INTRODUCTION

Although Canada’s beleaguered health care system still produces outcomes among the best in the world, there are growing signs that this is not the reality for Canadians living in smaller or more isolated communities across the country.

Despite manifest rural–urban health inequity, regional management repeatedly finds it an easy decision to close, or hobble, a small peripheral hospital and transfer a portion of the funding for those services to the centre of power.

This paper is an abridged form of the Society of Rural Physicians of Canada’s discussion paper on rural service closures developed to examine the arguments and evidence for and against hospital and service closures.

THE “QUALITY” CASE FOR HOSPITAL AND SERVICE CLOSURES

Quality arguments for closures occur typically as veiled slurs on the rural institution that fly in the face of the evidence. Maternity care has been found to be as safe in smaller rural hospitals as in large specialist-run centres in northern Ontario. American studies have shown that if women have to travel to give birth, costs are higher and results are worse. Because of the evidence of safer local access, 3 large Canadian medical organizations joined to issue a statement on the need for rural maternity care in Canada with and without local cesarean capability.

Appendectomies done in western Canada by general practitioners in rural communities had slightly fewer complications than those done in city hospitals. Colonoscopies and other endoscopic procedures done by rural family doctors, when studied, are as high in quality as those done by specialists. According to the Canadian Institute for Health Information all but 3 rare and highly specialized procedures are done as competently in low-volume centres in Canada as in high-volume centres.

THE ECONOMIC CASE FOR HOSPITAL AND SERVICE CLOSURES

Conventional wisdom states that fewer hospitals ease administrative complexity and offer a potential for cost savings. Despite many rounds of restructuring, experiential evidence has not supported the assumption that even this 1-dimensional view of efficiency is achieved. The cost argument for the closure of rural hospitals rarely addresses the indirect costs, such as those related to ambulance use, or personal costs related to transportation, hotel accommodation, meals away from home, accidents getting to other communities and so on. When increased costs to the patient are assessed, total costs are found to increase.
Even when you ignore such costs it is not clear that there will be savings from the closure of rural hospitals. Former Saskatchewan minister of finance Janice MacKinnon, reflecting back on the 1993 closure of 52 mostly very small rural hospitals, has estimated that only about $30 million was saved, which is far less than what was expected.9

The Manitoba Centre for Health Policy10 did an analysis of hospital efficiency in Manitoba correcting for varying case mix (different patients with different medical conditions) between hospitals. The most efficient hospitals in Manitoba were found to be the full-service medium-sized rural hospitals such as the 30-bed Beausejour Hospital.

The report suggested that the most cost savings, 11% of the provincial inpatient budget, could be achieved from improving the efficiency of the largest hospitals to the level of the larger rural hospitals. This was not because the teaching hospitals were the most inefficient, but because they treated 35% of the inpatients and consumed 46% of the provincial inpatient budget. In contrast, although the smallest and most isolated rural hospitals were relatively inefficient, they only consumed less than 1% of the budget.

In an analysis of the Ontario hospital closures of 1996/97, when Ontario went from 223 to 150 hospital corporations, short-term analysis failed to show monetary gains.11 The authors suggest that this paradox stems from unrealized potential gains, and the finding that large hospitals with high levels of tertiary care are “less efficient in the provision of outpatient and emergency care.”

This is not to suggest that there are no potential financial savings from system changes, but rather to point out that hospital service closure is a blunt instrument.

**Regionalization and the Right Number of Hospitals and Services**

There is no one “right” decision as to what health services will be provided to whom and where. It varies by geography. There are several basic services that for population safety and access need to be as close as possible to where people live and work. By analogy, it doesn’t matter that fire halls are inefficient, as the vast majority of the time there is no fire to fight. That service is nonetheless needed in a timely fashion. Similarly, basic medical care is needed close to the patient.

Generally, emergency care, inpatient care and often obstetric care should occur when there is enough of a population base to sustain a complement of 5 or more physicians,12 which is a bit more than 5000 people. This makes the call burden sustainable for most of the professions involved, and also invokes a hospital size that is efficient. These services might need to be supported locally in communities with smaller populations if the next location that can provide this care is more than half an hour transport away. In Ontario the ministry has used 40 km as the distance between hospitals that have 24-hour emergency department coverage.13

Closure by degree is sometimes supported by the argument that many of the emergency department visits are deferrable and could be seen by family physicians in their offices. This is true for all emergency departments, including those attached to large teaching hospitals.

There are other arguments that night volumes are so small that the emergency department should be closed after midnight. As with firefighting, the purpose of the infrastructure is to be available, regardless of the time of day, for the few cases in which timely intervention makes a difference.

When those in central planning are contemplating closure of services, local consultation with providers and the population is essential. Closure of services and hospitals must take the following elements into consideration:14

- local economic conditions including the role that health care institutions and services play in the local economy
- geography
- effect on the retention and recruitment of health care professionals
- transportation, which includes everything from ambulance services, to public transportation, to the state of the roads or air services to the regional centres, as well as the effect of weather on the ability to travel
- ensuring that services such as home care, ambulance services and telehealth are available in communities from which hospitals or services are being removed
- equity of access

**The Case Against Closures**

Closure of rural community hospitals has documented repercussions. Studies show a lower quality of care, decreased access to physician services, fewer employment possibilities15 and increased per capita health care expenditure.7,8,10 If there is no other
hospital in the community, per capita income can drop by 4% and the unemployment rate can increase by 1.6 percentage points.\textsuperscript{16}

The largest impact of an imposed hospital closure is the impact on recruitment of new medical and nursing staff.

Fort Macleod is an Alberta town with a population of about 3000, situated 50-km west of Lethbridge. It’s at the crossroads of 2 major highways and in between 2 of the largest First Nation reserves in Canada. Before 2005 the 5 doctors who worked there supported a full-service hospital, including obstetrics and surgery. In 2003 the hospital was converted into Fort Macleod Health Centre with 3 holding beds and a limited emergency department. Within 1 year the 2 newest doctors, who still had between them 20 years in town, had left, and another doctor semiretired. Nurses and radiography and laboratory technicians began looking for positions elsewhere, or retired. Now there is little to attract new physicians to the area. The town is continually trying to fill vacancies and has been consuming a significant portion of the provinces locum fund for rural doctors between 2005 and 2007.

In New Brunswick’s Upper St. John River Valley a regional hospital was built in 2007 between Bath and Woodstock to replace 3 other hospitals, despite massive demonstrations in affected communities. The Woodstock doctors had a vibrant full-service hospital that was really a case example of how best to run a rural hospital. Since their hospital has been closed, the Woodstock doctors no longer provide inpatient care to the new hospital (except for obstetrics) as it is perceived as no longer being their hospital, but the region’s.

One of the unintended consequences is that the change undermined the ability for the region to recruit, since current New Brunswick legislation would require any new doctor to admit patients to the hospital without being able to sign out to local physicians. In the meantime the region is subsidizing itinerant physicians to provide this care.

Another example of the unintended results of closures is that downsizing can actually decrease efficiency. In Strathroy, Ont., closure of the rehabilitation beds has destabilized the hospital. Inpatients that were once rehabilitated to go home or were having their condition stabilized while waiting for a nursing home bed, are now decompensating and having to remain at the hospital as long-term patients. In the drive to save money, efficiency and patient care decreased.

CONCLUSION

The issue of service and hospital closures is highly emotionally charged. The local community has much to lose and little or nothing to gain. Closures are the easiest to arrange when there is an alternative institution in the community. Closures of hospitals that would result in populations needing to travel under half an hour for care may be reasonable, if by so doing, the existing health care providers would agree to join together to form a larger group to share the burden of providing care.

Even if this were the case, it is not at all clear that efficiency would increase. The evidence that exists implies that without meaningful local input it is possible, if not likely, that costs will go up, access will decrease, and there will be negative ramifications for the local economy and for the recruitment of physicians.

Hospital service closures are not a substitute for system reform.

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REFERENCES

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