Changes in unmet health care needs

Claudia Sanmartin, Christian Houle, Stéphane Tremblay and Jean-Marie Berthelot

Abstract

Objectives

This article examines recent trends in self-reported unmet health care needs among the household population aged 12 or older, and explores various explanations for the increase observed.

Data sources

The data are from the first half (September 2000 through February 2001) of data collection for cycle 1.1 of the Canadian Community Health Survey and from cross-sectional (1994/95 through 1998/99) household components of the National Population Health Survey.

Analytical techniques

Weighted frequencies and cross-tabulations were used to estimate the proportion of people aged 12 or older who reported that they did not receive health care when they thought they needed it. Estimates were also produced for the type of care sought, and specific reasons for unmet health care needs.

Main results

The percentage of people reporting unmet health care needs rose gradually between 1994/95 and 1998/99, then doubled (from 6% to over 12%) between 1998/99 and 2000/01. Long waiting time was the reason most frequently reported for unmet needs.

Key words

health services needs and demand, health services accessibility, health care reform, health surveys

Authors

Claudia Sanmartin (613-951-6059; sanmcla@statcan.ca), Christian Houle, Stéphane Tremblay, and Jean-Marie Berthelot (613-951-3760; berthel@statcan.ca) are with the Social and Economic Studies Division at Statistics Canada, Ottawa, Ontario, K1A 0T6.

- *Given recent changes to the health care system, concerns are growing about Canadians' access to health care services.*
- *"Unmet health care needs"—defined as the difference between health care services deemed necessary to deal with a particular health problem and the actual services received—has emerged as a key indicator of access to care.*
- *The rise in self-reported unmet health care needs appears to be accelerating. The percentage of people reporting unmet needs increased from 4% in 1994/95 to 6% in 1998/99, and then to 12% in 2000/01.*
- *Long waits and unavailability of services are the most frequently reported reasons for unmet health care needs.*

The Canada Health Act guarantees reasonable access to necessary medical services. Health care system reforms and restrained health care budgets, however, have led to concerns about the accessibility of health care services.[1-2]

Access to health care has been described as a dynamic process involving the person seeking care, the system providing care, and the various factors that intervene in this exchange.[3-5] However, measures of access to health care services are commonly limited to event-oriented indicators such as physician visits and hospitalization rates. While these

Methods

Data source

This report is based on cross-sectional data collected in 1994/95, 1996/97 and 1998/99 for cycles 1 through 3 of the National Population Health Survey (NPHS), and in 2000/01 during the first half of the first cycle (cycle 1.1) of the Canadian Community Health Survey (CCHS). Complete data for the first cycle of the CCHS will cover 136 health regions across the country. (See "Canadian Community Health Survey—Methodological overview" in this issue.)

The NPHS data used for this report were provided by respondents aged 12 or older who numbered 17,626 in 1994/95; 73,402 in 1996/97; and 15,249 in 1998/99. CCHS data were provided by 55,576 respondents aged 12 or older in 2000/01. At the household level, the respective NPHS response rates in 1994/95, 1996/97 and 1998/99 were 88.7%, 82.6% and 88.2%. The response rate at the household level for the CCHS was 80.0%. For selected respondents aged 12 or older within households, the NPHS response rates in 1994/95, 1996/97 and 1998/99 were 97.0%, 96.8% and 99.0%, respectively. The response rate of the selected respondents aged 12 or older to the CCHS was 94.0%. The data for each survey were weighted to represent the household population in the 10 provinces over the respective periods of data collection.

Statistics Canada took measures to ensure the consistency of the information collected for the NPHS and CCHS, including standardized interviewer training, the use of a glossary of terms, and quality assurance procedures. However, data collection methods differed somewhat between the NPHS and CCHS.[7] First, collection for cycle 1 of the NPHS was by face-to-face interview, and for cycles 2 and 3, mainly by telephone. Collection for the CCHS was principally by personal interview. Second, the extent to which interviews were provided by proxy differed. In the NPHS cycles 1, 2 and 3, proxy reporting rates were 29%, 28% and 15%, respectively. In the first half of cycle 1.1 of the CCHS, the proxy reporting rate was just under 8%. However, comparative analysis of data from each survey indicated that these differences did not explain the changes observed between surveys in the proportions of people reporting unmet needs (data not shown). Furthermore, analyses showed no evidence of bias due to seasonal effects, household size, or location effects.

Analytical techniques

Weighted frequencies were produced. For unmet needs, estimates for each sex and three age groups (12 to 34, 35 to 64 and 65 or older) were produced. The bootstrap technique, which fully accounts for the design effects of the surveys, was used to estimate variance; the variance estimates were used to calculate coefficients of variation and for testing the statistical significance of differences between estimates.[8-10] Statistical significance was established at the level of $p < 0.05$.

measures reflect actual utilization of the health care system, they do not fully capture information about difficulties people may encounter in accessing care. Information that better reflects people's experiences with the health care system is required to better understand the process of accessing care.

"Unmet health care needs"—defined as the difference between health care services deemed necessary to deal with a particular health problem and the actual services received—embodies a process-oriented measure of access to health care.[6] Unmet needs can arise as a result of features of the health care system (for example, unavailability of services or waiting times), or as a result of the personal circumstances of those seeking care (for example, socio-economic status or time constraints).

Based on preliminary data from the 2000/01 Canadian Community Health Survey (CCHS), together with data from the first three cycles (1994/95, 1996/97 and 1998/99) of the National Population Health Survey (NPHS), this article focuses on self-reported unmet health care needs over the last few years (see *Methods* and *Defining unmet health care needs*). The extent to which perceptions of unmet need increased between 1998/99 and 2000/01 is highlighted. Several potential explanations for this increase are explored.

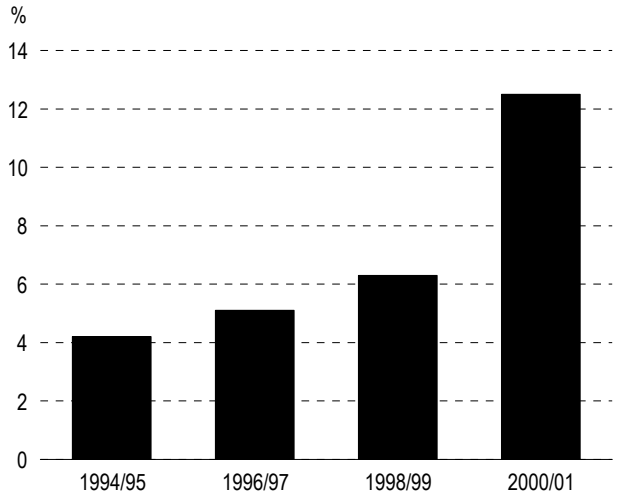
Unmet needs increasing

According to data from the first three cycles of the NPHS, the proportion of people aged 12 or older reporting unmet health care needs rose slightly but steadily from 4.2% in 1994/95 to 5.1% in 1996/97 and 6.3% in 1998/99 (Chart 1). Between 1998/99

and 2000/01, however, reports of unmet needs rose substantially. Preliminary data from the CCHS indicate that 12.5% of Canadians aged 12 or older (3.2 million) experienced unmet health care needs in 2000/01, nearly double the proportion two years earlier. These findings are consistent with other recent research.[11,12]

Substantial increases in unmet needs were reported for both sexes and across age groups (Tables 1 and 2). Among people who reported unmet needs in 1998/99 and 2000/01, the types of health problems for which care was needed were similar in each year (Table 3 and Appendix Table A). Physical health problems comprised the leading reason for requiring care in both years.

Chart 1
Percentage of household population aged 12 or older reporting unmet health care needs, Canada excluding territories, 1994/95, 1996/97, 1998/99 and September 2000 to February 2001



***Data sources**: 1994/95, 1996/97 and 1998/99 National Population Health Survey, cross-sectional samples; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
***Note:** Each value differs significantly from others (p < 0.05); critical values adjusted for multiple comparisons.*

Defining unmet health care needs

The National Population Health Survey (NPHS) and the Canadian Community Health Survey (CCHS) measure self-reported unmet health care needs by asking, "During the past 12 months, was there ever a time when you felt that you needed health care but you didn't receive it?" A "yes" response was tabulated as an unmet need. This question was followed by, "Thinking of the most recent time, why didn't you get care?" Responses to this question were categorized and tabulated. A second follow-up question ascertained the care required: "Again, thinking of the most recent time, what was the type of care that was needed?" Major response categories were established and the data tabulated.

Table 1
Percentage of household population aged 12 or older reporting unmet health care needs, by sex, Canada excluding territories, 1994/95, 1996/97, 1998/99 and September 2000 to February 2001

	Males†		Females†	
	%	95% confidence interval	%	95% confidence interval
1994/95	4.0	3.4, 4.5	4.5	3.9, 5.0
1996/97	4.3	3.8, 4.7	6.0	5.6, 6.4
1998/99	5.2	4.6, 5.8	7.4	6.6, 8.1
2000/01	10.9	10.4, 11.4	14.0	13.4, 14.6

***Data sources**: 1994/95, 1996/97 and 1998/99 National Population Health Survey, cross-sectional samples; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
***Note:** Tukey procedure used to adjust for multiple comparisons*
† Within-sex estimates differ significantly from each other (p < 0.05) except those for males in 1994/95 and 1996/97.

Table 2
Percentage of household population aged 12 or older reporting unmet health care needs, by age group, Canada excluding territories, 1998/99 and September 2000 to February 2001

	Age group					
	12 to 34		35 to 64		65 or older	
	%	95% confidence interval	%	95% confidence interval	%	95% confidence interval
1998/99	6.6	5.7, 7.5	6.4	5.7, 7.1	5.1	3.9, 6.2
2000/01	13.2†	12.5, 13.9	13.2†	12.7, 13.7	8.1†	7.4, 8.8

***Data sources**: 1998/99 National Population Health Survey, cross-sectional sample; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
† Significantly different from value for same age group in 1998/99 (p < 0.05)

Table 3
Type of care needed by household population aged 12 or older reporting unmet health care needs, Canada excluding territories, 1998/99 and September 2000 to February 2001

Type of care needed	1998/99 %	1998/99 95% confidence interval	2000/01 %	2000/01 95% confidence interval
Treatment of physical problem	70.3	66.6, 74.1	71.0	69.6, 72.4
Treatment of emotional or mental problem	11.1	8.5, 13.6	8.9	8.0, 9.8
Care of injury	9.9	7.7, 12.1	10.2	9.3, 11.2
Regular check-up (including regular pre-natal care)	7.4	5.3, 9.6	7.5	6.6, 8.5
Other	5.8	4.0, 7.5	6.7	6.0, 7.4

***Data sources**: 1998/99 National Population Health Survey, cross-sectional sample; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
***Note:** Because multiple responses were allowed, percentages do not total 100% .*

Reasons for unmet needs

In both 1998/99 and 2000/01, the most common reasons reported for unmet health care needs related to features of the health care system. Long waits and the unavailability of services when needed were cited most frequently (Table 4). Among people reporting unmet health care needs, the proportion indicating waiting time as the reason increased from 23% in 1998/99 to 30% in 2000/01. Considering that the magnitude of the estimates for the specific reasons given for unmet needs may be underestimated in the CCHS data (see *Limitations*), this change is striking.

The relative proportions who attributed their unmet needs to factors reflecting their personal circumstances declined between 1998/99 and 2000/01. For example, in the latter period, smaller proportions of respondents with unmet needs reported that they "didn't get around to it" or were "too busy" (Table 4).

Aside from the changes in reporting among those with unmet needs, when the Canadian population as a whole is considered, the *absolute* numbers of people reporting most reasons increased. For

Table 4
Reasons reported for unmet health care needs as percentage of people reporting unmet needs and of total household population aged 12 or older, Canada excluding territories, 1998/99 and September 2000 to February 2001

	Population aged 12 or older reporting unmet needs				Total population aged 12 or older	
	1998/99		2000/01			
	%	95% confidence interval	%	95% confidence interval	1998/99 %	2000/01 %
Features of health care system						
Waiting time too long	22.9	19.5, 26.3	30.4†	28.8, 31.9	1.4	3.8†
Service not available when needed	14.7	11.1, 18.3	14.3	13.1, 15.4	0.9	1.8†
Service not available in area	6.7	4.7, 8.7	7.2	6.5, 8.0	0.4	0.9†
Personal circumstances						
Didn't get around to it/Didn't bother	14.4	11.5, 17.4	10.6†	9.5, 11.6	0.9	1.3†
Too busy	13.5	10.1, 16.8	9.5†	8.6, 10.5	0.8	1.2†
Felt care would be inadequate	12.6	10.1, 15.1	5.3†	4.6, 6.0	0.8	0.7
Cost	11.2	8.8, 13.5	8.9	8.0, 9.7	0.7	1.1†
Decided not to seek care	5.2	3.3, 7.1	6.7	5.9, 7.6	0.3	0.8†
Didn't know where to go	3.8‡	2.2, 5.5	2.7	2.0, 3.3	0.2‡	0.3
Transportation problems	1.8‡	0.9, 2.7	2.1	1.6, 2.5	0.1‡	0.3
Dislikes doctors/Afraid	1.8‡	0.9, 2.6	2.6	2.1, 3.0	0.1‡	0.3
Personal/Family responsibilities	--	-- --	1.2	0.9, 1.5	--	0.2
Other	6.8	4.4, 9.2	19.1†	17.9, 20.4	0.4	2.4†

***Data sources**: 1998/99 National Population Health Survey, cross-sectional sample; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
***Note:** Because multiple responses were allowed, percentages do not total 100%.*
† Significantly different from value for same reason in 1998/99 ($p < 0.05$)
‡ Coefficient of variation between 16.6% and 25.0%
-- Coefficient of variation greater than 33.3%

example, the number who felt that they waited too long for services rose from an estimated 358,000 in 1998/99 to 969,000 in 2000/01 (Appendix Table B). At the same time, those reporting that they were too busy to access care went from an estimated 211,000 to 304,000. These increases in the absolute numbers were reflected in significant increases in the percentages of the overall population who reported unmet needs for numerous reasons (Table 4).

Why are more people reporting unmet needs?

Several factors—related either to the structures and processes within the health care system or to characteristics of the population—may explain the substantial rise in reported unmet needs between 1998/99 and 2000/01. Health reforms involving fiscal restraint, regionalization or hospital restructuring may account for some of the increase in reported unmet needs. However, while the full effect of these changes is not yet known, recent evidence suggests that hospital downsizing and budget cuts have not resulted in less health care utilization or poorer health outcomes.[13-15] Moreover, relative expenditure on health care has increased approximately 4% since the mid-1990s, after adjusting for inflation and population growth. In most regions, however, the impact of these increases may not yet be realized.[16]

Unmet needs may be affected by more than just the absolute amount of resources available. The allocation of resources across services and regions and the delivery of specific services, including the availability of general and family practitioners and primary care, may influence unmet needs.

Unmet needs may arise from the perceived timeliness of care delivery; that is, when people receive care later than when they feel it is most needed. Despite indications from the NPHS and CCHS that waiting for care is the leading and fastest growing reason for unmet health care needs, there is currently a lack of accurate and reliable data on waiting times at the national level. It is thus difficult to determine if waiting times did, in fact, increase between 1998/99 and 2000/01.[17,18] Provincial reports indicate that waiting times lengthened in some cases, but remained relatively unchanged in others.[17-20]

Changes over time in the characteristics of individuals requiring care may contribute to the rise in reported unmet needs. The growth in the number of seniors—the age group in which the prevalence of chronic disease and disability is highest—may be creating a greater demand for health care services. Even so, the percentage, as well as the increase in

Limitations

Information on unmet needs from the NPHS and CCHS is based on self-reported experiences and so is open to interpretation. Respondents may interpret an unmet need as a situation in which they did not receive care for a health problem, or when they received care, but not at the time they felt they needed it or requested it. In the latter case, such experiences may be more representative of problems with access to care rather than true unmet health care needs. While the reasons given for unmet needs provide some insight into the types of unmet needs experienced, it is not possible to distinguish between types of experiences.

The Canadian Community Health Survey (CCHS) data in this report are from the first 6 months of data collection. Point estimates based on the full data set collected over the 12-month period will likely vary somewhat from those presented here.

Information on unmet needs is based on self- or proxy-reported experiences; the validity of the data was not checked against clinical or other sources. Furthermore, the survey collects only limited information about the nature of the unmet need, so all reported unmet needs have been counted in this analysis.

The specific reasons for reporting unmet needs may be underestimated or incomplete, given the large proportion of responses that were coded "other." Closer examination and recoding to more precise categories will be conducted once data collection for the first cycle of the CCHS is complete.

Because of the wording of the question addressing unmet needs, it is not possible to distinguish situations in which people did not receive services at all from situations in which they did not receive them in a timely manner. This ambiguity limits the interpretation of the data, particularly in relation to specific policy options that might be considered to reduce the occurrence of unmet needs.

The results of this analysis for 1994/95 to 1998/99 differ slightly from a previous report[12] because the population considered here is aged 12 or older, rather than 18 or older in the previous study.

the percentage, of seniors reporting unmet needs was lower than in other age groups (Table 2). Moreover, the two-year interval during which the large increase in reported unmet needs emerged is much shorter than the period of time generally required for changes in a population's health care needs to occur. Perhaps the rise in unmet needs is related to people's ability and capacity to access health care services when they need them. Factors such as time constraints, knowledge of the system and personal resources may be key.

Finally, changes in perceptions of the performance capacity of the health care system may affect the likelihood of reporting unmet needs. Although national survey data addressing this issue are not available, public opinion polls suggest that the proportion of people who felt that the health care system should be the top priority of government policies grew from 30% in July 1998 to 55% in January 2000, reflecting an increased concern about the state of health care.[18] Nonetheless, in 1999 over 80% of Canadians were satisfied that the health care system could meet their own health needs and those of their family, although a somewhat lower proportion—62%—felt that the system could adequately meet the needs of all provincial residents.[18] The apparent declining confidence in the state of the health care system may have increased individuals' awareness of their own experiences in accessing care.

Concluding remarks

In 2000/01, one in 8 people reported that in the previous year they had had health care needs that were not met in a timely or satisfactory manner, up from one in every 24 people in 1994/95. Waiting for health care services was the leading reason offered among people reporting unmet needs, and the number of people citing this reason rose substantially between 1998/99 and 2000/01.

The purpose of this article is to highlight the increase in unmet health needs, based on preliminary data provided by the Canadian Community Health Survey, and earlier data from the National Population Health Survey. While various hypotheses are proposed to explain the increase, further study is needed to fully understand the determinants of unmet health care needs and their potential health implications. ●

References

1 Donelan K, Blendon RJ, Schoen C, et al. The cost of health system change: Public discontent in five nations. *Health Affairs* 1999; 18(3): 206-16.

2 Statistics Canada. Health care services—recent trends. *Health Reports* (Statistics Canada, Catalogue 82-003) 1999; 11(3): 91-112.

3 Donabedian A. *Aspects of Medical Care Administration*. Cambridge: Harvard Press, 1973.

4 Aday LA, Andersen R. A framework for the study of access to medical care. *Health Services Research* 1974; 9(3): 208-20.

5 Aday LA, Andersen R. Equity of access to medical care: A conceptual and empirical overview. *Medical Care* 1981; 19(12): 4-27.

6 Carr W, Wolfe S. Unmet needs as sociomedical indicators. *International Journal of Health Services* 1976; 6(3): 417-30.

7 Tambay J-L, Catlin G. Sample design of the National Population Health Survey. *Health Reports* (Statistics Canada, Catalogue 82-003) 1995; 7(1): 29-38.

8 Rao JNK, Wu CFJ, Yue K. Some recent work on resampling methods for complex surveys. *Survey Methodology* (Statistics Canada, Catalogue 12-001) 1992; 18(2): 209-17.

9 Rust KF, Rao JNK. Variance estimation for complex surveys using replication techniques. *Statistical Methods in Medical Research* 1996; 5: 283-310.

10 Yeo D, Mantel H, Liu TP. Bootstrap variance estimation for the National Population Health Survey. *American Statistical Association: Proceedings of the Survey Research Methods Section*. Baltimore: American Statistical Association, 1999.

11 Northcott HC and Population Research Laboratory, University of Alberta. *The 2001 Survey about Health and the Health System in Alberta*. Edmonton: Alberta Health and Wellness, 2001.

12 Chen J, Hou F. Unmet needs for health care. *Health Reports* (Statistics Canada, Catalogue 82-003) 2002; 13(2): 23-24.

13 Brownell MD, Roos NP, Burchill C. Monitoring the impact of hospital downsizing on access to care and quality of care. *Medical Care* 1999; 37(6) Supplement: JS135-50.

14 Liu L, Hader J, Brossart B, et al. The impact of rural hospital closures in Saskatchewan, Canada. *Social Science and Medicine* 2001; 51(12): 1793-1804.

15 Sheps SB, Reid RJ, Barer ML, et al. Hospital downsizing and trends in health care use among elderly people in British Columbia. *Canadian Medical Association Journal* 2000; 163(4): 397-401.

16 Canadian Institute for Health Information. *National Health Expenditure Trends, 1975-2000*. Ottawa: Canadian Institute for Health Information, 2001.

17 Sanmartin C, Shortt SED, Barer ML, et al. Waiting for medical services in Canada: lots of heat, but little light. *Canadian Medical Association Journal* 2000; 162(9): 1305-10.

18 Canadian Institute for Health Information. *Health Care in Canada*. Ottawa: Canadian Institute for Health Information, 2001.

19 DeCoster C, Carriere KC, Peterson S, et al. *Surgical Waiting Times in Manitoba*. Winnipeg: Manitoba Centre for Health Policy and Evaluation, 1998. Accessed at http://www.umanitoba.ca/centres/mchpe/reports.htm

20 DeCoster C, MacWilliam L, Walld R. *Waiting Times for Surgery: 1997/98 and 1998/99 Update*. Winnipeg: Manitoba Centre for Health Policy and Evaluation, 2000. Accessed at http://www.umanitoba.ca/centres/mchpe/reports.htm

Appendix

Table A

Frequency of type of care needed by household population aged 12 or older reporting unmet health care needs, Canada excluding territories, 1998/99 and September 2000 to February 2001

Type of care needed	1998/99			2000/01		
		Estimated population			Estimated population	
	Sample size	'000	%	Sample size	'000	%
Treatment of physical problem	716	1,102	70.3	5,020	2,266	71.0
Treatment of emotional or mental problem	105	173	11.1	643	284	8.9
Care of injury	98	156	9.9	727	327	10.2
Regular check-up (including regular pre-natal care)	66	116	7.4	531	239	7.5
Other	62	90	5.8	516	214	6.7

***Data source**: 1998/99 National Population Health Survey, cross-sectional sample; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
***Note:** Because multiple responses were allowed, percentages do not total 100%.*

Table B

Frequency of reasons reported for unmet health care needs, household population aged 12 or older, Canada excluding territories, 1998/99 and September 2000 to February 2001

	1998/99			2000/01		
		Estimated population			Estimated population	
	Sample size	'000	%	Sample size	'000	%
Features of health care system						
Waiting time too long	222	358	1.4	2,110	969	3.8
Service not available when needed	154	230	0.9	1,100	455	1.8
Service not available in area	72	104	0.4	660	231	0.9
Personal circumstances						
Didn't get around to it/Didn't bother	148	226	0.9	729	337	1.3
Too busy	115	211	0.9	634	304	1.2
Felt care would be inadequate	132	197	0.8	371	170	0.7
Cost	119	175	0.7	625	283	1.1
Decided not to seek care	43	81	0.3	463	215	0.8
Didn't know where to go	35	60	0.2†	159	86	0.3
Transportation problems	30	28	0.1†	195	66	0.3
Dislikes doctors/Afraid	22	27	0.1†	192	82	0.3
Personal/Family responsibilities	10	--	--	91	39	0.2
Other	63	106	0.4†	1,448	611	2.4

***Data source**: 1998/99 National Population Health Survey, cross-sectional sample; Canadian Community Health Survey, preliminary file, September 2000 to February 2001*
***Note**: Multiple responses were allowed.*
† Coefficient of variation between 16.6% and 25.0%
-- Coefficient of variation greater than 33.3%