Patient Experiences with Emergency Departments In British Columbia, 2007

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The Author

Michael A. Murray PhD is an independent health services consultant, researcher, and educator. He has worked with a number of organizations on quality improvement methods, patient evaluations of care and use of such data to improve healthcare, and staff satisfaction/morale. Michael is particularly interested in the use of process and performance indicators, especially involving the use of control charts. He has taught university-level statistics, customer knowledge, and improvement courses, and general quality improvement, methods and tools, and control chart courses for a variety of organizations. Michael has been a consultant on both methods and measurement issues for several healthcare improvement collaboratives, including an intra-hospital pain collaborative, province-wide collaboratives dealing with a variety of clinical topics, and an Ontario "quality transitions" collaborative.

Dr. Murray received his PhD in psychology from York University. While at York, he worked for the Institute for Social Research which houses the Survey Research Centre and the Statistical Consulting Service. He moved to the University of Toronto in 1985, and stayed there in a variety of faculty and research positions until 2006. Among other projects, he helped develop the Long Term Care / Complex Continuing Care Resident and Family questionnaires which are now used across Canada.

While at the U of T, Dr. Murray worked with several Toronto hospitals to Canadianize several standardized patient satisfaction tools from the United States. He facilitated the first Toronto Academic Health Science Centre's first collection and reporting of inpatient patient satisfaction results using a standardized questionnaire. This led to his being one of the original co-investigators of the Hospital Report Research Collaborative where he was responsible for the patient satisfaction quadrant. In that capacity he worked with the Ontario Hospital Association to bring the Parkside inpatient and emergency department questionnaires to Canada and to its wide-spread use in Ontario. He was the lead in production of early Hospital Report collaborative reporting of inpatient results, the transition to using the Picker suite of tools, and worked with Canadian Institute of Health Information (CIHI) on the transition of patient satisfaction reporting methods from the University of Toronto when production of reports moved to CIHI

Dr. Murray worked part-time as a consultant to Smaller World Communications and National Research Corporation (NRC) Canada for several years.

For the past two years, Michael has had several contracts related to teaching quality improvement methods, to the design and teaching in health care improvement collaboratives, and to the use of patient satisfaction methods and indicators. He is also a consultant to Safer Healthcare Now's Central Measurement Team.

Acknowledgements

Under the direction of the Deputy Minister of Health and Chief Executive Officers of the health authorities of British Columbia, a Patient Satisfaction Steering Committee has undertaken to learn and share information about the experiences that B.C. residents have with health care they receive in the province. In 2007, that Steering Committee engaged M. Murray to: (a) assist them in reporting the results of their work in the area of emergency department services, and (b) conduct work to glean additional insights from survey data collected under a contract with NRC+Picker (www.nrcpicker.com).

Between February and April 2007 more than 55,000 people who had sought care in emergency departments in B.C. were mailed questionnaires to ask about that experience, and over 16,800 of those patients responded. Their contributions made this report possible.

This project has benefited from the contributions of many other individuals, in particular, the expert advice provided by Lena Cuthbertson, Co-Chair, B.C. Patient Satisfaction Steering Committee and Diane Watson and Dawn Mooney, Centre for Health Services Policy Research at the University of British Columbia (CHSPR) (www.chspr.ubc.ca). The structure, format and style of graphics in this Report are based on a March 2007 Report on Patient Experiences with Ambulatory Cancer Care in British Columbia prepared by Diane Watson as principal author in her capacity as Faculty, CHSPR. Dawn Mooney, Geographer with CHSPR, deserves credit for both the design and production of the graphics in this report.

This report relies on survey data collected by NRC+Picker and on reports created by them. Custom analyses of those survey data were also conducted by Michael Murray.

The conclusions are those of the author and no official endorsement by the Government of B.C. is intended or should be inferred.

Executive Summary

Since 2003, the B.C. government and its Health Authorities have been responsible for commissioning, overseeing, and reporting on patient surveys in different parts of the healthcare system. These surveys are directed toward understanding and reporting on the accessibility and quality of care as seen through the eyes of patients. In 2007, more than 55,000 British Columbians who had visited B.C. emergency departments between February and April 2007 were given the opportunity to evaluate their experience using a previously validated, nationally-used questionnaire. Over 16,800 of these patients completed and returned the NRC+Picker Emergency Department Survey.

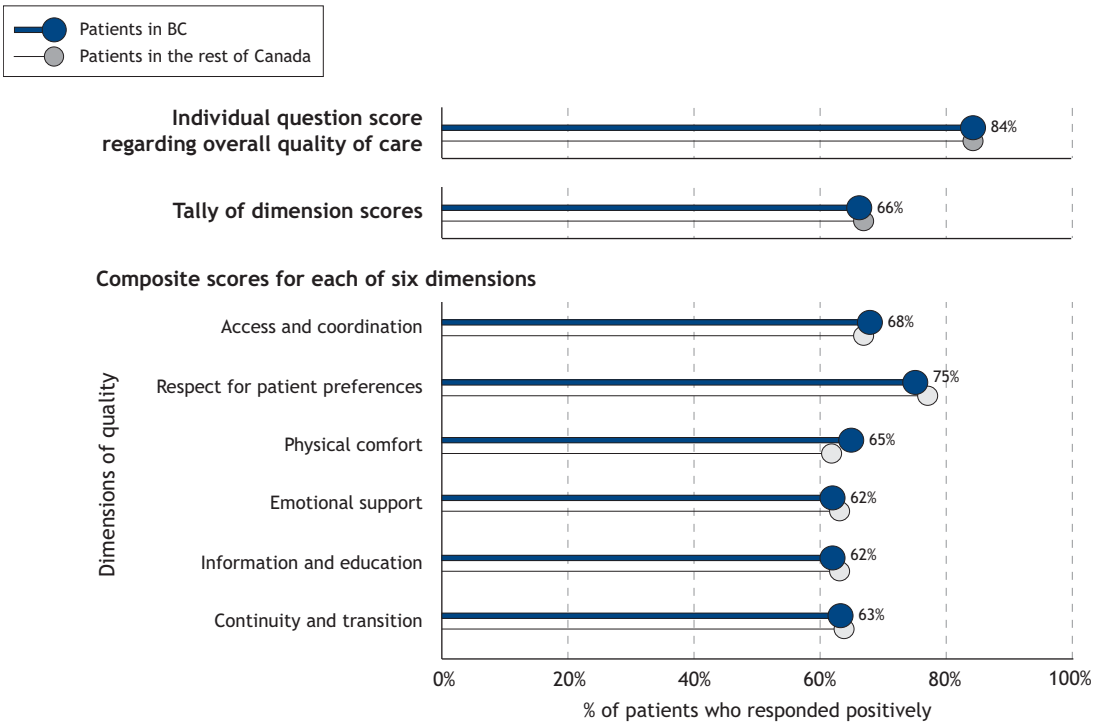
This report provides information derived from British Columbians' perceptions and reported experiences of emergency departments in 2007. Their self-reports on access and quality are compared to those of other Canadians who completed the same survey in New Brunswick, Nova Scotia, Manitoba, Ontario, and Yukon and to a similar B.C. survey in 2003.

In general, ED patients responding to the 2007 survey reported favourable ratings of their emergency department experience (Figure 1). About 84 per cent of patients gave positive scores when asked to "rate the care you received in the Emergency Department" overall. This number is identical to the average of ratings given by other Canadians in other provinces using the identical questionnaire. About the same proportion of patients in B.C. as in the rest of Canada would 'definitely' (57 per cent) recommend the Emergency Department to family and friends.

Patients were asked many questions about specific aspects of their care, and most of these were combined into six composite indicators reflecting different dimensions of patient-centred care. Patients' reports about specific aspects of their care, as shown in the All Dimensions Composite indicator results, are slightly less positive than the overall score (66 per cent), but in general they are similar to other Canadians' ratings. The "physical comfort" dimension scored higher than other Canadians' ratings (65 per cent versus 62 per cent). Over 75 per cent of patient ratings for the top-performing dimension, "respect for patient preferences," were positive. There is, however, room for improvement in the lowest performing dimension, "information and education," where the 62 per cent positive rating is slightly lower than other Canadians' ratings.

The experiences of patients who receive emergency care matters—to themselves, their families and friends, and to those who work in health care. They also matter to other British Columbians, who look to first-hand accounts to learn about the performance of their health care system. This report provides a snapshot of what patients have to say about the accessibility and quality of health care delivered in emergency departments.

Figure 1: Overall Quality of Care and All Dimensions Composite Score Ratings



Introduction

Although all sectors of Canada's healthcare system are important to the people they serve, none is more important than the hospital emergency department. Huge numbers of patients are seen everyday in emergencies, for life-threatening and severe illnesses and trauma to more minor and mundane problems. Besides the obvious 'real' emergency cases, many people go to the emergency because they have no primary care available to them. Sometimes the emergency department treats and discharges patients back to the community. However, in some hospitals 25 per cent to 50 per cent of inpatient admissions come from the emergency. Emergency departments face tremendous pressures that are sometimes seen in crowded waiting rooms and long waiting times to be seen and to be admitted. These are the raw material for newspaper stories and public concern. But the 'real' story of care provided by emergency stories is harder to tell because there are so many different ways to measure healthcare quality and performance.

A multi-faceted approach is needed to measure healthcare quality, and emergency department care is no different. Traditional measures of patient volumes are useful and may inform governments and managers about access, but they are only a small part of the picture. Clinicians and patients both want to know about and ensure the quality of care by focusing on clinical care and safety issues. Measurement of wait times for care is an important measure of access and availability of care and has recently reached national attention. However, these are technical measures which, although important, do not address patients' perceptions of the care they receive. Although used sporadically for decades, hospital surveys of patient satisfaction have only recently become standardized, wide-spread, and scientifically sound.

Surveys asking about the experiences of patients have many uses. First, they represent a measure of accountability for governments, health authority and facility managers, and clinicians. Second, they are useful for research to find out and focus on what matters to patients. Finally, and most importantly, they provide emergency department managers and clinicians insight into the performance of their emergency departments, and where they need to improve care.

Recognizing the importance of understanding the patient experience in British Columbia, a council comprised of the Deputy Minister of Health, other Ministry executives, and the Chief Executive Officers of the health authorities struck a steering committee to commission and oversee surveys of patients across B.C. to obtain information for quality improvement initiatives. In 2003, that B.C. Patient Satisfaction Steering Committee conducted its first survey to understand patient experiences with health care in emergency departments. Between 2003 and 2007, the steering committee surveyed patients who receive other types of health care services and those who work in health care used that information to improve services. In 2007, emergency departments were once again the focus, and a survey strategy was used to understand patients' perceptions of the accessibility and quality of care.

This report provides information derived from British Columbians' perceptions and reported experiences of emergency departments in 2007. Their self-reports on access and quality are compared to those of other Canadians who completed the same survey in New Brunswick, Nova Scotia, Manitoba, Ontario, and Yukon[1] and to a similar B.C. survey in 2003.

About the Survey Questionnaire

The questionnaire used to understand the experience of B.C. emergency department patients has been used before in B.C. and used in five other Canadian provinces. Its core is a slightly modified version of a questionnaire developed and widely used in the United States; the American version was modified and tested in Canada in 2002 (as reported in 2003[2]). The field testing included three B.C. hospital emergency departments.

The ED questionnaire comes from a family of questionnaires initially developed by the Picker Institute in Boston. They first developed an inpatient acute care (IP) questionnaire in the mid- to late 1980's, which has been modified over the years. The ED questionnaire followed some years later. National Research Corporation (NRC) of Nebraska purchased rights to the Picker Institute's questionnaires, and brought them to Canada.

The Picker Institute's original motivation for developing a new series of questionnaires was a desire to understand the patient's experience with healthcare, and not just their satisfaction with it. So instead of asking patients about whether they were 'satisfied' with some aspect of their experience, patients were asked to report on whether something good (or bad) happened or not, or give an evaluation of some aspect of care. The Picker Institute's use of results focused on 'problems' which were based on categorizing patients' reports and ratings of their experience. In Canada, a focus on problems was replaced with a focus on 'positive' scores.

[1] New Brunswick (n= 353), Nova Scotia (N= 4,164), Ontario (n= 106,098), Manitoba (n= 385) and Yukon (n= 490).

[2] Validation of the Picker Emergency Care Survey in Canada. National Research Corporation. January 20, 2003.

Through their questionnaire development work, the Picker Institute derived a set of patient-centred care dimensions that form the basis of all their subsequent questionnaires and report analyses[3]. NRC continues to focus on these dimensions in their questionnaire development work and reporting. Most of the ED questionnaire is formed around six dimensions:

- Access and Coordination, 9 questions
- Continuity and Transition, 5 questions
- Emotional Support, 5 questions
- Information and Education, 7 questions
- Physical Comfort, 2 questions
- Respect for Patient Preferences, 5 questions

The questionnaire also includes questions about patients' overall experiences and ratings of staff courtesy. The B.C. version of the questionnaire also has a few custom questions.

This report provides information on patients' overall evaluations of B.C. emergency departments, more specific dimensions of health care deemed important to patients as measured by both the Picker Patient Centred dimensions of care—access and coordination; respect for patient preferences; physical comfort; emotional support; information and education; and continuity and transition—and some selected, important topic areas. Both composite scores[4] for these six dimensions of patient-centred care and results for individual questions within each dimension are presented.

[3] Gerteis, M., Edgman-Levitan, S., Daley, J., and Delbanco, T. (1993). Introduction: Medicine and health from the patient's perspective. In Gerteis, M et al., Through the Patient's Eyes. Jossey-Bass, San Fancisco. Cleary, P., Edgman-Levitan, S., McMullen, W., & Delbanco, T. (1992). The relationship between reported problems and patient summary evaluations of hospital care. Quality Review Bulletin, 18(2), 53-59.

[4] A composite score is a measure of how positive patients were with all the items contained in the dimension; it is reported as a percentage.

What did we learn?

Patients Who Use Emergency Departments

Between February 1 and April 30, 2007, over 55,000 people who had visited 110 emergency departments (ED) across the province (Appendix 1 lists these facilities) were mailed a NRC+Picker emergency department patient experience questionnaire , a standard patient survey that has been used elsewhere in Canada and internationally. Over 16,800 individuals (32.5 per cent response rate) elected to return a questionnaire (Appendix 2). The results presented in this report summarize the experiences of ED patients, either as described by themselves (80 per cent) or by someone on their behalf (20 per cent)[5].

Appendix 2 provides information about the survey and analysis methods of this report, and its accuracy. It also includes information about age and gender differences between mailed samples and respondents. ED patients providing information for this report are, in general, older than the initially-selected and mailed samples. For example, although people aged 60+ represented only 22 per cent of the selected initial sample, they had a higher response rate and represent over 38 per cent of the respondents in this report. In terms of educational background, most patients had high school (35 per cent), college or trade school (29 per cent) or university (22 per cent) education.

The general health of patients who visit emergency departments is lower than that reported by the adult population in B.C.

- When asked to rate their general health, patients report it to be excellent (16 per cent), very good (29 per cent), good (32 per cent), fair (17 per cent) or poor (6 per cent). Patients are less likely to rate their health as excellent or very good and more likely to rate their health as good, fair or poor relative to other B.C. residents (Figure 2).

- In the month prior to visiting the emergency department, 45 per cent of patients reported that illness or injury kept them in bed for one or more days, with 9 per cent reporting more than 10 days in bed.

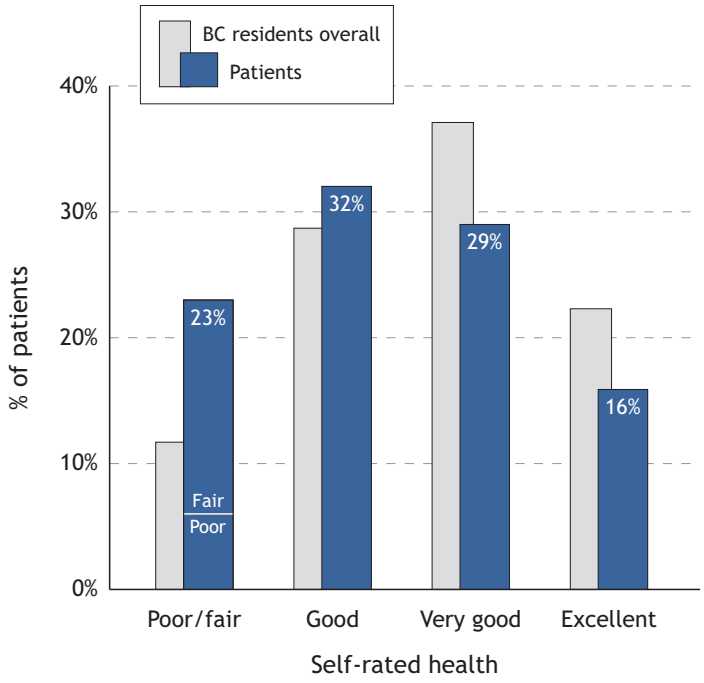
- Although most patients (78 per cent) had not had an overnight hospital stay in the previous six months, 14 per cent had one stay, and 7 per cent had had more than one stay[6].

- Most patients report that they have a regular family physician or general practitioner who they see when they have health problems (94 per cent).

[5] Most of the figures in this report come from the 2007 Provincial Action Plan report and individual Health Authority Action Plans produced by NRC Canada. Selected follow up analyses were conducted by M. Murray. Survey results for B.C. are weighted to represent the entire population of B.C.; results for the rest of Canada are not weighted.

[6] Numbers may not always sum to 100 per cent because of rounding.

Figure 2: Self-Rated Health of B.C. Residents and ED Survey Respondents



Respondents were asked "In general, how would you rate your health?" Comparison data is for population aged 12+. Source: Statistics Canada. Canadian Community Health Survey (Cycle 3.1), 2005. CANSIM table 105-0422. Emergency department patient experience survey data collection and statistical analyses by NRC+Picker, 2006.

Patients report that the injury or illness that prompted them to go to the emergency department was extremely serious (12 per cent), very serious (27 per cent), moderately serious (38 per cent), slightly serious (17 per cent) or not at all serious (5 per cent). They also had different reasons for their most recent visit: it was clearly an emergency (46 per cent), did not know if health condition was an emergency or not (26 per cent), there were no other options available (29 per cent), told to go by a health professional (26 per cent), did not know where else to go (9 per cent), or told to go by a nurse on the BC Nurse Line (7 per cent). The vast majority did not have an appointment for their most recent visit (93 per cent).

Before deciding to visit the emergency department, most patients did not contact any other health services or go anywhere else (60 per cent). Others tried to contact their doctor (21 per cent), a walk in clinic (11 per cent), BC Nurse Line (8 per cent), or BC Health Guide Handbook (6 per cent).

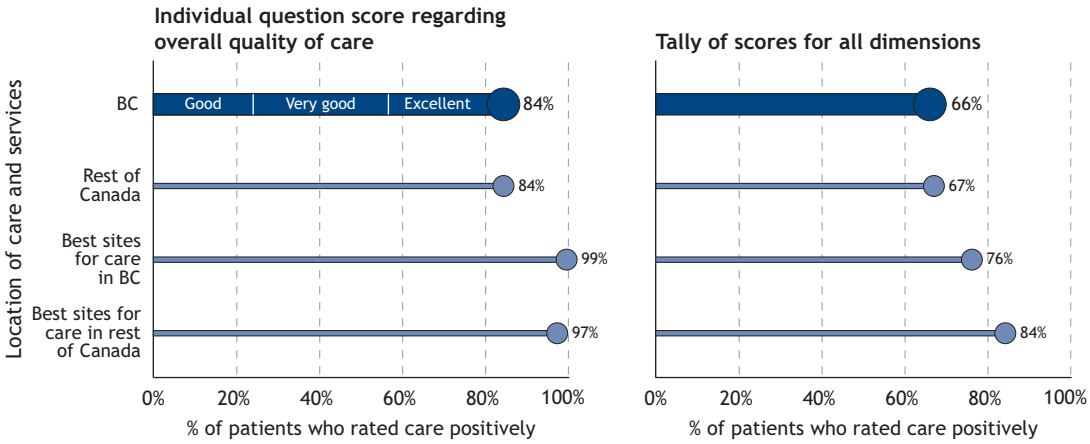
Overall Quality of Care & All Dimensions Composite Ratings

When asked to think overall about the emergency department services they received in 2007, 84 per cent of patients rate their care positively[7] [excellent (28 per cent), very good (32 per cent) or good (24 per cent)]. This level of overall satisfaction with quality of care is virtually identical to that reported by patients who received emergency department services in other provinces in other years (Figure 3).

If patients give high ratings to overall quality, would patients recommend the emergency department where they received care to family and friends? Fifty-seven per cent answered "yes, definitely" when asked this question and an additional 32 per cent answered "yes, probably".

When responses to separate, more detailed sets of questions regarding the quality of emergency departments in B.C. are tallied (in the All Dimensions Composite rating), 66 per cent of responses are positive. Performance on this metric of overall impressions among patients in B.C. is similar to that reported by patients who received emergency department services in other provinces in other years (Figure 3).

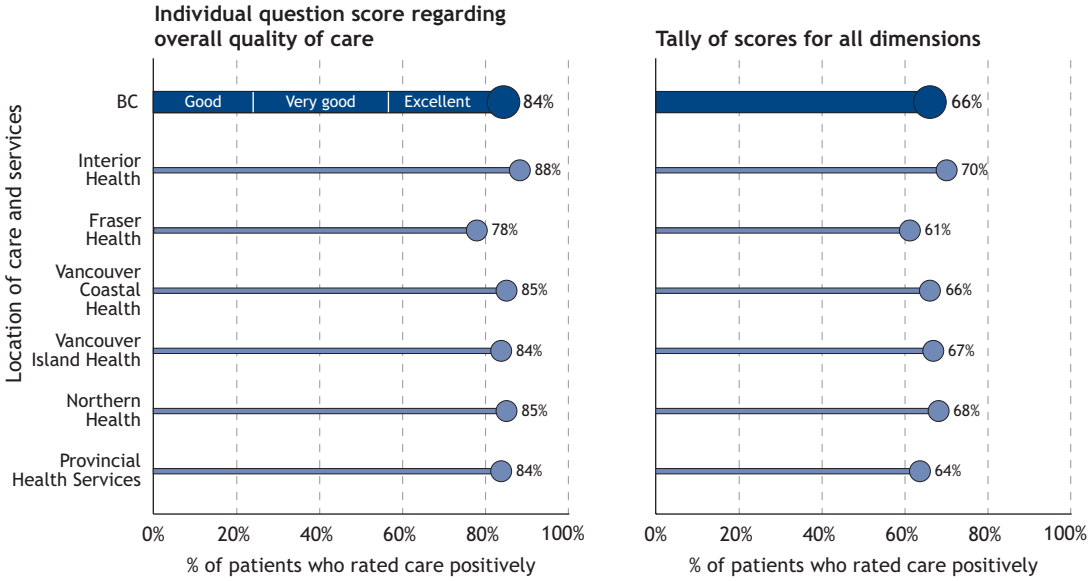
Figure 3: Overall Quality of Care and All Dimensions Composite Ratings



[7] In Canada, NRCC makes extensive use of 'positive' scoring of patient ratings. For 5-point rating scale questions, a 'positive' score is made up of 'excellent,' 'very good,' and 'good' answers. For most 3-point ratings, a 'positive' score is the 'yes, completely' or 'yes, definitely' answer. For the few negatively-worded questions, the 'positive' score is the 'no' answer.

"Overall quality of care" and "All Dimensions Composite" ratings do not vary substantially by Health Authority (Figure 4), with the exception of the Fraser Health Authority. Patients in Interior Health give the most positive ratings to both scores; those in Fraser Health gave the lowest.

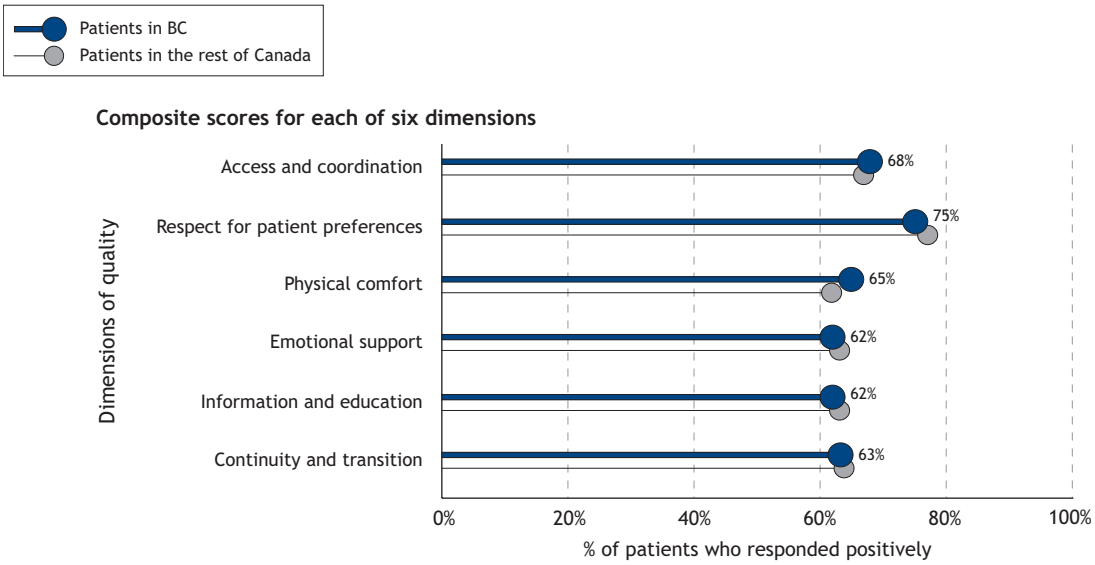
Figure 4: Overall Quality & All Dimensions Composite Ratings by B.C. Health Authority



Patient-Centred Dimensions Composite Ratings Overview

Patients give different ratings to different dimensions of quality. They give the highest quality ratings to respect for patient preferences. But patients also see room for improvement – they give lower ratings to access and care coordination, physical comfort, emotional support, information and education, and continuity and transition (Figure 5). In the following six report sections, each of the dimensions will be presented in more detail.

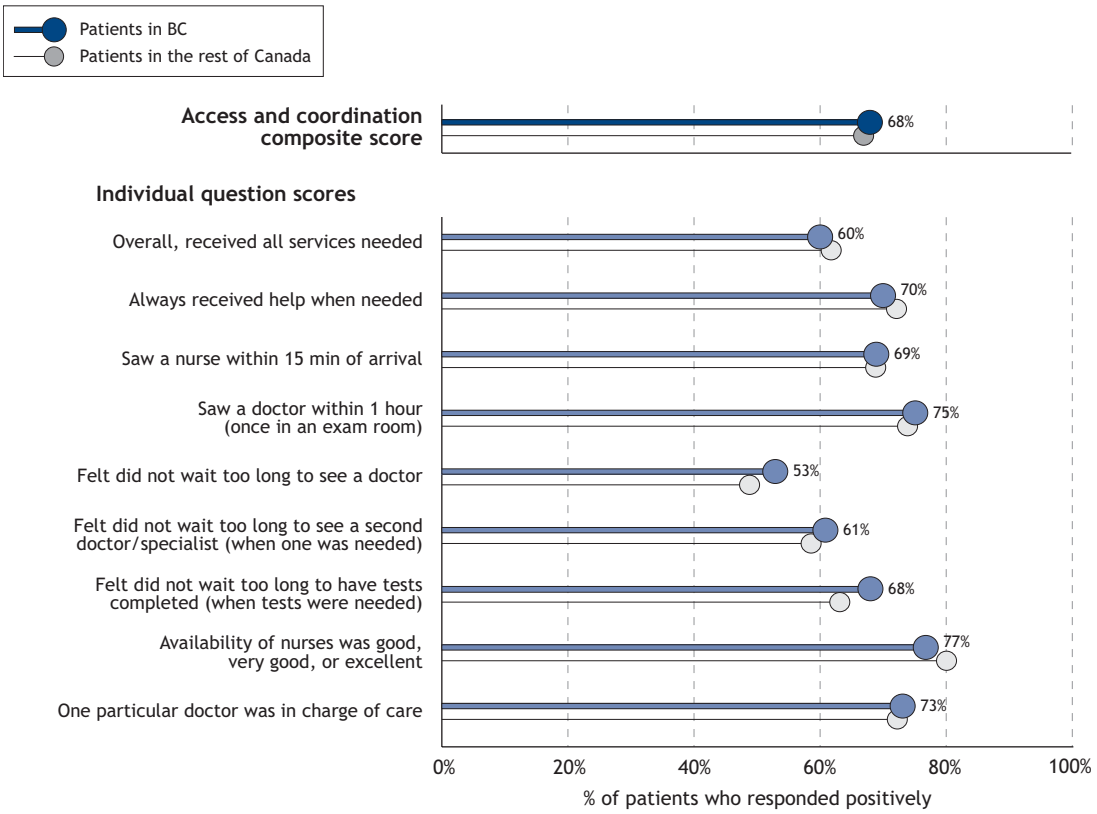
Figure 5: Patient-Centred Dimensions of Care Composite Scores



Accessibility and Coordination of Care Dimension

The accessibility and coordination of care dimension for emergency departments includes issues related to views on availability of services and wait times within the hospital, coordination of care, as well as the degree to which patients report that they received all the services they need. Patients in B.C. give relatively positive ratings to access and care coordination (composite score: 68 per cent positive ratings), which are very similar ratings to those reported by other Canadians who received ED care in other provinces at 67 per cent (Figure 6). This is the second highest rated dimension of care. The composite score, however, is made up of widely varying ratings at the individual item level, from 53 per cent to 77 per cent.

Figure 6: Access and Coordination of Care Composite Item Ratings



Overall, 60 per cent of patients report that they were completely able to get all the services they needed while they were in the emergency department. Seventy per cent report that they received the help they needed. Most respondents (77 per cent) reported positively about the availability of nurses. In terms of care coordination, most (73 per cent) also reported that there was one particular doctor in charge of their care in the emergency department.

More detailed results for nine waiting time questions are shown in Figure 7. Although the majority of patients visiting an emergency department were there for less than 3 hours (53 per cent), or between 3 and 6 hours (26 per cent), there was a small percentage of patients (3 per cent) who were there for more than 24 hours. When asked to evaluate the amount of time they spent in the emergency department, most patients offered positive ratings (16 per cent excellent, 22 per cent very good, and 27 per cent good). However, many people report the amount of time they spent in emergency to be only fair (20 per cent) or poor (16 per cent).

After they arrived at an emergency department, many patients reported that they were able to talk to a nurse about their illness or injury right away (32 per cent). An additional 37 per cent talked to a nurse in 15 minutes or less. The remaining 32 per cent waited 15 minutes or more.

If a patient had to wait to be seen, only 38 per cent were given a reason for the delay, 62 per cent were not.

Only about 21 per cent of all patients reported that they needed to get a message to family and friends. In most cases (59 per cent), someone from the ED did help patients get a message out; 41 per cent reported they did not get help.

Once they went to a bed or examination room, 9 per cent saw a doctor immediately. An additional 40 per cent saw a doctor in 30 minutes or less, 26 per cent in 30 to 60 minutes and the remaining 24 per cent waited more than one hour to see a doctor. Most report that they did not have to wait too long to see a doctor (53 per cent), but some report that this wait was somewhat (29 per cent) or definitely too long (18 per cent). The 53 per cent 'not' waiting time for doctors rating is better than other Canadians' ratings at 49 per cent.

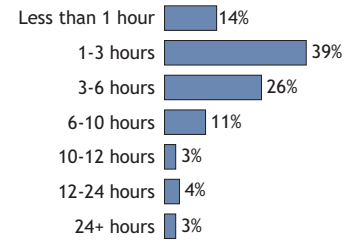
About 23 per cent of patients reported that they needed to see another MD/specialist. Although most reported that they did not have to wait too long to see that doctor (61 per cent), many report that this wait was definitely too long (15 per cent) or somewhat (24 per cent) too long.

Most patients (68 per cent) reported that they did not have to wait too long to get to get tests (such as blood, urine or x-rays), although some report that this wait was somewhat (22 per cent) or definitely too long (10 per cent).

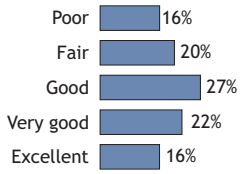
Figure 7: Waiting Time related questions

Most patients spent three hours or less in the emergency department, and most gave the amount of time spent in the emergency department a positive rating (excellent, very good, and good).

How long did you spend in the emergency department?

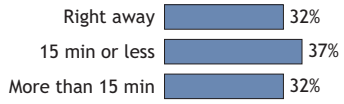


How would you rate this amount of time?

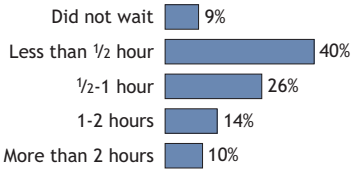


On arrival, most patients spoke to a nurse within 15 minutes and to a doctor within one hour of being taken to a bed or exam room.

How long did you wait to speak with a nurse about your illness or injury?



Once you went to a bed or exam room, how long did you wait to see a doctor?



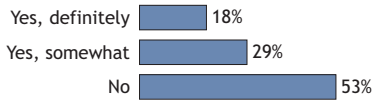
When patients had to wait to be seen on arrival, most did not receive an explanation as to why. For patients who needed it, most did get help getting a message to family or friends.

If you had to wait to be seen, did someone explain why?

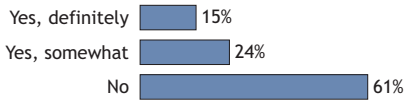
Did someone help you get a message to family/friends?

Most patients reported that they did not have to wait too long to see a doctor or a specialist or to get tests during their stay in the emergency department.

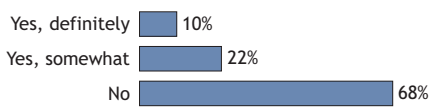
Did you ever have to wait too long to see a doctor?



Did you ever have to wait too long to see another doctor or specialist who was called in to see you?



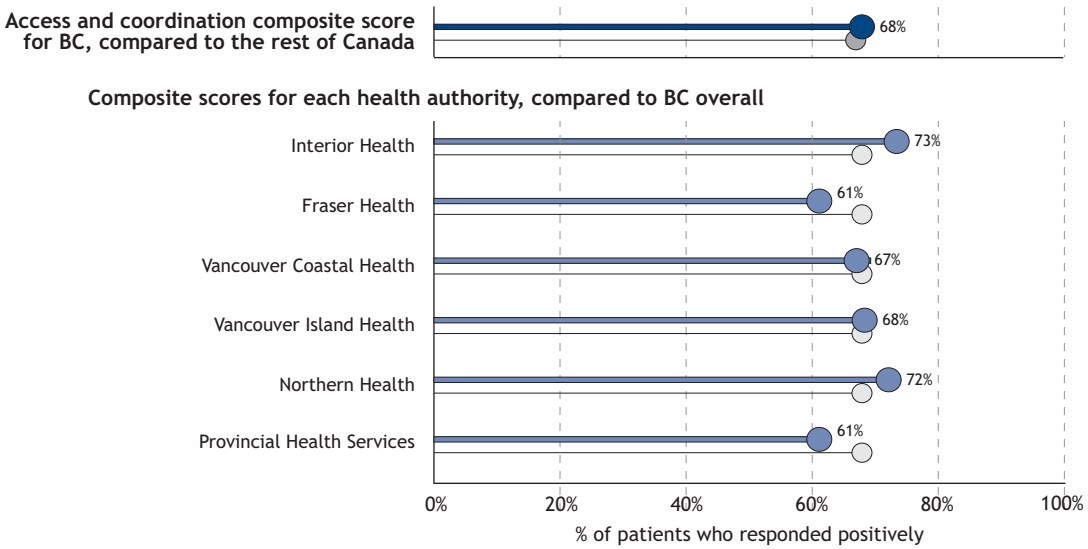
Did you ever have to wait too long to get tests?



Numbers may not add to 100% due to rounding.

The Access and Coordination composite ratings do not vary substantially by Health Authority (Figure 8), with the exception of the Fraser Health Authority and PHSA which gave the lowest ratings. Patients in Interior Health and Northern Health give the most positive ratings.

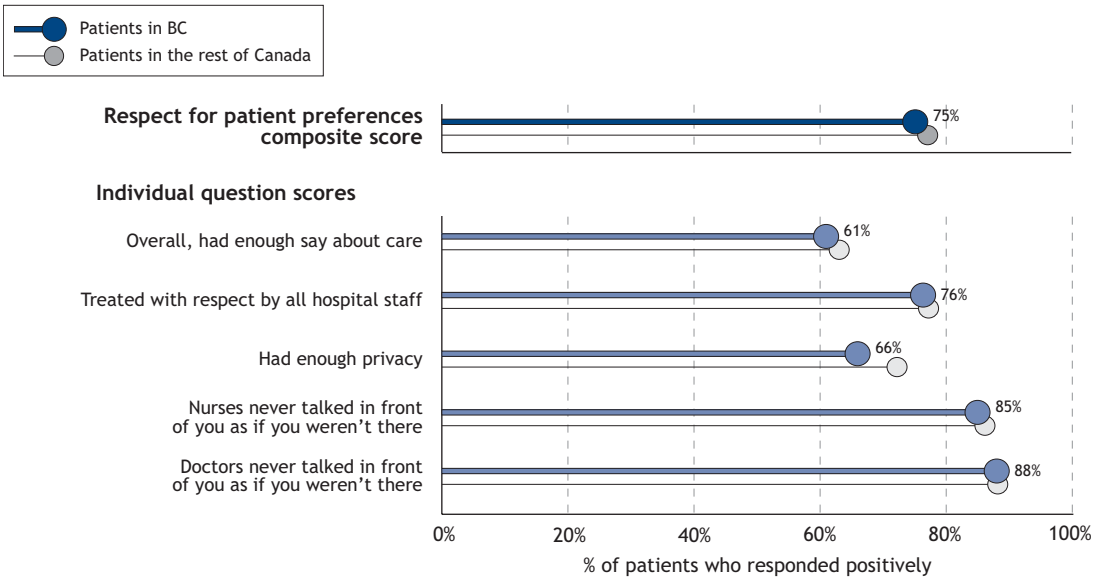
Figure 8: Access and Coordination Composite Rating by B.C. Health Authority



Respect for Patient Preferences Dimension

Another dimension of patient-centred care relates to the degree to which patients report that health care providers have respect for their preferences, whether they are treated with respect, and have privacy. Patients in B.C. give their highest ratings to these issues (75 per cent positive rating on patient preferences composite score), although the ratings were slightly lower than those reported by other Canadians who received health care in emergency departments in other provinces (Figure 9).

Figure 9: Respect for Patient Preferences Composite Item Ratings



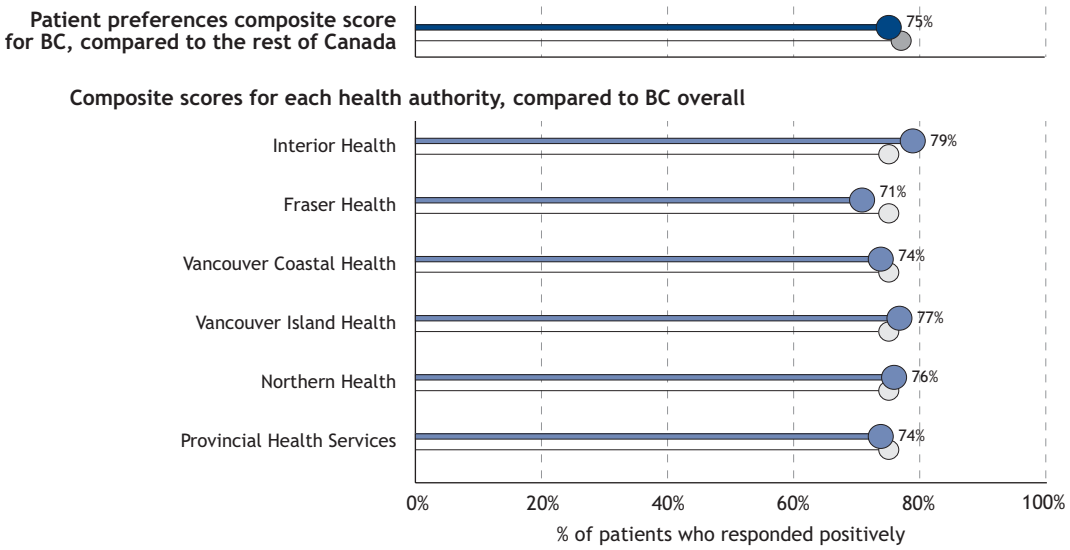
Most patients reported that doctors (88 per cent) or nurses (85 per cent) did not talk in front of them as if they were not there, and that each hospital staff person treated them with dignity and respect (76 per cent). Many felt they had enough privacy during their visit (66 per cent) and that they had enough say about their care (61 per cent).

Patients gave high positive ratings to several items in this dimension, and most ratings were very similar to those given by other Canadians'. However, B.C. ED patients did report a relative lack of privacy (66 per cent) compared to other jurisdictions (72 per cent).

Later in this report, there will be a discussion of several related measures in the area of courtesy of staff.

The Respect for Patient Preferences composite ratings do not vary substantially by Health Authority (Figure 10).

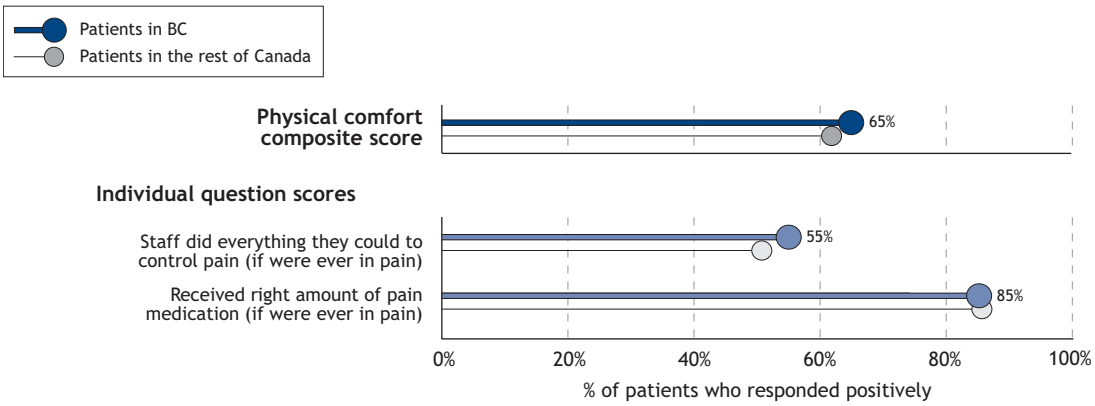
Figure 10: Respect for Patient Preferences Composite Rating by B.C. Health Authority



Physical Comfort Dimension

An important dimension of patient-centred care is the degree to which health care providers offer support to address the physical comfort needs of patients. In the ED this dimension relates exclusively to matters of pain control. About 57 per cent of all survey respondents reported they experienced pain in the ED; among those patients, pain was reported as severe (43 per cent), moderate (44 per cent) or mild (13 per cent). Patients in B.C. give 65 per cent positive ratings to the physical comfort dimension. Those ratings are higher than ratings reported by other Canadians who received emergency department services in other provinces (Figure 11).

Figure 11: Physical Comfort Composite Item Ratings



The physical comfort composite score is created by combining two questions asked only of those patients experiencing pain[8].

Among those patients experiencing pain and receiving pain medicine (54 per cent of those reporting pain, that is, about 30 per cent of all patients), 85 per cent felt they received the right amount of medication.

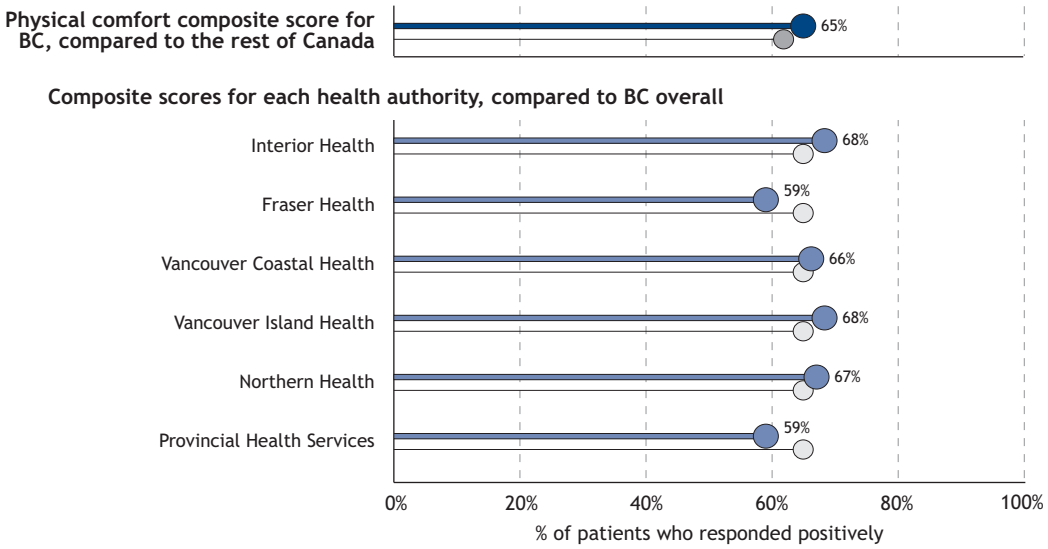
Patients reporting pain where asked whether staff did everything they could to help control the pain. Among the 57 per cent of patients experiencing pain, the majority (54 per cent) gave positive reports that staff 'definitely' did all it could, 27 per cent reported 'somewhat,' and 19 per cent reported that they felt that the ED did not do everything they could.

[8] The questions have markedly different numbers of responses and as such differentially contribute to the composite score outcome. Questions with more valid responses have a bigger impact on the composite score.

In a follow-up analysis, the receipt of pain medication did make a difference to patients; 70 per cent of those receiving pain medicine thought that the ED 'definitely' did all they could to control pain compared to 7 per cent who thought they did not. This is in marked contrast to those who did not receive medicine where 38 per cent said the ED 'definitely' did everything they could and 31 per cent reported they did not. Those two groups, which differed substantially, combined to give the 55 per cent score in Figure 11.

The Physical Comfort composite ratings do not vary substantially by Health Authority (Figure 12), with the exception of the Fraser Health Authority and PHSA where patients gave the lowest scores.

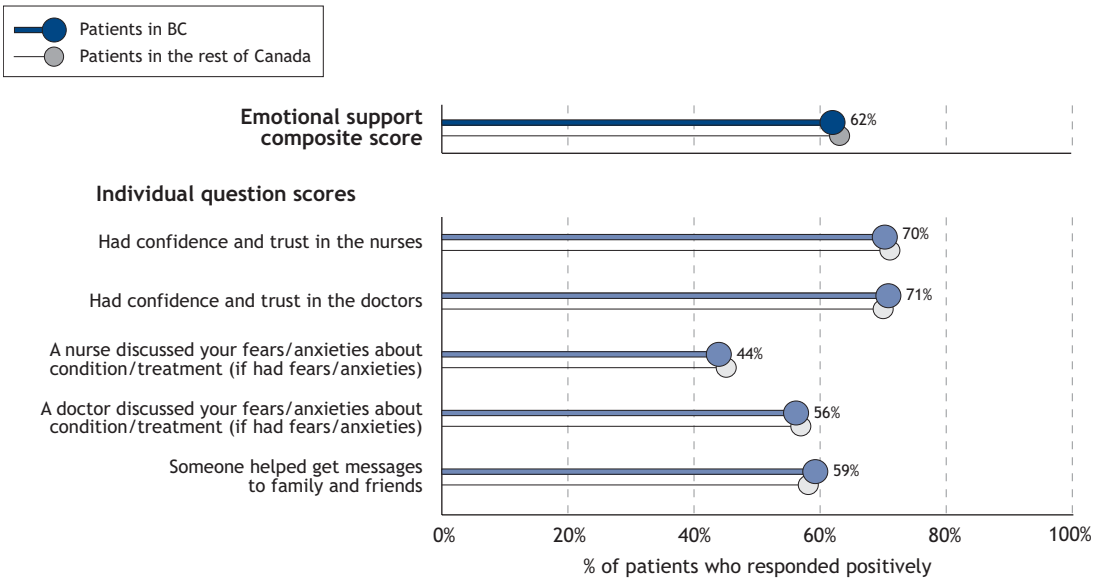
Figure 12: Physical Comfort Composite Rating by B.C. Health Authority



Emotional Support Dimension

The emotional support dimension focuses on the extent to which patients get help, encouragement and support for the fear, anxiety, and concerns associated with their illness and their hospital stay. People who work in the hospital need to acknowledge and care for patients' emotional needs as well as their physical needs. The emotional support dimension is very important to B.C. emergency department patients, but it receives relatively low scores (emotional support composite score = 62 per cent positive ratings) compared to most other dimensions. This is, however, similar to other Canadian ratings (Figure 13).

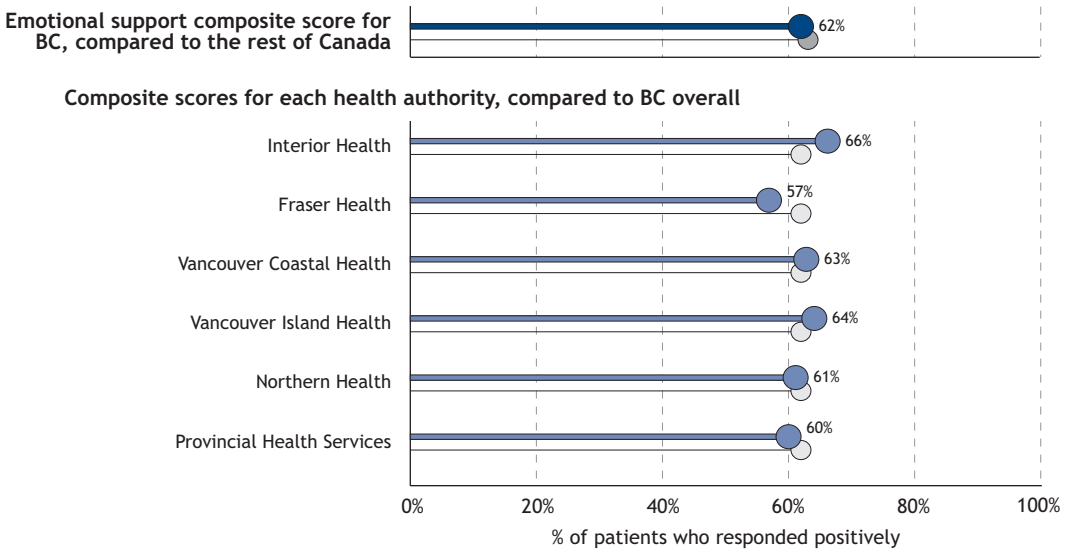
Figure 13: Emotional Support Composite Item Ratings



In terms of emotional support, many patients report that they had confidence or trust in the nurses (70 per cent) or doctors (71 per cent) that treated them. Although over half report that doctors (56 per cent) discussed their anxieties or fears with them if they had any, not quite as many reported the same for nurses (44 per cent).

The Emotional Support composite ratings do not vary substantially by Health Authority (Figure 14).

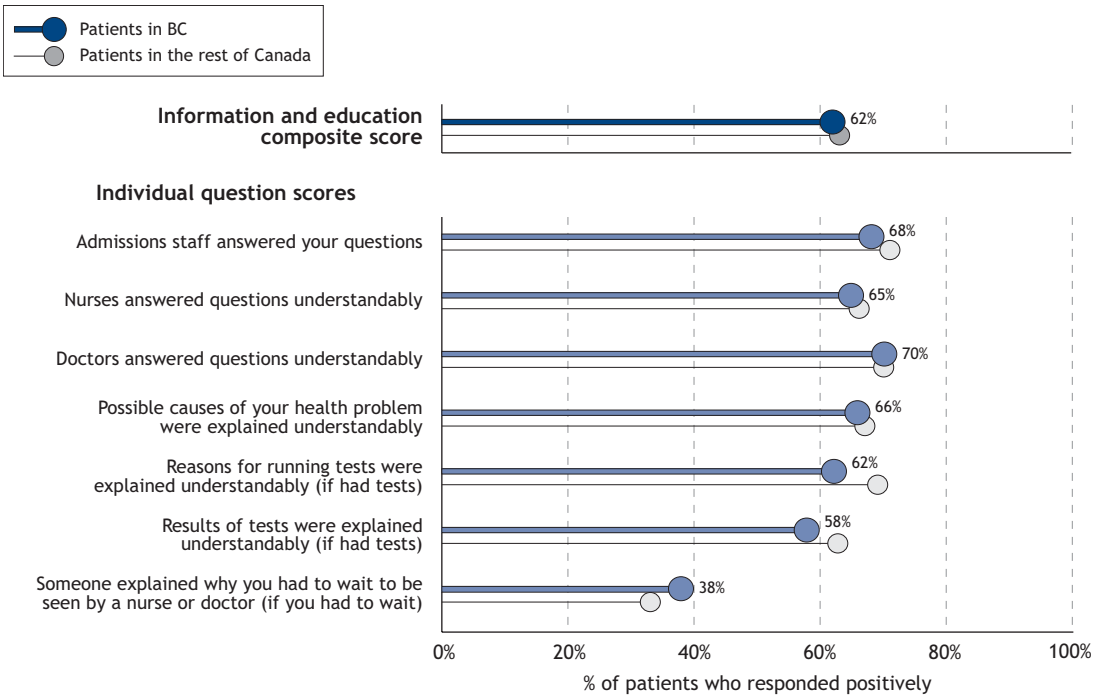
Figure 14: Emotional Support Composite Rating by B.C. Health Authority



Information and Education Dimension

Another dimension of patient-centred care relates to the degree to which patients and providers communicate and share information. Patients should expect that they are told about their condition, about tests, that staff and doctors answer all their questions, and about why they have to wait to be seen. Patients in B.C. gave their least positive ratings to these issues (information and education composite score = 62 per cent positive ratings); this is a very slightly lower rating than those reported by other Canadians who received health care in emergency departments in other provinces (Figure 15).

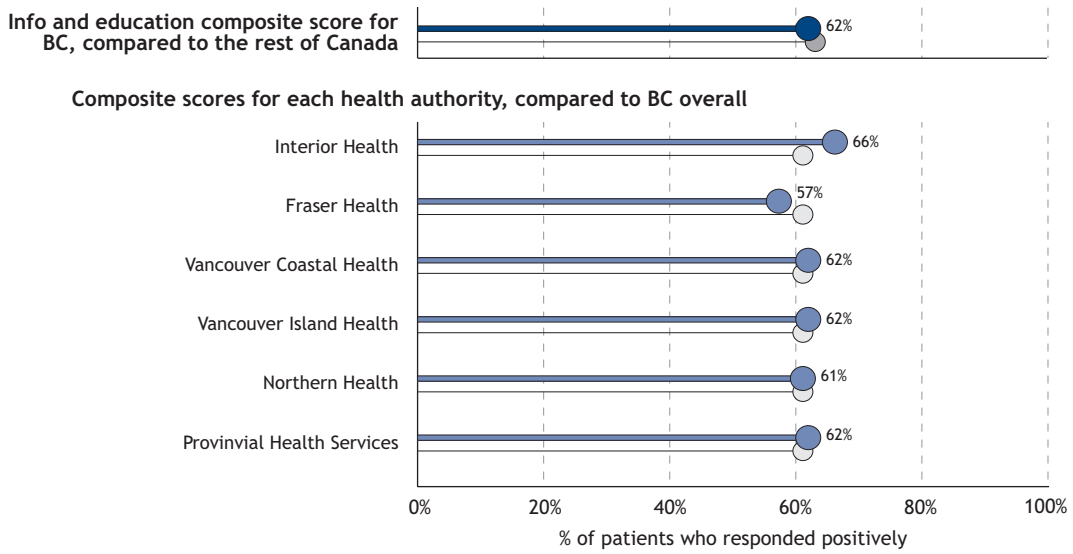
Figure 15: Information and Education Composite Item Ratings



Many patients (68 per cent) report that when they arrived in the emergency department, the first person who took their information 'completely' answered their questions. When they had important questions, patients' report that nurses (65 per cent) or doctors (70 per cent) 'always' offered answers that they could understand. These health care providers also 'completely' explained to patients the possible causes of their problem in a way that could be understood (66 per cent). Among those who had any tests, the rationale for and results of tests were 'completely' explained in a way that could be understood (62 per cent and 58 per cent, respectively). However, few patients had someone explain the reason for a delay if they had to wait to be seen (38 per cent) though performance in B.C. is higher in this regard than in other provinces (33 per cent).

The Information and Education composite ratings do not vary substantially by Health Authority (Figure 16).

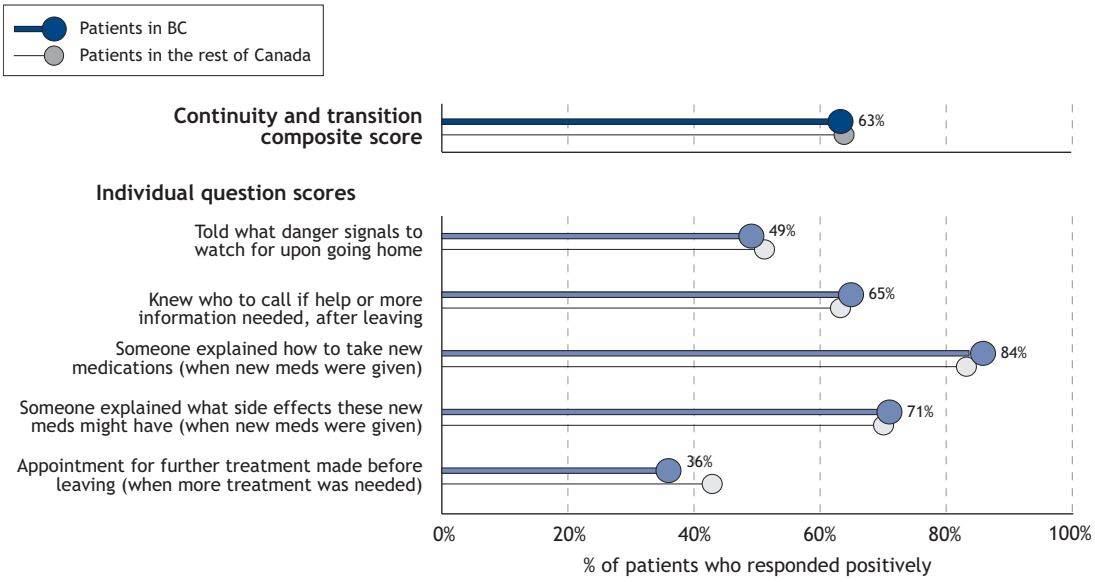
Figure 16: Information and Education Composite Rating by B.C. Health Authority



Continuity and Transition Dimension

Another dimension of patient-centred care relates to the degree to which patients are prepared to go home so that they experience continuity in their care. Patients need to get help, information, and support to care for themselves after leaving the hospital. In particular, they need to know what to "watch out for." Patients in B.C. give relatively modest ratings to these aspects of their care (continuity and transition composite score = 63 per cent positive ratings); these ratings are slightly lower than those reported by other Canadians who received services in emergency departments in other provinces (Figure 17).

Figure 17: Continuity and Transition Composite Item Ratings



Not quite a majority of patients (49 per cent) gave positive reports about whether they were told what danger signals about their illness or injury to watch out for when they got home (49 per cent of patients said 'completely', but another 24 per cent reported 'somewhat'); 27 per cent reported that they were not told about these signals.

Although 65 per cent of patients knew who to call if they needed help or had more questions after leaving the ED, 35 per cent either did not or were not sure who to call.

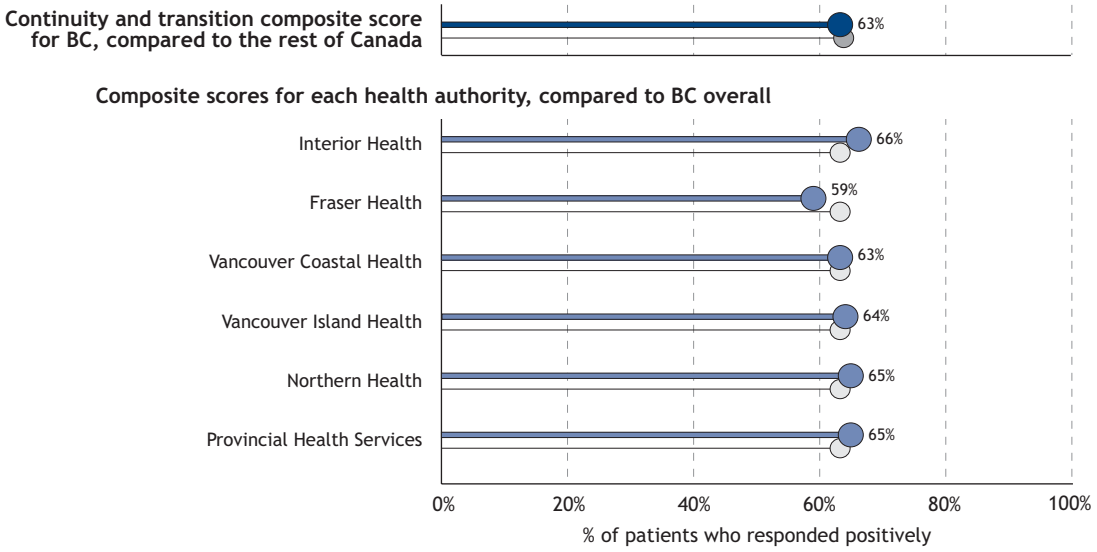
Among the 46 per cent of patients who said that they needed further treatment after they left the emergency department, just over a third report that an appointment was made before they left the emergency department for this visit (36 per cent). Or expressed another way, almost two-thirds of patients report that no appointment was made for them (64 per cent).

Before they left the ED, about 44 per cent of patients had new medications prescribed or ordered for them. Figure 17 reports that for those people answering the subsequent question about whether they had sufficient explanation about the new medicines, 84 per cent gave a positive answer (34 per cent reported that someone 'completely' explained how to take the new medications while an additional 49 per cent reported that they did not need this type of explanation). Only 17 per cent reported that someone 'completely' told them about side effects the medicines might have while an additional 54 per cent reported that they did not need this type of explanation (for a total positive score of 71 per cent).

However, there was no skip around the two follow-up questions in the questionnaire and they were often answered by people who did not have new medications prescribed for them. In addition, NRCC considered "not needing information" as a positive response. In a follow-up analysis of only those patients prescribed new medicines, 69 per cent said they got complete explanations, 15 per cent answered 'somewhat', and only 7 per cent did not get explanations, with 9 per cent not needing information[9]. Among only those people prescribed new medicines, 33 per cent got complete information about medication side effects, 16 per cent answered 'somewhat', and 30 per cent said they were not told about medication side effects; only 21 per cent said they "did not need it".

The Continuity and Transition composite ratings do not vary substantially by Health Authority (Figure 18).

Figure 18: Continuity and Transition Composite Rating by B.C. Health Authority



[9] The majority of people answering the question did not get new medications prescribed and 85 per cent answered they did not need an explanation.

Special Focus

Patient Perceptions of Personal Injury or Harm

Patients were asked the following question about their ED visit: "During your most recent emergency visit, do you believe you or your family members suffered personal injury or harm which resulted from a medical error or mistake?" In raw or unweighted numbers, 318 patients or family members answered 'yes' to this question. This is about 2.5 per cent of valid weighted responses[10]. A further 91 per cent of patients indicated they had not suffered personal injury or harm, a 'no' answer, while 6.5 per cent indicated they did not know if they had suffered personal injury or harm.

Further analysis indicates that among respondents making a definitive 'yes' or 'no' answer, reports of medical errors were not concentrated in any single health authority (Table 1) or facility.

Table 1: Personal Injury or Harm as a result of Medical Error by B.C. Health Authority

	Family/self injured due to medical error	
	yes	no
Interior Health	2.2%	97.8%
Fraser Health	3.2%	96.8%
Vancouver Coastal Health*	3.6%	96.4%
Vancouver Island Health	2.3%	97.7%
Northern Health	2.7%	97.3%
Provincial Health Services	1.6%	98.4%
B.C. Total	2.7%	97.3%

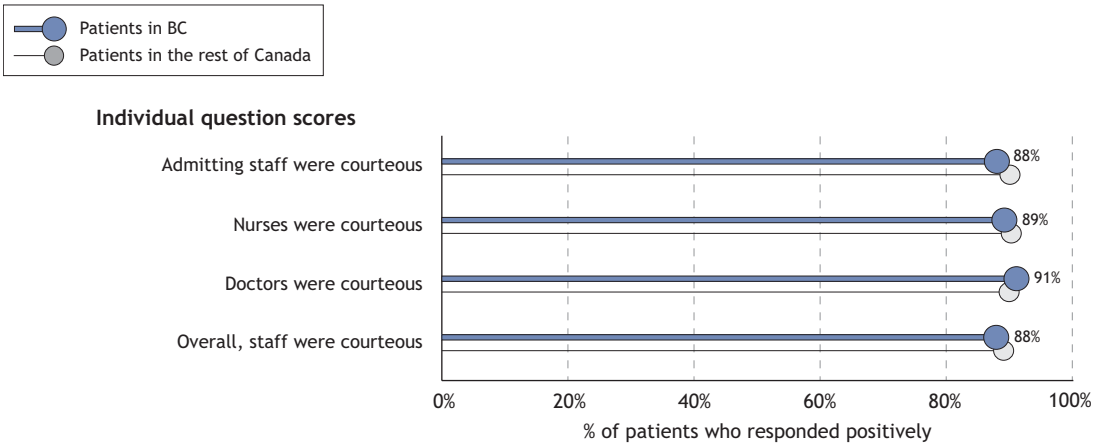
** Excludes St. Paul's Hospital because of differences between questionnaires.*

[10] Cases without valid answers, n=2590, were excluded when calculating percentages.

Courtesy

Four questions were asked in the ED questionnaire about the courtesy of admission staff, doctors, nurses, and ED staff. Perceptions of courtesy are highly correlated with overall ratings of ED care and willingness to recommend an ED. B.C. Patients reported the highest levels of positive scores of any survey questions for these items; the ratings were very similar to ratings of other Canadians in other jurisdictions (Figure 19).

Figure 19: Courtesy questions

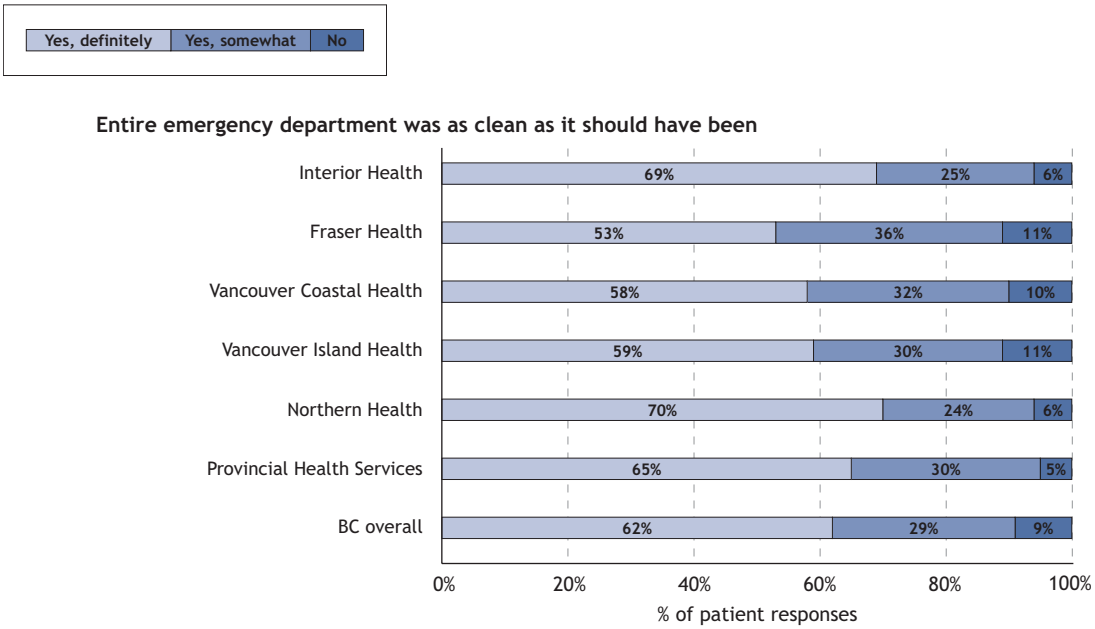


Other Items

Several other questions were asked in the questionnaire that were not included in any specific dimension composite scores. A question was asked about how well doctors and nurses worked together; patients gave high ratings (89 per cent positive) to this question, matching the scores from other Canadian jurisdictions.

When asked to evaluate the cleanliness of emergency departments, 62 per cent of respondents gave "Yes, definitely" answers; the Canadian comparison value was 70 per cent. "Yes, definitely" rates varied from 53 per cent for FHA to 70 per cent for NHA (Figure 20). Fewer than 10 per cent of all respondents gave a 'no' answer.

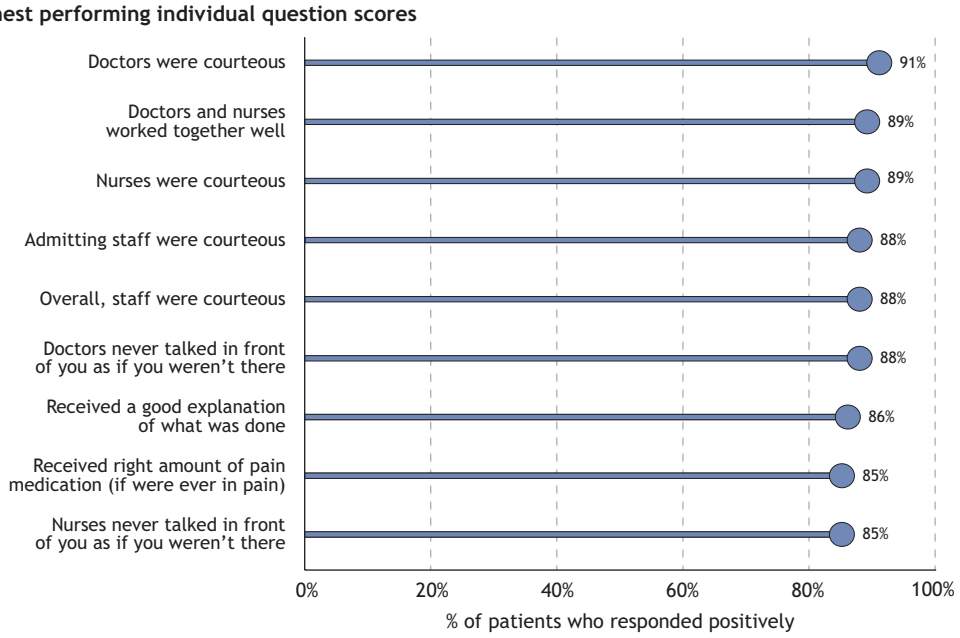
Figure 20: Cleanliness of ED by Health Service Authority



High Performing Items

The areas in which health care providers in B.C. rate particularly well is the degree to which they are courteous and are seen by patients to be working well together. Figure 21 shows the top nine areas in which 85 per cent or more of patients offered positive ratings.

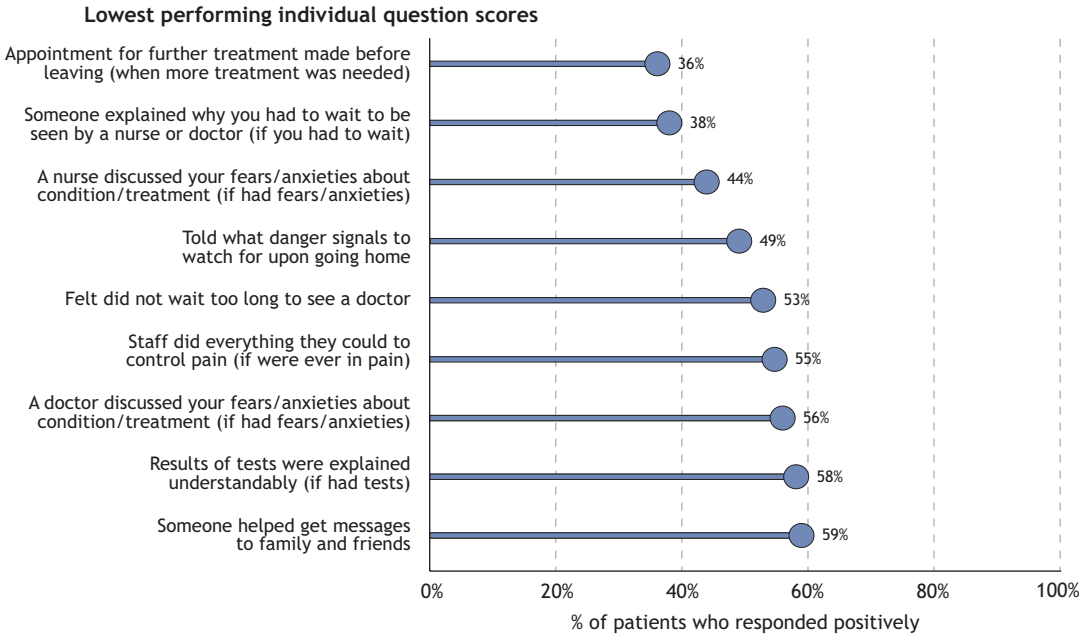
Figure 21: Highest Performing Items



Quality Improvement Priorities

Patients offer insights into areas for improvement when all their ratings of specific questions about their experiences are considered. Figure 22 shows the nine areas in which fewer than 60 per cent of patients offered positive ratings.

Figure 22: Nine questions with < 60 per cent positive ratings



Comparison to 2003 Survey Results

As noted earlier, the 2007 survey is not the first time that B.C. emergency department patients have had an opportunity to report on their hospital experiences; an ED survey was also done in 2003. Although a comparison of the survey results between the two years may be informative, there were enough changes in survey procedures and analysis methods that a direct, valid comparison is problematic.

There were several changes to how the survey was conducted between the two years and how analyses were done.

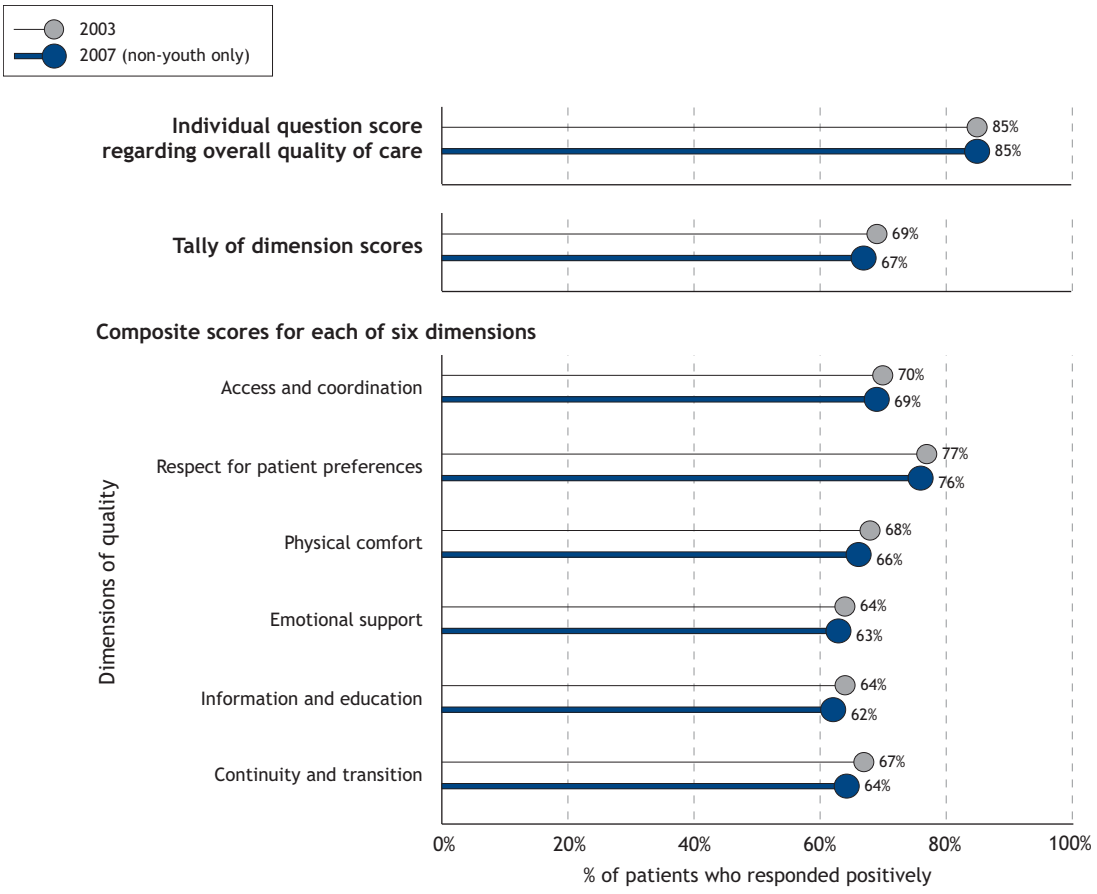
- The surveys were done at different times of the year. The 2003 survey was done for patients seen between July and September. Because there were concerns that ED volumes during the summer months were lower and satisfaction was likely to be higher, the 2007 survey targeted patients with visits between February and April, 2007. This was during influenza season, typically a busier time, so it would not be subject to this type of criticism. There is little empirical evidence about the effect of season on patient satisfaction scores.
- The 2007 survey included 24 small Hospitals that were not included in the 2003 results because they used a different methodology (handout versus mailed). In addition, 6 Outpost Hospitals were included in 2007 that did not participate using either methodology in 2003. However, the numbers of respondents in these facilities was low.
- The 2007 survey included youths (ages 12-19) while the last survey did not. With the agreement of the Office of the Information and Privacy Commissioner and the implementation of risk mitigation strategies, this population of patients, which had been excluded in the 2003 survey, was included in the current survey. Youth survey ratings are substantially lower than non-youth ratings.

- Another main difference between the two surveys is in the weighting of results done in 2007; this was not done in 2003. This was done because 2003 results showed that smaller volume facilities generally had higher satisfaction levels than larger volume facilities. But there was substantial over-sampling of small facilities relative to their patient volumes in both years, so that they would have sufficient data to be useful. The weighted 2007 results better represent both provincial and health authorities results, but are probably lower than unweighted results would be. Conversely, the 2003 unweighted results are likely higher than they would have been if weighted.

- Although the same research partner, National Research Corporation Canada, conducted the ED survey, using the same survey tool in both 2003 and 2007, there were minor changes to the coding of the results of the survey (3 questions) to improve the accuracy of results. Also B.C. added the custom question about harm and changed the self-report question about ethnicity from the 2001 Statistics Canada census question to the 2006 census question. The results of the harm question were reported in an earlier section.

In order to make a slightly better comparison between the years, Figure 23 shows the Overall Quality of Care rating, the All Dimensions Combined composite indicator, and individual dimension composite scores for 2003 and the non-youth 2007 weighted results[11].

Figure 23: Comparison between 2003 and non-youth 2007 weighted results



[11] The 2007 results in this table will, therefore, not match previous tables in this report which had non-youth and youth responses.

In general, except for "Overall Quality of Care which is identical, the 2007 results are very slightly lower than the 2003 results; this is as expected given the nature of the survey procedures and analysis differences. The largest difference is for the Continuity and Transition dimension where 2007 is only 3 per cent points lower than 2003.

Conclusions

When asked to give an overall rating about the care they received in British Columbia's Emergency Departments in early 2007, 84 per cent of patients who reported on their experiences gave a positive response. This is virtually identical to a comparison number for other Canadians' ratings in other provinces. In addition, the 2007 results are almost exactly the same when the non-youth respondents were compared to 2003 B.C. ED survey results. Despite increasing demand for emergency services and media reports of long wait times, overcrowding, bottlenecks, and other pressures, most of the over 16,800 ED survey respondents felt positive overall about their experience.

But "overall quality" is just one general measure of patients' experience. When asked, 57 per cent of respondents would 'definitely' recommend the emergency department to family and friends, and only 11 per cent would not. This too is virtually identical to other comparable Canadian figures.

General measures only give a high-level view of patients' experiences in the emergency department, and they are not very useful for getting a detailed understanding about perceptions of quality of care and guiding improvement activities. So, the survey questionnaire asked over 50 specific questions about different aspects of care, including waiting times, courtesy, pain, instructions about medicines, and feelings of dignity, respect, and privacy. Many of these questions were combined into six composites according to NRC+Picker's Patient-Centred Dimensions of Care. In all dimensions, 62 per cent or more of respondents' ratings were positive.

The Respect for Patient Preferences composite, which relates to the degree to which patients report that health care providers have respect for patient preferences, whether patients are treated with respect and have privacy, had the highest score, with over 75 per cent positive ratings. Over 68 per cent of ratings in the Access and Coordination composite were positive. The Physical Comfort score, at 66 per cent, was noticeably higher than other comparable Canadian ratings. The other three scores were not quite as high with both Emotional Support and Continuity and Transition at 63 per cent, and Information and Education at 62 per cent.

The purpose of this report was to give an overview description of the experiences of over 16,800 ED patient respondents as provided by a many questionnaire items. There are many other analyses that can be done, and insights that can be gained. Health Authorities and individual Emergency Departments will be getting their own reports to help them understand their patients' experiences and help guide improvement work. As with past reports about patient experiences in B.C., this report should provide more information to further stimulate, inform, and target initiatives to improve B.C. emergency department quality of care.

Appendix 1: Participating Facilities

Emergency departments are listed by the type of facility.

Health Authority FHA = Fraser Health IHA = Interior Health VIHA = Vancouver Island Health VCHA = Vancouver Coastal Health NHA = Northern Health	**Facility Type and Names**
	Community Hospitals (38)
FHA	Burnaby Hospital
VIHA	Campbell River & District General Hospital
FHA	Chilliwack General Hospital
VIHA	Cowichan District Hospital
NHA	Dawson Creek and District Hospital
FHA	Delta Hospital
FHA	Eagle Ridge Hospital
IHA	East Kootenay Regional Hospital
NHA	Fort St. John Hospital and Health Centre
NHA	GR Baker Memorial Hospital
IHA	Kelowna General Hospital
IHA	Kootenay Boundary Regional Hospital
VIHA	Lady Minto Gulf Islands Hospital
FHA	Langley Memorial Hospital
VCHA	Lions Gate Hospital
NHA	Mills Memorial Hospital
Providence	Mount Saint Joseph Hospital
FHA	MSA General Hospital
VIHA	Nanaimo Regional General Hospital
FHA	Peach Arch Hospital
IHA	Penticton Regional Hospital
VIHA	Port Hardy Hospital
VIHA	Port McNeill and District Hospital
VCHA	Powell River General Hospital
NHA	Prince George Regional Hospital
VCHA	Richmond Hospital
FHA	Ridge Meadows Hospital
FHA	Royal Columbian Hospital
IHA	Royal Inland Hospital
VIHA	Saanich Peninsula Hospital

VCHA	Squamish General Hospital
VIHA	St. Joseph's General Hospital
VCHA	St. Mary's Hospital - Sechelt
FHA	Surrey Memorial Hospital
VIHA	Tofino General Hospital
IHA	Vernon Jubilee Hospital
VIHA	Victoria General Hospital
VIHA	West Coast General Hospital
	Small Hospitals (34)
IHA	100 Mile District General Hospital
IHA	Arrow Lakes Hospital
VCHA	Bella Coola General Hospital
IHA	Boundary Hospital
NHA	Bulkley Valley District Hospital
IHA	Cariboo Memorial Hospital
NHA	Chetwynd General Hospital
VIHA	Cormorant Island Health Centre
IHA	Creston Valley Hospital
IHA	Dr. Helmcken Memorial Hospital
IHA	Elk Valley Hospital (Formerly Fernie District Hosp)
NHA	Fort Nelson General Hospital
FHA	Fraser Canyon Hospital
IHA	Golden and District General Hospital
IHA	Invermere and District Hospital
NHA	Kitimat General Hospital
IHA	Kootenay Lake District Hospital
NHA	Lakes District Hospital and Health Centre
IHA	Lillooet District Hospital
NHA	MacKenzie and District Hospital
NHA	Masset General Hospital
NHA	McBride and District Hospital
FHA	Mission Memorial Hospital
NHA	Prince Rupert Regional Hospital
IHA	Princeton General Hospital
NHA	Queen Charlotte Islands General Hospital
IHA	Queen Victoria Hospital
VCHA	R.W. Large Memorial Hospital
IHA	Shuswap Lake General Hospital
IHA	South Okanagan General Hospital
NHA	St. John Hospital
NHA	Stewart General Hospital
NHA	Stuart Lake Hospital
NHA	Wrinch Memorial Hospital

	Urgent Care Centres (24)
IHA	Ashcroft and District General Hospital
IHA	Barriere Health Centre
IHA	Castlegar & District Community Health Centre
IHA	Chase Health Centre
VIHA	Chemainus Health Care Centre
IHA	Elkford Health Care Centre
NHA	Fraser Lake Community Health Centre
NHA	Granisle Health Centre
NHA	Houston Health Centre
NHA	Hudson's Hope Health Centre
VIHA	Ladysmith & District General Hospital
IHA	Logan Lake Health Centre
IHA	Nicola Valley Health Centre
VCHA	Pemberton Health Centre
VIHA	Port Alice Hospital
IHA	Slocan Community Health Centre
IHA	South Similkameen Health Centre
IHA	Sparwood Health Care Centre
IHA	St. Bartholomew's Hospital
NHA	Stikine Regional Health Centre
NHA	Tumbler Ridge Health Care Centre
NHA	Valemount Health Centre
IHA	Victorian Community Health Centre
VCHA	Whistler Health Care Centre
	Outpost Hospitals (9)
IHA	Alexis Creek Outpost Hospital
NHA	Atlin Health Centre
VIHA	Bamfield Health Centre
IHA	Blue River Outpost Hospital
IHA	Edgewood Outpost Hospital
VIHA	Gold River Health Clinic
VIHA	Kyuquot Health Centre
VIHA	Tahsis Health Centre
IHA	West Chilcotin Health Centre
	Teaching Hospitals (5)
PHSA	B.C. Children's Hospital
VIHA	Royal Jubilee Hospital
Providence	St. Paul's Hospital
VCHA	UBC Hospital Urgent Care Centre
VCHA	Vancouver General Hospital

Appendix 2: How were the surveys done?

In 2003, the B.C. Patient Satisfaction Steering Committee conducted its first survey to understand British Columbians' experiences receiving health care in emergency departments. In 2007, the spotlight was again directed toward understanding and reporting on the accessibility and quality of emergency department services through the eyes of patients. In both time periods, the Committee engaged National Research Company Canada (NRCC) to conduct the survey using a standardized instrument that has been validated for use in Canada in 2002 (B.C. participated in the Canadian validation). The NRC+Picker emergency department questionnaire has also been used in New Brunswick (n=353), Nova Scotia (N=4164), Manitoba (n=385), Ontario (n=106,098) and Yukon (n=490).

The emergency department questionnaire was mailed to 55,613 patients in B.C. who had unscheduled and scheduled health care at one of 110 emergency departments between February 1 and April 30, 2007[12]. For the purposes of this study an emergency patient was defined as "someone who has registered for care at an emergency department, urgent care centre, diagnostic and treatment centre, community health centre, or former Red Cross Outpost Hospital within B.C.'s emergency health services system".

Patients were randomly selected to participate with the sample drawn from the records of patient visits at the facility level. Sampling was done to ensure a representative sample size for each facility. Records of patient visits were provided to NRC+Picker every second week beginning February 15th, 2007. The first mailing took place on February 22nd, 2007. Patients were excluded from the survey if they had no fixed address, were deceased in hospital, were less or equal to 10 days old, if they had experienced a miscarriage or therapeutic abortion or had been flagged as "do not announce" or some similar designation. Where possible, patients were also excluded for other sensitive issues such as visits for confirmed or suspected sexual abuse or domestic violence or were deceased.

[12] Because of an error in how NRCC interpreted sampling instructions for St. Paul's Hospital (SPH), an incorrect sample was drawn for this facility. By the time the error was discovered, it was too late to draw the proper sample and re-survey patients. To correct the sampling error the 2007 SPH data were removed from the dataset. However, SPH is a major source of ED care in the Vancouver Coastal Health Authority (VCHA) (approximately 19 per cent of visits) and in the province-as-a-whole (approximately 4 per cent of visits). Fortunately, SPH had been conducting emergency departments surveys of persons aged 20+ years related to another project in April through September 2006. SPH's inclusion in this report was deemed sufficiently important that these 2006 data are included as a replacement for missing 2007 data. Therefore, 551 completed (out of 1800 mailed) 2006 SPH questionnaires were included in the 2007 results. These data were weighted to reflect SPH's 2007 volumes within VCHA and the province. For purposes of this report, the 2006 SPH responses are treated as if they came from the 2007 survey.

Patients between the ages of 12 and 19 years (termed "youth" for the purposes of this study) were included in the 2007 study. Sampling youth patients separately and mailing surveys to them in "unmarked" envelopes (i.e. with no health authority or facility logo showing) mitigated privacy concerns of including this population. The separate sampling strategy was devised to address concerns about the ability of a competent minor to consent to treatment without the consent of a parent or guardian. Mailing of surveys to youth in unmarked envelopes was undertaken as a risk mitigation strategy and was approved by both the Office of the Information and Privacy Commissioner and the provincial Information, Privacy, and Security Working Group.

The survey asked patients to answer questions in six dimensions of quality. Results represent the percentage of positive responses that patients gave to questions. Percentages were calculated by excluding non-respondents.

Surveys with accompanying cover letters and return envelopes were mailed to patients' home addresses. The mailed survey was in English but Chinese, Punjabi and French versions were available by calling a 1-866 number. The 2007 survey also offered respondents a web based response option via a unique access code in addition to the paper and pencil, mail methodology used in 2003. A reminder letter and survey were sent 24 days later to those who had not yet responded. Surveys were in field until October 11th, 2007. Privacy officers for all health regions approved of this project and the Office of the Information and Privacy Commissioner was notified of this initiative.

Statistical Accuracy of Results

There are many things that need to be done to ensure that sample survey results accurately portray the experiences of the population they are supposed to represent, including having a valid questionnaire, picking a random sample, getting a good response rate, ensuring appropriate data handling, etc. One important component of accuracy, the precision of statistical estimates, is dependent upon the size of the sample used to get estimates. The more than 16,800 survey respondents reported in this analysis ensures that provincial-level estimates are extremely accurate. For the province as-a-whole, a maximum confidence level = ± 0.76 per cent around a proportion of .50 with an Alpha = .95. That is, the true population proportion lies between 49.24 per cent and 50.76 per cent for an estimate of 50 per cent. Estimates much larger or smaller than 50 per cent will have greater accuracy.

With the exception of PHSA, which represents only one facility, all the health authorities also have very high accuracy as well. The maximum 95 per cent confidence interval is from ± 1.3 per cent to ± 2.1 per cent depending on the authority's sample size. PHSA's maximum 95 per cent confidence interval is ± 6.7 per cent.

Survey Weighting

The 2007 ED survey served multiple purposes. In addition to providing useful information to facilities about their ED performance, the results were also to be used by Health Authorities and to provide information about the province as-a-whole. Providing useful information, therefore, required a sampling plan that provided sufficient information, that is, a large enough sample size, from each facility. Facility-level results could be combined to provide Health Authority level and provincial level results. In addition to this, however, because of privacy needs, potential respondents aged 12 to 19 required a different survey technique. This necessitated a differing sampling rate than persons under age 12 and over age 19.

Samples of potential respondents were selected from facilities based on their overall patient volumes such that extra small, small, medium, and large facilities had differing sampling fractions. A much larger percentage of respondents were selected to get a usable sample size from small facilities, for example, than was needed for large facilities.

The differential sampling fractions meant that the 'raw' sample of respondents was not representative of either health authorities or the province as-a-whole. Not only that, at a facility level the differing sampling methods meant that the two age groups needed re-balancing to reflect a random sample of patients.

The solution to differing sampling fractions and the differing survey methods was 'weighting.' Weighting is a statistical manipulation that transforms a collection of results from different strata (i.e. ages, facilities, and health authorities) into a sample that would be obtained as if a "simple random sample" was taken. For example, to get a sample representative of all patients in B.C. who visited an ED, the raw survey results were weighted to correct for age differences due to method differences, differing types and numbers of facilities in the different health authorities, and differing volumes of patients in each health authority.

Weighting was not done to force the distribution of actual respondents to match either the mailed or delivered samples, that is, post-stratification weighting.

The results in this report are weighted to the provincial level. That is, weights are applied to mailed surveys such that the mailed sample would be representative of the province as-a-whole. It is as if potential respondents were selected from the province as-a-whole rather than from facilities.

Survey Response Rate

The overall survey return or response rate to the survey was 32.4 per cent; this varied from 29 per cent to 38 per cent across health authorities in the province (Table 2).

Table 2: Summary of survey activity and return/response rates by Health Authority (unweighted numbers)

Undelivered Rate = Undelivered / Mailed
Delivered = Mailed – Undelivered
Return Rate = Returned / Delivered

	Mailed	Undelivered	Undelivered Rate	Delivered	Returned	Returned Rate
FHA	7,710	411	5.3%	7,299	2,107	28.9%
IHA	16,305	1,219	7.5%	15,086	5,485	36.4%
NHA	11,274	724	6.4%	10,550	2,936	27.8%
PHSA	571	7	1.2%	564	216	38.3%
VCHA*	8,935	643	7.2%	8,292	2,564	30.9%
VIHA	10,818	670	6.2%	10,148	3,529	34.8%
B.C. Total	55,613	3,674	6.6%	51,939	16,837	32.4%

** Includes SPH.*

Sample Characteristics

More women than men both received and returned a questionnaire (Table 3).

Table 3: Gender structure of survey sample (unweighted numbers)

	Mailed		Delivered		Returned	
	#	%	#	%	#	%
Female	27,543	49.5	25,990	50	9,050	53.8
Male	27,975	50.3	25,859	49.8	7,755	46.1
Missing	95	0.2	90	0.2	32	0.2
Total	55,613	100	51,939	100	16,837	100

The 'mailed' and 'delivered' samples are very similar in age structure. However, there are substantial differences between the ages of respondents and either mailed or delivered samples (Table 4).

Table 4: Age structure of survey sample (unweighted numbers)

	Mailed		Delivered		Returned	
	#	%	#	%	#	%
0-19	13,128	23.6	12,257	23.6	2,939	17.5
20-39	15,373	27.6	13,968	26.9	2,586	15.4
40-59	14,850	26.7	13,938	26.8	4,838	28.7
60+	12,261	22	11,775	22.7	6,474	38.5
Total	55,612	100	51,938	100	16,837	100

The sample of respondents included in this report is slightly biased toward women and substantially biased toward older persons.