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**CRITICAL ISSUES**

*bulletin*

Waiting Your Turn  
Hospital Waiting Lists in Canada  
(8th edition)

*by Cynthia Ramsay  
and Michael Walker*



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## Preface

This Critical Issues Bulletin is the Institute's eighth attempt to document the extent to which queues for visits to specialists and for diagnostic and surgical procedures are being used to control health care expenses. When we began producing waiting-list measures in 1990, there was anecdotal evidence that hospital waiting times were becoming significant. However, there were no systematic measurements of the extent of waiting.

Partial waiting-list measurements made by hospitals and government departments were seen as politically sensitive and were not made generally available. While these "official" waiting lists are now more readily available, they are still incomplete and there are no comprehensive measures other than those produced by The Fraser Institute by which to measure the length of waiting lists in Canada.

The contents of the survey have been corroborated to the extent possible by recourse to other sources of information. In particular, copies of the preliminary drafts of the

study were sent to all of the provincial ministers of health for their comments. Also, where there are facilities-based estimates of waiting times, such as is the case for cardiovascular surgery, we have used these to supplement the survey results.

Measurement is the key to understanding how any system works and, where there are problems, it is the key to finding solutions. Largely as a result of the intense public interest in our past publications, waiting lists are now a component of any serious debate on the health care system in Canada. We hope that the "official" interest in waiting lists continues and that Canadian policy-makers begin to consider the implications of queuing seriously as they design alternatives to present health care arrangements.

*While this study and its widespread distribution has been enthusiastically supported by The Fraser Institute, the work has been independently conducted, and the views expressed may or may not conform to those of the members and trustees of The Fraser Institute.*



## Executive Summary

*Waiting Your Turn* presents the only comprehensive measure of hospital waiting lists across Canada. The survey measures the extent of health care rationing in the provinces from year to year. Information for the survey was provided by 2,263 specialists nation-wide during the latter part of 1997.

This year's survey results show that more Canadians were waiting to receive medical treatment in 1997 than in 1996. According to the study, 187,416 Canadians were waiting for surgical procedures, an increase from 1996's estimate of 172,766. Not only were there approximately 8.5 percent more people waiting for treatment than there were in 1996, but those waiting were waiting longer to receive their treatment—11.9 weeks from referral to a specialist by a general practitioner (GP) to the receipt of treatment. In 1996, they were waiting 10.9 weeks. The total waiting time for Canadians to receive treatment in 1993 was 9.3 weeks (graphs 5 and 6).

### GP to specialist

The waiting times for appointments to see specialists are shown in table 2 and chart 2. Most waits for specialists' appointments were less than two months. However, there were a number of waits of three months or longer. British Columbia and Manitoba had the shortest waits in the country for appointments with specialists while Nova Scotia had the longest. In almost every province, the waiting time to see a specialist increased from 1996. For Canada, the waiting time to see a specialist increased by 8.5 percent from 1996 to 1997, and by 37.8 percent since 1993 (graphs 1 and 2). Those who cannot visit a specialist will not appear on the waiting list for medical treatment because only a specialist can put a patient on the waiting list for surgical procedures. The rationing of health care in Canada is happening increasingly at the GP level.

Two years ago, a national survey by the College of Family Physicians of Canada (1996) found that between 70 percent and 80 percent of family physicians were having to

spend more time fighting for the care their patients need than they did five years ago because of the waiting times to see a specialist, hospital waiting lists, and waits for diagnostic tests.

### Specialist to treatment

Once patients have seen a specialist, they then have to wait to receive medical treatment. The number of people on surgical waiting lists and the amount of time they were waiting for treatment varied substantially from province to province. In Saskatchewan—the province with the longest median waiting times for treatment after having seen a specialist—patients waited 12.4 weeks (table 28a) for surgical procedures, 7 weeks longer than people in Ontario, where the median wait for treatment was 5.4 weeks—the shortest waiting time in the country for treatment after having seen a specialist. For Canada, the wait for treatment after having seen a specialist increased from 6.2 weeks in 1996 to 6.8 weeks in 1997 (chart 3). In 1993, the wait for treatment after having seen a specialist was 5.6 weeks (graphs 3 and 4).

### Total wait from GP to treatment

In Canada, patients waited almost three months after seeing their GP before receiving treatment for their ailments. The period varies from 10.2 weeks in Ontario to 13.7 weeks in Newfoundland (table 31 and chart 5). Across Canada, the longest waits for treatment tended to be for three specialties where the total wait a patient could expect to face exceeds four and a half months: elective cardiovascular surgery (18.2 weeks), orthopaedic surgery (20.7 weeks) and ophthalmology (24.6 weeks). The shortest wait was for cancer patients being treated with chemotherapy. These patients waited approximately 3.5 weeks to receive treatment.

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### **Clinically reasonable waits from specialist to treatment**

The survey also measured what specialists consider to be clinically reasonable lengths of time to wait for surgical procedures. These estimates have decreased since 1996, from 5.4 to 4.2 weeks. In 1994, the amount of time specialists thought to be a clinically reasonable wait was 5.2 weeks from specialist to treatment (graphs 7 and 8). Chart 4 compares the actual median waiting times to the clinically reasonable waiting times for the different specialties. The largest difference in these two periods was for elective cardiovascular surgery, where the actual waiting time was 8.9 weeks longer than what is considered to be reasonable by specialists.

The comparison of actual waits with clinically acceptable waits in table 45 shows that a very large number of specialist physicians believe that Canadians are having to wait longer for care than is healthy.

### **The wait for diagnostic testing**

The wait to see a specialist and the wait to receive treatment are not the only delays that patients faced. Patients experienced an increase in the waiting times for various diagnostic technologies across Canada: computerized tomography (CT) scans, magnetic resonance imaging (MRI), and ultrasound (chart 9). The median wait for an MRI in Canada (9.6 weeks) was more than twice that for a CT scan (4.1 weeks). Ultrasound tests are quite common and many specialists have their own machines so that the median wait for ultrasound in Canada was only 2.6 weeks in 1997. The wait for ultrasound tests was relatively short compared to those for CT scans and MRIs but it was still 36.8 percent longer than it was in 1996. The wait for an MRI lengthened by 12.9 percent from 1996 and the wait for a CT scan, by 10.8 percent.



# Waiting Your Turn

## Introduction

*Waiting lists are not going to disappear in Canada. They're an accepted part of our system.*

Shirley McClellan (Minister for Health in Alberta, 1992–1996), quoted in Walker 1996: 66.

Comments like this from government officials show how prevalent waiting lists have become in Canada. Generally, waiting lists are blamed on an aging population and costly new advances in technology, two trends that seem likely to continue. Preserving a universal health care system through a reasonable amount of rationing is openly discussed, as is the need to restrict the amount of new technology provided to hospitals in order to keep hospital costs down. What is not discussed so openly is how such an approach to health care management may adversely affect the health of Canadians and the health of the Canadian economy.

The existence of waiting lists for medical procedures and treatments is one manifestation of the rationing of health sector resources that is taking place in Canada. To the extent that there is rationing of hospital capacity by means other than price, monetary and non-monetary costs may be borne by Canadians even though these costs are not explicitly recognized. These unrecognized costs may include, for example, lost work time, decreased productivity associated with physical impairment and anxiety, and physical and psychological pain and suffering.

A working person incapacitated by an illness bears the costs of the loss of work. These costs are not included in those associated with running the health care system. Cancer patients who must drive long distances either to regional health centres or to the United States for radiation therapy bear costs in terms of lost time that are not included in health costs nor in any way compensated by the health care system. A woman with a lump in her breast who is told she must wait four weeks for a biopsy to determine whether the lump is cancerous finds little comfort in the advice from her physician that epidemiological research shows that it does not matter to the outcome if the biopsy is delayed that long.

The woman's anxiety and tangible psychological pain are not included in the costs of operating the health care system.

All of the foregoing represent actual cases in Canadian health care experience and in each of these cases, the savings to the government's budget are real and are matched by real though uncounted costs to Canadian health care consumers. While it is difficult or impossible to measure these costs, it is possible to measure the extent of queuing or the length of waiting lists to approximate the extent to which these costs may be mounting.

A number of health sector administrators are skeptical about the meaning and usefulness of waiting lists. They are skeptical both of the relevance of waiting lists as an indicator of the performance of the health care sector and of the reliability of such data as a measure of the extent of rationing of health care services (Amoko, Modrow, and Tan 1992). An earlier Fraser Institute publication evaluated various theoretical issues related to hospital waiting lists, including their relevance as measures of "excess demand" (Globerman 1990). This discussion defended the proposition that waiting lists are a potentially important barometer of performance in the health care sector. It also provided estimates of waiting lists for a set of hospital procedures in British Columbia. That study was followed in 1991 by a five-province study similar to the initial study. Since 1992, all 10 provinces in Canada have been surveyed.

This report builds upon our earlier studies by updating waiting list estimates for all of the provinces. In the next section, we briefly review the relevant theoretical issues before turning to the 1998 survey results.

## Waiting lists as measures of excess demand

One interpretation of hospital waiting lists is that they are indices of excess demand for medical treatments performed in hospitals and that they represent the substitution of "non-price" rationing of scarce resources for rationing by price. The rationing, in this case, takes place through enforced waiting for the available capacity to perform a given

• treatment or procedure. That such enforced waiting is a form of rationing and not simply the “postponement” of a service can be seen from the fact that there are costs involved for those who are forced to wait. If the people waiting had their choice, in most cases they probably would not wait. To the extent that this is true, the wait amounts to a denial of service, and that means rationing. (It is, of course, difficult to know exactly the extent to which people are happy to wait. However, it can be presumed that those who are in physical pain or who are unable to work would prefer not to wait. Data published in 1991 by Statistics Canada indicate that 45 percent of those who are waiting for health care in Canada describe themselves as being “in pain” (Statscan 1991). While not all of this pain would be alleviated by a visit to the doctor or by the surgical procedure for which the patient is waiting, some of it is clearly the direct result of waiting. More recent Statistics Canada data show that over a million Canadians felt that they needed care but did not receive it in 1994, and that approximately 30 percent of these people were in moderate or severe pain (Statscan 1994/95).

A 1993 study by the Institute for Clinical Evaluative Studies at the University of Toronto categorized all patients waiting for hip transplants according to their level of pain (Williams and Naylor 1993). The study found that in Ontario 40 percent of those who were experiencing severe disability and 40 percent of those who had severe pain were waiting 13 months or more for hip surgery. A further 40 percent of those who were in severe pain waited 7 to 12 months while only 14 percent of those in severe pain waited less than four months. While some of these patients might have been postponing their surgeries for their own reasons, the fact that they were experiencing severe pain probably means that most were being denied prompt access to treatment.

To put the issue somewhat differently, war-time rationing of refrigerators or automobiles could be reinterpreted as simply waiting. Those who wanted refrigerators in 1940 but did not get them until 1946 were not denied the refrigerators; they only had to wait. Obviously, the issue of time is important in goods provision; it is also important—in some cases crucial—in the provision of medical services.

Economists generally believe that non-price rationing of scarce resources is less efficient than rationing through the price system. In particular, prices are efficient mechanisms for signaling the relative scarcity of any good or service, thereby encouraging both producers and consumers to modify their behaviour accordingly. A rise in price occasioned by an increase in the demand for a particular medical procedure does cause some health care users to be deterred and effec-

tively rations the existing supply. The price rise also sends out the signal that not enough health care is being supplied. Assuming that the price rise makes additional profits possible, there will be an increase in the supply of health care as suppliers change their behaviour to take advantage of the new possibility for profit. This supply response does not necessarily occur if waiting is the system of rationing employed.

Non-price rationing is also inefficient because it obscures differences in intensities of demand across different sets of consumers. To the extent that some consumers desire a given product more than other consumers, strict non-price rationing might result in those consumers who desire the product less actually obtaining it. All other things being constant, efficiency is promoted when those consumers who most value a product obtain it. For example, while a non-working spouse and his wife may be equally rationed by a system of waiting lists, the working wife might be willing to pay a little more to be able to get back to work. This would be quite rational behaviour on her part even if she and her husband were suffering the same disability. The reason is that she is suffering the additional costs of lost wages, which are not included in the cost of health care and which are not compensated by the universal health care system. With identical illnesses, the wife and husband do not have the same intensity of cost, nor the same need for the medical service that they are both being denied by waiting.

At least two prominent qualifications can be raised about the social inefficiencies of rationing by waiting. One is the claim that many procedures and treatments are performed where the social costs outweigh the social benefits. In these cases, it would be more desirable to discourage the consumption of a given amount of medical services by price rationing rather than by non-price rationing. In other words, let the working wife pay the increased costs of earlier treatment so that she can get back to work and let her husband wait for an opening on the “elective” surgical waiting list. That is the appropriate approach unless one is prepared to argue that patients will pay any price to receive specific treatments and that government bureaucrats are better able to determine whether treatment is warranted at any cost of providing it.

A second qualification is that non-price rationing of a vital product such as medical services is fair and is perceived to be fair by society. To the extent that fairness is an objective, one might argue that non-price rationing provides collective benefits that outweigh the inefficiencies identified above. However, depending upon how the non-price rationing occurs, the resulting distribution of benefits may not be



any improvement upon the price-rationing outcome. If, for example, in a rationing circumstance, personal acquaintance with the head of surgery leads to less waiting, then rationing by waiting simply becomes a cover for a system of personal privilege. Even if the probability of knowing the chief of surgery were *not* related to income, the replacement of rationing by price with rationing by acquaintance will only create a different form of unequal access.

The fairness argument can be further qualified if we recognize the potential for providing direct cash transfers to poorer people to enable them to compete in the marketplace for any specific good or service. The argument against direct subsidies is that it is easier to target subsidies in kind to appropriate recipients. In the context of health management, this would mean that one would subsidize lower income people needing specific health care services. However, given the unexpected nature of many illnesses or accidents, it will be difficult to identify these people before the fact. Furthermore, given the potential for catastrophic illness and the associated high costs of treatment, some amount of direct subsidization might have to be extended to a large portion of the population and not just to low-income groups. In this case, the deadweight efficiency losses associated with a system that provides direct cash transfers to poorer people may not be significantly different from those associated with transferring income in kind through non-price rationing.

To take the analysis a step further, the government might consider subsidizing purchases of private health care insurance by lower-income individuals and families thereby indirectly “targeting” health care assistance. The subsidy could be geared to a family’s ability to pay so that it could approximate the full cost of the insurance premium for some buyers. At the same time, prices would be relied upon to “clear” the market for medical services.

To be sure, there are many arguments that have been made both for and against private medical insurance systems (Blomqvist 1979; McArthur, Ramsay, and Walker 1996). For the purposes of this report, we accept that the public provision of, and payment for, health care services is an institutionalized feature of Canadian society for the foreseeable future and that extensive use of market pricing mechanisms to ration scarce capacity is unlikely. Under these circumstances, the extent of any excess demand as well as how that excess demand is rationed are relevant public policy issues, since the social costs associated with non-price rationing should be set against whatever benefits are seen to be associated with it.

## Non-price rationing and methods of adapting

There are several ways in which non-price rationing can take place under the current health care system and many ways by which individuals adapt to rationing. One form of non-price rationing is a system of triage, the three-way classification system developed by Florence Nightingale for sorting the wounded on the battlefield in wartime. Under such a system, the physician sorts the patients into three groups: those who are beyond help, those who need and will benefit from immediate care, and those who can wait for care.

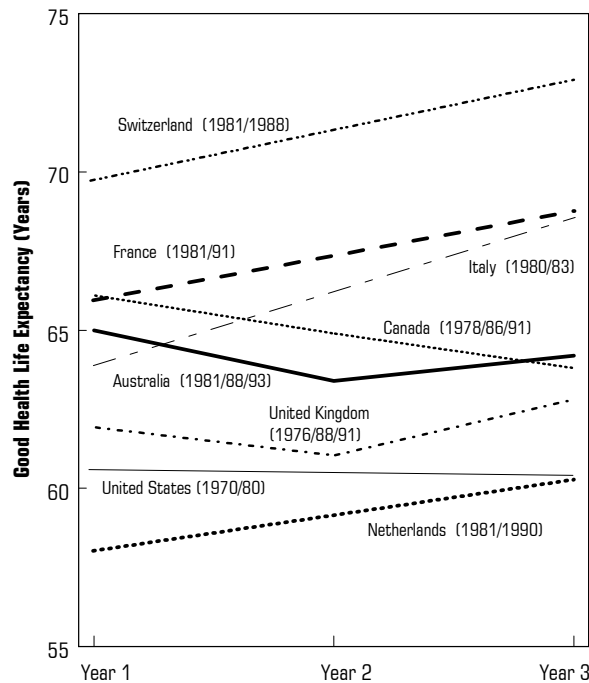
In peacetime, there may also be a shortage of resources, which requires physicians to employ the triage system to make choices about the order in which people should be treated. In such a selection process, physicians effectively ration access by implicitly or explicitly rejecting candidates for medical treatment whom they would otherwise treat. In the absence of well-defined criteria, doctors might be expected to reject those candidates least likely to suffer morbid consequences from non-treatment and those whose life expectancy would be least improved by treatment. The British experience suggests that some doctors use a foregone present value of earnings criterion for selecting patients for early treatment, thereby giving lower priority to critically ill patients (see Aaron and Schwartz 1984). The experience of Canada’s largest cancer treatment centre suggests that doctors are giving priority for radiation treatment to people whose cancers may be curable rather than using the radiation machines to provide palliative care or limited extensions to life expectancy (*Globe and Mail* 1989: A1).

Although both men and women in Canada can expect to live, on average, about five years longer than they did 20 years ago, between 1978 and 1991 the number of years that Canadians could expect to live in good health declined by 2.3 years for women (chart 1) and 0.4 years for men (OECD 1995). The reason for this decline is not obvious but it is consistent with the findings of recent surveys showing that there is an increasing amount of rationing in the health care system. It has long been known that when rationing emerges in a health care system, the elderly are the most likely to feel the impact (Binney and Estes 1988; McKinnon 1995; Agbayewa 1995) because, in a classic triage system, older patients tend to get placed at the end of the queue as they will benefit less from treatment (*i.e.* for fewer years).

It is unlikely that medical practitioners would acknowledge that they are, in effect, rejecting (as opposed to queuing) specific patients who, in their medical judgment, do need treatment, so it would be difficult to identify this



**Chart 1: Good health life expectancy for women from OECD reporting countries**



Source: OECD Data, #3.6 (1995)

Note: This graph remains unchanged from previous editions of *Waiting Your Turn* because more recent data were not available at the time of publication.

behaviour if it were occurring. Patients who have a lower priority or who are not destined to get the care they need simply find that their turn never comes as others take their place in the queue. In this regard, there is no persuasive evidence that mortality rates in Canada are increasing significantly owing to a failure to provide medical services. If, however, one regards the elimination of pain and suffering as the objective of medical care, then any additional pain suffered by patients because of delays is medical treatment denied.

Canadians may be adapting to non-price rationing by substituting private medical services for unavailable public services, specifically by going outside the country for health care. Provincial health care plans cover emergency medical services and other services only available outside Canada. Possibly as a reflection of the increasing prevalence of waiting in the health care system, there are companies in Ontario that will facilitate a patient's receipt of diagnostic testing in the United States, and American medical centres have advertised in Canadian newspapers. Our survey of specialists

(reported later in this study), found that about one percent of patients inquired about treatment in another country.

## Measuring rationing by waiting

Observers who argue that hospital waiting lists are not a particularly important social issue believe that waiting lists tend to be inaccurate estimates of rationing or that there is little social cost associated with enforced waiting.

One frequently expressed concern is that doctors encourage a greater demand for medical care than is socially optimal. They argue that, as a result, waiting lists exist for specific treatments but that there are no significant social costs associated with rationing since many (perhaps most) individuals on waiting lists are not in "legitimate" need of medical treatment. In a related version of this argument, doctors are suspected of placing a substantial number of patients on hospital waiting lists simply to exacerbate the public's perception of a health care crisis so as to increase public funding of the medical system.

The available evidence on the magnitude of the demand induced by the suppliers for medical services is, at best, ambiguous. The view that this is a modest problem is supported by the fundamental economic argument that competition among physicians will promote a concordance between the physician's interests and those of the patient. General practitioners usually stand as agents for patients in need of specialists. Specialists carry out the bulk of hospital procedures. General practitioners who can mitigate medical problems while sparing patients the pain and discomfort of hospital treatments are more likely to be perceived as doing a good job than those who encourage short-term or long-term hospitalization as a cure. This suggests that general practitioners have an incentive to direct patients to specialists who will not "overprescribe" painful and time-consuming hospital treatments.

Placing excessive numbers of patients on hospital waiting lists may also have direct costs for opportunistic specialists. For example, the latter may come to be seen as using a disproportionate share of hospital resources. This may make it more difficult for them to provide quick access to those resources for patients who, in their own view and that of their general practitioners, are in more obvious need of hospital treatment. Similarly, patients facing the prospect of a relatively long waiting list may be tempted to search out other doctors with better connections to hospital facilities.

As an additional consideration, there is no concrete reason for any single physician or group of physicians to believe that an individual physician's waiting lists will significantly affect government funding policies or that they will be net beneficiaries of any increased funding that does occur. In the face of obvious incentives to "free ride" on the strategic behaviour of other physicians, there may be no significant bias for physicians to inflate hospital waiting lists or even to over-report the number of patients they have waiting for admission to hospital.

An often mentioned concern about measuring waiting is that hospital waiting lists are biased upward by a failure of reporting authorities to identify individual patients listed by more than one doctor and by a failure to prune waiting lists of individuals who have either already received the requested treatment or who, for some reason, are no longer likely to require treatment. Our survey results indicate that doctors generally do not believe that their patients have been booked on waiting lists by other physicians.

In summary, while there are hypothetical reasons to expect that hospital waiting list parameters will overstate true excess demand for hospital treatments, the magnitude of any resulting bias is unclear and is probably relatively small, given countervailing factors that may reduce measured amounts of waiting.

## Hospital waiting list survey

In order to develop a more detailed understanding of the magnitude and nature of hospital waiting lists in Canada, the authors of this study conducted a survey of specialist physicians. Specialists were surveyed rather than hospital administrators because a substantial number of hospitals either do not collect waiting list data in a systematic manner or do not make such data publicly available (Amoko, Morrow, and Tan 1992: 36). In those instances where data from institutions data are available, they have been used to corroborate the evidence from the survey data.

The survey was conducted in all 10 Canadian provinces. Mailing lists for the specialists polled were provided by Southam Business Lists. The specialists on these lists are drawn from the Canadian Medical Association membership lists. Specialists were offered a chance to win a \$2,000 prize as an inducement to respond (without regard to whether they actually chose to complete the questionnaire). Though answering physicians were undoubtedly motivated in part

by the lottery, the large percentage of answering specialists indicates concern about waiting lists for surgical procedures in Canada. Quite clearly, the medical profession has a collective interest in promoting an increased flow of financial and other resources to the health care sector. Nevertheless, it should not be assumed that the survey results are, therefore, unreliable. In particular, it should not be assumed (for reasons suggested earlier) that individual physicians responding to the survey have skewed their responses in a particular direction since physicians were not preselected as to their views about the adequacy of current funding or their views about current health care arrangements. There is a wide dispersion of views amongst physicians about the desirability of greater ease of access and there is no reason to believe that those who want to create the impression of longer lists are either more likely to distort their responses or more likely to respond to the survey than those who do not.

The authors chose to survey specialists rather than general practitioners because specialists have primary responsibility for health care management of surgical candidates. Survey questionnaires were prepared for 12 different medical specialties: plastic surgery, gynaecology, ophthalmology, otolaryngology, general surgery, neurosurgery, orthopaedic surgery, cardiovascular surgery, urology, radiation oncology, medical oncology, and internal medicine. For the 1990 survey, the questionnaires were pretested on a sample of individual member specialists serving on the relevant British Columbia Medical Association specialty committee. In each subsequent use, suggestions for improvement have been made by responding physicians and these modifications have been made to the questionnaires. Adhering to the questionnaire format of the 10 specialties originally surveyed, radiation oncology and medical oncology were added to the survey in 1994. The survey used for general surgery is included in Appendix 1 of this report. The questionnaires for all of the specialties follow this format; only the procedures surveyed differ among specialties. The data for this issue of *Waiting Your Turn* were collected in December 1997.

For the most part, the survey was sent to all specialists in a category. In the case of internal medicine in Ontario, 500 names were randomly selected. The response rate in the five provinces initially surveyed in 1990 (British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia) was 20 percent. This year, the response rate for these same provinces was 30 percent. The response rate was 26 percent overall, which is quite high for a mailed survey but a decrease from the 31 percent response rate of last year's survey.



## • Methodology

The treatments identified in all of the specialist tables represent a cross-section of common procedures carried out in each specialty. They were suggested by the British Columbia Medical Association specialty boards in 1990 and procedures being added since then at the suggestion of survey participants.

At the suggestion of the Canadian Hospital Association, median measures of waiting have been used since 1995 rather than average measures (Canadian Hospital Association 1994). In using average waiting times, there is the problem of outliers: a specialist whose patients must wait an especially long time will skew the specialty average upwards. If such a specialist responds to the survey one year and not the next, the difference between years will be large but will not necessarily be an indication of an actual change in the province's waiting times. For the most part, the use of medians avoids this problem. A median is calculated by ranking specialists' responses in either ascending or descending order, and determining the middle value. When the middle of the ranking lies between 2 responses, the median is the average of these 2 responses. So, if the median wait reported is 5 weeks for a procedure, half of the specialists reported waits of longer than 5 weeks while half of the specialists reported waits of less than 5 weeks.

The major findings from the survey responses are summarized in tables 2 through 45. Table 2 reports the median time a patient waits for an appointment with a specialist. This period is measured from the time a general practitioner refers the patient to the specialist. The wait for an appointment with a specialist is calculated as the median of the weeks indicated by responding specialists. These appointment medians are then weighted by the ratio of the number of specialists surveyed in each specialty in a province to the total number of specialists surveyed in the province, to obtain the weighted median reported on the last line of table 2.

Tables 3 through 14 report the time a patient must wait for treatment after having seen a specialist, where the waiting time per patient is the median of the survey responses. The weighted medians reported in the last line of each table are calculated by summing the products of the median wait for each operation, and the ratio of the number of persons undergoing each operation and the total number of operations performed in each specialty by province.

Tables 15 through 26 report the estimated number of patients waiting for surgery. To allow for interprovincial

comparisons, these tables also report the number of people waiting for surgery per one hundred thousand population.

The number of people waiting for treatment is estimated using the average of the weeks waited for treatment as reported by responding specialists and the Statistics Canada's Hospital Morbidity and Surgical Procedures 1993-94 (Health Report No. 82-216-XPB). This report provides a count of the total number of surgical procedures performed annually by each province. To estimate the number of individuals waiting for surgery at any given point, we divide the average weeks waited for a given operation by 52 and then multiply this number by the total number of persons undergoing this operation annually. Thus a waiting period of, say, one month, implies that on average, patients are waiting one-twelfth of a year's total capacity to get their surgery. The next person added to the list would find one-twelfth of a year's patients ahead of them in the queue. The main assumption underlying this estimate is that the number of surgeries performed will neither increase nor decrease within the year in response to waiting lists.

There are a number of minor problems matching Statistics Canada's operation categories to the ones reported in our survey. In several instances, an operation such as rhinoplasty is listed for more than one specialist. In these cases, average waiting times are identified with the classification of the responding specialist. Hence, the flow or number of patients annually undergoing this type of operation is divided among specialties according to the proportion of overall surgery performed in each specialty. In other instances, an operation polled in our study has no match in the Statistics Canada report. For example, there is no match for the urology operation, ureteral reimplantation for reflux, in the Statistics Canada report. In these cases, we make no estimate of the number of patients waiting for these operations.

Tables 28a and 28b offer a comparison of median waiting times and the estimated number of patients waiting across specialties and provinces. Of course, *our calculation of the estimated number of patients waiting in each specialty includes only those patients waiting for the operations surveyed*. The operations we surveyed represent between 61 and 68 percent of non-emergency surgery performed in each of the provinces studied.

The final row of table 28a shows the weighted medians of the 12 specialties listed above. These weighted medians are calculated by summing the products of median waiting and the proportion of polled surgery.

To estimate the number of people waiting at any time for non-emergency surgeries that were *not* included in our survey, we found the residual operations for each province. The estimate of residual waiting is the product of the residual number of operations in each province and the provincial weighted averages divided by 52 (weeks). The estimates of residual waiting are reported in table 28b, as are the estimates of the total number of patients waiting in each province at any given time during the year.

Tables 32 through 43 report the median number of weeks that specialists consider to be a clinically reasonable length of time to wait for treatments. The methodology of these tables is comparable to that of tables 3 through 14.

### Data verification with government, hospital, or other sources

In March 1997, all of the data were sent across Canada to provincial ministries of health or the regional health authorities (where appropriate). Replies were received from British Columbia, Alberta, Saskatchewan, Ontario, Newfoundland, Nova Scotia, and Prince Edward Island. Additional information for British Columbia was taken from the ministry website and from the British Columbia Medical Association waiting list report released in April 1998. Data for cardiovascular surgery in Montreal were obtained from the website of the Montreal Regional Health Board (MRHB).

The Ministry of Health and the Ministry Responsible for Seniors in British Columbia published provincial waiting list data for surgery, treatment, and diagnostic services in the autumn of 1997. The ministry determined that waiting times for elective medical procedures have not changed significantly over the last few years. However, it defines a wait as the period from the time the procedure is formally booked until it is actually carried out. This means, for example, that you are not considered in the ministry's calculation if you have seen your specialist, found out that you need surgery but cannot be booked for surgery until the summer operating room schedule comes out. Since most hospitals only book a few months out, this method of measuring waiting lists likely misses a large proportion of waiting patients (see Ramsay 1998).

Our survey found cancer patients in British Columbia waiting approximately three weeks to see a radiation oncologist and 7.4 weeks to begin radiotherapy treatment in 1997. The standard of the British Columbia Cancer Agency (BCCA) for waiting times in the province is that patients

should wait a maximum of 2 weeks from referral to specialist, and a maximum of 2 weeks to receive treatment after having seen a specialist. Waiting times for cancer treatment vary monthly and among British Columbia's three cancer centres. Data from the BCCA show that as of April 1998, 47 percent of patients at the Vancouver centre received their radiotherapy within the two-week time-frame, 49 percent of Vancouver Island patients and 91 percent of patients at the Fraser Valley centre received their treatment within this period. According to the BCCA, there were 375 people waiting for radiotherapy in the province as of April 1998 (table 25).

The British Columbia Medical Association (BCMA) conducted an independent survey of its members in November 1997. This survey measures the wait for an appointment with a specialist and the wait for treatment after having seen a specialist in cardiovascular surgery, orthopaedic surgery, and ophthalmology. It also looks at the waits for computerized tomography (CT), magnetic resonance imaging (MRI) and ultrasound. The results of the BCMA's survey were similar to those of *Waiting Your Turn*, especially in the determination of the wait to see a specialist in the three aforementioned specialties. Our measures of cardiovascular surgery waiting lists, however, are lower than those of the BCMA. For example, the BCMA found patients to be waiting 26 weeks for elective bypass surgery while our survey found patients waiting about 14 weeks. The BCMA estimates of the waits for joint surgery and eye surgery are within a week or two of the estimates arrived at in our survey, as are the estimates of the waiting times for diagnostic testing.

There are no readily available provincial data on waiting lists in Alberta. Nevertheless, Alberta Health (the provincial ministry of health) responded to our request for information about the wait for heart surgery and joint surgery. Alberta Health records at least 800 people waiting for joint surgery at any given time whereas our survey estimates that there were 638 people waiting for joint surgery in the province in 1997. University of Alberta Hospitals provided us with data on cardiovascular surgery and they have been used to supplement our survey data.

The department of health in Saskatchewan provided us with data on waiting lists for a number of specialties. Saskatchewan is the only province well into the process of developing a provincial waiting list system with standardized data that will be both as comprehensive as possible and accessible. The continuing project is a collaborative effort between the Saskatoon and Regina health districts and Saskatchewan Health (the health ministry). In general, our



- survey tended to provide longer estimated waiting times. Any large divergences are noted on the relevant specialty tables.

- Data from the Montreal Regional Health Board (MRHB) showed 351 patients waiting for heart surgery as of December 1997 and 377 as of March 11, 1998. Our survey estimated that there were 359 patients waiting for cardiovascular surgery in Quebec in 1997. The MRHB listed patients as waiting from three to 12 weeks for elective surgery and one to two weeks for urgent surgery. Our survey results are consistent with these findings.

- The Newfoundland and Labrador Department of Health and Community Services also responded to our request for data verification. Whereas in the past it did not collect such data, this year it was able to provide us with the numbers of people waiting and the average waits for treatment in numerous specialties for the province's health regions. The waits varied considerably from region to region. In general surgery, the average wait was anywhere from one to 12 weeks. The wait for orthopaedic surgery ranged from six to 24 weeks; from one to 16 weeks for gynaecology; two to 12 weeks for urology; zero to 32 weeks for ophthalmology; 24 to 104 weeks for cardiovascular surgery; three to 52 weeks for otolaryngology; and no waiting list for radiation oncology. While our survey results all fall within these ranges, they fall towards the lower end for the most part. For orthopaedic surgery, our survey provides an estimated waiting time of 4.6 weeks, which is less than the six to 24 week range of the department of health. In every case, our survey results underestimate the number of people waiting for treatment in these specialties and the numbers provided by the department of health are noted in the relevant specialty tables.

The Nova Scotia Department of Health released a comprehensive report on waiting lists in 1996 but it does not have more recent data as its information systems have been undergoing a massive restructuring. Once the restructuring is complete, the department plans to update its waiting list numbers and include the wait from general practitioner to specialist, an estimate that was not in its previous report.

Prince Edward Island responded to our request for provincial waiting list data and provided us with data for the specialties in which there was a considerable divergence in waiting time estimates between the ministry of health data and our survey data. The province's Health and Community Services Agency reported a waiting time of 6 weeks for glaucoma, 28 weeks for arthroplasty, 16 weeks for rotator cuff repair, and 28 weeks for ostectomy. Our sur-

vey data show a waiting time of 12 weeks for glaucoma, 50 weeks for arthroplasty, 30 weeks for rotator cuff repair, and 50 weeks for ostectomy.

## **Comparing other waiting list studies**

In 1967, a survey of British Columbia hospitals was done by the British Columbia Hospital Insurance Service, the forerunner to MSA (Pallan 1967). This study estimated that in 1967 the total number of people on hospital waiting lists in British Columbia exceeded 12,000—0.6 percent of the population in British Columbia that year. Our estimate of 28,461 people waiting for surgery in British Columbia, an increase of 1,718 from our 1996 estimate, represented 0.7 percent of the population in 1997.

A brief survey of Ontario hospitals undertaken in October 1990 for the General Accounting Office of the United States Government (1991) suggests that patients waiting for elective orthopaedic surgery were waiting from 8.5 weeks to 51 weeks, that elective cardiovascular patients were waiting one to 25 weeks, and that elective ophthalmology patients were waiting 4.3 to 51 weeks. Our survey found Ontario patients waiting 9.6 weeks for orthopaedic surgery, 13.7 weeks for elective cardiovascular surgery, and 8.5 weeks for ophthalmology procedures in 1996.

A study of waiting times for radiotherapy in Ontario (Mackillop *et al.* 1993) found that the median waiting times between diagnosis and initiation of radiotherapy for carcinoma of the larynx, carcinoma of the cervix, and non-small cell lung cancer were 30.3 days, 27.2 days, and 27.3 days respectively. Our survey results for 1997 fall within a week and a half of these estimates. We record a wait of 30.1 days for radiotherapy of larynx cancer, 37.1 days for cervix cancer, and 37.1 days for radiotherapy treatment of lung cancer in 1996 (waiting times from referral, to meeting with a specialist, to treatment). However, our estimate that prostate cancer patients were waiting a median of 44.1 days for radiotherapy is much lower than Mackillop's finding that patients with carcinoma of the prostate were waiting 93.3 days.

An international study of waiting times for selected cardiovascular procedures found that, in Canada, 13.3 percent of waiting times for elective coronary bypass surgery fell in the two to 6 week range, 40 percent in the 6 to 12 week range, 40 percent in the 12 to 24 week range, and 6.7 percent in the over 36 weeks (9 months) range (Carroll *et al.* 1995). For all of the heart procedures surveyed, the waiting

times were longer in Canada, Sweden, and the United Kingdom than in the United States. Our survey found that the provincial waiting times for elective bypass surgery tended to be in the 14-week range on average in 1997, ranging from 10 weeks in Saskatchewan to 52 weeks in Newfoundland. The waiting time for elective cardiovascular surgery in Canada increased from 9.8 weeks in 1993 to 14.2 weeks in 1997 (graph 4).

Lastly, a 1994 study on knee replacement surgery in Ontario found that the median wait for an initial appointment with an orthopaedic specialist was two weeks in the United States and 4 weeks in Ontario. The median waiting time to receive a knee operation was three weeks in the United States and 8 weeks in Ontario (Coyte *et al.* 1994). Our survey found that in Ontario in 1994, the wait to see an orthopaedic specialist was 9 weeks and the wait to receive hip or knee surgery was 15 weeks. In 1997, these wait times had decreased to 8.5 weeks and 12 weeks respectively.

### Focus on cardiovascular surgery

Cardiovascular disease is a degenerative process and the decay of the condition of the candidate for cardiac surgery is gradual. Under a system of rationed supply, therefore, some cardiac surgery candidates tend to be bumped by patients with other conditions that require immediate care. This is not a direct process but rather a reflection of the fact that budgets for hospitals are set separately for “conventional illness” and for other, high-cost, interventions such as cardiac bypass. Only a certain number of the latter are included in a hospital’s overall annual budget. Complicating matters is the on-going debate about whether cardiac bypass surgery actually extends life. If it *only* improves the quality of life, there will be no statistics that point to a decay of health care in the population and, hence, no basis for increased funding.

The result has been lengthy waiting lists, often as long as a year or more, followed by public outcry, which in turn has prompted short-term funding. Across Canada, many governments have had to provide additional funding for heart surgery in their provinces. In the past, American hospitals have also provided a convenient short-term solution to excessive waiting lists for cardiac surgery. The government of British Columbia contracted Washington state hospitals to perform some 200 operations in 1989 following a public outcry over the six-month waiting list for cardiac bypass surgery in the province.

Wealthy individuals are sometimes choosing to avoid the waiting lists by having their heart surgery performed in the United States. A Californian heart-surgery centre has advertised its services in a Vancouver newspaper. Our survey suggests that while very few British Columbians with heart disease inquired about the possibility of treatment outside of the country in 1997, 2.5 percent of them did inquire about treatment outside of the province. For Canada as a whole, 3.2 percent of cardiac patients inquired about surgery outside of the country.

Excess demand and limited supply have led to the development of a fairly stringent system for setting priorities in some hospitals. In some provinces, patients scheduled for cardiovascular surgery are classified by the urgency of their medical conditions. In these cases, the amount of time they wait for surgery will depend upon their classifications. Priorities are usually set based on the amount of pain or *angina (pectoris)* that patients are experiencing, the amount of blood flow through their arteries (usually determined by an angiogram test), and the “shape” their hearts are in.

Since 1993, the cardiovascular surgery questionnaire, following the traditional classification by which patients are prioritized, has distinguished among emergent, urgent, and elective patients. However, in discussing the situation with physicians and hospital administrators, it became clear that these classifications are not standardized across provinces. British Columbia and Ontario use a nine-level prioritization system developed in Ontario. Other provinces have a four-level system, with two urgent classifications. Decisions as to where to group patients were thus left to answering physicians and heart centres. Direct comparisons among provinces should, therefore, be made tentatively while recognizing that this survey provides the only comparative data available on the topic.

Efforts were made again this year to verify the cardiovascular surgery survey results specifically with hospital statistics and with data from provincial health ministries. University of Alberta Hospitals, Saskatchewan Health, the Manitoba Cardiac Sciences Program, and the Newfoundland and Labrador Department of Health and Community Services provided us with cardiovascular waiting list data in various forms. Data for cardiovascular surgery from various hospitals in Quebec were obtained from the Montreal Regional Health Board’s website. Where these data have been used in the tables, a note has been made.

Estimates of the length of cardiac waiting lists were either taken directly from information provided by hospitals or departments of health or were extrapolated from the sur-



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vey results. The survey estimates of the numbers of people waiting for heart surgery were derived in the same manner as those for the other specialties, from the average wait times. The average waiting time for urgent patients was used in the calculation, rather than the emergent or elective wait times, because it provided a convenient middle measure. In provinces where the length of the waiting list was provided by the hospitals, it became clear that the average wait for elective surgery overestimated the length of the line while the emergent average waiting time underestimated it.

In 1991, an Ontario panel of 16 cardiovascular surgeons attempted to outline explicit criteria for prioritizing patients (Naylor *et al.* 1991). The panel also suggested time frames considered safe waiting times for coronary surgery candidates. For comparative purposes, it was necessary to collapse their 9 priority categories down to the three used in this study. Having done this, we found that they suggest that emergent patients should be operated on within three days (or 0.43 of a week). Five of the 9 provincial median emergent wait times for cardiovascular surgery fall outside of this range. However, physicians in these provinces may define emergent to include patients that might be considered urgent in other provinces. Urgent surgeries should, according to the Ontario surgeons, be performed within 6 weeks. The median wait for urgent cardiac surgery in British Columbia falls outside of this range. The Ontario panel suggests that elective surgeries be performed within a period of six months. New Brunswick and Newfoundland fall outside of this time frame.

In past years, we have simply used the Ontario panel waiting time as the measure of the clinically reasonable wait for patients requiring cardiovascular surgery. However, this year we asked cardiovascular surgeons to indicate what they felt was a clinically reasonable length of time for their patients to wait. Our survey found specialists to be much less tolerant of long waits than the Ontario panel. They felt that urgent patients should only wait a week for surgery (versus six weeks) and that patients requiring elective cardiovascular surgery should wait 5.3 weeks

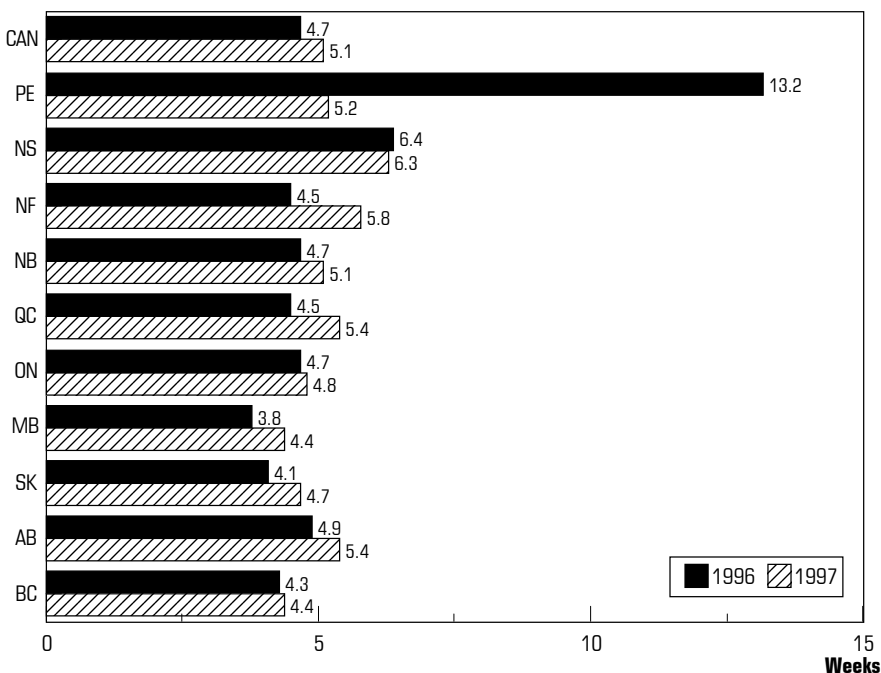
(versus 24 weeks). The BCMA survey produced similar results: 0.5 to one week was considered clinically reasonable for urgent heart surgery and a wait of 3 to 7 weeks as clinically reasonable for elective heart surgery.

### Survey results: estimated waiting in Canada

#### Waiting for an appointment with a specialist

Table 2 indicates the median number of weeks that patients wait for initial appointments with specialists after referral from their general practitioners or from other specialists. Most waits for specialists' appointments are less than two months in duration. However, there are a number of waiting times of three-months (or longer): to see a plastic surgeon in British Columbia, Nova Scotia or Prince Edward Island; to see an ophthalmologist in Saskatchewan, Manitoba, Quebec, New Brunswick, Newfoundland, Nova Scotia or Prince Edward Island; to see an orthopaedic surgeon in Manitoba; and to see a cardiovascular surgeon in Nova Scotia. The weighted medians, depicted in chart 2, suggest that British Columbia and Manitoba have the shortest wait in the country for appointments with specialists while Nova Scotia has the longest. In almost every province, the wait-

**Chart 2: Waiting by province in 1996 and 1997; weeks waited from referral by GP to appointment with specialist**



Source: The Fraser Institute, annual waiting list survey, 1997 and 1998.



ing time to see a specialist has increased since 1996. For Canada, the waiting time to see a specialist increased by 8.5 percent from 1996 to 1997, and by 37.8 percent since 1993 (graphs 1 and 2).

**Time spent waiting for treatment**

Several general observations can be made about tables 3 through 14 and tables 32 through 43. Residents of all provinces surveyed are waiting significant periods of time for hospital treatments. While some treatments have short waits, most procedures require waits of at least a month. Eighty-three percent of the actual weighted median waiting times are greater than the weighted median of what specialists considered to be clinically reasonable waiting times. For example, the median wait for radiation oncology in British Columbia is 7.4 weeks. A clinically reasonable length of time to wait, according to specialists in British Columbia, is about 2.0 weeks. In Newfoundland, the actual time to wait for a plastic surgery procedure is 44.1 weeks, whereas a wait of two weeks is considered to be clinically reasonable. The differences between the median reasonable and median actual waits for the specialties are summarized in table 45.

Ranking the provinces according to the weighted medians reported in table 28a indicates that the longest median wait for surgery occurs in Saskatchewan and the shortest in Ontario. There is a 7 week difference between the shortest and the longest weighted median. The median waits for treatment by province are illustrated in chart 3. For Canada, the wait for treatment after having seen a specialist increased from 6.2 weeks in 1996 to 6.8 weeks in 1997. In 1993, the wait for treatment after having seen a specialist was 5.6 weeks (graphs 3 and 4).

Tables 30a and 30b present a frequency distribution of the median waits for polled surgery by province and by region. In all provinces, the majority of polled operations have waiting lists of less than three months. British Columbia has the lowest proportion of waits under three months while the Prairie provinces have the greatest proportion of median waiting times over 6 months.

In contrast, 94.6 percent of Ontario’s median waits are under three months long and none are over 6 months.

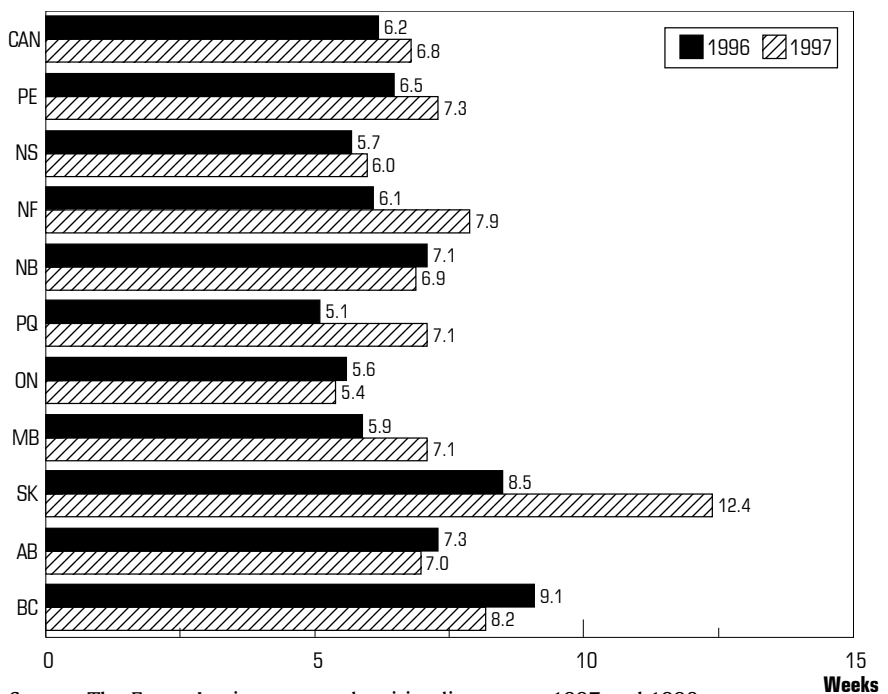
**Number of people waiting for treatment**

In 1995, a new statistic was added to tables 15 through 26. Because provincial populations vary greatly, it is hard to gauge the differences in the lengths of waiting lists solely on the basis of the pure numbers of people waiting. A couple of examples should illustrate this point. In Ontario, there are 955 people waiting for plastic surgery while there are 225 in Manitoba. The pure numbers of people waiting would imply that there are more people waiting for these types of treatments in Ontario. However, these figures translate into more people waiting per 100,000 in Manitoba: 20 people waiting per 100,000 population in Manitoba, and 8 people waiting per 100,000 in Ontario. In Quebec, there are 2,348 people waiting for otolaryngology or 32 per 100,000 population, while in Newfoundland there are 673 people waiting or 119 per 100,000 population. Table 27 provides a summary of these statistics.

**Further comparison with last year’s results**

Our study shows an overall increase in the waiting times for all provinces except British Columbia, Alberta, Ontario, and

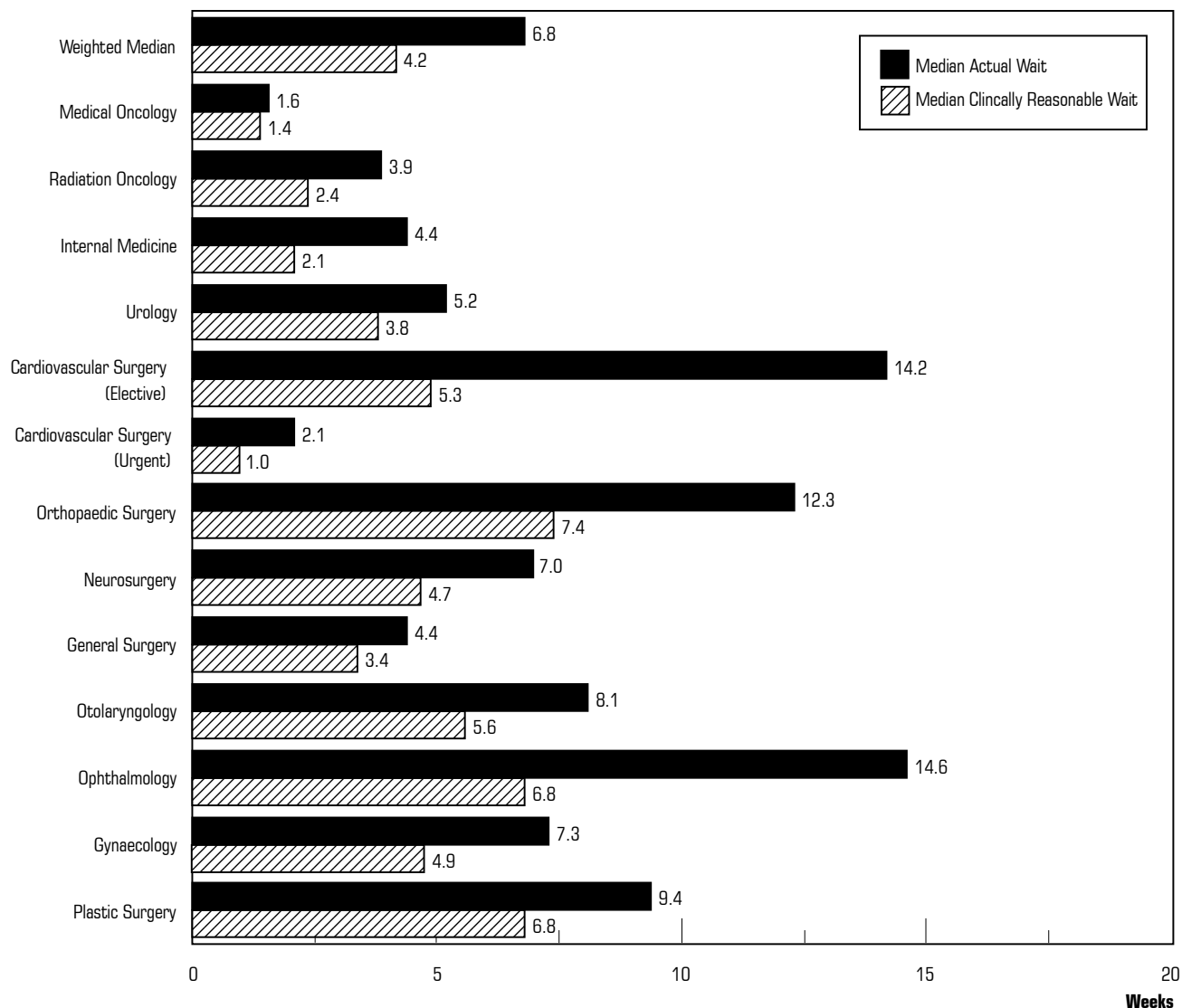
**Chart 3: Waiting by province in 1996 and 1997; weeks waited from appointment with specialist to treatment**



Source: The Fraser Institute, annual waiting list survey, 1997 and 1998.



**Chart 4: Actual versus clinically reasonable wait by specialty for Canada; time waited from appointment with specialist to treatment in 1997**



New Brunswick (table 29a). British Columbia shows the greatest improvement in waiting times from specialist to treatment. Meanwhile, from 1996 to 1997 the median wait in Quebec increased by 39 percent and in Saskatchewan by 46 percent (it is possible that some of these apparently significant increases are due to increased reporting of waiting in 1997 compared to previous years).

Most provinces experienced an increase in the number of people waiting as well (table 29b). The only provinces that had fewer people waiting for surgery were Ontario, New Brunswick, and Prince Edward Island. The number of people waiting for surgery in Canada increased from

172,766 in 1996 to 187,416 in 1997. There are 8.5 percent more people waiting for surgery in Canada and they are waiting 9.7 percent longer to receive treatment after having seen a specialist.

**Clinically reasonable waiting times**

When asked to indicate a clinically reasonable waiting time for the various procedures, specialists generally indicated a period of time substantially shorter than the median number of weeks patients were actually waiting for treatment. Table 44 summarizes the weighted medians for the specialties surveyed. These weighted medians were calcu-

lated in the same manner as those in table 28a. The variability among the provincial weighted medians is less than it was in table 28a.

Chart 4 compares the actual median number of weeks patients are waiting for treatment in Canada after having seen a specialist with the median number of weeks specialists feel it is clinically reasonable to have patients wait. The largest difference between these two periods is for elective cardiovascular surgery where the actual waiting time is 8.9 weeks longer than what is considered to be reasonable by specialists.

**Estimated total waiting in Canada**

While waiting times for surgery convey a mixed impression about the apparent extent of health care rationing, there is much less ambiguity when the overall wait for health care is considered. This overall wait, which records the time between the referral by a general practitioner to the time that the required surgery is performed, includes an additional wait for the appointment to see the specialist. Table 31 and chart 5 present the combined waiting times. They indicate that patients wait more than two months for relief of their ailments, from a weighted median of 10.2 weeks in Ontario to 13.7 weeks in Nova Scotia.

Across Canada, the longest waits for treatment are for ophthalmology, orthopaedic surgery, elective cardiovascular surgery, and neurosurgery. The median waits for these

specialties are 4 months or longer. As is indicated in Chart 6, the median total wait for ophthalmology in Canada is 24.6 weeks, 20.7 weeks for orthopaedic surgery, 18.2 weeks for elective cardiovascular surgery, and 16.5 weeks for neurosurgery. The shortest wait in Canada is for cancer patients being treated with chemotherapy. These patients wait approximately 3.5 weeks to receive their treatment.

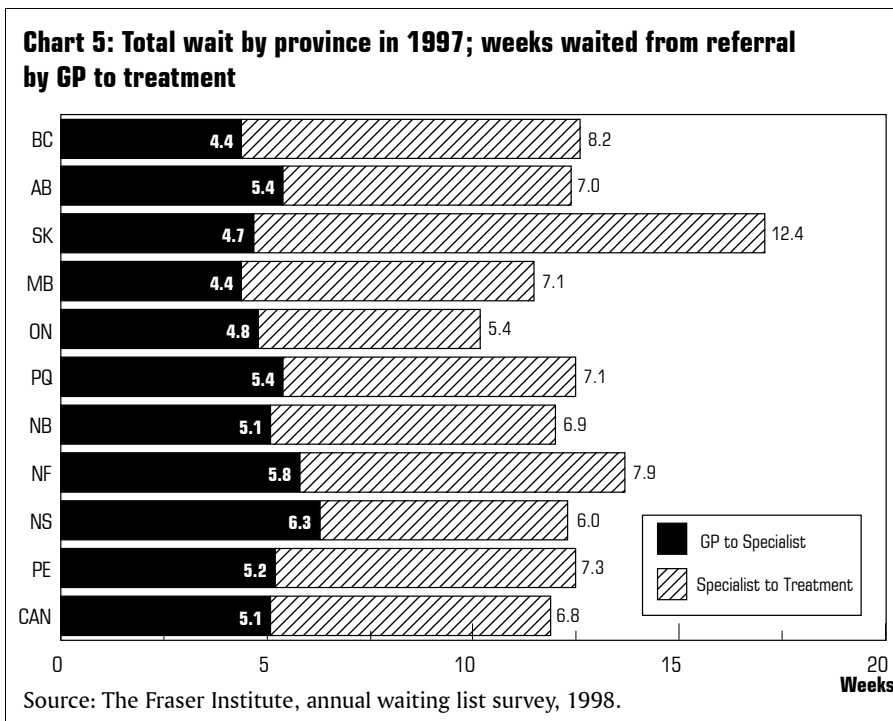
**Health expenditures and waiting times**

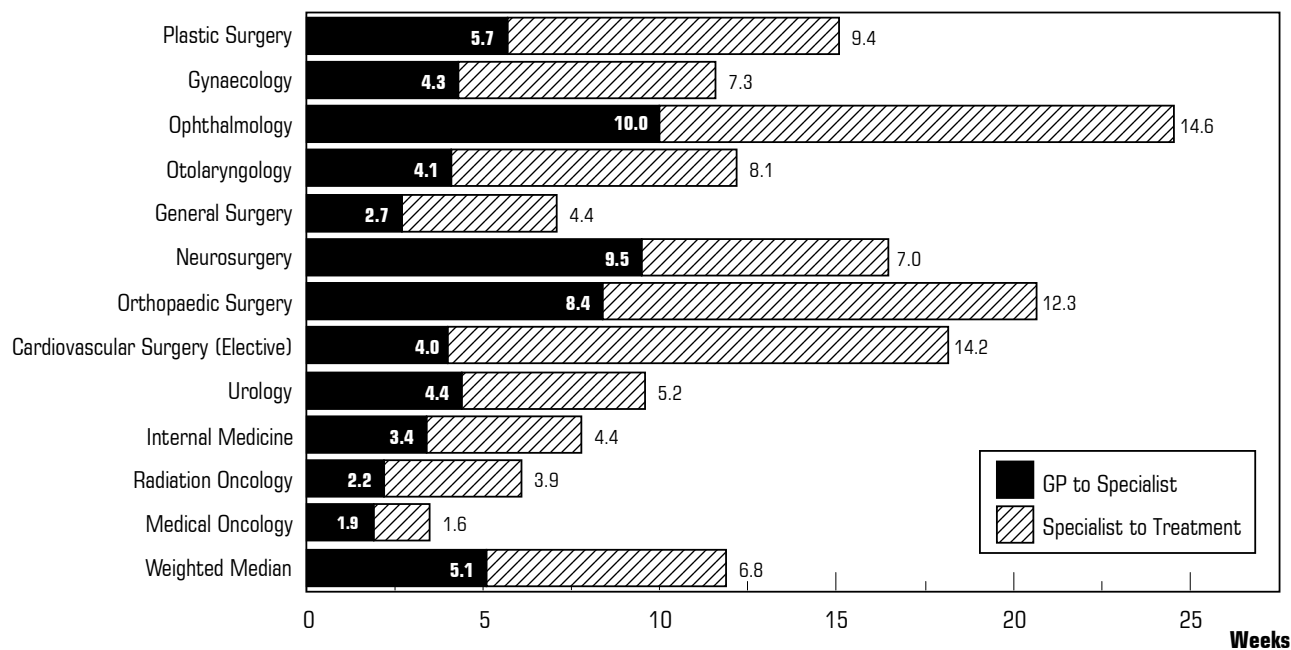
Consistently, Ontario performs better than most of the other provinces with regard to hospital waiting lists. The model of waiting lists that underlies our analysis, and which has been sketched out in this study, is that waiting is a manifestation of rationing. It would, therefore, seem to follow that one possible explanation for the result in Ontario is that the province is simply engaging in less rationing than are the other provinces. Rationing is not, of course, a necessary consequence of the way in which the health care system is organized, but merely a possible consequence of that organization if the budgetary allocations to the health care sector are insufficient to keep up with the demand. Budget constraint leads to constraints on the supply of health care services, to an excess of demand over available supply, and thus to the observed rationing by waiting.

It follows from this that one possible explanation for Ontario's superior performance is that Ontario simply spends more money on health care than the other provinces

and that this enables it to respond more fully to the demands of patients than is possible in other provinces.

In order to determine whether actual experience accords to this theory, we calculated a crude measure of public expenditures on health care in the form of adjusted per-capita expenditure on health care in each province by the public sector. (We calculated how much each province would spend per capita on health care if they were to spend the national average on the various age groups, then subtracted this value from how much they are actually spending on health care per capita. The reason for using this method of weighting is that if a population in a particular province has more people in age cohorts that are more in need



**Chart 6: Total wait by specialty in 1997; weeks waited from referral by GP to treatment**

Source: The Fraser Institute, annual waiting list survey, 1998.

of health care (e.g. the elderly), the same dollar amount per capita spent on health care in that province would yield a less effective supply effort than it would in a province with fewer elderly citizens.) This is displayed in chart 7, which shows the percent differences from the national average in weighted per-capita expenditures for all provinces and the percent differences from the national median waiting time, by province. (Waiting time is measured from patients' appointments with a general practitioner to the time they actually receive treatment.)

Provinces spending more than the national average tend to have waiting times below the national wait. Conversely, those provinces that spend less than the national average generally have waiting times above the national median. However, Manitoba has below average costs and waiting times while British Columbia, Alberta and Newfoundland have above average costs and yet have waiting times greater than the national median.

Obviously, there are many factors that influence the waiting times in the provinces and that operate in conjunction with the supply of resources. For example, there is the age of the population and, therefore, the underlying demand for health care (for which we have tried to make adjustments); the management of resources, including the extent of effort to decrease the number of patients on spe-

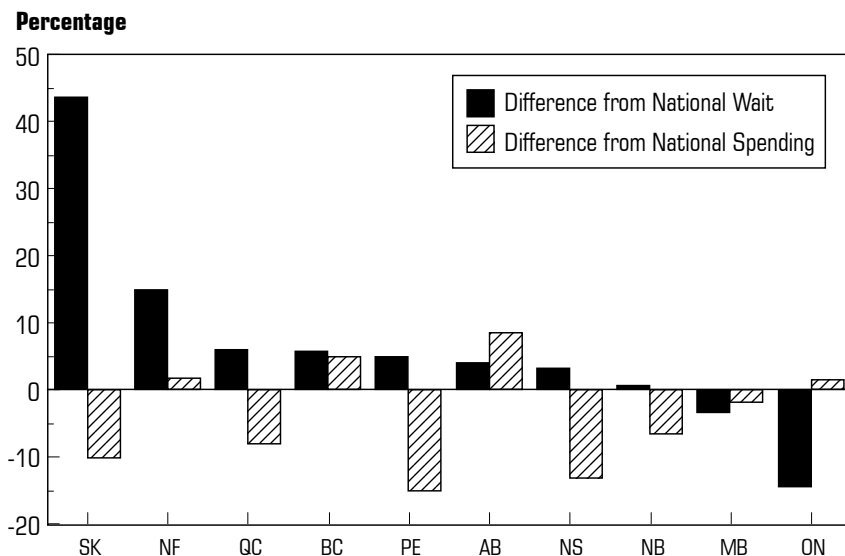
cific doctors' waiting lists; the extent of same-day surgery; the average length of hospital stays; and the extent of reliance on private clinics.

### A note on technology

The wait to see a specialist and the wait to receive treatment are not the only waits that patients face. Within hospitals, limited budgets force specialists to work with scarce resources. Chart 8 gives an indication of the difficulties that specialists in Canada have in gaining access to modern medical technologies compared to their counterparts in the United States. In 1995, there were 234 computerized tomography (CT) scanning centres in Canada, about one-half as many per million people as there were in the United States (in 1993). There were more than 3 times as many magnetic resonance imagers (MRI) in the United States per million people in 1993 as there were in Canada as of December 1997.

Our study looked at the wait for various diagnostic technologies across Canada. Chart 9 shows the median number of weeks patients must wait for access to a CT scanner, an MRI, or an ultrasound machine. The median wait for an MRI in Canada (9.6 weeks) is more than twice that for a CT

**Chart 7: Age-adjusted per-capita spending on health care and weeks waited from referral by GP to treatment in 1997 (percent difference from the Canadian values)**



Source: Median wait for treatment data are from the Fraser Institute, annual waiting list survey, 1998. Expenditure data for 1994 are from Health Canada, *National Health Expenditures in Canada, 1975–1994* (1996).

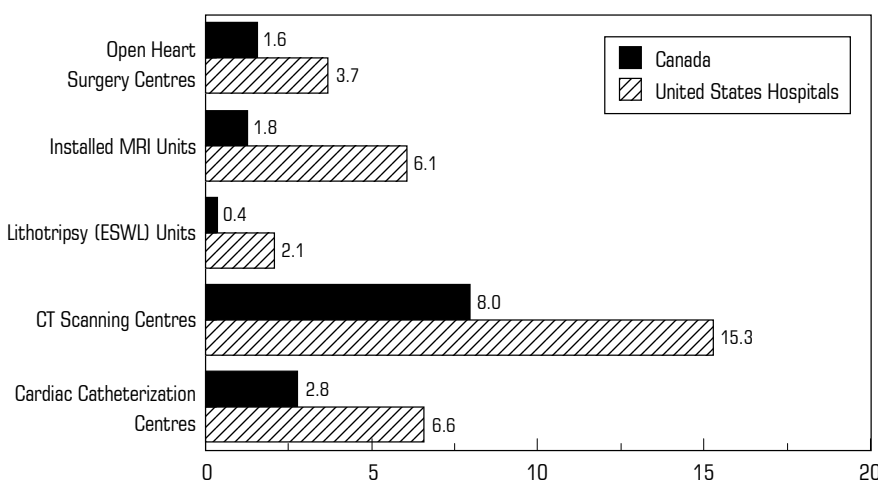
scan (4.1 weeks) and is probably an underestimate of the actual waiting time since specialists who do not prescribe MRI tests because of the lengthy waits for access to a machine are not included in the calculation of the median. The longest wait for an MRI is in Saskatchewan (13.9 weeks). Ultrasound tests are quite common and many specialists have their own machines so that the median wait for ultrasound in Canada was only 2.6 weeks in 1997. This is a relatively short wait compared to those for CT scans and MRIs, but it is a 36.8 percent increase from 1996.

### Conclusion

The 1998 *Waiting Your Turn* survey indicates that the waiting list situation has deteriorated since 1997; waiting for health services in Canada is a reality. Even if one debates the reliability of waiting-list data, our survey reveals that specialists feel their patients are waiting too long to receive treatment. A national survey conducted by the College of Family Physicians of Canada two years ago showed that general practitioners were also concerned about the effects of waiting on the health of their patients (College of Family Physicians of Canada 1996). Almost 70 percent of family physicians felt that the waiting times being experienced by their patients were not acceptable.

Patients would also like to have earlier treatment. On average, in all specialties, less than 10 percent of patients are on waiting lists because they requested a delay or postponement of their treatment. The responses range from a low of 4.8 percent of neurosurgery patients requesting a delay of treatment to a

**Chart 8: Selected Technologies per Million People in Canada and in American Hospitals**



Source: The American Hospital Association, *Hospital Statistics* (1994/95 edition); The Canadian Coordinating Office for Health Technology Assessment (CCOHTA), *Technology Brief* (February 1996); CCOHTA website for MRI data as of December 1997.  
 Note: This graph remains basically unchanged from previous editions of *Waiting Your Turn* because the CCOHTA no longer collects data on the availability of technology (except MRI) in Canada by province.

**Chart 9: Waiting for technology; median number of weeks waited to receive selected diagnostic tests in 1996 and 1997<sup>A</sup>**

	Computerized Tomography		Magnetic Resonance Imaging		Ultrasound	
	1997	1996	1997	1996	1997	1996
<b>British Columbia</b>	5.3	4.2	10.5	7.9	1.9	1.4
<b>Alberta</b>	3.7	3.5	8.6	8.6	1.6	1.7
<b>Saskatchewan</b>	4.6	2.9	13.9	7.2	2.2	1.1
<b>Manitoba</b>	6.5	5.1	10.1	9.6	8.8	5.2
<b>Ontario</b>	3.8	3.8	10.6	11.1	1.5	1.1
<b>Quebec</b>	3.6	3.5	8.6	7.0	3.6	2.3
<b>New Brunswick</b>	3.7	3.1	7.3	3.7	4.5	3.6
<b>Newfoundland</b>	5.6	4.3	8.0	5.3	4.8	3.6
<b>Nova Scotia</b>	3.0	2.4	5.4	4.3	2.1	2.1
<b>Prince Edward Island</b>	5.7	4.7	2.2	0.0	3.6	3.3
<b>Canada</b>	4.1	3.7	9.6	8.5	2.6	1.9

<sup>A</sup> Source: The Fraser Institute, annual waiting list survey, 1997 and 1998.

high of 16.9 percent of medical oncology patients requesting a delay of treatment. Conversely, the percentage of patients who would have their surgeries within the week if there were an operating room available is greater than 50 percent in all specialties except gynaecology and plastic surgery. Radiation

oncology patients are the most anxious to receive treatment, with 86.4 percent of patients willing to receive their treatment within the week. Cardiovascular surgery patients are the next most anxious: 79.8 percent of these patients were willing to have their surgery or treatment within the week.