



POLICY SERIES

FRONTIER CENTRE FOR PUBLIC POLICY • POLICY SERIES NO. 124 • DECEMBER 2011



Canada Health Consumer Index 2011

By Ben Eisen, M.P.P.



**FRONTIER CENTRE
FOR PUBLIC POLICY**



The Frontier Centre for Public Policy is an independent, non-profit organization that undertakes research and education in support of economic growth and social outcomes that will enhance the quality of life in our communities. Through a variety of publications and public forums, the Centre explores policy innovations required to make the prairies region a winner in the open economy. It also provides new insights into solving important issues facing our cities, towns and provinces. These include improving the performance of public expenditures in important areas like local government, education, health and social policy.

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FCPP Policy Series No. 124 • December 2011

Canada Health Consumer Index 2011

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1. Executive Summary

This report presents the results of the fourth annual Canada Health Consumer Index (CHCI). The purpose of the CHCI is to provide a comparative evaluation of healthcare-system performance in the ten Canadian provinces from the *perspective of the consumer*. The CHCI seeks to measure the *consumer-friendliness* of each province's healthcare system—that is to say the extent to which it meets the needs and demands of the people who rely on it.

The CHCI evaluates the consumer-friendliness of each provincial healthcare system across five dimensions—Patient Access to Information and Information Technology Development, Primary Care and Problem Prevention, Wait Times, Patient Outcomes and Range and Reach of Services and access to new medicines. For each category, a number of indicators are examined to determine the extent to which each province's healthcare system is achieving results that benefit the consumer.

The CHCI places a particularly strong emphasis on two specific dimensions of consumer-friendliness: patient wait times and patient outcomes. We seek to help citizens and patients better understand the extent to which their province is delivering timely, effective care in comparison to other Canadian jurisdictions.

In this year's report, three provinces—Ontario, New Brunswick and British Columbia—finish in a distinct top tier in the overall rankings, well ahead of the remaining provinces. The high scores for these provinces are largely the result of wait times that are shorter than the Canadian average in important areas and patient outcomes that are similar or superior to national standards.

In addition to the CHCI, the Frontier Centre produces an international healthcare comparison—the Euro-Canada Health Consumer Index (ECHCI). Our international comparison has

repeatedly shown that Canadian healthcare lags well behind the top European systems in terms of responsiveness to the needs of consumers. We advise readers to consider the inter-provincial comparisons presented in the CHCI in this context. Our research suggests that even top-performing Canadian provinces still have much work to do in order to reach the level of excellence that exists in European countries such as the Netherlands, France and Germany. This is particularly true in the area of wait times.

Each year, to help better understand the relationship between healthcare spending and healthcare performance, we perform a simple regression analysis to compare overall CHCI scores to per-capita spending levels. For the fourth consecutive year, our analysis shows no positive correlation between higher per capita healthcare spending and higher CHCI scores. This should be taken as evidence that the poor results shown by low-performing provinces are not caused by a low level of healthcare spending, and that the problems facing these jurisdictions likely cannot be solved simply by throwing money at them.

Clearly, solutions other than simply increasing spending are needed to improve healthcare-system performance. The following reforms are discussed in the final section of this report: **Continue to transition away from global budgets towards patient-based funding models;** and, **Co-operate with other jurisdictions in the approval of new medicines to speed up the approval process.**

Governments across Canada should ensure that their citizens consistently have timely access to excellent healthcare services. All 10 provinces currently fall short of this goal, and we hope this year's CHCI will help policy-makers and citizens in each province identify areas where there is a need for aggressive reform.

2. Introduction

2.1 Frontier Centre for Public Policy

The Frontier Centre for Public Policy (FCPP) is an independent, non-partisan think-tank that operates throughout Western Canada and carries out public policy research in many domestic policy areas including health care. The FCPP seeks to improve policy by providing commentary on and analysis of government programs by bringing to light policy innovations and best practices from other jurisdictions and by proposing effective policy solutions in order to create high-performance government.

In the area of healthcare, the FCPP is dedicated to building a culture of transparency and accountability in Canadian healthcare by evaluating the system's performance from the consumers' perspective.

The CHCI uses a methodology for comparative health research developed by the Brussels' Based Health Consumer Powerhouse (HCP), a centre of vision and action that promotes consumer-related healthcare in Europe.

2.2 What is the Canada Health Consumer Index?

Since 2007, the Frontier Centre has collaborated with the HCP to promote visionary thinking about healthcare policy in Canada and around the world. In our annual CHCI report, of which this is the fourth, our objective is to assess the consumer-friendliness of healthcare delivery in the 10 Canadian provinces by asking a specific question: How well does the healthcare system in each province meet the needs of healthcare consumers? For the system to work better for Canadians, there must be a fundamental change in the way our healthcare system, our governments and even our citizenry view the recipients of healthcare services. Historically, the recipients of medical care were viewed as passive patients upon whom the healthcare system acted; now, it is time to start seeing citizens as consumers, as powerful actors who are able to access relevant information, make informed choices and demand top-quality products and services.

For this transition to take place, citizens need access to information about health policies,

services, wait times and quality outcomes. In the 2011 Canada Health Consumer Index, the Frontier Centre and the HCP aim to provide access to important information about the quality of healthcare services in the provinces.

The rankings for the CHCI—like the rankings for the international Euro-Canada Health Consumer Index (ECHCI)—are neutral regarding the allocation of financial resources and the extent of private sector involvement in the delivery of health services. In other words, no points are allocated based on how a particular healthcare system is funded. Public-private and left-right ideological distinctions are not considered in the creation of the Index's rankings. Instead, the indicators in this index are entirely performance-based. The Index is intended to help citizens learn the answers to important questions about their healthcare system: Is the system designed to keep me healthy? Will it provide me with speedy access to services? Will I have choices and access to high-quality care when I am sick?

3. Measuring outcomes, not inputs

In many areas of public policy, healthcare included, performance evaluation is often based on the measurement of inputs and certain types of easily measurable outputs that do not necessarily reflect the effectiveness or efficiency of the program or policy. In health policy, counting resource inputs such as hospital beds and doctors per capita does not tell us very much about the care that consumers actually receive. The amount of time the average

person has to wait for an MRI exam is a much better indicator of healthcare quality than is the number of MRI machines in the province.

Instead of measuring inputs, such as spending levels and resources used, this index attempts to measure outcomes from the perspective of the consumer. In other words, we seek to evaluate the extent to which each provincial healthcare system is responsive to the needs of its users.

4. Regional variations

The FCPP recognizes that in addition to disparities in healthcare quality between provinces, there exist disparities in healthcare quality between regions within each province. Discrepancies may exist between urban and rural communities in the accessibility and provision of services. Although these disparities are important and worthy of further study, the goal

of this Index is to assess the overall level of consumer-friendliness for each of the provincial healthcare systems. Higher-scoring provinces may contain regions in which healthcare services are below average, and lower-scoring provinces may contain regions in which health services are excellent.

5. Methodology

For the CHCI, the FCPP largely followed the same methodological approach used in the creation of previous indexes compiled by the Health Consumer Powerhouse. Specifically, the methodology is closely modelled on that used for the EHCI. Like the EHCI, the CHCI selected a

number of indicators that describe the extent to which provincial healthcare systems are meeting consumer needs. This section provides additional information about our methodological approach to evaluating the healthcare systems' consumer-friendliness.

5.1 Indicator selection

Like the EHCI, our objective is to select a number of indicators from within a relatively small number of evaluation areas that, taken together, present a comprehensive picture of how well the healthcare consumer is being served. An Appendix attached to this report provides a brief description of each indicator. The sources for each indicator are listed in Section 6.

Many useful indicators of healthcare quality and health-system responsiveness to consumer needs exist, and we chose a small number for this index. We used the following criteria in selecting the indicators:

- An indicator must provide important information about the quality of provincial healthcare systems from the consumers' perspective. It must be a measure of outcomes or, in some cases, important outputs, not simply one of inputs.
- There must be recent, reliable and publicly accessible data.
- In the selection of indicators for this year's index, we sought to include a broad mix of items that measure healthcare-system performance across several dimensions of quality. We included indicators that evaluate the openness and transparency of provincial healthcare systems as well as indicators that provide more-easily quantified measurements of outcomes and wait times.

- In our selection of indicators, we emphasized metrics that provincial authorities, and providers have the power to affect directly through policy.
- Indicators must reflect healthcare-system performance rather than other dimensions of public health. A great many factors aside from the healthcare system influence the health of people living in a particular jurisdiction. This index seeks to evaluate the performance of healthcare systems and therefore does not include measures of public health in general, which are affected by diet, smoking habits, obesity and other factors. Therefore, indicators such as life expectancy, which are largely shaped by factors other than the healthcare system, are not included in the Index.

In each of the last two years, we made changes to the indicators and benchmarks used to assign scores in the CHCI. This year, we made additional small changes to some indicators and benchmarks. We dropped some indicators because we were unable to obtain sufficiently recent data, and we added others to provide a more complete picture of the relative performance of each province in terms of providing timely access to services. We are committed to making the CHCI better each year, and we welcome suggestions for improving our list of indicators and, more generally, we welcome input on how to refine the methodology for any component of these studies.

5.2 Data collection process

The information used to compile this Index is publicly available. Government databases and information that is readily obtainable from the Canadian Institute for Health Information (CIHI) and provincial health ministries provided a substantial amount of the data used in this report. For a few indicators, information was gathered from research performed by independent think-tanks and other entities outside of government. When we discovered conflicting information about a province's performance on a particular indicator, we used the most recent reliable source.

Throughout the data collection process, we sought the most recent reliable data. Data for this report are from 2008 or later, and we made every effort to obtain data from 2011 or 2010.¹ We were sometimes forced to make use of data from 2009 and, less frequently, 2008 for indicators for which no newer data are available.² It is possible that, in a few instances, a province's performance has improved (or worsened) significantly since the collection of our data. Because we made use of the most recent quality data available, we are confident that this Index provides a useful study of health-care quality in the provinces overall and in each of the five sub-disciplines of this report.

For a small number of indicators, our analysts were required to exercise judgement to determine the most appropriate score for particular provinces for specific indicators. For example, in a few instances, some provinces fell just below a benchmark cut-off for particular indicators, but they had performance results that were within the statistical margin of error of several other provinces that fell just above the benchmark. In these cases, the analysts examined all of the scores and made a determination about the group the province just below the official cut-off line deserved to be put into. In a few other instances, slightly different data collection processes in terms of measuring wait times made direct comparison more difficult than we would like. Again, in these instances, we exercised judgement based on all available evidence. Very few indicators required this sort of independent judgement, as the data was usually straightforward and easily interpreted.

5.3 Comprehensive Uniform Trustworthy Sources (CUTS)

Where possible, scores for the indicators in this Index are based on data extracted from Comprehensive Uniform Trustworthy Sources (CUTS). If the necessary data for assigning an indicator's score are available from a single reliable source for all, or almost all, the 10 provinces, this source was preferred to data drawn from a variety of sources. Examples of CUTS for interprovincial data include Statistics Canada databases and high-quality research papers that evaluate healthcare performance in most, or all, of the provinces.

CUTS is preferred as a data source because the methodology employed in its collection is often more uniform than information obtained from 10 different provincial sources. Even when these separate sources are provincial health ministries, fine differences in data collection methods and

the definition of the indicator to be tracked can make interprovincial comparisons difficult. When a CUTS was identified for particular data, efforts were made to check the resulting data against other sources of information to ensure that the "official" score accurately reflected the reality of a province's performance in that area of health-care delivery.

In some instance, even when a CUTS was available, we consulted additional materials to confirm our findings or to determine if more-recent information that could inform our score for a particular province on a particular indicator was available. In these instances, our researchers determined the appropriate score for each indicator for each province based upon all the evidence.

5.4 Scoring system

For each indicator, the performance of the provincial healthcare systems is graded on a three-level scale.

Throughout the report, each of the three levels is represented graphically by a colour-coded symbol, as shown below:

Green = good (●), Amber = fair (◐) and, Red = poor (◑).

When a province earns a score of good for an indicator, it receives three points in the sub-discipline into which that indicator is categorized. When a province earns a score of fair for an indicator, it gets two points. A province receives one point when its performance is poor. In instances where recent, reliable data were unavailable for a province due to data collection processes that are inconsistent with other jurisdictions, the province receives a score of poor for that indicator. Providing reliable, transparent information about healthcare is an important dimension of accountability

and consumer-oriented service, which is why provinces are punished in the Index for failing to monitor indicators of health-performance quality that are tracked by most other provinces. In the case of Prince Edward Island, sample sizes for some indicators were too small to produce results in which Statistics Canada and the CIHI had confidence. In those instances, PEI got an amber or intermediate score so that it would not be punished for its small population.

In devising this three-level scale, we did not seek to establish a global, scientifically based principle for the cut-off lines separating the three possible scores. Instead, these values were generally set after studying the provincial statistics for each indicator in order to ensure some variation in scoring (provided that statistically meaningful differences do in fact exist between provinces). An indicator for which each province achieved the same rating would provide the reader with little information about

the relative quality of the province's healthcare system. For this reason, we sought to establish thresholds at points that ensure that the top-

performing provinces achieve a good rating and the worst-performing provinces are rated poor and those in the middle are rated average.

5.5 Indicator areas: Sub-disciplines

The lessons we learned from the compilation of the ECHCI and earlier CHCIs informed the creation of this year's CHCI. We grouped the indicators into five major categories.

Each category focuses on a particular dimension of healthcare-system performance and/or consumer-friendliness.

Chart 1. Indicator areas: Sub-disciplines

Sub-discipline	Number of Indicators
Access to Information and IT Development	4
Primary Care	5
Wait Times	8
Outcomes	5
Range of Services Provided and Access to New Medicines	4

Each province's final score is determined using the following steps:

- The province receives a score for each sub-discipline. This score is calculated as a percentage of the maximum available points within the sub-discipline. (E.g., if a province scores 12 out of a possible 20 points on the indicators within a sub-discipline, the province receives a score of 60 per cent for that sub-discipline.)
- Each sub-discipline score is multiplied by the weighting coefficient that was assigned to the sub-discipline. The sub-disciplines that we determined to be the most important are given the highest weighting coefficients. The next section provides a brief rationale for these weighting coefficients.
- These weighted sub-discipline scores are then added up to calculate each province's overall score. Final scores are rounded to the nearest integer. This produces an integer score between 333 and 1,000, which is the province's final score.

5.6 Weighting Coefficients

The HCP introduced weighting coefficients in its 2006 EHCI. The decision to weight certain indicator areas more heavily than others was based on discussions with panels of experts and on the experiences revealed in a number of patient surveys, both of which indicated that certain dimensions of healthcare quality are especially important to consumers.

Specifically, consumers consistently point to patient outcomes and wait times as the most important dimensions of healthcare quality. Accordingly, these sub-disciplines were assigned the highest weightings in the compilation of final scores for the CHCI. Here, as in all other parts of the Index, we welcome input on how to improve the methodology.

These weightings are necessarily somewhat subjective. They are useful in helping us to

develop an easily understood overall ranking of each of the provincial healthcare systems. However, the most meaningful indications of gaps in consumer-friendliness between the provinces are found by examining the provincial scores for the individual categories. We aim to promote accountability and to provide citizens with as clear a view as possible of overall system performance by producing an overall score. This component of our work requires the exercise of judgement, and readers are encouraged to pay particularly close attention to the performance gaps in the specific sub-categories to obtain a clearer sense of where each system is succeeding and where each is most in need of improvement.

For this year's CHCI, the five sub-disciplines were assigned the following weights:

Chart 2. Weighting Coefficients

Sub-discipline	Relative Weight	All Green Contribution to Maximum Score of 1,000	Points for a green score in each sub-discipline
Access to Information and IT Development	1	100	25
Primary Care	1.5	150	30
Wait Times	3.5	350	43.75
Outcomes	2.5	250	50
Range of Services Provided and Access to New Medicines	1.5	150	37.5

Once the weighted scores were tabulated, they were added together and multiplied by 100. The maximum theoretical score attainable for

a provincial healthcare system in the Index is 1,000 and the lowest possible score is 333.

5.7 How to interpret Index results

In creating this index, the FCPP strove to use the best, most recent data to measure and rank the performances of the 10 provincial healthcare systems from the viewpoint of the consumer. Although we made use of the best data we could obtain, there exist imperfections in the sources that we used for this report. For example, for some indicators, different provinces used slightly different approaches to data collection and reporting that can make interprovincial comparisons more difficult than we would like. For other indicators, we used data from 2008 because that is the most recent. More-recent data would be helpful in allowing us to gauge more precisely the current level of healthcare-system performance.

With these points clearly stated, we think it is better to present our results, based on the best available data, to the public and to promote constructive discussion rather than to subscribe to the mistaken belief that if it is impossible to perfectly measure and report on healthcare-system performance, we should not attempt to do so. The perfect must not be allowed to become the enemy of the good, and we think that performance measurement and comparative evaluation should be undertaken despite the imperfections in the data.

We are satisfied that the data we have is sufficient to allow us to make broad statements about the variations in consumer-friendliness from province to province as well as about system performance in specific areas such as wait times and patient outcomes.

We caution readers to be careful not to attribute undue importance to small differences between provinces in individual categories or even in overall scores. It is particularly important to stress this fact for this year's index, since so many of the provinces are clustered very close together. Several provinces in the middle of the rankings finished close together in terms of total points. It would be a mistake to conclude from these results that the small gaps between these provinces are evidence of a meaningful difference between the provinces in terms of healthcare-system performance or consumer-friendliness.

While the existence of a 10-point gap between Manitoba and Alberta should not be taken as evidence that Manitoba's healthcare system is substantially more consumer-friendly than Alberta's, the 100-point gap between these provinces and Ontario can confidently be interpreted as evidence of a meaningful disparity in terms of overall consumer-friendliness.

6. Indicator definitions, benchmarks and data sources for the CHCI 2011

Chart 3.

Sub-discipline	Indicator	Comment	Good	Fair	Poor	Main Sources
Patient Access to Information, and Information Technology Development	Hospital Electronic Health Records	What was the median score awarded to a province's hospitals for the development of electronic health records by the EMR Adoption Model developed by HIMSS Analytics? (1-7 Scale)	>3	1-3	<1	HIMSS Analytics (2011)
	24/7 Access to Medical Information	Was there a 24/7 phone number and/or website that provides medical advice from an RN or RN equivalent?	Yes	Some information but not RN	No	Provincial government websites (2011)
	Quality of Health Wait-times Website	What grade was assigned to the provincial government's Wait-time website in the most recent Wait Time Alliance Report Card? (measures timeliness of data, patient-friendliness and depth of information provided)	A	B	C or D	Wait Time Alliance Wait Times Report Card 2011
	Electronic Health Record Development	How many (out of six) stages of EHR Development have been completed in the province according to the most recent Infoway Annual Report?	>3	1-3	0	Infoway Annual Report 2011-2012
Primary Care and Problem Prevention	Access to a Family Doctor	What percentage of people older than 12 reported having a family doctor?	>90%	85 to 90%	<85%	StatsCan Table 105-0501 (2010)
	Colon Cancer Screening	What percentage of people over 50 had a colonoscopy in the past five years or a fecal occult blood test in the past two years?	>50%	39 to 50%	<39%	StatsCan Table 105-0541 (2008)
	Breast Cancer Screening	What percentage of women 50 to 69 had a mammogram in the past two years?	>70%	65 to 70%	<65%	StatsCan Table 105-0543 (2008)
	Asthma Readmission Rate	What was the risk-adjusted rate of unplanned readmissions following discharge for asthma?	Lower than Canadian average	Statistically indistinguishable from Canadian average	Higher than Canadian average	CIHI Health Indicators 2011
	Hospitalization Rate for Ambulatory Care Sensitive Conditions	What was the risk-adjusted acute care hospitalization rate for seven ACSC for Canadians younger than 75 per 100,000 people?	<350	350 to 500	>500	CIHI Health Indicators 2011
Wait Times	Access to a Specialist Within One Month of Referral	What percentage saw a specialist within one month of referral?	>50%	40 to 50%	<40%	StatsCan Table 105-3002 (2009)
	Wait Time for Hip-replacement Surgery	What percentage of patients was treated within the 182-day national benchmark?	>84%	70 to 84%	<70%	CIHI Wait Time Tables 2011 and provincial websites (2011)
	Wait Time for Knee-replacement Surgery	What percentage of patients was treated within the 182-day national benchmark?	>75%	50 to 75%	<50%	CIHI Wait Time Tables 2011 and provincial websites (2011)

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Chart 3: Indicator definitions... Cont'd

Sub-discipline	Indicator	Comment	Good	Fair	Poor	Main Sources
Wait Times (cont'd)	Prompt Radiation Therapy	What percentage of patients was treated within 28 days of decision to treat?	>90%	85 to 90%	<85%	CIHI Wait Time Tables 2011 and provincial websites (2011)
	MRI Wait Time	How long was the average wait time for an MRI exam?	<8 weeks	8-12 weeks	>12 weeks	Waiting Your Turn, Fraser Institute wait-time report (2010)
	CT Scan Wait Time	How long was the average wait time for a CT Scan?	<4 weeks	4-6 weeks	>6 weeks	Waiting Your Turn, Fraser Institute wait-time report (2010)
	Wait Time for Hip-fracture Surgery	What risk-adjusted proportion of hip-fracture patients 65 and older received surgery within 48 hours of hospital admission?	>80%	70-80%	<70%	CIHI Health Indicators 2011
	Cataract Surgery Wait Time	What percentage of patients was treated within 112 days?	>75%	70-75%	<70%	CIHI Wait Time Tables 2011
Patient Outcomes	AMI Mortality Rate	What was the risk-adjusted 30-day heart attack in-hospital mortality rate?	Lower than Canadian average	Statistically indistinguishable from Canadian average	Higher than Canadian average	CIHI Health Indicators 2011
	Stroke Mortality Rate	What was the risk-adjusted 30-day stroke mortality rate?	Lower than Canadian average	Statistically indistinguishable from Canadian average	Higher than Canadian average	CIHI Health Indicators 2011
	Rate of In-hospital Hip Fractures	What was the risk-adjusted rate of in-hospital hip fractures among acute care patients 65 and older per 1,000 discharges?	Lower than Canadian average	Statistically indistinguishable from Canadian average	Higher than Canadian average	CIHI Health Indicators 2011
	Hysterectomy Readmission Rate	What was the risk-adjusted rate of unplanned readmission following hysterectomy for benign conditions?	Lower than Canadian average	Statistically indistinguishable from Canadian average	Higher than Canadian average	CIHI Health Indicators 2011.
	Prostatectomy Readmission Rate	What was the risk-adjusted rate of unplanned readmission following prostatectomy for benign conditions?	Lower than Canadian average	Statistically indistinguishable from Canadian average	Higher than Canadian average	CIHI Health Indicators 2011.

Continued next page

Chart 3: Indicator definitions... Cont'd

Sub-discipline	Indicator	Comment	Good	Fair	Poor	Main Sources
Range and Reach of Services and Access to New Medicines	Childhood Vaccination	Canadian Paediatric Society ranking of quality of childhood vaccination coverage	Excellent	Good	Fair	CPS website (2009)
	Influenza Immunization for Seniors	What percentage of those over 65 had a flu vaccine in the past year?	>65%	60 to 65%	<60%	StatsCan Table 105-0501 (2010)
	Approval Time for New Medicines	What was the weighted average time between Health Canada regulatory marketing approval and provincial public reimbursement approval for new medicines?	<300 days	300-400 days	>400 days	Access Delayed, Access Denied, Fraser Institute 2011 report
	Approval of New Medicines	How many new drugs approved by Health Canada as safe and effective had the province approved for public reimbursement between 2005 and 2009?	>70	40-70	<40	Access Delayed, Access Denied, Fraser Institute 2010 report

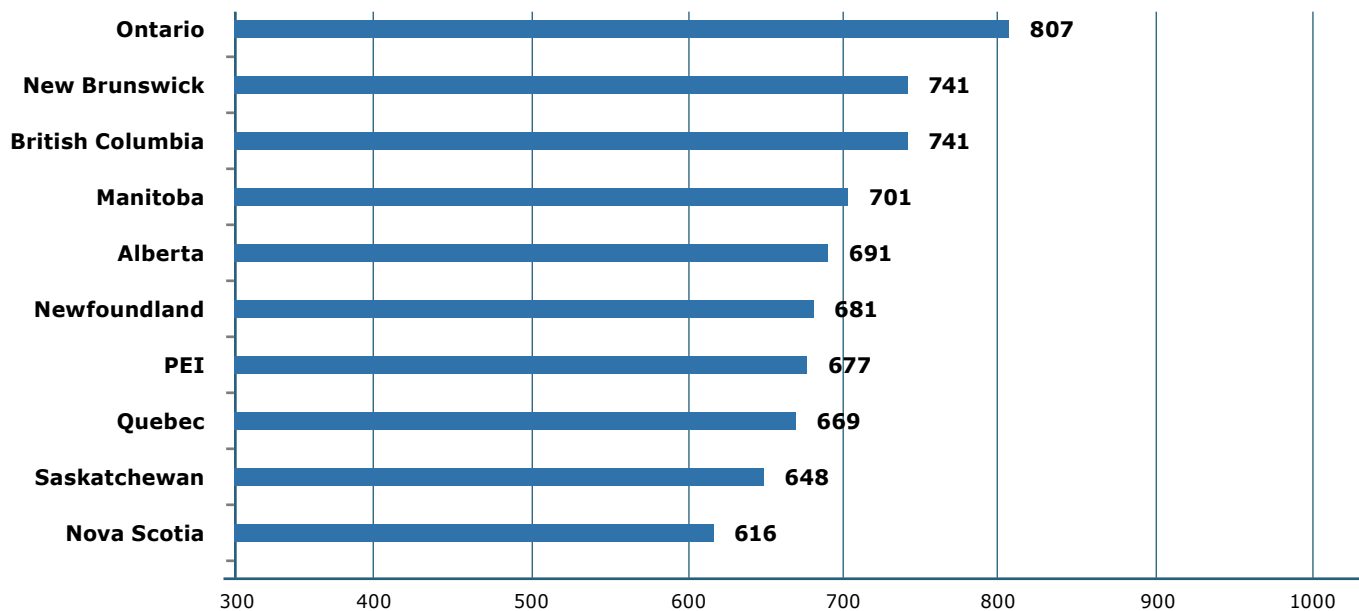
7. Results of the CHCI 2011 and summary by province

7.1 Overall results

For the fourth consecutive year, Ontario finished at the top of the CHCI rankings. The gap between Ontario and the other top performers increased slightly since last year. The top three performers, Ontario, New Brunswick and British Columbia, are separated by 66 points compared with 42 last year. The three provinces earned high scores primarily because of strong performances in the most heavily weighted categories—Wait Times and Outcomes.

New Brunswick has moved into a tie with British Columbia for second place in this year's Index. This result is almost identical to the 2010 index results. Last year, British Columbia finished second, just one point ahead of New Brunswick. This year, the two provinces finished tied for second, with 741 overall points. These close scores are best interpreted as evidence that, like last year, the three top performers constitute a top tier.

Chart 4. Overall scores



Several provinces clustered close together follow the top tier. Just 53 points separate fourth place Manitoba from ninth place Saskatchewan. The fourth- through ninth-place finishers are bunched together in a relatively narrow range. It would be a mistake to view these small differences in scores as clear evidence of differential levels of consumer-friendliness in the healthcare systems of these six provinces. Instead, they should be seen as forming a distinct second tier behind the top performers.

Nova Scotia finished in last place, 32 points behind the ninth-place finisher, Saskatchewan. Even this gap is relatively small, and Nova Scotia's scores in a number of areas are comparable to other provinces in the second tier. The primary reason Nova Scotia is at the bottom of this year's Index is its long wait times. A particularly problematic area is the very long waits for orthopaedic surgeries. The government recognizes that it has a problem in this area, and it notes on its website that it has the

longest wait times in Canada for hip- and knee-replacement surgeries. Recognizing the problem is the first step toward addressing it, and we hope future CHCI reports will show wait-time reductions in Nova Scotia in this and other areas.

Quebec requires additional explanation. This year, Quebec finished fourth in our Index. Quebec’s score, however, might be harmed by the fact that, by our rules, we assign poor scores to provinces that do not collect the data tracked by the provinces using standard data collection methods. This rule, meant to reward transparency, affects Quebec’s scores more than any other province’s due to its unusual data collection processes for several indicators.

Quebec should move to standardize data collection processes wherever possible to allow for interprovincial comparisons and to permit citizens to hold politicians accountable when performances are poor.

In the following chart provincial scores for each category are rounded to the nearest integer. However, in the calculation of the final scores, provincial sub-category scores are not rounded prior to being added. As a result, in some instances, the sum of each province’s sub-category scores may not be exactly equal to its overall score.

Detailed results of the CHCI 2011

Chart 5.

LEGEND: ● Good ○ Fair ○ Poor

Sub-discipline	Indicator	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL
Patient Access to Information	24/7 Telehealth Services?	●	●	●	●	●	●	●	●	○	●
	Hospital Electronic Health Records (HIMSS Analytics)	●	●	○	○	○	○	●	○	○	●
	EHR Database Development (Infoway)	●	●	●	●	●	○	●	●	●	●
	Quality of Provincial Wait-times websites	●	○	●	○	●	○	○	○	○	○
	Sub-discipline Weighted Score (/100)	100	92	83	67	92	75	92	83	58	83
Primary Care and Problem Prevention	Access to a Family Doctor	○	○	○	○	●	○	●	●	●	○
	Colon Cancer Screening	○	○	○	●	●	○	○	○	○	○
	Breast Cancer Screening	○	●	●	●	●	●	●	○	○	●
	Asthma Readmission Rate	○	○	○	○	○	○	○	○	○	○
	Hospitalization Rate for Ambulatory Care Sensitive Conditions	●	●	○	●	●	●	○	●	○	○
		Sub-discipline Weighted Score (/150)	110	110	110	120	140	90	120	110	100

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LEGEND: ● Good ● Fair ○ Poor

Chart 5: Detailed results... (Cont'd)

Wait Times	Access to a Specialist Within One Month of Referral for New Illness/Condition	●	○	●	●	○	●	●	●	○	
	Wait for Hip-replacement Surgery	●	●	○	○	●	●	●	○	●	●
	Wait for Knee-replacement Surgery	●	●	●	●	●	●	●	○	●	●
	Prompt Cancer Radiation Therapy	●	●	●	●	●	●	●	●	●	●
	Wait for CT Scan	●	●	●	●	●	●	●	●	●	●
	Wait for MRI Exam	○	●	●	●	●	●	●	●	●	●
	Wait for Cataract Removal	●	○	○	●	●	●	●	○	●	●
	Hip-fracture Surgery within 48 Hours of Hospital Admission?	●	●	○	●	●	○	●	●	●	●
	Sub-discipline Weighted Score (/350)	306	219	204	248	292	292	263	190	277	263
Outcomes	AMI In-hospital Mortality Rate	●	●	●	●	○	○	○	○	○	
	Stroke In-hospital Mortality Rate	○	●	○	○	○	○	○	○	○	
	Rate of In-hospital Hip Fractures	○	○	○	○	●	○	○	○	○	
	Hysterectomy Readmission Rate	○	○	○	○	○	○	○	○	○	
	Prostatectomy Readmission Rate	○	○	○	○	○	○	○	○	○	
	Sub-discipline Weighted Score (/250)	150	183	150	167	183	100	167	133	167	150
Range and Reach of Services and Access to New Medicines	Childhood Vaccination	○	●	○	○	○	○	○	○	○	
	Influenza Immunization for Seniors	○	○	○	●	●	○	●	●	○	○
	New Medicine Approval %	○	○	○	○	○	●	○	○	○	○
	Speedy Inclusion of New Medicine in Provincial Reimbursement Plan	○	○	○	○	○	●	○	○	○	○
Sub-discipline Weighted Score (/150)	75	88	100	100	100	113	100	100	75	75	
Overall Score (/1000)	741	691	648	701	807	669	741	616	677	681	
RANK	2	5	9	4	1	8	2	10	7	6	
	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL	

This year's results show a clear top tier in terms of consumer-friendly healthcare. Ontario, British Columbia and New Brunswick score significantly

higher than the remaining provinces, which constitute a clear second tier.

7.2 Results of the CHCI 2011 and summary by province

British Columbia (2nd-Tied)

British Columbia finished in a tie for second place with New Brunswick. As in the past several years, British Columbia fared well in the important Wait Times and Outcomes categories. It also fared well in the Patient Access to Information and Information Technology Development category. A major weak point for British Columbia is the lengthy delay in the average time for approval of new medicines for the provincial reimbursement plan.

Alberta (5th)

Alberta finished in fifth place, part of the large second tier. Alberta's performance improved since last year, when it finished in seventh place. Its strongest category is Outcomes. For example, AMI and Stroke 30-day In-hospital mortality rates are among the best in the country. Alberta performed less well in the Wait Times category, and it finished in the middle of the pack in this year's Index. Particular problem areas in the Wait Times category are hip-replacement surgery and cataract surgery.

Saskatchewan (9th)

Saskatchewan finished in ninth place, a drop from sixth place last year. Saskatchewan fits into the second tier of provinces. The primary reason for Saskatchewan's position near the bottom of the rankings is its longer than average waits for care in several areas. Saskatchewan showed the second-lowest score of the 10 provinces overall in the Wait Times category. Saskatchewan earned a poor score for its wait times for emergency hip-fracture surgery, cataract surgery and hip-replacement surgery, all of which are longer than the national average.

Manitoba (4th)

Manitoba finished in fourth place, at the top of the large second tier, behind Ontario, British Columbia and New Brunswick. This is the second year in a row that Manitoba finished fourth.

In the early years of the CHCI, Manitoba finished near the bottom of the pack, so its performance over the past two years is improving. Manitoba continues to fare relatively well in the Primary Care and Problem Prevention category. Manitoba finished in the middle of the pack in terms of wait times, an improvement over the early years of the CHCI, but some problem areas remain. Waits for hip-replacement surgery, for example, are still far too long. For Outcomes, Manitoba's performance was generally near the middle of the Index.

Ontario (1st)

Ontario once again finished in first place in the top tier in this year's rankings, beating New Brunswick and British Columbia. Ontario earned a score of fair for all the Outcome categories save for one—it earned one good score due to a low risk-adjusted rate of in-hospital hip fractures, which is an indicator of hospital safety. Ontario has no poor scores in this category, an important reason the province earned the top spot in the rankings. Wait times are also shorter than the national average in most categories including orthopaedic surgery and diagnostic imaging.

Quebec (8th)

Quebec finishes in 8th place in this year's Index—but it is difficult to form an accurate assessment of system performance because the province does not follow the national data collection standards for several of our indicators. As a result, the province was awarded a poor score in several indicators where its actual performance might be higher. We advise caution in interpreting Quebec's score as an accurate measure of consumer-friendliness in the province. Quebec generally performed very well in the Wait Times category, showing lower than average waits for orthopaedic surgery and cancer radiation therapy.

New Brunswick (2nd-Tied)

New Brunswick moved up from third place, into a tie with British Columbia in this year's index. New Brunswick remains part of a distinct first tier with British Columbia and Ontario. New Brunswick's performance is relatively strong in most categories. An area of weakness is that, on average, New Brunswick takes longer to include new medicines in the provincial reimbursement plan after Health Canada designates them safe and effective. New Brunswick's wait times are either near the Canadian average or better than the Canadian average for every indicator examined in this report. The province did not receive any poor scores in this important area, which is a significant reason for its strong overall showing this year.

Nova Scotia (10th)

Nova Scotia finished in last place. In most areas, Nova Scotia's performance is near the Canadian average, but a poor score in the Wait Times category hurt the province's overall score. A particularly problematic area is the long waits for orthopaedic surgeries. The government recognizes that it has a problem in this area, and it notes on its website that it has the longest wait times in Canada for hip- and knee-replacement surgeries. We hope that recognizing the problem is a first step toward addressing it and that future CHCIs will report wait-time reductions in this and other areas.

Prince Edward Island (7th)

PEI finished in seventh place, near the middle of the large second tier. PEI remains the only province without a 24/7 Telehealth service, a fact that has a small negative impact on its overall score. PEI's provincial Wait-times website is of lower quality than those in most other provinces. An area of relative strength is the Wait Times category, where PEI bests a number of provinces. Waits for Cancer radiation therapy and hip-replacement surgery are generally shorter than the national average. PEI's performance is mixed, resulting in its rank near the middle of the Index.

Newfoundland (6th)

Newfoundland finished in sixth place, an improvement from last year, when it finished in last place. Newfoundland earned several good scores for wait times. Specifically, a larger proportion of hip-fracture surgery patients received surgery within 48 hours of admission in Newfoundland than in most other provinces. Newfoundland fares less well in the patient Outcomes category. The province has a high in-hospital 30-day mortality rate from strokes, which is statistically distinguishable from the Canadian average.

7.3 The (non-) relationship between healthcare spending and consumer-friendly care in Canada

The international EHCI study proves that high levels of healthcare spending do not necessarily result in excellent healthcare-system performance or a system that better meets the needs of consumers. Canada is among the world's highest spenders on healthcare, and yet the performance of our system in terms of consumer-friendliness ranks below many countries that spend less money.

Our analysis of the data gathered for this CHCI confirms that good health-system performance is not necessarily linked to high levels of spending.

We examined the healthcare spending provided by the governments of Canada, which included spending by both provincial and federal governments. This is the most accurate measure available of the total amount of money, per person, that is spent on the healthcare system of each province.

The top performers were not necessarily the highest spenders. Ontario and British Columbia spend less money per capita on healthcare than most other provinces do. Alberta and Newfoundland had high spending levels but finished in the bottom half of the Index.

Clearly, there is no simple link between higher levels of healthcare spending and improved performance. The absence of such a link is further confirmed by a simple regression analysis that examined the relationship between per capita health spending and performance on this Index. Higher-spending provinces did not outperform lower-spending provinces, on average. In other words, provinces with higher spending levels do not tend to have healthcare systems that are more consumer oriented as measured by this Index than do provinces that spend less on healthcare.

We performed this analysis of the relationship between spending and performance to demonstrate that low levels of healthcare spending did not cause the results shown by the provinces near the bottom of our Index and to show that their problems likely cannot be solved by throwing money at them. Clearly, other solutions are needed, as our data show no link between higher spending and a higher level of consumer-friendliness.

8. Summary of results by sub-category

Each of the 26 indicators is categorized within five sub-disciplines. This section contains descriptions of each sub-discipline. Detailed descriptions of each indicator can be found

in the Appendix at the end of this paper. This section also presents a graph showing each province's score in every sub-discipline.

8.1 Patient access to information and information technology development

This sub-discipline examines the extent to which each jurisdiction empowers patients to acquire knowledge about their health condition, options and wait times as well as the capacity of providers to share information through electronic health records.

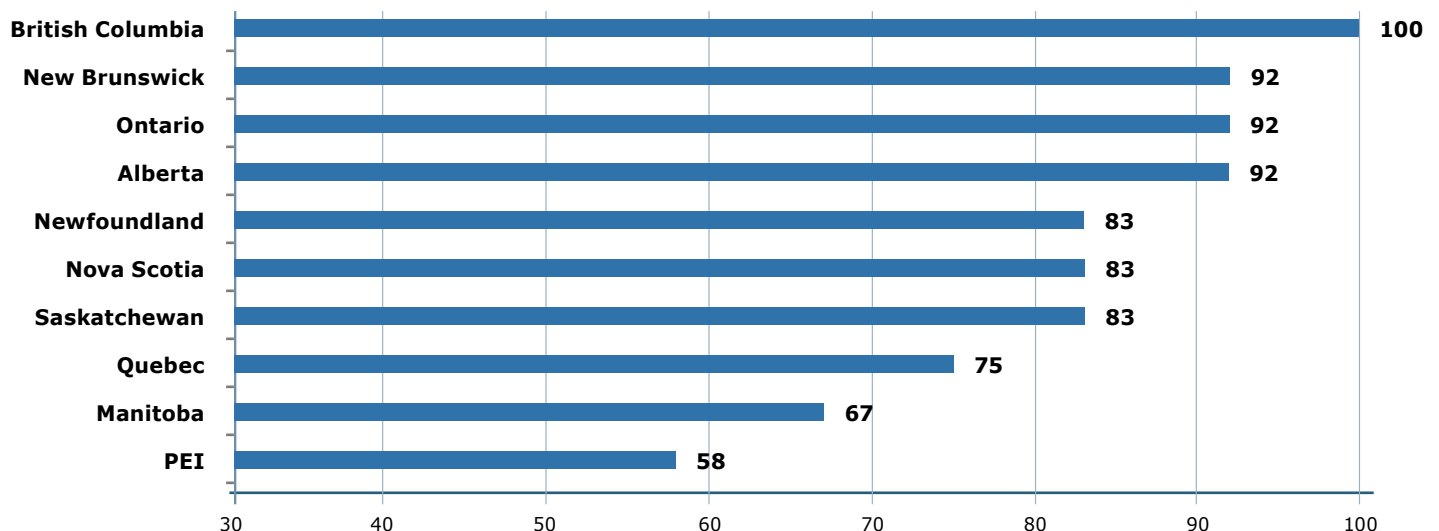
Internationally, Canada is in many respects a laggard in this area. For example, Canada has fallen behind in the area of electronic health records penetration. Germany, the Netherlands and Norway, for example, have more extensively developed EHR systems than does Canada.

It should be noted that while the differences that exist between provinces are significant in some cases, these differences are relatively small

compared with the large gap that separates Canada from the top European healthcare systems in terms of providing patients with access to information about their medical conditions. Gaps in the scores between the provinces should therefore not be taken as evidence of radically different medical cultures—these scores reflect the differences at the margin in terms of each province's performance in this area.

PEI and Manitoba perform poorly in this area, largely because their provincial Wait-times websites are not as informative and patient-friendly as those that exist in several other provinces.

Chart 6. Access to information and IT



8.2 Primary care and problem prevention

Primary-care providers are usually the patient's first point of contact with the healthcare system. They are essential for effective preventative medicine, health maintenance and the management of chronic conditions. Unfortunately, many Canadians face significant obstacles to obtaining high-quality primary care and disease-prevention services. This group of indicators measures the ease with which consumers can engage with the healthcare system at the primary-care level as well as the effectiveness of the healthcare system in terms of preventing the emergence of acute medical problems.

Ontario earns the highest score in this category, with 140 out of 150 points. For the second straight year, Ontario earned green scores in all but one indicator in this sub-discipline, asthma hospitalization readmission rates. Ontario's score is statistically indistinguishable from the national average, so the province earns a score of fair.

Saskatchewan and Alberta have scores in the middle of the pack for this category. One reason Alberta does not achieve a high score is that a large number of adult Albertans do not have regular access to a family doctor.

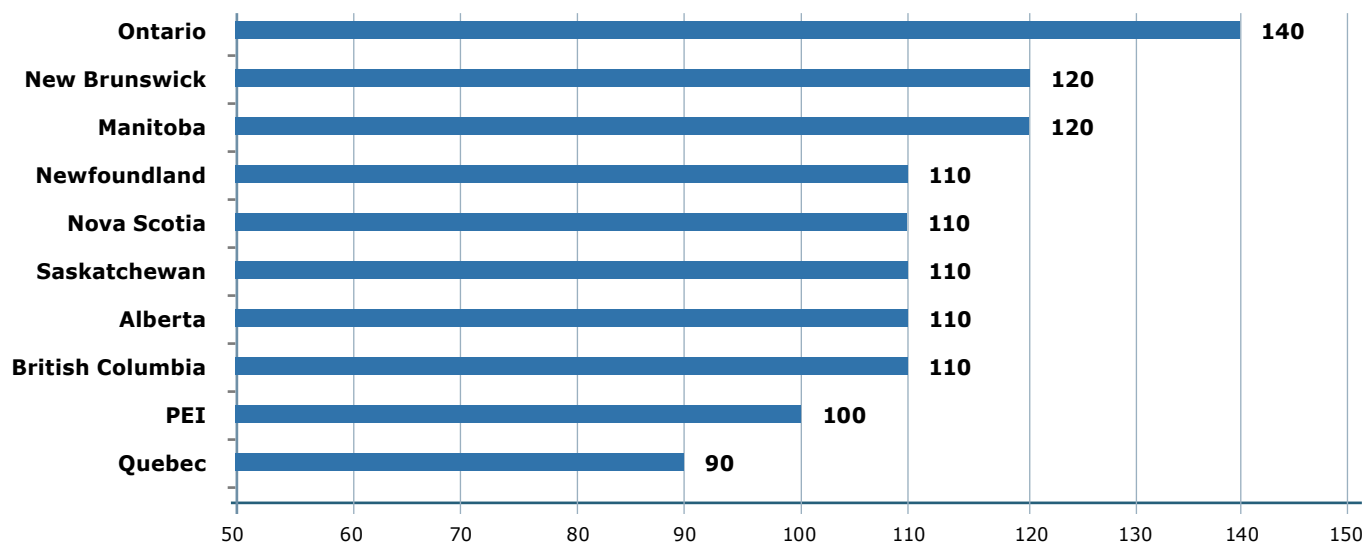
This is consistent with the findings of previous CHCI indexes.

In Nova Scotia, New Brunswick and Ontario, more than 90 per cent of adults reported that they have access to a family doctor; approximately 20 per cent of Albertans reported that they do not have one.

Manitoba performed well for most indicators in this category, but its score was negatively affected by a poor score for risk-adjusted asthma hospitalization rates, which were among the highest in Canada.

Quebec's extremely low score in this sub-discipline is driven partly by inconsistent data collection. The CIHI (Canadian Institute for Health Information) was unable to report results for two of the five indicators examined in this section—indicators for which the nine other provinces collected and reported data according to consistent standards. However, Quebec's poor score in this area was not caused entirely by data collection issues—even more Quebecers than Albertans reported in 2010 that they do not have a family doctor.

Chart 7. Primary care and problem prevention

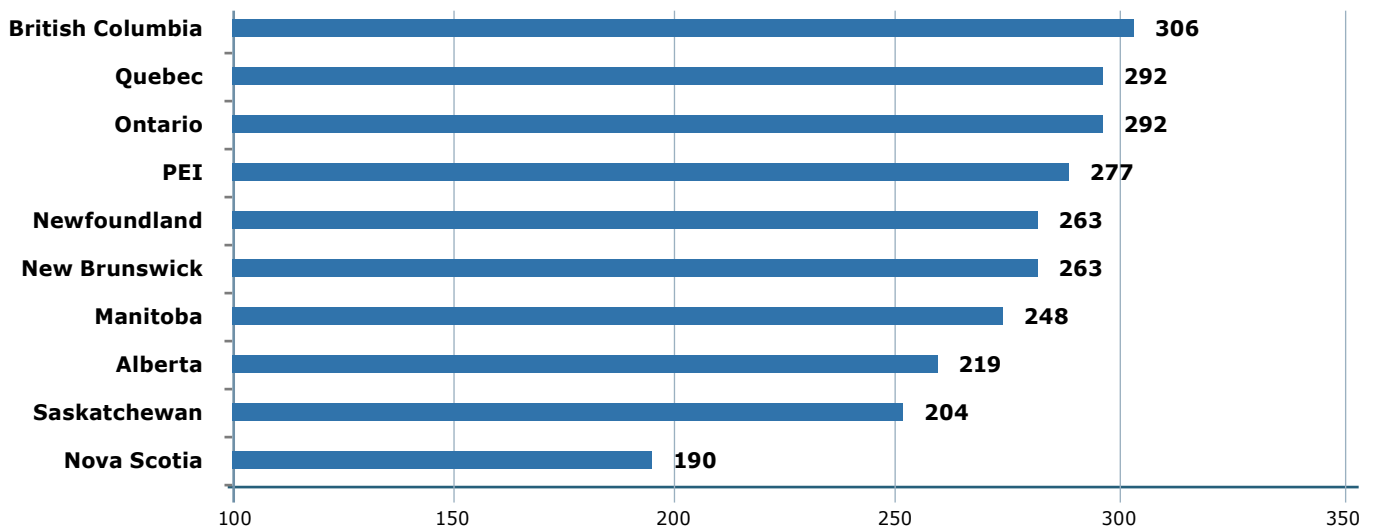


8.3 Wait times

For years, long wait times have been the great weakness of the Canadian healthcare systems compared with the top-performing jurisdictions in the world. Waiting times for many medical services are longer in Canada than they are in countries such as the Netherlands, Switzerland and Germany that also provide universal care. For the past decade, considerable attention and funding have been dedicated to addressing this problem, but with mixed results.

These scores are an indicator of relative performance in terms of wait times *compared with other Canadian jurisdictions*. A high score does not necessarily mean that wait times are acceptable or short by international standards—the differences in scores merely reflect variations between the 10 Canadian provinces in the Wait Times category. All 10 provinces have significant work to do to achieve the much shorter healthcare wait times that exist in top European countries such as Germany, France and the Netherlands.

Chart 8. Wait time scores



British Columbia, Quebec and Ontario are the top three finishers in this category. All the top performers earned points for providing relatively prompt access to cancer radiation therapy—generally keeping wait times lower than the national benchmark of 28 days for 90 per cent or more of patients. However, each of these provinces still has room for improvement for some indicators, and medical wait times are generally not competitive with the top-performing European jurisdictions.

Each of the remaining seven provinces outside of the top tier in the Wait Times category has significant room for improvement for at least one indicator.

For example, in Alberta and Saskatchewan, wait times for cataract surgery are significantly longer than the national average. In Manitoba, far too many patients still face excessively long waits for hip-replacement surgery.”

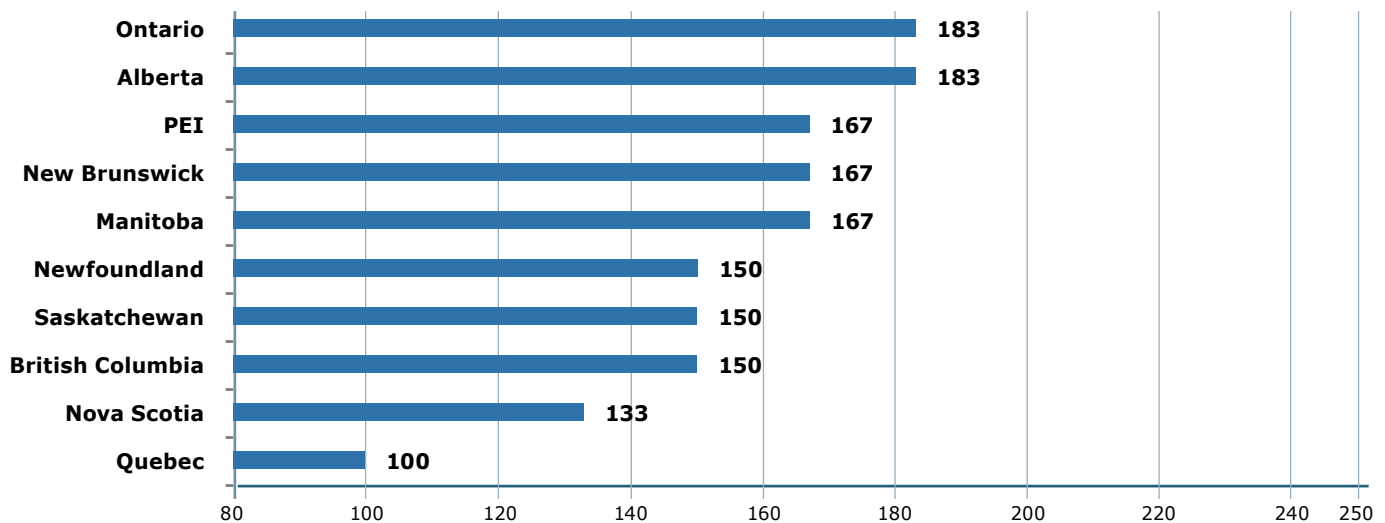
Nova Scotia is another jurisdiction that should place a particularly strong emphasis on reducing wait times for health services. Unacceptably long waits for hip replacement surgery, knee replacement surgery and cataract surgery are all more common in Nova Scotia than in most other provinces.

8.4 Outcomes

The outcomes sub-discipline assesses the performance of the provincial healthcare systems in terms of the results of treatment. Positive outcomes are among the highest priorities for healthcare consumers and providers. This is, in general, an area of strength in the Canadian healthcare systems. Patients often endure long

waiting periods that add to their pain and stress. However, the quality of services they receive when they finally reach the front of the line is quite good. This category includes measures of how well each provincial system manages serious diseases, responds to emergencies and follows best practices within hospitals.

Chart 9. Outcomes



As was the case in previous versions of the CHCI, performance in this category is relatively consistent across the country—there are fewer large variations between the provinces in this category than there are in the Wait Times category, for example. Quebec has, by a relatively large margin, the worst score in this sub-category. Caution is advisable when interpreting Quebec's score. The province's results are driven primarily by the inconsistent data collection processes that make it extremely difficult to make comparisons with other provinces. Nova Scotia has the second-lowest score in this category. One reason for its location near the bottom of the rankings in this sub-discipline is that the province did not have any indicators in which its performance was better than the national average by a statistically significant margin. Therefore, the province did not have any good scores in this category. Furthermore, Nova Scotia's performance was below the national average in two categories:

in-hospital 30-day mortality from strokes and the risk-adjusted rate of in-hospital hip fracture. This resulted in poor scores in this category, which hurt Nova Scotia's performance.

As was the case last year, Manitoba's and Saskatchewan's results are comparable to the Canadian average for most indicators in this category, though they are below average in some. The only indicator for which either province earned a score of good, indicating performance that is better than the Canadian average, was Manitoba's score in the 30-day in-hospital mortality rate following an AMI. Manitoba's mortality rate was lower and statistically distinguishable from the Canadian average for this indicator.

Outcomes is an area of relative strength for Alberta. The province shows 30-day in-hospital mortality rates following strokes and AMIs that are better than the national average.

If Alberta's performance in the Wait Time category were comparable to its performance in the Outcomes category, the province would be able to challenge Ontario for the top spot in the overall rankings.

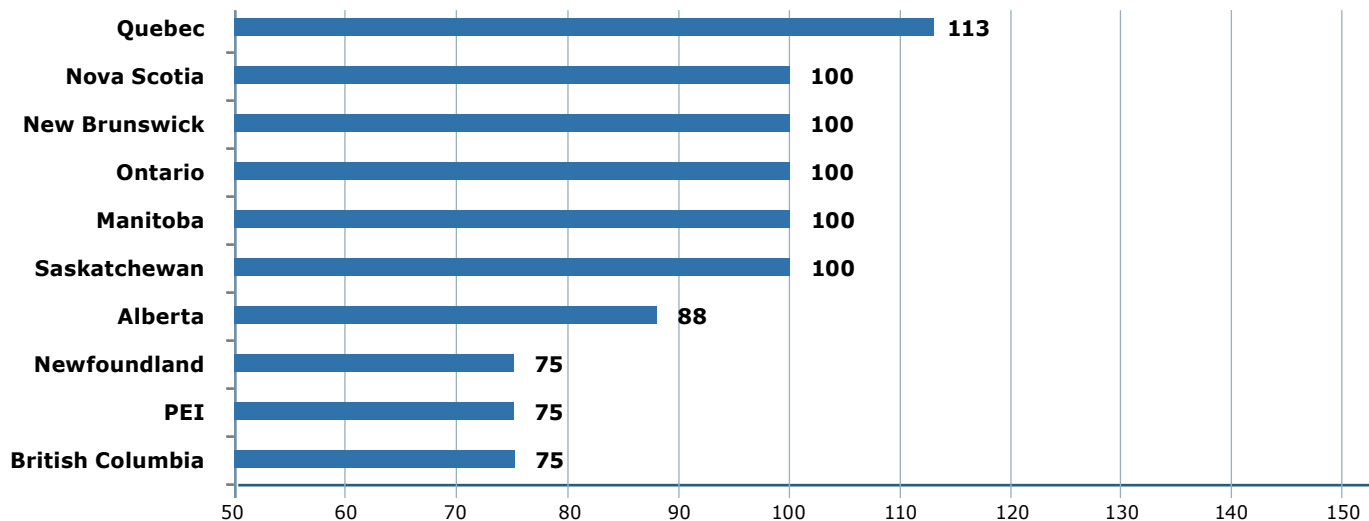
Generally, the results for this set of indicators are substantially less varied than are the results for the wait-time indicators discussed in the preceding section.

8.5 Range and reach of services and access to new medicines

Some variation exists between provinces in terms of what services are provided through provincial health programs. This sub-discipline compares the provinces in terms of the provision

of high-quality, affordable access to health services and products such as vaccinations and pharmaceuticals.

Chart 10. Range and reach of services and access to new medicines



We do not subscribe to the view that more is better or that the expansion of government programs to include the provision of a particular new service or product should necessarily be viewed as a good thing. These indicators, however, measure access to the timely and affordable provision of services to which we think all Canadians should have access.

Last year, we revised this category in order to focus more on the extent to which each province is approving and funding access to new medications. We have maintained this focus. Each province goes through a process to decide whether to approve new medicines that Health Canada found to be safe and effective for

inclusion in the provincial reimbursement plans. This process moves faster in some provinces than in others, and the provinces are not equally likely to include newly approved medicines for reimbursement. This means that Canadians in different provinces may have unequal access to the newest medications. Two of the four indicators in this section evaluate the extent to which each province provides its residents with access to new medicines.

As with the Access to Information category, the differences between the provinces in this area are small when compared with the differences between Canada and Europe in terms of the range and reach of services provided.

The gaps in scores again represent relative differences between the provinces.

Quebec earns the top score in this category, mostly because of its success at quickly approving new medicines for inclusion in the provincial reimbursement plan and for approving a larger proportion of the medicines deemed safe and effective by Health Canada.

Quebec had, by far, the highest rate of approval for new medicines between 2005 and 2009, the period examined for this indicator. Alberta, Manitoba and PEI have been unable to match Quebec's record in this area. Furthermore, a smaller percentage of medicines deemed safe and effective are approved for reimbursement in these three provinces than in Quebec.

9. Policy recommendations

This report shows that there are meaningful gaps in terms of wait times, patient outcomes and other dimensions of consumer-friendliness between the 10 provincial healthcare systems. However, these performance gaps are relatively small compared with the gaps that exist between even the highest-scoring Canadian provinces and the top-performing European jurisdictions such

as Germany, Switzerland and the Netherlands—especially in terms of waiting times. These policy reform recommendations are based on reforms in Europe that have contributed to the top-performing countries' ability to deliver high-quality healthcare services that are responsive to the demands of consumers—without the long wait times endured by Canadian patients.

9.1 Move to patient-based funding

For years, the Frontier Centre has championed a move toward patient-based funding for hospitals in Canada. This reform would eliminate or drastically improve the old system of global budgeting or block funding in which hospital revenue is determined by bureaucratic processes and is unrelated to the number of patients actually treated in a given year or the quality of a hospital's outputs. The global-budget model distorts the patient-hospital relationship, as hospital administrators must view each additional patient as an expense that will draw money from the budget.

Under patient-based funding, the government pays hospitals through case-based funding. Hospital funding levels are determined based on the number of people treated and the conditions those patients suffered from. A simple way of explaining patient-based funding is that it is a system in which "money follows the patient." When a patient seeks care at a hospital, the government provides money directly to that hospital, with the amount depending on the type of illness the patient is suffering from and the likely cost of delivering care.

European experience shows that the case-based funding model is more successful at improving service levels, reducing wait times and keeping overall costs low. This approach turns new patients into a source of revenue for hospital administrators rather than a drain on resources, while providing an incentive to maintain a reputation for providing high-quality care so that future patients decide

to seek treatment at a specific hospital.

Harvey Schipper and Menaka Pai of the University of Toronto and Harry Swain of Trimbelle Limited have described in detail the "perverse" incentives created by the global-budget system. The authors write that even well-intentioned administrators face incentives to encourage less-sick patients to come to their hospital while encouraging the truly sick (who cost more money to treat) to go elsewhere. They are not cruel or indifferent; they face severe professional consequences or public ridicule if they overspend relative to their fixed budgets, which make no allowances for how many or what sort of individuals the hospitals treat.³ The current system also eliminates the incentives to pursue innovations that require up-front start-up costs.

The present system is deeply flawed and leads to waiting lists and inefficiencies. Linking revenue to the amount and quality of work done by hospitals will harmonize the incentives for managers with the needs of healthcare consumers. By encouraging hospitals to provide excellent care to as many patients as possible, patient-based funding is one of the most effective ways government policy can work to address the problems in Canadian healthcare. The majority of Organisation for Economic Co-operation and Development (OECD) countries, including Belgium, France, Germany and the Netherlands, has already implemented some form of patient-based funding.

We are happy to report that in recent years there have been real signs that leading jurisdictions in Canada are planning to move away from the destructive global budget system and toward patient-based funding mechanisms. In April 2010, British Columbia announced it would build on existing pilot projects and move toward province-wide, patient-based funding and away from the block-funding model.

In its Throne Speech, Ontario's government announced it would shift toward a model in which "money follows the patient" to increase efficiency and reduce wait times. The Ontario government rightly noted in a press release that the global-

budget system is an obstacle when hospitals are trying to improve the quality and cost-effectiveness of their services.⁴ This proposal encountered stiff opposition from public sector unions, but, is likely to improve the quality of health services in the province. Moving to a patient-based funding model is one of the main reforms the Frontier Centre has advocated for in Canadian health policy in recent years. Ontario and British Columbia are already leaders in Canada in terms of wait times and quality of care, and their willingness to embrace this type of proven best practice from high-performing jurisdictions is encouraging, and we hope other provinces will follow suit.

9.2 Co-operation with other jurisdictions on medication approval

This paper documented the delays in provincial government approval for the reimbursement for new prescription drugs; this delay does not include the period during which Health Canada reviews the efficacy and safety of new medicines. During these delays, Canadians are unable to access new medicines that could improve their lives.

Although it is important to ensure the safety of new drugs, the work of Health Canada largely duplicates the FDA's drug approval process in the United States.⁵ This creates unnecessary delays. If different jurisdictions co-operated to share information and harmonize their research, the approval of new medicines could be expedited in Canada and other jurisdictions.

Working to co-operate with other jurisdictions to expedite approval for new medicines is a policy reform that was also discussed in last year's CHCI report. Since its publication, more evidence that shows reform is urgently needed has been produced. In June 2011, analysts from The Fraser Institute published this year's update to the "Access Delayed, Access Denied: Waiting for New Medicines in Canada" series. The paper showed that, on average, the delay for approvals of new medicines is much longer than in either the United States or the EU. Patients often

wait up to 30 months before they are able to access new, safe and effective medicines that may improve their condition. An important component of an excellent healthcare system is prompt access to the newest, best medicines in the world. Until Canada can match the approval process times of the top-performing EU countries, drug approval will remain an area of weakness in comparison with the top healthcare systems.

One proposal put forward by Brent J. Skinner and Mark Rovere is to enter into "mutual recognition" agreements under which new medications approved in selected OECD countries would be introduced into the Canadian market in an expedited manner. This would require a high level of trust and co-operation with other jurisdictions. However, the risk of a drop in quality control because of this co-operation with countries with sophisticated healthcare is negligible. The benefits of getting new medicines to market in a timely manner outweigh any such risks. To ensure that people in Canada and around the world are able to access the most effective medicines possible, jurisdictions should co-operate to minimize the duplication of work and focus on using their combined knowledge and resources to get new, helpful medicines to consumers as quickly as possible.

10. FAQ

What is the Canada Health Consumer Index?

The Canada Health Consumer Index measures the performance of the healthcare systems in the 10 provinces. The information is presented as a series of easily understood rankings that are designed to allow consumers to compare their province's healthcare system with other jurisdictions'.

Will consumers be able to understand this information?

Yes. The HCP and FCPP are experienced in communicating complex information about health-system performance in a concise, consumer-friendly way that clearly illustrates the strengths and weaknesses of a jurisdiction's health system. We work to make information accessible and consumer-friendly while ensuring fidelity to the original data sources.

What is the intended impact of the CHCI?

FCPP and HCP expect provincial governments to study this report, identify their areas of weakness and take action to remedy the problems in their healthcare systems, just as several European countries have done with our previous indexes. We hope consumers will examine the results of this report and put pressure on governments to reform areas where improvement is needed.

Is it possible, from a consumer perspective, to measure and compare healthcare this way?

Yes. Healthcare represents a major sector of the Canadian economy and is one of the most important areas of government activity. There is a pressing need to find relevant and comprehensive ways of assessing performance and of moving away from measuring resource inputs (staff, beds, etc.) as was often done in the past when gauging health-system quality. Our approach measures the quality of healthcare services and therefore shows how well citizens are served by their provincial governments.

Are these data available from other sources?

The information compiled for this report complements publicly available data such as that provided by Statistics Canada and the CIHI. These institutions generally do not provide the comparative analyses featured in this report.

What type of research was done for this index?

This index is based on compiled consumer information drawn from publicly available sources. It is a resource for healthcare policy-makers and, of course, consumers.

Why do the indicators receive different weightings?

Numerous surveys show that consumers say that medical outcomes and quick access to healthcare are the most important aspects of healthcare services. Because we aim to measure healthcare-system performance from the consumer's perspective, we have heavily weighted the dimensions of healthcare quality that consumers consistently describe as the most important.

Is public health or healthcare performance measured?

We measure healthcare system performance. There is significant data on public health, and it is certainly important for public policy. This report, however, focuses on the performance of provincial healthcare systems and on how well they meet the needs of consumers. We exclude indicators such as obesity and life expectancy that are important measures of public health, as they are closely related to diet, smoking habits and the like and are not related to healthcare-system performance.

11. Project staff

Lead researcher: Ben Eisen is the assistant research director and senior policy analyst with the Frontier Centre for Public Policy. Ben holds a Master of Public Policy from the University of Toronto's School of Public Policy and Governance. This is his third year as the lead researcher for the CHCI report.

Research assistants: Eric Merkley and **Amanda Achtman** are interns who assisted on this project.

12. Further sources

Provincial and Federal Health Ministries

Canada	www.hc-sc.gc.ca
British Columbia	www.health.gov.bc.ca
Alberta	www.health.alberta.ca
Saskatchewan	www.health.gov.sk.ca
Manitoba	www.gov.mb.ca/health
Ontario	www.health.gov.on.ca
Quebec	www.msss.gouv.qc.ca
New Brunswick	www.gnb.ca/0051/index-e.asp
Nova Scotia	www.gov.ns.ca/health
PEI	www.gov.pe.ca/hss
Newfoundland	www.health.gov.nl.ca/health/

Other sources of information on healthcare in Canada

Canadian Cancer Society	www.cancer.ca
Heart and Stroke Foundation	www.heartandstroke.com
Canadian Diabetes Association	www.diabetes.ca
Canadian Institute for Health Information	www.cihi.ca
Wait Time Alliance	www.waittimealliance.ca
Statistics Canada	www.statcan.gc.ca/

13. Appendix: Detailed description of performance indicators

Patients access to information and information technology

Electronic health records 1: EHR progress in hospitals

Electronic health records are an important tool for making healthcare safer and more efficient. EHRs make it easier for healthcare providers to access accurate information about a patient, which, in turn, makes it easier to avoid adverse outcomes such as allergic reactions and harmful drug interactions as well as financial missteps such as the unnecessary duplication of tests.

This indicator measures the extent to which hospitals in each province utilize EHRs. In 2010, HIMSS Analytics released a report showing the rate of progress in all provincial and state jurisdictions in North America in terms of adopting EHRs. This project assigned a ranking to each hospital based on its development of EHRs, and it produced a ranking for each jurisdiction by averaging these scores. By a comparative evaluation of reports from hospitals on their utilization of EHRs, HIMSS Analytics aimed to provide an accurate measurement of the level of electronic supervision achieved by each hospital.⁶

Electronic health records 2: Comprehensive measure of progress on electronic health records

This indicator measures the provincial development of databases that store specific types of health information. Canada Health Infoway, a publicly funded non-profit organization whose mandate is to accelerate the development and adoption of electronic health records systems with compatible standards and communications

technologies, provides annual updates on the development of EHR storage systems across Canada. Specifically, they identified six databases for EHRs that should be completed in each province: client registry, provider registry, diagnostic imaging repositories, lab information repositories, drug information repositories and other information repositories such as clinical and immunization reports. This indicator is based on how many of the six databases were completed in each province, with the provinces that completed more databases receiving higher scores.

Quality of provincial wait-times websites

Throughout Canada, there has been substantial improvement in recent years in terms of the provincial postings of expected wait times for some medical services. In particular, most provinces post wait-time estimates online for five priority areas that were identified by governments in Canada.

While we applaud this improvement, it is important that public listings of wait times become more comprehensive and consumers have access to likely wait times for as many medical services as possible. The publication of this information is a vital step toward the creation of a consumer-oriented medical culture that provides individuals with as much information as possible about their healthcare system.

Each year, the Wait Time Alliance, a politically independent non-profit organization, publishes a "Wait Times Report Card," which grades each province in several different areas related to wait times. This report includes an evaluation of the wait time websites of each province, ranking them with letter grades between A

and F. Provinces with wait time websites that provide timely, comprehensive information in an accessible, consumer-friendly format receive higher grades. We used the evaluations from the Wait Time Alliance's 2011 report as a performance indicator in this year's CHCI.

Telehealth Service

In some situations, consumers who are facing a health problem are not able to evaluate whether there is an urgent need to seek healthcare. This is especially true when problems arise outside of regular office hours. A telephone or Internet service that provides guidance in these situations and helps people determine whether they should go to a hospital immediately or wait until their family doctor is available is a useful decision-making tool. This service can help consumers pursue the most appropriate course of action, and it can help reduce costs by the avoidance of unnecessary trips to the hospital for minor, non-urgent problems. Similarly, a Telehealth service can improve outcomes in urgent situations by helping individuals realize they need immediate care. The individuals staffing this service should be medical professionals; for example, registered nurses.

Primary care and problem prevention:

Access to a family doctor

Family doctors are integral to health maintenance and disease prevention. Research has shown that regular interaction with a family doctor increases the chances of identifying problems early, which is when treatment is most likely to be effective. This indicator measures the percentage of individuals over 12 in each province who have regular access to a family doctor. Substantial variations exist between the provinces in terms of performance for this indicator. For example, Quebec scores very poorly, as just 75 per cent of residents report having access to a family doctor compared with more than 90 per cent in Nova Scotia and New Brunswick. Alberta also performs poorly, with 79

per cent reporting access to a family doctor. In Manitoba, 86.6 per cent of adults have a family doctor—close to the national average.

Percentage over age 50 screened for colon cancer in the previous two years

Early screening for the development of cancers is one of the most important ways to improve survival rates. In particular, early detection of cancerous or pre-cancerous polyps can significantly reduce the likelihood of an individual dying from colorectal cancer. Colorectal cancer is one of the most commonly diagnosed cancers in Canada, and it is a leading cause of cancer-related deaths. Detecting and removing polyps early is important for preventing cancer and for surviving when a cancer does develop. A colonoscopy is a procedure used to detect potentially dangerous polyps.

Many factors influence colonoscopy rates in a province. Some of these factors, such as individual choice, are beyond the control of the healthcare system. Nonetheless, easy access to the necessary equipment, short waits for screenings and the promotion of relevant information about colorectal cancer are all factors the healthcare system can strongly influence. For this reason, we think this metric is a useful indicator for this dimension of healthcare quality.

Because this indicator was last collected by the CIHI and reported to Statistics Canada in 2008, scores for this indicator have not been updated since last year's CHCI.

Percentage of women 50 to 69 who had a mammogram in the previous two years

Early screening for the development of cancer is an important way to improve survival rates. Early detection of breast cancer dramatically improves an individual's chance of survival. Breast cancer is the most common cancer among females, and a mammogram is an

important tool in its early detection, as it can find small lumps several years before a person can feel them.⁷

As is true of colonoscopies, many factors influence the rate of mammograms in a province. Some of these factors, such as individual choice, are beyond the control of the healthcare system. Nonetheless, easy access to the necessary equipment and the promotion of relevant information about breast cancer are factors the healthcare system can strongly influence. For this reason, we think this metric is a useful indicator for this dimension of healthcare quality.

Because this indicator was last collected by the CIHI and reported to Statistics Canada in 2008, the scores have not been updated since last year's CHCI.

Asthma readmission rate

This indicator, also compiled by the CIHI, is the risk-adjusted rate of unplanned readmissions within 28 days following discharge for asthma. Of course, some factors that influence readmission rates cannot be directly controlled by the healthcare system. Nonetheless, hospital practices including in-patient care, education and discharge instructions can strongly influence these rates. Furthermore, patients admitted to hospital are likely to have poorly controlled asthma, which may be partially due to gaps in medical or educational follow-up in their communities.⁸ Low rates of readmission can therefore be taken as a reasonable indicator of the quality of the healthcare system.

Hospitalization rate for ambulatory care sensitive conditions

Many chronic diseases such as diabetes, asthma and high blood pressure are manageable in the community through medical screening and monitoring. Effective management can reduce the number of hospital stays for people with these types of chronic health problems. Conditions that are manageable in this way are known as Ambulatory Care Sensitive Conditions (ACSC). This indicator, compiled by the CIHI, measures

acute care hospitalization for seven ACSC in Canadians under 75 years old. This indicator is important because the effective management of ACSC can improve health outcomes and contribute to the efficient use of resources. Variations in admission rates between jurisdictions may provide evidence of differential levels of accessibility and quality in community-based care.⁹

Wait times:

Access to specialists within one month of referral

Canadians must often endure long waits for diagnosis and treatment for serious problems. After they see a primary-care specialist, there is often a lengthy delay before patients are able to obtain an appointment with a specialist. Since many conditions are time sensitive, long delays to see a specialist can negatively affect health outcomes. The percentage of patients who see a specialist within a month of referral by their primary-care physician is a useful indicator of the speed with which the healthcare system responds to consumer needs. Data for this indicator was last collected in 2009, so provincial scores are unchanged since last year's CHCI.

Wait time for hip-replacement surgery

Hip-replacement surgery can significantly improve quality of life, but the need for it generally is not a life-threatening condition. The speed with which the healthcare system provides this surgery once a doctor and patient make the decision to pursue it is an indicator of the speed with which the system provides life-enhancing services when the patient's life is not threatened.

Wait time for knee-replacement surgery

Knee-replacement surgery can also significantly improve quality of life and generally the need for it is not a life-threatening condition. The speed with which the healthcare system provides the surgery once the decision to have it is made is

an indicator of the speed with which the system provides life-enhancing services in situations where the patient's life is not threatened.

Prompt radiation therapy

Prompt cancer radiation therapy can improve a patient's likelihood of survival. Although this is an important indicator of healthcare quality, there are inconsistencies in the way the provinces collect the information. We used the data compiled for the CIHI Health Indicators 2011 report, and this indicator is an estimate of the percentage of patients treated within 28 days of the decision to pursue radiation therapy.

Wait times for MRI exams and CT scans (two indicators)

Advanced diagnostics such as MRIs, CT scans and angiographies are often critical in determining the appropriate course of medical action. Until these scans are performed, it is usually impossible to choose the appropriate therapy. Delays for diagnostic tests can cause the late detection and treatment of diseases, which can lead to worse medical outcomes. Some medical conditions found by these tests are time sensitive, and long delays can have negative consequences in terms of outcomes and the likelihood of survival.

Wait time for hip-fracture surgery

Hip fractures are a serious injury and are quite common among elderly people. Hip fractures can be terribly painful, and it is important that hip-fracture surgery is provided in a timely fashion. However, in Canada, this surgery is sometimes delayed because of the unavailability of operating rooms, doctors or other resources. Quick access to surgery reduces unnecessary suffering, and it increases the chances of better outcomes as well as reducing mortality rates. This indicator, compiled by the CIHI, measures the risk-adjusted proportion of hip-fracture patients 65 and older who receive surgery within 24 hours of hospitalization.

Cataract-removal waits

Cataract removals are a relatively inexpensive outpatient surgery. While cataracts can impair quality of life, they are not life threatening. The speed with which a province provides this operation once a person has decided to have it is a useful indicator of how well each province provides desirable elective procedures for its residents.

Patient outcomes:

AMI 30-day mortality rate

The 30-day mortality rate for patients who had a heart attack is a useful indicator of how well the healthcare system responds to life-threatening emergencies. Although longer-term in-hospital mortality rates are largely influenced by other factors such as an individual's correct use of medication and his or her lifestyle choices, the 30-day figure is a good indicator of emergency response. The speed with which the victim is taken to the hospital, the problem is recognized and treatment is initiated all influence the likelihood of survival.

Stroke 30-day mortality rate

The 30-day mortality rate for patients who had a stroke is a useful indicator of how well the healthcare system responds to this life-threatening emergency. Although longer-term in-hospital mortality rates are greatly influenced by other factors such as an individual's correct use of medication and his or her lifestyle choices, the 30-day figure is a good indicator of emergency response. The speed with which the victim is taken to the hospital, the problem is recognized and treatment is initiated all influence the likelihood of survival.

In-hospital hip fractures

Falls resulting in hip fractures are common in hospitals. Hip fractures are often preventable, and several methods help to lower the rates of in-hospital hip fractures including identifying and monitoring high-risk patients and educating staff about this danger. This indicator is the risk-

adjusted rate of in-hospital hip fractures in-patients over the age of 64 per 1,000 discharges. This is an important indicator of quality of care, because it represents a complication of in-patient stays that can sometimes be avoided by high-quality health services.

Hysterectomy readmission

Hysterectomy, the complete or partial removal of the uterus, is the second-most common surgery for women after Caesarean section. In a small minority of cases, women experience complications that require an urgent, unplanned readmission to hospital following surgery. This indicator, compiled by the CIHI, is the risk-adjusted rate of unplanned readmission following a hysterectomy performed for benign conditions.

Readmission rates provide a measure of quality of care. Although these rates are influenced by factors outside of the healthcare system's control, an unusually high rate of readmission suggests that hospital practices should be carefully examined. Some practices that influence readmission are infection prevention and discharge planning.¹⁰ Variations in readmission are therefore a useful indicator of healthcare-system quality.

Prostatectomy readmission rate

Approximately 16,000 prostatectomies are performed in Canada each year for non-cancerous conditions, usually a benign enlargement of the prostate. In a small minority of cases, men experience complications that necessitate an unplanned return to the hospital after discharge. This indicator, compiled by CIHI, is the risk-adjusted rate of unplanned readmission following surgery.

These rates provide a measure of quality of care. Although readmission rates are influenced by factors outside of the healthcare system's control, an unusually high rate of readmission suggests that practices should be carefully examined.¹¹ Variations in readmission rates are therefore a useful indicator of healthcare-system quality.

Range and reach of services offered:

Childhood vaccination

The Canadian Paediatric Society (CPS) issues a list of vaccinations that should be universally accessible. The degree to which provincial healthcare systems make this preventative care available is a useful measure of the extent to which each system has adopted recent best practices. In 2008, the CPS gave each province a score on a scale from poor to excellent in terms of its compliance with CPS guidelines. We used the most recent provincial rankings on this scale as an indicator of the extent to which useful vaccinations are available for children. The most recent ratings were issued in 2009, so provincial scores in the CHCI for this indicator are the same as in last year's report.

What percentage of seniors were immunized against flu in the past year?

Influenza can lead to serious health problems and even death in the elderly. Routine flu shots for seniors are a simple and cost-effective way of preventing influenza and the potential complications and suffering. Furthermore, it is an efficient way to decrease more-intensive utilization of healthcare services, which represent additional cases for the medical system to absorb and treat.

Speedy inclusion of new medicines in provincial reimbursement plans

This indicator, drawn from data collected for the Fraser Institute's report on prescription drugs in Canada, "Access Delayed, Access Denied," measured the average amount of time it takes for provinces to grant reimbursement eligibility to new medicines deemed safe and effective. This statistic includes both full and restricted approvals by provincial authorities. The delay is the weighted average time in days between regulatory approval by Health Canada and approval for provincial public reimbursement.

Percentages of new medicines approved

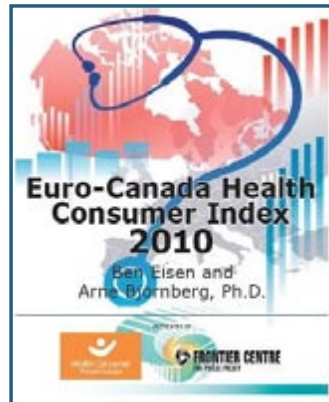
This indicator, drawn from the same Fraser Institute report, is calculated by comparing the number of full or partial reimbursement approvals for new medicines in each province with the total number of drugs that were approved as safe and effective (issued a Notice of Certification) by Health Canada between 2005 and 2009.¹²

These two indicators combined give a sense of the extent to which each province is providing residents with timely access to the newest medicines. By far, Quebec has approved for reimbursement the highest percentage of new medicines, and it has one of the fastest processing times for including these new drugs in the provincial reimbursement plan.

Endnotes

1. The exception is for the few indicators that analyze performance over several years—for example, the indicator for approval of new medicines includes data from 2008 to 2009. Most indicators rely on data for one year or, in a few instances, three pooled years. These data are from 2008 or later.
2. For some indicators, particularly those drawn from the CIHI, the statistics were generated using three years of pooled data. In those instances, the data year cited in this report is the most recent year in which data were collected for an indicator. The advantage of using multi-year pooled data is that it improves precision, although the drawback is that it makes use of some older data.
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Further Reading



May 2010 PS089

Euro-Canada Health Consumer Index 2010

By Ben Eisen and Arne Björnberg

<http://www.fcpp.org/publication.php/3285>



June 2008 FB061

Canada's Doctor Shortage

By Mark Milke

<http://www.fcpp.org/publication.php/2244>

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Date of First Issue: December 2011.

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ISSN 1491-78