

Canada's Top 5 in 5



**Building national
consensus on priority
health-improvement
indicators**

FINAL REPORT
SEPTEMBER 6, 2013



CANADIAN
NURSES
ASSOCIATION

About the Canadian Nurses Association

The Canadian Nurses Association (CNA) is the national professional voice of registered nurses in Canada. A federation of 11 provincial and territorial nursing associations and colleges representing 148,992 registered nurses, CNA advances the practice and profession of nursing to improve health outcomes and strengthen Canada's publicly funded not-for-profit health system.

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Executive summary

Over the past decade, Canada has seen an increased investment and focus on health-system performance. While this attention has led to broad engagement among health-care stakeholders and modest improvements in the health-care system, Canada's health system continues to score a "B" grade in comparison to its international peers. Moreover, the prospect of improving this score faces a number of difficulties, such as a lack of national alignment, inconsistent provincial and regional performance, changing demographic and technological environments, and rising health-care costs. Together, these factors create a challenging backdrop for Canadian health leaders looking to build a world-leading, financially stable health-care system that promotes health and provides timely, high-quality access to care.

The success of leading health systems around the world and the examples of success within Canada make it clear that rapidly improving our performance requires a more purposeful approach, one that is focused on consensus, collaboration, leadership and participation at every level.

This is among the reasons that the Canadian Nurses Association (CNA) launched its National Expert Commission in May 2011 to recommend ways of optimizing the contributions of registered nurses (RNs) to the health of Canadians — the first commission of its kind spearheaded by RNs. Registered nurses constitute the largest group of health professionals in Canada, making them an important force in Canada's health-care system.

In its final report, *A Nursing Call to Action*, the Commission outlined a nine-point action plan to drive better health, better care and better value in Canada's health-care system. The first step in this plan specified the need to establish Canada as a leader on five key health outcomes within the next five years.

Canada's Top 5 in 5

"Canada will celebrate its 150th birthday in 2017, and the Commission challenges all Canadians to ensure our country ranks in the top five nations for five key health outcomes to mark that milestone."

~ A Nursing Call to Action, (p. 40)

The following report sets forth an evidence-informed, expert-driven and publicly informed process by which to carry out the National Expert Commission's proposed plan of action. It directly reflects the set of transformation principles outlined by CNA and the Canadian Medical Association (and endorsed by many system partners) in *Principles to Guide Health System Transformation in Canada*² (Appendix I).

High-performing health-care systems are generally linked to structured, jurisdiction-wide or population-based programs that are closely and transparently measured, monitored and improved by using health indicators. With this in mind, we chose a simple and practical method (of scaling, filtering and item-

reduction) to identify and match Canada's top health-improvement targets to five priority health-improvement indicators. This process included (1) reviewing the existing evidence for good health indicators; (2) developing criteria for selecting indicators; (3) assessing and ranking indicators, in cooperation with health leaders and the broader nursing community; (4) conducting a poll of public priorities for Canada's health and health system; and (5) hosting a consensus conference, bringing together a broad range of key health-care stakeholders to establish a focus for health-performance improvement in Canada.

Overall, we agreed that Canada's health-improvement indicators should (1) help us shift our health-care focus from acute-care settings to the community; (2) recognize health status as an important measure of health performance; (3) address issues of health equity and the social determinants of health; and (4) improve the sustainability, accessibility and efficiency of care.

The final result was a national consensus on five indicator-based goals for health improvement to be achieved within the next five years.

Canada's Top 5 in 5 health-improvement goals for 2017

1. **Increase** the percentage of primary care practices offering after-hours care.
2. **Increase** chronic disease case management and navigational capacity in primary care.
3. **Increase** Canadians' access to electronic health information and services.
4. **Decrease** hospital admissions for uncontrolled diabetes-related conditions.
5. **Decrease** the prevalence of childhood obesity.

Collectively, Canada's Top 5 in 5 health-improvement goals represent systemic issues that have a high health burden and a corresponding value for the Canadian population. They strike a balance between health-system and health-status improvement; they reflect public priorities for health and health care; and they represent an agenda that health leaders, organizations, providers and patients can stand behind. Most importantly, Canada's Top 5 in 5 goals provide an important focus for our nation's health-care stakeholders — one that will help reduce "indicator chaos" and promote collaboration and participation at a national level.

With agreement on the Top 5 in 5, the next steps will be to move this new health agenda forward by broadening consensus, establishing strategic leadership, developing formal implementation plans and assigning accountabilities at every level of our health-care system.

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Part 1: The call to action

In 2004, Canada's first ministers agreed on a 10-year plan to strengthen health care,³ which offered a pan-Canadian platform for provincial and territorial funding that focused on essential system priorities. These priorities included (1) improving wait times and access to care, (2) increasing the supply of key health-care professionals, (3) reforming home and primary care, (4) developing electronic health records, (5) ensuring affordable and appropriate access to drugs, (6) building public-health efforts for health promotion and injury prevention, and (7) investing in innovative health research and technologies. In exchange for increased federal funding, all jurisdictions made a commitment to ongoing transparency and public reporting to ensure accountability for their progress.

As a result, Canada has seen some encouraging improvements in wait times and an increased focus on health-system performance. Many organizations have put strategies and structures in place to drive health-system change, and regional efforts to enhance the care we provide continue to be extensive and varied.

Yet, despite our progress, the sustainability of these gains remains uncertain. Canada continues to score an overall "B" grade for health care compared to its international peers,⁴ and a sharper lens reveals wide variation within this ranking across provinces, territories and health regions. So some Canadians cannot expect even "B-player" performance when they receive care.⁵

For the millions of Canadians relying on our health leaders, we need better health, better care and better value if we are to deliver a world-class health-care system in the face of changing needs and mounting costs. That means considering new ways of doing things to achieve our goals.

Health care in Canada today

Over the past decade, the complexity of Canada's health-care system has continued to evolve and create new challenges.

Technology, web-based communication and social media have given new options for providers and patients to access information, interact and engage in care. At the same time, these opportunities have transformed patients' expectations regarding their health-care system. Patients are rightfully demanding greater participation, flexibility and timeliness, which they know technology can provide.

We have already seen a shift in Canada's pattern of illness and health-care needs, including an epidemiological transition from infectious disease to the chronic diseases associated with aging. As our aboriginal communities struggle with suicide and depression, more than 40 per cent of Canadian adults now report having "at least one of seven common chronic conditions ... not including depression" (p. 13).⁶

To add to this complexity, Canada is experiencing a significant demographic change. By 2040, our population is expected to grow by up to 30 per cent.⁷ Within two decades, one in four Canadians will be foreign-born, a third will belong to a visible minority group⁸ and the aboriginal population could reach

2.2 million.⁹ Nearly a quarter of us will be over the age of 65, and the number of centenarians could triple or quadruple.⁷ These changes will further exacerbate the current burden of chronic disease.

Our increasing population diversity has also created unique challenges for health equity and the need to increase our focus on the social determinants of health as key factors in building a consistently high level of health among Canadians. More and more, Canadians need ongoing, systematized, chronic-disease prevention and management — rooted in strong interprofessional care and local communities, where customized interventions can be more easily and consistently addressed.

Regrettably, however, a continued lack of pan-Canadian performance-improvement efforts, in areas such as primary and community care, means that the strategies and investments of the past decade have not consistently reached the appropriate frontlines of health care — this, despite the fact that Canada’s health-care costs have doubled over the same period, now well-above \$200 billion.¹⁰ For most provinces and territories, health care accounts for close to 50 per cent of the budget,¹⁰ and health leaders are scrambling to find ways to achieve sustainability while improving the patient experience, the quality of care and the overall health of the public.

Such inconsistent performance and rising costs show that we need a more purposeful approach, one that is focused on consensus, collaboration, leadership and participation at every level of our health-care system.

A Nursing Call to Action

At nearly 270,000 strong, registered nurses constitute the largest group of health

professionals in Canada.¹ Nurses work with Canadians at every stage of life and in every health setting — from the bedside to the classroom, community health centre and workplace.

Nursing science and practice are being recognized as rich sources of knowledge, innovation and flexibility in an increasingly complex health-care landscape. And RNs are important collaborators in the delivery of health-care services who can help Canada better achieve its commitment to affordable and integrated care.

As the role of RNs becomes more prominent, so too does their voice in the health-care leadership community. Now, more than ever, RNs are poised to collaborate with other health professionals and system leaders to shape the future of Canada’s health system.

Therefore, in May 2011 the Canadian Nurses Association (CNA) launched its National Expert Commission to provide recommendations on how to optimize the contribution that RNs make to the health of Canadians. It is the first commission of its kind spearheaded by RNs.

“Through their sheer numbers and collective knowledge, nurses are a mighty force for change.”

~ A Nursing Call to Action, (p. 1)

In its final report, *A Nursing Call to Action*, the Commission outlined a nine-point action plan to drive better health, better care and better value in Canada's health-care system. The first step in this plan specified the need to establish Canada as a leader for five key health outcomes within the next five years.

Canada's Top 5 in 5

“Canada will celebrate its 150th birthday in 2017, and the Commission challenges all Canadians to ensure our country ranks in the top five nations for five key health outcomes to mark that milestone.”

~ *A Nursing Call to Action*, (p. 40)

The value of measurement

Positioning Canada as a leader for five health-improvement targets within the next five years requires a deep understanding of our health-care system and the levers available to effect change. Realizing Canada's full potential will mean identifying the most meaningful areas in which to raise the performance of our health system and the health status of our population.

Fortunately, we have been looking at the quality of Canada's health service for quite some time. Numerous bodies exist to monitor and benchmark our health and health-care system at a provincial-territorial, pan-Canadian and international level, using survey¹¹ and administrative data.^{12,13}

These bodies tell us that Canada's health-care system is performing well in some domains — which tend to be linked to structured, jurisdiction-wide or population-based programs that are closely and transparently measured, monitored and improved by using health indicators.

What is an indicator?

“Indicators are succinct measures that aim to describe as much about a system as possible in as few points as possible. Indicators help us understand a system, compare it and improve it.”

~ *The Good Indicators Guide*, (p. 5)

Taken in isolation, indicators are merely signals. Measurement alone rarely leads to improvement.¹⁴ Still, because you can only manage what you measure, measurement can be a powerful tool for change — especially when its importance is acknowledged, agreed upon by health leaders and tied to practical strategies for improvement and action. On these terms, what Canada measures reflects our collective aspirations for our health system.

Comparative public reporting is increasingly acknowledged as an important driver of health-care performance.¹⁵ Not only is reporting a consistent element of high-performing health systems, it appeals to health-care workers' intrinsic motivation to do better for their patients, and it can also exert the kind of positive public pressure on administrative leaders and clinical professionals that leads to improvement.¹⁶

“The scholarly literature shows that a few factors consistently drive better cancer care and outcomes.”

Among them are

- **having a specific statement of improvement targets with a plan for reaching these goals; and**
- **the public reporting of results with a clear link to improvement plans, which then become part of the strategy.¹⁷**

~ Rossey Cancer Network, (p. 25)

CNA has partnered with other nursing organizations, such as the Canadian Institute for Health Information and Canada Health Infoway, with three initiatives on advancing nursing-sensitive outcome indicators to evaluate the quality of nursing care in various health-care sectors.

These projects include the Canadian National Nursing Quality Report Card, Canadian Health Outcomes for Better Information and Care [C-HOBIC], and nursing quality indicators for reporting and evaluation tied to RNAO's best practice guidelines.

CNA is equally committed, however, to its accountability beyond clinical outcomes — that is, to system-level outcomes. We know that Canada's ranking on several health and health-care indicators is falling against our international peers, despite increased financial investments in our health-care system.¹⁸

Types of measurement

Health performance can be measured in a number of ways. Yet establishing achievable performance goals always begins with defining what we mean by quality and selecting appropriate methods and measures to assess it.

This report addresses ways to measure health, both for Canadians and for the health-care system and its services. Specifically, we explore two types of indicators as important measures of health quality in Canada.

1. **Process measures:** actions, changes or functions that bring about a particular health-care result (include interactions between health-care providers and patients). Process measures often relate to the performance of the health system.
2. **Outcome measures:** changes in individuals and populations that are attributed to health determinants or health care. Outcome measures often relate to the health status of a population or the end result of health-system change.

For a full definition of process and outcome measures, see Appendix A.

The purpose of this report

This report sets forth an evidence-informed, expert-driven and publicly informed process by which to carry out the National Expert Commission's proposed plan of action (as set out in its final report, *A Nursing Call to Action*).

The result is a national consensus on five health indicators that Canada should strive to improve within the next five years.

CNA acknowledges that many institutions, both in Canada and around the world, are already focused on effective health measurement and reporting. The present work seeks to complement rather than duplicate those initiatives. It also seeks to serve future health leaders interested in working together to improve Canada's health system through an aspirational focus beyond any one agency or organization.

Accordingly, in creating this report CNA has involved a range of health-system leaders from across the country — and is dedicated to a continuing collaboration with them — both to ensure that the report's recommendations align with national, provincial and territorial strategies and to support the collective appetite for improvement.

“Lack of shared understanding is very often the root of inefficiencies in a system. Reaching a consensus about objectives has to start with constructive conversation between all the key partners within the team, system or organization.”

~ The Good Indicators Guide, (p. 7)

Considerations

Using a simple scaling, filtering and item-reduction approach, this report identifies and selects a set of five health indicators as a point of focus for Canada's health-performance agenda.

Of course, indicators alone will not lead to the health system Canadians want. To achieve such a system we must also include improvements in the equity of performance — a factor Green and his colleagues (2010) describe as a culturally competent approach to quality improvement (QI). This broad-based approach to QI should “(1) identify disparities and use disparities data to guide and monitor interventions, (2) address barriers unique to specific disparity groups, and (3) address barriers common to many disparity groups” (p. 435).¹⁹ Others have also emphasized the importance of "levelling-up" by raising quality and performance levels for all groups, particularly those most disadvantaged. This report acknowledges the importance and the challenge of pursuing the link between these concepts.

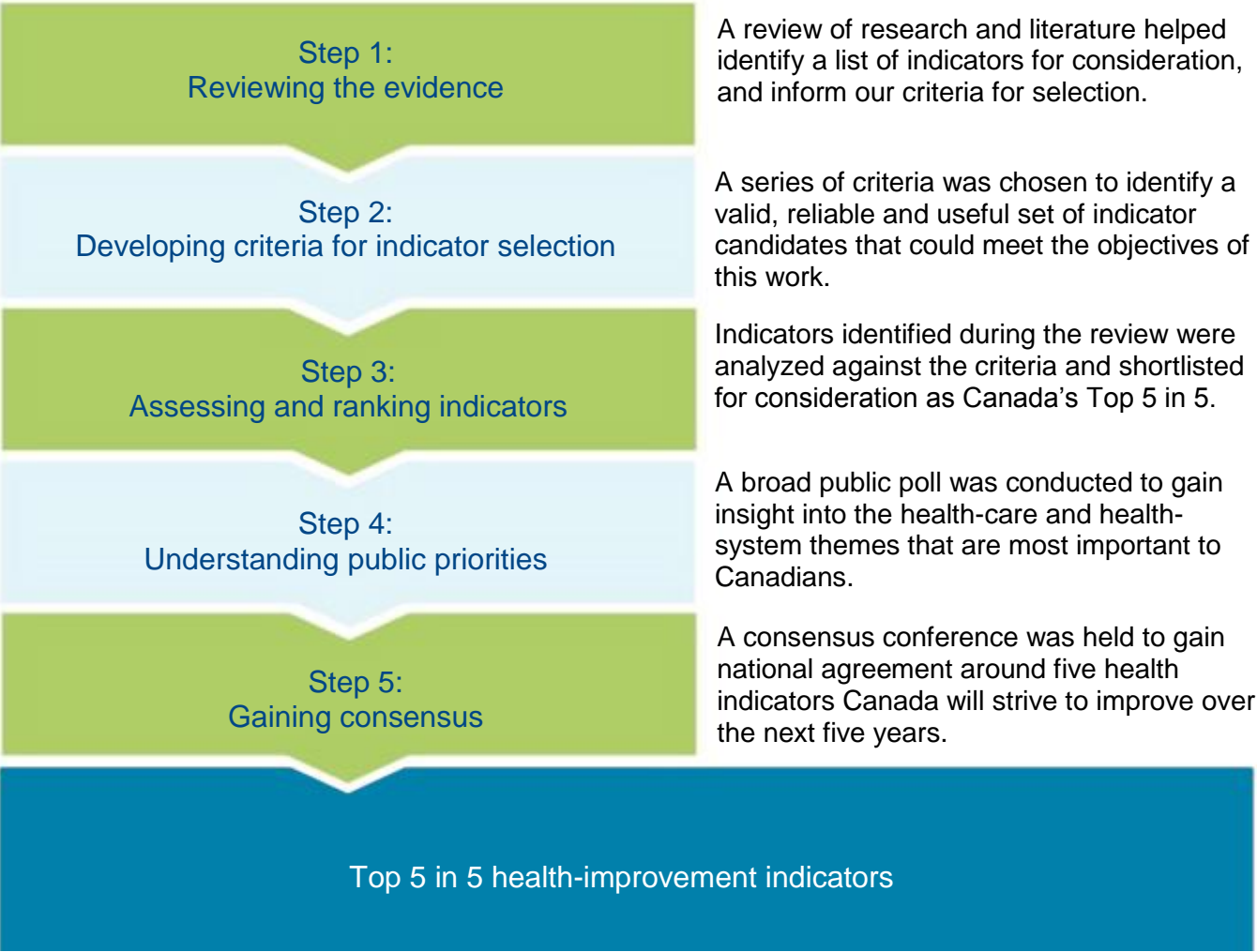
Additionally, in selecting a set of indicators to measure, CNA is looking to frame these indicators as improvement priorities and to assign specific targets to achieve within the next five years (by 2017). (It should be noted that measurement data for 2017 will not be available until 2019.)

Part 2: Setting a national agenda for health-improvement indicators

CNA has challenged all Canadians to ensure that our country sees a significant improvement in five key health outcomes within the next five years.

As a first step in this process, a simple scaling, filtering and item-reduction approach was used to identify and select a set of five health-improvement indicators as a point of focus for Canada’s health performance agenda. An overview of our approach to this work is outlined in Figure 1, followed by a more detailed description.

Figure 1: Approach to selecting health-improvement indicators



Step 1: Reviewing the evidence

A literature review allowed an evidence-informed approach in identifying indicators for consideration as Canada's Top 5 in 5. The review also helped determine what makes a good indicator and how to develop the criteria for selecting it.

What makes a good indicator?

Indicators help make our plans for improvement real and testable. While the complexity and variability of health care means that no health-improvement indicator can be perfect, good indicators have common qualities that make them ideal candidates for measurement and improvement.

The best indicators are important, relevant, scientifically valid, meaningful, actionable and possible to populate with reliable data.¹⁴

Before indicators are selected for any purpose, they should be measured against these criteria to determine their strengths and weaknesses.

Step 2: Developing criteria for indicator selection

Hundreds of indicators are available to measure health-system improvement, yet only a select few fit our objectives, our national context for measurement and performance improvement, and our good indicator guidelines.

To begin to identify areas of focus for health-system improvement in Canada, we selected a series of criteria to filter out indicators for consideration.

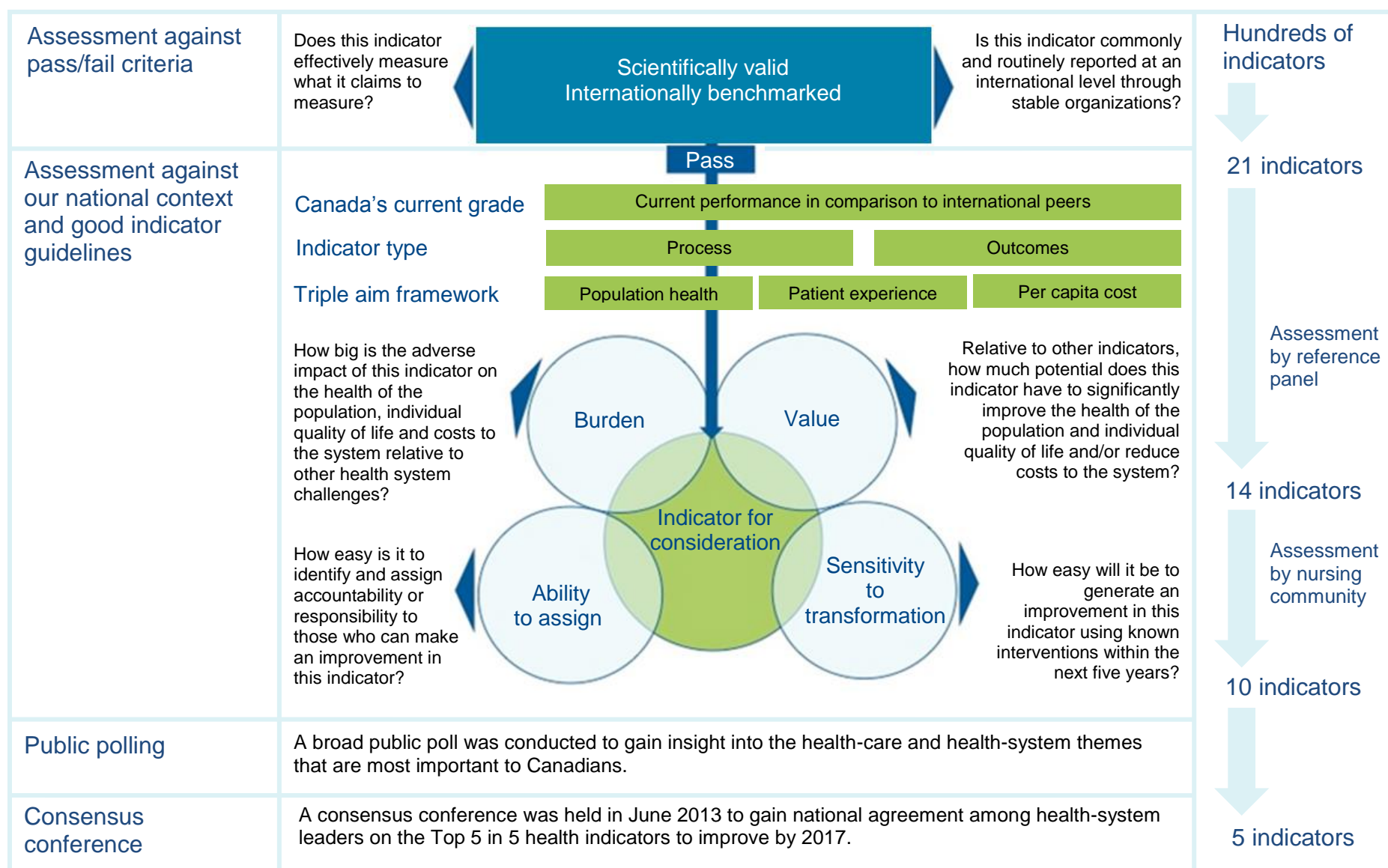
First, we agreed that indicators should be assessed against the pass/fail criteria of international comparability and scientific validity. International comparability was important to ensure (1) points of reference for Canada's current and target performance; and (2) that measures line up against current reporting frameworks and reduce indicator chaos. Scientific validity was important for ensuring that the indicators used would not be unsound (see Figure 2).

Critically appraising indicators

- “Does this indicator measure a sufficiently important question/service?”
- If you are considering a set of indicators, is it a balanced set?
- Does this indicator actually measure what it is claiming to measure?
- Are sufficiently reliable data available at the right time, for the right organizations with the appropriate comparators?
- Will the indicator be able to detect and display a variation that is important enough to warrant further investigation?
- If the indicator is high or low, what does it actually tell you, and does it give enough accurate and precise information for you to be able to investigate further and take any necessary action?
- Can the indicators be understood (and deconstructed) in order to understand the particular reasons for the results?
- Can the implications of the indicator results be communicated to and believed/appreciated by the right audience?
- Is there sufficient understanding of the system so that any issues identified can be investigated further and addressed effectively?
- Can the indicator monitor the issue regularly enough so that further investigation and action can be taken before the issue is revisited?”

~ *The Good Indicators Guide*, (pp. 23-25)

Figure 2: Process for assessing, ranking and selecting indicators



Second, we agreed that indicators should be assessed against our national context. Candidate indicators should be those for which Canada can (1) maintain strong performance, (2) raise its performance level to a position of international leadership in five years, or (3) show the kind of substantial improvement over five years that could reduce the burden of poor health in Canada. As such, this step included comparing Canada's current ranking for each indicator with international peers, and classifying indicators both by type (process versus outcomes, see definition in Appendix A) and by the "triple aim" framework²⁰ (population health, patient experience, per capita cost), so we could evaluate them through several key aspects of health-system change. Categorizing indicators in this way helped to ensure an overall balance in Canada's Top 5 in 5.

Third, based on our own objectives and good indicator guidelines, we agreed to assess indicators against the following four filters:

- **Burden:** Relative to other health-system challenges, how adversely does this indicator impact the health of the population, individual quality of life and costs to the system?
- **Value:** Relative to other indicators, how significantly can this indicator improve the health of the population, individual quality of life and/or reduce costs to the system?
- **Ability to assign accountability:** How easily can we identify and assign accountability or responsibility to those who can improve this indicator?
- **Sensitivity to transformation:** How easily can we improve this indicator within the next five years using known interventions?

These filters helped narrow the indicator pool to measures of health performance that are both important and valuable to the health of Canadians and for which there are reasonable and identifiable ways to improve Canada's performance within the next five years.

The result (see Figure 2) is a framework for selecting a small set of quality indicators, aligned with the objectives of this work, that will enable Canada to be focused and purposeful in its commitment to health-care improvement.

Step 3: Assessing and ranking indicators

In total, 21 indicators met the pass/fail criteria and emerged as potential candidates for Canada's Top 5 in 5. These indicators were sourced mainly from three organizations: the World Health Organization, the Organisation for Economic Co-operation and Development and the Commonwealth Fund, all of which produce regular, comprehensive and internationally benchmarked health measures. Table 1 shows the list of indicators that met the pass/fail criteria.

Table 1: Indicators for consideration

Number	Indicator
1	Five-year relative survival rate for breast cancer
2	Mortality from cardiovascular disease
3	Hospital admission for age-standardized, uncontrolled, diabetes-related conditions
4	Standardized hospital admission rate for asthma
5	Cervical cancer screening
6	Diabetes-related amputation of lower extremity
7	In-hospital mortality after admission for acute myocardial infarction, per 100
8	Mortality amenable to health care
9	Daily adult smokers
10	Postoperative sepsis
11	Neonatal mortality
12	COPD hospital admission rates, population age 15 and over
13	Catheter-related bloodstream infections
14	Childhood obesity
15	Access to primary care doctor
16	Access to specialized diagnostic tests from primary care
17	Practice uses nurse case-managers or navigators for patients with serious chronic conditions
18	Electronic access for patients — request appointments or referrals online; request refills for prescriptions online; use e-mail for medication questions
19	Patients can get same- or next-day appointment
20	After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital emergency department
21	Income inequality

Initial analysis

An initial analysis revealed that Canada is currently among the world's top performers (top third of the distribution) in six of these 21 indicators and could therefore show unquestionable international leadership on them within the next five years. These six were assigned an "A" grade for current international performance. A "B" grade was given to an additional eight indicators for which Canada's international leadership within five years could be significant (second third).

The remaining seven indicators, which did not reach the top international performance level over a five-year period, were assigned a "C" grade (bottom third). These indicators represent important measures of access and patient-experience for which Canadian performance is poor compared to international peers; however, rapid improvement is still possible with the right interventions, and the potential remains for Canada to become a moderate or even a leading performer on these measures.

Gap analysis

Together, the 21 indicators under consideration crossed the entire continuum of care. Yet, particular emphasis came from the acute-care domain, where health data is most-readily available and where poor quality, efficacy and access to primary, community and home-based care are well-documented (e.g., admission for uncontrolled diabetes).

In contrast, and despite the fact that approximately seven per cent of Canadians over the age of 65 live in health-care institutions,²¹ little quality data was available for the long-term care domain. The interRAI organization is building some initial international measures of long-term care into its family of tools, but these do not yet allow comprehensive comparisons across countries.²² Because the financial burden of long-term care has increased over recent decades (and is projected to continue), CNA is undertaking an initiative that is focused on nursing-sensitive indicators, including those related to long-term care.

Due to a dearth of scientifically comparable international evidence, indicators for mental health are not part of the indicator set, even though mental health is a significant health-system issue. Approximately 450 million people worldwide experience mental disorders.²³ In Canada, the financial burden of mental health disorders is said to cost about \$50 billion.²⁴ We hope our current work on indicators will help to highlight for our national health-care leadership the need for a consistent measurement of Canada's mental health burden and treatment performance.

In addition, it is not clear how indicators of the social determinants of health could be moved to top flight performance in the short period of time required by this study (five years). These factors — including income, social support, level of education, housing and food security, literacy, employment, working conditions and gender — align closely with the health of Canadians. Income inequality has proven to be a significant predictor for physical and mental health outcomes¹ and should be considered a priority for future measurement efforts.²⁵ The relative absence of measures for the social determinants of health in this report does not imply any lack of importance; rather, it shows that Canada must commit to longer-term strategies to assess the impact and improve performance on many of these indicators.

Assessment by reference panel

A reference panel of Canadian health-system leaders was convened to help assess which indicators to include in Canada's Top 5 in 5 (see Appendix C for panel membership).

Using a simple three-point scale, where 1 is low and 3 is high, the panel ranked each indicator by equally-weighting the previously-mentioned attributes (p. 15) of (1) burden, (2) value, (3) ability to assign accountability, and (4) sensitivity to transformation. The panel then ranked the indicators based on a total score for each. Indicators with the highest scores were prioritized for inclusion in the Top 5 in 5.

The reference panel's assessment led to the elimination of eight indicators and the addition of a 22nd, childhood vaccination, signalling the importance placed on health status and health outcomes by the group. This assessment left 14 indicators for consideration (identified in blue, Table 2.) Details of the analysis are outlined in Appendix D.

Table 2: Indicators selected by reference panel

Number	Indicator
1	Five-year relative survival rate for breast cancer
2	Mortality from cardiovascular disease
3	Hospital admission for age-standardized, uncontrolled, diabetes-related conditions
4	Standardized hospital admission rate for asthma
5	Cervical cancer screening
6	Diabetes-related amputation of lower extremity
7	In-hospital mortality after admission for acute myocardial infarction, per 100
8	Mortality amenable to health care
9	Daily adult smokers
10	Postoperative sepsis
11	Neonatal mortality
12	COPD hospital admission rates, population age 15 and over
13	Catheter-related bloodstream infections
14	Childhood obesity
15	Access to primary care doctor
16	Access to specialized diagnostic tests from primary care
17	Practice uses nurse case-managers or navigators for patients with serious chronic conditions
18	Electronic access for patients — request appointments or referrals online; request refills for prescriptions online; use e-mail for medication questions
19	Patients can get same- or next-day appointment

20	After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital emergency department
21	Income inequality
22	Childhood vaccination

Legend:

Selected

Eliminated

Added

Assessment by the nursing community

The development of this report started with the CNA National Expert Commission's call for nurses to contribute to the discussion on health-system priorities. As such, it was important to call upon the broader nursing community to help assess the remaining indicators for inclusion in Canada's Top 5 in 5. A summary and count of the nursing community members consulted is provided in Appendix E.

Using the same simple three-point scale, where 1 is low and 3 is high, the nursing community rated each indicator on the previously-mentioned attributes (p. 15) of (1) burden, (2) value, (3) ability to assign accountability, and (4) sensitivity to transformation in order to generate a total score. Indicators with the highest scores were prioritized for inclusion in the Top 5 in 5.

The nursing community assessment resulted in the elimination of four indicators, leaving a total of 10 indicators for consideration (in blue, Table 3). Details of the analysis are outlined in Appendix F.

Table 3: Indicators selected by nursing community

Indicator #	Indicator	Indicator rank
2	Mortality from cardiovascular disease	5th
3	Hospital admission for age-standardized, uncontrolled, diabetes-related conditions	6th
5	Cervical cancer screening	10th
8	Mortality amenable to health care	
9	Daily adult smokers	9th
10	Postoperative sepsis	3rd
11	Neonatal mortality	
12	COPD hospital admission rates, population age 15 and over	
13	Catheter-related bloodstream infections	
14	Childhood obesity	8th
17	Practice uses nurse case-managers or navigators for patients with serious	2nd
18	Electronic access for patients — request appointments or referrals online; request refills for prescriptions online; use e-mail for medication questions	7th
20	After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital emergency department	1st
22	Childhood vaccination	4th

Legend

Selected

Eliminated

Step 4: Understanding public priorities

To better understand the health-care priorities of the average Canadian, a public poll was conducted through Nanos Research. Poll dimensions were adapted from the Institute of Medicine's widely used domains of health-care quality.²⁶

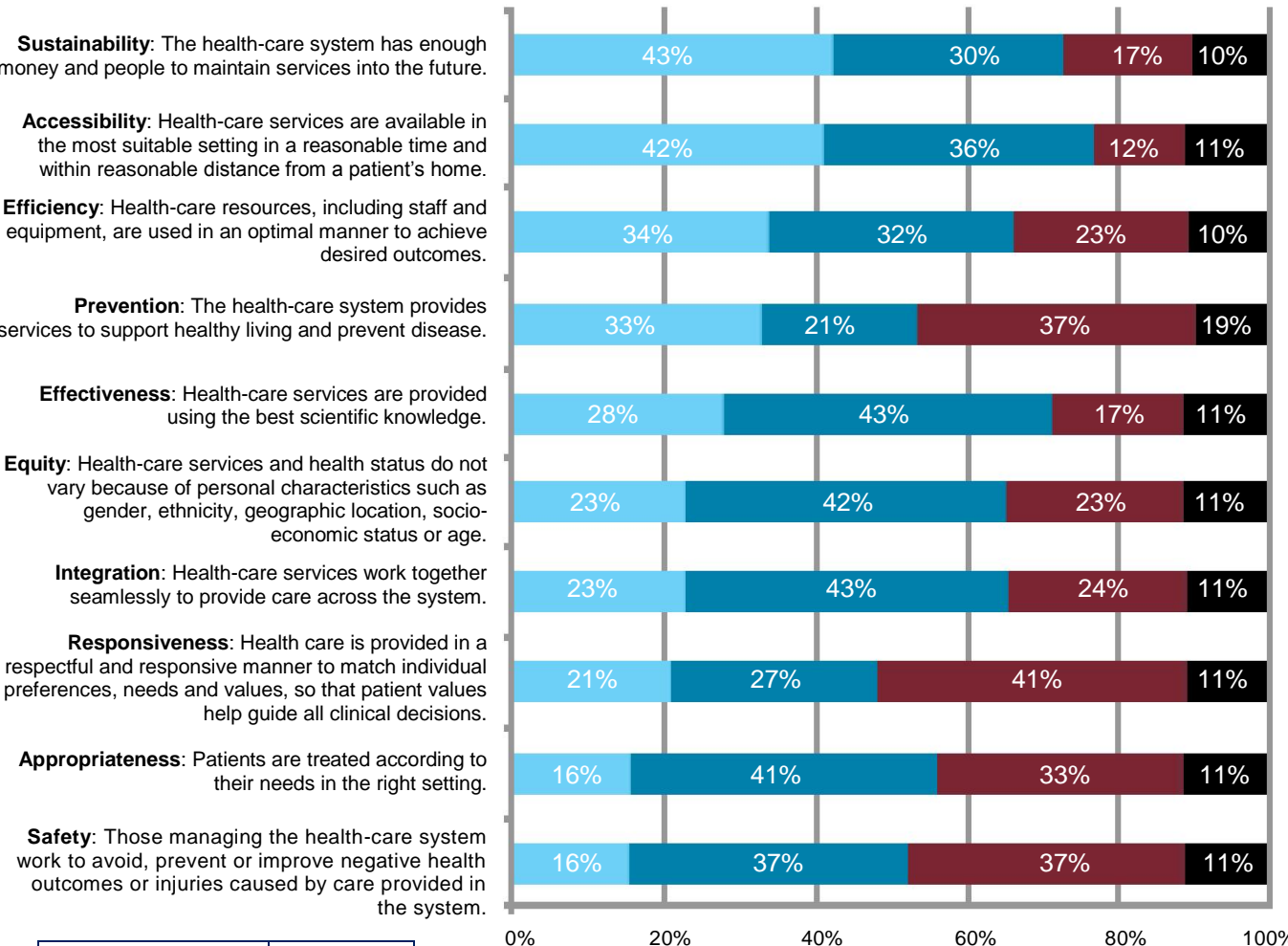
More than 1,000 people, balanced by gender, age and location across the country, were asked to rank ten dimensions of health care and health-system performance, including sustainability, accessibility, efficiency, prevention, effectiveness, equity, integration, responsiveness, appropriateness and safety.

In general, respondents tended to rank the health-care system's ability to serve Canadians — that is, in such areas as sustainability, accessibility and efficiency — ahead of areas related to quality of service, such as responsiveness or appropriateness. Safety was the least likely area to be ranked as a top potential priority.

A summary of public poll results and tabulations can be found in Figure 3. The detailed results of our public polling are given in Appendix G.

Figure 3: Summary of public polling results

Question — The following is a list of potential priority areas to help improve Canada’s health-care system within the next five years. Please rank each potential priority area in terms of its importance. Write a 1 next to the most important potential priority area, a 2 next to the second most important potential priority area, a 3 next to the third most important potential priority area, and so on.
[Randomize] (n= 1,002)



Potential Priority Area	Mean Ranking
Accessibility	4.2
Sustainability	4.3
Effectiveness	5.0
Efficiency	5.0
Equity	5.4
Integration	5.5
Prevention	5.7
Appropriateness	6.2
Responsiveness	6.4
Safety	6.5

Step 5: Gaining consensus

A CNA-sponsored consensus conference, held in Ottawa on June 5, 2013, brought together key health leaders, decision-makers, researchers and experts involved in population health and indicator measurement. Conference participants, representing governments, agencies, provider organizations, health regions and hospitals, sought to gain national agreement on the five health indicators Canada would strive to improve over the next five years. A full conference agenda and summary, including a list of conference participants, is available in Appendix G.

The importance of alignment across organizations was a common theme of the discussion. Participants welcomed the opportunity to establish a common set of health-improvement indicators and to continue to collaborate on advancing Canada's health-performance agenda.

“By focusing as a group we have the ability to get everyone pulling in the same direction, which is critical for this approach.”

~ Consensus conference participant

Shortlist of indicators

Following from the assessment and ranking of indicators by the reference panel and the nursing community, conference participants were provided a short list of ten indicators to consider for Canada's Top 5 in 5. These included:

1. **After-hours arrangements so that patients can access their doctor or nurse without going to a hospital emergency department**
2. **Practice uses nurse case-managers or navigators for patients with serious chronic conditions**
3. **Postoperative sepsis**
4. **Childhood vaccination**
5. **Mortality from cardiovascular disease**
6. **Hospital admission for age-standardized, uncontrolled, diabetes-related conditions**
7. **Electronic access for patients: to request appointments or referrals online, to request refills for prescriptions online and to use e-mail for medication questions**
8. **Childhood obesity**
9. **Daily adult smokers**
10. **Cervical cancer screening**

For each of the ten shortlisted indicators, a high-level target for 2017 was set by first determining Canada's current ranking. Indicators in which Canada was in the top third were set to maintain their current place in the rankings until 2017; those in which Canada was in the middle or bottom third were set to improve toward the ranking of a reference country by 2017. Each reference country selected was based on an approximate ranking in international comparisons, as a benchmark for Canada to target or beat. A more precise targeting would require additional (intercept) modelling and consensus around key assumptions (which may be worth considering as an additional further step).

Detailed fact sheets for each shortlisted indicator can be found in Appendix H. The fact sheets contain definitions, information about Canada's current performance, the 2017 target and a rationale for including the indicator in Canada's Top 5 in 5.

Guidelines for selecting Canada's Top 5 in 5

Conference participants were asked to deliberate on Canada's Top 5 in 5 in small groups, using the following framework for decision-making:

Canada's Top 5 in 5 should provide a simple and compelling argument to support health-system and health-outcome transformation. When taken together, the Top 5 in 5 should weave an inspiring view of what we want Canada's health system to look like within five years — one that motivates our health-system leaders to act and our fellow Canadians to take notice.

Canada's Top 5 in 5 should provide a balanced approach to several important aspects of health-system change. This includes striking a balance between health status and health-system indicators.

Canada's Top 5 in 5 should reflect the priorities of the average Canadian. An understanding of current health priorities among Canadians was gleaned from a recent survey and used to select the indicators being considered as candidates (see Figure 3).

Canada's Top 5 in 5 should represent a health-care agenda that you and your province, territory or organization can stand behind. The success of this agenda will depend on the support of health organizations across Canada.

Conference discussion

Through their discussion, conference participants identified the following key concepts as additional considerations for decision-making and prioritizing around Canada's Top 5 in 5.

The focal point of health care in Canada must shift to the community. Our health system needs to move away from attempting to meet overwhelming health-service demands in acute care settings and toward preventing and managing illness in primary and community care settings, with more accessible and flexible services.

Health status should be recognized as an important measure of health performance. We must acknowledge that the health "system" is an insufficient area of focus for performance improvement, and that issues beyond "health care" must be addressed to fundamentally improve the health status of our population. Doing so will help modify or shift the demands on our system.

Issues of health equity and the social determinants of health must be acknowledged. Health inequities refer to differences in health outcomes across defined populations, which are avoidable, systematically unfair and related to social disadvantage.²⁷ Every health indicator has multiple dimensions when an equity lens is applied. A large body of research shows that the roots of health inequities lie in the broader social determinants of health — such as income, socio-economic status, educational attainment, gender or ethno-racial origin — and that poorer health outcomes are associated with individuals in less advantaged situations.²⁸ These factors must be considered as the work on Canada's Top 5 in 5 continues, particularly during the strategic and implementation planning stages.

A government-led collaborative approach is necessary to make real change. Reducing the burden of disease in Canada requires a comprehensive, integrated and sustained prevention strategy. Such a strategy should be led by government and establish non-governmental partnerships to enhance outcomes. While the health-care sector has an important role in prevention, many — if not most — government policies affecting health originate outside the health-care sector. For example, a recent Alberta survey counted 23 federal and 21 provincial agencies and departments (in addition to municipalities) that contributed to the public-health agenda.²⁹

A new way of working together is required to meet our collective health-performance goals. To achieve our targets for 2017, we require active leadership and participation at all levels of our health-care system, including government, agencies, service organizations, providers and patients. There is room for one or more groups to amplify these efforts.

Part 3: Canada's Top 5 in 5

The following section describes Canada's Top 5 in 5. Each of the top five indicators is described along with a target for achievement within the next five years, based on comparator countries.


“We are drowning in a barrage of indicators around health and health care.”

“People who work in the system need clarity and consensus so we are not heading off in many directions.”


~ Consensus conference participants

Canada's Top 5 in 5 health-improvement indicators for 2017


1. After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital emergency department

Definition	Percentage of practices having arrangements for after-hours care to see their doctor or a nurse.
What this indicator measures	The purpose of this indicator is to measure the accessibility to primary health care.
Total consensus score	5 out of 5
Current grade	C
Current performance	45% of Canadian practices have after-hours arrangements. ²⁹
Current international ranking	10/11 ³⁰
Reference country for target 	New Zealand: 3/11 ³⁰
Canada's target for 2017	90% of practices offering after-hours arrangements.
Why this indicator is important	<ul style="list-style-type: none"> • 65% of Canadians report difficulties receiving after-hours care.³¹ • Poor after-hours arrangements lead to overuse of emergency departments.³¹ • Canadians' primary physicians are rated poorly regarding after-hours care.³² • Compared to 2006, no major improvement was achieved for this indicator.³²


2. Practice uses nurse case-managers or navigators for patients with serious chronic conditions

Definition	Percentage of practices using nurse case-managers or navigators for patients with serious chronic conditions.
What this indicator measures	The purpose of this indicator is to measure the coordination of care.
Total consensus score	4.5 out of 5
Current grade	C
Current performance	44% of Canadian practices use nurse case-managers or navigators for patients with serious chronic conditions. ³⁰
Current international ranking	7/10 ³⁰
Reference country for target 	New Zealand: 3/10 ³⁰
Canada's target for 2017	68% of practices using nurse case-managers or navigators for patients with serious chronic conditions.
Why this indicator is important	<ul style="list-style-type: none"> • Improving the quality of care can be achieved through efficient coordination between care providers.³⁵ • Nurses are often placed in the position of case managers because of their specific skills and knowledge.³⁵


3. Primary care electronic access for patients: to request appointments or referrals online, to request refills for prescriptions online and to use e-mail for medication questions

Definition	Percentage of primary care practices offering electronic access for their patients.
What this indicator measures	This indicator's purpose is to measure the accessibility to health care.
Total consensus score	5 out of 5
Current grade	C
Current performance	<ul style="list-style-type: none"> • 7% of practices allow appointment requests or referrals online. • 6% of practices allow prescription requests online. • 11% of practices offer e-mail communication for medical questions.³⁰
Current international ranking	11/11 ³⁰
Reference country for target 	Germany: 6/11 ³⁰
Canada's target for 2017	<ul style="list-style-type: none"> • 22% of practices allow appointment requests or referrals online. • 26% of practices allow prescription requests online. • 45% of practices offer e-mail communication for medical questions.
Why this indicator is important	<ul style="list-style-type: none"> • Online communication is seen as a hopeful development for patients' interactions with their physicians.³³ • Without information technology to share data securely across the continuum of care, integration and coordination between care providers is much more difficult. • E-prescription tools are used by about 50% of Canadian primary care physicians.³² • E-prescriptions offer the following potential advantages: <ul style="list-style-type: none"> - Reducing the incidence of medication and dispensing errors. - A potential decline in adverse drug reactions. - More timely transmission of prescription information from practitioners to pharmacists and improved convenience for patients.³⁴ • Our new environment means patients are demanding the benefits that good technology can bring: open access to information, the ability to easily interact with care providers and peers, and active participation in care.

4. Hospital admission for age-standardized, uncontrolled, diabetes-related conditions

Definition	All non-maternal hospital discharges (age 15+) with a principal diagnosis code for uncontrolled diabetes, without mention of a short-term or long-term complication in a specified year, per 100,000 population.
What this indicator measures	The purpose of this indicator is to measure avoidable hospital admissions through better management and care in the community.
Total consensus score	3.5 out of 5
Current grade	A
Current performance	15.2 Canadians per 100,000 are admitted for uncontrolled diabetes-related conditions ¹³
Current international ranking	3/18 ¹³
Reference country for target 	Canada: 3/18 ¹³
Canada's target for 2017	Maintain our current performance and place in rank.
Why this indicator is important	<ul style="list-style-type: none"> • If undiagnosed, diabetes is a risk factor for developing cardiovascular diseases.³⁶ • Suffering from diabetes leads to a higher risk for sight loss, foot and leg amputation, and kidney failure.³⁶ • Diabetes is ranked as the seventh greatest cause for mortality in Canada.³⁷ • The financial burden of diabetes in Canada is estimated to be about \$9 billion a year.³⁷ • Canada's approach to diabetes management serves as a model for the management of other chronic diseases, for which performance is not as strong.

5. Childhood obesity

Definition	Overweight and obese children are those whose body mass index (BMI) is above a set of age- and sex-specific cut-off points.
What this indicator measures	The purpose of this indicator is to measure nutritional imbalance and malnutrition, causing overweight. ¹³
Total consensus score	3.5 out of 5
Current grade	C
Current performance	29% of Canadian children between the ages of 12-17 are overweight and obese. ³⁸
Current international ranking	21/29 ³⁸
Reference country for target 	France: 9/29 ³⁸
Canada's target for 2017	19% of Canadian children between the ages of 12-17 are overweight and obese.
Why this indicator is important	<ul style="list-style-type: none"> • Being overweight and obese hold the fifth rank in leading risk factors for global deaths.³⁹ • In 2011, about 40 million children younger than five years were overweight.³⁹ • The problem of overweight children is no longer thought of as a problem for high-income countries only; about three-quarters are living in developing countries, ten million in developed countries.³⁹ • Childhood obesity is considered a risk factor for future obesity, premature death and future disability.³⁹ • We see childhood obesity as a root cause, which, if reduced, could have a positive domino effect on the future health of our population. • Provincial ministers are setting aspirational targets for the reduction of childhood obesity.⁴⁰

Canada's Top 5 in 5 goals in relation to the health-indicator goals

Top 5 in 5 goal	Indicator
Increase the percentage of primary care practices offering after-hours care.	Percentage of practices having arrangements for after-hours care to see their doctor or a nurse.
Increase chronic disease case management and navigational capacity in primary care.	Percentage of primary care practices using nurse case-managers or navigators for patients with serious chronic conditions.
Increase Canadians' access to electronic health information and services.	Percentage of primary care practices offering electronic access for their patients.
Decrease hospital admissions uncontrolled diabetes-related conditions.	All non-maternal hospital discharges (age 15+) with principal diagnosis code for uncontrolled diabetes, without mention of a short-term or long-term complication in a specified year, per 100,000 population.
Decrease the prevalence of childhood obesity.	Overweight and obese children are those whose body mass index (BMI) is above a set of age- and sex-specific cut-off points.

The case for Canada's Top 5 in 5

Canada's Top 5 in 5 represents systemic issues that have a high health burden and a corresponding value for the Canadian population

Key health leaders from across Canada ranked the Top 5 in 5 health indicators as having a substantial impact on the health of the population, individual quality of life and the cost of the health-care system (relative to other health-system challenges). Accordingly, health leaders also ranked the Top 5 in 5 indicators as having great potential to significantly improve the health of the population and individual quality of life while reducing health-care costs. These indicators will frame the areas for improvement and target-setting over the next five years.

Canada's Top 5 in 5 reflects public priorities for health-care and health-system change

The public polling undertaken as part of this initiative shows that Canadians prioritize the health-care system's ability to serve their needs ahead of the quality of the service they receive. Canada's Top 5 in 5 reflects this prioritization by focusing primarily on improvements to accessibility, efficiency, the effectiveness of chronic disease prevention and management, and equity. It shifts our focus from acute

care settings to primary and community-based care, chronic disease prevention and management, increased patient participation and improved patient experience through the entire continuum of care.

Canada's Top 5 in 5 strikes a balance between health-system and health-status improvement

Health leaders agree that we need to consider issues of population health status and equity, in addition to issues in the health-care system. While the Top 5 in 5 indicators are primarily focused on improving processes in the health-care system, most indicators enable access to community-based care, which has the greatest potential for health-status improvement, disease prevention and an increased focus on the social determinants of health.

Canada's Top 5 in 5 insists on the imperatives of population health and health equity for all

Health inequities refer to differences in health outcomes across defined populations, which are avoidable, systematically unfair and related to social disadvantage. Every health indicator has multiple dimensions when we apply an equity lens. A large body of research shows that the roots of health inequities lie in the broader social determinants of health — such as income, socio-economic status, educational attainment, gender or ethno-racial origin — and that poorer health outcomes are associated with individuals in less advantaged situations. Improving performance will also mean improving the equity of performance, so population health and equity provide an underlying context for Canada's ongoing Top 5 in 5 work.

Canada's Top 5 in 5 represents a Canadian health-care agenda that health leaders, service organizations, providers and patients can stand behind

The vast majority of participants at the consensus conference indicated that this work is well-aligned with their organization's interests, and that they are committed to moving the Top 5 in 5 agenda forward. Nearly two-thirds were willing to seek endorsements for the Top 5 in 5 from their organizations.

Canada's Top 5 in 5 provides an important point of focus for our nation's health-care stakeholders

Today, governments, health agencies, associations, planning and service-delivery organizations, providers, patients and the public are sending the same message: that we simply cannot continue along our current path. Many have developed reports and measures to illuminate this message. In the current environment of "indicator chaos," and with uncertainty about the federal government's role in health care, a collective and focused vision is welcome.

Unlike previous efforts at national health-system change, our future approach must be much more focused on aligning our goals and assigning roles for achieving them throughout the entire health portfolio. The process used to arrive at Canada's Top 5 in 5 involved broad consensus-building with key stakeholders across Canada. Likewise, the path forward will involve collaboration, leadership and participation at every level of health care.

Part 4: Where to from here?

“Now is the time to move from aspiration to action.”

~ Consensus conference participant

While Canada’s Top 5 in 5 provides an important launching point for targeted health and health-care improvement, much work remains if we are to ensure that our nation can meet the 2017 performance targets. The following steps outline a series of recommendations to move Canada’s Top 5 in 5 to the forefront of Canada’s health-care agenda.

Step 1: Building broader consensus

As a first step, the salience of the Top 5 in 5 should be further confirmed and validated through a broadened consensus and commitment across a wide range of Canadian health-care organizations, providers and patients. It will be important to develop an integrated action plan and policy framework that articulates a series of multi-level recommendations to achieve measurable improvements on Canada’s Top 5 in 5 at the national level.

Step 2: Building strategic leadership

As a second step, a meeting should be convened that would leverage new and existing partnerships in order to advance collaborative improvement strategies for achieving Canada’s Top 5 in 5 at federal, provincial and territorial levels. Forming and activating a “healthy Canada alliance” (as a multi-stakeholder coalition of the ready, willing and able) should be considered as a means to advance broader adoption of recommendations outlined in Canada’s Top 5 in 5 action plan. Here, an opportunity exists for one or more groups to act as a catalyst for this work. With the development of the Top 5 in 5 health indicators, CNA has demonstrated the type of collaborative leadership that will be required in the current health environment.

Step 3: Building accountabilities

As a third step, Canada’s Top 5 in 5 leaders should build partnerships and identify specific accountabilities within organizations across Canada that will ensure the Top 5 in 5 agenda is moved forward. This step includes detailed tactical planning along with the broad involvement of health-system leaders, agencies, associations, planning and service-delivery organizations, and providers who are committed to driving the Top 5 in 5 in their own communities and spheres of influence. A critical success factor will involve measuring and reporting publicly on Canada’s Top 5 in 5 indicators at a level of detail that stimulates all responsible parties to take action — at the provincial or territorial level as well as at the level of the health-service provider (e.g., in regions, hospitals or clinics).

Overall, participants at the consensus-conference felt strongly that Canada's Top 5 in 5 initiative should move quickly toward implementation in order to meet the important health performance targets that have been set for 2017.

The timing is right. Now, more than ever, Canada is poised to make great strides in its health performance. The investments of the past decade have brought measurement and reporting into the mainstream of Canada's health-care system, and organizations throughout our country are engaged in efforts to drive improvements in health processes and outcomes.

This report is the beginning of a movement to harness that capacity in a focused way and to bring together the wealth of goodwill, insight, effort and skill that exist across our country. By working together toward shared goals, Canada's health-care stakeholders can accomplish something truly significant.

It is now for you, as important stakeholders in the health-care community, to claim your place in this exciting process and to embrace Canada's Top 5 in 5 as your own health-care agenda. Help drive better health, better care and better value for all Canadians.

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Appendix A: Process versus outcome measures

Measure definition according to type

Donabedian’s structure-process-outcome model is a useful framework for quality assessment that illustrates the link between process and outcome measures.

Before [quality] assessment can begin we must decide how quality is to be defined and that depends on whether one assesses only the performance of practitioners or also the contributions of patients and of the health care system. [To adequately assess quality of health care] we also need detailed information about the causal linkages among the structural attributes of the settings in which care occurs, the processes of care, and the outcomes of care.* (p. 1743)

Structural measures — measures of organizational characteristics (such as staffing ratios or number of hospital beds).

Process measures — interactions between health-care practitioners and patients; a series of actions, changes or functions bringing about a result (such as a mammography screening rate).

Outcome measures — changes (desirable and undesirable) in individuals and populations that are attributed to health care. There are a variety of outcome measures and ways to label them, including

- those representing an end result (such as mortality or function);
- intermediate outcomes (physiologic or biochemical values, like blood pressure or LDL value), which precede and may lead to longer range end-result outcomes; and
- proxies used to indicate an outcome (such as hospital readmission rates, which indicate deterioration in health status since discharge). These can be the same as process measures.

Some types of outcome measures and examples:

Type of outcome measure	Example
<ul style="list-style-type: none">• Health-care-acquired adverse event• Patient function• Mortality• Intermediate clinical outcome	<ul style="list-style-type: none">• Surgical-site infection• Performance of activities of daily living• ICU mortality• Improvement in blood pressure/ blood pressure under control
<ul style="list-style-type: none">• Service utilization as proxy for patient outcome• Morbidity, related to disease control• Health, related quality of life	<ul style="list-style-type: none">• Return to higher level of care (ICU)• Blindness related to diabetes• Social role and mental capacity

* Donabedian, A. (1988). The quality of care: How can it be assessed? *JAMA*, 260(12), 1743-1748.

Appendix B: Initial analysis of Canadian international performance on indicators

Indicator	Desired direction	Canada's current grade	Performance compared to international peers	Process (P) or outcome (O)	Primary IHI triple aim framework category
Postoperative sepsis	▼	A	5/14	O	Population health & patient experience
COPD hospital admission rates, population age 15 and over	▼	B	11/23	P	Per capita cost
After-hours arrangements so that patients can see their doctor or nurse without going to a hospital emergency department	▲	C	10/11	P	Patient experience
Mortality amenable to health care	▼	B	11/31	O	Patient experience
Electronic access for patients - request appointments or referrals online; request refills for prescriptions online; e-mail for medical questions	▲	C	11/11	P	Patient experience
Childhood vaccination	▲	C A A	DTP3: 26/34 Measles: 6/34 Polio: 4/34	P	Population Health
Mortality from cardiovascular disease	▼	A	3/28	O	Population health
Hospital admission for age-standardized, uncontrolled, diabetes-related conditions	▼	A	3/18	P	Patient experience & per capita cost
Cervical screening rates	▲	A	6/21	P	Population health
Practice uses nurse case-managers or navigators for patients with serious chronic conditions	▲	C	7/10	P	Patient experience
Daily adult smokers	▼	A	5/24	O	Population health
Neonatal mortality	▼	C	27/33	O	Population health
Catheter-related bloodstream infections	▼	B	7/14	P	Patient experience
Childhood obesity	▼	C	21/29	P	Population health
Five-year relative survival rate for breast cancer	▲	A	3/10	O	Population health
Standardized hospital admission rate for asthma	▼	A	2/32	P	Patient experience & per capita cost
In-hospital mortality admission for acute myocardial infarction, per 100	▼	B	6/13	O	Population health
Patients can get same- or next-day appointment	▲	C	11/11	P	Patient experience
Income inequality	▼	C	12/17	O	N/A
Diabetes-related amputation of lower extremity	▼	A	5/13	O	Population health
Access to primary care doctor after hours	▲	C	10/11	P	Patient experience
Access to specialized diagnostic tests from primary care	▲	C	7/10	P	Patient experience

Appendix C: Reference panel members

- Owen Adams, vice-president of health policy and research, Canadian Medical Association
- Paula Bond, vice-president of person-centred care, Capital Health
- Bonnie Brossart, chief executive officer, Saskatchewan Health Quality Council
- Susan Brown, vice-president of acute services, Interior Health
- Gail Dobell, director of evaluation, Health Quality Ontario
- Jack Kitts, president and chief executive officer, Ottawa Hospital
- Barbara Pitts, senior vice-president of priorities and performance, Alberta Health Services
- Marlene Smadu, vice-president of quality and transformation, Regina Qu'Appelle Health Region

Appendix D: Reference panel indicator assessment

Indicator	Burden	Value	Assignability	Sensitivity to transformation	Total
Postoperative sepsis	3	3	3	3	12
COPD hospital admission rates, population age 15 and over	3	3	3	3	12
After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital emergency department	3	3	3	3	12
Mortality amenable to health care	3	3	2	3	11
Electronic access for patients - request appointments or referrals online; request refills for prescriptions online; e-mail for medical questions	3	3	3	2	11
Childhood vaccination	3	3	2	3	11
Mortality from cardiovascular disease	3	3	2	2	10
Hospital admission for age-standardized, uncontrolled, diabetes-related conditions	3	3	2	2	10
Cervical screening rates	3	2	3	2	10
Practice uses nurse case-managers or navigators for patients with serious chronic conditions	2	2	3	3	10
Daily adult smokers	3	3	1	2	9
Neonatal mortality	3	3	1	2	9
Catheter-related bloodstream infections	2	2	3	2	9
Childhood obesity	3	3	1	2	9
Five-year relative survival rate for breast cancer	3	1	3	1	8
Standardized hospital admission rate for asthma	2	1	3	2	8
In-hospital mortality admission for acute myocardial infarction, per 100	1	2	3	2	8
Patients can get same- or next-day appointment	1	1	3	3	8
Income inequality	3	3	1	1	8
Diabetes-related amputation of lower extremity	1	2	2	2	7
Access to primary care doctor	2	2	1	2	7
Access to specialized diagnostic tests from primary care	2	2	1	2	7

Legend: Selected

Appendix E: Nursing community members

Group A: Senior nursing leaders (n=7)

- Nursing leadership forum members
- Principal nurse advisors
- CNA past presidents

Group B: CNA membership representation (n=13)

- CNA board members
- Jurisdictional executive directors

Group C: General nursing (n=43)

- Canadian Network of Nursing Specialties members (sent to all presidents)
- Certified nurses (represented by the 170 nurses involved in preparing exam questions across all specialties)

Group D: All representatives of the Health Action Lobby (HEAL) and other members of Group C (n=4).

HEAL is a coalition of 41 national health organizations representing a broad cross-section of health providers, health regions, institutions and facilities. Other agencies invited to participate in the survey include (but are not limited to) the following: Health Canada (including the First Nations and Inuit Health Branch), the Health Council of Canada, the Canadian Patient Safety Institute, the Canadian Foundation for Healthcare Improvement, the Canadian Institutes of Health Research, the Canadian Institute for Health Information, Canada Health Infoway and the Public Health Agency of Canada.

Appendix F: Nursing community indicator assessment

Indicator	Burden	Value	Assignability	Sensitivity to transformation	Total
After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital emergency department	194.80	191.08	177.70	174.24	737.82
Practice uses nurse case-managers or navigators for patients with serious chronic conditions	168.90	191.20	176.85	164.76	701.71
Postoperative sepsis	169.50	169.72	190.70	165.88	695.80
Childhood vaccination	150.00	168.84	175.55	181.68	676.07
Mortality from cardiovascular disease	198.92	188.00	143.50	144.60	675.02
Hospital admission for age-standardized, uncontrolled, diabetes-related conditions	181.86	176.36	158.60	148.84	665.66
Electronic access for patients - request appointments or referrals online; request refills for prescriptions online; e-mail for medical questions	153.12	174.24	175.95	160.52	663.83
Childhood obesity	200.28	194.32	138.05	129.76	662.41
Daily adult smokers	193.20	183.72	129.60	150.88	657.40
Cervical screening rates	139.52	157.40	187.40	170.08	654.40
Catheter-related bloodstream infections	147.98	158.40	184.45	157.40	648.23
COPD hospital admission rates, population age 15 and over	174.72	165.84	155.35	146.84	642.75
Neonatal mortality	150.00	151.04	151.24	144.76	597.04
Mortality amenable to health care	167.54	160.60	131.80	133.12	593.06

Legend: Selected

Appendix G: Summary of consensus conference

Conference agenda

June 5, 2013		
Time	Item	Lead
8:30-8:45	Welcoming remarks	Rachel Bard, CEO, Canadian Nurses Association
8:45-8:50	Multimedia presentation	Melissa Heritage
8:50-9:10	Background on the CNA National Expert Commission	Judith Shamian, president, International Council of Nurses and immediate past president, Canadian Nurses Association
9:10-9:30	Introductions, context and overview	Terry Sullivan
9:30-10:00	Overview of framework for selection of the Top 10	Terry Sullivan
10:00-10:30	Approach to selecting the Top 5 — Applying the normative lens	Terry Sullivan
10:30-10:45	Break	
10:45-12:15	Making the case for the Top 5 — Group activity	Terry Sullivan
12:15-1:15	Lunch	
1:15-2:15	Making the case for the Top 5 — Building consensus	Terry Sullivan
2:15-2:30	Break	
2:30-3:30	Where to from here?	Terry Sullivan
3:30-3:50	Evaluation of the conference	All
3:50-4:00	Closing remarks	Rachel Bard

Setting the stage

On June 5, 2013, health leaders, decision-makers, researchers and experts involved in population health and indicator measurement, who represented governments, agencies, provider organizations, health regions and hospitals, joined an all-day session in Ottawa sponsored by the Canadian Nurses Association.

The day began with a welcome from Canadian Nurses Association CEO Rachel Bard, who highlighted the various health-reform efforts to create a responsive, effective and sustainable health system. Ms. Bard noted that more current efforts reflect the *Principles to Guide Health System Transformation in Canada*, jointly developed by CNA and the Canadian Medical Association and broadly endorsed by representatives of national, provincial and territorial organizations (Appendix I). She then mentioned the distinct features of Canada's Top 5 in 5, emphasizing the existing indicator chaos. In contrast, the Top 5 in 5 initiative's aim is to select indicator-based goals that

- add to and complement (rather than duplicate) past efforts;
- align with national, provincial/territorial strategies;
- are evidence-informed;
- are based on a priority-setting process; and
- seek consensus from a broad range of stakeholders, including Canadians.

Further underscoring the supplemental and integrated nature of this effort, Ms. Bard called attention to the context within which this work takes place. Specifically, that Canada's Top 5 in 5 harmonizes with

- the Institute for Healthcare Improvement's "triple aim" framework;
- the Canadian Institute for Health Information's draft conceptual framework;
- the social determinants of health, health equity and health disparities;
- primary health care principles and the *Principles to Guide Health System Transformation in Canada* (see Appendix I);
- international trends; and
- population health and nursing interventions.

In closing, Ms. Bard set the stage for the day ahead, where participants would achieve consensus on the indicators representing the priority focus for the health of Canadians and Canada's health system, as well as move toward agreement about the way forward.

Next, ICN President Judith Shamian, presented some of the background to the work of CNA's National Expert Commission (NEC) and the intentions behind Canada's Top 5 in 5 initiative.

In doing so, she acknowledged that the NEC work was just as much focused on positioning Canada as an international leader as it was on a set of priority goals for Canada's health and health system.

Following Ms. Shamian, each of the conference participants introduced themselves, provided some information about their background and offered a perspective on their expectations for the day.

Indicator-selection and decision-making processes

Under the guidance of the conference facilitator, Terry Sullivan, participants learned about the process used to select the 10 indicators being considered and the framework used to vet and narrow the original set of 22 down to those 10.

Developing consensus among conference participants began by introducing the results of recent public polling, which showed that Canadian's rank health-system attributes able to serve them as the most important. These include access, sustainability, efficiency, effectiveness, prevention and equity. Such health-system features were prioritized over quality-of-service aspects such as appropriateness, integration, responsiveness and safety.

With this information in mind, the six participants at each of the five table groups were asked to deliberate on and create their own top-five ranking from among the 10 candidate indicators, based on the following framework for decision-making:

- **Canada's Top 5 in 5 should provide a simple and compelling argument to support health-system and health-outcome transformation.** When taken together, the Top 5 in 5 should weave an inspiring view of what we want Canada's health system to look like within five years — one that motivates our health-system leaders to act and our fellow Canadians to take notice.
- **Canada's Top 5 in 5 should provide a balanced approach to several important aspects of health-system change.** This includes striking a balance between health status and health-system indicators.
- **Canada's Top 5 in 5 should reflect the priorities of the average Canadian.** An understanding of current health priorities among Canadians was gleaned from a recent survey (see Figure 3).
- **Canada's Top 5 in 5 should represent a health-care agenda that you and your province, territory or organization can stand behind.** The success of this agenda will depend on the support of health organizations across Canada.

Gaining consensus on Canada's Top 5 in 5

The ensuing extensive debate led to the following results. (Participants further agreed that these indicators tell a story about a larger priority with the health of Canadians.) Conference participants then worked to validate this list, after debating the removal of additional health-status indicators (e.g., childhood vaccinations), acknowledging the importance of income and other issues of equity. In the end, all agreed on the five priorities and began to build a narrative around them that would signal the required shift from hospital to community-based primary care, the importance of population health status on health-system demand, chronic disease prevention and management, and improving the patient experience through the entire continuum of care.

The following are the key themes outlined by conference participants:

1. The focal point of care needs to shift

- Our system needs to move away from trying to meet overwhelming health-service demand in acute care settings and move toward preventing and managing illness in primary and community-care settings, offering more accessible and flexible services.

2. Health status needs to be recognized in addition to health “system”

- Our system needs to reflect the idea that the health “system” is an insufficient area of focus. We must address issues beyond “health care” if we are to fundamentally improve the health status of the population and modify or shift the demands placed on the system.

3. A government-led collaborative approach is necessary

- Reducing the burden of disease in Canada requires a comprehensive, integrated and sustained prevention strategy led by government with non-governmental partnerships that create collaborative strength and enhance outcomes.

4. A new way of working together is required to meet these goals

- Leadership on a number of fronts is required to achieve these goals, but there is an opportunity for one or more to invigorate the effort.
- Patients need to play a role.

5. Health equity and social determinants of health must be acknowledged

- Each indicator looks different when we apply an equity lens to it: poorer health outcomes are associated with individuals in less advantaged situations, whether measured by income, socio-economic status, educational attainment, gender or ethno-racial origin.
- The roots of health inequities lie in the broader social determinants of health, and these factors must be considered as Canada’s Top 5 in 5 work continues, particularly during strategic- and implementation-planning work.

Where to from here?

The spirit of consensus and support was strong in articulating both the health goals derived from the final top-five indicators and the required next steps, which include broader consultation and consensus among key stakeholders, including patients and the public. A systematic and inclusive process to build a strategy and tactical plan to move this initiative forward would follow.

The vast majority of conference participants said that this effort is well-aligned with their organization’s interests, and they are committed to moving it forward. Close to two-thirds of participants indicated they would be willing to seek endorsement for this work from their organizations.

Gaining consensus on a point of focus is the first step in achieving health-system transformation. With agreement on a set of sound health-system goals, multiple partners can begin, in partnership, to work

on planning and implementing efforts to move Canada toward achieving these goals. As Canada's Top 5 in 5 initiative gets underway, CNA has demonstrated the type of collaborative leadership the health environment requires.

In terms of timing, conference participants felt strongly that moving this initiative forward must occur quickly in order to meet the five-year window for improvement — they were energized and eager to see forward movement.

Conference participants and the results of their evaluation of the day are listed below.

Conference participants

Name		Title and organization
John	Abbott	CEO, Health Council of Canada
Owen	Adams	Vice-president, Policy and Research, Canadian Medical Association (CMA)
Rachel	Bard	CEO, CNA
Paula	Bond	Vice-president, Person-Centred Care, Capital Health (CHESE)
Lisa	Brazeau	Director, Communications and Member Outreach, CNA (Observer)
Glenn	Brimacombe	President and CEO, Association of Canadian Academic Healthcare Organizations; Co-chair, Health Action Lobby (HEAL)
Susan	Brown	Vice-president, Acute Services, Interior Health
Gina	Browne	Professor, School of Nursing, McMaster University; Founder and Director, Health and Social Service Utilization Research Unit, McMaster University
Maureen	Charlebois	Chief Nursing Executive and Group Director, Canada Health Infoway
Jennie	Ding	Graduate Student, Dalhousie University (Observer)
Gail	Dobell	Director, Evaluation and Research, Health Quality Ontario
Phil	Dresch	Interim President and CEO, Canadian Healthcare Association
Susan	Duncan	President, Association of Registered Nurses of B.C.
Kimberley	Elmslie	Director General, Centre for Chronic Disease Prevention, Public Health Agency of Canada
Theresa	Fillatre	Senior Regional Director, Canadian Patient Safety Institute
Kate	Headley	External Communications Coordinator, Communications and Member Outreach, CNA (Observer)
Melissa	Heritage	Facilitator
Dennis	Kendel	Consultant, Alberta Health and Wellness
Jack	Kitts	CEO, Ottawa Hospital
Jennifer	Kitts	Senior Policy Analyst, Research and Policy, Canadian Healthcare Association
Darlene	Kitty	Director, Aboriginal Program, Faculty of Medicine, University of Ottawa; President, Indigenous Physicians Association of Canada

Name		Title and organization
Maude	Laberge	Science Policy Fellow, Health Care System Division, Health Canada
Nathalie	Lapierre	Nurse Consultant, Primary Care Division, Clinical and Client Care, Interprofessional Advisory Program Support Directorate, Government of Canada
Bernadette	MacDonald	Vice-president, Innovation and Development, Accreditation Canada
Patricia	McGarr	Director of Professional Practice, CNA
Lynn Anne	Mulrooney	Senior Policy Analyst, Registered Nurses Association of Ontario
Linda	Piazza	Senior Director, Collaboration Partnerships, Canadian Foundation for Healthcare Improvement (CFHI)
Barbara	Pitts	Senior Vice-president, Priorities and Performance, Alberta Health Services
Gabriela	Prada	Director, Health Innovation, Policy and Evaluation, Conference Board of Canada
Marcel	Saulnier	Director General, Health Care Strategies Directorate, Health Canada
Judith	Shamian	President, International Council of Nurses
Terry	Sullivan	Facilitator
Michael	Villeneuve	Secretariat, National Expert Commission (Observer)
June	Webber	Director, Policy and Leadership, CNA
Don	Wildfong	Senior Nurse Advisor, Leadership and Knowledge Translation, CNA
Andrew	Wray	Director, Learning and Strategic Initiatives, B.C. Patient Safety and Quality Council
Barb	Wright	Manager of Government Relations, CNA

Meeting evaluation results (n=26)

1. What were your expectations for the day and were these expectations met?

The majority agree we have consensus on Canada's Top 5 in 5. The specifics of the action plan have yet to be developed.

Expectation	Expectation Met/Unmet? (Y/N)
More consensus on indicators	Yes
Learning	Yes
Discussion	Yes
Consensus building	Yes
Collaboration among key players	Yes
Wasn't sure we would get there but we did	Yes
Consensus on five compelling transformation goals	Partially
Top 5 consensus	Yes
Plan to move forward	Somewhat
Identify five indicators	Yes
Prioritize indicators	Yes
Achieve consensus	Yes
To get to Top 5	Yes
To understand how we get there	Somewhat
Engagement and commitment to advance priority areas for action	Yes
To participate in a candid discussion about moving this agenda forward	Yes
Galvanize energy and attention on this priority setting agenda	Yes
Review health indicators, discuss relevance and prioritizes	Yes
Collaborate with other stakeholders to develop next steps	Yes
Think about how these discussions, decisions, next steps will eventually trickle down to the front line and impact the health of Canadians	Yes
Come together on a consensus to determine the Top 5 in 5	Yes
Develop an action/strategic plan going forward	No
Hold the participating organizations accountable for achieving the indicators	No
To come out with an action plan	Somewhat
Collaboration	Yes
Consensus	Yes
Discussion	Yes
Indicators must be bold and support health-system transformation	Yes
Reach consensus on Top 5 in 5	Yes
Be informed of other perspectives	Yes
Open and frank discussion	Yes
Learning	Yes
Reach consensus on five indicators	Yes
Understanding the importance of non-nursing indicators and challenges in meeting on a collaborative vision	Yes

Expectation	Expectation Met/Unmet? (Y/N)
Consensus on indicators form work presented by technical review (this is a very challenging topic, and the expectation for consensus in one day is likely too aggressive but is a good start)	Partially — not sure we got full consensus
Alignment for the work with multiple organizations	Yes
Achieve consensus on indicators	Yes
Stimulating conversation	Yes
Discuss a plausible vision for health in Canada	No
Discuss indicators that could be used to measure progress to that vision	Yes — to a certain extent
Learn about interest/commitment of key stakeholders in advancing transformation in Canada	Yes
To come to consensus on indicators	9 out of 10
Develop realistic next steps and a vision to achieve	3 out of 10
Measureable indicators	Yes
Indicators that will significantly improve the health of Canadians	TBD
Collaboration of stakeholders — good consensus building	Yes
Achieve consensus on indicators	Yes
Have rich discussions about the proposed indicators	Yes
Increase my knowledge of other organizations' perspectives on performance indicators	Yes
Address concerns about the conflation of health and health care — indicators on the list were more on health care than health	No
Concerns about implementation of health equity/social determinants of health	No
Clear articulation of five indicators	Would have liked to see reaffirmation at the end
Consensus articulated by group	(Maybe)
Clear next steps	No answer
To learn and trust the process of consensus building and diverse perspectives	Yes
To see how leaders can come together to make a difference — achieve momentum for a change	Yes
To identify levers for change in the area of indicators through collaborative action	Yes

2. Does this work align with your organization's interests using the following scale where 1 is low/not at all and 5 is high/very well-aligned?

The average individual score was 4.3 out of 5; the aggregate score was 111 out of 130 (n=26).

3. Overall what is your level of commitment for moving this agenda forward on the following scale where 1 is low and 5 is high?

The average individual score was 4.3 out of 5; the aggregate score was 111 out of 130 (n=26).

4. What would be a suggested next step for moving this work forward?

Most said expanded consultation and consensus building is required along with establishing an alignment with specific key partner organizations as well as a patient and public face. Most agree that a strategy and plan are needed following this consensus phase. Comments:

- Tactical strategy needs to align with provincial priorities and indicators.
- I think it's important to frame goals and purpose and broaden the consultation.
- Need to engage patients, citizens, provinces/territories, governments and health-quality councils in next steps.
- Clear leadership.
- Goals.
- Communication and marketing strategy.
- Dissemination and engagement strategy.
- Help provincial and federal ministries of health see the extent to which this large coalition supports their own recommendations for improvement, i.e., encourage ownership by helping them see this as helping the five per cent of high-cost users.
- This is a political platform that should be brought forward, not just by those involved in the system but by the public who can create the burning platform.
- Judith's suggestions were great — tactical plan from broader strategy.
- A public-facing event.
- Need second meeting to further discuss and develop written report and related campaign.
- Assign direct accountability to individual organizations in achieving the goals stated today.
- More physicians, unions, governments responsible at provincial level need to be in the conversation.
- How can the group continue to have ownership of the process — will CNA lead?
- Alignment with similar processes.
- Ownership by quality councils.
- Strong narrative that is focused on the public.
- Annual "taming-of-the-queue"-type meeting needed, so many stakeholders can feel ownership and momentum.

- We need to validate the output from today with governments, associations and health regions/networks.
- Seek alignment with provincial/territorial governments.
- This needs to be done in the very near term, as time is ticking (2017 is just around the corner) — this needs to be done soon.
- A lot of work to be done starting with quick report turnaround.
- Draft plan needs to be done by CNA.
- Further consensus needed around the “how” and the “who.”
- Map goals to indicators.
- Develop tactical plan.
- Identify group to move forward with plan.
- Health quality councils to monitor.
- Group to issue annual report card.
- Work with CMA and the Health Action Lobby (HEAL) to broaden ownership in provider community.
- Seek alignment with other goal-setting exercises/entities — Canadian Institutes of Health Research, Canada Health Infoway, i.e., e-health, Public Health Agency of Canada re: childhood obesity.
- Need to reverse the process: start by pursuing consensus on the vision and goals then select indicators to measure progress.
- How would you like the system to deliver 15 years from now? Focus on transformative change.
- Broaden the audience to include government, service-delivery organizations and patients.
- Driving this work forward requires broad acceptance and alignment, as it will be a difficult road.
- Tie-in with other “indicator initiatives” currently underway.
- Council of the Federation “buy-in”?
- Summary of the day including next steps.
- Paper in policy journal.
- Report on the evolution of Canada’s performance.
- Strategy for action to improve on the indicators.
- Media release.
- It might be helpful to frame the indicators as health-care system performance-markers to avoid reinforcing confusion about health care as the main/most significant driver of health.
- Thank you for the opportunity to participate.
- Keep momentum — publicize narrative and tactical plan with roll-out to provinces and territories.
- Keep narrative focused on population health and equity.
- Develop narrative, related stories and public-friendly statement of indicators.
- Small working group to articulate next steps.

1. **Would you be willing to seek endorsement from your organization for this work?**

Out of 26 surveys completed

- 15 said yes;
- 2 said yes, either with some reservation or the thought that more work is needed;
- 4 said not sure/willing;
- 3 said not applicable or did not answer;
- 1 said no; and
- 1 said no, as endorsement would be through political channels.

2. **Please write any other comments or suggestions below**


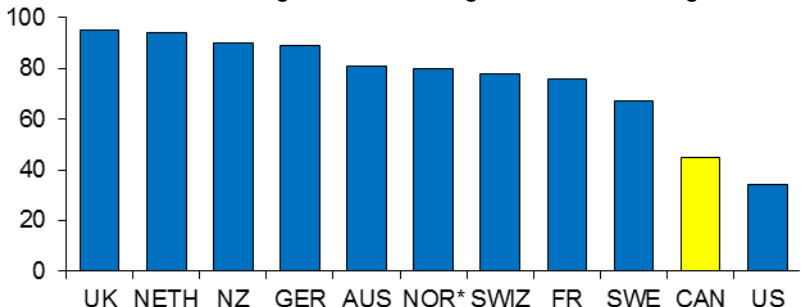
Comments:



- More content and development needed.
- Indicators not really framed as indicators — need to be put into a story.
- Nursing cannot lead without others.
- Excellent day.
- Very respectful and thoughtful discussions.
- Learned a lot.
- Productive.
- Thanks for inviting me.
- Great summary document to get the day going and fantastic facilitation.
Excellent initiative — let's get going.
- Great dialogue.
- Clearly, all felt need to improve health outcomes, status, access, etc.
- We need to take risks and step outside of our comfort zone to make strict black and white decisions.
- We need patient and public support, and its unfortunate that they are not represented today.
- First meeting needed to let people vent; however, we now need to get an action group organized.
- Excellent facilitation.
- Excellent preparatory process and materials.
- Congratulations to CNA for taking the lead.
- Be happy to continue to support and continue in any capacity going forward — great day.
Thanks Melissa, Terry and Steini.
- Coolest opening presentation ever.
- Excellent background prep and facilitation.
- Develop nursing-sensitive indicators separately.
- Come up with concrete actions for various professions/actors to get behind.


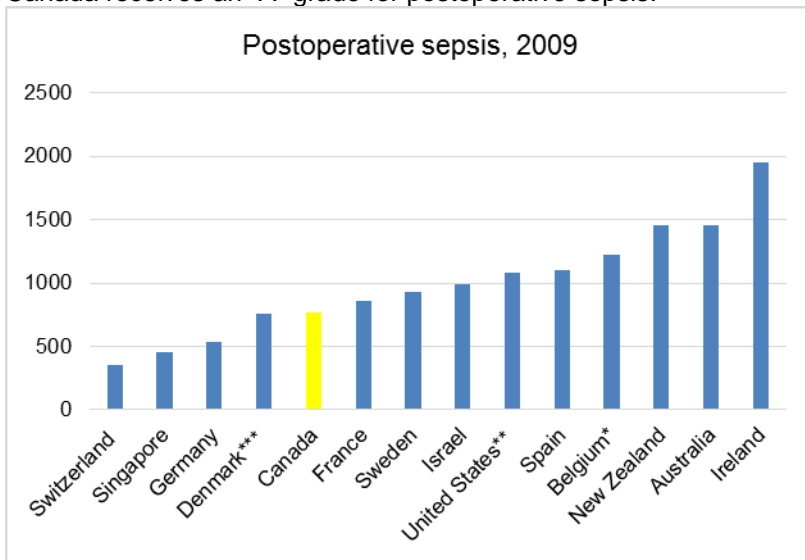
- Work with governments to identify goals that the public will understand.
- It was often difficult to hear comments from participants — may need to reorganize room for future sessions to address this.
- Need to ground this work in a few focused goals and tell the compelling story for why this is important.
- I strongly support your efforts on this.
- I believe it is necessary and can add tremendous value, but the starting point should be the overall vision, not the indicators.
- Very interesting day and discussion.
- An ambitious task, but one with much potential.
- Great methodology.
- Consider collective action to move barriers that thwart change (i.e., physician-centric models of primary care).
- Excellent approach to ‘elephants in the room’.
- A lot accomplished in one day.



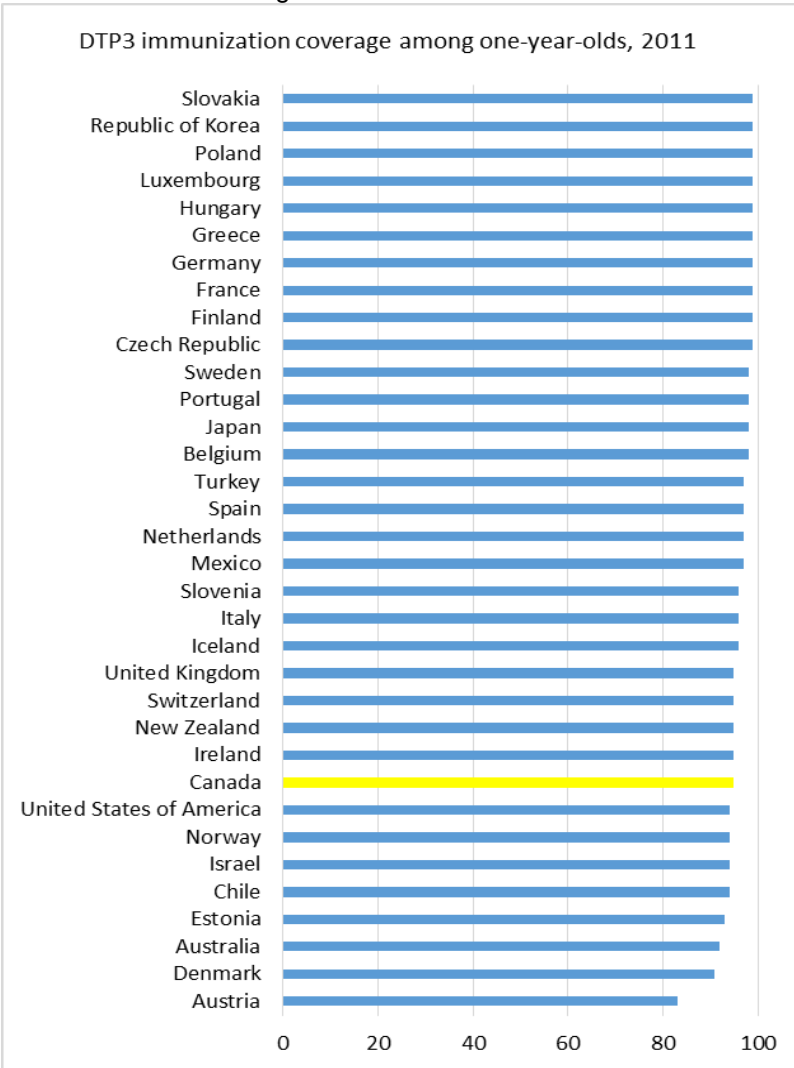
Appendix H: Indicator fact sheets

The following fact sheets present the technical details of each of our top-ten candidate indicators. For each indicator, a high-level target for 2017 has been set by first determining Canada's current ranking. If the indicator's ranking was in the top third, the 2017 target is to maintain Canada's current place. If the indicator's ranking was in the middle or bottom third, the 2017 target is for Canada to improve toward the reference country. The following sheets summarize each indicator and the potential target within five years.

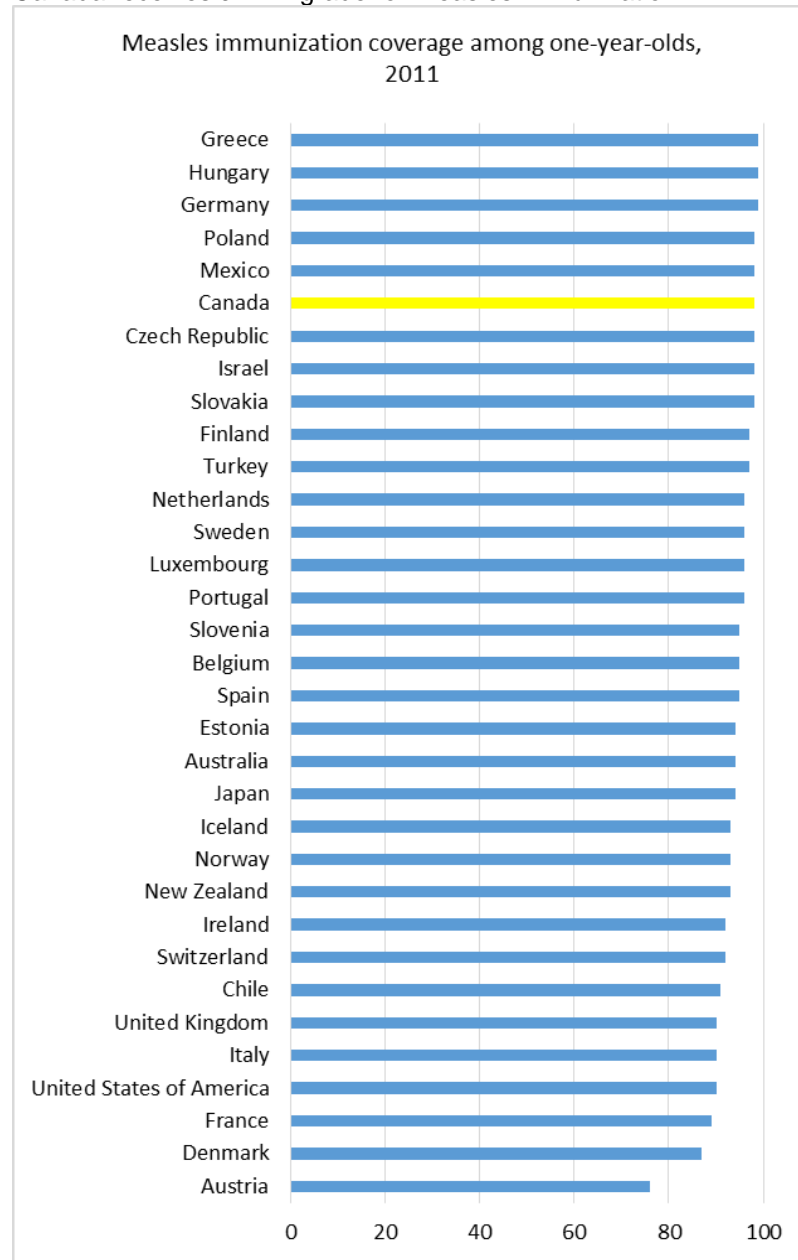
After-hours arrangements so that patients can see their doctor or a nurse without going to a hospital	
Indicator definition	Percentage of practices having arrangements for after-hours care to see their doctor or a nurse. ³⁰
2017 target 	90% of practices offering after-hours arrangements. Reference country: New Zealand
Canadian performance	<p>Canada receives a "C" grade for offering after-hours arrangements.</p>  <p>Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.³⁰ Note: This survey did not ask for phone consultations.*In Norway, respondents were asked whether their practice has arrangements, or if there are regional arrangements.</p>
What this indicator purports to measure	The purpose of this indicator is to measure the accessibility to primary health care.
Why this indicator is important (rationale)	<ul style="list-style-type: none"> 65% of Canadians report difficulties receiving after-hours care.³¹ Poor after-hours arrangements lead to excessive overuse of emergency departments.³¹ Canadian primary physicians are rated poorly regarding after-hours care.³² Compared to 2006, no major improvement was achieved for this indicator.³²
Interpretation: Desired direction/ What high/low indicator level means	Increase / A high percentage of practices offering after-hours arrangements would be desirable. A high level of this indicator reflects a higher percentage of primary care physicians offering after-hours care, while a low level shows a lower percentage of primary care physicians offering after-hours care.
Source and inclusions	<p>Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.³⁰ Countries: U.K., Netherlands, New Zealand, Germany, Australia, Norway, Switzerland, France, Sweden, Canada, U.S.</p>

Primary health-care practice uses nurse case-managers or navigators for patients with serious chronic conditions																							
Indicator definition	Percentage of practices using nurse case-managers or navigators for patients with serious chronic conditions. ³⁰																						
2017 target 	68% of practices using nurse case-managers or navigators. Reference country: New Zealand																						
Canadian performance 	Canada receives a “C” grade for using nurses as case managers or navigators. <table border="1"> <thead> <tr> <th>Country</th> <th>Percentage (%)</th> </tr> </thead> <tbody> <tr><td>UK</td><td>78</td></tr> <tr><td>NETH</td><td>72</td></tr> <tr><td>NZ</td><td>68</td></tr> <tr><td>SWIZ</td><td>68</td></tr> <tr><td>AUS</td><td>58</td></tr> <tr><td>NOR</td><td>50</td></tr> <tr><td>CAN</td><td>42</td></tr> <tr><td>US</td><td>42</td></tr> <tr><td>SWE</td><td>40</td></tr> <tr><td>GER</td><td>20</td></tr> </tbody> </table> Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians. ³⁰	Country	Percentage (%)	UK	78	NETH	72	NZ	68	SWIZ	68	AUS	58	NOR	50	CAN	42	US	42	SWE	40	GER	20
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NOR	50																						
CAN	42																						
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SWE	40																						
GER	20																						
What this indicator purports to measure	The purpose of this indicator is to measure the coordination of care.																						
Why this indicator is important (rationale)	<ul style="list-style-type: none"> Improving the quality of care can be achieved through efficient coordination between care providers.³⁵ Nurses are often placed in the position of case managers because of their specific skills and knowledge.³⁵ 																						
Interpretation: Desired direction/ What a high/low indicator level means	Increase / A high number of practices using a nurses as case managers or navigators is desirable. A high level of this indicator shows a higher number of practices using nurses as case managers. The opposite is the case for a low level of this indicator.																						
Source and inclusions	Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians. ³⁰ Countries: U.K., Netherlands, New Zealand, Switzerland, Australia, Norway, Canada, U.S., Sweden, Germany.																						

Postoperative sepsis	
Indicator definition	"Number of cases of post-operative sepsis per 100,000. Hospital discharges for patients age 15 or older" (p. 22). ⁴¹
2017 target 	541 cases of postoperative sepsis per 100,000 hospital discharges. Reference country: Germany
Canadian performance	<p>Canada receives an "A" grade for postoperative sepsis.</p>  <p>Source: Health at a glance, 2011.⁴² Note: SDx adjusted rates *Data for 2007 **Data for 2008 ***Data for 2010</p>
What this indicator purports to measure	The purpose of this indicator is to measure patients' safety. ^{43,44}
Why this indicator is important (rationale)	<ul style="list-style-type: none"> • The mortality rate of postoperative sepsis can reach up to 30%.⁴³ • Postoperative sepsis can cause multiple organ dysfunctions and death.⁴² • The cause is mostly an infection that could be avoided with high-quality operative care.⁴²
Interpretation: Desired direction/What a high/low indicator level means	Decrease / A low rate of postoperative sepsis is desirable. A high level of this indicator shows a higher number of postoperative sepsis occurrence. A low level indicates a lower number of patients suffering from postoperative sepsis.
Source and inclusions	Source: Health at a glance, 2011 using OECD data. ⁴² Countries: Ireland, Australia, New Zealand, Belgium, Spain, U.S., Israel, Sweden, France, Canada, Denmark, Germany, Singapore, Switzerland.

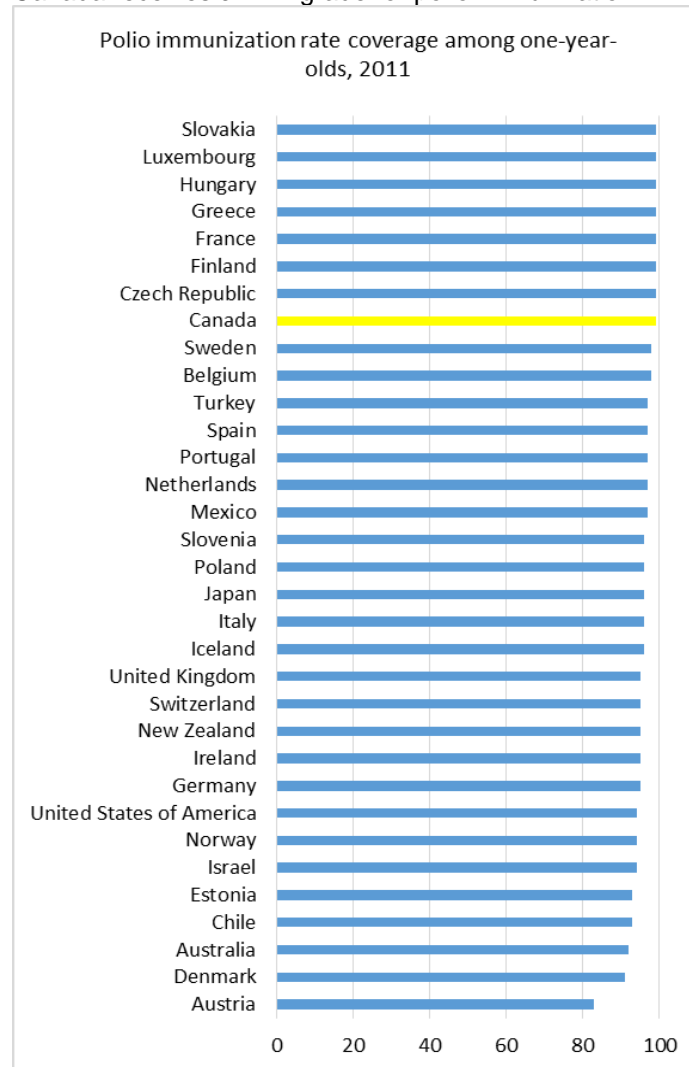
Childhood vaccinations																																																																							
Indicator definition	The percentage of one-year-olds who have received three doses of the combined diphtheria, tetanus toxoid, pertussis (DTP3) and three doses of polio and at least one dose of measles-containing vaccine in a given year. ¹²																																																																						
2017 target  	DTP3: 99% of one-year-olds receiving DTP3 vaccination in the recommended timeframe. Reference country: France Measles and Polio: Maintain our place in rank. Reference country: Canada																																																																						
Canadian performance	Canada receives a “C” grade for DTP 3 immunization. <div> <p>DTP3 immunization coverage among one-year-olds, 2011</p>  <table border="1"> <thead> <tr> <th>Country</th> <th>DTP3 Immunization Coverage (%)</th> </tr> </thead> <tbody> <tr><td>Slovakia</td><td>98</td></tr> <tr><td>Republic of Korea</td><td>98</td></tr> <tr><td>Poland</td><td>98</td></tr> <tr><td>Luxembourg</td><td>98</td></tr> <tr><td>Hungary</td><td>98</td></tr> <tr><td>Greece</td><td>98</td></tr> <tr><td>Germany</td><td>98</td></tr> <tr><td>France</td><td>98</td></tr> <tr><td>Finland</td><td>98</td></tr> <tr><td>Czech Republic</td><td>98</td></tr> <tr><td>Sweden</td><td>98</td></tr> <tr><td>Portugal</td><td>98</td></tr> <tr><td>Japan</td><td>98</td></tr> <tr><td>Belgium</td><td>98</td></tr> <tr><td>Turkey</td><td>96</td></tr> <tr><td>Spain</td><td>96</td></tr> <tr><td>Netherlands</td><td>96</td></tr> <tr><td>Mexico</td><td>96</td></tr> <tr><td>Slovenia</td><td>96</td></tr> <tr><td>Italy</td><td>96</td></tr> <tr><td>Iceland</td><td>96</td></tr> <tr><td>United Kingdom</td><td>94</td></tr> <tr><td>Switzerland</td><td>94</td></tr> <tr><td>New Zealand</td><td>94</td></tr> <tr><td>Ireland</td><td>94</td></tr> <tr><td>Canada</td><td>94</td></tr> <tr><td>United States of America</td><td>92</td></tr> <tr><td>Norway</td><td>92</td></tr> <tr><td>Israel</td><td>92</td></tr> <tr><td>Chile</td><td>92</td></tr> <tr><td>Estonia</td><td>92</td></tr> <tr><td>Australia</td><td>90</td></tr> <tr><td>Denmark</td><td>90</td></tr> <tr><td>Austria</td><td>82</td></tr> </tbody> </table> </div> <p>Source: WHO¹²</p>	Country	DTP3 Immunization Coverage (%)	Slovakia	98	Republic of Korea	98	Poland	98	Luxembourg	98	Hungary	98	Greece	98	Germany	98	France	98	Finland	98	Czech Republic	98	Sweden	98	Portugal	98	Japan	98	Belgium	98	Turkey	96	Spain	96	Netherlands	96	Mexico	96	Slovenia	96	Italy	96	Iceland	96	United Kingdom	94	Switzerland	94	New Zealand	94	Ireland	94	Canada	94	United States of America	92	Norway	92	Israel	92	Chile	92	Estonia	92	Australia	90	Denmark	90	Austria	82
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Canada receives an “A” grade for measles immunization.



Source: WHO¹²

Canada receives an “A” grade for polio immunization.



Source: WHO.¹²

What this indicator purports to measure

The purpose of this indicator is to measure the quality of a country's preventive child-health services. It measures health-system performance.⁴⁵

Why this indicator is important (rationale)


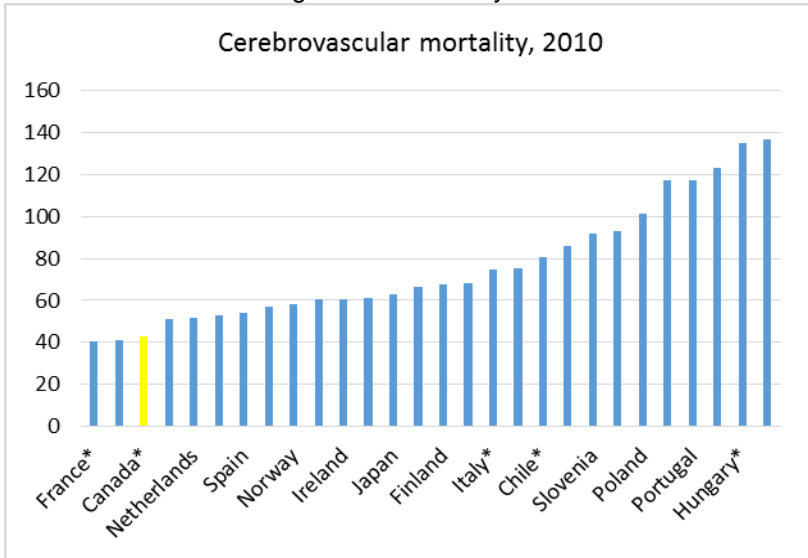
- Immunization in childhood supports the decrease of under-five mortality.¹²
- Childhood vaccination is among the most cost-effective health-policy interventions.⁴²
- High vaccination coverage reduces the risk for infection and transmission.⁴⁶


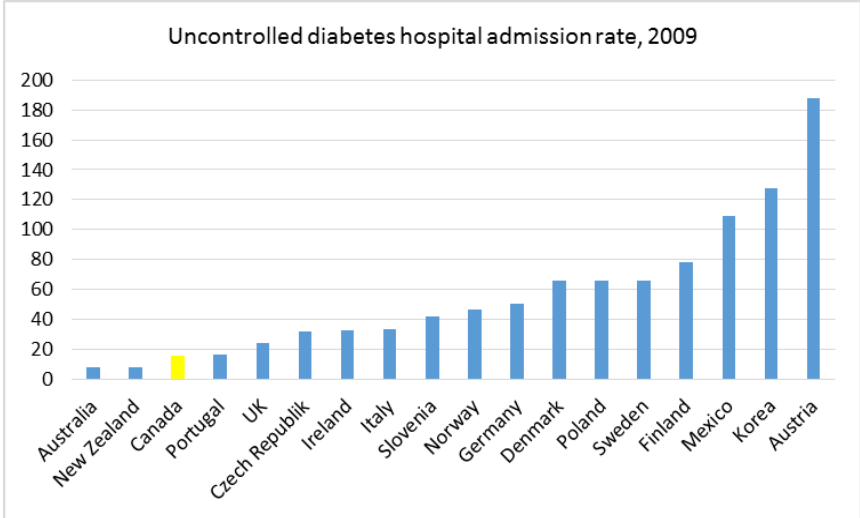
Interpretation: Desired direction/What a high/low indicator level means


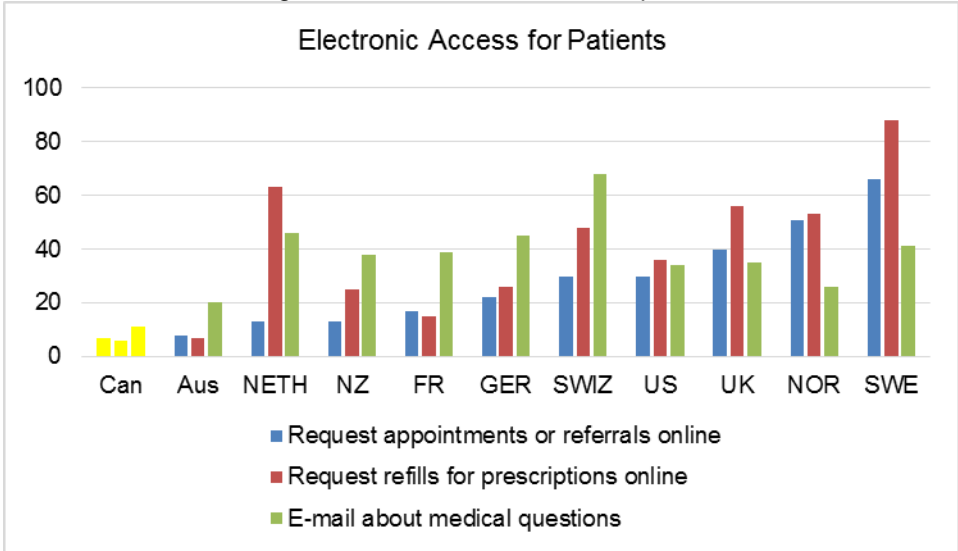
Increase / A high coverage of childhood vaccination is desirable. A high level of this indicator represents higher coverage of immunization among children age one. A low level shows a lower coverage of recommended immunizations among children age one.


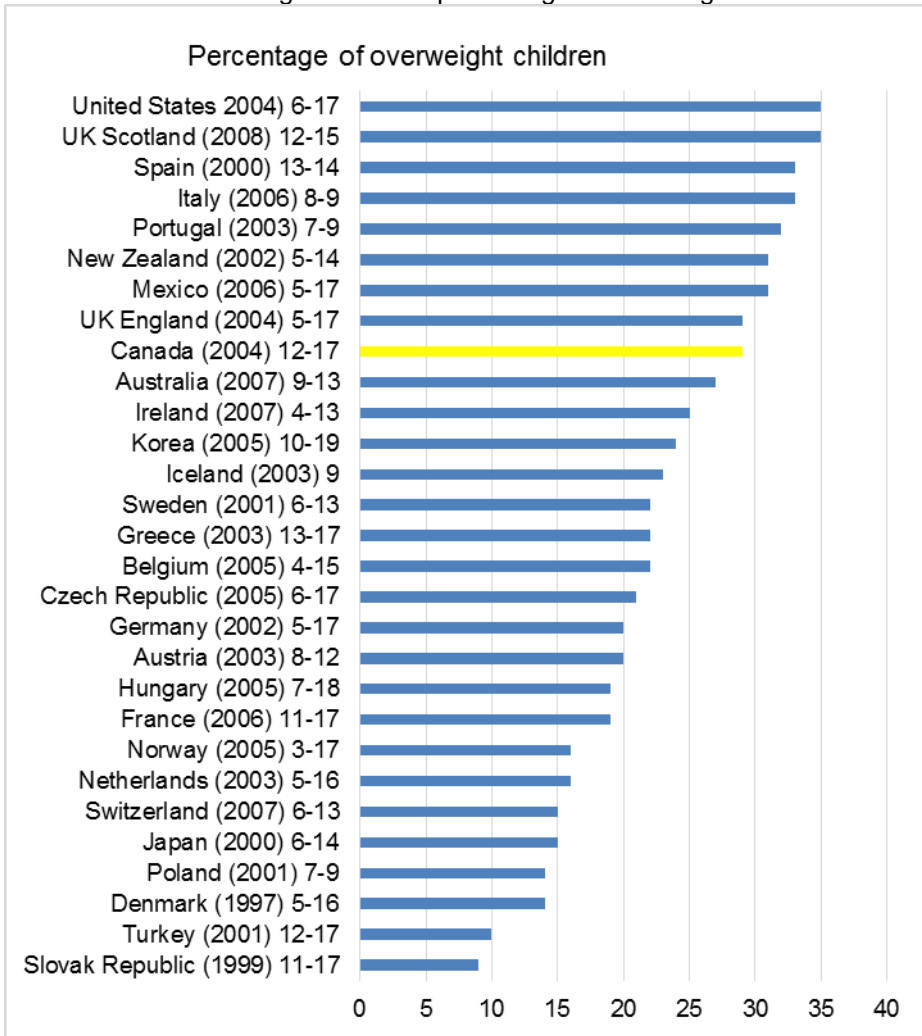
Source and inclusions

Source: WHO.¹²
 Countries: Austria, Denmark, Australia, Estonia, Chile, U.S., Israel, Norway, U.K., Switzerland, Germany, Ireland, New Zealand, Poland, Italy, Slovenia, Iceland, Japan, Portugal, Turkey, Mexico, Spain, Netherlands, South Korea, Sweden, Belgium, Czech Republic, Greece, Finland, France, Canada, Slovakia, Luxembourg, Hungary.


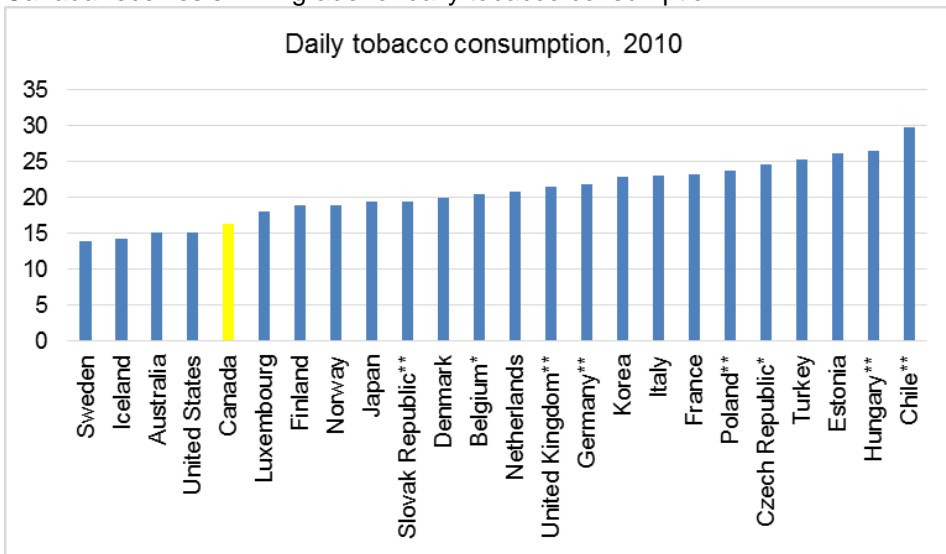
Mortality from cardiovascular disease	
Indicator definition	"Mortality rates are based on numbers of deaths registered in a country in a year divided by the size of the corresponding population" (p. 28). ⁴²
2017 target 	Maintain our current place in rank. Reference country: Canada
Canadian performance	<p>Canada receives an "A" grade for mortality from cerebrovascular disease.</p>  <p>Source: OECD Health Data 2012.¹³ Note: *Data from 2009</p>
What this indicator purports to measure	The purpose of this indicator is to measure the population's health status.
Why this indicator is important (rationale)	<ul style="list-style-type: none"> • In 2009, 35,895 people died following ischemic heart disease (IHD) and 14,083 following a cerebrovascular disease.¹² • In OECD countries, cardiovascular disease (CVD) was the cause for 35% of all deaths in 2009. Two-thirds of these were caused by IHD and stroke.⁴² • CVD is the highest ranked cause for mortality in most OECD countries.⁴² • Estimates suggest that the financial burden of heart disease and stroke for the Canadian economy is around \$18 billion. This includes financial burdens caused by physician services, hospital costs, lost wages and decreased productivity.³⁷
Interpretation: Desired direction/What a high/low indicator level means	Decrease / A low mortality rate from cardiovascular disease is desirable. A high level of this indicator represents a higher mortality rate due to cardiovascular disease. A lower level of this indicator represents a lower mortality rate due to cardiovascular disease.
Source and inclusions	<p>Source: OECD Health Data 2012.¹³</p> <p>Countries: Hungary, Portugal, Poland, Slovenia, Chile, Italy, Finland, Japan, Ireland, Norway, Spain, Netherlands, Canada, France.</p>


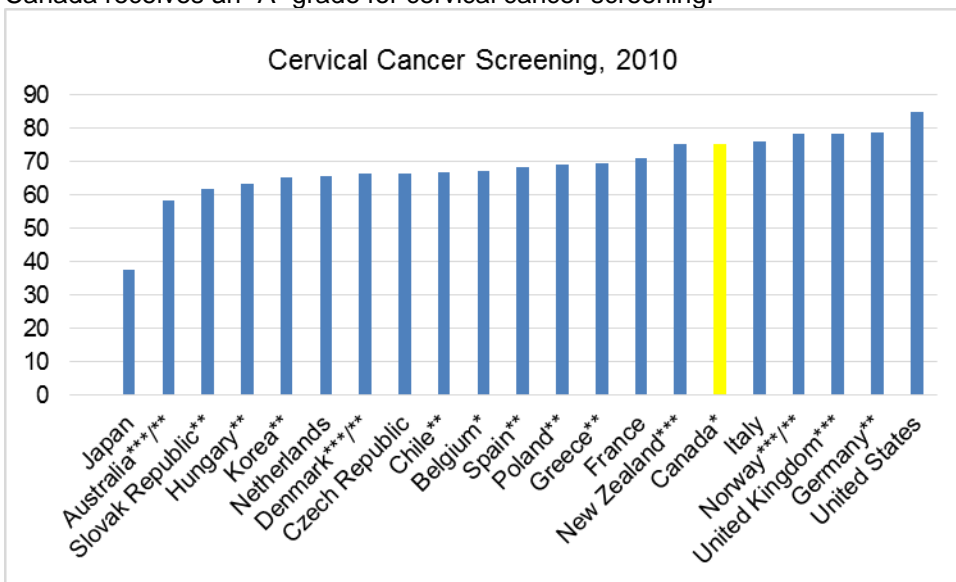
Hospital admission for age-standardized, uncontrolled, diabetes-related conditions	
Indicator definition	“The number of hospital discharges of people aged 15 years and over with diabetes Type I or II without mention of a short-term or long-term complication per 100,000 population” (p. 106). ⁴²
2017 target	Maintain our current place in rank. Reference country: Canada
 Canadian performance	Canada receives an “A” grade for uncontrolled diabetes hospital admission rate.  <p>Uncontrolled diabetes hospital admission rate, 2009</p> <p>Source: OECD Health Data 2012.¹³</p>
What this indicator purports to measure	The purpose of this indicator is to measure avoidable hospital admission through better management and care in the community.
Why this indicator is important (rationale)	<ul style="list-style-type: none"> • If undiagnosed, diabetes is a risk factor for developing CVDs.³⁶ • Suffering from diabetes leads to a higher risk for sight loss, foot and leg amputation, and kidney failure.³⁶ • Diabetes is ranked as the 7th highest cause of mortality in Canada.³⁷ • The financial burden for Canada is estimated at \$9 billion a year.³⁷
Interpretation: Desired direction/ What a high/low indicator level means	Decrease / A low hospital admission rate for uncontrolled diabetes is desirable. A high level of this indicator represents higher hospital admission rates for uncontrolled diabetes in people age 15+, and the contrary applies to a low level of this indicator.
Source and inclusions	Source: OECD Health Data 2012. ¹³ Countries: Austria, South Korea, Mexico, Finland, Sweden, Poland, Denmark, Germany, Norway, Slovenia, Italy, Ireland, Czech Republic, U.K., Portugal, Canada, New Zealand, Australia.

Electronic access for patients: request appointments or referrals online; request refills for prescriptions online; e-mail for medical questions	
Indicator definition	Percentage of primary care practices offering electronic access for their patients. ³⁰
2017 target 	22% of practices allow appointment requests or referrals online. 26% of practices allow prescriptions requests online. 45% of practices offer e-mail communication for medical questions. Reference country: Germany
Canadian performance	Canada receives a “C” grade on electronic access for patients.  <p>Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.³⁰</p>
What this indicator purports to measure	This indicator's purpose is to measure the accessibility to health care.
Why this indicator is important (rationale)	<ul style="list-style-type: none"> E-prescriptions tools are used by around 50% of Canadian primary care physicians.³² Health Canada names the following key benefits for using e-prescription: <ul style="list-style-type: none"> - Reducing the incidence of medication and dispensing errors caused by illegal prescription. - Potential decline in adverse drug reactions. - Timely transmission of prescription information from practitioner to pharmacist.³⁴ Online communication is seen as a hopeful development for patients' interactions with their physicians.³³
Interpretation: Desired direction/ What a high/low indicator level means	Increase / A high percentage of practices offering electronic access for patients is desirable. A high level of this indicator shows a higher percentage of primary care physicians using information technology to simplify access to care while a low level of this indicator represents a lower number of primary care physicians offering electronic access.
Source and inclusions	Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians. ³⁰ Countries: Canada, Australia, Netherlands, New Zealand, France, Germany, Switzerland, U.S., U.K., Norway, Sweden.

Childhood obesity																																																													
Indicator definition	“Overweight and obese children are those whose BMI is above a set of age- and sex-specific cut-off points” (as cited in OECD, <i>Europe</i> , 2012). ⁴⁷																																																												
2017 target	19% of overweight children. Reference country: France																																																												
																																																													
Canadian performance	<p>Canada receives a “C” grade for the percentage of overweight children.</p>  <p>Percentage of overweight children</p> <table border="1"> <thead> <tr> <th>Country (Year) Age Group</th> <th>Percentage (%)</th> </tr> </thead> <tbody> <tr><td>United States 2004) 6-17</td><td>35</td></tr> <tr><td>UK Scotland (2008) 12-15</td><td>35</td></tr> <tr><td>Spain (2000) 13-14</td><td>33</td></tr> <tr><td>Italy (2006) 8-9</td><td>33</td></tr> <tr><td>Portugal (2003) 7-9</td><td>32</td></tr> <tr><td>New Zealand (2002) 5-14</td><td>31</td></tr> <tr><td>Mexico (2006) 5-17</td><td>31</td></tr> <tr><td>UK England (2004) 5-17</td><td>29</td></tr> <tr><td>Canada (2004) 12-17</td><td>29</td></tr> <tr><td>Australia (2007) 9-13</td><td>27</td></tr> <tr><td>Ireland (2007) 4-13</td><td>25</td></tr> <tr><td>Korea (2005) 10-19</td><td>24</td></tr> <tr><td>Iceland (2003) 9</td><td>23</td></tr> <tr><td>Sweden (2001) 6-13</td><td>22</td></tr> <tr><td>Greece (2003) 13-17</td><td>22</td></tr> <tr><td>Belgium (2005) 4-15</td><td>22</td></tr> <tr><td>Czech Republic (2005) 6-17</td><td>21</td></tr> <tr><td>Germany (2002) 5-17</td><td>20</td></tr> <tr><td>Austria (2003) 8-12</td><td>20</td></tr> <tr><td>Hungary (2005) 7-18</td><td>19</td></tr> <tr><td>France (2006) 11-17</td><td>19</td></tr> <tr><td>Norway (2005) 3-17</td><td>16</td></tr> <tr><td>Netherlands (2003) 5-16</td><td>16</td></tr> <tr><td>Switzerland (2007) 6-13</td><td>15</td></tr> <tr><td>Japan (2000) 6-14</td><td>15</td></tr> <tr><td>Poland (2001) 7-9</td><td>14</td></tr> <tr><td>Denmark (1997) 5-16</td><td>14</td></tr> <tr><td>Turkey (2001) 12-17</td><td>10</td></tr> <tr><td>Slovak Republic (1999) 11-17</td><td>9</td></tr> </tbody> </table> <p>Source: <i>Obesity and the Economics of Prevention: Fit not Fat</i>.³⁷</p>	Country (Year) Age Group	Percentage (%)	United States 2004) 6-17	35	UK Scotland (2008) 12-15	35	Spain (2000) 13-14	33	Italy (2006) 8-9	33	Portugal (2003) 7-9	32	New Zealand (2002) 5-14	31	Mexico (2006) 5-17	31	UK England (2004) 5-17	29	Canada (2004) 12-17	29	Australia (2007) 9-13	27	Ireland (2007) 4-13	25	Korea (2005) 10-19	24	Iceland (2003) 9	23	Sweden (2001) 6-13	22	Greece (2003) 13-17	22	Belgium (2005) 4-15	22	Czech Republic (2005) 6-17	21	Germany (2002) 5-17	20	Austria (2003) 8-12	20	Hungary (2005) 7-18	19	France (2006) 11-17	19	Norway (2005) 3-17	16	Netherlands (2003) 5-16	16	Switzerland (2007) 6-13	15	Japan (2000) 6-14	15	Poland (2001) 7-9	14	Denmark (1997) 5-16	14	Turkey (2001) 12-17	10	Slovak Republic (1999) 11-17	9
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What this indicator purports to measure	This indicator's purpose is to measure nutritional imbalance and malnutrition causing overweight. ¹²																																																												
Why this indicator is important (rationale)	<ul style="list-style-type: none"> • The last years have seen an increasing rate of obese children in most developed countries.⁴⁸ • Being overweight and obese rank fifth in leading risk factors for global deaths.³⁹ • In 2011, around 40 million children younger than five years were classified as overweight.³⁹ 																																																												

	<ul style="list-style-type: none"> • Having a high percentage of overweight children is no longer thought of as a problem only for high-income countries; about three-quarters are living in developing countries; 10 million in developed countries.⁴⁸ • Childhood obesity is considered a risk factor for future obesity, premature death and future disability.
Interpretation: Desired direction/ What a high/low indicator level means	Decrease / A low percentage of overweight and obesity is desirable. A high level of this indicator represents a higher percentage of overweight and obese children up to the age of 17, while a low level of this indicator shows the opposite.
Source and inclusions	<p>Source: <i>Obesity and the Economics of Prevention: Fit not Fat</i>.³⁸</p> <p>Countries: U.S., Scotland, Spain, Italy, Portugal, New Zealand, Mexico, England, Canada, Australia, Ireland, South Korea, Iceland, Sweden, Greece, Belgium, Czech Republic, Germany, Austria, Hungary, France, Norway, Netherlands, Switzerland, Japan, Poland, Denmark, Turkey, Slovak Republic.</p>

Daily adult smokers	
Indicator definition	<p>“The percentage of the population age 15 or more who report that they are daily smokers.”⁴⁹</p> <p>Tobacco smoking includes cigarettes, cigars, pipes or any other smoked tobacco products.¹²</p>
2017 target 	<p>Maintain our current place in rank. Reference country: Canada</p>
Canadian performance	<p>Canada receives an “A” grade for daily tobacco consumption.</p>  <p>Source: OECD Health Data 2012.¹³ *Data from 2008 **Data from 2009</p>
What this indicator purports to measure	The purpose of this indicator is to measure a populations’ health behavior.
Why this indicator is important (rationale)	<ul style="list-style-type: none"> • 6 million people die of tobacco use each year. This calculation includes users, ex-users and second-hand smokers.⁵⁰ • In Canada, the estimated financial burden is about \$17 billion per year.⁵¹ • Tobacco use is a risk factor for premature mortality, cardiovascular disease and cerebrovascular disease and is a contributing factor to respiratory disease.⁴² • It is a special danger to pregnant women, as it can cause low birth weight and infant illness.⁴²
Interpretation: Desired direction/ What a high/low indicator level means	Decrease / A low number of people using tobacco daily is desirable. A high level of this indicator means that a higher percentage of people age 15+ report being daily smokers. A low level of this indicator means that a lower percentage of people age 15+ report being daily smokers.
Source and inclusions	<p>Source: OECD Health Data 2012.¹³</p> <p>Countries: Chile, Hungary, Estonia, Turkey, Czech Republic, Poland, France, Italy, South Korea, Germany, U.K., Netherlands, Belgium, Denmark, Slovak Republic, Japan, Norway, Finland, Luxembourg, Canada, U.S., Australia, Iceland, Sweden.</p>

Cervical cancer screening	
Indicator definition	<p>Numerator: Number of women age 20-69 reporting cervical cancer screening according to the specific screening frequency recommended for each country. Denominator: "Number of women age 20-69 answering survey question or participating in an organized screening programme."⁴⁹</p> <p>"The proportion of women who are eligible for a screening test and actually receive the test" (p. 118).⁴²</p>
2017 target 	<p>Maintain our current place in rank. Reference country: Canada</p>
Canadian performance	<p>Canada receives an "A" grade for cervical cancer screening.</p>  <p>Source: OECD Health Data 2012.¹³ *Data from 2008 **Data from 2009 ***programme data</p>
What this indicator purports to measure	This indicator is supposed to measure the coverage of cervical cancer screening in the female population.
Why this indicator is important (rationale)	<ul style="list-style-type: none"> • Early detection leading to earlier treatment reduces cervical cancer mortality.⁵² • An estimated 1,300 women are identified with cervical cancer each year in Canada.⁵² • Cervical cancer ranks second in the world as the most common cancer in women.⁵² • High-quality cervical cancer screening-care reduces cancer incidences by 80%.⁵³
Interpretation: Desired direction/ What a high/low indicator level means	<p>Increase / A high cervical cancer rate within the corresponding guidelines is desirable. A high level of this indicator shows a higher participation rate for cervical cancer screening within the recommended time frame and the contrary applies to a low level of this indicator.</p>
Source and inclusions	<p>Source: OECD Health Data 2012.¹³ Countries: Japan, Australia, Slovak Republic, Hungary, South Korea, Netherlands, Denmark, Czech Republic, Chile, Belgium, Spain, Poland, Greece, France, New Zealand, Canada, Italy, Norway, U.K., Germany, U.S.</p>

Appendix I:

Excerpts from the *Principles to Guide Health Care Transformation in Canada* (2011) from the Canadian Medical Association and Canadian Nurses Association

ENHANCE THE HEALTH CARE EXPERIENCE

PATIENT-CENTRED

The patient must be at the centre of health care. Patient-centred care is seamless access to the continuum of care in a timely manner, based on need and not the ability to pay, that takes into consideration the individual needs and preferences of the patient and his/her family, and treats the patient with respect and dignity. Improving the patient experience and the health of Canadians must be at the heart of any reforms.

A strong primary health care foundation as well as collaboration and communication within and between health professional disciplines along the continuum are essential to achieving patient-centred care.

QUALITY

Canadians deserve quality services that are appropriate for patient needs, respect individual choice and are delivered in a manner that is timely, safe, effective and according to the most currently available scientific knowledge. Services should also be provided in a manner that ensures continuity of care. Quality must encompass both the processes and the outcomes of care. More attention needs to be given to ensuring a system-wide approach to quality.

IMPROVE POPULATION HEALTH

HEALTH PROMOTION AND ILLNESS PREVENTION

The health system must support Canadians in the prevention of illness and the enhancement of their wellbeing. The broader social determinants of health (e.g., income, education level, housing, employment status) affect the ability of individuals to assume personal responsibility for adopting and maintaining healthy lifestyles and minimizing exposure to avoidable health risks. Coordinated investments in health promotion and disease prevention, including attention to the role of the social determinants of health, are critical to the future health and wellness of Canadians and to the viability of the health care system. This is a responsibility that must be shared among health care providers, governments and patients, who must be actively engaged in optimizing their health and be involved in decisions that affect their overall health.

EQUITABLE

The health care system has a duty to Canadians to provide and advocate for equitable access to quality care and multi-sectoral policies to address the social determinants of health. In all societies, good health is directly related to the socio-economic gradient — the lower a person's social position, the worse his or her health. The relationship is so strong that it is measurable *within* any single socio-economic group, even the most privileged. It is due to the sum of all parts of inequity in society — material circumstances, the social environment, behaviour, biology and psychosocial factors, all of which are shaped by the social determinants of health.

Some health inequities are preventable; failure to address them will result in poorer health and higher health care costs than necessary. Improved health literacy (defined as the ability to access, understand and act on information for health) would help to mitigate these inequalities.

IMPROVE VALUE FOR MONEY

SUSTAINABLE

Sustainable health care requires universal access to quality health services that are adequately resourced and delivered along the full continuum in a timely and cost-effective manner.

Canada's health care system must be sustainable in the following areas:

- *Resourcing:* Health services must be properly resourced based upon population needs, with appropriate consideration for the principles of interprovincial and intergenerational equity and pan-Canadian comparability of coverage for and access to appropriate health services.
 - *Financing:* The health care system needs predictability, certainty and transparency of funding within the multiyear fiscal realities of taxpayers and governments, and funding options that promote risk-pooling, inter-provincial and inter-generational equity and administrative simplicity.
 - *Health human resources:* Health care will be delivered within collaborative practice models; pan-Canadian standards/licensure will support inter-provincial portability of all health care providers; health human resource planning will adjust for local needs and conditions.
 - *Infrastructure:* Health care in the 21st century demands a fully functional health care information technology system as well as buildings and capital equipment.
- *Research:* Health research in Canada will inform adjustments to health service delivery and to the resourcing of health services.
- *Measuring and reporting:* Outcome data are linked to cost data; comparable and meaningful performance measures are developed and publicly reported; outcomes are benchmarked to high-performing, comparable jurisdictions.
- *Public support:* The health care system must earn the support and confidence of the users and citizens of Canada, who ultimately pay for the system.

ACCOUNTABLE

All stakeholders — the public/patients/families, providers and funders – have a responsibility for ensuring the system is effective and accountable. This includes:

- *Good governance:* Clear roles, lines of authority and responsibilities are necessary for the funding, regulation and delivery of health care services, even where these may be shared between levels of government and among health care providers. Patients, families and providers must be partners in the governance of the system.
- *Responsible use:* Services should be funded, offered and used responsibly.
- *Strong public reporting:* Timely, transparent reporting at the system level on both processes and outcomes that can be used and understood by stakeholders and the public are necessary.
- *Enforceability and redress:* Mechanisms are in place to enforce accountability and provide redress when the system does not fulfill its obligations.
- *Leadership/stewardship:* Long-term strategic planning and monitoring is necessary to ensure the system will be sustainable.
- *Responsive/innovative:* The system is able to adapt based on reporting results.



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