SIGNPOSTS FOR NURSING

THE CANADIAN NURSES ASSOCIATION LOOKS AHEAD

CANADIAN NURSES ASSOCIATION
ASSOCIATION DES INFIRMIÈRES ET INFIRMIERS DU CANADA

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INTRODUCTION – "ACCESS, ACCESS, ACCESS!"

One hundred years after the Canadian Nurses Association (CNA) was founded, on October 8, 1908, the overarching issue of providing access to timely, appropriate, safe, quality, publicly funded health-care services that improve the health of Canadians is still *the* fundamental issue underpinning the central purpose of Canadian nursing and is the first line of business of CNA. It is directly related to our numbers in the workforce and the way we're recruited, deployed, educated, rewarded and regulated. This array of variables plays out both within Canada and internationally and has direct implications for CNA at its policy, program and operations levels.

During this decade, Canada's population, and hence its demand for nursing services, has continued to grow steadily. At the same time, supplies of nurses and physicians are still trying to catch up to 1990s levels – and all of this just as the eldest baby boomers ease toward retirement or are already enjoying it. Policy decisions led to the loss of some 40 per cent of the student seats in Canada's schools of nursing between 1990 and 1999, strangling the supply of new candidates. In tandem with the aging baby boomers, we are paying a very high price for those policy choices. Already for each nurse under the age of 35 there are nearly two over the age of 50 (Canadian Institute for Health Information [CIHI], 2007a); the demographic "silver tsunami" we've all talked about for more than a generation is well formed in the nursing workforce. Our physician colleagues are rowing a similar boat.

Canada's access problems continue to play out in media stories about the lack of family doctors, cancelled surgeries, nursing shortages, patients who have been transferred great distances (even out of the country) for care, closed emergency rooms and unacceptable wait times for various aspects of care. Some things have improved, and satisfaction with actual care experiences (versus perceptions of what they might be) is quite high when we

look at specific hospitals. But evidence of system-wide transformation is spotty indeed. If the trend continues, what will it mean for access to care a decade from now, and what innovative solutions might nurses bring to the table today to break the cycle?

The 2007 *Health Care in Canada* (HCIC) *Survey* (in which CNA is a partner) found that *wait times* constituted the most important health issue among the public (Association of Canadian Academic Healthcare Organizations et al., 2007). For example, 49 per cent of the members of the public surveyed believe that *access to family doctors* has worsened. The CBC *NewsWorld* documentary "Desperately Seeking Doctors," which aired January 19, 2008, confirmed that worry, stating that 5 million Canadians now have no access to a family doctor. However, Sanmartin and Ross (2006) discovered that although people who did not have a family physician had more difficulty accessing routine care than those who did have one, both groups were equally likely to experience difficulties in accessing "immediate" care.

According to the HCIC, "health-care providers surveyed similarly considered *wait times* and *doctor shortages* to be the most critical health-care issues; however, hospital managers and administrators also see *availability/accessibility* (20 per cent) as a key issue, and both managers and administrators (17 per cent) and nurses (16 per cent) feel a *lack of health-care providers in general* is an important issue facing our health-care system" (p. 5; italics in original). Members of the public responding to the 2007 HCIC survey supported the notion of attracting and educating more nurses and doctors.

The issue of availability/accessibility is echoed in the 2008 report *Fixing the Foundation: An Update on Primary Health Care and Home Care Renewal in Canada* by the Health Council of Canada. The report states that "too many Canadians" (p. 6) had difficulty getting care for a minor health problem (24%) or routine care (26%). And more than one-third (39%) of the 24% of Canadians who visited an emergency department in the prior year said it was for a condition that could have been treated by their primary care provider if he or she had been available.

Governments and the education system have responded. Since the implementation of *The Nursing Strategy for Canada* (Advisory Committee on Health Human Resources, 2000), for example, the number of seats in schools of nursing has increased significantly; and that's reflected in the growing number of writers of the Canadian Registered Nurse Examination (CRNE). Signs of further growth are promising. In February 2008 in Alberta, Premier Ed Stelmach announced that, if re-elected, the government would increase medical school

enrolments by 50 a year. Nursing school enrolment would be increased as well, with the intention of graduating an additional 350 registered nurses (RNs) and 220 licensed practical nurses a year ("Alberta to Scratch Health Premiums," 2008).

But there is a big "if" attached to such plans. Finding candidates and creating spaces are not the only barriers. With some 40 per cent of nursing faculty now over the age of 50, the long-predicted shortage of nursing faculty is already affecting the number of students that can be accepted by schools of nursing. At the same time, finding sufficient and appropriate clinical placements is a growing challenge. One solution is virtual-reality simulation technology, but it is found only here and there across the country.

Fortunately, innovative and tangible solutions are on the horizon, if we harness the best of the predicted revolution in learning. We have not yet made that leap across the broader education sector. Futurists tell us that learning in the near future will be largely e-based (e.g., computer, television, satellite, Internet), interconnected (with thousands – maybe millions – of learners), interactive, multimedia and multidimensional in content, and dominated by self-paced, self-directed individualized virtual learning. In an important shift from 2008, future teachers and students will prefer "on-demand virtual learning to traditional school programs" (Institute for Global Futures, 2008). In light of rapidly advancing robotics and artificial intelligence, there is even increasing talk of "teachbots" (along with clinical "nursebots," "docbots" and "dentbots") that will assist in learning, guide learners and reduce the pressure on the smaller cadre of human professors.

So there is hope down the line. However, in the here and now, we seem to have reached a sort of logjam from which it is going to be difficult to extricate ourselves with finesse or speed. If our only solution (or our *main* solution) to problems of access is a call for "more nurses, more doctors," then we are going to leave the Canadian public sorely lacking in services over the coming 20 years. And consumers are calling not just for better access but for access to faster, new and different kinds of services and health solutions. Many of these solutions have not yet even been discovered. "More of the same" is not going to cut it in a century in which consumer health information, accessible instantaneously over a variety of net channels, is set to become the most in-demand content worldwide (Institute for Global Futures, 2008).

Fortunately, some leaders are pushing forward. CNA has been an important voice shaping that dialogue through the futures work it has led since 2004. Possible solutions brought forward include new roles for nurses, new community- and health-focused delivery

models, new ways of educating nurses, new ways of finding and sharing evidence to inform decisions and new ways of thinking about protecting the public.

The Canadian public's views on the approach required for our health-care system are similar to those of a decade ago (Association of Canadian Academic Healthcare Organizations et al., 2007): 58 per cent feel that the system needs either some fairly major repairs (41 per cent) or a complete rebuilding from the ground up (17 per cent). Among providers, nurses (69 per cent) are most likely to believe that the health-care system needs at least some fairly major repairs, followed by managers and administrators (66 per cent), doctors (62 per cent) and pharmacists (52 per cent). CNA has laid down thinking about system redesign, ranging from tuning up to rebuilding from the ground up (Villeneuve & MacDonald, 2006). A key challenge now is to identify the issues that CNA will take on in its policy and program work and choose the best strategic directions among so many possible routes forward.

Access Challenges and Disparities

Mowat and Butler-Jones (2007, p. 36) have characterized the problem of disparities as just one of a roster of Canadian public health challenges that "show no signs of diminishing." When access to care is impeded, our most vulnerable fellow citizens suffer disproportionately. The mortality rate among First Nations infants in Canada, for example, mirrors that found among the lowest-income groups in urban settings, with a greater risk of infant death relative to high-income groups. One in six Canadian children is raised in poverty; the numbers are even higher for children living in First Nations communities (one in four children) and in recent immigrant families (one in two children) (Campaign 2000, 2007). Nearly half of all aboriginal Canadians living outside of First Nations communities are being raised in poverty (Campaign 2000, 2007). They die at younger ages than the general population and are less healthy while they are alive. Rates of diabetes are three to five times higher than among the general population (Health Canada, 2007a). Furthermore, in a study comparing disease-specific mortality rates for indigenous and non-indigenous populations, Canadian First Nation peoples had higher mortality rates for intentional self-harm, pneumonia and influenza, diabetes mellitus and assault (Bramley, Hebert, Jackson & Chassin, 2004). And among First Nations communities, 20 to 25 per cent of community water and basic sanitation services are so dangerous or underserviced that they threaten human health (Campaign 2000, 2002).

With nearly a fifth of Canadians born outside the country (Statistics Canada, 2007), and our aboriginal populations being our only source of natural population increase, what is the message to us as a nation that these are our poorest citizens and suffer the worst outcomes? The human costs are alarming and should be unacceptable in a modern nation that is one of the world's 10 wealthiest. The fiscal costs are just as worrying: for example, Quebec reports that fully 20 per cent of its hospital costs are directly attributable to citizens growing up in poor living conditions (CBC News, 2007). What is the impact on our shared productivity, vibrancy and future *together* if these kinds of disparities are allowed to go on?

These problems are not confined to our borders, of course. To the south, in the United States, the wealthiest nation in history, outcomes for indigenous peoples are equally bleak on many measures. For example, the Indian Health Service (2006) notes that "American Indians and Alaska Natives die at higher rates than other Americans from tuberculosis (600 per cent higher), alcoholism (510 per cent higher), motor vehicle crashes (229 per cent higher), diabetes (189 per cent higher), unintentional injuries (152 per cent higher), homicide (61 per cent higher) and suicide (62 per cent higher)." Controlling for insurance and other access issues, the Institute of Medicine (2002) documented significant, often staggering, disparities across a wide range of health and illness services that are based solely on racial and ethnocultural variables. Discrimination was the only explanatory variable. While worrying disparities along racial lines are less systematically documented here in Canada, similar evidence has nevertheless emerged (Beiser & Stewart, 2005; Health Disparities Task Group of the Federal/Provincial/Territorial Advisory Committee on Population Health and Health Security, 2004).

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Globally, encouraging signs are set against alarming disparities. For example, *The Economist* notes that, driven by improvements in China and India, global poverty has actually been reduced ("Briefing: The world's silver lining," 2008). As a result, fewer children are dying each year before the age of five, life expectancy has increased marginally in low- and middle-income countries, and global literacy has improved significantly over 1975 levels. What is more, fertility rates – although still too high for the safety of women in many nations – are down overall as women have more control over fertility or public policy mandates them to have fewer children. The report notes a dramatic exception in sub-Saharan Africa, perhaps the place on earth that can least afford high fertility rates.

Assessing progress toward the Millennium Development Goals, the World Health Organization (WHO, 2008a) reports that maternal mortality, for example, is declining too slowly, and concludes that "pregnancy and childbirth are still dangerous for most women" (WHO, 2008a, p. 8). Globally, 400 mothers die for every 100,000 live births (the maternal mortality ratio). This number is just nine among developed countries but rises to 450 in developing nations and to 900 in sub-Saharan Africa. The gaps in services in developing countries that could eliminate disparities in maternal, neonatal and child health services range from 20 per cent to 70 per cent, depending on the country examined. Importantly to nursing in Canada and around the world, many of the services required to provide safe maternal and infant care are fairly straightforward and inexpensive and could be provided by nurses.

Beyond racial and income barriers, many Canadians, including indigenous peoples, are affected by the country's challenging geography. Canada is the world's second largest nation and one of its least densely populated. In the most extreme example, Nunavut, which is about the size of Western Europe, is home to only 31,000 people. How do we provide care that honours the spirit of the *Canada Health Act*, given that geography and population distribution? Canada's population balance continues to lean heavily in the direction of cities, where jobs are concentrated. Further, we have no natural population growth, and although evidence is emerging to suggest a change in immigration patterns toward smaller centres (Proudfoot, 2008), historically the majority of immigrants to Canada have moved into one of five cities (Toronto, Montreal, Vancouver, Calgary or Edmonton). What are the implications for health care in rural Labrador, small towns in Ontario or the Yukon Territory?

Enticing recruitment packages have barely made a dent in the challenge of providing sustainable primary health-care services to many rural and remote Canadian communities over the past decade. In the most extreme instance, Northern First Nations, Inuit and Métis communities continue to suffer crippling shortages of nurses and are able to attract very few other health-care professionals. Requiring health-care providers to work in geographically underserviced areas does not seem to hold much promise: only 5 per cent of physicians, 15 per cent of pharmacists and 17 per cent of nurses would support that strategy, according to the HCIC survey. There is no indication that the Generation X or millennial workforces are eager to reverse those trends.

ACCESS ENABLERS AND BARRIERS ON THE HORIZON

Given the kinds of public responses and access challenges outlined above, let's look at the highlights among the trends and emerging issues that are likely to affect nursing, and in turn CNA's policy and business decisions, as we head into our second century.

The Global Economy

After enjoying years of the most robust economic engine in the Group of Eight (G8), Canada is now experiencing a downturn in the economy, watching the mortgage and housing collapse in the neighbouring United States, and seeing global prices for food and fuels skyrocket, all of which has left Canadians feeling more than a bit anxious. The "recession" language lurking in the background for months is now less covert, even though the Conference Board's summer 2008 report remained upbeat about Canada's economy.

In his 2007 year-end column, *BusinessWeek* senior editor James C. Cooper wrote, "if a recession were imminent, there would be clearer signs by now" (p. 14). Governments and some leading economists were giving signals through the past winter that Canada would weather the worst of the neighbouring American recession. Six months later, however, there is less confidence in the language about the shape of things to come over the next couple of years. *BusinessWeek*, for example, has expressed great worry about what lies ahead and described as "horrifying" the price drop in the U.S. City Home Price Index – the largest decrease since the early 1940s (Coy & Der Hovanesian, 2008). In a February 2008 article, the same publication cautioned that "Americans accustomed to cheap and easy money – and an economy geared to their free-spending ways – face a harsh new reality as banks raise rates and lower ceilings on credit cards" (Der Hovanesian, Palmeri, Byrnes & Silver-Greenberg, 2008).

In its summer 2008 economic forecast, the Conference Board of Canada stated that "the general rise in commodity prices may be here to stay" (2008, p. 1). The report also notes

that "the recent weakness [a decline in real gross domestic product (GDP)] is due to a slowdown in U.S. demand for Canadian goods, especially autos – and because the recovery in U.S. demand is expected to be slow and arduous, growth in real exports for this year and next has been revised down significantly."

Since that report was written, there has been a further collapse of the automotive industry on the lines and in management offices here in Canada and in the United States (especially affecting General Motors). In the second-largest bank failure in the history of the U.S. Federal Deposit Insurance Corporation, IndyMac Federal Bank was seized in early July 2008, resulting in images reminiscent of the October 1929 Wall Street collapse. By mid-September, the global economy was so shaken by the collapse of prestigious corporate giants like Fannie Mae, Freddie Mac, Merrill Lynch and AIG that the federal government had to step in with a rescue of the American economy on the backs of its taxpayers that could reach a trillion dollars. So these words of the Conference Board report perhaps ring even truer than when they were written:

> While economists continue to debate whether or not the U.S. economy is technically in recession, it certainly feels like a recession for many Americans, especially those who have lost their jobs or are facing home foreclosures. Growth in real after-tax income has slowed to a snail's pace while household balance sheets are worth less. Add surging gasoline prices to the mix and it is perhaps not surprising to find consumer confidence at its lowest level since the early 1990s. (Conference Board of Canada, 2008, p. 3)

The teetering automobile and airline industries are both victims of global oil prices, and they in turn are driving shortages of increasingly expensive food. Perhaps no news stories have had more impact in 2008 around the world than have those about the prices of food and fuel. In a tale that is familiar to all Canadians, fuel prices have been on a long upward trend that seems set to persist. But the issue now is more than one of cost alone. As Carr (2008, p. 3) has noted, in the last couple of years the era of inexpensive energy has come to an end: "Oil is no longer cheap; indeed, it has never been more expensive. Moreover there is growing concern that the supply of oil may soon peak as consumption continues to grow, known supplies run out and new reserves become harder to find." Indeed, debate about peak oil production colours most talk of fuel globally, and some have suggested that we are in fact long past the point of peak production – a situation leading in turn to lurking fears that the world will run out of fossil fuels even within this century.

If the price of gas at the pump is a well-known story, then food shortages and rising food prices seem to have come out of nowhere for Canadians. Even *The Economist* noted recently that "global food shortages have taken everyone by surprise" ("Briefing: Food and the poor," 2008, p. 32). The president of Ivory Coast's chamber of commerce, Jean-Louis Billon, is quoted in the same article as saying what many are thinking: "It's an explosive situation" that "threatens political stability" ("Briefing: Food and the poor," 2008, p. 32).

Food prices have risen by 75 per cent since 2005, and "dearer food is likely to persist for years" ("The end of cheap food," 2007, p. 11). In a *BusinessWeek* article describing a global food crisis that "seems to grow more ominous and heartbreaking by the day," Josette Sheeran, executive director of the United Nations (UN) World Food Programme, talks of a "perfect storm of factors that have driven up food prices at a rapid rate" since June 2007 (Bartiromo, 2008, p. 21). Rising food prices alone have pushed millions of people globally into poverty this year, just as other signs indicate that poverty is being successfully alleviated.

Success can have strange side effects. For example, global GDP is in its fifth successive year of expansion at a rate of more than 4 per cent, and the demand for meat is tied to economic growth ("Cheap no more," 2007). Chinese consumers who ate 20 kg of meat in 1985 will eat more than 50 kg of it in 2008 ("The end of cheap food," 2007). As a result, the rising influence of nations like China will continue to underpin higher food prices that are likely to continue over the long term: all that meat has to be produced, packaged, shipped and marketed globally.

Talk of economics can turn off many nurses; we tend to align ourselves more closely with the artistic expression of health sciences, especially human caring and human relationships. But nurses must be versed in the language of economics, markets, and supply and demand, because that is the language of the people who wield the greatest influence in the development of public policy.

Although it's sometimes cloaked in intimidating statistics, economics at its core is really just the study of relationships among things. For example, across the member states of the Organisation for Economic Co-operation and Development (OECD), GDP is correlated with health spending, which is in turn correlated with the number of nurses educated and employed. So when General Motors starts shutting down plants or reducing shifts, as it has been doing, and the federal government reduces its fiscal buffer through tax reductions, we know that a debate about health-care spending won't be far behind. When such a debate occurs, then the whole discussion about the number and cost of nurses, private insurance,

private payments and private health-care delivery will be front and centre yet again – not that it's ever really off the radar.

The interconnectedness of national economies has important impacts on health and health systems as well. Corber (2007, p. 39) asserts that "globalization affects the determinants of health," and he notes the increasing dominance of economic forces. He goes on to caution that "multinational corporations can operate outside traditional government procedures. Trade agreements can greatly affect labour and living conditions, environmental conditions and, indeed, the ability of a national government to control its country's policies." Corber references a *Lancet* article (Lee, 1998) when he states that "globalization affects the epidemiology of disease, the migration of and mobility of people, the financing of healthcare, information and telecommunications, civil society, and even health laws."

What does all this mean for communities and individual Canadians? Statistics Canada (2008) reports that although the incomes of Canadians have remained stable over the past quarter century, the gap between the richest and poorest citizens has continued to grow. Income and social status are well established as fundamental determinants of health (Canadian Council on Social Development, 2001). And Pascal has warned that "in countries where the gap between rich and poor is narrow and the GDP low, health outcomes are often better than in countries [like Canada] with high GDP but with large gaps between rich and poor" (cited in Villeneuve & MacDonald, 2006, p. 38). The Canadian gap means that for each dollar earned by the poorest 10 per cent of Canadian families with children in 2005, the wealthiest 10 per cent earned $12.57 (Campaign 2000, 2007). Tying individual income back to the health of the national economy, a recent "World Bank study of 19 poor countries concluded that every 1% increase in national income per head translates into a 1.3 point fall in extreme poverty" ("Briefing: The world's silver lining," 2008, p. 28).

So money is a key variable – but it is not the only one. Canada spends a third less on health care than the United States and enjoys many better outcomes for its investment. The United States spends more than any nation in history on its health care – more than 15 per cent of GDP in 2005 (WHO, 2008b, p. 90). Nearby Cuba spends 7.6 per cent of its GDP on health care (WHO, 2008b, p. 85), yet Cubans have about the same length of life as Americans. Save the Children (2006) found the United States tied with Hungary, Malta, Poland and Slovakia in its rate of newborn deaths, just ahead of last-place Latvia among the 33 developed nations it studied. So what is all that money buying, and for whom?

Collectively, Canadian nurses need to look with a critical eye at the constant calls for more health-care funding, and watch especially for the creep of more privatization across the system; they must also look very carefully at where the dollars are being directed, for what range of services and for whom. In the light of these kinds of findings, it is vital that nurses recognize economics as a key policy concern for their advocacy work.

Signposts for CNA and Nursing

- Echoing the words of many economists, Woolridge (2008) calls China's economic growth "remarkable" and reminds us that growing political clout inevitably accompanies economic growth.
    - In 2008, for the first time Canada will lose its position to China as the United States' largest trading partner. Similarly, China has overtaken the United States as the largest source of imports for Europe, Japan and South Korea (Woolridge, 2008).
    - China shows no signs of slowing down. It already has more than 53,000 kilometres of new toll expressways, and plans for 300,000 kilometres of new rural roads by 2010. It will spend $200 billion on railways by 2010 and will build 97 new airports by 2020 ("Briefing: China's infrastructure splurge," 2008).
    - For the first time since 1885, Britain's standard of living will overtake that of the United States during 2008 ("Britain lives it up," 2008).
    - Global economic influence has already begun to shift gradually but steadily away from OECD powers like Canada, Germany and the United States toward countries like China, India and Brazil. Such countries are largely in the southern hemisphere and Asia, where there are booming young populations eager to work. As a result, some of the poorest nations will move from an essentially agrarian society to a post-technological one by 2050, bypassing the industrial era nearly entirely.
    - In a policy discussion of these shifting dynamics, Mahbubani (2008, p. 111) minces no words, saying that "the West is understandably reluctant to accept that the era of its domination is ending and that the Asian century has come." He argues further that we have become "the most powerful force preventing the emergence of a new wave of history," clinging to our privileged positions in key global forums such as the UN Security Council, the World Bank and the G8.

- The World Bank (2006) notes, "By 2030, 1.2 billion people in developing countries – 15 percent of the world population – will belong to the 'global middle class,' up from 400 million today. This group will have a purchasing power of between $4,000 and $17,000 per capita, and will enjoy access to international travel, purchase automobiles and other advanced consumer durables, attain international levels of education, and play a major role in shaping policies and institutions in their own countries and the world economy." The low cost of our goods and services reflect low wages and poor working conditions in developing nations – and they have given an enormous advantage to standards of living in Canada for generations. But as a result of the economic changes described here, that advantage has started to slip away and will be largely gone within a generation. Our way of life will change permanently because we have sustained much of our lifestyle advantages on the backs of the poor who produce our goods in other nations.

- Canada's health-care system remains among the best in history. But left unchecked, public health care expenditures in Canada as a share of total provincial and territorial government revenues "are projected to increase from 31.1 per cent in 2000 to 42.0 per cent in 2020" (Brimacombe, Antunes, & McIntyre, 2001, p. 21). As health-care costs continue to rise, and Canada's global economic position falls relative to countries like India, all government funding will be under scrutiny. As the most expensive social program, the public medicare system will remain under attack, and the constant push for more private insurance, funding and care across the health-care system will grow.

    - Canadian nurses must be equipped with information about the costs and benefits of our public health-care system. Evidence in support of the public system is plentiful. As a result, in a 2008 discussion of "what works around the world," *BusinessWeek* noted that in countries like Canada, where "the government foots the bill," "governments are most likely to promote prevention and wellness on a mass scale. This approach lowers the lifetime cost of health care to half that in the United States" ("A brighter prognosis for health care," 2008, p. 59). Canadians Martin and Nordal (2008, p. 35), reporting on an international journey to determine whether public and private hospital systems can coexist, concluded simply that "the road ahead seems abundantly clear. Canada does not need a private hospital system."

- Finally, organizations like CNA and their many members will need to have a hard think about the costs of fuel, given that the present structures of our meetings and

conferences demand so much travel. Airline experts “envision a future with far fewer carriers” (Foust & Bachman, 2008, p. 29). The days of cheap, non-stop flights are behind us, and some predict that flying will become less popular as concerns about global warming increase (Beers, 2008). Clearly, with airlines collapsing almost weekly and many routes being shut down (especially affecting smaller markets), fewer people will be able to fly, and they will pay more to do so. According to Foust and Bachman (2008), “experts believe that for the U.S. industry to shrink to a size that would allow carriers to earn a profit, there will have to be capacity cuts on the order of 20% to 25%.” Moreover, “U.S. civil aviation is expected to consume half the country’s oil production by 2030” (Beers, 2008).

Global Demographics

Between 2000 and 2050, the world’s population is predicted to rise by some 50 per cent, to about 9.5 billion (United States Census Bureau, 2006). The distribution of that population is already significantly skewed in favour of seven countries that are home to more than half of humanity, with two of them, China and India, already accounting for a third of the global population (U.S. Census Bureau, 2008). With the exception of aboriginal peoples (Statistics Canada, 2005), Canada’s natural population has been in a long-term decline; international migration has accounted for more than 60 per cent of Canada’s population growth during this decade (Statistics Canada, 2006).

More than 350 million people live in the world’s 25 largest urban areas (City Mayors, 2006), and in Canada the vast majority of us also live in cities. In fact, most Canadians live within 200 km of the U.S. border; the three northern territories, which make up 41 per cent of Canada’s land mass, account for less than half of 1 per cent of our population (Natural Resources Canada, 2005). The largest concentration is in central Ontario, where about one in six Canadians lives within about an hour’s drive of Toronto’s CN tower!

On a global level, the UN tells us that by 2005, for the first time in history, more than half of the world’s population were living in cities, and that number is predicted to grow to 60 per cent by 2030 (United Nations, 2006). As Canadians move into large urban areas, rural and remote communities are left with older populations and fewer workers, and without the youth, ideas and innovation that help to keep communities alive.

Often missing in these conversations is reference to the reality that most of the growth in cities comes from migration versus natural increase, and the majority of migrants are

poor. The UN Population Fund (2007) tells us that one billion human beings (a sixth of the global population) already live in slums, and that number seems set to rise as migration toward cities increases. As Sister Elizabeth Davis (2005) has said, one thing we have in common with the rest of the world is that "nobody has any idea what to do about it" in terms of effective public policy responses.

Signposts for CNA and Nursing

- As Canadians age, they are living in better health longer and living with more chronic health conditions than ever before.
    - The over-80 and over-100 age groups are the fastest growing, and futurists predict that, with life-prolonging technology, a healthy lifespan could reach 120-150 years in the next century (Somerville, 2006).
    - In some nations and regions, retirees from the baby boom already outnumber working citizens by 2 to 1, and pressure will mount for governments to find ways to provide public programs as more people use services than contribute to them. The numbers of retirements will be so high in Canada that "about 70 per cent of all job openings [between 2006 and 2015] will be associated with the need to replace retired workers, up from an average of about 51% over the last ten years" (Human Resources and Social Development Canada, 2007). Maintaining or expanding existing programs will require creativity and innovation.
    - Aging will affect every aspect of the health-care system, and in the future geriatrics will not be a "specialty" per se. It will be part of all that nurses do in most areas of practice. Middaugh (2008) notes that already some 50 per cent of hospital patients in the United States are 60 or older and, as a result, courses such as the Johns Hopkins University "Issues in Aging" course are now required for all students in the school of nursing.
- Globally, longevity varies dramatically across nations, communities and racial groups. Absolute numbers vary, but data from the Central Intelligence Agency suggest, for example, that a Japanese child born today can expect to live more than *50 years longer* than its counterpart born today in Swaziland (2008).

- The generational differences being discussed in the business world (especially the conflict between the baby boomers who are currently “in charge” and Generations X and Y coming behind) are beginning to permeate health care (e.g., Widger, Pye, Cranley, Wlson-Keates, Squired & Tourangeau, 2007). The 2008 American presidential campaign has vaulted the issue to the forefront of public discourse well beyond the United States and to many people has exposed for the first time the nature of the chasm separating the generations. In its most obvious form, it is now playing out between the oldest American presidential candidate in history, Senator John McCain, and one of the youngest, Senator Barack Obama.

  - Tracking the issue for *BusinessWeek* in the United States, Conlin (2008, p. 36) notes that the 19- to 29-year age group is “the most marketed-to generation, giving rise to their BS-despising, post-ironic disdain for any political solution – or candidate – that doesn’t seem straight up.”

  - Importantly for Canadian leaders who want to recruit this generation into nursing and medicine, Conlin (2008, p. 36) observes that “they understand the power of networked humanity” and says bluntly, “yesterday’s solutions don’t interest them.”

  - Our attention to generational differences cannot be limited to current Canadians; immigrant youth also have different values from their parents. Describing young Indians, Hamm (2008, p. 45) notes that “unlike their parents and grandparents, this group has vibrant job prospects and high hopes. The challenge for companies is to harness their energy while reining in inflated expectations. If these young people feel they’re being short-changed in terms of either salary or advancement, the best and brightest will find work elsewhere, shift careers or leave the country.”

  - The CEO of Indian tech giant Infosys Technologies observes that this generation wants “immediate rewards” (cited in Hamm, 2008, p. 45). In an important note of caution for Canadians, Hamm argues that “this pattern will be repeated in other emerging nations as prosperity spreads.” Leading Indian companies are learning to pay attention to employees from Generations X and Y and are smoothing their transition from school to work; one company assigns such employees into groups called “houses,” where they are assigned a manager called a PAL, a “parent, anchor and leader” (Hamm, 2008). Infosys has

translated the spirit of the generation by establishing a Voice of Youth council, where a dozen young employees sit on the executive management committee, which makes decisions about business strategy and human resources policies.

- We said earlier in this paper that "more of the same" won't cut it for 21st-century health-care consumers; the same will hold true for those who will provide the services.

Global Politics

INTERNATIONAL To the south of us, themes of hope and change in the U.S. presidential race are more pronounced than at any point since the Kennedy election nearly 50 years ago. Some 80 per cent of Americans say that the country is headed in the wrong direction (Leonhardt and Connolly, 2008), and, barring a catastrophe, they will in November elect the first-ever African-American president and, perhaps even more importantly, the first post-baby boom president. Old political warhorse Senator Edward Kennedy noted early on that "this election is about the future, not the past" ("The fall of the house of Clinton," 2008). According to *The Economist*, Senator Obama "was the first to grasp that this is an election about change, not experience" ("The fall of the house of Clinton," 2008).

Therein lie huge lessons for Canada and the rest of the world about the generation that will provide our elder care. Nothing will ever be quite the same again; when Senator Obama is described by journalists as the first "post-war" presidential candidate, they mean post-*Viet Nam* war. The excitement has been so palpable beyond the United States that even 15 per cent of Canadians said in a January 2008 poll that they would give up their right to vote in Canada this year if they could vote in the U.S. election in November (CBC News, 2008a).

U.S. elections always have meaning for Canadians, but this one has perhaps a more urgent tone. Along with the United States, we remain in a difficult war in Afghanistan, and support for that war will not be maintained indefinitely, especially as Canadians continue to lose their lives in that country. The founding director of the Center for North American Studies at American University, Robert Pastor, makes the interesting argument that "if the principal foreign policy challenge for the next administration is to restore trust in the United States, then the first step is to demonstrate to the world that it can work with and respect its neighbors" (2008, p. 98). He also states that "it would be desirable for Canada and Mexico to join in making a comprehensive proposal for a North American Community, but Canada's aloofness from Mexico makes that unlikely. Therefore, the responsibility for

defining North America's future will lie with the new U.S. president" (2008, p. 97). If he is right, then the U.S. penchant for forcing its policies as much as negotiating them bears close watching. In this instance, an Obama administration would appear to be a more friendly choice for Canada.

The world's problems are legion and many seem intractable. Richardson (2008, p. 144) notes that "urgent problems that were once national are now global, and dangers that once came only from states now come also from societies – not from hostile governments but from hostile individuals…." For the foreseeable future, the world will still need to contend with thugs who claim to lead national governments. Perhaps the most perplexing display of 2008 is that of Robert Mugabe, who has ruled Zimbabwe for nearly three decades "and has led it, in that time, from impressive success to the most dramatic peacetime collapse of any country since Weimar Germany" (Guest, 2005). He clings to power through terror against his own citizens that has been condemned by most world leaders and has led to the ostracism of Zimbabwe. "The influential regional club of 14 countries known as the Southern African Development Community" has seemed more reluctant to follow suit ("Zimbabwe: How to get him out," 2008, p. 14). South Africa's inaction, even in the face of riots by its own citizens, is perplexing. With its many partnerships with national nursing associations in this region, CNA has to pay close attention to these political dynamics.

The Economist says that "an extraordinary concentration of misfortunes is to be found in a group of countries which the World Bank labels 'fragile'" ("Briefing: The world's silver lining," 2008, p. 29). These are above and beyond so-called failed states like Somalia, Sudan, North Korea and Haiti. For example, still in Africa, the Democratic Republic of the Congo "is now the stage for the largest humanitarian disaster in the world – far larger than the crisis in Sudan" (Autesserre, 2008, p. 96). And the list of civil wars, regional military conflicts and human rights disasters unfolding in 2008 goes on – in Iraq, Tibet, Myanmar, Colombia, Iran, Pakistan, Ethiopia, Bangladesh, Lebanon, Israel, Uzbekistan, Georgia and elsewhere. In fact, more than 100 other nations were assigned worrying "alert" and "warning" status this year by *Foreign Policy* and The Fund for Peace (2008).

Corruption, which is so rampant among many of the troubled nations described here, is also "a pervasive problem in the health sector, with negative effects on health status and social welfare" (Vian, 2008, p. 83). Its "pernicious effects," as Vian has put it (p. 91), threaten access, equity and outcomes.

DOMESTIC Canada has seen a fundamental shift in political ideology in the past few years with the 2006 election of a minority Conservative government. A commitment to Canada's health and social programs during 13 years of Liberal reign has been replaced by a government that appears to be washing its hands of health and health care. The release of *A 10-Year Plan to Strengthen Health Care* – billed as "a fix for a generation" – in September 2004 marked the end of first ministers' meetings on health care. Health care has since lost prominence on the federal agenda, and when questioned on health-care issues, the current government repeatedly states that health care is a provincial matter. The Harper Conservative government included wait times as one of its five initial priorities and signed agreements with the provinces for wait time pilot projects. Otherwise, federal budgets have included only small investments for specific diseases such as mental health and cancer.

The election set for October 14, 2008, will more than likely result in another minority government, making it difficult to achieve real progress on issues affecting the health of Canadians. Although an election provides an important opportunity to discuss health-care issues, challenges and solutions, it interrupts the policy-making process with unfinished bills, regulations and intergovernmental meetings. The "machine" of government comes to an abrupt halt, and many months pass before it is back to full speed.

Our health-care system and the nursing profession are subsets of all these global and national forces, good and bad, and will be strongly affected by them. This is especially true as global forces shape our economy and change the face of what it means to be Canadian.

Signposts for CNA and nursing

- Results of the US election may have far-reaching impacts for Canadian politics and Canadians.
- Although health care remains a priority for Canadians, it appears to have fallen off the radar of the federal government.
- Another minority government will continue to threaten real progress on health issues.
- There is potential for the erosion of Canada's health-care system, resulting in 13 different health systems and unequal access to health-care services for Canadians.

- Nurses, by their sheer numbers, the high level of trust they have earned with the public and their intimate knowledge of the health system, have the power to influence the outcome of elections and the resulting policies and programs affecting the health of Canadians.

Nursing Human Resources

The challenge of matching the constant (and growing) demand for nursing services with a supply of healthy, qualified nurses has not been resolved, despite a decade of intense attention. Nursing is not alone in its dilemmas: Canada continues to struggle with acute labour shortages across many sectors and in various regions of the country.

According to *The Globe and Mail*, "Canada has the second-highest proportion of immigrants among Western nations, and many provinces are trying to attract newcomers to help fill the gap" (Grant, 2008). Ethical concerns about whether and how to attract health-care providers continue to represent a lead topic of dialogue among providers and governments. Krotz (2008, p. 40) describes part of the dilemma: "While few would want to forbid people from moving to a better life, the fact remains that as we benefit, the other half of the world pays a hefty price. Clearly evident in engineering, agriculture technology, business, education … the effects of this out-migration are most dramatic in health care, and the place hardest hit is Africa."

On the other hand, Canada's growth is stagnant, and as *The Economist* ("Keep the Borders Open," 2008, p. 8) observes, the reality is that "prosperous countries with greying workforces rely ever more on young foreigners." Perhaps more cynical is the argument that "given that the per-student cost to governments of undergraduate medical education is upwards of half a million dollars, it would appear unlikely that there will be a dramatic increase in class sizes. As some have asked, what is the point of expensive training if you can get somebody else to do it for you?" (Krotz, 2008, p. 45).

Importantly for a country of immigrants like Canada, *The Economist* ("Keep the Borders Open," 2008, p. 9) notes that it's "no coincidence that countries that welcome immigrants … have better economic records than those that shun them." While there are reports of a backlash against immigration around the world, *The Economist* warns that the "backlash against immigrants in the rich world is a threat to prosperity everywhere" ("Keep the Borders Open," 2008, p. 8).

However they come here, the ways in which we deploy immigrants once they arrive and how successfully they are integrated into Canadian society are stories of mixed success, to say the least. As such, if we are going to continue to seek internationally educated nurses for our workforce, then providing resources to help them will be an ongoing need over the coming 20 years.

For those already on the job, working conditions, including workload, are immediate concerns. Despite 20 years of research documenting every nuance of the conditions that help in recruiting and retaining healthy workers and optimizing outcomes for patients, we have yet to turn the corner on consistently translating all that knowledge into action at the point of care for most nurses and patients across the system. In fact, it is a concern that with all the attention turned on nurses and their workplaces since 1999, rates of nurse absenteeism – the second-highest among all Canadian workers going back more than 15 years – have increased, not dropped (CNA, 2006). Only between 2002 and 2005 did the curve decline slightly, and we have not tested the numbers since.

Certainly the 2005 National Survey of the Work and Health of Nurses (Statistics Canada & CIHI, 2006) found absenteeism rates dramatically higher than those reported in the annual labour force surveys, and, perhaps because of that high absenteeism compounding already-existing shortages, overtime for nurses is also greater than for any other group of Canadian workers. In fact, as more nurses report working overtime, there is a sense that it has become a de facto staffing pattern as managers attempt to plug more holes in the dyke than they have fingers to fill them with!

In a survey for the Quality Worklife Quality Healthcare Collaborative 2008 progress report (Villeneuve, 2008), only a small minority of organizations reported having leading workplace practices in place. That survey too found no shortage of good will or lack of belief in the critical links among working conditions, satisfaction, retention and patient outcomes. But paradoxically, even within the direct spheres of influence of those completing the survey, actual action was inconsistent. More positively, leaders at the levels of systems and organizations are aware of the importance of quality practice environments, and activity in every region is shifting the tide toward the development of much more vibrant health system workplaces in the future.

If we in Canada are faced with troubling shortages and workplace concerns, then the problems confronting our international colleagues must at times feel insurmountable. In 2006, WHO found a gap of some 4.3 million health service providers and management

support workers in 57 of its member nations, most of them in Asia and Africa. Where there are some 13 physicians per 100,000 population on average across Africa, for example, there are 214 in Canada (Krotz, 2008). The numbers of doctors and nurses are drastically lower than the average in some African countries. Consider the statistics in Table 1 from WHO (2006):

The Americas	Sub-Saharan Africa
14% of the world's population	11% of the world's population
10% of the global burden of disease	25% of the global burden of disease
42% of the world's health workers	3% of the world's health workers
> 50% of global health expenditure	< 1% of global health expenditure

Table 1. The health workforce in the Americas versus Sub-Saharan Africa. Reproduced from WHO, 2006.

It is in the human resources arena that we face perhaps our greatest global challenge and health-care crisis. Strengthening nursing in the light of these odds (both at home and abroad) is a key pillar of CNA's work. To make a dent in these kinds of disparities internationally warrants concerted, generation-long commitments by governments and organizations like CNA.

Signposts for CNA and Nursing

- There are some 925,000 people on the waiting list hoping to immigrate to Canada (Citizenship and Immigration Canada, 2008). Skilled labourers can wait years before being permitted to move to Canada, and when they arrive, many find that their credentials are not recognized. Canada's new "brain drain" is being positioned by some as the loss of potential immigrants from Canada to more welcoming nations, including Australia and even the United States.
- Given shortages of regulated professionals such as RNs, new roles will continue to emerge, challenging traditional structures and regulation.

- Perhaps reflecting the observation of *The Economist* that significant migration flow happens mostly between nearby countries ("Briefing: migration," 2008), mutual, multi-jurisdictional recognition of credentials and the movement of workers across national borders is heating to the boiling point as a policy concern for governments and professions.

- Following its Quebec City meeting in July 2008, the Council of the Federation (2008a) stated that:

> Provinces and territories will accelerate work with employers, regulatory authorities and educational institutions within their jurisdictions to increase attention to the timely and thorough recognition of foreign credentials.
>
> Premiers direct ministers responsible to develop stronger mechanisms to assure regulatory authorities and educational institutions are fully collaborating to reduce duplication in foreign credential recognition practices.

The council (2008b) went on to say:

> Emphasizing the critical importance of full labour mobility for all Canadians, Premiers directed Internal Trade ministers to amend the Agreement on Internal Trade (AIT) by January 1, 2009 to reach this goal. These amendments will provide that:
>
> - Any worker certified for an occupation by a regulatory authority of one province or territory shall be recognized as qualified to practice that occupation by all other provinces and territories; and
>
> - Such recognition shall be granted expeditiously without further material training, examinations or assessment requirements.
>
> Premiers further directed that any exceptions to full labour mobility would have to be clearly identified and justified as required to meet a legitimate objective such as the protection of health or public safety.

- Perhaps reflecting at least some public opinion on the issue, the *Vancouver Sun* opened its report of the agreement by saying that "Canada's provincial premiers finally came to their senses last week and reached a deal to remove barriers that have made it difficult, and sometimes impossible, for workers from one province or territory to work in

another" ("Labour mobility deal will enhance competitiveness," 2008). That said, while CNA has always supported putting in place structures that enable access to care for Canadians, these kinds of government-led initiatives can blur the roles of governments and regulators. Some even see self-regulation as being directly threatened by them.

- Quebec had already proposed an agreement with France that would create a new place for Quebecers to work and study, while making the province North America's "port of entry" for the French (e.g., see Dougherty, 2008). Such an agreement could have interesting implications for the rest of Canada, given the amendments to the Agreement on Internal Trade put forth by the premiers in July 2008. Both agreements carry the potential to permanently affect the profession's ability to self-regulate in the interest of the public.
- Ameliorating the assessment process for internationally educated individuals is of concern to Ontario's Fairness Commissioner. Manitoba has enacted legislation to create a similar position. The role of the commissioner is "to bring systemic change to the registration process of regulated professions to ensure that there are fair ways for professionals to become registered in Ontario...." (Steinecke, 2008). To meet this goal, regulator self-reporting and audits will be used. Decisions made by such commissioners could greatly affect regulators across Canada and international graduates.

Safety, Quality and Ethical Practice Considerations

The 2007 HCIC survey found that 57 per cent of public respondents believed Canadians are receiving quality health-care services. That finding comes on the heels of a report compiled by the Winnipeg-based Frontier Centre for Public Policy and the Brussels-based Health Consumer Powerhouse that ranks Canada "23rd out of 30 countries surveyed in the 'consumer friendliness' of its health care system" (Canadian Press, 2008) and a roster of other studies that call into question the safety of our system, both for those who receive care in it and for those who provide that care.

Safety and quality are not new issues for CNA. We have extensive involvement in nearly every aspect of system safety, from administering the CRNE to ensuring continuing competence, offering certification, and leading or informing a range of projects such as the Quality Worklife-Quality Healthcare Collaborative. Although safety and quality are perennial issues for CNA and have received widespread attention more broadly, they have not been fully resolved.

According to the 2007 HCIC survey, "less than one-fifth (19 per cent) of Canadians report that [within the previous two years] either they or someone in their family has experienced an adverse effect or event as a result of care received in the health-care system." However, small percentages have very large import when they refer to individuals. The most common events reported were *medical complications* (19 per cent), followed by *wait time too long* (17 per cent), *poor quality of care* (14 per cent), *misdiagnosis* (13 per cent), *given the wrong medication* (6 per cent) and *allergic reactions to a medication* (5 per cent) (italics in original).

The Canadian Institute for Health Information released a new analysis in 2007 examining the rate of adverse events. *Patient Safety in Canada: An Update* reported findings from the Commonwealth Fund International Health Policy Survey of Adults With Health Problems that in Canada in 2005, 1 in 10 adults with health problems reported receiving the wrong medication or the wrong dose in the past two years (CIHI, 2007b, p. 6).

Beginning- and end-of-life care Modern life-saving technology has given rise to troubling ethics and regulatory dilemmas for Canada's nurses and other caregivers. A legal issue unfolded during 2008 in Manitoba where the tipping point between "hopeful," life-*saving* technology and "hopeless," life-*prolonging* care became blurred and litigious. In brief, the case revolved around the care of a patient receiving mechanical ventilation whose physicians believed his condition was irreversible and that further care would be unethical and inappropriate (Smith, 2008). The family disagreed, wanting life-sustaining care to continue. Therein lay the basis of the legal proceedings. As often happens in these cases, nurses were caught in the middle. The technology may originally be applied in some distant ambulance or emergency room, but the care of patients and families sustained by it falls in large part to the country's nurses. Nurses are likely to be caught in further ethical conflicts if legislation allows physicians to overstep the decisions of families and loved ones and terminate treatment.

At the other end of life's continuum, the cost of caring for premature infants has also infiltrated the public debate. The ethical issue of whom to save, and at what cost, plays out with the same ferocity as for those who may be near the end of life. Ante (2008) notes that in terms of hospital costs and lost work time of employees, U.S. businesses pay out nearly 15 times as much for premature infants during the first year of life as they do for full-term infants. Already, he notes, the "outer age of viability" has reached 22 weeks, and within five years physicians could push that limit to 20 weeks (meaning infants

weighing 1 pound and measuring 10 inches in length). Yet at what cost to those newborns, and at what cost to society? Nurses are, by default, embroiled in these ethical challenges and must be equipped to debate them and exert leadership in managing them.

Signposts for CNA and nursing

- The federal government is set to overhaul drug regulation in Canada to facilitate faster access to new treatments.
- A number of initiatives are evolving related to disclosure of mistakes that affect patients, along with structures to apologize for those mistakes.
- The public is weary of waiting for system-wide implementation of electronic health records; informants interviewed for CNA's *Toward 2020: Visions for Nursing* (Villeneuve & MacDonald, 2006), for example, pushed nurses to take a more active leadership role in making it happen. Keeping electronic personal health information private and secure is essential in the effort to develop the electronic health record for effective, efficient sharing of health information among health-care professionals across the country and ultimately for improving health care for Canadians. However, privacy concerns continue to be cited as a major reason for the delay in implementing such records system-wide, and outside forces are intervening. For example, a 2007 *BusinessWeek* report describes a Microsoft initiative to develop a "search engine-supported service to help patients coordinate disparate pieces of health-care information, from lab results and prescription records to X-rays and daily blood pressure and allergy readings." Microsoft's intention with HealthVault is that "patients alone will control access to their health information" (Greene, 2007, p. 44).
- Ethical issues will continue to confound health-care providers and those who seek our services, and these issues are likely to become more complex in the light of advancing technology, which will include artificial intelligence and nanotechnology within 20 years. Human cloning, if it has not already been achieved, looms on the horizon. End-of-life care, which is already on the front burner, will remain a leading ethical concern across the system.

Innovative Delivery Models

Nurses understand that the current illness care system, which evolved during the latter half of the 20th century with its strong focus on acute care and hospitals, is not sustainable, nor is it appropriate to try to sustain it in the light of 21st-century population health needs and expectations. Nurses envision the need for a different kind of system and different ways of working. More than any other group in the 2007 HCIC survey, nurses strongly supported *increasing investments to help patients manage their chronic illnesses* (55 per cent), *implementing wait time guarantees* (56 per cent) and *developing more home and community care programs* (67 per cent). Furthermore, 61 per cent of nurses strongly supported *requiring health professionals to work in teams* (italics in original).

The troubling trend of patients spending long periods of time "admitted" to Canadian hospital corridors, waiting rooms and even staff lounges has given rise to contemporary talk among nurses of "hallway nursing" or "overcapacity nursing," in the language of some nurse leaders. The problem lies in part in the fact that acute care beds continue to be occupied by patients who could safely receive an alternative level of care in rehabilitation care, long-term care, nursing home or even home setting, if the right supports could be put in place.

Mirroring wait times within hospitals are the wait times to *get into* them. Nowhere is the problem more obvious than in the country's emergency departments. Overburdened by patients seeking basic primary care, some 50 per cent of the patients seen in these facilities have non-urgent problems (CIHI, 2005) that could be safely treated in a less acute and less expensive setting. New Brunswick has taken a leadership role by triaging level 5 patients to treatment by registered nurses, which relieves a major pressure point and frees other staff to care for those who need true emergency care. Other provinces have introduced nurse practitioners (NPs) who can treat even more acute conditions.

The issue of creating the education, practice and regulatory structures that would allow RNs to prescribe medications and treatments continues to percolate through most Canadian discussions about access solutions. It is a key topic in many other nations as well. More than a quarter (28 per cent) of the Canadian public responding to the 2007 HCIC survey strongly supported *increasing the use of non-physician health-care providers*, and 34 per cent strongly agreed that *pharmacists and nurses should be permitted to prescribe medications in certain circumstances* (italics in original).

The act of prescribing is a small part of a much larger equation wherein nurses would need more advanced education in assessment, epidemiology, pharmacology and diagnostics. "RN prescribing" is really an umbrella term for a massive shift within nursing, among our fellow health-care providers and the public. At present, much of the discussion has been confined to strict algorithms or pathways when the issue of generalist RN prescribing is raised.

Despite the high demand for access to care, present structures and systems are unable to meet that demand. And despite thoughtful forays into the dialogue about nurse-driven solutions, Canadian nurses are coming up against real and potential conflicts with physicians and others. The response to RN and pharmacist prescribing has predictably been mixed, with physicians (at 12 per cent in the 2007 HCIC survey) least in favour.

Nurse practitioners The Australian Nursing Federation (2008) makes the case that NPs are good for health-care reform, saying that "one of the first steps the Federal Government can take in improving community access to quality health care is to introduce prescribing and referral rights for nurse practitioners." In Canada, NPs are playing an increasingly important role in the delivery of health care. However, despite mountains of evidence of their effectiveness and efficiency, their role and scope of practice remains a topic of debate. In the United States, for example, the scope of practice for NPs varies widely across states, as do education and certification requirements. Uniform standards are needed for the public to be served well. In Australia, barriers are still found with regard to nurses' prescribing and referral rights (Australian Nursing Federation, 2008). Canada has addressed some of these concerns by developing and offering a range of standardized NP examinations through CNA.

Unlicensed personnel The complex issues surrounding the recruitment, deployment and monitoring of unlicensed (or unregulated or assistive) personnel continue to swirl in the health-care winds as time passes without satisfactory resolution of the problem of professional workforce shortages. A significant and growing proportion of health care is being supported or even fully provided by a range of unregulated workers across the system, along with family caregivers and volunteers. They have become an essential part of the health-care system and will become even more important if we continue on a track of growing demand set against stagnant or inadequate supply.

Canada is not alone in this, of course. Significant amounts of care are provided quite effectively by a range of workers and volunteers in communities in many of CNA's

international partner nations. There may be lessons to be learned from the experiences of these jurisdictions. Safety and effectiveness are key concerns – there is a reason behind a century of advancing education and regulation of the country's nurses, doctors and other providers. In Washington State, Bill 2266 (Washington State Legislature, 2008) proposes to increase the number of health-care activities currently restricted to regulated providers that unlicensed personnel can perform, with exceptions such as surgery, setting fractures, and prescribing drugs. These kinds of changes obviously carry huge implications for individual patients and overall populations. Given our proximity and history, such trends in the United States often have spillover effects here in Canada. The pressure is on and surely will increase to allow new providers to take on professional aspects of RN practice here at home.

Some help may be found in CNA's *Unregulated Health Workers: A Canadian and Global Perspective* (2005). And, together with six other national health associations, CNA is leading a national initiative to facilitate regional roundtables in 2008, with a national symposium to follow; to identify issues across professions, settings and sectors related to unregulated health-care workers; share knowledge on existing care team models; and to discuss priority issues.

Signposts for CNA and nursing

- The survival of any health-care system and improvement of human health both lie in implementing innovative new delivery models and team approaches and ensuring multiple points of access to a wide array of health and illness services, including new and emerging therapies.
    - Paradoxically, perhaps, some of our answers may come from developing countries. *BusinessWeek*, for example, notes that in the context of mass poverty, "radical models of delivery are encouraged, and 'frugal innovation' delivers health care very cheaply to large numbers of people" ("A brighter prognosis for health care," 2008, p. 59). That publication cites the example of Lasik eye surgery being offered in India for as little as $10 per person, while *The Economist* reports that "GE's research lab in China has come up with a simplified magnetic resonance imaging machine that costs a fraction of the one it sells in rich countries" ("Can Dinosaurs Dance?", 2007).

  - Mahbubani (2008, p. 111) is blunt, saying, “There is a fundamental flaw in the West’s strategic thinking. In all its analyses of global challenges, the West assumes that it is the source of the solutions to the world’s key problems. In fact, however, the West is also a major source of these problems.” The same thinking should be applied by nurses to our dialogue about health system challenges and solutions. Here we can take advantage of the rich network of international partnerships in which CNA is engaged.

- Nurses must be concerned with the ongoing focus of budgets on hospitals, doctors and pharmaceuticals. Allocations to community and public health have in fact remained steady or decreased, despite the “community care” rhetoric and the actual shift of services toward them and away from institutional settings. System spending in the category that includes home care, for example, dropped from a high of 9 per cent in 2004 to 6 per cent in 2006 (CIHI, 2006).

- Collaborative interprofessional education and practice have a strongly synergistic nature, and no two health professions are more deeply interdependent than medicine and nursing. Despite shortages of providers and the kinds of access concerns discussed in this paper, in the 2007 HCIC survey only 23 per cent of physicians strongly supported requiring health professionals to work in teams. The pressure for physician leadership of health care will continue.

- The NP role and the future of RNs as providers of primary care and as entry points to the health-care system are directly threatened by the rapidly evolving interest in the physician assistant role now being discussed, taught and legislated across the country.

- CNA should integrate lessons learned from international partnerships in developing new delivery models and should in turn inform its international policy and development work on the basis of successes here at home.

Human Responses to Health, Illness and Injury

The growing number of Canadians, the increasing age of the population and advances in the health sciences and technology are combining to exert their long-predicted effect: More Canadians are living with chronic illnesses, and are living with them longer, than ever before. In the 2007 HCIC survey, 37 per cent of respondents described themselves as living with a chronic illness. There are no indications that those numbers are likely to fall

in the short term; quite the contrary, in fact. Broemeling, Watson and Prebtani (2008, p. 71) found that Canadians with chronic conditions "use healthcare services more often and more intensively that do those without, and the intensity of service use increases as the numbers of conditions go up." They noted, for example, that the 33 per cent of Canadians having one or more of seven specified chronic conditions are responsible for 72 per cent of nights spent in hospital.

That said, ongoing and dramatic scientific advances hold the promise of eliminating some of those illnesses in the longer term and will make it easier to live with others in the medium term. Communicable diseases continue to harm patients and are proving difficult to eradicate (although the federal government is developing a strategy to reduce hospital-acquired infections), and health outcome and treatment disparities remain problematic across gender, ethnicity, age and income groups.

Maternal and infant care Dr. Francis Omaswa, leader of the Global Health Workforce Alliance, argues, "If we can get maternal health services to perform, then we are very nearly perfecting the entire health system"(cited in Garrett, 2007). But fewer providers are available for the management of labour and delivery across Canada. The situation is being exacerbated by general practitioners leaving obstetrics and by obstetric/gynecology specialist physicians retiring. The results have in some places become alarming, with some Canadian women being flown to the United States for emergency childbirth and neonatal care, for example. A number of solutions have been proposed, perhaps the most obvious of which is the more widespread deployment of midwives, as seen in many other nations. Initiatives are under way in several provinces to integrate publicly funded midwives into primary maternity care teams.

Mental health We are well into what pollster Marc Zwelling called "the decade of depression" during a consultation leading up to publication of CNA's *Toward 2020* study (personal communication, 2005). By 2020 depression will be second only to heart disease as a cause of global disease burden (WHO Regional Office for Southeast Asia, 2008). "About 16 per cent of Canadians and Americans will suffer depression in their lifetimes, and half of those will be severely disabled by it" according to an analysis of the problem by Butler (2008). Ipsos Reid (2007) found that one in six Canadian workers reported having been diagnosed with clinical depression at some point. A further one in 12 believed that they had undiagnosed depression. Female-dominated professions, including nursing, are hit especially hard. Butler (2008) quotes a 2005 survey finding that nine per cent of nurses had experienced depression in the previous 12 months, double the national average.

Research cited by Worley suggests that depression already is the fourth leading cause of global disease burden and the leading cause of disability worldwide (2006). Depression and other mental disorders are most prevalent in developed nations, and of the 10 leading causes of disability worldwide, five are psychiatric conditions, led by depression (WHO Regional Office for Southeast Asia, 2008). WHO projects that mental disorders will constitute 15 per cent of the total global disease burden by 2020, an increase of almost 50 per cent from 1990 levels (Butler, 2008). Much of that shift is being driven by rising rates of depression. Half of those who experience depression suffer their first episode by age 14, and 75 per cent by age 24 (National Institute of Mental Health, 2005). Tom Insel, director of the U.S. National Institute of Mental Health, states, "mental disorders are the chronic disorders of young people in the U.S." (National Institute of Mental Health, 2005).

CHRONIC PAIN One-third of Canadians suffer from chronic pain (pain lasting more than three months), which results in an annual cost of $10 billion to our economy (Canadian Breast Cancer Network, 2008). It is estimated that 80 per cent of visits to a physician are because of pain; further, 16 per cent of Canadians live with constant pain, while 20 per cent of the country's population experiences daily pain (Canadian Breast Cancer Network, 2008). The episodic nature of chronic pain can make it extremely difficult for some sufferers to hold a job, which takes valuable members out of the work force. The questions of what is being done and what more needs to be done by our medical system, business and government need to be addressed.

Signposts for CNA and Nursing

- Some RNs may need to acquire competencies for managing emergency childbirth, or perhaps low-risk childbirth, in collaboration with other RNs or other care providers.
- RNs and midwives will be interprofessional partners, but many have had little or no experience working together. Knowledge of and respect for each others' practices will be key to improving maternity care.
- RNs in all settings will need to integrate mental health into their nursing care.
- The shortage of nurses threatens to be even more problematic for hard-to-staff areas such as institutional psychiatry.

- Costs to patients and acute care systems (including employers) compound the need to change the focus of care to health maintenance and illness prevention along with chronic disease management.

Technology and Innovation

Innovative diagnostic and treatment technologies, as well as those needed to inform, teach and communicate about health and illness care, continue to constitute a key area of interest for nursing and health care. When releasing the federal government's strategy Mobilizing Science and Technology to Canada's Advantage in 2007, Prime Minister Harper said that "to succeed in an increasingly competitive global arena, Canadians must be at the leading edge of important developments that generate health, environmental, societal, and economic benefits" (Industry Canada, 2007). CNA and Canada's nurses must continue to be active leaders in the "innovation" revolution.

"Rapid and disruptive change is now happening across new and old businesses. Innovation…is becoming both

The imperative for action is particularly acute in Canada's disparate small communities, which are likely to be left relying heavily on technological solutions and occasional human visits. However, an August 2007 report from the Conference Board of Canada, *Exploring Technological Innovation in Health Systems*, gave Canada a poor score in several areas of innovation in its health sector when compared with other high-performing OECD health systems. The study concluded that "the innovation environment in Canada compares unfavourably to leading countries in terms of: the number of university graduates with advanced research qualifications in the health and life sciences sectors; investment of health-related venture capital as a percentage of gross domestic product; and the speed and efficiency of its regulatory system." What is more, the investigators found that "little collaboration occurs between universities and business enterprises. This poor performance may be due in part to the low level of health research and development performed and funded by the business sector" (2007a).

The Conference Board also stated that "another area requiring improvement is Canada's investment in information and communications technology. Average hospital expenditures on information technology are only 1.5 per cent of their operating budgets – well below the 4.4 per cent average for the OECD countries studied. Canada also scores low in the use of electronic medical records and the use of the Internet and external health information systems to support primary care practices" (Conference Board of Canada, 2007b).

The Conference Board identified four measures for improvement:

1. Develop a plan of action to strengthen Canada's comparatively weak health innovation environment.
2. Promote more collaboration between universities and the business sector to boost commercialization of knowledge.
3. Fund, adopt and consistently use integrated health information systems.
4. Create valid indicators and consistent definitions – aligned with international standards – that will allow us to measure innovation performance in the Canadian health system, including progress in achieving stated goals.

The 2007 HCIC survey found that managers and administrators (63 per cent) were most likely to strongly agree that *the expected benefits of having electronic patient records outweigh the risks to privacy*, compared with just 35 per cent of nurses. Not surprisingly then, managers and administrators (61 per cent) were almost twice as likely as nurses to strongly support *accelerating the use of electronic health records* (italics in original).

more accessible and more global" – releasing the "untapped ingenuity of people everywhere."

(Vaitheeswaran, 2007, p. 4)

Signposts for CNA and Nursing

- Technology transformed health care in the 20th century and will revolutionize it in the 21st century.
    - Robotics already exists as a solution in health care and will be ubiquitous by the mid-2020s. Robotic surgeons, scrub nurses and other assistants are in use or in testing, and their presence will be expanded dramatically, with the strongest push coming from countries like Japan, where massive numbers of aging citizens are overwhelming the workforces available to care for them. Public experience with robots appears to be positive (e.g., see CTV, 2008), and even in consumer magazines the message is that "robots are more precise with a scalpel or a laser than a person could ever be" ("Tiny, careful cuts," 2008).
    - Digital technology continues to shrink dramatically in size and grow in power. For example, a laptop barely larger than a paperback and weighing less than one kilogram can be purchased for under $300 ("The rise of the low-cost laptop," 2008). However, we in the West are facing a quandary. As Mandel (2008, p. 33)

has noted, “we’ve grown used to spending relatively small sums to purchase sophisticated [technology but this] is based in part on making [it] 10,000 miles away … and shipping it.” Now that shipping prices are rising and consumers are talking about reducing their carbon footprint, the days of ever-cheaper technology are likely numbered.

- While nurses and other providers continue to struggle with mounds of paper in most settings, June 2008 marked a digital milestone for the airline industry when – across 240 airlines, 90 per cent of international flights and tens of thousands of travel agents – the industry completed the move to paperless tickets within four years of starting the project in 2004 (“Electronic tickets: who needs paper?” 2008). This outcome reduces costs drastically and is good for the environment. The writing is on the wall for nursing and health care in terms our massive use of paper-and-pen systems globally.

- Innovators outside of nursing are creating the technologies and solutions now that will shape nursing practice in the 21st century.
- As access to care continues to be problematic and health professionals entangle themselves in debates over scopes of practice, diagnostic and treatment technologies that are increasingly smaller, cheaper and powerful are being developed to be marketed to consumers directly, bypassing health professionals altogether. Examples include online self-prescribing and ordering of medications, adaptation of gaming technology to include health improvement games and diagnostics for conditions such as asthma, the appearance of mini-defibrillators in social clubs and retail settings, a wide range of diagnostic tests that can be purchased over the counter at the local drug store and the looming development of cell-phone-sized ultrasound machines that can assess the status of an ankle twist on a soccer field and recommend treatment.

Environmental Health

The environment (especially as embodied in stories about climate change) has captured the attention of the public with such force that it has now joined health care and the economy as the policy issues of most concern to the public. Health was mentioned in Canada’s 2007 Speech from the Throne only in the context of *environmental* health. And, after years of inaction, even the Bush White House has begun to talk with worry about the global climate.

Environmental risks, including exposure to harmful contaminants, are damaging the health of Canadians and causing deaths.

- Every year, 5,900 deaths in eight major Canadian cities can be attributed to air pollution (Health Canada, 2007b). About 2.7 million Canadian children and adults have asthma, and poor air quality contributes to the development of this disease (Health Canada, 2006).
- There were 1,481 probable or confirmed cases of West Nile virus infection in Canada in 2003; by 2007, there were 2,215 such cases (Public Health Agency of Canada, 2003 and 2007). Climate change can influence the number and geographic distribution of vector-borne diseases and increase the length of the transmission season. West Nile virus infections are expected to increase in response to global warming (Health Canada, 2005).
- Extreme weather events will become more common with increasing changes in the climate, and they can endanger health. For example, floods can result in contaminated drinking water supplies, which in turn can lead to outbreaks of parasitic and bacterial disease such as diarrhoea.

Harmful contaminants in our air, water and food must be reduced. In 2007, a House of Commons legislative committee modified the proposed Bill C-30 (the *Clean Air Act*) to accelerate and focus attention on addressing climate change. And in 2008, Parliament will review the *Canadian Environmental Protection Act.*

The problem is, of course, a global one. Slowly rising average temperatures are particularly worrying because they threaten the world's freshwater supplies. Himalayan glaciers supporting some 1.3 billion people in China and India are retreating, with Chinese experts predicting that by 2050 the ice on their side of the Himalayan ice cap will have shrunk by more than 25 per cent from its size in 1950. On the Indian side, one glacialogist has shown the loss of some 50 per cent of one major glacier in just a decade ("Briefing: China, India and climate change. Melting Asia," 2008, p. 29). Furthermore, the Peterson Institute for International Economics has been cited as stating that a global temperature increase of 4.4° C over cultivated areas by 2080 will reduce India's agricultural output by 30 to 40 per cent ("Briefing: China, India and climate change. Melting Asia," 2008, p. 30). And, as CNA staff have been discussing with nurses for some time, human beings don't just dry up and die – they migrate in search of freshwater

supplies. Hence, we would do well to heed the warnings of *The Economist*'s Adam Roberts (2008), who reminds us that "climate change might force tens of millions of people to get moving within just a few decades."

The Economist argues that "a failure of imagination has been at the heart of the debate about climate change. The green message – use less energy – is not going to solve the problem unless economic growth stops at the same time" ("The future of energy," 2008, p. 17). Of course there is no sign of (and no appetite for) reducing economic growth. However, the same article argues that "plans for the end of the fossil-fuel economy are now being laid. … Instead of bullying and scaring people, the prophets of energy technology are attempting to seduce them. They promise a world where, at one level, things will have changed beyond recognition, but at another will have stayed comfortably the same, and may even have got better" ("The future of energy," 2008, p. 17). At least some consumers seem ready to make changes related to car size (and hence fuel consumption) and are buying into initiatives like the 100-mile diet. If their motivation is more fiscal than moral, the outcome still drops carbon emissions and helps the global climate.

Signposts for CNA and Nursing

- Environmental and climatic concerns will continue to dominate public and health policy over the coming decade.
- Nurses will see a growing number of patients suffering from environment-related illnesses in their practice.
- Following the principle of "health in all policies," attention to the environment (including climate change) and to environmental determinants of health will have to be integrated into all of our thinking.
- CNA and Canadian nurses will be expected to serve as role models for environmental care as future policy decisions are undertaken.

LOOKING AHEAD TO CNA'S NEXT 100 YEARS

> Stop selling what you have.
> Start selling what they need.
>
> Stop talking.
> Start curing.
>
> IBM advertising slogans, 2008

Taken together, the trends and issues highlighted in this paper paint a worrying picture of disparities across society, across ethnocultural groups and across the massive geography of Canada. What do these ongoing and vexing problems mean for CNA and Canadian nursing?

It is now 60 years since the UN founded WHO as a structure for "international collaboration to enable man to improve his conditions of life" (WHO Interim Commission, 1947, p. 11). Its objective is both simple and, as its founders described it, *vast*: "the attainment by all peoples of the highest possible level of health" (WHO Interim Commission, 1947, p. 11). In the preamble to its constitution, two principles were emphasized (WHO Interim Commission, 1947, p. 13-14):

- The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and States.
- Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger.

Thirty years later, those same principles were mirrored in the language of WHO's Declaration of Alma-Ata (1978), in which it noted that "the existing gross inequality in the health status of the people particularly between developed and developing countries as well as within countries is politically, socially and economically unacceptable and is, therefore, of common concern to all countries."

Is there anything in any of these principles and statements that we would state differently in 2008? We still find ourselves surrounded by disparities across every sector. We need look no further than our own Canadian cities to see examples of "leading practice" benchmarks set right against other outcomes that could be found among the world's poorest countries. As noted earlier, in nearly every measure – health, education, career potential and lifespan among them – outcomes for First Nations, Métis and Inuit peoples fall far below those for the majority population. Similar disparities are found among Canadians along racial lines, between genders and among new immigrants. Importantly for nursing, "many of the most troubling disparities globally are amenable to effective intervention by the world's nurses either through their direct clinical practice or their lobbying and advocacy work" (Villeneuve, in press). Nurses have the knowledge and power to make fundamental change here. Save the Children's 2006 study of maternal and infant mortality found that simple, low-cost interventions "could reduce newborn deaths by as much as 70 per cent if provided universally," and many of those interventions could be provided or overseen by nurses if we choose to take them on with force.

In an interview after her appointment as director general of WHO in January 2007, Dr. Margaret Chan commented that WHO and its partners must collectively focus on the things that matter most to the populations they serve. The UN's Millennium Development Goals are years from resolving their targeted disparities. And although they are applicable here, those goals certainly are not foremost in the minds of Canadian nurses. Attention to them could re-focus nursing and galvanize its resolve to eliminate unacceptable disparities that limit the lives and potential of so many fellow citizens.

Canadian nurses in the 21st century are being called on to imagine and rise to new levels of practice. The challenges to transform nursing and health care are as profound today as they were 100 years ago when CNA was founded. And just as founding president Mary Agnes Snively knew then, the status quo is not a "go." She had a vision for nursing that required the structure of CNA to make it happen. She helped to build both.

In a landmark address to the annual meeting of the Canadian Health Services Research Foundation in 2005, Sister Elizabeth Davis (2005) said that the best definition of "vision" she'd ever heard was that it is "the something significant we have left to do." She talked then about the importance of communities developing vision: "not so clear that it's real, but vision that has some shape, has some sense of what we're moving towards." What is our common vision for nursing? What should we be doing now and in the future to make a difference to the citizens we serve in Canada and to the millions of citizens globally who are affected by our international policy and development work?

One vision we might choose to share and build in common is the identification and then elimination of disparities, whether they be in access to care, health outcomes of specific populations, or societal policy imperatives such as the elimination of poverty. Certainly that vision would elevate nursing to imagining new goals and new ways of seeing its place in society. We have called into question the ethics of even trying to maintain the present delivery system and models. And even if we wanted to, growing shortages of nurses will make that model unsustainable. New roles are emerging all the time, and the system is filled with workers who would be only too happy to take on caregiving tasks traditionally provided by RNs. So thinking about our roles and our future is not idle chat. All the alarm bells are sounding, and we are in a fight now for the survival and relevance of the discipline of nursing.

Conclusion

It is 2008, and CNA is celebrating its centennial, looking back and also looking forward. Looking forward, WHO (2008a, p. 29) asserts that "noncommunicable conditions will cause over three quarters of all deaths in 2030." Nursing needs to engage in that reality and put in place the kinds of interventions to maximize length and quality of life. Furthermore, from 89 countries studied by WHO (2008a, p. 32), "each year an average of 2.3% of households experience financial catastrophe due to health care costs, corresponding to over 150 million people worldwide. More than 100 million people are impoverished because they must pay for health care." Nurses must be vigilant in tracking economic trends, including but not limited to health economics, and must be vociferous advocates for the maintenance of Canada's public health-care system.

For Canadian nursing, the days of giving and taking orders should be relegated to the 19th century where they started. Public trust in nurses is huge, and Canadians are pushing nurses to step up our practice, move forward and lead health systems and health services toward something new. They expect us to create points of access to timely, quality care within the public system. They also expect us to understand and strive to meet population health needs, rather than trying to fit population health around our skill mix and models of delivery. As Pringle wrote eloquently in 2007 (p. 3), we must rethink how we use nurses "to the maximum of their thinking, rather than doing, capacity."

The future is filled with opportunity for nursing as CNA moves into its second century. Setting our sights on a common vision related to the elimination of global health disparities could set the health of Canadians on a new course and could vault Canadian nurses toward common goals and a vibrant shared vision of that future.

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