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***Waiting Your Turn:
Hospital Waiting Lists in Canada***

3rd edition

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and Michael Walker**



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Preface

Michael Walker

THE FRASER INSTITUTE HAS long had an interest in the health care system and in providing information about it to those concerned about establishing an appropriate public policy framework for the delivery of this vital service.

The Fraser Institute has published three books dealing with Canada's health care system.¹ While each author approaches the subject from a different perspective and from a different analytical orientation, all are concerned with the impact of economic arrangements regarding health care on the quality and quantity of health care services delivered to Canadians. Our interest was particularly piqued several years ago by my discovery that in the United Kingdom, local governments actually produced publications listing hospital waiting lists for a selection of operations as a guide for health care consumers. The intent in pub-

lishing the lists was to improve the efficiency of the National Health Service by ensuring that health care consumers were aware of the hospitals which had the shortest waiting times. Since the lists were much longer than could be justified by the desire to avoid unused capacity or to permit patients to have enough time to arrange their affairs prior to admittance to hospital, the unavoidable conclusion was that waiting was being used as a method for rationing health care in the U.K.

About the same time, anecdotal evidence began to emerge suggesting that hospital waiting lists were starting to become significant in Canada. However, there were no systematic measurements of the extent of waiting. Those partial waiting list measurements which were made by hospitals and by government departments were regarded as politically sensitive and they

¹ Åke Blomqvist, *The Health Care Business*, 1979; Ronald Hamowy, *Canadian Medicine, A Study in Restricted Entry*, 1984; and Malcolm C. Brown, *Caring for Profit*, 1987.

were not made generally available. Some preliminary measurements made by The Fraser Institute indicated that waiting was much more prevalent in the 1990s than it had been in the late 1960s. At the same time, there was increased concern about the cost to the government of continuing to supply the level of health care services that had been the norm. The health policy issue associated with these two developments is the possibility that waiting lists or queues are being used as an alternative to rising prices; they restrain health care expenses in a system where prices have been systematically eliminated and neither physicians nor patients have the slightest economic incentive to consider the costs of their decisions.

The current *Critical Issues Bulletin* is the Institute's third attempt to document the extent to which queues are being used as a means of adapting to the conflict between limited budgetary allocations and unlimited demand for free health care.

The study, conducted by Joanna Miyake and myself with the assistance of Steven Globberman, has been enthusiastically supported by The Fraser Institute, but the work we have undertaken has been independently conducted. The views expressed in this study, therefore, may or may not conform with the views of the members and Trustees of The Fraser Institute.

The Institute is pleased to offer the results of the research to the public for consideration and debate in the hope that more attention will be focused on the issue of hospital waiting lists and on improving our measurements of and knowledge about this aspect of health care provision in Canada. The fact that the provincial governments across the country are mounting projects to produce "official" hospital waiting lists is a concrete indication that our work has been useful in stimulating appropriate concern about this public policy issue.

Waiting your turn: hospital waiting lists in Canada

Third edition

Joanna Miyake and
Michael Walker

Introduction

THERE WERE MORE TELEVISED news stories on health care than on the economy in Canada last year. That this could happen during a recession is an indication that the funding and management of health care have become a major source of public anxiety. Rightly so, for with continuing large government deficits and the escalating cost of health care, Canadians will have to make important decisions in the near future about the quality of health care delivery under our universal system. Preserving a universal health care system though rationing is now a topic openly discussed by health administrators,² as is the need to restrict the amount of new technology provided to hospitals in order to keep hospital costs down.

One of the clearest manifestations of the rationing of health sector resources in Canada is the existence of waiting lists for medical procedures and treatments. To the extent that non-price rationing of hospital capacity is occurring, 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 needing radiation therapy who must drive long dis-

² See for instance "Who calls the shots, if rationing becomes routine?" *The Globe and Mail*, April 30, 1992, p. A12.

tances either to a regional health centre or to the United States bear costs in terms of lost time which 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 or not finds little comfort in the advice from her physician that epidemiological research shows that it doesn't matter to the outcome if the biopsy is delayed that long. The anxiety and tangible psychological pain suffered by the woman are not included in the costs of operating the health care system.³

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 ex-

tent to which these costs may be mounting.

A number of health sector administrators are sceptical about how meaningful and useful waiting lists are. They are sceptical 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.⁴ An earlier Fraser Institute publication evaluated various theoretical issues related to hospital waiting lists, including their relevance as measures of "excess demand."⁵ That 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. This study was followed in 1991 by a five-province study similar to the initial B.C. study.

This report builds upon our earlier two studies by updating waiting

³ All of the foregoing represent actual cases in recent Canadian health care experience. Details are available from the authors on request.

⁴ D.H.A. Amoko, Modrow, R.E., and Tan, J.K.H., "Surgical Waiting Lists II: Current Practices & Future Directions. Using the Province of British Columbia as a Test Study," *Healthcare Management FORUM*, Vol. 5, No.4.

⁵ See Steven Globerman with Lorna Hoyer, "Waiting Your Turn: Hospital Waiting Lists in Canada," *Fraser Forum*, May, 1990.

list estimates for the five provinces surveyed last year, and by expanding the number of provinces surveyed to include all provinces in Canada. In the next section we briefly review the relevant theoretical issues before turning to the 1993 survey results.

Waiting lists as measures of excess demand

The most straightforward 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 waiting is a form of rationing and not simply the "postponement" of a service can be seen in the fact that there are costs involved for those who are forced to wait. If the people waiting had their choice, they probably would *not* wait in most cases. To the extent that that 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.

But it can be presumed that those who are in physical pain or are unable to work but have to wait would prefer not to. Recently published data by Statistics Canada indicates that 45 percent of those who are waiting for health care in Canada describe themselves as "in pain."⁶

To put the issue somewhat differently, war-time rationing of refrigerators or automobiles could be reinterpreted as simply waiting. Those who wanted a "fridge" in 1940 but didn't get it until 1946 weren't denied the fridge, they only had to wait. Obviously, the issue of time is an important one in the matter of goods provision. It is also important—in some cases crucial—in the case of waiting for 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 signalling 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

⁶ Data taken from Statistics Canada's *General Social Survey—Health*, 1991.

health care users to be deterred—effectively rationing 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 profit possibility. 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 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 which 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. (The reasons suggested for this are discussed below.) However, even if that were true, it would still be 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 she can get back to work, and let her husband wait for an opening in 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, and in our view more relevant, 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 is only going to improve the equity of the situation by chance, if at all.

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, one would presumably want

to subsidize lower income people needing health care services. However, given the unexpected nature of many illnesses or accidents, it might be quite 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 the tax-transfer process might 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 insur-

ance systems.⁷ 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 conceptually be set against whatever benefits are seen to be associated with it.

Non-price rationing and methods of adapting

There are several possible ways in which non-price rationing can take place under the current health care system and many ways individuals find to 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 battle field 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, the limitation is a shortage of resources which requires physicians to employ the triage system to make choices about who 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 explicit 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.⁸ 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, as opposed to using the radiation machines to

⁷ These are considered in The Fraser Institute book, *The Health Care Business*, by Åke Blomqvist.

⁸ See Henry J. Aaron and William B. Schwartz, *The Painful Prescription: Rationing Hospital Care*, Washington: D.C.: The Brookings Institution, 1984.

provide palliative care or limited extensions to life expectancy.⁹

It is unlikely that medical practitioners would acknowledge that they are rejecting (as opposed to queuing) specific patients who in their medical judgment do need treatment, so it would be difficult to identify this behaviour if it was, in fact, occurring. In this regard, there is no persuasive evidence that mortality rates in Canada are increasing significantly owing to a failure to provide medical services. As noted above, however, there are no measurements of the extent to which people are suffering physical and psychological pain as a result of waiting in queues, since this is inherently unmeasurable. If one regards the elimination of pain and suffering as the objective of medical care, then the additional pain suffered by patients because of delays is, in effect, 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. Of course, given sufficient incentives, Canadians would presumably seek to buy private insurance for non-emergency medical treatment outside of Canada. Possibly as a reflection of the increasing prevalence of waiting in the health care system, a Winnipeg-based company will begin to market just such an insurance product this year.¹⁰ However, our survey of specialists (reported later in this study), found that fewer than 1 percent of non cardiovascular patients ever even inquired about treatment in another country. On the other hand, it has been a fairly common practice for many Canadians to buy short-term travellers' health insurance for trips made to the United States. These insurance packages have increased in price, perhaps an indication that Canadians are using such insurance more than they did at one time, and perhaps for medical procedures that have waiting lists in Canada. This year, the British Columbia Automobile Association, a major reseller of this type of insurance, announced an increase of approximately 400 percent in the

⁹ See "Cancer Patients Face Wait For Treatment," *Globe and Mail*, September 13, 1989, A1.

¹⁰ "Insurance Plan Skirts Lineups," *the Vancouver Province*, April 6, 1993, p. A19.

price of such an insurance package for seniors.

Another way in which people might seek to avoid the costs of queues is through lobbying or bribing the "gatekeepers" of the hospital system. In particular, individuals who are personal friends or close acquaintances of surgeons, hospital administrators or politicians in positions of power may obtain preferred positions in the queue for medical services. However, given the relatively close attention paid by the media to the health care issue, and the risk of sanctions attached to being caught, this is unlikely to be a widespread and persistent practice. Moreover, in spite of persistent anecdotes that such preferences have been granted, no hard evidence has emerged to date supporting these contentions.

Real social costs of rationing health care

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 and/or that there is little social cost associated with enforced waiting in any case.

One frequently expressed concern is that doctors encourage a greater demand for medical care than is

socially optimal. As a result, waiting lists exist for specific treatments. However, there may be 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 a public perception of a health care crisis so as to increase public funding of the medical system.

The available evidence on the magnitude of supplier-induced demand 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 are in more obvious (to themselves and their general practitioners) 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 necessary reason for any single physician or group of physicians to believe that 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 suggest 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 system-

atic manner, or do not make such data publicly available.

This year the survey was conducted in all ten Canadian provinces. Mailing lists for the specialists polled in eight provinces were provided by Southam Business Lists. The specialists on these lists were drawn from the Canadian Medical Association membership lists. Three provincial medical associations—British Columbia, Quebec and New Brunswick—provided us with mailing lists and assistance in their provinces.¹¹ Specialists were offered a chance to win a \$2,000 prize as an inducement to respond (and, of course, without regard to their response). Though answering physicians were undoubtedly motivated in part by the lottery, the participation of the Medical Associations and the large percentage of answering specialists indicates concern about the 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, and this interest was certainly a factor encouraging

the Medical Associations' co-operation in the project.

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 a strong incentive to skew their responses in a particular direction.

The authors chose to survey specialists rather than general practitioners because the former have primary responsibility for health care management of surgical candidates. Survey questionnaires were prepared for ten different medical specialties: plastic surgery, gynaecology, ophthalmology, otolaryngology, general surgery, neurosurgery, orthopaedics, cardiology, urology, and internal medicine. For the 1990 survey, each questionnaire was pre-tested on a sample of individual member specialists serving on the relevant British Columbia Medical Association specialty committee. The final versions of the questionnaires, comparable to those used in 1990, were mailed to physicians in each spe-

¹¹ We did not use the New Brunswick Medical Association's mailing list because it arrived after the Southam list had been ordered, but response in the province was encouraged by the Medical Association in its newsletter.

cialty. Survey data was collected in December 1992. The survey was sent to all specialists in a category, except in the case of internal medicine in Ontario, where 200 names were randomly selected from this category by Southam Business Lists. The response rate of 31 percent overall was considered quite high for a mailed survey. We attribute the high response rate, which is presented in Table 1, to the opportunity to participate in the lottery. The waiting list survey last year produced only a 20 percent response rate in the five provinces surveyed. By comparison, the response rate for those same provinces this year was 32 percent. Unfortunately, no neurologists in Newfoundland responded, despite a follow up. This may be because the small number of neurologists in this province precludes anonymity.

Survey results

The major findings from the survey responses are summarized in tables 2 through 26. Table 2 reports the average time a patient waits for a specialist appointment, measured from the point of G.P. referral. Most waits for specialists' appointments are between one and two months. However, the longest wait is 27 weeks, to see an ophthalmologist in P.E.I., and waits of more than two months are not uncommon for or-

thopaedic specialists. The weighted averages suggest that New Brunswick has the shortest waits in the country for specialists, and Manitoba the longest. The appointment averages are weighted by the ratio of the number of physicians in each specialty divided by the number of specialists surveyed in the province. Table 25 at the end of the report adds average waits for appointments to average waits for treatment in order to estimate a patient's total waiting time.

The treatments identified in all 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. The average waiting time per patient is calculated from the survey responses.

Tables 3 through 13 report the average wait and tables 14 through 24 the estimated number of patients waiting for surgery. The 1990 estimates of the number of people waiting for treatment in B.C. were extrapolated from the physicians' responses to a query concerning the number of patients they had waiting. There were problems with this methodology: while the variance in the responses concerning waiting times was fairly low, the variance in responses concerning the length of

the queue was high. This would indicate that while waiting list lengths vary substantially, physicians' access to surgical facilities is positively related to the number of patients they have waiting. Hence, the time it takes to process patients is comparable across all specialists. In this situation the reported average time waited would appear to be fairly reliable, whereas concerns exist about the reliability of estimating the total number waiting in the province from an average number of patients waiting per specialist.

The estimation method used this year and last avoids these problems. This year's estimates are derived using the average weeks waited and Statistics Canada's Health Report No. 82-003s2 "Surgical Procedures and Treatments 1989-90." 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 any given surgery at any given point, we divided the average weeks waiting for a given operation by 52, and then multiplied 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 annually in response to waiting lists. This appears to be a fairly safe assumption as the total number of operations performed in Canada has actually decreased by 4 percent between 1985-86 and 1988-89, despite indications that waiting lists have been increasing.

We encountered a number of minor problems while matching Statistics Canada's operation categories to the ones reported in our survey. In several instances in our survey, an operation such as rhinoplasty was listed for more than one specialist. In these cases, average waiting times were identified with the classification of the responding specialist. Hence, the flow or number of patients annually undergoing this type of operation is divided between specialties according to the proportion of overall surgery performed in each specialty. In another instance, one orthopaedic operation polled in our study, "Removal of pins and other hardware" had no match in the Statistics Canada report. Accordingly, we made no estimate of the number of patients waiting for this operation.

Several general observations may be made about tables 3 through 22. The first is that 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. For many procedures, the waiting time is at least two months. The average wait for a hip replacement in Manitoba (arthroplasty of the hip) is more than a year. The average time waited for an operation varies considerably between specialties within a province, but appears fairly uniform within specialties within a province.

Focus on cardiovascular surgery

More people in Canada will die this year of cardiovascular disease than of any other single cause. Because cardiovascular disease is a degenerative process and the decay of the cardiac surgery candidate is gradual, under a system of rationed supply some cardiovascular 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 by-pass. Only a certain

number of the latter are included in a hospital's overall annual budget. Complicating matters is the ongoing 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, prompting short-term funding. For instance, last year we reported that Newfoundland's waiting list for coronary bypass surgery was a year long. This year, the hospital performing open heart surgery received a special temporary grant to deal with their waiting lists. U.S. hospitals have also provided a convenient short term solution to excessive waiting lists for cardiac surgery. The British Columbia government contracted Washington state hospitals to perform some 200 operations in 1989, after public outcry over the six-month waiting list for cardiac bypass surgery in that province. Wealthy individuals are sometimes choosing to avoid the waiting lists by having their heart surgery performed in the U.S. In fact, a California heart surgery centre has advertised its services in a Vancouver newspaper. Our survey suggests that 5 percent of patients

enquire about surgery outside of Canada and 1.5 percent actually have their heart surgery performed outside of the country.

Excess demand and limited supply has lead 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 condition. In that case, the amount of time they wait for surgery will depend on their classification. Priorities are usually set based on the amount of pain or angina a patient is experiencing, the amount of blood flow through their arteries (usually determined by an angiogram test), and the "shape" their heart is in.

Reporting average wait times as we have done in previous years fails to take into account the importance of these systems for prioritizing patients. More importantly, the false impression may be given that the medical community is not sensitive to an individual's medical needs. An individual needing immediate cardiac surgery will not end up at the end of a waiting list. In fact, if their medical needs warrant it, they will be admitted immediately in most parts of the country.

This year's cardiovascular survey questionnaire distinguished between emergent, urgent and elective patients, the traditional classification by which patients are prioritized. However, in discussing the situation with physicians and talking to 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 was thus left to answering physicians and heart centres, all of whom seemed able to make this distinction quite readily. Direct comparisons between provinces should therefore be made tentatively while recognizing that this survey is the only comparative data available on the topic.

Efforts were made this year to verify the survey results with hospital statistics. Hospital officials in British Columbia confirmed the average waiting time found in our study, and provided us with the actual number of patients on the British Columbia waiting list. The two hospitals performing heart surgery in Alberta provided data on average length of wait and on length of waiting lists. Hospital officials in

Nova Scotia and Newfoundland provided provincial data.

Estimates of the length of waiting lists were either taken directly from hospital information or extrapolated in the same manner as other estimates from the average wait times. The numbers presented for Nova Scotia and Newfoundland are not estimates but are the actual number of people waiting. These numbers were provided by the hospitals from central registries. The estimated number of people waiting for heart surgery in all other provinces was derived using the average waiting time for urgent patients. The reason the urgent average waiting time was used and not the emergent or elective average wait times was that it provided a convenient median measure. In provinces where the length of the waiting list was provided by the hospital, it became clear that the average wait for elective surgery overestimated the length of the line while the emergent average waiting time underestimated it. We decided to use the urgent average waits when it became evident that an estimate of the number of people

waiting in B.C. for cardiac bypasses, derived using the average urgent wait, differed by only 16 people, or 5 percent, from the actual length of the cardiac bypass waiting list.

In a 1991 paper, an Ontario panel of sixteen cardiovascular surgeons attempted to outline explicit criteria for prioritizing patients.¹² They also suggested time frames considered safe waiting times for a coronary surgery candidate. For comparison purposes it was necessary to collapse their nine 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 in not more than three days (or 0.43 of a week). The majority of average emergent wait times fall outside 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 in no less than six weeks. The average waits for urgent coronary surgery in British Columbia, Alberta, and Nova Sco-

¹² Neylor, C.D. et al, "Assigning priority to patients requiring coronary revascularization: Consensus principles from a panel of cardiologists and cardiac surgeons," *Canadian Journal of Cardiological Medicine*, June 1991, Vol. 7 No. 5, pp. 207-213.

tia fall slightly outside this range. The Ontario panel suggests that elective surgeries be performed in less than six months. All provinces except Quebec fall within this time frame.

Estimated total waiting in Canada

Tables 22a and 22b offer a comparison of average 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 48 operations we surveyed represent between 55 and 62 percent of non-emergency surgery performed in the provinces we studied.

The final row of table 23a is a weighted average of the nine specialties listed above. These weighted averages are calculated by summing the products of average 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 residual operations are all non-emergency operations that were not included in our survey. The estimate of residual

waiting is the product of the residual number of operations and the weighted average divided by 52 (weeks). The estimate of total residual waiting is reported in table 23b, as is the estimate of total patients waiting in each province at any given time. The total estimated number of people waiting for surgery during 1992 in Canada was 177,297, or less than one percent of the Canadian population.

This total waiting estimate represents a smaller fraction of the population than was calculated from the 1991 survey of waiting. The reason is that the 1991 survey did not include Ontario, so estimates from the other provinces were used to proxy the Ontario waiting times. As is evident from this year's survey, Ontario experiences much shorter waiting times and a lower incidence of waiting than the other provinces. Accordingly, last years estimates for the country as a whole over-estimated the total amount of waiting.

Comparison between provinces

Ranking the provinces according to the weighted averages reported in table 23a and described earlier indicates that the longest wait for surgery occurs in Prince Edward Island and the shortest in Ontario.

Newfoundland had the second longest weighted average and Alberta had the second shortest average waits. Waits were generally longer for most procedures in the Maritimes and shorter in Ontario than in other parts of the country. Overall there was a seven week difference between the shortest and the longest weighted averages.

Table 25 presents a frequency distribution of the average waits for polled surgery by provinces and by region. In all provinces except New Brunswick and P.E.I., the majority of polled operations have waiting lists of less than three months. In New Brunswick, only 49 percent of the polled waiting lists have average waits of less than three months and in P.E.I. only 47 percent. In fact, the Maritime provinces collectively have the greatest proportion of average waiting times over six months and the lowest proportion under three. In contrast, 96 percent of Ontario's average waits are under three months in length and none are over six months.

Ontario's superior performance with regard to hospital waiting lists is striking. The question, of course, is why Ontario should have such a dramatically different waiting profile given that the structure of the health care systems in the provinces is similar. The model of wait-

ing lists that underlies our analysis (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 different result in Ontario is that the province is simply engaging in less rationing than 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 the observed rationing by waiting.

It follows from this that one possible explanation for Ontario's superior performance is that Ontario simply spent more money on health care than the other provinces and that this enabled it to respond more fully to the demands of patients than was possible in other provinces.

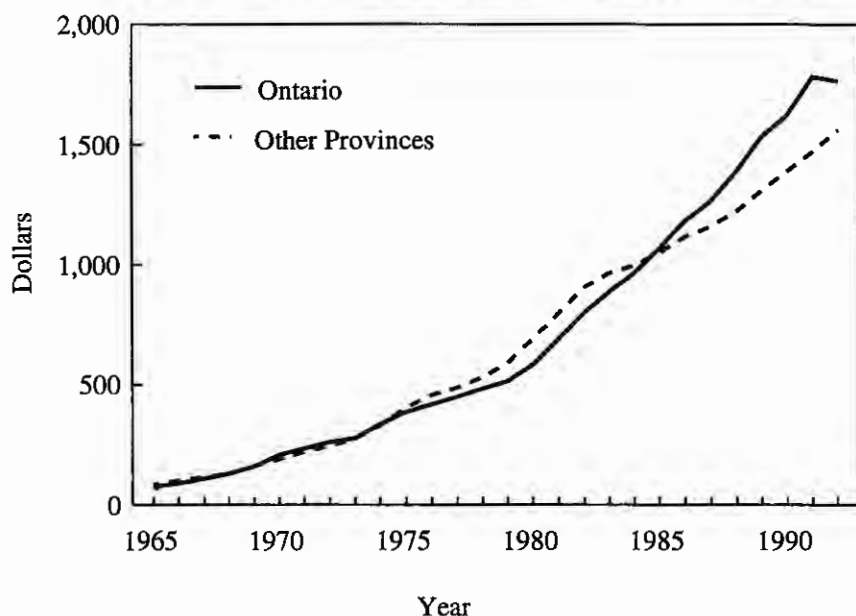
In order to examine the truth of this explanation, we calculated a crude measure of expenditures on health care in the form of the per capita expenditure on health care in each province. This is displayed in Chart 1

which illustrates the per capita expenditures for Ontario and for all provinces excluding Ontario. As the chart clearly shows, although expenditures in Ontario were generally at or below the level incurred in other provinces until the mid-1980s, they have since then greatly exceeded expenditures in the other provinces. By 1991, the last year for which we have firm data, Ontario's costs were some \$313.7 per capita higher than they were elsewhere in Canada. The recent slowdown in per capita expenditures in Ontario, and the movement back towards the level in other provinces, sug-

gests that we will also see, in due course, a reversal in Ontario's superior performance with regard to waiting lists. The general rosiness of Ontario's waiting list situation compared to the rest of Canada is noteworthy, as Ontario is usually the province cited in U.S. news stories and other reports on Canadian health care. In fact, a much-cited United States General Accounting Office report, *Canadian Health Insurance: Lessons for the United States*, examines the problem of waiting in Canada with data from Ontario alone. As is clear from this data, such projections do not yield an ac-

Chart 1:

Per Capita Government Expenditure on Health Care



curate picture of the overall situation in Canada.

Historical review of waiting list studies

As a general rule, governments and their agencies do not collect data on waiting lists. An exception was the 1967 survey of British Columbia hospitals done by the British Columbia Hospital Insurance Service, the forerunner to MSA.¹³ (This study was undertaken primarily to project bed needs in the future. Thus, its data was for individual hospitals and regions, and does not lend itself to direct comparison with our study.) However, some general comments can be made. Surprisingly, the time patients now wait for surgery appears to be about the same as it was 24 years ago. In 1967, reported waiting times ranged from two to 300 days with an average time of about five weeks, though this figure varied substantially between hospitals. The main difference between patients waiting today and those in 1967 is that today's patient is more likely to be classified as urgent. The

1967 study found that 93 percent of patients in their sample population were waiting for elective surgery, 7 percent for urgent and 0.5 percent for emergency. In contrast, figures made available to us by Vancouver General Hospital for 1988 suggest that 76 percent of the patients waiting are classified as elective and 24 percent are classified as urgent.

The other major difference between the 1967 survey and today's is the number of patients waiting. The Hospital Insurance 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 B.C. that year. Our estimate of 32,671 people waiting for surgery in B.C. represents 1.1 percent of the population in 1992. This is a fairly large increase over two decades, and certainly indicates an apparent worsening of the situation.

In 1982, the Ontario Medical Association undertook a survey of its members in seven surgical specialties.¹⁴ The results were based on the responses of 836 specialists from a

¹³ Paul Pallan, *A study of hospital waiting lists*, Research Division, British Columbia Hospital Insurance Service: Department of Health Services and Hospital Insurance.

¹⁴ See Gene O'Keefe, "Survey of Waiting for Elective Surgery," *Ontario Medical Review*, November 1982.

total of 2,100 surgeons surveyed. Given the differences in wording of the Ontario survey and our own, differences in the precise treatments identified, and so forth, comparisons between the two surveys are problematic. We did identify 21 treatments for which average waiting times in the two surveys could be compared. Despite the ten year difference between these two surveys, the Ontario waiting times are remarkably similar. In 1992, 15 treatments had average waiting times that exceeded the 1982 waiting times by less than two weeks, and of these, 13 had average waiting times that were slightly less than the 1982 waiting times, or exceeded them by less than a week. Two operations had waiting times that differed by more than a month: cataract surgery, which is 6.52 weeks longer, and hip replacement surgery, which is 10.52 weeks longer.

A brief survey of Ontario hospitals undertaken in October 1990 for the General Accounting Office of the United States Government¹⁵ 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. Limited as this survey was, it is consistent with our results.

Comparison with last year's results

As this is the second consecutive year this survey has been undertaken in British Columbia, New Brunswick, Newfoundland, Nova Scotia and Manitoba, a comparison can be made between this year's results and last year's, although last year's results reported here are not exactly the same as those published in last year's publication, "Waiting Your Turn: Hospital Waiting Lists in Canada." In the current study, estimates of the number of patients waiting in 1991 are made using the 1991 average wait times and the 1989-90 Statistics Canada's count of operations done in that year, as opposed to the 1988-89 counts that were the only ones available when the previous study was written up. Moreover, the specialists' average wait times are the weighted averages, not the simple averages that were reported in last year's report.

¹⁵ General Accounting Office, Human Resources Division, *Canadian Health Insurance: Lessons for the U.S.*, 91-90, June 1991, Report to the Chairman of the Committee of Government Operations, House of Representatives.

The results are compared in tables 24a and 24b.

Overall there was an increase in the number of patients waiting in all provinces except Manitoba and Nova Scotia. Increases in waiting were most severe in New Brunswick and Newfoundland. These were provinces where beds were closed in response to decreases in funding last year. The increased waiting time in British Columbia and decreased waiting time in Nova Scotia were comparatively small.

Our study shows an overall reduction in the waiting times and in the waiting list in Manitoba. This reduction is probably the result of our 1991 survey picking up unusual backlogs in hospital caseloads which were at least partially attributable to the 1991 Manitoba nurses' strike. A similar reduction in waiting was observed between the 1990 and 1991 British Columbia surveys. Last year we hypothesized that the 1990 survey had reflected the effects of a British Columbia nurses' strike. In Manitoba, as was the case in British Columbia, the reductions in waiting numbers and times were not universal, which indicates that not all the differences identified between the two years are the result of last year's data being affected by the nurses' strike.

Conclusion

The 1993 "Waiting Your Turn" survey indicates that substantial waiting for health services is a reality in Canada—an indisputable indicator that rationing is taking place. There is some evidence in this year's measurements that in some provinces the situation is deteriorating, while in other provinces there has been an improvement. In some cases, the improvement seems to have been secured by a direct allocation of funding by the provincial government involved to the surgical specialty which was identified as a problem in last year's survey.

While waiting times for surgery convey a mixed impression about the apparent extent of rationing of health care, 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 done, includes an additional wait for the appointment to see the specialist. Table 26 presents the combined waiting times. It indicates that, on average, patients wait for relief of their ailments from a weighted average of 11.5 weeks in Ontario to 21.2 weeks in Prince Edward Island.

Table 1: Summary of Responses, 1992
Number of Questionnaires Mailed Out

Specialty	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	49	32	9	10	145	47	11	2	8	2
Gynecology	91	124	38	58	607	208	25	21	47	8
Ophthalmology	83	76	19	33	366	127	17	9	34	3
Otolaryngology	83	34	12	18	205	95	9	6	21	2
General Surgery	105	133	51	62	586	361	36	25	61	7
Neurosurgery	27	15	6	4	66	35	5	2	7	0
Orthopedics	65	87	24	32	337	145	18	14	22	3
Cardiology	63	15	6	6	65	14	2	2	5	0
Urology	68	37	14	19	199	55	18	8	26	2
Internal Medicine	154	201	69	134	193	281	32	35	90	10
Total	788	754	248	376	2,769	1,368	173	124	321	37

Table 1 (continued)
Number of Responses

Specialty	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	24	12	4	5	54	13	4	1	2	0
Gynecology	37	38	15	20	183	51	10	9	21	2
Ophthalmology	30	26	7	14	124	47	8	3	10	1
Otolaryngology	26	14	3	5	82	34	5	3	6	1
General Surgery	28	37	13	20	152	87	8	8	12	3
Neurosurgery	13	4	3	1	23	10	3	0	3	0
Orthopedics	19	35	5	7	96	44	8	3	4	1
Cardiology	20	5	2	2	22	4	1	—	—	—
Urology	28	12	5	6	72	21	6	2	11	1
Internal Medicine	58	48	18	36	17	102	10	9	22	2
Total	283	231	75	116	825	413	63	38	91	11

Table 1 (continued)
Response Rate (percentage)

Specialty	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	49%	38%	44%	50%	37%	28%	36%	50%	25%	0%
Gynecology	41%	31%	39%	34%	30%	25%	40%	43%	45%	25%
Ophthalmology	36%	34%	37%	42%	34%	37%	47%	33%	29%	33%
Otolaryngology	31%	41%	25%	28%	40%	36%	56%	50%	29%	50%
General Surgery	27%	28%	25%	32%	26%	24%	22%	32%	20%	43%
Neurosurgery	48%	27%	50%	25%	35%	29%	60%	0%	43%	—
Orthopedics	29%	40%	21%	22%	28%	30%	44%	21%	18%	33%
Cardiology	32%	33%	33%	33%	34%	29%	50%	100%*	100%*	—
Urology	41%	32%	36%	32%	36%	38%	33%	25%	42%	50%
Internal Medicine	38%	24%	26%	27%	9%	36%	31%	26%	24%	20%
Total	36%	31%	30%	31%	30%	30%	36%	31%	28%	30%

*This data was submitted by the province's heart centre registry.

Table 2: Average 1992 patient wait (in weeks) to see a specialist after referral from a G.P.

	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	9.6	7.3	8.9	9.7	5.3	5.3	7.8	12.0	11.8	—
Gynecology	3.2	6.1	4.5	5.9	5.0	10.4	6.7	4.5	7.9	4.8
Ophthalmology	3.3	2.9	9.0	10.2	7.6	6.9	6.1	6.0	6.4	27.0
Otolaryngology	2.7	8.9	2.2	5.1	4.7	3.3	5.5	2.2	7.2	2.0
General Surgery	3.6	2.4	2.4	2.6	2.7	3.0	1.6	3.3	3.8	2.0
Neurosurgery	7.1	15.0	5.7	12.0	11.5	4.7	4.0	—	3.5	—
Orthopedics	11.8	7.7	11.1	11.0	10.0	8.4	7.3	14.0	8.8	6.0
Cardiovascular Surgery	6.8	5.5	7.0	3.5	3.9	3.4	3.0	1.0	4.0	—
Urology	5.9	6.5	3.0	7.5	3.9	5.3	4.3	6.3	3.0	2.0
Internal Medicine	5.8	3.7	2.8	5.0	7.1	3.5	2.7	3.0	4.5	5.5
Weighted Average	5.5	5.0	4.6	6.0	5.7	5.4	4.5	5.0	5.6	5.8

Table 3: Plastic Surgery (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Mammoplasty	17.3	10.6	18.5	14.5	7.9	13.4	29.7	104.0	—	—
Neurolysis	8.7	8.1	9.3	10.3	5.7	5.7	7.3	52.0	16.0	—
Blepharoplasty	10.1	9.2	13.8	8.6	6.1	5.4	14.8	4.0	—	—
Rhinoplasty	10.5	9.4	19.0	13.5	7.1	9.0	16.8	104.0	17.5	—
Scar Revision	9.8	10.8	17.5	8.0	8.5	14.2	26.3	78.0	9.8	—
Hand Surgery	11.3	8.4	9.0	8.1	6.3	9.0	17.2	39.0	18.0	—
Weighted Average	11.3	9.5	14.1	11.2	7.2	9.7	19.1	73.6	14.4	—

Table 4: Gynecology (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
D & C	5.8	5.2	7.1	8.4	3.4	3.6	16.7	4.8	4.5	10.0
Tubal Ligation	8.1	7.2	8.7	18.3	4.9	5.4	30.8	4.4	7.1	26.5
Hysterectomy	10.4	8.7	10.7	13.0	5.8	5.4	26.6	5.1	11.0	31.0
Vaginal Repair	10.5	8.2	10.8	16.1	5.8	4.5	29.0	4.8	11.1	31.0
Tuboplasty	10.2	8.5	14.8	23.6	7.2	4.8	38.2	0	12.2	22.5
Laparoscopy	1.8	5.8	8.3	12.6	4.5	5.1	22.8	3.6	6.2	24.5
Weighted Average	9.6	7.6	9.7	14.7	5.5	5.0	26.3	4.7	10.0	24.9

Table 5: Ophthalmology (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Cataract Removal	15.4	8.8	26.9	21.6	13.2	15.7	21.1	3.7	20.6	27.0
Operations on Eyelids	10.6	6.2	6.0	15.0	7.9	8.0	16.3	4.8	8.0	—
Lacunal duct	12.1	7.1	9.0	13.0	9.0	10.1	15.1	4.8	3.8	8.0
Strabismus	5.5	6.1	19.3	6.0	5.6	5.7	12.7	6.8	5.4	8.0
Weighted Average	13.9	8.5	23.4	20.5	12.6	14.9	20.6	4.5	18.9	26.9

Table 6: Otolaryngology (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Myringotomy/ Tonsillectomy/ Adenoidectomy	7.0	11.6	3.0	8.0	5.5	7.6	7.8	30.8	15.0	4.0
Tympanoplasty	9.0	8.4	8.3	6.0	6.5	6.6	10.2	9.3	27.7	30.0
Rhinoplasty/ Septal Surgery	9.7	10.0	8.3	5.5	6.8	6.6	14.8	12.0	28.3	25.0
Nasal Polyps	6.5	8.8	7.0	4.8	6.1	6.0	9.3	4.8	19.2	17.0
Weighted Average	7.5	11.1	4.2	7.3	5.7	7.0	8.9	24.8	18.2	7.7

Table 7: General Surgery

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Hernia Repair	8.0	4.9	9.8	7.9	4.6	7.1	6.0	12.7	7.6	13.7
Cholecystectomy	12.1	5.0	8.4	7.6	4.3	5.9	7.2	19.6	5.9	14.0
Breast Biopsy	2.5	1.6	1.9	1.9	2.0	2.6	1.8	1.6	2.1	2.3
Mastectomy	3.0	1.1	1.9	1.8	1.9	1.6	1.4	1.4	1.5	2.3
Hemorrhoidectomy	7.8	7.8	7.7	7.5	4.2	7.9	8.6	24.6	4.9	13.8
Colonoscopy	3.0	3.1	4.0	3.9	4.0	3.5	2.8	4.1	4.5	1.5
Varicose Veins	8.4	7.6	7.1	6.5	3.8	9.8	6.3	23.6	3.3	13.0
Weighted Average	8.8	4.9	7.5	7.0	4.0	6.2	6.0	15.5	5.7	11.0

Table 8: Neurosurgery (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Neurolysis (peripheral nerves)	4.1	4.0	3.0	8.0	6.9	42.5	20.0	—	4.7	—
Intervertebral Disc Surgery	8.1	7.8	4.0	8.0	7.5	25.1	1.0	—	9.0	—
Elective Cranial Bone Flap	3.7	7.7	2.5	6.0	4.5	29.6	0	—	3.0	—
Weighted Average	7.1	7.3	3.5	7.3	6.6	28.4	2.6	—	7.1	—

Table 9: Orthopaedic (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Menisectomy	10.5	7.8	12.0	17.2	8.0	8.6	10.8	14.7	6.0	7.0
Removal of Pins	12.2	6.5	9.0	17.3	9.7	11.2	26.0	15.3	6.8	8.0
Arthroplasty (hips)	25.1	19.9	18.8	58.6	17.0	15.4	19.5	16.7	32.0	35.0
Arthroplasty (Interphalageal)	13.9	9.9	7.0	12.2	9.1	12.5	19.0	10.0	13.5	35.0
Digital Neuroma	16.1	7.8	7.0	14.3	7.0	9.5	16.3	15.3	8.0	8.0
Rotator Cuff Repair	13.5	8.0	11.5	16.3	9.4	10.1	13.3	10.7	9.0	35.0
Osteotomy	16.3	12.0	14.8	20.6	10.8	13.8	17.7	8.0	9.3	35.0
Hallus Valgus/ Hammer Toe	14.4	14.2	14.4	17.0	9.8	12.1	31.0	12.0	7.1	35.0
Weighted Average	18.3	12.4	13.5	29.2	11.8	12.8	17.8	12.4	19.3	29.8

Table 10: Cardiovascular Surgery (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.*	AB*	SASK	MAN	ON	QUE	N.B.**	NFLD**	N.S.**	P.E.I.
<i>Emergency</i>										
Coronary Artery Bypass	1.0	0.5	1.0	0	0.7	0.7	0	2.5	0.5	—
Operations on Valves & Septa of Heart	0.5	0.7	1.0	0	1.1	0.7	0	1.0	0.5	—
Implantation, Removal or Replacement of Pacemaker	0.3	0.2	—	0	0.1	2.0	—	—	—	—
<i>Urgent</i>										
Coronary Artery Bypass	6.5	8.2	6.0	2.0	2.7	5.2	4.0	3.5	6.3	—
Operations on Valves & Septa of Heart	4.7	6.4	6.0	2.0	2.4	5.2	4.0	—	6.3	—
Implantation, Removal or Replacement of Pacemaker	2.8	0.2	0.8	0	1.6	—	—	—	—	—
<i>Elective</i>										
Coronary Artery Bypass	13.3	18.3	16.0	9.5	9.6	49.3	20.0	24.0	14.0	—
Operations on Valves & Septa of Heart	11.8	20.2	17.5	9.5	8.3	41.0	20.0	24.0	14.0	—

* Verified with hospital data.

** Hospital data for province.

Table 11: Urology (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Prostatectomy	17.8	4.6	8.6	4.1	3.9	6.4	11.9	18.0	3.3	8.0
TUR Bladder	4.0	2.6	2.9	1.0	2.4	2.5	6.3	19.0	2.8	6.0
Cystoscopy	9.8	3.0	3.4	2.3	3.5	3.4	7.6	4.8	4.2	6.0
Hernia/ Hydrocicle	12.0	4.1	10.5	3.7	4.3	4.9	15.6	18.5	10.8	12.0
Bladder Fulguration	5.5	2.2	2.0	1.4	2.2	2.2	3.8	2.8	2.4	6.0
Weighted Average	12.6	3.7	6.3	3.2	3.7	4.7	9.9	14	4.9	7.8

Table 12: Internal Medicine (1992)

Treatment	Average patient wait (in weeks) for treatment after appointment with specialist									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Colonoscopy	2.0	2.3	1.4	2.6	3.3	2.2	4.8	2.4	1.8	0
Angioplasty	5.1	3.8	3.5	4.4	0	4.1	3.5	3.0	4.6	—
Gastroscopy	1.9	1.9	1.3	2.1	2.7	1.8	3.2	1.6	1.6	4.0
Weighted Average	3.7	2.9	2.1	3.0	1.7	2.7	3.4	2.3	3.0	3.1

Table 13: Plastic Surgery

Treatment	Estimated number of patients waiting in each province in 1992								
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.
Mammoplasty	156	119	52	47	382	388	60	25	—
Neurolysis	66	98	77	36	177	150	16	39	37
Blepharoplasty	43	34	32	10	51	30	5	1	—
Rhinoplasty	121	51	95	62	281	424	38	86	35
Scar Revision	119	99	73	28	254	195	47	174	24
Hand Surgery	34	29	17	12	55	65	9	10	9
Total	539	430	346	195	1,200	1,252	175	335	105

Table 14: Gynecology

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
D & C	125	235	204	100	374	357	155	82	30	21
Tubal Ligation	129	221	128	358	210	316	197	31	38	60
Hysterectomy	1281	867	404	509	2,270	1,428	1,035	162	539	151
Vaginal Repair	71	45	28	34	138	87	62	7	37	7
Tuboplasty	255	206	151	216	571	139	150	0	56	26
Laparoscopy	44	46	20	48	119	129	43	6	20	8
Total	1,905	1,620	935	1,265	3,682	2,456	1,642	288	720	273

Table 15: Ophthalmology

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Cataract Removal	619	617	646	532	4,065	4,175	628	23	886	124
Operations on Eyelids	57	26	17	18	100	58	10	2	11	—
Lacunal duct	49	19	13	16	109	90	7	6	6	—
Strabismus	22	11	70	5	58	68	14	12	14	1
Total	747	673	746	571	4,332	4,391	659	43	917	125

Table 16: Otolaryngology

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Myringotomy/ Tonsillectomy/ Adenoidectomy	751	1,406	196	322	2,627	830	297	879	450	23
Tympanoplasty	100	83	42	31	187	158	23	30	97	5
Rhinoplasty/ Septal Surgery	242	147	95	55	501	486	90	82	170	19
Nasal Polyps	77	81	19	5	159	131	19	8	40	9
Total	1,170	1,717	352	413	3,474	1,605	429	999	757	56

Table 17: General Surgery

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Hernia Repair	681	419	394	320	1,198	1,818	192	205	272	59
Cholecystectomy	1,345	534	365	364	1,769	1,628	281	574	285	86
Breast Biopsy	41	36	9	13	76	148	11	3	11	1
Mastectomy	37	8	19	3	143	66	4	5	11	2
Hemorrhoidectomy	179	191	60	73	294	466	51	79	37	11
Colonoscopy	45	50	47	33	141	190	25	19	37	3
Varicose Veins	131	134	47	42	293	550	24	67	18	5
Total	2,459	1,372	941	848	3,914	4,866	588	952	671	167

Table 18: Neurosurgery

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Neurolysis (peripheral nerves)	37	48	24	19	244	656	42	—	15	—
Intervertebral Disc Surgery	807	499	116	112	1,559	2,076	15	—	199	—
Elective Cranial Bone Flap	84	163	21	51	413	1,403	0	—	24	—
Total	928	710	161	182	2,216	4,135	57	—	238	—

Table 19: Orthopaedic Surgery

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Meniscectomy	155	167	94	128	277	162	47	34	6	4
Arthroplasty (hips)	1,332	703	362	893	2,729	892	200	75	536	84
Arthroplasty (interphalageal)	335	273	63	87	973	928	107	52	101	26
Digital Neuroma	248	121	46	87	314	202	37	37	24	3
Rotator Cuff Repair	50	32	23	19	106	161	13	8	12	5
Osteotomy	524	389	184	291	1,542	1,052	152	31	88	37
Hallus Valgus/ Hammer Toe	80	69	6	12	127	57	32	1	7	0
Total	2,724	1,754	778	1,517	6,068	3,454	588	238	774	159

Table 20: Cardiovascular Surgery

Treatment	Estimated number of patients waiting in each province in 1992								
	B.C.	AB	SASK	MAN	ON	QUE	N.B.*	NFLD*	N.S.*
Coronary Artery Bypass	310	388	80	52	484	864	40	70	69
Operations on valves & Septa of heart	55	53	18	7	92	90	8	24	19
Implantation, removal or replacement of cardiac pacemaker	95	3	7	0	114	70	—	—	—
Total	460	444	105	59	690	1,024	48	94	88

*Hospital Data

Table 21: Urology

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Prostatectomy	1,935	268	298	132	1,178	907	298	195	75	27
TUR Bladder	124	43	27	6	228	108	44	76	21	6
Cystoscopy	312	87	73	19	585	181	139	29	82	13
Hernia/ Hydrocoele	568	120	167	46	1,221	387	176	89	169	21
Bladder Fulguration	134	44	23	10	134	73	28	7	24	8
Total	3,073	562	588	213	3,346	1,656	685	396	371	75

Table 22: Internal Medicine

Treatment	Estimated number of patients waiting in each province in 1992									
	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Colonoscopy	24	26	14	11	287	64	29	10	16	0
Angioplasty	441	260	93	61	0	422	NA	52	199	—
Gastroscopy	114	109	45	40	748	239	108	26	62	21
Total	579	395	152	112	1035	725	137	88	277	21

Table 23a: Average wait (in weeks) for treatment by selected specialists in 1992

Treatment	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	11.3	9.5	14.1	11.2	7.2	9.7	19.1	73.6	14.4	—
Gynecology	9.6	7.6	9.7	14.7	5.5	5.0	26.3	4.7	10.0	24.9
Ophthalmology	13.9	8.5	23.4	20.5	12.6	14.9	20.6	4.5	18.9	26.9
Otolaryngology	7.5	11.1	4.2	7.3	5.7	7.0	8.9	24.8	18.2	7.7
General Surgery	8.8	4.9	7.5	7.0	4.0	6.1	6.0	15.5	5.7	1.01
Neurosurgery	7.1	7.3	3.5	7.3	6.6	28.4	2.6	—	7.1	—
Orthopedics	18.3	12.4	13.5	29.2	11.8	12.8	17.8	12.4	19.3	29.8
Cardiovascular (elective)	13.0	18.6	16.3	9.5	9.3	48.5	20	24.0	14.0	—
Cardiovascular (urgent)*	5.0	7.9	6.0	2.0	2.6	5.2	4.0	3.5	6.3	—
Urology	12.6	3.7	6.3	3.2	3.7	4.7	9.9	14.0	4.9	7.8
Internal Medicine	3.7	2.9	2.1	3.0	1.7	2.7	3.4	2.3	3.0	3.1
Weighted Average	10.1	7.6	8.2	10.8	5.9	11.2	12.0	13.0	9.5	14.6

* Weighted Average does not include pacemaker waits.

Table 23b: Survey of Physicians 1992—Estimated number of patients waiting by specialty

Treatment	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	539	430	346	195	1,200	1,252	175	335	105	—
Gynecology	1,905	1,620	935	1,265	3,682	2,456	1,642	288	720	273
Ophthalmology	747	673	746	571	4,332	4,391	659	43	917	125
Otolaryngology	1,170	1,717	352	413	3,474	1,605	429	999	757	56
General Surgery	2,459	1,372	941	848	3,914	4,866	588	952	671	167
Neurosurgery	928	710	161	182	2,216	4,135	57	—	238	—
Orthopedics	2,724	1,754	778	1,517	6,068	3,454	588	238	774	159
Cardiology	460	444	105	59	690	1,024	48	94	88	—
Urology	3,073	562	588	213	3,349	1,656	685	396	371	75
Internal Medicine	579	395	152	112	1,035	725	137	88	277	21
Residual	18,087	6,063	2,622	2,408	19,394	16,790	2,518	1,485	2,904	467
Total	32,671	15,740	7,727	7,783	49,354	42,354	7,526	4,978	7,822	1,343
Proportion of pop. (%)	1.1	0.7	0.8	0.7	0.5	0.6	1.0	0.9	0.9	1.0
Canadian totals	177,297	0.67%								

Table 24a: Comparison of average weeks waited for treatment in selected specialties, 1991 and 1992

	B.C.			Manitoba			New Brunswick			Newfoundland**			Nova Scotia		
	1992	1991	% ch	1992	1991	% ch	1992	1991	% ch	1992	1991	% ch	1992	1991	% ch
Plastic Surgery	11.3	13.9	-19%	11.2	11.6	-3%	19.1	42.8	-55%	73.6	42.5	73%	14.4	24.2	-40%
Gynecology	9.6	8.9	8%	14.7	13.4	10%	26.3	12.7	107%	4.7	5.9	-20%	10.0	12.0	-17%
Ophthalmology	13.9	12.4	12%	20.5	20.8	-1%	20.6	2.7	663%	4.5	4.7	-4%	18.9	12.5	51%
Otolaryngology	7.5	11.3	-34%	7.3	10.2	-28%	8.9	7.6	17%	24.8			18.2	10.0	82%
General Surgery	8.8	4.8	83%	7.0	11.4	-39%	6.0	2.3	161%	15.5	6.9	125%	5.7	5.1	12%
Neurosurgery	7.1	4.4	61%	7.3	11.5	-37%	2.6	2.5					7.1	6.5	9%
Orthopaedic	18.3	19.2	-5%	29.2	23.8	23%	17.8	15.5	15%	12.4	17.6	-30%	19.3	19.9	-3%
Cardiology*	13.0	13.1	-1%	9.5	10.6	-10%	20.0	10.0	100%	24.0	36.5	-34%	14.0	26.0	-46%
Urology	12.6	11.3	12%	3.2	6.4	-50%	9.9	14.4	-31%	14.0	5.1	175%	4.9	7.4	-34%
Internal	3.7	6.3	-41%	3.0	3.7	-19%	3.4	2.8	21%	2.3	2.2	5%	3.0	2.2	36%
Weighted Average	10.1	9.7	4%	10.8	12.1	-11%	12.0	10.0	20%	10.9	8.0	36%	9.5	9.6	-1%

* Comparison between 1992 open heart surgery elective averages and 1991 average open heart surgery averages.

**Weighted average includes *only* those specialties common to *both* years.

Table 24b:
Comparison of estimated numbers of patients waiting for treatment in selected specialties, 1991 and 1992

	B.C.			Manitoba			New Brunswick			Newfoundland			Nova Scotia		
	1992	1991	% ch	1992	1991	% ch	1992	1991	% ch	1992	1991	% ch	1992	1991	% ch
Plastic Surgery	539	661	-18%	195	202	-3%	175	375	-53%	335	151	122%	105	216	-51%
Gynecology	1,905	1,761	8%	1,265	1,147	10%	1,642	793	107%	288	362	-20%	720	864	-17%
Ophthalmology	747	664	13%	571	577	-1%	659	241	173%	43	46	-7%	917	605	52%
Otolaryngology	1,170	1,758	-33%	413	573	-28%	429	367	17%	999			757	415	82%
General Surgery	2,459	1,344	83%	849	1,383	-39%	588	270	118%	952	368	159%	671	600	12%
Neurosurgery	928	574	62%	182	285	-36%	57	65	-12%		60		238	218	9%
Orthopedics	2,724	2,856	-5%	1,517	1,236	23%	588	514	14%	238	336	-29%	774	764	1%
Cardiology*							48	63	-24%	94	90	4%	88	300	-71%
Urology	3,073	2,748	12%	213	420	-49%	685	993	-31%	396	145	173%	371	558	-34%
Internal Medicine	579	1,003	-42%	112	137	-18%	137	111	23%	88	82	7%	277	202	37%
Total	14,124	13,369	6%	5,317	5,960	-11%	5,008	3,792	32%	2,434	1,580	54%	4,918	4,742	4%

* Methods of estimating cardiac patients waiting differ enough between 1991 and 1992 that comparison is not possible.

Table 25: Frequency distribution of waiting times by province in 1992*

	Proportion of average waiting times that fall in the following ranges									
Weeks	B.C.	AB	MAN	SASK	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
0-3 wks	14.9%	21.7%	19.6%	28.9%	25.5%	19.1%	17.4%	22.7%	22.2%	15.8%
4-7 wks	21.3%	39.1%	32.6%	15.6%	48.9%	38.3%	17.4%	25.0%	35.6%	23.7%
8-11 wks	36.2%	34.8%	8.7%	35.6%	17.0%	17.0%	10.9%	11.4%	15.6%	5.3%
12-23 wks	23.4%	4.3%	37.0%	20.0%	6.4%	14.9%	37.0%	22.7%	17.8%	15.8%
24-52 wks	2.1%					6.4%	15.2%	9.1%	6.7%	31.6%
1 yr+								6.8%		

Frequency distribution of waiting by regions in 1992
Proportion of average waiting times

	B.C.	Praries	ON	QUE	Maritimes
0-3 wks	15%	23%	26%	19%	20%
4-7 wks	21%	29%	28%	38%	25%
8-11 wks	36%	26%	17%	17%	11%
12-23 wks	23%	20%	6%	15%	24%
24-52 wks	2%			6%	15%
1 yr +					2%

* Average waits for cardiovascular surgery not included.

Table 26: Total expected waiting time (in weeks) from G.P.'s referral to treatment

Treatment	B.C.	AB	SASK	MAN	ON	QUE	N.B.	NFLD	N.S.	P.E.I.
Plastic Surgery	20.9	16.8	23.0	20.9	12.5	15.0	26.9	85.6	26.2	—
Gynecology	12.8	13.7	14.2	20.6	10.5	15.4	33.0	9.2	17.9	29.7
Ophthalmology	17.2	11.4	32.4	30.7	20.2	21.8	26.7	10.5	25.3	53.9
Otolaryngology	10.2	20.0	6.4	12.4	10.4	10.3	14.4	27.0	25.4	9.7
General Surgery	12.4	7.3	9.9	9.6	6.7	9.1	7.6	18.8	9.5	13.0
Neurosurgery	14.2	22.3	9.2	19.3	18.1	33.1	6.6	—	10.6	—
Orthopaedic	30.1	20.1	24.6	40.2	21.8	21.2	25.1	26.1	28.1	35.8
Cardiology*	19.8	24.1	23.3	13	13.2	51.9	23.0	25.0	18.0	—
Urology	18.5	10.2	9.3	10.7	7.6	10.0	14.2	20.3	7.9	9.8
Internal Medicine	9.5	6.6	4.9	8.0	8.8	6.2	6.1	5.3	7.5	8.6
Weighted Average	16.1	12.6	12.8	16.8	11.5	16.3	16.5	18.0	15.5	21.2

*Elective surgery.