophy

As health professionals you have a wealth of experience and skills that will be shared as a resource throughout the course. Each module will define aims and learning objectives related to the module content. However, as a participant on the course you will be encouraged to set your own learning aims and focus your independent study around them.
Cincinnati

This new program is designed to provide advanced education to health care professionals in the area of medical teaching and learning. The emphasis will be on adult learning, curriculum and teaching methods, and medical education evaluation and research. The mission of the Online Master’s Degree in Education program developed by Cincinnati Children’s Hospital Medical Center and the University of Cincinnati’s College of Education is to help health-care professionals meet their educational and professional career goals through online learning, which is becoming an increasingly powerful, interactive and dynamic medium for delivering information to a diverse population. We will provide program participants with an accredited, quality advanced degree program designed to meet the health-care professional's lifelong learning educational needs. Lifelong learning is a necessity in the modern and ever-changing world.

Dalhousie

Course Description:
This course will provide the learner with an overview of the application of educational theories relating to skill development, and the development of expertise.

This course will provide the learner with an overview of the evolution and evidence that has driven curriculum change in medical education. A needs assessment of the learners will in part determine the topics for discussion in this course. Topics will include:
Dundee

Subject/Departmental Profile
The Centre for Medical Education's major aim is to undertake research into making teaching and learning more effective in all phases of education within the health care professions. It has a major interest in providing courses for teachers in the health care professions. The Centre receives funding from a wide range of bodies for research, training and development of up-to-date packages for health care professionals. Centre staff have a variety of backgrounds within healthcare education. Teaching is supported by a state-of-the-art computer suite, desk top publishing facilities and a fully stocked library.

The Masters Degree
To enable the individual participant to achieve the educational outcomes required for effective teaching and support of learning. Additionally the participant will develop skills within a chosen area of Medical Education.
Flinders

**Why have we designed these courses?**

Most clinicians teach; few have had the opportunity for professional development in teaching. These courses are designed to provide health professionals with advanced knowledge and skills to deliver clinical education in health service settings.

Our courses are multidisciplinary, designed for health professionals involved in clinical education at undergraduate and graduate levels in medicine, nursing and allied health.

Our courses are based on a symbiotic approach. Effective education is not merely a product of a one-on-one relationship between clinician and student; rather effective clinical education requires partnerships between universities, the professions, health services and the community.

Our courses provide authentic learning experiences. We all learn best when we actually contribute by working within a health professional team. This is mutually beneficial to health services and clinicians because well supported students are not an additional burden, they are a resource.

**Part-time** study options are available.

All topics are totally on-line so that if you are juggling a busy life you can work at your own pace in your own time. Optional intensive workshops are offered in some topics.

Our programs are articulated, so you can enroll in the Master's Degree and exit at Graduate Certificate or Graduate Diploma level if required.

**Workforce development and partnerships**

Nationally and internationally health faculties are changing their curricula to meet the challenges of health workforce reform and shortage.

Our Masters program is a mechanism for building partnerships to educate the health workforce.

Our Masters program is appropriate for staff who are

- Creating new clinical teaching programs, such as new nursing or medical schools,
- Redesigning their existing programs,
- Developing inter-professional education,
- Expanding undergraduate clinical placements,
- Strengthening the rural workforce or other areas of workforce need

The research component of our Master of Clinical Education will provide expert supervision for educators and clinicians who are leading these initiatives.
Keele

Aims of the Course
The overall aim of the course is to improve the quality and effectiveness of clinical teaching and medical education through:

- Understanding and fostering a learner-centered approach
- relating this to the requirements of professional education for clinical competence
- Developing practical, generic skills in teaching and assessment, underpinned by an understanding of educational theory
- Promoting reflective practice in education and clinical practice, using work-based assignments and a portfolio
- Promoting evidence-based education

The programmer’s aims and values embody those of the Institute of Learning and Teaching and will develop participants’ understanding of the ILT areas of learning and teaching activity, core knowledge and adherence to the professional values.

Loma Linda

Earn a graduate certificate or master's degree in health professions education from Loma Linda University and...

- be notably recognized for excellence and expertise in health professions education.
- improve your classroom performance and become a better lecturer.
- enhance the effectiveness and efficiency of student learning in your classroom and clinic.
- plan for effective learning experiences in the classroom and in the clinic.
- strengthen your skill in academic administration.
- improve student and peer evaluations of your teaching.
- enhance your knowledge in academic administration.
Why Study Health Professions Education?

The quality of life of human beings is, among others, dependent on their physical and psychological well-being. Health professions play an important role in helping people to restore health or prevent disease. Does the training of these people, physicians, nurses, physiotherapists and other health professionals, have the quality that enables graduates to deliver high standard services? And do those who teach and train these professionals have the vision, the knowledge and the skills to plan, deliver and improve their education? The quality of this whole process, developing education for health professionals, educating these professionals and ensuing health care delivery deserves the full attention of both professionals and educators. The Master's degree program offered by Maastricht University aims at providing participants with the intellectual means needed to attain that goal.

Michigan

Higher Education: Overview

The challenges that face higher education require that educators not only adapt to change but also engage in developing a vision of higher education for society. Our main goal for graduate training is to prepare individuals for leadership in shaping the future of higher education through generating and applying knowledge, advancing the role of higher education in supporting the public good, and improving institutional practice. This is accomplished through coursework and experiences designed to increase students’ understanding of higher education as an academic area of inquiry and practice. Toward this end, our curriculum is geared toward preparation for administrative, faculty, research, and policy careers in higher education and related enterprises.

What distinguishes a Higher Education graduate? Our graduates leave the program with a good sense of the work that is needed in higher education and endeavor to make a difference in their career fields. Most employers and faculty would agree that Higher Education graduates:

- Combine academic knowledge with individual action.
- Are well-prepared in terms of research and self-directed learning.
- Are prepared for a self-directed career.
- Possess comprehensive knowledge about higher education as an enterprise.

Can communicate the critical components of higher education issues to various audiences and constituencies.
Newcastle

Aims
This programmed aims to meet the growing demand for training in the theory and practice of education by those involved in the undergraduate and postgraduate clinical teaching and training of health professionals.

Nottingham

Aims of the Course
The course has been jointly designed by the Medical School and the School of Education at the University of Nottingham. It aims to prepare participants for a role in undergraduate and postgraduate clinical education as teacher and trainer, according to the best clinical and educational standards. To achieve this, students will have to study the disciplines basic to education, behavior and clinical inquiry. They will also acquire an understanding of the theoretical basis of learning and teaching and the practical application of the technology required for efficient and innovative postgraduate teaching. Students will be assisted in the acquisition of knowledge by the practical design and development of teaching and inquiry methods during this course. Students will study the development of postgraduate education within the health care professions and health care systems, and investigate the implications of these developments upon the health care professionals. During this course students will acquire basic inquiry skills and will investigate or develop a training program relevant to their practical area.

Ontario Institute for Studies in Education (OISE)
The Higher Education Group (HEG) is Canada's leading centre for graduate studies and research in the field of higher education. Founded by the University of Toronto in 1969, the HEG has been the academic home for many of the leading scholars in the field of Canadian higher education. The Higher Education Group specializes in the study of universities, community colleges, and other post-secondary institutions, the relationship between these institutions and the broader society in which they operate, and the nature of what takes place inside these institutions. The study of higher education embraces critical examination, both historical and contemporary, of phenomena related to tertiary-level education, particularly tertiary-level institutions and systems in Canada. While all students obtain a basic understanding of Canadian higher education, many also choose to learn about higher education from an international, comparative perspective. As well, the HEG offers a Masters of Education (M.Ed.) degree specializing in Health Professional Education and a Doctor of Education (Ed.D.) degree for Community College Leaders.
Pittsburgh

Clinical Educator Training Program
The Clinician Educator Training Program is a collaborative effort, drawing on the expertise, strength and commitment of faculty at the University of Pittsburgh School of Medicine and School of Education.
The program has been designed for individuals with advanced clinical degrees in the health sciences (doctors, dentists, psychologists, pharmacists, nurses, chiropractors). The Clinical Education Training Program (CETP) is designed for a diverse group of individuals whose career focus is medical education and clinical teaching. Our current and past trainees have included: faculty and fellows and faculty in general medicine, dentistry, sub-specialty medicine, pediatrics, family medicine, and psychiatry. In order to be accepted to the program, applicants must demonstrate a high level of interest in and potential for the pursuit of long-term career focus in teaching and leadership positions in medical education programs.
The CETP consists of a tightly integrated, rigorous yet flexible curriculum consisting of 3 components: (1) core courses plus observed teaching activities focusing on adult learning, enhancing classroom and clinical teaching skills, curriculum development, professional development and leadership, innovative strategies in medical education, and medical administration; (2) a set of courses to provide trainees with a standardized set of research skills; and (3) the successful completion of a mentored research project or a project on curriculum development.
Because the recruitment and training of clinician-researchers is such a high priority at the current time, the NIH has implemented a loan-forgiveness program for doctors who commit to a career in clinical research.

Queens University Belfast (QUB)

OBJECTIVES OF THE PROGRAMME
On completion of this course students should be able to:
- demonstrate an understanding of the function and utility of a range of teaching methods and media
- design a range of learning materials
- plan and carry out effective student/trainee assessments
- manage the implementation of new curricular initiatives
- demonstrate an understanding of curriculum evaluation techniques
- appraise the work of colleagues
- implement and manage curricular change
Sheffield

Why the course was developed
Over the past decade, revolutionary changes have occurred in medical education. For instance, the GMC’s ‘Tomorrow’s Doctors’ has changed the way that undergraduate medical education in the UK is conducted; the Calman reforms are transforming postgraduate medical education; and the re-validation issue poses many challenges for the conduct of continuing medical education. As a result the need for doctors who are also competent in the field of education has become even more pressing. Increasingly, educational qualifications are becoming, if not mandatory, then a distinct asset to one’s medical career.

The course was founded on the belief that becoming a competent educator, particularly if one is studying at masters level, involves going much further than simply acquiring the ‘facts’ about education or the ‘skills’ of teaching. Alongside equipping candidates with such skills, we provide a course which we hope will challenge pre-conceptions about education, encourage critical thinking and equip participants with a broad range of attributes appropriate for a rounded professional educator. These attributes include developing a critical awareness of educational issues outside of as well as within medical education; developing a critical awareness of the political and social forces shaping medical education; acquiring a mastery of the concepts, philosophies and vocabulary associated with education and developing the ability to contest and contribute to the body of knowledge about medical education by conducting research in the field.

Sydney

Program Overview
Students will emerge from this program with:

1. enhanced skills in medical curriculum development, implementation and evaluation, and student assessment;
2. a proactive approach to continuous quality improvement in teaching and learning in medicine;
3. a deeper understanding of principles and practices which underpin teaching and learning in medicine and the health sciences; and
4. attitudes to medical education which reflect best-evidence and learner-centeredness
University of Illinois at Chicago (UIC)

Current economic and social indicators point to the need for educating leaders in the health professions who can manage change within their fields, overcome organizational barriers, and effectively direct the future of health care delivery systems. The purpose of the Master of Health Professions Education (MHPE) program is to provide the training necessary to produce effective leaders in health professions education. Accordingly, the program recruits health professionals who have, or are preparing for, educational leadership positions but who lack formal training in education and management.

Acknowledging a wide diversity in educational and professional backgrounds, the MHPE offers some flexibility for candidates to design a curriculum that fits their needs and interests. The program encourages the use of the professional's home institution as a laboratory for the application of practical educational and managerial concepts. The nontraditional format allows professionals, especially from out-of-state, to pursue their degrees while keeping full time jobs.

University of New South Wales (UNSW)

Master of Health Professions Education (MHPEd)

The Health Professions Education (MHPEd) is designed primarily as training in advanced work. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation. Candidates must have at least two years full time teaching and/or administrative experience.
University of Southern California (USC)

This program was designed especially for busy healthcare professionals interested in improving their expertise in teaching/learning, educational leadership and implementing educational innovations. It will enable you to have an impact on educational practices in your setting.

This program combines the desirability of face-to-face learning with the flexibility and freedom of distance assignments. By being away for only six weekends a year, you can earn an advanced degree in medical education, while maintaining your current employment. Those who have already profited from this program include academic deans, medical and allied health-science educators (residency directors, physicians, dentists, physician assistants, nurses and physical therapists.)

The following are just some of the many skills you will gain as a participant in this program:

- Designing educational programs
- Teaching effectively in a variety of settings
- Evaluating faculty, learners and programs
- Improving learning through innovation
- Recognizing and dealing with learners in difficulty
- Writing a proposal for an educational intervention
- Analyzing and reporting research data
- Creating and enrolling others in a vision
- Resolving conflict
- Becoming aware of your own and others' emotions
- Understanding and leading change

Call now to investigate how this program can benefit you. Our academic advisor will answer your questions regarding enrollment or will refer you to a full-time faculty member who can answer questions about specific areas of the program.
This session will be run as a focus group with summation and comment at the end by selected individuals. Because this is part of a larger program, which includes the MA thesis of Dr. Cohen, the session will be recorded, transcribed and then analyzed.

You have been invited to participate in this session by virtue of your expertise and your interest. By attending this workshop you will be giving your informed consent to our using the results for our work and for possible future publication. As always, you are free to withdraw from the workshop at any time, or to participate at a level that you deem appropriate. The total commitment is ninety minutes.

All enquiries about the procedures to be used should be directed to Dr. Cohen. Other concerns should be directed to the Research Subject Information Line at University of British Columbia (604 – 822 8598). There are no known risks to this study. Focus groups present inherent limits to confidentiality and participants will be asked to respect this once the session has finished. All the recorded data and transcripts will be stored in a locked filing cabinet in the office of the principal investigator.

This study does not pose a conflict of interest for any of the investigators.

Dr. Dan Pratt.
Dr. Richard Cohen.
Dr. John Collins.
Dr. Gordon Page