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Good News About Difficult Decisions: The Canadian Approach To Hospital Cost Control

Manitoba’s health system was able to absorb a significant cut in hospital days, while treating even more patients.

by Noralou P. Roos, Marni Brownell, Evelyn Shapiro, and Leslie L. Roos

Reform of the Canadian health care system has produced divisive debates as proponents and opponents line up on either side of budget cuts. Provincial governments have been preoccupied with reconstructing their health care delivery systems to relieve the burden of accumulated debt and control spending. Because health care accounts for approximately one-third of most provincial budgets, with hospitals taking the largest share, hospitals in every province have shouldered the largest of such cuts. Every province has cut the number of beds in the past decade, in most cases by 30 percent or more. Whereas U.S. spending on hospitals grew by 4.4 percent in 1994, Canadian hospital spending in 1994 was down 9.2 percent, following a downward trend of decreased spending begun in 1991.

Manitoba—a prairie province just north of Minnesota/North Dakota—has managed the health care sector with a centralized, technocratic approach, compared with the decentralization that emerged in the early 1990s elsewhere in Canada. Although bed and budget cuts have been less severe in Manitoba than in several other provinces, Manitoba also has witnessed widespread opposition to the cuts. With intense media scrutiny often driven by anecdotal accounts of an enfeebled system, the province has had its share of political fallout from the cuts.

The Manitoba Centre for Health Policy and Evaluation—an arm’s-length research center located in the Faculty of Medicine at the University of Manitoba and financed in part by government—was commissioned by the province to monitor the impact of health care cuts: namely, an 8 percent reduction in budgets and a 19 percent reduction in beds at acute care hospitals over the period 1989–1994. Although downsizing continues, our results represent interim reflections on how a single-payer system with universal coverage responds to government-initiated budgetary restrictions in health care expenditures.

The Manitoba Centre was well positioned to undertake the systematic monitoring of the effects of budget cutting, because it houses a unique population-based health research database. Designed around information produced as part of administering the health in-

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urance system, this database essentially records every contact Manitobans have with hospitals, nursing homes, and physicians. Vital statistics data, which give the date and cause of death, and public-use census data have been integrated into the database, providing the information necessary to develop the health status indicators and neighborhood income data used in this paper. The validity of the information in the Manitoba data files and the data’s usefulness in addressing important health services research questions have been well documented.

Examination of the process and outcome of health cuts in Manitoba also presents the opportunity to reflect on the differences and similarities in U.S. and Canadian approaches to health care in the 1990s.

Pressures On Manitoba’s Acute Care Hospital System

All Canadian provinces have had to contain health care costs over the past decade as the federal government has pulled back from its cost-sharing role. Combined with difficult economic times and a government committed to keeping the provincial deficit under control, federal cuts have put pressure on all sectors of public spending in Manitoba. Because health expenditures accounted for 33 percent of the total provincial budget during the early 1990s and hospitals used more than half of the health care budget, acute care hospitals have been the focus of attention.

In the early 1990s a comprehensive approach to health care reform in Manitoba was developed, which focused on downsizing the most expensive part of the system through bed and budget cuts and on moving patients to more appropriate settings. By fiscal year 1994 (1 April 1994 to 31 March 1995) this involved closing 22 percent of the beds in the two teaching hospitals (which in 1990 comprised 55 percent of the beds in Winnipeg, the provincial capital) and 16 percent of the beds in Winnipeg’s urban community hospitals. The first major cuts occurred in 1992. Beds were closed across all services in an acute care system that appeared to have little slack. Prior to the cuts, all institutions were operating at occupancy rates greater than 75 percent. The resulting closures were a constant source of headlines: “Pediatric Closure Rocks Hospital” and “Care at Risk, Nurses Claim.”

Comparing bed supply in Winnipeg with that of U.S. cities is difficult, because 20 percent of Winnipeg’s beds were occupied by non-Winnipeg patients, and 50 percent of the days in acute hospitals were used by long-stay patients hospitalized for sixty days or more. However, Winnipeg’s acute bed supply prior to closures more closely resembled the low-use New Haven model than the high-use Boston model in John Wennberg’s well-known comparison.

A preliminary Manitoba Centre report on the cuts to acute care hospitals documented a 7 percent drop in hospital days in 1992, the first year of bed closures. Although the analysis suggested that patient access, quality of care, and the health of the general population had not been affected by the bed closures, the Manitoba Centre continued to monitor the impact of further closures. Data through 1994 have been incorporated into the following discussion. More recent data are in general in accord with these findings.

Effects Of The Cuts

Hospital access. Hospitals responded to shrinking health care budgets by persuading government to permit bed closures. Between 1989 and 1994 Winnipeg residents’ per capita use of acute hospital days decreased 22 percent. Bed-closure statistics do not, however, tell the whole story. Despite the decrease in available beds, Winnipeg hospitals actually treated more patients in 1994 than in any of the previous five years. A marked reduction in surgical lengths-of-stay and a move to outpatient surgery, which rose 69 percent during the period, meant that hospital separations (the combined rate of “discharge” for both inpatient care and outpatient surgery) per thousand residents increased by 6 percent (from 129 per 1,000 residents in 1989 to 137 in 1994). Arguably, this is the most important measure of hospital access. Whether or not access to acute care serv-
ices suffered as a result of the cutbacks can be measured in other ways. Ideally, any cuts to health care services will be designed so that the sickest patients are least affected by the changes. This is apparently what happened; hospitalization rates for patients who were very ill—patients with three or more conditions known to increase the risk of death—were stable over the five-year period. At the same time, hospitalizations dropped 7 percent (from 73.6 to 68.7 per 1,000) for those patients who were least sick, presumably to accommodate the very ill. Although the number of hospital days used by both categories of patients dropped significantly, the change was more dramatic in the case of patients who were least sick (20 percent versus an 11 percent drop for those who were most ill).

■ Variation according to affluence. Health status also has been shown to vary markedly by relative affluence. Across a number of measures, we and others have demonstrated that persons in middle-income neighborhoods have poorer health status than those in the highest-income neighborhoods; residents of the poorest neighborhoods have the worst health status of all.

Winnipeg residents in middle-income neighborhoods also spent 24 percent more days in hospital in 1990 than did those living in the wealthiest neighborhoods; those living in the poorest neighborhoods spent 40 percent more days in hospital than did those in middle-income neighborhoods (Exhibit 1). While the use of acute hospitals by every socioeconomic group dropped over the period of downsizing, the smallest change was for the group with the poorest health status, those in the lowest-income neighborhoods. (An examination of whether the high use of hospitals by low-income groups in Manitoba reflected “social admissions” rather than poor health status found instead a genuinely high need for acute care, as assessed by reviews of medical records using InterQual criteria.)

■ Access to surgery. Despite the perception that bed closures would lead to the rationing of surgical care and long waiting lists, access to high-profile surgical procedures actually increased during the five-year period: Knee replacements increased by 102 percent, cataract surgery by 47 percent, coronary artery bypass grafts by 28 percent, percutaneous transluminal coronary angioplasty (PTCA) by 30 percent, and total hip replacements by 39 percent. These increases all outpaced the five-year growth in Manitoba’s elderly population (5.8 percent). Although the rates of cardiovascular procedures remain low by U.S. standards, they are generally high by Organization for Economic Cooperation and Development (OECD) standards.

■ Quality of care. The Winnipeg media have given prominent coverage to critics concerned that bed closures and cutbacks would undermine quality of care. This kind of attention reinforced the belief in the negative consequences of downsizing, conflating the expression of concern with the statement of facts. In prestudy focus groups, physicians and nurses predicted that care would be compromised because some postoperative patients would be monitored in floor beds rather than in intensive care. Some were also concerned that acute myocardial infarction (AMI, or heart attack) patients would be monitored outside coronary care units and that appendices might perforate because of delayed access.

These questions about quality of care were investigated by tracking the mortality rate within thirty days of admission for patients with three common conditions: heart attack, hip fracture, and cancer surgery. Every death was recorded, whether it occurred before or after discharge. Contrary to expectations, no detectable increase in mortality was associ-
ated with treatment of these conditions; hip fracture mortality actually decreased over the five-year period, from 17.5 percent in 1990 to 13.9 percent in 1994.

Without doubt, hospitals experienced major pressure to discharge their patients earlier to minimize the impact of bed closures. Nurses and physicians frequently expressed the view that “more patients would be discharged from hospital in unstable condition.” This, they believed, would lead to increased complication rates from bleeding, infection, and a general deterioration in care. An examination of rates of readmission within thirty days of discharge for fourteen of the most common types of patients (including those in heart failure or shock, those experiencing a heart attack, those with simple pneumonia, as well as those having major bowel procedures and prostatectomy) showed no evidence that shorter lengths-of-stay increased rates of readmission. Emergency room visits following discharge did not increase. These results also applied to readmission patterns for elderly patients and for those from the lowest-income neighborhoods, two groups who are high users of hospitals and potentially most affected by cutbacks.

■ Health of the population. To date, bed closures have adversely affected neither Manitobans’ access to acute hospital care and high-profile surgical procedures nor the quality of their care, at least as reflected in mortality and readmission rates. However, the public’s perception of cutbacks is influenced to some extent by the media, which tend to exploit the more simplistic and emotional aspects of the situation, often preferring to lead with hyperbole. “Is the government going to be saving money instead of lives?” one 1992 article asked. Another, in 1994, quoted a physician who implied that the system was in desperate straits: “We’re at the point where we won’t be able to accommodate the next sick patient, and I don’t think with something as important as health care, it should have to wait until somebody dies.”

Although most people would not expect bed closures to have such a strong and immediate impact that adverse consequences would be detectable at the population level, this public anxiety led us to assess the health of the Winnipeg population over the period of downsizing. Health researchers generally recognize that the best single indicator of population health status is premature mortality: death before age seventy-five. We also reviewed male and female mortality rates over 1990–1995 and, separately, the rate of deaths caused by cancers, injuries, and selected chronic conditions. None of these analyses suggested any adverse effects of downsizing on population health.

Mortality rates among the elderly and those living in neighborhoods with the lowest mean household incomes were examined because of the opposition health critics’ concern about the impact of the cuts on the most vulnerable sectors of the population. Even among those whose poor health and scant resources make them more dependent on hospitals than other groups are, bed closures had no detectable negative effects.

In short, fears about the consequences of
bed closures proved to be unfounded. We suggest that this disparity between belief and fact, whose origin and persistence is undoubtedly a complex matter, has much to do with the belief that any assault on health care is simultaneously an assault on health; that is, any reduction of the health care budget directly produces a drop in the health of the nation, whereas any increase in spending must be good for the patient, the nation, and its citizenry. But matters are not so simple.

**An Update**

Canadian provinces, with their single-payer systems, endeavor to control health care costs by setting limits on supply—of hospital beds, number of physicians, number of diagnostic imaging machines, and number of dollars available. As reported above, substantial progress in controlling costs has been achieved without the intrusive micromanagement of physicians’ practices, without the shifting of financial risks to providers or patients, and without the steep administrative costs of U.S.-style managed care.20

This has been accomplished while maintaining a largely publicly funded health care system. Despite constant pressures from advocates of a more American system, support for increasing the level of privatization has abated somewhat; even the Canadian Medical Association at its 1997 annual meeting voted down motions endorsing a two-tier approach. In 1997 the National Health Forum, a group appointed to advise the prime minister on health issues, strongly endorsed an expansion of public funding—to encompass home care and pharmaceuticals—as the best way of ensuring universal access and controlling costs.

Manitoba’s Conservative government has taken a cautious, centralized approach to health care reform since 1993. Ranking roughly in the middle of Canadian provinces in per capita expenditures on health care, Manitoba cut a lower percentage of hospital beds (13.2 percent overall) in the 1986–1994 period than any other province, according to Statistics Canada comparisons. At 4.9 per 1,000 population in 1994, Manitoba had slightly more staffed beds per 1,000 population than Newfoundland (4.7) and Saskatchewan (4.6) had.21 Since 1993 the Manitoba reform strategy has emphasized bed closures rather than hospital closures, although substantial downsizing and redirection of some facilities has occurred.

Under pressure, Manitoba Health has at various points provided additional funding; one Winnipeg hospital had to temporarily reopen thirty-three beds to meet demands on its services. Moreover, accompanying the acute bed closings in 1992 was the opening of seventy-five long-term care beds and 234 nursing home beds in Winnipeg. This enabled nonacute patients to be shifted out of acute beds. Further, in response to pressures on beds (which recur every fall and winter), seven beds in Family Medicine in one of the teaching hospitals were reopened in January 1994 and remained open until the fall of 1995; six psychiatric beds also were opened in the fall of 1994. Following initial cutbacks, budget overruns by Winnipeg hospitals thus far have been picked up by Manitoba Health. Efforts at privatizing the home care system were scaled back and then dropped, in the face of considerable union and public opposition.

Although complaints about cutbacks have continued, the government has adopted what appears to be a successful strategy of moving slowly to minimize public concern while increasing the number of high-profile surgical and diagnostic procedures performed.22 (The Conservative Party won an election in 1996 to form the government for a third consecutive term.)

**Discussion**

Any largely publicly funded system such as Canada’s certainly should be designed to de-
liver care to those who need it most; in Manitoba the system is preserving this characteristic as costs are being brought under control. How does this compare with the United States? New information shows the Canada/U.S. gap in life expectancy at birth widening between 1990 and 1995: for males, from 2.0 years (73.8 years in Canada versus 71.8 in the United States) in 1990 to 2.8 years (75.3 versus 72.5) in 1995; for females, from 1.6 years (80.4 versus 78.8) in 1990 to 1.9 years (81.3 versus 79.2) in 1995.\textsuperscript{21} A major achievement of the U.S. Medicare and Medicaid programs has been to redirect health care toward high-need populations.\textsuperscript{24} However, Uwe Reinhardt argues that the United States is now moving back toward an income-based health care system that will ration care quite severely for those in the bottom tier and not at all for those in the upper tier.\textsuperscript{25} The U.S. policy dynamic that focuses on reducing government budgets—particularly cutting health and welfare spending, eliminating entitlements, and transferring responsibility for health and welfare programs from the federal government to the states—seems likely to adversely affect the health of the American population, regardless of continually rising health expenditures.\textsuperscript{26}

Canadian governments must face and respond to criticism from those most affected by the downsizing of the health care sector. Some of these criticisms are legitimate. The morale of those working in the acute care system is poor. Health care workers are being forced to treat more patients with fewer beds and other resources. Media coverage of stringent budgets and the fear of job loss associated with downsizing have combined to create anxiety among staff. Unfortunately, this anxiety is communicated to the public not as a labor readjustment issue, but as distress over quality of care.

Some of the heat from physicians and nurses reflects their direct economic interests in a well-funded health care system. At the same time, these groups genuinely believe in what they do and (at least initially) welcome analyses assessing the effects of cutbacks, because they are certain that their expectations about negative impacts on patient care will be confirmed. Other groups have a more direct interest in promoting privatization. Canada’s Fraser Institute has been successful in gaining broad media coverage for their surveys of disgruntled specialists asked to identify how long patients must wait for surgery.\textsuperscript{27} Many Americans have come to identify the Canadian system with such waits. Americans’ support for a Canadian-style system “drops off sharply when people are confronted with the costs of this proposal, or with the possibility that they might have less choice, or have to wait longer or travel farther for treatment.”\textsuperscript{28}

Typical of the reality behind the waiting list issue is the story of Albert Mueller, the Canadian patient profiled by Walter Cronkite on the widely watched 1990 documentary “Borderline Medicine.” Mueller was followed as he underwent cardiac catheterization; his physician, Dr. Huckell, informed Mueller that he urgently needed bypass surgery. In comparing experiences of several Canadian and American patients, Cronkite announced: “Five months later, Albert Mueller is still waiting for surgery, despite the fact that 25 percent of patients with left main coronary artery disease die within a year.” A 1994 account of the episode reports that the only problem with the story is that, according to Dr. Huckell, “it wasn’t true.”\textsuperscript{29} Mueller didn’t have to wait five months for his surgery. He could have had the operation almost right away and was in fact contacted several times by the hospital and the surgeon. He just didn’t want it at that time.

Although health care reform can easily become an explosive issue, instituting a system in the long-term interest of the population requires cool thinking, informed debate, and the close monitoring of change. Both Americans and Canadians need to relax their cherished assumptions about health care and suspend their individual and professional agendas in order to become receptive to new ideas about how the health of all citizens can best be served.
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NOTES
5. The population health information system (POPULIS) has been described both in the December 1995 Medical Care Supplement and in N. Roos et al., “Population Health and Health Care Use: An Information System for Policy Makers,” Milbank Quarterly 74, no. 1 (1996): 3–31.
10. Acute hospital days per capita fell from 767 in 1989 to 674 in 1992, and 600 in 1994. Only stays of fewer than sixty days are included; the data have been standardized for age and sex to the 1992 Manitoba population. This provides a fairer method of comparing hospital usage over time, since Manitoba’s population is aging and would be expected to generate higher rates of use in recent years based on this factor alone.

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17. Brownell and Roos, Update Report. These results parallel assessments of the impact of the diagnosis-related group (DRG)-based prospective payment system on quality of care. That is, there was, if anything, improved quality of care as judged by lower mortality rates following the introduction of a DRG-based system and reductions in lengths-of-stay at U.S. hospitals. However, clinicians find these results totally nonintuitive, and it is always assumed that one more year of data or the examination of one more condition will confirm their conviction that shorter stays are bad. K. Kahn et al., “Measuring Quality of Care with Explicit Process Criteria before and after Implementation of the DRG-Based Prospective Payment System,” Journal of the American Medical Association 264, no. 15 (1990): 1969–1973.


22. Money saved from the closure of an obstetrical unit at a Winnipeg Hospital has been targeted for an expanded budget for hip and knee replacement surgery. A. Paul, “Grace Gets Aid to Ease Waits for Surgery,” Winnipeg Free Press, 10 January 1998, 14. Recently, the government has committed almost $1.5 million to reduce waiting lists for diagnostic imaging. Plans were announced to create a central registry so patients can go to whichever facility has an opening. Manitoba Government News Release, Information Services, Winnipeg, 12 January 1998.


27. See Waiting Your Turn (Vancouver: Fraser Institute, 1992, 1993). Since the physician response rates to their surveys are so low (only 16 percent of Manitoba physicians responded in 1992 and 33 percent in 1993), the Fraser Institute surveys are fatally flawed.
