

*President's address*  
*May 8, 2007*  
*Victoria, British Columbia*

## **Medical Education – Is it time for change?**

I certainly could have labeled this title Medical Education – It is time for change.

Dr. Kirsh, the President of the American Association of Medical Colleges has observed that there have been many important innovations in medical education in the past 30 years. Some of the innovations he identified include linking education to specific learning objectives; integrating ‘orphan topics’ such as palliative care, public health threats and domestic violence; moving from lectures to small group learning; using standardized patients; and leaning more in the ambulatory setting. These changes are impressive and noteworthy. My question is what more needs to be done? What more should be done to ensure we have a responsive medical education environment that looks closely at societal needs and fine tunes the educational process to lead to an improvement in the health of all Canadians.

I want to briefly look at a number of elements in medical education including the curriculum itself, and our students and faculty within our schools of medicine and make several observations about the current providers of health care in the country.

Beginning with the curriculum, here are a number of issues that we are beginning to address or should be addressing as we think of how well our medical education system responds to the needs of society.

Firstly there is an emerging and ongoing debate with regard to the length of training in both undergraduate and postgraduate medical education. Can we shorten the admission requirements to medical school, can we shorten medical school itself and can we shorten residency training?

Certainly by looking at our curriculum from a competency based perspective rather than the traditional time based perspective, we may well identify ways and means of educating physicians that allow them to achieve learning outcomes at variable rates.

How are we imparting knowledge to our future physicians and balancing that with skill acquisition? Do we have the right balance between the two?

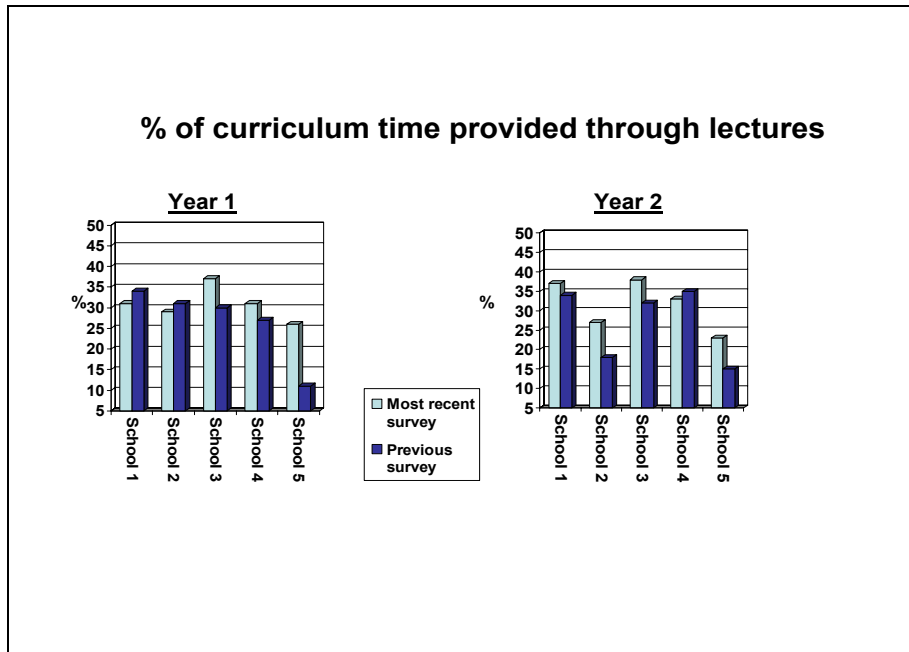
De nos jours, on conteste souvent la verticalité de l'enseignement que nous dispensons, que ce soit dans les facultés de médecine ou de sciences infirmières, de physiothérapie ou de pharmacie. D'importantes ressources financières et plusieurs milliers d'heures ont été consacrées à l'analyse du potentiel et des avantages concrets de la pratique interprofessionnelle collaborative. En l'absence d'un véritable milieu pédagogique interprofessionnel, cet objectif sera beaucoup plus difficile à atteindre, voire irréalisable.

The full impact of technology and simulation has not yet really been fully exploited. We are using more e-learning strategies, developing e-learning databases, and connecting distant learners, but we have not perfected the technology. As we expand our medical schools and increase the amount of training in communities with smaller patient populations, the world of simulation as a teaching tool becomes more important. The old adage of "See One, Do One, Teach One" is certainly not adequate and does not ensure quality care and patient safety.

Managing information has become a preoccupation for many. The explosion of knowledge has led to the necessity to train physicians of the future in knowing how to access information, how to critically review it and how to apply it in an efficient and effective manner in practice.

The literature regarding learning strategies is expanding and medical schools appropriately continue to struggle between the amount of lectures they provide in their curriculum (which promotes passive

learning) and creating more effective learning opportunities that develop active, curiosity focused learners.



This slide is a brief look at the amount of time spent in lectures in year 1 and year 2 of the undergraduate curriculum as taken from the records of five medical schools in Canada who had surveys in recent years. The lighter blue bar shows the most recent surveys of schools and the dark blue bar shows previous surveys. You can see at a glance that we are not reducing the amount of lecture time in our curricula; in fact in most instances we are increasing it in both year 1 and year 2.

Le contenu du programme d'études constitue un défi de tous les instants. La durée des cours et la capacité de nos professeurs à enseigner la matière sont les seules contraintes qui le limitent. Notre programme d'études englobe un certain nombre de perspectives. L'une d'elle consiste à adopter une approche davantage axée sur le patient en ce qui a trait à l'identification et à l'analyse des problèmes ainsi qu'aux stratégies de gestion. En outre, nous devons mettre davantage l'accent sur la prise

de décisions éthiques. Les enjeux de plus en plus complexes auxquels doivent aujourd'hui faire face les professionnels de la santé ne manquent pas. Je suis persuadé que plusieurs exemples vous viennent à l'esprit, tant chez les nouveau-nés que chez les patients très âgés et en fin de vie dont nous nous occupons aujourd'hui. Le professionnalisme fait l'objet d'un examen minutieux et ses attributs doivent non seulement être enseignés mais de plus en plus illustrés par les fournisseurs de soins de santé et par tous les membres de nos facultés de médecine dans le cadre des soins et de l'enseignement qu'ils dispensent de même que dans leurs interactions avec les autres.

For many years there has been an emphasis on communication skills as core to what we do as physicians. My sense is that although there has been significant emphasis on the need for physicians to be effective communicators, this still remains a challenge and we must develop ways to ensure that effective and compassionate communication remains at the heart of our discipline.

Although we have talked about an educational process across the continuum from undergraduate medical education, through residency training and into continuing professional development in practice, we still struggle to make it a reality. There are a number of initiatives underway which are trying to model learning across the undergraduate and postgraduate continuum. I refer for example to our work on core curriculum in Aboriginal Health, in public health, and in end-of-life care.

As you know, our CACMS/LCME accreditation process looks critically at evaluation methods. There is a need to continually look at the evaluation techniques we currently use and assess new techniques from the perspective of their ability to effectively discriminate learning problems and to be used as tools for giving more effective feedback to our learners.

We are doing a better job of supporting educational innovation, and at this conference there have been countless examples of educational innovation, be it in location of the educational experience, educational content, teaching methods or evaluation strategies.

We know from demographics, and from morbidity patterns, that chronic diseases such as diabetes and arthritis, to name but two, are becoming much more prevalent. They will demand a different management setting, and likely a team approach to provide the most effective care possible.

**Percent of Doctors Reporting Practice Is Well Prepared to Care for Chronic Diseases**

Percent reporting "well prepared":	AUS	CAN	GER	NETH	NZ	UK	US
Patients with multiple chronic diseases	69	55	93	75	67	76	68
Patients with mental health problems	50	40	70	65	48	55	37

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

As you can see from this slide, from a survey of 6,000 primary care physicians conducted by the Commonwealth Fund in 2006, Canadian physicians reported that they were significantly less well prepared to deal with patients with multiple chronic diseases when compared to any of the other countries listed here. Likewise, our physicians reported that they were less well prepared to deal with mental health problems within the patient population.

Medical practice involves the interaction between a physician and a patient. However, there is no doubt that all physicians, whatever their discipline, need to also understand the population perspective and develop the capacity to apply that perspective to individual care.

Let's spend a few minutes looking at our students, faculties and

providers.

Nous devons selon moi examiner attentivement la manière dont nos populations étudiantes reflètent la diversité culturelle que nous connaissons au pays.

<b>First Nations/Métis/Inuit First Year Enrollment</b>	
• <b>1999</b>	<b>8</b>
• <b>2000</b>	<b>17</b>
• <b>2001</b>	<b>13</b>
• <b>2002</b>	<b>18</b>
• <b>2005</b>	<b>36</b>
• <b>2006</b>	<b>41</b>

Cette diapositive montre la croissance, bien que minime, du nombre d'inscrits en première année dans les facultés de médecine, qui se sont déclarés d'origine métis ou inuite ou comme appartenant aux Premières nations. Comme vous le savez, on dénombre à peine plus de 200 médecins des Premières nations, métis et inuits pratiquant au Canada, pour une population de plus de 1,2 millions d'Autochtones.

We certainly have very little data on the cultural diversity of our faculties. As we continue to grow, largely through immigration, I think it behooves us to look closely at how well our faculties of medicine reflect that reality.

In providing care, as mentioned earlier, there has been a focus on team based care bringing together health providers, including physicians.

### Use of Multidisciplinary Teams And Non-Physicians

	AUS	CAN	GER	NETH	NZ	UK	US
<b>Practice routinely uses multidisciplinary teams:</b>							
<b>Yes</b>	32	32	49	50	30	81	29
<b>Practice routinely uses clinicians other than doctors to:</b>							
<b>Help manage patients with multiple chronic diseases</b>	38	25	62	46	57	73	36
<b>Provide primary care services</b>	38	22	56	33	51	70	39

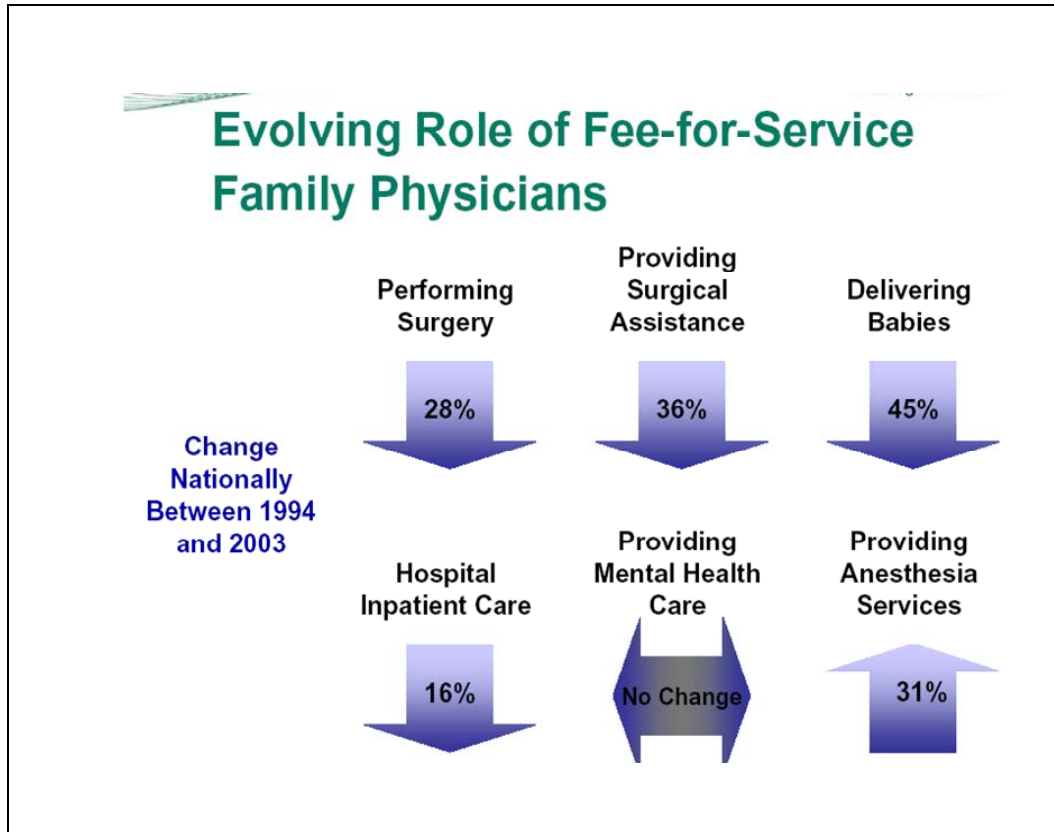
Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.



This slide, again from the Commonwealth Fund Study, looks at how often primary care practices in Canada routinely use multidisciplinary teams. You will note that we fall far behind the leaders such as New Zealand and the UK. In terms of using teams to manage chronic disease or to provide more comprehensive primary care, we are also significantly behind other countries.

The recent census in Canada indicates that the number of seniors, (those over 65) rose from 2.4 million to 4.2 million between 1981 and 2005. It is predicted that in the next twenty years, those numbers will rise to 9.8 million or in fact double. Otherwise stated, the senior share of the population will rise from 13% to 21%. The census report also talked about Canada having the fastest population growth in the group of 8 industrialized countries; however, two thirds of our increase over the last five years was with newcomers totaling 1.2 million immigrants while the growth of the Canadian native population was just 400,000. These demographics need to be considered and accounted for as we educate Canada's future physicians.

Data continues to emerge regarding the changing functions and roles of the physicians in the practice setting.



For example this slide demonstrates some changes in the role of family physicians between 1994 and 2003. Note the reduction in hospital based care provided by family physicians in a number of areas. The evidence, if teased out further, would demonstrate that there are fewer family physicians doing many of the services listed here; however those who continue to provide the services are providing many more of them.

The use of electronic technology continues to be a major challenge for us in Canada.

## Practice Use of Electronic Technology

Percent reporting routine use of:	AUS	CAN	GER	NETH	NZ	UK	US
Electronic ordering of tests	65	8	27	5	62	20	22
Electronic prescribing of medication	81	11	59	85	78	55	20
Electronic access to patients' test results	76	27	34	78	90	84	48
Electronic access to patients' hospital records	12	15	7	11	44	19	40

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.



This slide demonstrates our position relative to other developed countries in the utilization of technology to order tests electronically, prescribe medications electronically, access patients' test results and access hospital records. In a number of these instances no countries are doing well but we are falling behind in all categories. The response and solutions do not rest only with medical education, but it has an important role to play.

Now, I would like to quickly highlight a few other factors for you to consider. The time spent in our teaching hospitals needs to be carefully analyzed. What is the right balance of learning and exposure in these hospitals? We have an increasingly complex and acutely ill population in hospital as contrasted to the community with different patient populations and morbidity patterns.

What is the right balance in order to produce both generalists and sub-specialists in the future?

Our distributed medical education models are hopefully a way to address this issue. They need to be refined and assessed closely to ensure that we not only provide the highest quality of education, but also meet some of the other objectives of encouraging medical students to become comfortable and feel valued practicing in settings outside the tertiary care teaching hospital.

There are always hard to serve communities, be they the marginalized poor communities, the urban poor, the rural and remote communities, communities with HIV and aids or the community of mentality ill who are out of the street. Our medical schools need to think about ways of equipping future physicians to address these populations, as they are truly part of the community need and a priority.

Should this lead us to a discussion talking about education tracks within our medical schools rather than a relatively standardized medical school curriculum for all? Education tracks may address a number of important needs including that of clinician scientists, experts with a focus on global health, a balance of generalists and physicians with both expertise and interest in rural health.

Let me wrap up this overview of some changes in medical education highlighting the following themes with a very short comment about each. Many of you recall the “Crossing the Quality Chasm” report from the Institute of Medicine a few years ago. It highlighted themes that needed to be addressed as we continue to mold our educational environment. The report stated that health care needs to be safe, effective, patient centered, timely, efficient and equitable. We must always focus on the quality of care as our primary activity and ensure that education not only supports it but does not negatively impact on it. Safety first is paramount and again we need to ensure we have an educational environment that does not compromise it.

While not downplaying the physician shortages across many specialties, the need for us to train more generalists clearly stands out.

J'ai mentionné combien il était important, tant pour les étudiants que pour les enseignants, de refléter la diversité culturelle et socio-économique de notre pays.

À l'intérieur du Cadre de compétences CanMeds, le rôle du médecin comme promoteur de la santé est un élément important en l'absence duquel il est difficile d'apporter des changements, non seulement à la prestation des soins de santé, mais également à notre système d'éducation.

À mesure que notre environnement gagne en complexité sur le plan du savoir et des connaissances que nous désirons transmettre, et alors que nous cherchons des moyens de les enseigner et d'apprendre, la coordination et l'intégration pèsent lourdement sur nous. Nous avons fait référence précédemment aux défis que présente la technologie, tant dans l'apprentissage que dans la pratique. De la même manière, le professionnalisme et les soins interprofessionnels peuvent être des éléments phares de l'avenir que nous devons envisager à la fois en ce qui a trait à notre façon de les intégrer et à notre manière de les utiliser efficacement.

I have tried, in a very short time, to provide a high level overview of some of the factors that already are, or should be, impacting on medical education. Many issues have been left out. Hopefully they have been identified throughout this meeting. Internationally many groups are continuing to tackle these issues, either in an ad hoc manner or with more formalized reviews.

Thanks very much for listening and I look forward to dialoguing about these issues into the future