Home Care Developments in the Canadian Province of Alberta with Regionalization

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Abstract

A study was done to determine if the number of home care clients served annually in a Canadian province increased after regional boards were granted full authority and responsibility for health care services. An increase was expected as regional boards have more opportunity to comprehensively plan and provide cost-effective health care services in accordance with the needs of the local community. An increase was also expected in keeping with a previous home care growth trend. An analysis of 2004/05 data collected on all home care clients in the province of Alberta was undertaken, with the results compared to 2000/01. Client numbers province-wide declined 7%, although this decline was limited to the 7 rural regions (-50%), while client numbers increased 30% in each of the 2 urban regions. This decline in rural home care clients was linked to more readily available hospital beds in rural areas, which seems to have reduced the need or demand for home care in rural regions. Service coverage was also found to vary considerably among clients, but services were most often minimal and short term. Less than 2% of Albertans received publicly-funded home care services in 2004/2005, with coverage averaging 2 hours of basic personal care each week. This study reveals the issue that regional boards make vastly different allocation decisions in the absence of central health service policies or funding directives. The issue of home care service scarcity was also revealed, with research needed now to determine how home care expansion can be made to occur in rural areas, if not all areas.

Keywords: Home care services, Health system reform, Regionalization, Organizational decision making, Cost benefit analysis, Research

1. Introduction

Regionalization became a common health system reform approach in Canada after New Zealand's initial well publicized early-1990's attempt (Douglas, 1993). The Government of Alberta was one of the first in Canada to implement regionalization. Initially, 17 geographic and 2 province-wide health services (mental health and cancer care) boards were appointed in 1995, and made responsible for health care planning and delivery in the 1996/97 year. The mental health and cancer care boards became accountable for all community and facility-based health care services for their respective client populations. The geographic regional boards became responsible for all other health care services within their respective regions. This regionalization approach involved considerable decentralization, as the Government of Alberta then engaged in a "hands-off" approach to health care services planning and delivery. Before regionalization was suddenly abandoned in May 2008, and one board then made responsible for planning and providing all health care services in the province, a series of regional amalgamations took place. By 2000/01, these amalgamations had resulted in 1 province-wide cancer care board and 9 geographic boards. Two of these geographic regions were small in area (i.e. the Calgary region and the Edmonton or Capital region), but each of these "urban" regions had around 1 million urban and urban-fringe residents living in them. The other 7 were each large in area, one of which extended many hundreds of kilometres from the east to west borders of Alberta. A total of 1 million residents lived in these 7 "rural" regions, on farms and in small communities.

Although regionalization was set up so that appointed boards would have full authority and responsibility for health care, home care funding was enhanced over the first three years by the Government of Alberta (Wilson *et al*., 2007). These funds were expected to offset the impact of 50% of the province's 13 000 hospital beds having closed because of health system funding cutbacks from 1993 to 1995 (Wilson *et al*., 2005). A previous study found this enhanced funding was associated with increases in the number of home care clients each year, although mainly those needing short-term support following early hospital discharge (Wilson *et al*., 2005). This report outlines a follow-up study to determine if client numbers continued to increase with fully regionalized health system governance.

2. Methods

Following University of Alberta research ethics approval, a secondary analysis of the most current years of home care data directly comparable to the data analysed in the previous study (Wilson *et al*., 2005) was conducted. Upon request and the payment of a fee, complete individual-anonymous data for 2003/04, 2004/05, and 2005/06 were obtained from Alberta Health and Wellness. Alberta Health and Wellness had compiled the home care data provided by each region. These three data years were said to be the most current years of available comparative data, as a new home care database began to be developed in 2005/06. After an introductory data analysis, the 2005/06 data year was rejected as all data for one of the large urban regions were missing (1/3 data were thus not available for analysis) and data issues for the remaining regions were apparent. This introductory analysis also revealed the annual client counts for 2003/04 (N=53 922) and 2004/05 (N=60 597) differed unaccountably. Furthermore, the 2003/04 data had a number of data gaps and coding issues. After Alberta Health and Wellness had supplied repeat 2003/04 and 2004/05 data, and with similar issues found, a decision was made to focus the analysis on the 2004/05 year. Descriptive-comparative findings for the 2004/05 year, gained through using the SPSS (version 17) computer program, are outlined below. Although the research team was prohibited from combining the datasets for 2000/01 and 2004/05 to make direct statistical comparisons, select previously reported 2000/01 findings (Wilson *et al*., 2005, 2007) are provided for comparison purposes.

3. Results

As shown in Table 1, 2004/05 clients were more often elderly, female, low income, urban, not married but cohabiting, and classified as long-term. When classified as long-term, home care coverage is expected to continue past one calendar month and perhaps over the person's entire lifespan. If a person were classified instead as having been approved for short-term home care, they would typically receive home care over a period of up to 20 or 30 days in length. Palliative home care is the third classification, with palliative clients expected to be within the last three months of life. In palliative cases, home care is normally provided until death occurs in the home, or until there is a relocation of the dying person to a hospital or nursing home. From 2000/01 to 2004/05, an increase in the number of long-term clients and a decline in both short-term and palliative client numbers are apparent.

Table 2 summarizes service event (i.e. home visits and occasional telephone calls) findings and care hour

findings. Services events were most often in the form of home visits (95%), with 5% of service events being telephone calls. Home care clients could have more than one service event recorded each day, as they could receive two or more calls/visits from one home care worker or multiple home care workers. Annual care hours and service events per client varied considerably, but home care coverage over the 2004/05 year per client can be summarized as two hours of home care each week. The medians of 12 hours of home care and 5 service events illustrate coverage was often short term and relatively minimal overall. As indicated by the ranges, a few clients received round-the-clock full-year services. Although not reported in Table 2, full-service clients were almost always children or younger adults living in the two urban regions. Many clients received only a single home care service over the course of this year. One home care service, such as an assessment that results in service denial, would register the recipient as a home care client. The mean hours of care per client increased from 2000/01 to 2004/05, although the median care hours declined.

Although not outlined in Table 1 or 2, the data showed Home Support Aides provided 63.9% and 64.5% of all care hours and service events respectively. Home Support Aides only provide basic nursing care, as their services are restricted to personal care (bathing and dressing primarily). Home Support Aides are unlicensed and unregulated persons who typically have little or no formal nursing education. Registered Nurses were the next most common service provider, supplying 9.4% and 15.1% of all care hours and service events respectively. Registered Nurses conducted the initial home care eligibility assessment, planned and coordinated the care provided by other home care workers, and delivered direct skilled nursing services (to short-term and palliative clients mainly). Respiratory Technicians and Occupational or Physical Therapists provided the remaining service hours/events.

4. Discussion

The 60 597 home care clients apparently served across Alberta in the 2004/05 year numbered 7% less than the 64 887 served four years previously in 2000/01. This decline in clients is unexpected in light of the previous ongoing home care growth from 1990/91 through 2000/01 (Wilson *et al*., 2007). Regional amalgamations ended in the 2000/01 year. Although some board member changes could have occurred after 2000/01, regional boundaries and regional board expectations were stable across this timeframe. An increase in client numbers had been anticipated, as regional decision-makers had enhanced opportunity for comprehensive and cost-effective health services planning. In addition, there was growing Canadian evidence that home care enables early hospital discharge and prevents some hospitalizations or institutionalizations (Canadian Institute for Health Information, 2007a; Duncan & Reutter, 2006; Forbes & Jansen, 2004; Health Canada, 1999; Hollander, 2003/2004; Wilson *et al*., 2007).

4.1 Rural-urban Differences

Client reductions were limited to the rural regions; as the two urban regions each had 30% more clients. The remaining seven rural regions combined had a 50% reduction in number of clients served. All rural regions had fewer home care clients registered in the 2004/05 year as compared to the 2000/01 year. Factors for this rural reduction are therefore of interest; particularly as rural areas in Canada typically have a higher proportion of older persons as compared to urban areas (Statistics Canada, 2008). This study and the previous Alberta home care study showed older people are the more typical home care client (Wilson *et al*., 2005).

This rural/urban difference in home care was likely precipitated by uneven 1993-95 deficit-fighting provincial policy. In the two years immediately prior to regionalization, the Government of Alberta initiated a 30% funding cutback and then additional funding rollbacks for city hospitals, as compared to a single initial 15% funding cutback for rural hospitals. At that time, it was commonly thought that Alberta had not shifted as much as possible from inpatient-based hospital care to ambulatory or outpatient-based care. Large city hospitals were believed to have excess bed capacity. The 1993-95 funding reductions resulted in a major elimination of urban beds as one large hospital in Edmonton and two large hospitals in Calgary closed, and other city hospitals were downsized (Wilson & Truman, 2001; Wilson *et al*., 2005). When rural regional health authority boards assumed their governance responsibilities in 1996/97, they became responsible for many hospitals, as most towns and small cities across Alberta had hospitals. No hospitals were closed by the rural regional health authorities over the years, but some lost their capacity to perform surgery, deliver babies, and provide 24-hour laboratory or X-ray services. Even though rural boards consolidated some acute care services at regional care centres, the less acute rural hospitals were not downsized or closed. Hospital beds consequently became more plentiful in rural regions. In contrast, the urban regions had a much lower per capita bed ratio than rural regions by 1996/97 as a result of the directed funding cutbacks. The per capita bed ratio in the two urban regions continued to decline with rapid population growth as few, if any, hospital beds were reopened. Most newcomers to the province

settled into the two urban regions. In addition, these "high-tech" city hospitals continued to be used by both urban and rural citizens. At most large city hospitals, 30% of all persons admitted did not live in the region. Consequently, the need or demand for home care increased in the two urban regions. In contrast, the need or demand for home-based care in rural regions appears to have declined with the ready availability of rural hospital beds.

4.2 Home Care Accessibility and Apparent Value

With a population of around three million persons, and with only 60 597 receiving home care services in 2004/05, this shows that less than 2% of Albertans received publicly-funded home care. The medians (12 hour and 5 service events) also show home care coverage was often both short term and minimal. The modes (0.5 hour and 1 service event) reveal the problem that many clients were assessed for home care, and then did not receive any home care services beyond this assessment. Having available family members who can provide care in the home is a common reason for home care service denial. Other Canadian studies have similarly suggested that both temporary and ongoing home-based care for disabled seniors and younger persons are more often provided by family members (Cranswick, 1998; Wilkins & Park, 1998). While disabled community-living persons may only need periodic assistance with housekeeping, shopping/transportation, meals, and bathing; the decline in home care clients overall, and the decline in short-term clients and palliative clients in particular from 2000/01 to 2004/05 indicates that family members are increasingly providing home care. This care is likely to be often basic, in keeping with the knowledge and care capacities of the most common home care worker – the Home Support Aide. However, one important difference from 2000/01 to 2004/05 is what appears to be a shift of skilled care services to family members in keeping with the decline in short-term and palliative clients. Family members may have increasingly provided wound dressings, advanced pain management, artificial hydration, and other skilled care. Hospitalization rates and nursing home entry rates among persons who could have qualified for short-term or palliative home care may have also increased over this timeframe.

Alberta is not the only Canadian province with limited home care; a 2000/01 survey found 1.3-2.9% of provincial and territorial populations were receiving home care (Canadian Home Care Association, 2003). In contrast, since the early 2000s, 8% to 9% of Canadians have been hospitalized each year (CIHI, 2007b, 2008, 2009). Although some may argue there is less demand for home-based care than hospital-based care, one study found only half of all Canadians who thought they needed home care were receiving it (Chen & Wilkins, 1998). There is little doubt that hospitalizations are clearly necessary at times. Some hospitalizations, however, as well as long hospital stays and long institutionalizations in nursing homes, could be avoided through home care substitution (Commission on the Future of Health Care in Canada, 2002).

Since mid-2000, the imperative to reduce long wait lists and wait times for hospital care has grown across Canada. Every province and territory has been actively addressing this hospital accessibility issue, with some federal funds provided to stimulate new initiatives and enhance existing ones. These initiatives are often aimed at increased access to select diagnostic tests and treatments. Some more up-stream initiatives are also becoming evident. In Alberta, on December 15th, 2008 (seven months after health system regionalization ended), the *Continuing Care Strategy* was released by Alberta Health and Wellness. This strategy is oriented to promoting health among mainly older community-dwelling citizens. Through a range of home-based care and support options, this strategy is aimed at reducing hospitalizations and institutionalizations. In 2009, operational funding for home care was again enhanced and additional capital funds for seniors' housing pledged (Government of Alberta, 2009).

5. Conclusions

This secondary analysis of 2004/05 home care data provided by Alberta Health and Wellness revealed a decline in client numbers as compared to 2000/01. However, urban home care clients increased and rural home care clients decreased in number. These changes occurred after regional authorities had gained full responsible over an extended timeframe for all local-area health care services. This study shows regional boards make vastly different allocation decisions in the absence of central health service policies or funding directives. Readily available rural hospital beds appear to have reduced the local need and/or demand for home care. In contrast, a substantial increase in home care clients occurred in urban regions with sustained low per capita hospital bed ratios. The issue of home care scarcity was also revealed. As home care has been shown capable of shortening hospital stays, and preventing some hospitalizations and nursing home admissions, research is now needed to determine how home care expansion can be made to occur in rural areas, if not all areas. (Hollander, Chappell, Prince & Shapiro, 2007; Laporte et el., 2007).

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Table 1. Home Care Clients Compared Between 2000/01 and 20004/05

Fiscal Year		**2000/01***	**2004/05**
Clients Served Annually		64 887	60 597
Classification	Long-term	34 015 (52.4%)	36 576 (60.3%)
	Short-term (< 30 days in 2000/01 and < 20 days in 2004/05)	26 634 (41.0%)	21 340 (35.2%)
	Palliative	4 238 (6.5%)	2 681 (4.4%)
Gender	Female	39 748 (61.3%)	36 658 (60.5%)
	Male	25 128 (38.7%)	23 939 (39.5%)
Age	Mean (median) years	69.4 (75)	68.9 (75)
	Mode (range) years	78 (0 - 111)	82 (0 - 107)
	Over 64 years of age	46 418 (71.5%)	42 037 (69.4%)
Region	Calgary	16 851 (26.3%)	22 912 (37.8%)
	Edmonton/Capital	16 270 (25.4%)	21 839 (36.0%)
	All Other Regions	31 766 (48.3%)	15 846 (26.1%)
Income	Premium subsidized (low income)	NA	46 781 (77.2%)
	Not subsidized	NA	13 816 (22.8%)
Marital Status	Not married	NA	38 181 (63.4%)
	Married	NA	22 416 (36.6%)
Living Arrangement	Lives with spouse/others	NA	41 967 (69.3%)
	Lives alone	NA	18 630 (30.7%)

* Source: Wilson, D., Truman, C., Huang, J., Sheps, S., Thomas, R., & Noseworthy, T. (2005). The possibilities and realities of home care. *Canadian Journal of Public Health, 96*(5), 385-389.

Table 2. Home Care Services Compared

Fiscal Year		**2000/01***	**2004/05**
Clients Served Annually		64 887	60 597
Total Care Hours per Year		7 111 340	6 726 648
Hours per Client	Mean (median)	107.8 (15.5)	111.1 (12)
	Mode (range)	0.5 (0.1 - 4 342.5)	0.5 (0.25 - 8 971)
Total Service Events Per Year		NA	3 337 612
Events per Client	Mean (median)	NA	55.1 (5)
	Mode (range)	NA	1 (1 - 39 286)

* Source: Wilson, D., Truman, C., Huang, J., Sheps, S., Thomas, R., & Noseworthy, T. (2005). The possibilities and realities of home care. *Canadian Journal of Public Health, 96*(5), 385-389.