Downsizing Canada's hospitals, 1986/87 to 1994/95

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Abstract

The period between fiscal years 1986/87and 1994/95 has seen a reduction in the number of hospitals in Canada and fundamental changes in the way they deliver their services. During this time, the number of public hospitals fell by 14%, and the number of approved beds in these hospitals declined by 11%. As a result, the number of staffed beds per 1,000 population dropped from 6.6 to 4.1.

Much of the decrease in approved beds in public hospitals can be attributed to the reduction in the hospital extended care sector. In fact, some hospitals with long-term care units have been re-designated residential care facilities. As well, a common trend emerged in all categories of public hospitals: the number of outpatient visits increased, while inpatient-days decreased.

Between 1986/87 and 1991/92, public hospitals' average annual increase in operating expenses (in current dollars) was 8%. However, from 1991/92 to 1994/95, public hospitals posted negative average annual growth in their expenditures (-2.4%), which reflects efforts made by various provinces to control hospital costs.

This article presents data from reports compiled by Statistics Canada: Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94 *and* Preliminary Annual Report of Hospitals, 1994/95.

Key words: *outpatient treatment, length of stay, hospital expenditures, staffed beds, approved beds*

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Since the mid-1980s, Canada's hospitals have experienced profound change. The number of hospitals, and consequently, the number of staffed beds have declined. Inpatient days have also decreased, and average length of stay has dropped. To a large extent, these changes can be traced to a sharp reduction in the hospital extended care sector and a rise in outpatient visits. Although some hospitals have closed, others have been converted to residential care facilities. These trends have allowed hospitals to reduce their operating expenditures, particularly since the early 1990s.

This article describes recent developments in various aspects of hospital care such as the number of staffed beds, length of stay, outpatient treatment, and expenditures. The data are from reports compiled by Statistics Canada: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94*[1] and *Preliminary Annual Report of Hospitals, 1994/95*[2] (see *Methods*).

Fewer hospitals

In fiscal year 1994/95, 978 hospitals were in operation in Canada, 901 of them public, 22 private, and 55 federal (see *Definitions*). Together, these hospitals had 156,547 beds approved by the provincial authorities (excluding bassinets for newborns). Public hospitals accounted for the vast majority—98%—of approved beds (Table 1).

Between 1986/87 and 1994/95, the number of public hospitals decreased by 14%, and the number of approved beds in these hospitals fell 11%. More than half the decline in the number of approved beds in public hospitals over the last eight years can be attributed to reductions in the hospital extended care sector.

While some hospitals have been closed, others have been converted to different uses within the health care sector. Some hospitals with long-term care units have become residential care facilities. Since these are no longer designated as hospitals, they are not included in this analysis. Still other hospitals have been re-assigned to provide outpatient treatment exclusively or have been merged with other facilities.

Methods

Data source

The data are from the *Annual Return of Health Care Facilities - Hospitals* and for fiscal year 1994/95, the *Preliminary Annual Report of Hospitals*. Under the Statistics Act, all facilities with a licence to operate a hospital (granted by provincial ministries of health and certain federal departments) are required to complete this report. The target statistical universe is all public, private and federal hospitals operating in the provinces and territories.

The results are based on data from the *Annual Returns* and the *Preliminary Annual Report*, for which the response rate always exceeds 80% of all hospitals, representing more than 90% of beds. The response rate for public hospitals is generally higher (about 90%). The estimates in this article are based on reported values only.

Analytical techniques

The number of outpatient visits is the sum of outpatient visits to emergency units, surgical day-care programs, general and special clinics, and day- and night-care programs.

The number of visits to day- and night-care programs is estimated from the number of outpatients registered in these programs. To compute this figure, the total number of visits to day- and night-care programs during the year is multiplied by the ratio of outpatients to the total number of patients using these programs.

For comparisons between provinces, the proportion of outpatients who are registered in day- and night-care programs is determined independently for each province. Because of the absence of data on this ratio for Quebec, the proportion calculated for Canada is used to estimate the number of outpatient visits to day- and night-care programs in that province. The same approximation was made for Ontario in 1993/94.

For comparisons between the different types of hospitals, the proportion used to estimate the number of outpatient visits to day- and night-care programs is calculated independently for each type of facility.

Limitations

Data on the number of outpatient visits are not collected for the *Preliminary Annual Report of Hospitals*. The statistics on outpatient visits and inpatient-days do not include private and federal hospitals or nursing stations and outpost hospitals.

A suitable (inflation) deflator is not yet available by province for 1994/95 hospital expenditures. Therefore, current dollars are used in this analysis. In addition, private and federal hospitals are not required to report financial information on this survey.

Staffed hospital beds

For hospitals overall, staffed beds (that is, beds actually available to patients) numbered 120,774 in 1994/95. This was down 30% from the peak of 172,425 staffed beds in 1986/87 (Table 2).

Extended care public hospitals experienced the most marked decline in staffed beds (by 46%). Reductions were also substantial in specialty public hospitals (34%) and general public hospitals with no long-term care units (32%).

Numerically, the decrease in staffed beds was greater in short-term care units (by 30,023) than in long-term care units (21,628). However, the percentage decrease in the number of staffed beds in long-term care units (36%) exceeded that in short-term care units (27%).

At the national level, the number of staffed beds per 1,000 population fell from 6.6 to 4.1 between 1986/87 and 1994/95. Although population growth contributed to the decline in the ratio, a shift to ambulatory care and the resulting bed closures largely explain this trend.

Throughout this period, Quebec had the highest ratio of staffed beds to population. Alberta's ratio had ranked second in 1986/87, but hospital reform in that province during the intervening years meant that by 1994/95, its ratio was lowest (Table 3). Manitoba had the smallest decrease in the number of staffed beds per 1,000 population, with its ratio falling from 5.8 to 4.9.

The number of staffed beds in short-term care units per 1,000 population fell in all provinces. And only in Newfoundland did the number of staffed beds in long-term care units per 1,000 population increase.

The decline in the number of staffed long-term care beds was particularly pronounced in Alberta and Quebec. Beginning in 1990/91 in Alberta and in 1993/94 in Quebec, some extended care hospitals and long-term care units of general hospitals were re-designated as residential care facilities. Alberta re-designated over 5,000 approved beds in 67 public hospitals, and Quebec re-designated over 9,000 approved beds in 71 hospitals (38 public, 33 private).

Table 1

Distribution of hospitals and approved beds,† by type of facility, Canada, selected years

	1986/87		1993/94		1994/95		Percent change 1986/87 to 1994/95	Percent change 1993/94 to 1994/95
		%		%		%	%	%
Hospitals								
Total	**1,224**	**100**	**1,157**	**100**	**978**	**100**	**-20**	**-15**
Public hospitals	1,053	86	998	86	901	92	-14	-10
General, without long-term care units	417	34	366	32	352	36	-16	-4
General, with long-term care units	365	30	353	31	363	37	-1	3
Teaching	61	5	58	5	56	6	-8	-3
Specialty	35	3	34	3	34	3	-3	-
Extended care	150	12	136	12	96	10	-36	-29
Nursing stations and outpost hospitals‡	25	2	51	4	-	-	-100	-100
Private hospitals	59	5	57	5	22	2	-63	-61
Federal hospitals	112	9	102	9	55	6	-51	-46
Approved beds†								
Total	**178,137**	**100**	**172,222**	**100**	**156,547**	**100**	**-12**	**-9**
Public hospitals	171,461	96	166,153	96	152,939	98	-11	-8
General, without long-term care units	25,440	14	23,326	14	21,021	13	-17	-10
General, with long-term care units	64,255	36	64,062	37	63,076	40	-2	-2
Teaching	39,787	22	38,384	22	37,263	24	-6	-3
Specialty	5,790	3	5,166	3	4,923	3	-15	-5
Extended care	36,084	20	35,070	20	26,656	17	-26	-24
Nursing stations and outpost hospitals‡	105	--	145	--	-	-	-100	-100
Private hospitals	3,682	2	3,587	2	1,226	1	-67	-66
Federal hospitals	2,994	2	2,482	1	2,382	2	-20	-4

Sources: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94; Preliminary Annual Report of Hospitals, 1994/95*
Note: *Percentages may not sum to 100 because of rounding.*
† *Includes beds for adults and cribs for children, but excludes bassinets for newborns.*
‡ *No public nursing stations or outpost hospitals were providing inpatient care in 1994/95; for this reason, none of these facilities was designated as a hospital.*
- *Nil or zero*
-- *Amount too small to be expressed*

Table 2

Staffed beds in hospitals, by type of care unit, Canada and provinces, 1986/87 and 1994/95

	All units			Short-term care units			Long-term care units		
	1986/87	1994/95	Percent change	1986/87	1994/95	Percent change	1986/87	1994/95	Percent change
			%			%			%
Canada†	**172,425**	**120,774**	**-30.0**	**111,696**	**81,673**	**-26.9**	**60,729**	**39,101**	**-35.6**
Newfoundland	3,401	2,753	-19.1	2,691	1,987	-26.2	710	766	7.9
Prince Edward Island	755	513	-32.1	662	477	-27.9	93	36	-61.3
Nova Scotia	5,705	3,722	-34.8	5,242	3,324	-36.6	463	398	-14.0
New Brunswick	5,151	3,397	-34.1	3,949	2,494	-36.8	1,202	903	-24.9
Quebec	54,741	38,849	-29.0	27,089	25,121	- 7.3	27,652	13,728	-50.4
Ontario	51,181	37,303	-27.1	37,334	24,354	-34.8	13,847	12,949	-6.5
Manitoba	6,369	5,527	-13.2	5,134	4,482	-12.7	1,235	1,045	-15.4
Saskatchewan	7,272	4,675	-35.7	6,448	4,097	-36.5	824	578	-29.9
Alberta	17,990	8,372	-53.5	11,755	7,598	-35.4	6,235	774	-87.6
British Columbia	19,466	15,527	-20.2	11,040	7,628	-30.9	8,426	7,899	- 6.3

Sources: *Annual Return of Health Care Facilities - Hospitals, 1986/87; Preliminary Annual Report of Hospitals, 1994/95*
† *Includes Northwest Territories and Yukon.*

Table 3

Staffed beds per 1,000 population, Canada and provinces, 1986/87 and 1994/95

	All units		Short-term care units		Long-term care units	
	1986/87	1994/95	1986/87	1994/95	1986/87	1994/95
Canada†	**6.6**	**4.1**	**4.2**	**2.8**	**2.3**	**1.3**
Newfoundland	5.9	4.7	4.7	3.4	1.2	1.3
Prince Edward Island	5.9	3.8	5.1	3.5	0.7	0.3
Nova Scotia	6.4	4.0	5.9	3.5	0.5	0.4
New Brunswick	7.1	4.5	5.4	3.3	1.7	1.2
Quebec	8.1	5.3	4.0	3.4	4.1	1.9
Ontario	5.4	3.4	3.9	2.2	1.5	1.2
Manitoba	5.8	4.9	4.7	4.0	1.1	0.9
Saskatchewan	7.0	4.6	6.2	4.0	0.8	0.6
Alberta	7.4	3.1	4.8	2.8	2.6	0.3
British Columbia	6.4	4.2	3.6	2.1	2.8	2.1

Source: *Annual Return of Health Care Facilities - Hospitals, 1986/87; Preliminary Annual Report of Hospitals, 1994/95*

† *Includes Northwest Territories and Yukon.*

Average length of stay

The average length of stay in hospital has also decreased. In 1994/95, patients in short-term care units of public hospitals had an average stay of 7 days, down from 9 days in 1986/87. Patients in Quebec remained in hospital the longest, averaging 9 days in 1994/95. Average hospital stays were shortest in Alberta and British Columbia (both 6.5 days). In all provinces, the average stay in short-term care units in 1994/95 was less than in 1986/87.

Stays in long-term care units were, of course, much longer, but this average also fell steadily from 236 to 153 days.

Definitions

Hospital: An institution where patients are accommodated on the basis of medical needs and are provided with continuing medical care and supporting diagnostic and therapeutic services, and which is licensed or approved as a hospital by a provincial government, or is operated by the Government of Canada.

Public hospital: A hospital recognized by the province as a "public hospital." Such hospitals are not-for-profit facilities owned by a municipality, an agency or a department of a provincial government, a religious organization, or a lay voluntary group.

Private hospital: A hospital owned by an individual or by a private organization and operated for profit. These hospitals provide various services, including both acute (short-term) and extended care.

Federal hospital: A hospital owned by a department or agency of the Government of Canada and operated on a non-profit basis to serve groups who fall under their mandate. For example, the Department of Veterans Affairs owns a hospital for veterans; Health Canada owns nursing stations and outpost hospitals for people in geographically isolated communities; and the Department of National Defence owns hospitals that treat members of the Canadian Armed Forces.

Long-term care unit: Inpatient unit provided for patients who, at the time of admission, require long-term medical care.

Short-term care unit: Inpatient unit provided for patients who, at the time of admission, require diagnostic and therapeutic services and/or skilled nursing care and medical attention.

General hospital without long-term care units: A hospital that provides primarily for the diagnosis and short-term treatment of patients for a wide range of diseases or injuries. The services of a general hospital are not restricted to patients of a specific age group or sex.

General hospital with long-term care units: A hospital with a group of beds or rooms or a separate wing or building for long-term care that is recognized as a distinct and separate treatment unit of the hospital.

Teaching hospital: A hospital that provides medical education programs, approved by the appropriate authorities, for major clinical instruction in at least the disciplines of internal medicine and general surgery to undergraduate medical students in their final two years.

Specialty hospital: A hospital that provides primarily for the diagnosis and short-term treatment of patients for a limited range of diseases or injuries, or a broad range of services to a specific age group (pediatric hospital, short-term care psychiatric hospital, neurological institute).

Extended care hospital: A hospital that provides primarily for the continuing treatment of patients with long-term illness. This type of hospital includes long-term psychiatric hospitals and rehabilitation hospitals.

Approved bed: A bed or crib approved for the hospital or for a unit of the hospital by the provincial authorities.

Staffed bed: A bed or crib that is actually available for patient accommodation, with staff available to provide the required level and type of care, whether or not it is actually occupied by a patient at that time.

Day- and night-care program: Programs specifically designed, staffed and equipped primarily for the care of outpatients who attend for a prescribed number of hours of the day or night. These may include diabetic or geriatric day care, renal dialysis, psychiatric, or substance abuse day- or night-care programs.

Surgical day-care program: A recognized, organized outpatient program. A surgical day-care patient is one who is not admitted as an inpatient to an inpatient bed, and on whom is performed an elective surgical or endoscopic procedure, under a local or general anesthetic, and who is released the same day.

General and special clinic: Clinic that is designed, staffed, and equipped to provide diagnostic and therapeutic services primarily to outpatients, for example, cancer treatment, allergy treatment, ophthalmology, dermatology.

Residential care facility: Facility that is approved, funded or licensed by provincial/territorial departments of health and/or social services. Some of these facilities are maintained for people chronically ill or disabled, who reside there more or less permanently. Other facilities provide shelter for shorter periods and often offer a program of service. Generally, the level of care in residential care facilities is below that in hospitals, although there is some overlap. Residential care facilities include institutions such as homes for the aged (including nursing homes); for persons with physical disabilities, developmental delays, psychiatric disabilities, or alcohol and drug problems; and for emotionally disturbed children, transients, delinquents and others.

Outpatient treatment and inpatient-days

A common trend has emerged in all types of public hospitals: the number of outpatient visits increased, while inpatient-days decreased. In 1993/94, 38 million outpatient visits were recorded for all public hospitals, up 15% from 1986/87. By contrast, inpatient-days declined 17% from 52 million to 43 million.

The rise in outpatient visits during this period is linked to the sharp increase in visits to day- and night-care programs (2.7 million visits in 1993/94, up 46%), to surgical day care (1.8 million, up 37%), and to general and special clinics (17.7 million, up 24%). On the other hand, the number of visits to emergency units in 1993/94 had barely changed since 1986/87 (15.9 million, up less than 1%).

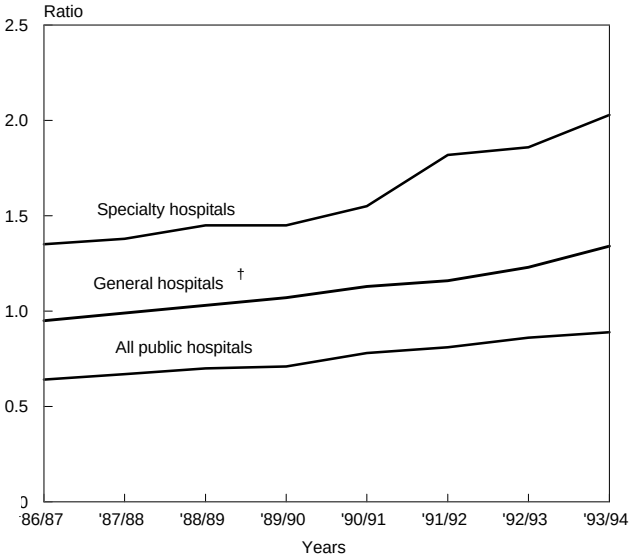
By 1993/94, for each inpatient-day in a public hospital, 0.88 outpatient visits were recorded, up from 0.64 in 1986/87. Specialty hospitals and general hospitals without long-term care units had the highest ratios of outpatient visits to inpatient-days—2.03 and 1.34, respectively—although since 1986/87, the ratio rose in all types of hospitals (Chart 1, Table 4). In seven years, the rise in the ratio of outpatient visits to inpatient-days ranged from 39% to 62% for different types of public hospitals. By 1993/94, the ratio exceeded 1.00 (more visits than inpatient-days) in most types of hospitals, and in specialty hospitals, the ratio was more than 2.00.

This upturn in outpatient visits relative to inpatient-days in public hospitals occurred in all provinces, but to varying degrees and for different reasons. For example, in Alberta, the ratio of outpatient visits to inpatient-days increased by 130% (Table 5). To some extent, this reflects the fact that since 1990/91, Alberta has not designated beds in extended care hospitals (auxiliary hospitals) and beds in long-term care units of general hospitals as hospital beds. On the other hand, Quebec and Manitoba had relatively small increases in the ratio: 17% and 19%, respectively. For Quebec, this is attributable to a comparatively small decrease in inpatient-days during the period. By contrast, in Manitoba, the decline in inpatient-days was close to that at the national level, but there was no increase in outpatient visits.

In 1993/94, the Northwest Territories had the highest ratio of outpatient visits to inpatient-days (1.83), followed by Alberta (1.25), Newfoundland (1.20), and Nova Scotia (1.16). In British Columbia, the ratio was 0.50.

Chart 1

Ratio of outpatient visits to inpatient-days, selected types of public hospitals, Canada, 1986/87 to 1993/94



Source: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94*

† *Without long-term care units*

Table 4

Ratio of outpatient visits to inpatient-days, public hospitals, Canada, 1986/87 and 1993/94

	1986/87	1993/94	Percent change
			%
All public hospitals	**0.64**	**0.88**	**38.9**
General, without long-term care units	0.95	1.34	41.8
General, with long-term care units	0.65	0.90	38.7
Teaching	0.90	1.29	43.0
Specialty	1.35	2.03	50.7
Extended care	0.07	0.11	61.6

Source: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94*

Note: *Ratios were rounded; percent change was calculated using unrounded data.*

Table 5

Ratio of outpatient visits to inpatient-days, public hospitals, Canada, provinces and territories, 1986/87 and 1993/94

	1986/87	1993/94	Percent change
			%
Canada	**0.64**	**0.88**	**38.7**
Newfoundland	0.85	1.20	41.3
Prince Edward Island	0.57	0.88	54.8
Nova Scotia	0.83	1.16	39.6
New Brunswick	0.71	1.03	45.0
Quebec	0.64	0.75	17.1
Ontario	0.75	1.08	43.2
Manitoba	0.62	0.74	18.8
Saskatchewan	0.62	0.89	42.5
Alberta†	0.54	1.25	130.3
British Columbia	0.34	0.50	46.2
Yukon	..	1.04	...
Northwest Territories	0.89	1.83	105.0

Source: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94*

Note: *Ratios were rounded; percent change was calculated using unrounded data.*

† *Since 1990/91, Alberta no longer designates beds in extended care hospitals (auxiliary hospitals) and beds in long-term care units of general hospitals as hospital beds.*

.. *Figures not available*

... *Figures not appropriate or not applicable*

Operating expenses

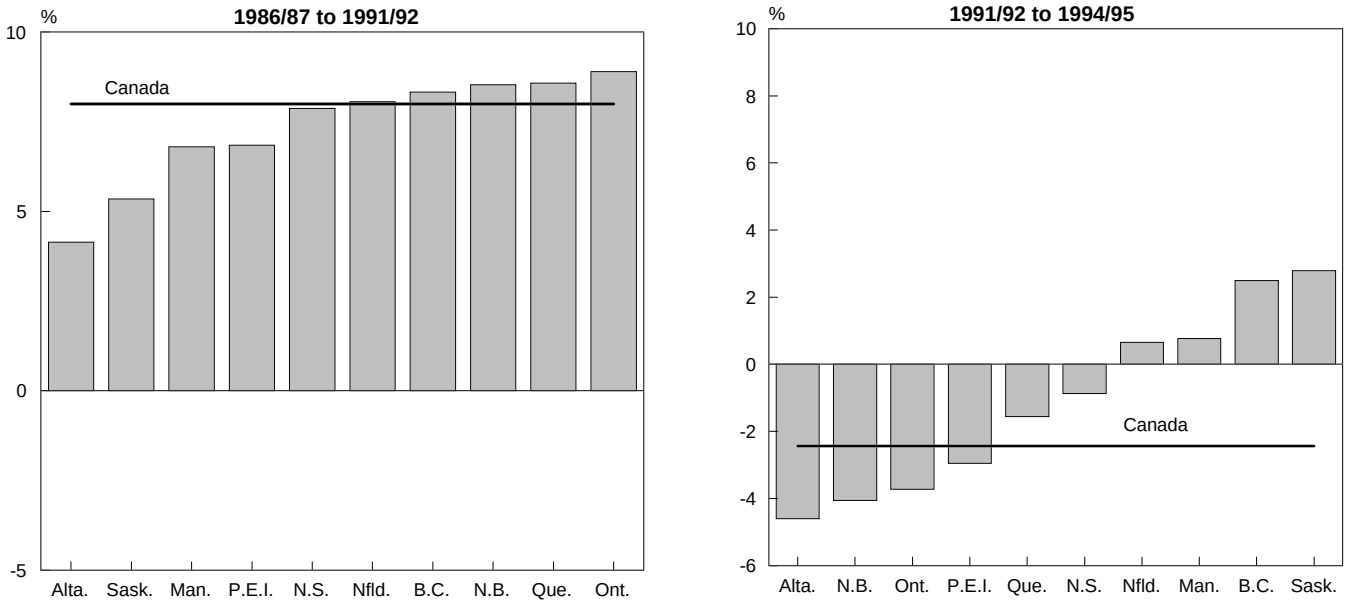
All provinces have been controlling hospital costs over the past few years. From 1991/92 to 1994/95, public hospitals posted negative annual average growth in operating expenses (-2.4%) (current dollars). This contrasts with an average annual increase of 8% between 1986/87 and 1991/92 (Chart 2).

Six provinces had a negative average annual growth rate between 1991/92 and 1994/95. The sharpest reductions in expenditures were made by Alberta, New Brunswick, and Ontario: down 4.6%, 4.1% and 3.7%, respectively.

Caution must be exercised in interpreting data on hospital spending. In some provinces, the rise in expenditures may be linked to population growth. For example, British Columbia had the highest average annual growth rate of expenses between 1986/87 and 1994/95. But part of this increase reflects population growth, which, at 22%, far surpassed that of any other province.

Chart 2

Average annual growth rate of operating expenses (in current dollars), public hospitals, Canada and provinces, 1986/87 to 1991/92 and 1991/92 to 1994/95



Source: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94; Preliminary Annual Report of Hospitals 1994/95*

By 1994/95, per capita hospital operating expenses for Canada overall stood at $759, down 9.2% from the previous year. Newfoundland had the highest provincial per capita hospital operating expenses ($927), and Prince Edward Island, the lowest ($553) (Table 6). In 1986/87, the highest per capita hospital operating expenses had been in Alberta, but by 1994/95, that province ranked eighth.

However, year-to-year variations in operating expenses may be significantly influenced by non-responding hospitals. For instance, there was a 55% increase in Saskatchewan's per capita operating expenses for 1994/95. This sharp upturn in operating expenses occurred because data for that were provided for some hospitals in 1994/95 had not been available for 1993/94.

Table 6

Per capita operating expenses (in current dollars), public hospitals, Canada, provinces and territories, selected years

	Per capita operating expenses			Percent change 1993/94 to 1994/95	Population† change 1993 to 1994
	1986/87	1993/94	1994/95		
	Current $			%	%
Canada	**623**	**836**	**759**	**-9.2**	**1.1**
Nfld.	623	938	927	-1.2	-0.6
P.E.I.	458	621	553	-11.0	1.3
N.S.	692	707	876	23.8	0.4
N.B.	618	921	778	-15.6	0.3
Que.	641	926	850	-8.2	0.6
Ont.	610	872	710	-18.5	1.3
Man.	633	862	870	1.0	0.4
Sask.	547	425	654	55.0	0.4
Alta.	724	803	676	-15.8	0.8
B.C.	564	700	739	5.6	2.6
Yukon	..	554	605	9.2	-1.5
N.W.T.	399	305	203	-33.6	1.4

Source: *Annual Return of Health Care Facilities - Hospitals, 1986/87 to 1993/94; Preliminary Annual Report of Hospitals 1994/95*

Note: *The year-to-year variation in operating expenses may be significantly influenced by non-respondent hospitals. If a large number of hospitals fail to provide data, the reported total operating expenses will be lower than the actual expenditures. Per capita operating expenses were rounded; percent change was calculated using unrounded data.*

† *Adjusted post-censal revised population estimates as of October 1; adjusted for net census undercoverage, including non-permanent residents.*

.. *Figures not available*

Implications

Public sector concern with controlling hospital expenditures is widespread. For this reason, trends in the administration of hospital care are similar in most provinces. The number of approved beds and staffed beds is declining, and hospital stays are becoming shorter. Increasingly, outpatient treatment is favoured, and patients are hospitalized less and less. In addition, operating expenses have levelled off.

The costs of health care do not necessarily disappear when they are not incurred by hospitals. "The process of shifting the costs and the care from hospitals can serve to increase long-term costs for the system."[3] Comparable amounts may have to be incurred by other sectors such as residential care facilities and home care, and by individual patients and their families. The costs of nursing care, drugs, medical supplies, specimen collection by laboratories, food, laundry, utilities and cleaning that are provided by hospitals have to be covered by these other institutions or by patients themselves, either out-of-pocket or by private insurance, once they go home after early discharge, day surgery or other outpatient care.[3]

Therefore, it is important to regard hospital statistics as only part of the total Canadian health care picture. The changes in hospitals point to the need to examine their impact on related areas of health care practices and spending.

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