



BY DONALD M. ARMSTRONG

A Prescription for the Future of

Health care reform is shaping up to be a major issue in the presidential election. The Canadians have had some time to work out the bugs in their system. Could it, or something like it, work south of the 49th parallel?

ON AUG. 12, 2007, a Canadian mother successfully delivered healthy identical quadruplet girls at Benefis Healthcare in Great Falls, Mont. A few days later, the Jepps and their four thriving daughters returned home to Calgary, Alberta. Was this another example of the failure of the Canadian health system? It certainly seemed so according to the editorials in many newspapers across the United States. “Canadians Love Their Health Care—in Montana” read the headline in the *Milwaukee Journal Sentinel*. “Great Falls has enough neonatal units to handle quadruple births and a ‘universal health’ nation doesn’t.” wrote Don Suber in the *Charleston (W. Va.) Daily Mail*.

I would argue that the Canadian system actually worked rather well in the case of the Jepp quads. The Calgary medical team that looked after Karen Jepp throughout her pregnancy had determined that the birth of the quads was imminent and that four Level 3 incubators in a single institution were best for the welfare of the babies and the new family. Although Calgary had 21 Level 3 incubators, only 16 were operative at the time because of staffing and four were not available in one place. The medical team canvassed western Canada but not eastern Canada, as that was

too far for the health of the quads and family. Again, four Level 3 incubators in one place within a reasonable distance of Calgary weren’t available at the precise time needed. Benefis Healthcare of Great Falls, serving a population of 250,000, had four Level 3 incubators available. At no expense, the Jepps were flown to Great Falls to deliver the quads in a top-notch hospital that provided excellent care at precisely the right time.

Economic Cost of Health Care

The Canadian health care system was designed to provide excellent health care for all, with as little administrative expense as possible, through a single-payer system. That the cost of all health care in Canada amounts to 9.9 percent of gross domestic product (GDP) compared to 15.3 percent of GDP in the United States says something about administrative expense, bulk purchasing, and, perhaps, extra capacity.

The whole question of wait times and extra capacity to reduce wait times is fraught with emotion. It’s also fertile ground for statisticians. Capacity and wait times weren’t significant problems in Canada prior to the 1990s, but the conservative governments in



Health Care in the United States

Ontario and Alberta, for example, decided that specially trained and equipped nursing staff kept on standby for unusual needs was too expensive. In the mid-1990s, the governments of Alberta and Ontario, among others, cut back funding for the health systems in their respective provinces. Many well-qualified doctors and nurses moved on to excellent positions in the United States. There's no doubt that the Canadian health care system was severely stressed. The wait times for treatment for a number of elective and non-life-threatening chronic conditions, such as hip replacements, and, more disturbing, the treatment of some types of cancer, have been unacceptable.

Administrative expenses incurred in the delivery of health care are another important element of the overall cost and efficiency of any system. Unlike wait times, administrative costs can be relatively easily aggregated and quantified and are very much subject to control and even reduction. A 1987 study published in the *New England Journal of Medicine* analyzed the administrative expenses of the U.S. and Canadian health care systems, including the private sector in Canada and the public sector in the United States. A similar study conducted in 1999 was published in the same journal. Both studies calculated and reviewed insurer overhead, hospital administration, physicians' billing and overhead, and nursing home administration, among other costs. The main findings are summarized in Table 1.

Administrative Costs as a Share of Total Health Care Spending

	1987	1999
Canada	9.8%	21.7%
U. S.	16.7%	31.0%

Advocates of the largely private U.S. health care system will perhaps draw some comfort from the fact that the administrative costs have declined from being 70 percent greater than those in Canada in 1987 to just 43 percent greater in 1999. It's certainly hoped that the portion of health care spending devoted to administration in the next study (based on 2009 or 2010 data) will show a halt in the increase in both countries.

Nevertheless, many commentators, think tanks, and medical organizations both in the United States and Canada have produced studies, statistics, and opinions that suggest that the Canadian model is not the answer for the problems facing the U.S. health care system. The Fraser Institute, a well-known conservative think tank located in Vancouver, British Columbia, released a report, *California Dreaming*, in May 2007 that stated unequivocally that the universal health insurance bill under consideration in the California Senate was greatly flawed because it envisaged a Canadian-type system. The report's authors produced various data and information demonstrating excessive wait times and ris-

ing costs for Canadians. They stated that California should look to Switzerland rather than to Canada for a model.

It's interesting that the Swiss health care system is a variation on the type of system that former Governor Mitt Romney (R-Mass.) introduced in Massachusetts and that Sen. Hillary Clinton (D-N.Y.) has recently proposed. There are differences, of course, but they all require that every citizen purchase insurance coverage. In other words, multiple payers and attendant multiple claims adjudication and payment systems remain. At 11.6 percent of GDP, the Swiss health system is the second most expensive of the 24 member countries in the Organization for Economic Cooperation and Development (after the United States), and the fastest growing, after Turkey and Portugal, from 1990 to 2004. Measured as a share of GDP, costs, benefits, and expenses in Switzerland have increased 40 percent over that period, compared to 28 percent in the United States and 13 percent in Canada.

Outcomes

Cost is one thing, but the health of the nation and of the people is another. Receiving the very best treatment and a successful outcome are really the bottom line as far as the patient is concerned. The Canadian system has issues with wait times and access and is struggling with insufficient numbers of doctors and nurses available to a large segment of the population, but funding of the Canadian health care system is now gradually being increased.

Calgary, Alberta, for example, expected to have all 21 Level 3 incubators fully staffed by the end of 2007. The recent Ontario election

was won handily by the incumbent Liberals, who have promised to overcome a shortage of family doctors for an additional 500,000 Ontarians, accredit more internationally trained doctors, hire 9,000 more nurses, and establish 25 more nurse-led clinics. All provinces have made reduction of wait times for cancer treatments, cataract operations, and hip replacements a priority. Fortunately, both the federal and most provincial governments are producing surpluses and can direct resources toward these issues.

No matter how one cuts it, however, some would say that Canadians neither receive the very best treatment nor are the beneficiaries of successful outcomes. This again can be debated to death by 1,000 statistics. I believe that just two statistics, included in Table 2, can bring it all into perspective.

Country	Infant Deaths per 1,000 Live Births	Total Life Expectancy in Years for Both Sexes
Australia	4.6	80.6
Germany	4.1	79.0
Japan	3.2	81.4
Switzerland	4.3	80.6
Canada	4.6	80.3
United States	6.4	78.0

Source: U.S. Census Bureau, International Database




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Social Security

All actuaries, not just those working in the pension field, are well aware of the aging of the population and the pressures building in the social insurance systems of all developed countries. The 2007 Medicare and Social Security trustees' report states that annual income (tax or contribution income) of the combined Old-Age and Survivors and Disability Insurance (OASDI) Trust Fund will fall short of annual outlays beginning in 2017. Annual income will only be able to finance 75 percent of outlays by 2041, when the OASDI trust fund will be exhausted. But, as Hank Cox pointed out in his article "Australian vs. U.S. Fiscal Policy" in the March/April 2007 issue of *Contingencies*, the OASDI trust fund is entirely invested in non-marketable Treasury securities. Because the excess funds of OASDI have been used to meet government expenditures, Uncle Sam owed \$2 trillion at the end of 2006 to current and future retirees.

In one respect, the social security system in Canada is very similar to the OASDI. The Canada Pension Plan (CPP) is an employer-/employee-financed program that provides a defined benefit pension at age 65 and a disability benefit to those who become totally and permanently disabled. The CPP combined employee/employer contribution is 9.9 percent of earnings (the OASDI is 12.4 percent) to a maximum of \$43,700 in 2007 (the OASDI maximum is \$97,500). There is, however, one important difference. In the mid-1990s, CPP excess funds ceased to be applied to government debt (in Canada's case, provincial bonds), and a separately managed investment fund was established. As of March 31, 2007, the CPP Investment Board report discloses a total market value of \$116.6 billion, invested 65 percent in Canadian and foreign stocks, including 7 percent in private equity, and 35 percent in bonds, real estate, and infrastructure, mainly in the United Kingdom and Chile. The investment fund earned 12.9 percent in the year ending March 31, 2007.

The Dec. 31, 2003, Actuarial Report on the Canada Pension Plan (the 2006 report is now being reviewed by a team of in-

dependent actuaries) demonstrates that the CPP, including the investment fund discussed above, will provide the promised benefits without contribution change until 2075.

High Taxes and Socialism

Well-funded and universal coverage of health care and social security is all very well and good, but it seems it cannot be divorced from a context of high taxes and socialism. Socialism is a charged word and can, of course, mean different things to different people, but I believe the primary concern with socialism as a general concept is perceived government interference and inefficiency.

Government inefficiency with respect to the health care and social security systems has been discussed in some detail above, and the reader can draw his or her own conclusions. As for government interference, there is certainly no shortage of that in the Canadian health care system. But what of the U.S. health care system? Has the private health care system avoided or, at least minimized, government interference? The answer is clearly no! Health care is far too important and emotional an issue (not to mention one that is very invasive of the body and mind).

Let's take a quick look at one area where there is substantial government regulation of five major activities closely aligned with the health system. Since 2003, Duke University, the Cato Institute, and the Pacific Research Institute have issued studies reporting on one or more of these regulated areas. The studies indicate that regulations created a net cost over benefits totaling \$169 billion (about 10 percent of overall health care spending) in 2002. The regulations under study dealt with five aspects or categories: medical torts, the Food and Drug Administration, insurance regulation, certification of health professionals, and certification of health facilities. The conclusion drawn from these studies is that regulation in the U.S. health system renders it far from a free-market model and may, in fact, be little different in its operation from public or hybrid systems found in Canada and Britain.



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No matter how well the private free-market model may work over time, there is no escaping government interference in the health care system. The Canadian system simply injects universality and a single payer (actually 10 single payers, one for each province) into a similar set of government regulations as those described above.

Does this mean a high tax environment is inevitable? Not necessarily, if we are talking simply of a Canadian-style health care and social security system. The total government outlay (i.e., all taxes ignoring the effects of deficits) as a percentage of GDP is slightly higher in Canada (39.5 percent in 2006) than in the United States (36.4 percent). But the extra 3.1 percent of GDP in Canada can be accounted for by costs other than health care and social security. These include excess government costs generated by subsidies, unemployment programs, restrictive inter-provincial trade and labor mobility programs, and a myriad other inefficiencies. The



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tem. The only question remaining is how can the United States implement a single-payer and universal system that would take advantage of the cost controls inherent in such a system and achieve the administrative cost reduction of 2.5 percent of GDP that was estimated by the *New England Journal of Medicine* studies?

Canadian federal budget and several provincial budgets are producing annual surpluses, some for almost 10 years, so the 3.1 percent gap theoretically could be slightly less. Alternatively, as Hank Cox pointed out in his *Contingencies* article, we could figure into the gap Washington's appropriation of \$177 billion in 2006 Social Security contributions not used for benefits and reduce the gap by 1.3 percent of U.S. GDP.

However we measure things, if we look at the big picture, a universal single-payer health care system portends no greater government interference or higher costs and taxes than a fully private or hybrid sys-

JEREMIAH THOMPSON / ISTOCK

What do you call someone who reads RAA's *2007 Historical Loss Development Study*?



An Actuary

The *2007 Historical Loss Development Study* presents historical loss development patterns by accident year in companies writing excess casualty reinsurance for automobile liability, general liability, medical malpractice and workers compensation. Data is presented separately for treaty and facultative business, and by range of attachment point. The study discusses how loss development patterns have changed over the last few years, suggests possible reasons for those changes, and also discusses how loss development has varied depending on the nature of the business being considered.

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The Prescription

With a rapidly aging population and resultant rising health care and Social Security costs, the United States must cease its futile search for a magic formula. Dreaming up defined contribution private investment accounts as a fix for Social Security, or a mish-mash of compulsory health insurance coverage with low-income subsidies and special products for small employers as a means of creating a virtual universal health care system, only complicates matters. These solutions, proposed by well-meaning politicians, only open up new debate and divert attention from the problem.

Social Security benefits must be controlled and in some cases reduced (e.g., by raising the retirement age). The establishment of an independent fund invested in securities other than government debt would help. So would some changes to the health care system, although the challenges are great.

In broad terms, with lots of transition work by each state, the U.S. health care system could make the following first moves:

- ▶ Mandate that all hospitals, as defined, be subject to a negotiated fee schedule (to be set by each state) for all care and procedures, using carefully constituted panels of physicians, hospital administrators, etc.;
- ▶ Require all hospitals to provide service universally, subject only to the presentation of a state health card;
- ▶ Make no changes to the operation of doctors' offices and clinics that aren't defined as hospitals as well as other specially defined institutions, but allow such offices and clinics to opt into the public system;
- ▶ Expect each state, at least initially, to fund the program. (Individuals won't be required to purchase insurance coverage, but a health tax will be necessary.)

A transition period of five years should be set for the first stage. During this transition period, a similar process should be developed to bring doctors' offices and clinics into the universal single-payer system. At no point during the first and second stages should the system attempt to cover outpatient drugs, dental care, or long-term care.

The implementation of a universal medical system is ambitious and will require considerable finessing, as would any major change to the health care system. However, such a system need not be any more socialistic or bureaucratic than the current system. The gradual introduction of a single-payer system will save administration costs and seek, over time, to bring total health care costs under control and in alignment with similar systems in other advanced industrial nations.

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