medical research, the requirement for effective "bench to bedside" translation is emphasized today with increasing calls for "ROI" or return on investment. This has led to the need for effective ethics review committees to protect patients' interests[6] and reduce pressures on medical researchers from undue market involvement of commercial entities such as pharmaceutical companies.[7] A further problem arises with the increasing clash of professional and corporate interests. A professional by definition practices medicine to the standards of their profession in their community—not as an "occupational" working to the imposed standards of a boss![8] Pressure is exerted by some healthcare administrators for doctors to practice according to administrative budgetary requirements, thus being more efficient and perhaps less effective in care of their patients. A number of years ago at the Canadian Red Cross Blood Services, the physician in charge appeared to have rejected blood testing for donor blood infections due to testing costs on the orders of his funding agency bosses—in that case provincial government bureaucrats. His unprofessional behaviour was ultimately outlined in the Krever Commission Report.[9] This led to him being professionally discredited, the Red Cross Blood Transfusion Service being terminated, and the Canadian Blood Services Agency being created.

In medicine, a major initiative that has had a profound impact is prevention of infectious diseases by immunization. This and other preventive measures have led to the survival of many who might otherwise have died. Now we are faced with an aging demographic, many of whom through excess nutrition and salt intake,[10] suffer from obesity,[11] hypertension, diabetes, and major cardiovascular issues. These will require additional attention in the decades to come!

So, what is the ultimate answer to the question posed at the beginning of this polemic? The enormous increase in medical knowledge, adapted to improve the quality of care of patients has led to an essential, major proliferation in types of healthcare providers. This in turn has led to significant shifts in professional relationships, not only of patients and doctors but also among healthcare providers. It is interesting to observe that such interdisciplinary activity is effected, based on a principle outlined by Adam Smith in the 1770's as a significant concept of the Scottish Enlightenment—the Division of Labour.[12] In that description, workers provided a defined activity based on their personal expertise and skill that built upon the different expertise and skill of other providers towards an ideal cooperative outcome. In Smith's description, that outcome was the efficient manufacture of pins; in our current description for healthcare providers it is towards the optimum outcome of care for our patients in an increasingly complex healthcare environment. Cooperative inter–professional care will require greater provider empathy for all to understand and enable each other's role in these complex, beneficent patient care related undertakings.

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The Times They Are A-Changin'

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As Bob Dylan so aptly sang, "The times they are a-changin'." Nowhere is this truer than in the provision of health services. One need only look at the healthcare networks of other provinces, the use of multidisciplinary teams for the provision of health care, the increasing scope of practice of other professional groups, the inability of so many British Columbians to access a family doctor, and the programs in place to improve the healthcare system to know, to borrow from the same Dylan tune, "we'd better start swimmin' or we'll sink like a stone."

In July 2011, I had the honour of chairing the BC Medical Association (BCMA) working group that developed a position

paper on the health of the physician workforce entitled, "Doctors Today and Tomorrow: Planning British Columbia's Physician Workforce". I would like to acknowledge and thank both the physician and staff members of the working group for their contributions.

The position paper concluded that the current physician workforce planning process in British Columbia is too fragmented and too short-term in its focus, with the result that British Columbians' access to timely, high–quality, and effective physician services is compromised due to shortages and vacancies. This is a time when the healthcare system continues to face growing pressures from the increasing complexity of patient case-mix, the resulting demand for more physician time and services, the ongoing evolution of the practice of medicine, and the changing demographics of the physician population.

In the position paper, the BCMA breaks the workforce into three groups: the physician in training, the practicing physician and the physician nearing retirement.

PHYSICIANS IN TRAINING

Following a decrease in medical school enrolment by 10% in 1992, the UBC Faculty of Medicine began increasing enrolment in 2001 from 120 spots to 288 today, including the Victoria, Prince George and Kelowna sites. Given the length of education and residency for today's students, it will take a minimum of 6 years, and for some specialties up to 11 years, to have an impact on physician workforce needs. However, a mere head count of the number of graduating physicians does not take into account different practice styles of the future. As has often been the case, medical students need to realize that their dream of going into either general practice or a particular specialty will be influenced by the physician needs of the community, which will dictate the number of residency spots in different disciplines.

We also cannot have a system that simply has residency positions equal to the number of graduating medical students. There needs to be a greater number of residency positions to accommodate family physicians who would like further specialty training, as well as a growing number of international medical graduates (IMGs) looking to practice medicine here. This latter group is divided into IMGs who trained in foreign medical schools and were physicians before immigrating to Canada, and a second group who are Canadian citizens who, for various reasons, studied abroad in English–speaking medical schools and wish to return. There are barriers for both groups wanting to practice medicine in British Columbia. The BC Medical Association is looking forward to working with UBC and the provincial government to improve the residency process for IMGs.

THE PRACTICING PHYSICIAN

For the physician currently in practice, we know the number of hours of direct patient care over the past 20 years has decreased while activities such as teaching, research, administration, and continuing professional development, not to mention paper work, have increased. The average total hours worked per week appears to have remained fairly stable between 1997 and 2007 in British Columbia for both genders, but fewer patients are being seen in the same time frame. In the BCMA's 2010 Membership Survey, the most often–cited professional challenge was workload/lack of time. It is no surprise then that the delivery of physician services is moving away from solo practice to group practice and multidisciplinary practice settings where some elements of the workload can be shared.

While physicians are decreasing the number of direct patient care hours, the demand for physician services continues to escalate, driven by an aging population and the increase in chronic illness. By 2031, almost one–quarter of BC's population will be 65 and older. With age comes an increase in chronic diseases. In 2011, according to the Ministry of Health Services, 80% of the combined physician payment, PharmaCare, and hospital care budgets were consumed by the management of chronic diseases.

Recruitment and retention of physicians is an ongoing challenge, especially in rural British Columbia. Joint committees between the BCMA and government such as the General Practice Services Committee, the Specialist Services Committee, and Shared Care have developed financial incentives for GPs, specialists, and rural physicians to increase their work satisfaction, make their practices more efficient, and deliver the most appropriate patient care. In a world where work/home life balance is of increasing importance, there needs to be more than just money to sustain the physician workforce. Physicians require time for family and leisure activities after their working day is finished, and they need to take a holiday or attend educational activities on a regular basis without the worry of leaving their patient load to their colleagues for lack of locum coverage.

PHYSICIANS NEARING RETIREMENT

It is a sobering fact that 42% of BC's physicians are 55 and older. We know our workforce is aging, so it comes as no surprise that 21% of respondents to the BCMA's 2010 Membership Survey said that they plan to retire within the next five years, and 46% within the next ten years. Physicians tend to retire gradually by cutting back their work hours and their scope of practice before entering full retirement. The rural population could be more impacted by the GP's gradual retirement than the urban population because rural GPs tend to have a broader scope of practice than their urban counterparts. These physicians who no longer want to be in full-time practice need strategies to use their talents in part-time work or teaching.

HOW TO BEST MOVE FORWARD

A comprehensive approach to managing the physician workforce is necessary to ensure that patients have timely access to physician services and the profession has the right number and mix of physicians.

The physician workforce paper makes ten recommendations:

1. The BCMA, Ministry of Health, and health authorities should jointly establish a permanent provincial Physician Workforce Planning Committee to direct and coordinate the development of physician resource plans, and to

provide advice about strategies and mechanisms to meet the requirements of the plans. Additional members should include representatives from appropriate stakeholder organizations including, but not necessarily limited to, the Faculty of Medicine, the College of Physicians and Surgeons of BC, and the Medical Services Commission.

2. The Physician Workforce Planning Committee should develop a provincial analytical framework for needs–based physician resource planning.
3. The Physician Workforce Planning Committee should coordinate the development of a comprehensive provincial physician workforce database to form the basis of physician workforce planning and the development of full-time equivalent methodologies.
4. The Faculty of Medicine, in consultation with the Physician Workforce Planning Committee, should determine undergraduate medical school enrolment, and enrolment should be informed by long-term physician resource plans.
5. The Medical Human Resources Planning Task Force, in consultation with the Physician Workforce Planning Committee, should ensure that postgraduate training positions be allocated among the specialties in relation to physician resource requirements, as reflected in long-term physician resource plans.
6. There should be adequate government–funded postgraduate training positions available to accommodate the following:
   - Each year's graduating class through to certification and licensure.
   - Specified numbers of licensed physicians currently practicing in British Columbia who are qualified for reentry or enhanced skills training.
   - Specified numbers of international medical graduates who are Canadian citizens or permanent residents, and who are not currently fully licensed to practice medicine in British Columbia.
7. The Faculty of Medicine should consider strategies that support broad–based medical education and the provision of objective career information for medical students and residents.
8. Recruitment and retention programs should develop comprehensive and flexible incentives that address the professional and personal needs of physicians.
9. The Ministry of Health and the health authorities should ensure adequate resources and coordination for the development, implementation, and ongoing evaluation of physician recruitment and retention programs.
10. The Ministry of Health and the BCMA, in conjunction with health authorities, should develop strategies to support the retention of physicians who are nearing retirement.

According to Francois de la Rochefoucauld, a French classical author of the 1600s, the only thing constant in life is change. The BCMA is ready to work with all interested parties to ensure that the physicians of BC move forward with the right changes that ensure the citizens of BC have access to the best health care, delivered by the most appropriate person, when and where it is needed.