A Prescription for Productivity: Toward a more efficient, equitable and effective health system

CMA's 2005 Pre-Budget Submission to the Standing Committee on Finance

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ASSOCIATION MÉDICALE CANADIENNE
CANADIAN MEDICAL ASSOCIATION

A healthy population…a vibrant medical profession
Une population en santé…une profession médicale dynamique

"The first wealth is health."
-Emerson

The Canadian Medical Association (CMA) is the national voice of Canadian physicians. Founded in 1867, CMA's mission is to serve and unite the physicians of Canada and be the national advocate, in partnership with the people of Canada, for the highest standards of health and health care.

On behalf of its more than 60,000 members and the Canadian public, CMA performs a wide variety of functions, such as advocating health promotion and disease/injury prevention policies and strategies, advocating for access to quality health care, facilitating change within the medical profession, and providing leadership and guidance to physicians to help them influence, manage and adapt to changes in health care delivery.

The CMA is a voluntary professional organization representing the majority of Canada's physicians and comprising 12 provincial and territorial divisions and 44 affiliated medical organizations.

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Introduction

This pre-budget submission makes the case that healthier Canadians are more productive Canadians. It also recognizes that the delivery of quality health care, in a timely manner, is paramount and is not mutually exclusive to any productivity agenda. As Emerson once said, "the first wealth is health."[1] Last fall, the First Ministers recognized this by agreeing on a plan that will, over the next 10-years, add an additional $41 billion federal dollars into our health care system. The Canadian Medical Association applauds the government for spearheading this renaissance in federal health care funding. But like the human body, that is always evolving, the health care system needs to be monitored and trained for optimal performance. The consequences of under investing in health care in the past are haunting us today.

Better health … better Canada

Canada, which at one time was the most attractive place on earth to live, is falling behind. According to the Conference Board of Canada, Canada's overall economic performance has fallen from 3rd best in the world, to 6th and now to 12th. One of the drivers of this precipitous fall is – according to the Conference Board's analysis – the weakened state of our health care system. For example, our infant mortality rates are rising, not falling, in relative terms. We have tumbled from our top-five ranking in the 1980s — to where we are today in the 22nd spot out of 27 countries of the Organization for Economic Co-operation and Development (OECD). That is why, now more than ever, Canada's economy is in need of strategic federal direct investments in health care as part of an overall productivity enhancing package. The CMA is not alone in linking health care investments to better economic performance.

According to the latest economic research, "There is now strong empirical evidence to suggest a two-way relationship: improved health significantly enhances economic productivity and growth.[2]" Furthermore, the Royal Institute of International Affairs states that, "…improved health supports labour productivity; by augmenting life expectancy, it encourages savings and private investment. Health expenditures are an investment not a cost. It is crucial that governments develop a long-term perspective."

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> July 2005

The health care sector in Canada employs over a million people or 7.5% of the labour force. In 2004, Canada invested $130 billion in health care representing 10% of our GDP. The benefits of the health care investments not only accrue to a higher quality of life for all Canadians, but the economic multiplier effect of the initial investment is estimated to create an additional $65 billion in economic activity.[3]

The health care sector employs over a million people. In 2004, Health Care Investments of $130 billion raised billions in taxes and generated an additional $65 billion in economic activity.

The CMA has identified a number of key issues related to health human resources and infrastructure that require immediate attention if the Canadian economy is to retain its competitive position in the global economy. We will make the case that, by making strategic federal direct investments in health human resources and public health, the federal government can make a great leap forward in reinforcing a critical foundation for a healthier more productive Canadian economy. These initiatives involve investments in physical, human and entrepreneurial capital, which if sustained over the long-term, will pay dividends in terms of improved population health.

The competition for world class health care labour is becoming more global and will intensify. Unless Canada can provide excellent training, tools and working conditions international demand threatens to undermine the foundations of our system. For example, if Canada were to move today to cap working hours on physicians to 48 hours per week as the European Union has done, Canada would be short a whopping 12,780 physicians. Not only is there international demand for world class medical professionals, but also the stock of these professionals especially in Canada is aging. The United States is expected to be short by 200,000 physicians by 2020. They have looked to Canada before to fill the gap, and they may again. This is why the federal government must play a leadership role in supporting health human resources (HHR) while at the same time sustaining Canadian health care industries.

When investments in health are aligned with technology at the right time, they can, as Federal Reserve Chairman Allan Greenspan suggests, "provide key insights into clinical best practices and substantially reduce administrative costs."

"If supported and promoted, these (IT) efforts could provide key insights into clinical best practices and substantially reduce administrative costs."
Chairman Allan Greenspan,
Testimony to the US House Budget Committee.
12 March 2005.

One of the key health infrastructure investments that has to be made is the electronic medical record (EMR). For too long Canada has lagged all major industrialized countries in adopting an EMR. A pan-Canadian EMR would deliver higher quality care, faster and at a higher value. An EMR would also allow Canada's health care system to dramatically increase communication between jurisdictions.

Communication and coordination of resources are keys to dealing with natural disasters such as Hurricane Katrina which devastated New Orleans. We need these investments sooner rather than later to avoid making the mistakes (e.g. in the case of SARS) as pointed out by the Naylor Report[4].

One of the key areas where the federal government can make a difference is the creation of a secure communications network linking up public health authorities and health providers across the country. According to Dr. Klaus Stöhr, project leader of the Global Pandemic Project at the World Health Organization, "Once a pandemic virus emerges, it is too late to begin planning or to begin collaboration."[5] In spite of the imminent threat of a pandemic influenza, there are $34.3 millions in planned cuts to the Public Health Agency of Canada, over the next two years, as a result of program review.

We need only look as far as New Orleans to see what an under-funded federal emergency preparedness system can reap. The loss of life in New Orleans was tragic and many agree unnecessary. In Canada we had SARS. Canada did squelch SARS and learned a lot about our capacities, yet we still have not lived up to the potential of being better prepared. Looking ahead, "In the event of a pandemic, the economic effects could be severe, affecting virtually all sectors and regions," according to Dr. Sherry Cooper Chief Economist, BMO Nesbitt Burns. Dr. Cooper goes on to say that "Awareness is key to preparedness and proper surveillance, planning and preparation are essential to effective response and containment."[6]

Over the last several years, the CMA raised serious concerns about the ability of Canada's public health system to respond to disasters and made a number of recommendations to address national preparedness in terms of security, health and capacity of the system. The CMA firmly believes that there remain significant shortcomings in our capacity to respond to health care emergencies. As we look to the future it is critical that the federal government make a stronger commitment to public health. Public health programming is too important to be sacrificed in the short-term expenditure review exercises.

The continued application of the GST on physician practices is an unfair tax on health. Because physicians cannot recapture the GST paid on goods and services for their practices in the same way most other businesses can, the GST distorts resource allocation for the provision of medical care. As a result, physicians end up investing less than they otherwise could on goods and services that could improve patient care and enhance health care productivity such as information management and information technology systems. Zero-rating the GST on physician practices would remove an unfair tax on health and allow for greater investment in technologies that would result in better care.

Summary

The CMA's pre-budget submission has presented the facts on how investments in physical, human and entrepreneurial capital can enhance our health care system and, in turn, make our economy more productive. As our health care system efficiencies improve, the benefits not only accrue to health care workers, but also the ultimate dividend is better patient care and improved population health. Improvements in the quality of care, and especially speed of care, enable the Canadian labour force to increase its performance and fully reach its potential. These health care investments ultimately translate into a stronger, more competitive and more productive economy.

CMA's 10 point productivity plan (with estimated investment)

Efficiency

Recommendation #1: That Health Canada, in collaboration with Citizenship and Immigration Canada, provincial and territorial governments and Canada's medical schools, provide funding for 600 postgraduate training positions to enable qualified international medical graduates who are Canadian citizens or landed immigrants to complete medical training requirements. Investment: $45 million per year for 3 years. [600 x $75k (approximate annual training cost per resident].

Recommendation #2: That Health Canada, in collaboration with Foreign Affairs Canada and provincial and territorial governments, carry out a direct ad campaign in the United States to encourage expatriate Canadian physicians and other health professionals to return to practice in Canada. Investment: A one-time investment of $10 million.

Recommendation #3: That the Minister of Finance in collaboration with the Minister of Health allocate $1 billion over 5 years to a Health Human Resource Reinvestment Fund. This fund would be used to implement a needs-based, pan-Canadian, integrated health human resources plan based on the principle of self-sufficiency for Canada. Investment: $1 billion over 5 years.

Recommendation #4: That Health Canada, in collaboration with the Department of Human Resources and Skills Development and the provincial and territorial governments, create the Canadian Coordinating Office for Health Human Resources to facilitate pan-Canadian planning of health human resource needs. Investment: $3 million per year.

Equity

Recommendation #5: That the Minister of Finance introduces legislation to amend the federal *Excise Tax Act* to zero-rate the Goods and Services Tax (GST) on physician practices. Investment: $84 million per year or 0.27 % of total $31.5 billion GST revenues in 2005/06.

Recommendation #6 That the Minister of Finance in collaboration with the Minister of Health provide additional financial support to Canada Health Infoway, to realize the vision of a secure interoperable pan-Canadian electronic medical record, with a targeted investment toward physician office automation. Investment: $1.5 billion over 10 years.

Recommendation #7: That the Department of Human Resources and Skills Development introduce changes to the Canada Student Loans Program to extend the interest free status on Canada student loans for medical residents pursuing postgraduate training. Investment: $5 million per year.

Recommendation #8: That the Minister of Finance in collaboration with the Minister of Health increase the base budget of the Canadian Institutes of Health Research to enhance research efforts in the area of population health and public health as well as significantly accelerating the pace of knowledge transfer. Investment: $600 million over 3 years.

Effectiveness

Recommendation #9: In order to ensure that adequate emergency preparedness and public health capacity is built at both federal and provincial levels, the federal government should provide sustained additional funding, to the Public Health Agency of Canada, and exempt it from expenditure review contributions. Investment: $684.3 million over 3 years (details in Appendix 1).

Recommendation #10: That Health Canada and the Public Health Agency of Canada provide a one-time infusion of $100 million, to improve technical capacity to communicate with front-line public health providers in real-time during health emergencies. Investment: A one time investment of $ 100 million.

The first wealth is health

Canada, which at one time was the most attractive place on Earth to live, is falling behind. According to the Conference Board of Canada, Canada's overall economic performance has fallen from 3rd best in the world, to 6th and now to 12th. One of the drivers of this precipitous fall is – according to the Conference Board's analysis – the weakened state of our health care system. For example, our infant mortality rates are rising, not falling, in relative and absolute terms. We have tumbled from our top-five ranking in the 1980s — to where we are today; in the 22nd spot out of 27 OECD countries. That is why, now more than ever, Canada's economy is in need of strategic federal direct investments in health care as part of an overall productivity enhancing package.

According to the latest economic research, "There is now strong empirical evidence to suggest a two-way relationship: improved health significantly enhances economic productivity and growth.[7]" The health care sector in Canada employs over a million people or 7.5% of the labour force. In 2004, Canada invested $130 billion in health care, representing 10% of our GDP. The benefits of the health care investments not only accrue to a higher quality of life for all Canadians, but the economic multiplier effect of the initial investment is estimated to create an additional $65 billion in economic activity.[8]

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I. Efficiency – providing tools to improve patient care and productivity

A healthy and productive health workforce is the key to a well performing health care system and sets the foundation for a productive labour force. That is the ideal. However, there is a shortage of physicians across Canada. This shortage is creating a tremendous amount of pressure on the health care system. As demand for health care increases and the supply of health care workers is fixed, the pressure on these workers to do "more with less" is enormous. That is why Canadian physicians need the federal government's support to have the tools and time to build on their productivity.

> "It is clear to me that, if we are going to achieve the kind of solutions that have the support of Canadians, that our physicians ... must be engaged as active and valued partners. For our part, I want you to know that our government sees physicians … not as cost centres but as value centres."
>
> Health Minister, Ujjal Dosanjh
> 15 August 2005

Making human capital investments in physicians (value centres)

Federal Health Minister Ujjal Dosanjh acknowledged the value of physicians in his speech to the Canadian Medical Association's General Council this August 2005 by saying, "I want you to know that our government sees physicians … not as cost centres but as value centres". It is in this spirit that we urge the government to invest in HHR. In order for the First Ministers Meeting (FMM) Agreement to be successful in improving access to care, governments must make the health workforce a major priority. In particular, the $1 billion in HHR funding in the Wait Times Reduction Fund should be made available immediately to address the crisis in health human resources rather than in the last 4 years of the 10-year agreement as currently projected. Given the current shortages in health human resources, action on HHR must begin now — not in 2010. Investing in physicians, or as Minister Dosanjh eloquently put, "value centres" will have real dividends for Canadians and the health care system.

Accordingly, the CMA calls upon the federal government to play a key role in improving the availability of health human resources by developing a pan-Canadian HHR strategy that includes the involvement of health care providers.[9] For as Minister Dosanjh acknowledged, "It is clear to me that, if we are going to achieve the kind of solutions that have the support of Canadians, that our physicians must be engaged as active and valued partners."

The cost of under-investing in health human resources

The pressures on human capital within the health care system are clear. Since the cutbacks in medical school admissions in the early 1990s, the gap between the growing demand for medical care and physician supply has widened. Canada's ratio of 2.1 physicians per 1,000 population remains one of the lowest among the Organization for Economic Co-operation and Development (OECD) countries and below the OECD average of 2.9. With this ratio, Canada ranks 24th out of 30 OECD countries. In addition, as more doctors enter retirement age the shortage of physicians is becoming acute. The cost to patients — and their employers — is manifested in wait times, increasing difficulty to access primary care. In spite of these pressures Canada still does not educate enough doctors to replace those about to retire. The status quo threatens capital stock within the health sector, the general labour force, and even the world.

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>
> OECD 2005

> *"In the face of a global shortage of health care workers … can a country in which 24% of practicing doctors were educated outside its own borders continue to rely on physicians from countries that can least afford to lose them?"*
>
> — Dr. Peter Barrett, CMA past president, August 2005 CMA annual meeting.

Social and economic dividends of investing in HHR

The CMA recommends that Canada's long-term objective should be to increase enrolments in health disciplines to achieve greater self-sufficiency. The dividend of investing in HHR is a better, more efficient health care workforce who will deliver higher quality care in a timely manner. A well funded public health care system makes all Canadians healthier and more productive in their economic and social roles. In addition, becoming HHR self-sufficient also has the potential benefit of eventually exporting made-in-Canada health sector goods and services.

But beyond re-stocking the pool of HHR for the future, attention also needs to be paid to the current stock of physicians. The issue of retention, or keeping physicians interested in working, is especially important now considering that a record number of physicians are about to retire.

(i) Maximizing our existing health human capital — providing more training opportunities for international medical graduates

As noted earlier, Canada ranks at the bottom among OECD countries in physicians per capita. As blunt an indicator as this may be the recent Supreme Court ruling in the Zeliotis case is a poignant reminder that there is an imbalance in the system between supply (HHR) and demand. We need more health care workers to protect, or save from burnout, the health care human capital investments that Canada has made already. We also need to ensure that Canada's labour force — our macro human capital — has access to quality care without reasonable delays.

Since it takes anywhere from 7 to 10 years to train a new physician, there are limits to how much can be done in the short term to address shortages. One short-term response would be to facilitate the training of qualified international medical graduates (IMGs) who are already in Canada.

The CMA has welcomed the federal government's recent investment of $75 million in the 2005 budget for the integration of internationally trained health workers, and notes that federal funding has already produced tangible results as some medical schools have increased the number of postgraduate training positions available to IMGs. However, there is an issue of clinical training capacity at Canada's medical schools; consequently this initial investment is insufficient to provide training opportunities for over 600 IMGs and countless other qualified internationally trained health workers who are already in Canada.

Accordingly, the CMA recommends that the federal government provide sufficient funding to provide additional training positions to train the existing supply of IMGs who would be eligible to begin a post-MD residency training immediately. The capacity to train these Canadian citizens or landed immigrants exists in Canadian medical schools. Currently, Canadian medical schools are providing postgraduate training opportunities to close to 900 visa trainees from abroad, largely from Persian Gulf countries. The federal government helps redeploy some of this capacity by offering medical schools, on a time-limited basis, to purchase some of these visa trainee positions to train IMGs that can then be deployed in Canada's health care system. Such funding could also provide for the comprehensive assessments of IMGs that have been developed in several jurisdictions. The CMA also strongly supports the initiative of the Medical Council of Canada (MCC) in developing a pilot for the off-shore electronic administration of the MCC's evaluation exams.

Recommendation #1: *That Health Canada, in collaboration with Citizenship and Immigration Canada, provincial and territorial governments and Canada's medical schools, provide funding for 600 postgraduate training positions to enable qualified international medical graduates who are Canadian citizens or landed immigrants to complete medical training requirements. Investment: $45 million per year for 3 years. [600 x $75k (approximate annual training cost per resident].*

(ii) Repatriating human capital - getting our Canadian physicians back home from the US

Canada has been a net exporter of physicians to the United States for a generation. As government funding for health care fell in the 1990s exports of Canadian physicians to the US rose. Last year was the first year in which Canada gained more physicians than it sent to the US. There is a window of opportunity to repatriate Canadian physicians from the United States. The quality of Canadian life, competitive remuneration packages and a practice commitment that is characterized by greater physician autonomy are many of the chief drawing points for such a campaign. As the Canadian dollar approaches US $0.90 advertising in the US has also become much more affordable.

Recommendation #2: *That Health Canada, in collaboration with Foreign Affairs Canada and provincial and territorial governments, carry out a direct ad campaign in the United States to encourage expatriate Canadian physicians and other health professionals to return to practice in Canada. <u>Investment</u>: A one-time investment of $10 million.*

(iii) Diligence on HHR

As Canada's population ages and as health care technology improves, demand for health care will increase. Health care in economic terms is a superior good: as the population's standard of living improves, so does the demand for superior goods.

But will this increased demand be met with an adequate supply of physicians to provide the kind of care Canadians need in a timely manner? Not likely, but we don't know for sure because Canada does not currently have a way to assess the ability of our medical schools to meet these future needs across the country.

An inadequate physician supply has important implications for human, physical and entrepreneurial capital in Canada's economy. If the physician supply is not properly aligned with the demographic needs of the population the result is a loss (calculations vary and depend on the individual) in potential human capital as patients postpone treatment or wait too long for treatment. Investments in future physical capital investments may also be misallocated or not made at all if the proper health human resources are not in place. In addition, entrepreneurial capital may also very well flow to places where the optimal health human resources are in place.

Why we need a Health Human Resources Reinvestment fund

Canada lags behind other countries in the education and training of physicians. For example, as of 2002-2003 there were 12.2 first-year medical school places per 100,000 population in England compared with only 6.5 per 100,000 in Canada. It should be added that the United Kingdom has aggressively expanded medical enrolment since the late 1990s by opening 4 new medical schools and increasing medical school intake by some 2,300 places (60%) between 1997 and 2004.

The CMA and other major national medical organizations have called on governments to increase medical school capacity to 3,000 first-year training positions per year in order to stabilize Canada's physician supply. With recent increases in positions at a number of medical schools, current indications suggest that we have reached about 2,300 positions per year. However, given the growing demand for health services and changing patterns of medical practice, it is likely that medical school capacity will have to be increased much more significantly. For example, if Canada were to move today to cap working hours on physicians to 48 hours per week as the European Union has done, Canada would be short a whopping 12,780 physicians.

Accordingly, as was done in the 1960s when the federal government introduced the Health Resources Fund, the CMA urges the federal government to create a Health Human Resource Reinvestment Fund in order to implement a needs-based, pan-Canadian, integrated health human resources plan based on the principle of self-sufficiency for Canada.

Recommendation #3: *That the Minister of Finance in collaboration with the Minister of Health allocate $1 billion over 5 years to a Health Human Resource Reinvestment Fund. This fund would be used to implement a needs-based, pan-Canadian, integrated health human resources plan based on the principle of self-sufficiency for Canada.* *Investment: $1 billion over 5 years.*

(iv) Creation of the Canadian Coordinating Office for Health Human Resources

At a broader level, there is also a need for continued coordination of pan-Canadian HHR needs for today and the future. Governments are investing very large sums of funding in health care without having the benefit of a national long-term health human resources strategy. Since health human resources are increasingly mobile in the global economy, it is essential that Canada's 14 provincial, territorial and federal health care systems devise a coordinated approach to training, recruiting and retaining health human resources.

The Canadian Coordinating Office for Health Human Resources would be modeled along the same lines as the Canadian Coordinating Office for Health Technology Assessment (CCOHTA) created in 1989. Presently, there is no overall national coordinating body to assist provinces and territories in the planning of health human resources, particularly one that includes all pertinent stakeholders including physicians and other health care professionals. Building on previous federal investments in health sector studies across a number of health disciplines, the CMA urges the federal government to establish a Canadian Coordinating Office for Health Human Resources involving representation from health care professions — something both the Romanow and Senator Kirby reports recommended.

Recommendation #4: *That Health Canada, in collaboration with the Department of Human Resources and Skills Development and the provincial and territorial governments, create the Canadian Coordinating Office for Health Human Resources to facilitate pan-Canadian planning of health human resource needs. Investment: $3 million per year.*

II. Equity: improving health infrastructure and technology to provide better care

(v) Freeing-up entrepreneurial capital and retaining physicians

Why the GST should not apply to physician practices

The CMA is calling on the federal government to remove an insidious tax on health by zero-rating[10] the GST on physician practices. The introduction of the GST was never intended to fall onto the human and physical capital used to produce goods and services. The GST is a value-added tax on consumption that was put into place to remove the distorting impact that the federal manufacturers sales tax was having on business decisions. However, the GST was applied to physician practices in a way that does exactly the opposite. The federal government must rectify the situation once and for all. Based on estimates by KPMG, physicians have paid $1.1 billion in GST related to their medical practice. This is $1.1 billion that could have been invested in better technology to increase care and productivity.

Re-investing the zero-rating of the GST for physician practices

Zero-rating the GST would initially cost the federal government $84 million[11] or 0.27% of total GST revenues for 2005/06. However, as physicians across Canada re-invest the zero-rated GST tax back into their practices — and especially in their patients — there would be considerable dividend back to the federal government in terms of healthier Canadians and a more efficient economy.

Zero-rating the GST for physician practices is about properly calibrating the tax system with the health care delivery system, in order to help meet our national health and economic goals.

Dispelling the myth of a GST precedent

Some bureaucrats and politicians believe that zero-rating the GST for physician practices may set a precedent. In fact, the precedent has already been set: significant elements of publicly-funded health care are already zero-rated or qualify for a rebate on GST. For example, prescription drugs, a significant and growing driver of total health care costs, have been zero-rated since 1996. Hospitals have benefited from an 83% rebate since the inception of the GST, and the 2005 budget extended the reach of this rebate to not-for-profit organizations delivering services that were previously delivered in the hospital setting. In addition to hospitals, rebates have been extended to other public and para-public sectors such as municipalities, universities and schools (the so-called "MUSH" sector). The 2004 federal budget confirmed that municipalities would be able to recover 100% of the GST and the federal component of the harmonized sales tax (HST) immediately.

Recommendation #5: *That the Minister of Finance introduces legislation to amend the federal Excise Tax Act to zero-rate the Goods and Services Tax (GST) on physician practices.*
Investment: $84 million per year or 0.27 % of total $31.5 billion GST revenues in 2005/06.

(vi) Electronic Medical Record — increasing health and productivity

In the words of Finance Minister Goodale, "Top-notch physical infrastructure is essential to a successful economy and a rising quality of life." To be sure, Canada needs better highways, bridges and sewer systems. We need this basic infrastructure to enjoy a basic quality of life. But we want more than a basic life. To achieve a higher quality of life and to ensure international competitiveness, Canada needs to invest in the infrastructure of the 21st century, this is e-infrastructure. A pan-Canadian Electronic Medical Record (EMR) would deliver higher quality care, faster and at higher value.

> *".. If supported and promoted, these (IT) efforts could provide key insights into clinical best practices and substantially reduce administrative costs.."*
> Chairman Allan Greenspan,
> Testimony to the US House Budget Committee.
> March 12, 2005.

An EMR will save lives and improve efficiencies

When investments in health are aligned with technology at the right time, they can as Federal Reserve Chairman Allan Greenspan suggest, "provide key insights into clinical best practices and substantially reduce administrative costs."

Health care delivery in Canada is a $130 billion industry. It represents more than 10% of our country's gross domestic product. And it continues to grow. Yet we are managing the system with technology that would have been unacceptable to the banking industry even 20 years ago.

Studies show[12] that the sooner we have a pan-Canadian EMR in place, the sooner the quality of health care will improve. For too long Canada has lagged all major industrialized countries in adopting an EMR (see Table 2).

Table 2 Canada has fallen behind in EMR investments

Percent of physicians using electronic records and prescriptions		
Country	Records	Prescriptions
Britain	59%	87%
New Zealand	52%	52%
Australia	25%	44%
United States	17%	9%
Canada	14%	8%

Harris Interactive Survey (2001) conducted for Harvard School of Public Health and the Commonwealth Fund's International Health Care Symposium.

An adequate health information infrastructure with pan-Canadian connectivity

With an initial investment of $1.2 billion, Canada Health Infoway (CHI) has been working with provincial and territorial governments to put in place key components of a pan-Canadian health information infrastructure. While significant investments have been made in provincial and territorial health information systems, two key concerns have emerged. First, the $1.2 billion investment in CHI, while significant, is only 15% of the estimated cost of implementing a fully interoperable electronic medical record system in Canada. Second, CHI has made very limited progress in building a common, secure and interoperable platform - the backbone of a pan-Canadian system. Accordingly the CMA endorses the recommendations put forward by the Association of Canadian Academic Healthcare Organizations (ACAHO), the Canadian Nurses Association and the Canadian Healthcare Association to provide CHI with significant funding so that it may fulfill its core mission.

Empowering investments in e-entrepreneurship for better health

One of the gaps in the pan-Canadian EMR is the lack of attention paid to health information infrastructure on the front lines of health care delivery. While medical services across the country are largely publicly – funded, most physicians run their own practices. As entrepreneurs doctors take on the responsibility and risk of investing in new capital equipment from diagnostics to EMRs. Like any other business, doctors must calculate the return on investment for any capital equipment that they buy. In the case of the EMR, most of the return benefits the government, according to a Center for Information Technology Leadership in the United States[13].

A physical capital investment in an EMR improves care and deepens entrepreneurial capital

By making all relevant patient information immediately available at the time of any encounter, and by providing equally rapid access to general medical information that assists in clinical decision-making, an EMR significantly enhances a clinician's ability to make good decisions, which will reduce medical errors and their associated costs. The timeliness of information also means that diagnoses are made more quickly, which significantly reduces the amount of time that patients need to spend using costly hospital beds or emergency room resources. Further cost reductions come from diminished duplication: all too often, time is lost and money is spent repeating diagnostic tests that were recently done but whose results are unavailable.

Recovery of health information technology investments is almost immediate

A Booz, Allan, Hamilton study on the Canadian health care system estimates that the benefits of an EMR could provide annual system-wide savings of $6.1 billion, due to a reduction in duplicate testing, transcription savings, fewer chart pulls and filing time, reduction in office supplies and reduced expenditures due to fewer adverse drug reactions. The study went on to state that the benefits to health care outcomes would equal or surpass these annual savings.

Mobilizing physicians to operationalize a pan-Canadian EMR

The physician community can play a pivotal role in helping the federal governments make a connected health care system a realizable goal in the years to come. Through a multi stakeholder process encompassing the entire health care team, the CMA will work toward achieving cooperation and buy-in. This will require a true partnership between provincial medical associations, provincial and territorial governments and CHI.

The CMA is urging the federal government to allocate an additional investment of $1.5 billion to Canada Health Infoway. Criteria would be set for the fund that would restrict investment to automating physician offices through an agreement between the medical division and the appropriate province or territory. The $1.5 billion federal investment would be leveraged on the basis of a 75:25 sharing with physicians to generate $1.5 billion in physician office automation investment over the next 10 years. Specific modalities of disbursements of these funds would be set up by agreements with the provincial medical associations. CHI already has stringent financial controls and processes in place and can extend them to manage this program.

Recommendation #6: *That the Minister of Finance in collaboration with the Minister of Health provides additional financial support to Canada Health Infoway, to realize the vision of a secure interoperable pan-Canadian electronic medical record, with a targeted investment toward physician office automation.*
Investment: $1.5 billion over 10 years.

(vii) Alleviating medical resident debt — extend the interest relief on Canada student loans for medical residents

Medical students are accumulating unprecedented levels of debt as tuition fees for medical school continue to sky rocket. The increase in debt influences the kind of practice young physicians pursue as well as where they practice. The Canadian Medical Association commends the federal government for its commitment to reduce the financial burden on students in health care professions as announced in the 2004 FMM Agreement and encourages it to act on this promise by extending the interest relief on Canada student loans for medical residents. Extending the interest relief on Canada student loans for medical residents would avoid distorting medical students' career choices and encourage new graduates to stay in Canada.

Deregulation of tuition => increased debt burden => drag on entrepreneurship

It wasn't always this way. The deregulation of medical school tuition fees in some provinces dramatically increased the debt burden of medical students. It is important to note that medical residents are in a unique situation not faced by other students who graduate from university programs. Once students graduate from medical school, they earn the right to be called physicians. However, they cannot practice until they complete a residency program. The program, which takes between 2-10 years to complete, certifies them as a specialist in a number of disciplines ranging from family medicine to radiology to rheumatology. During the compulsory residency program they must act as both student and employee. Table 1 includes the annual salary of medical residents and fellow hospital employees. Medical residents are not paid by the hour; otherwise their wages would be higher as there is no limit on the hours (80+) they work.

Table 1. Medical residents learn a lot but don't earn a lot
Resident stipend versus fully qualified health care employees

Status, Ottawa, Ontario	Annual Stipend or Fulltime Salary (as applicable)	Minimum Postsecondary Education Requirement	Minimum Related Experience Requirement
Ontario Resident, PGY-1 (national average is $42,862)	$ 44,230	7 + years	7+ years related clinical and other experience acquired through undergraduate medical education and pre-professional experiences, including clerkships, electives, etc.
Locksmith/Door Mechanic, Ottawa Hospital	$44,051	None. High school diploma required and a course or certificate in locksmithing	5-years relevant experience
Supervisor of Housekeeping, Ottawa Hospital	$ 41,165 - $48,000	2 years OR certified member of the OHHA CAHA, or related	3-years general supervisory experience

The Cost of under-investing in medical residents hits rural Canada hard

As medical debt increases more physicians are choosing to go into some specialties (remunerated at a much higher rate) as opposed to family medicine. This has an impact on the accessibility, quality and overall cost of the health care system. Family practitioners are on the front-lines of medical care, and they treat and prevent millions of illnesses across Canada every year. The fall in demand for family practice in general, and rural family practice in particular, is now having a significant impact on health care and economic performance. The lack of a local family physician is often a determining factor in a company's decision to make a direct investment in a community. For example, a multi-national company would likely not invest in a multi-billion dollar ski hill if there were no doctors available to treat ski related accidents.

Improving access to medical education

Canada's future depends on ensuring that all Canadians have access to our medical schools. This sentiment was recently echoed by Finance Minister Ralph Goodale,

> *"...but such skills are still confined to a minority of our population. We must do better. Canada's future depends upon it."*

Extending the interest-free status on Canada student loans would be an important signal to young Canadians from all socio-economic backgrounds that want to become a doctor. Drawing from a smaller portion of the population limits the experience and variety of community contact. Specific knowledge of a patient group allows a future physician adapt their care for that group. Thus, we should be graduating residents from all across the country from diverse socio-economic backgrounds. This is not unlike an entrepreneur who by tailoring services to a clients need that were previously unmet delivers better service and captures market share.

Recommendation #7: *That the Department of Human Resources and Skills Development introduce changes to the Canada Student Loans Program to extend the interest free status on Canada student loans for medical residents pursuing postgraduate training. Investment: $5 million per year.*

(viii) Making medical research investments count – supporting knowledge transfer

The Canada Institutes of Health Research (CIHR) was created to be Canada's premier health research funding agency. One of the most successful aspects of the CIHR is its promotion of inter-disciplinary research across the four pillars of biomedical, clinical, health systems and services as well as population health. This has made Canada a world leader in new ways of conducting health research. However, with its current level of funding, Canada is significantly lagging other industrialized countries in its commitment to health research. Knowledge transfer is one of the areas where additional resources would be most usefully invested.

Knowledge Translation (KT), a prominent and innovative feature of the CIHR mandate, has the potential to:

- Significantly increase and accelerate the benefits flowing to Canadians from their investments in health research; and
- Establish Canada as an innovative and authoritative contributor to health-related knowledge translation.

Population and public health research is another area where increased funding commitments would yield long-term dividends.

For example, "*Researchers (and research funders) should create more opportunities for interactions with the potential users of their research. They should consider such activities as part of the 'real' world of research, not a superfluous add-on."*(Lavis et al., 2001)[14]

Recommendation #8: *That the Minister of Finance in collaboration with the Minister of Health increase the base budget of the Canadian Institutes of Health Research to enhance research efforts in the area of population health and public health as well as significantly accelerating the pace of knowledge transfer. Investment: $600 million over 3 years.*

III. Effective - an ounce of prevention is worth a pound of cure

A little preparation before a crisis occurs is preferable to a lot of fixing up afterward. According to the World Health Organization and the Public Health Agency of Canada (PHAC) an influenza pandemic is inevitable. The consequences of not being adequately prepared will result in more lost lives and a multi-billion dollar hole in our economy, as was the experience in Toronto as a result of SARS in 2003. Looking ahead, PHAC estimates that the impact of pandemic influenza in Canada, if vaccines are not available, is between 11,000 and 58,000 deaths and economic costs of $5 to $38 billion.

(ix) Protecting our capital infrastructure through emergency preparedness

When SARS hit Canada in the spring of 2003 people got very sick and died. There was public confusion that quickly spilled into the economy. Internal and external trade in Canada was disrupted. According to the Conference Board of Canada the economic impact of the outbreak of SARS in the Greater Toronto Area equaled $1.5 billion. Investments in public health and emergency preparedness will allow the system to function more effectively and alleviate the impact of novel infectious diseases. We have expert advice how to do it – the Naylor Report.

Reduce the economic burden of pandemics — close the Naylor Gap

The National Advisory Committee on SARS and Public Health (the Naylor Report) estimated that approximately $1 billion in annual funding is required to implement and sustain the public health programming that Canada requires. Although representing an important reinvestment in this country's public health system, the funding announced in the 2005 budget falls well short of this basic requirement. Dr. Jeffrey Koplan[15], the past Director of the US Centers for Disease Control and Prevention laid out 7 areas for building capacity and preparedness within a public health system:

1. A well trained, well staffed public health workforce.
2. Laboratory capacity to produce timely and accurate results for diagnosis and investigation.
3. Epidemiology and surveillance to rapidly detect health threats.
4. Secure accessible information systems to help analyze and interpret health data.
5. Solid communication to ensure a secure two-way flow of information.
6. Effective policy evaluation capability.
7. A preparedness and response capability that includes a response plan and testing and maintaining a high state of preparedness.

These points apply for both the day-to-day functioning of the public health system and its ability to respond to threats whether it is a new infectious disease, a natural disaster or a terrorist attack. Public health must be ready for all such threats.

It is crucial, that the federal government build and maintain its stockpile of supplies for emergency use, its public health laboratories for early detection, its capacity to rapidly train and inform front-line health workers of emerging threats, its ability to assist the provinces and territories, and coordinate provincial responses in the event of overwhelming or multiple simultaneous threats.

Vaccination is the most cost-effective health intervention available

When a pandemic hits Canada vaccinations are a key component in reducing the impact. According to the Centers for Disease Control and Prevention (CDC) vaccination against childhood diseases is one of the most cost effective health interventions available. For example the measles-mumps-rubella vaccination saves $16.34 in direct medical costs for every dollar spent. The CMA urges the federal government to continue to support the National Immunization Strategy and the consistent availability of National Advisory Committee on Immunization recommended vaccines in all provinces and territories.

A clear role for federal leadership – protecting our future

The idea that public health is a federal responsibility "is based on the premise that public health matters - particularly emergencies - are so important that the federal government should simply use its powers for *"peace, order and good government"* to unilaterally direct how public health matters should be addressed, and to ensure they are fully addressed."[16] Consequently, the CMA recommends the enactment of a Canada Emergency Health Measures Act that would consolidate and enhance existing legislation to allow for a more rapid national response in cooperation with the provinces and territories, based on a graduated systematic approach to emergencies that pose an acute an imminent threat to human health and safety across Canada.

Regardless of how well prepared any municipality is, under certain circumstances public health officials will need to turn to the provincial, territorial or the federal government for help. The success of such a multi-jurisdictional approach is contingent upon good planning beforehand between the federal, provincial and territorial and local-level governments.

There is an important role for the federal government to urgently improve the coordination among authorities and reduce the variability between various response plans in cooperation with provincial authorities.

Public health investments take time

Public health must be funded consistently in order to reap the full benefit of the initial investment. Investments in public health will produce healthier Canadians and a more productivity workforce for the Canadian economy. But this takes time. By the same token, neglect of the public health system will cost lives and hit the Canadian economy hard.

As the federal government examines ways of achieving efficiencies and cost savings in federal programs through the Cabinet Committee on Expenditure Review it is critical that the Public Health Agency of Canada be protected from any cuts.

Recommendation #9: *In order to ensure that adequate emergency preparedness and public health capacity is built at both federal and provincial levels, the federal government should provide sustained additional funding, to the Public Health Agency of Canada, and exempt it from expenditure review contributions. Investment: $684.3 million over 3 years (details in Appendix 1).*

(x) Investments in effective public health communication are crucial

The effectiveness of the public health system is dependent, in large part, on its capacity to communicate authoritative information in a timely way. A two-way flow of information between public health experts and the practicing community is necessary at all times. It becomes essential during emergency situations.

The rapid, effective, accessible and linked (REAL) health communication and coordination initiative improves the ability of the public health system to communicate in a rapid fashion by:

- Providing a focal point for inter-jurisdictional communication and coordination to improve preparedness in times of emergency.
- Developing a seamless communication system leveraging formal and informal networks.
- Researching the best way to disseminate emergency information and health alerts to targeted health professionals and public health officials in a rapid, effective and accessible fashion.

Recommendation #10: *That Health Canada and the Public Health Agency of Canada provide a one-time infusion of $100 million, to improve technical capacity to communicate with front-line public health providers in real-time during health emergencies. A one time investment of $100 million.*

Conclusion — the economic impact of investments in health care

The CMA's pre-budget submission has presented the facts on how investments in physical, human and entrepreneurial capital can enhance our health care system and, in turn, make our economy more productive. Improvements in the quality of care, and especially speed of care, enable the Canadian labour increase their performance and reach their potential. The 2004 First Minister Health Accord is a positive step in renewing the federal government's commitment to publicly funded health care, more needs to be done. Like the human body, that is always evolving, the health care system needs to be calibrated for optimal performance. Targeted investments in health human resources as well as health care infrastructure will result in an optimal allocation of resources, better health and a stronger economy.

Appendix 1

	CMA's 10 point productivity plan (in millions of dollars)	2006/07	2007/08	2008/09	3-year Total
	Efficiency				
i.	Improving access -opening-up training positions for International Medical Graduates	45.0	45.0	45.0	135.0
ii.	Repatriating our human capital -getting Canadian physicians home from the U.S.	10.0	0.0	0.0	10.0
iii.	Health Human Resource Reinvestment Fund*	100.0	200.0	300.0	600.0
iv.	Creating the Canadian Coordinating Office for Health Human Resources	3.0	3.1	3.2	9.3
	Efficiency total	158.0	248.1	348.2	754.3
	Equity				
v.	Freeing-up entrepreneurial capital -zero-rating the GST on physician practices	84.0	86.1	88.3	258.4
vi.	Investing in physical and human capital through physician office automation (CHI transfer)**	1,463.7	0.0	0.0	1,463.7
vii.	Providing debt-relief to medical residents - an investment in human capital	5.0	5.1	5.3	15.4
viii.	Making health research investments count -supporting knowledge transfer	100.0	200.0	300.0	600.0
	Equity total	1,652.7	291.2	393.6	2,337.5
	Effectiveness				
ix.	Planning for the worst -pandemic preparation	25.0	25.0	25.0	75.0
	Closing the Naylor Gap	75.0	150.0	250.0	475.0
	Protection from expenditure review committee reductions***	16.4	17.9	0.0	34.3
x.	Ensuring effective public health communication	100.0	0.0	0.0	100.0
	Effectiveness total	216.4	192.9	275.0	684.3
	Total	2,027.1	732.2	1,016.8	3,776.1

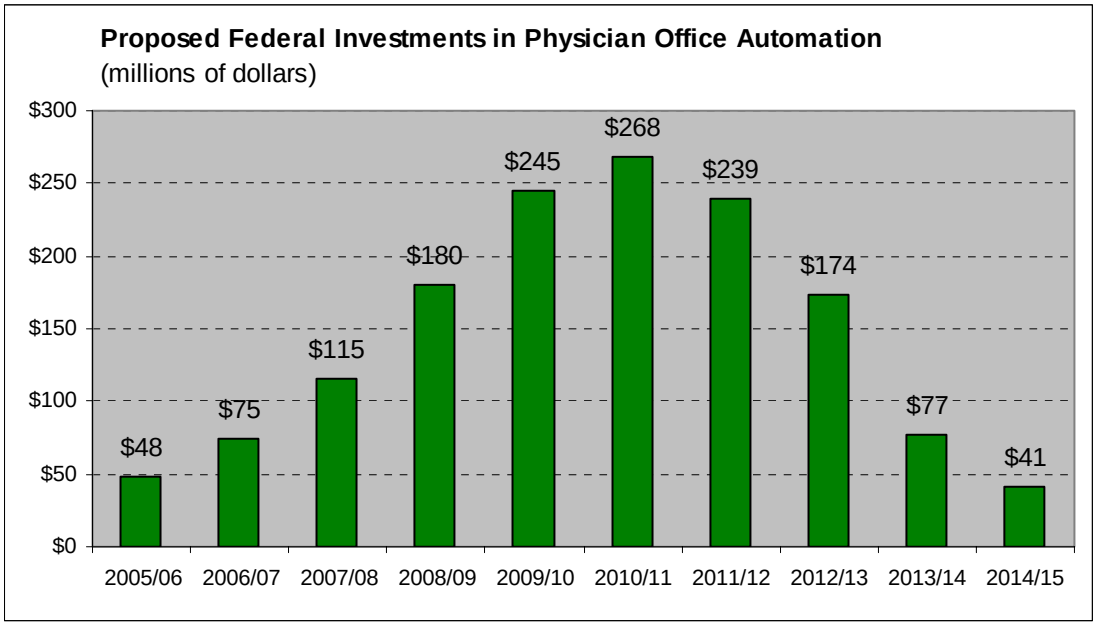
* Note: additional 2 years of funding at $200 million per year.

** Note: the physician office automation financing plan is a 1-time transfer to Canada Health Infoway (CHI).
CHI would deliver funding directly.
Estimates are based on information from CHI (October 2005).

*** Working Group on a Public Health Agency for Canada In Report: A Public Health Agency of Canada Ottawa: Public Health Agency of Canada; Apr 2004.
Available: www.phac-aspc.gc.ca/rpp-2005-06/index.html#2b (accessed Oct 2005).

Appendix 2

10 year Costing of the Physician Automation



1. There are approximately 60,000 licensed physicians in Canada. It is estimated that 20% already have an Electronic Medical Record (EMR) in their clinical office. Therefore this costing analysis is to support the other 48,000 physicians to automate their offices.

2. The cost to automate an office is based on the work carried out by the Alberta government and the Alberta Medical Association through the Physician Office Support Program (POSP).They have used a four year cost of $41,000 which covers capital, installation, training and operational costs over the four years. First year costs are $26,000 with $5,000 over the remaining three years.

References

[1] Ralph Waldo Emerson (1803–1882), essayist, poet, philosopher. "Power," The Conduct of Life (1860).

[2] According to the Royal Institute of International Affairs who also quote two Nobel Laureates in Economics. In, Health Expenditure and Investment Rather than a Cost? International Economics Program, Chatham House. 07/05.
Available: www.chathamhouse.org.uk/index.php?id=189&pid=245 (accessed Oct 2005).

[3] The additional economic activity generated by the health care sector is based on a conservative 1.5 multiplier. The CMA is pursuing precise estimates of the benefits of health care investments in Canada.

[4] *Learning from SARS - Renewal of Public Health in Canada* A report of the National Advisory Committee on SARS and Public Health. Ottawa: Health Canada; Oct 2003. Available: www.phac-aspc.gc.ca/publicat/sars-sras/naylor/(accessed October 2005)
[5] [5] Cooper S. *Don't fear fear or panic panic an economist's view of pandemic flu* Toronto: BMO Nesbitt Burns; October 2005. Avalable www2.bmo.com/news/article/0,1257,contentCode-5047_divId-4_langId-1_navCode-112,00.html

[6] ibid

[7] According to the Royal Institute of International Affairs who also quote two Nobel Laureates in Economics. In, Health Expenditure and Investment Rather than a Cost? International Economics Program, Chatham House. 07/05. Available: www.chathamhouse.org.uk/index.php?id=189&pid=245 (accessed Oct 2005).

[8] The additional economic activity generated by the health care sector is based on a conservative 1.5 multiplier. The CMA is currently pursuing precise economic multiplier estimates of the benefits of health care investments in Canada.

[9] The CMA and the Canadian Nurse Association go into greater depth concerning the pressures on a strategy for HHR in, "Planning Framework for Health Human Resources. A Green Paper. June 2005
Available: www.cna-nurses.ca/CNA/documents/ pdf/publications/CMA_CNA_Green_Paper_e.pdf.

[10] Zero-rated supplies refer to a limited number of goods and services that are taxable at the rate of 0%. This means there is no GST/HST charged on the supply of these goods and services, but GST/HST registrants can claim an input tax credit (ITC) for the GST/HST they pay or owe on purchases and expenses made to provide them. Available: www.cra-arc.gc.ca/tax/business/topics/gst/glossary-e.html (accessed September 2005)

[11] An independent study by KPMG estimated that physicians have "overcontributed" in terms of unclaimed ITCs by approximately $57.2 million in 1992. In 2005, this comes to an inflation adjusted figure of $84 million.

[12] Booz, Allan, Hamilton Study, Pan-Canadian Electronic Health Record, Canada's Health Infoway's 10-Year Investment Strategy, March 2005-09-06

[13] The Center for Information Technology Leadership (www.citl.org) is non-profit research organization established in 2002 to guide the health care community in making more informed strategic IT investment decisions.

[14] Lavis, J., Ross, S., Hurley, J., Hohenadel, J., Stoddart, G., Woodward, C., Abelson, J. Reflections on the Role of Health-Services Research in Public Policy-Making. Paper 01-06.

[15] Koplan JP. *Building Infrastructure to Protect the Public's Health.* Public Health Training Network Broadcast Available: www.phppo.cdc.gov/documents/KoplanASTHO.pdf (accessed Oct 2005).
[16] Report: A Public Health Agency for Canada *Building a Foundation for Intergovernmental Harmony and Cooperation* Available: www.phac-aspc.gc.ca/publicat/phawg-aspgt-noseworthy/2_e.html (accessed Oct 2005)