New Brunswick Health Council | Conseil de la santé du Nouveau-Brunswick

Engage. Evaluate. Inform. Recommend.
Engager. Évaluer. Informer. Recommander.

New Brunswick Health System Report Card 2013

About us:

New Brunswick Health Council | Conseil de la santé du Nouveau-Brunswick

Engage. Evaluate. Inform. Recommend.
Engager. Évaluer. Informer. Recommander.

Who we are:

New Brunswickers have a right to be aware of the decisions being made, to be part of the decision-making process, and to be aware of the outcomes delivered by the health system and its cost. The New Brunswick Health Council will foster this transparency, engagement, and accountability by engaging citizens in a meaningful dialogue, measuring, monitoring, and evaluating population health and health service quality, informing citizens on health system performance and recommending improvements to health system partners.

New Brunswick Health Council
Pavillon J.-Raymond-Frenette
100 des Aboiteaux Street, suite 2200
Moncton, New Brunswick E1A 7R1

Phone: 1.877.225.2521
1.506.869.6870
Fax: 1.506.869.6282

www.nbhc.ca

How to cite this document:

New Brunswick Health System Report Card 2013(NBHC 2013)

Cette publication est disponible en français sous le titre:

Fiche de rendement du système de santé du Nouveau-Brunswick 2013(CSNB 2013)

Table of Contents

Executive Summary **5**

Introduction **22**

Development of the *New Brunswick Health System Report Card* **23**

Purpose of the *New Brunswick Health System report Card* **27**

Development of Performance Index Grades **28**

- Letter grading methodology for individual indicators 28
- Equity grading methodology 29
- Letter grading methodology for overall grade 30

Changing / Current Indicators **33**

Continued Challenges **33**

Key Trends / Observations **35**

2013 New Brunswick Health System Report Card ……39

Comparison: Trending the New Brunswick Health System Report Card……43

Indicators by quality dimensions……47

- Accessibility……49
- Appropriateness……51
- Effectiveness……52
- Efficiency……54
- Safety……55
- Equity……57

Indicators by sectors of care……63

- Primary Health……65
- Acute Care……71
- Supportive / Specialty……75

Appendix ……79

Executive Summary

The New Brunswick Health Council (NBHC) is proud to deliver its fourth *New Brunswick Health System Report Card* as part of our commitment to providing the citizens of New Brunswick with important information about the quality of health services being delivered in the province.

The fourth *New Brunswick Health System Report Card* is an attempt to provide an update on the previous three health system report cards which were used for measuring, monitoring and evaluating changes to the quality of health services and to assist with recommendations for improvements, some of which can be found in a document we released in 2011: "**Recommendations to the New Brunswick Minister of Health, Moving towards a planned and citizen-centered publicly funded health care system** (NBHC, 2011)."

This report tries to analyse the overall trend in performance of the health system in the province, and to explore possible links to the existing resources in the system. The report goes beyond the availability or quantities of resources per population and their comparison to the Canadian average, to address spending, use and distribution of resources within New Brunswick. We attempt to highlight the significance of optimization of resources based on matching supply and demand, in attempt to enhance opportunities for sustainability and better health outcomes.

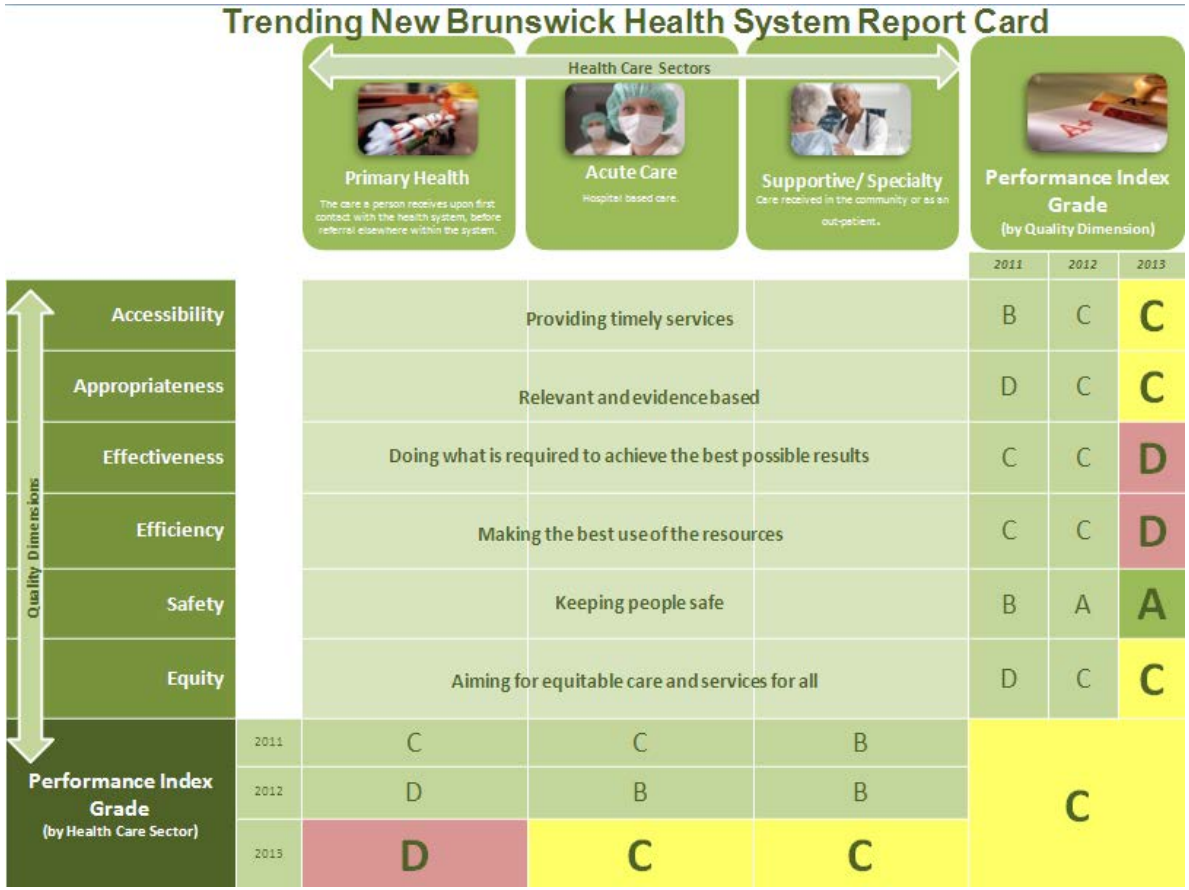
Above average resources per population, average performance and below average health status?

As we release the fourth *New Brunswick Health System Report Card*, we look back at the previous releases in an attempt to observe the trends in health system performance for the province of New Brunswick. Upon comparing recent results with New Brunswick's values on the core indicators from the first report card -issued in 2010, the New Brunswick health system's performance remains at an overall "C" grade which places us consistently as an average performing province. Although the health system continuously received an overall "C" grade, the subcomponent health sectors and quality dimensions witnessed an oscillation of performance with most dimensions and sectors fluctuating between "B", "C", and "D" grades (Figure 1).

Despite reform initiatives, introduction of new programs, changes in human and technical resources, quality of health services continue to demonstrate inconsistent performance trends over time, potentially contributing to the variability in report card grades by sector of care and quality dimension, especially upon comparison with other provinces.

Behind the New Brunswick's overall variability hides a regional variability, which can be observed in the wide range of values reported for New Brunswick zones for some of the indicators reported in the report card tables.

Figure 1. Trending New Brunswick health system report card

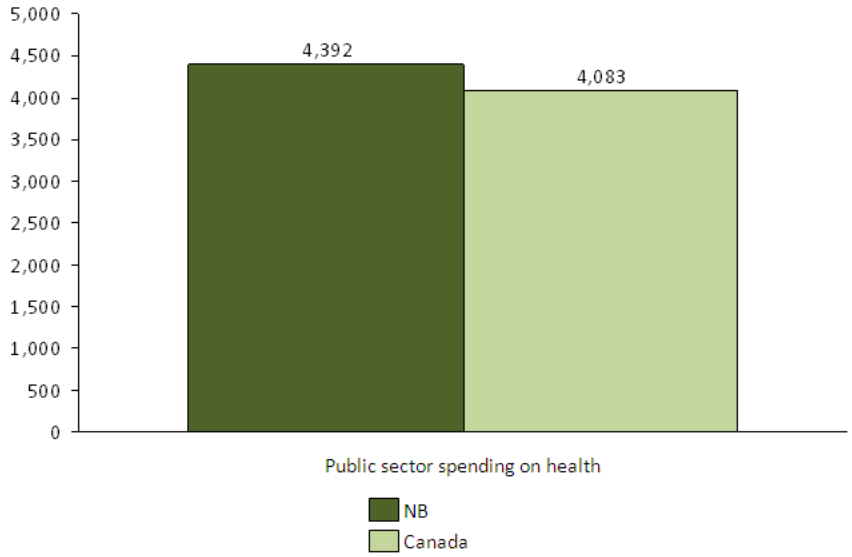


Above average rates of resources per population

Is it a question of resources? From a cost perspective, New Brunswick spends slightly higher than the Canadian per capita public spending on health (Figure 2[1]).

New Brunswick does not appear to be short of resources when comparing its capacity of human resources (staffing) to the national average. New Brunswick has more resources per population than the rest of Canada with the exception of a few professions (see Figure 3 and 4[2]).

Figure 2. Public sector spending on health, cost per capita, 2011



1 Source: *Canadian Institute for Health Information – National Health Expenditure Database, NHEX tables 2013.*

2 Source: Health Personnel Database, Canadian Institute for Health Information; population estimates from Statistics Canada, Quarterly Demographic Estimates 24, 4 (March 2012), catalogue no. 91-002-X

Figure 3. Health professionals per 100,000 population (Physicians and nurses), 2011

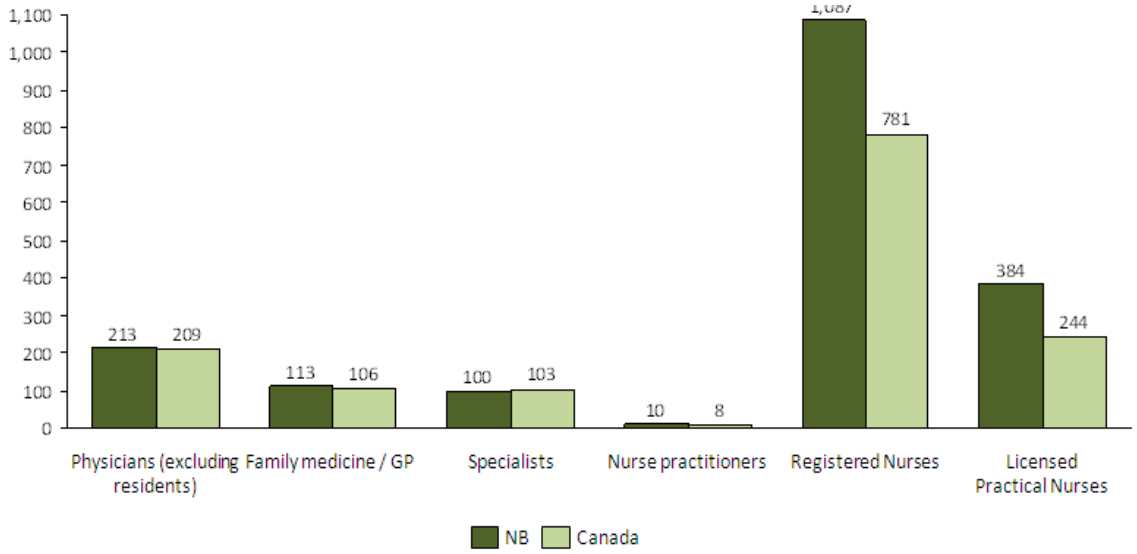
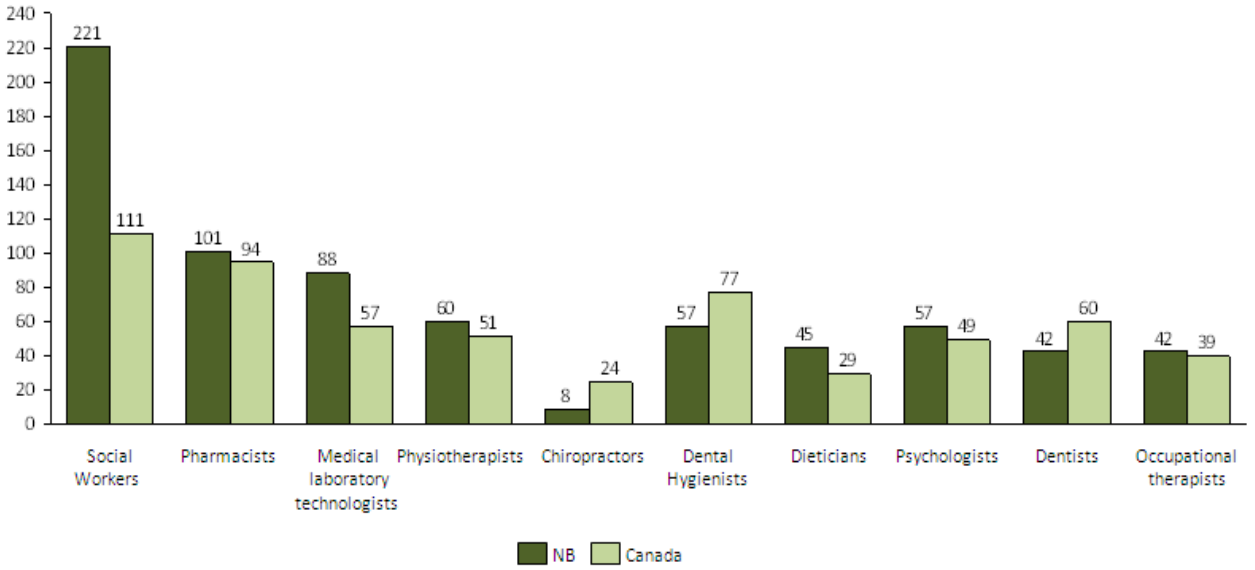


Figure 4. Health professionals per 100,000 population (Other professions), 2011

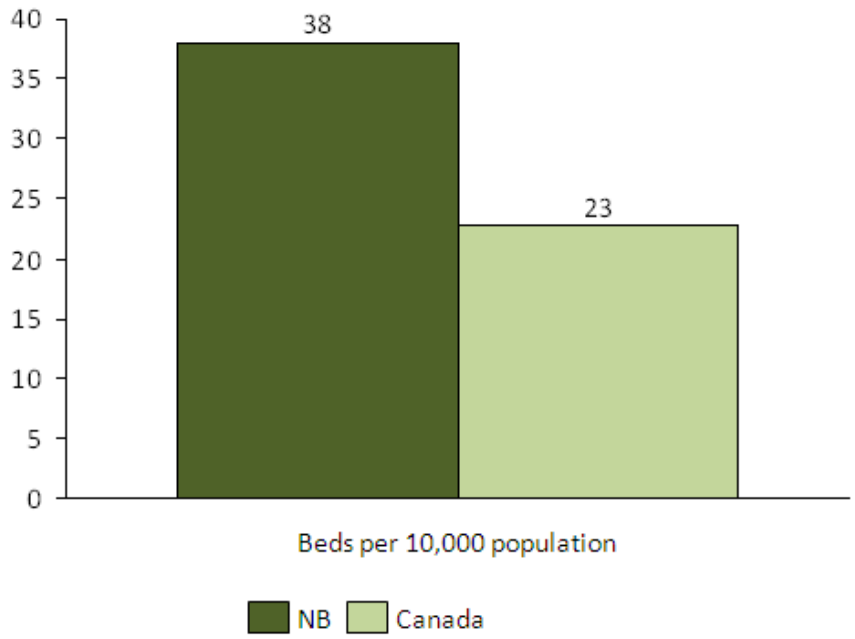


The same appears to be true when we examine the total beds in operation per population. New Brunswick has at least 15 more beds per 10,000 population than the Canadian average (see Figure 5[3]).

Therefore, if New Brunswick has slightly more resources per population than what other provinces have on average, why has the health system not achieved better performance over the past few years? Why have the extra resources not accelerated the improvement for the health status or outcomes of New Brunswickers?

The quantity of resources available to New Brunswickers overall does not provide the guarantee for a highly performing health system; however, the approach to spending (focus of areas of spending) and the distribution of resources (geographically to match demand) may provide the opportunity. Failing to distribute resources based on need and demand contributes to inconsistent standards of quality, thus performance.

Figure 5. Hospital beds per 10,000 population (All beds staffed and in operation), 2010-11



[3] Source: Canadian MIS Database (CMDB), CIHI, 2010-2011+ Statistics Canada, Census 2011

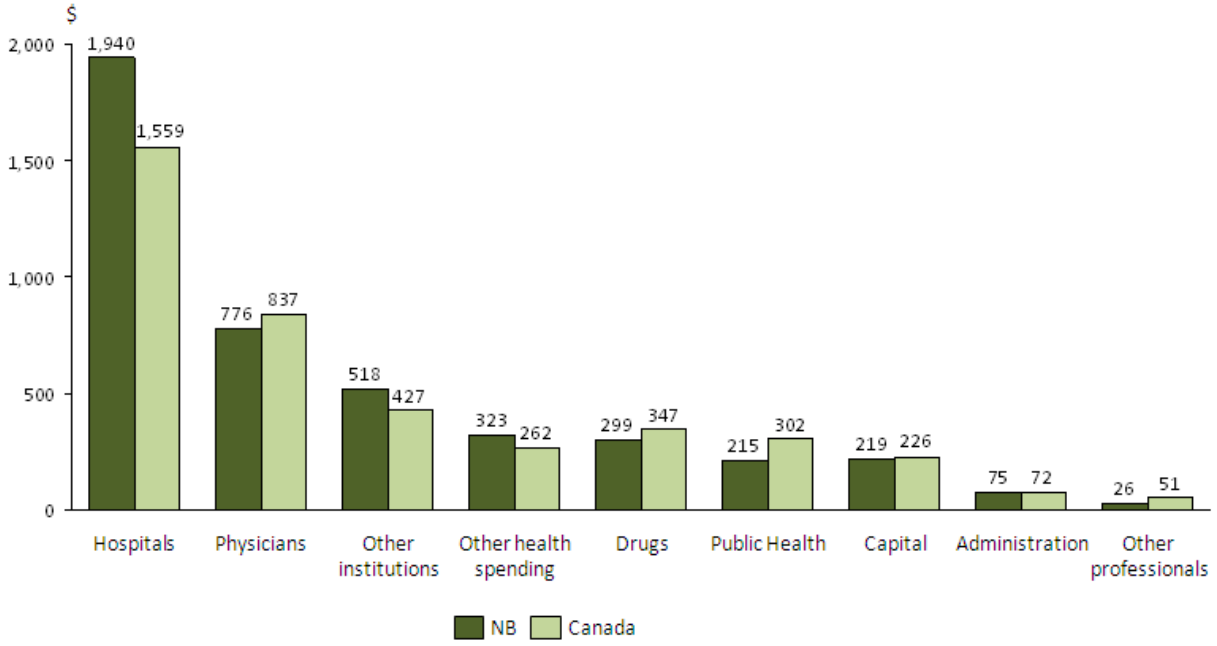
What are we spending on?

Breaking down the public spending on health in New Brunswick by use of funds (Figure 6[4]) highlights the following:

- New Brunswick ***spends less*** than Canada in public cost per capita on physicians, other professionals, drugs, public health, and capital.
- New Brunswick ***spends more*** than Canada in public cost per capita on hospitals and other institutions, on administration, and other spending.

Despite the fact that we have more human resources per population than the Canadian average, human resources do not seem to be the cost driver leading to an above average overall public spending on health per capita. Institutional care (hospitals and other institutions like nursing homes) and home care (i.e. Extra-Mural Program which is an important element within the "other spending" category) appear to be the main focus of our per capita spending, which are generally more expensive.

Figure 6. Public sector spending on health by use of funds, $' per Capita, 2011



[4] Canadian Institute for Health Information – National Health Expenditure Database, NHEX tables 2013

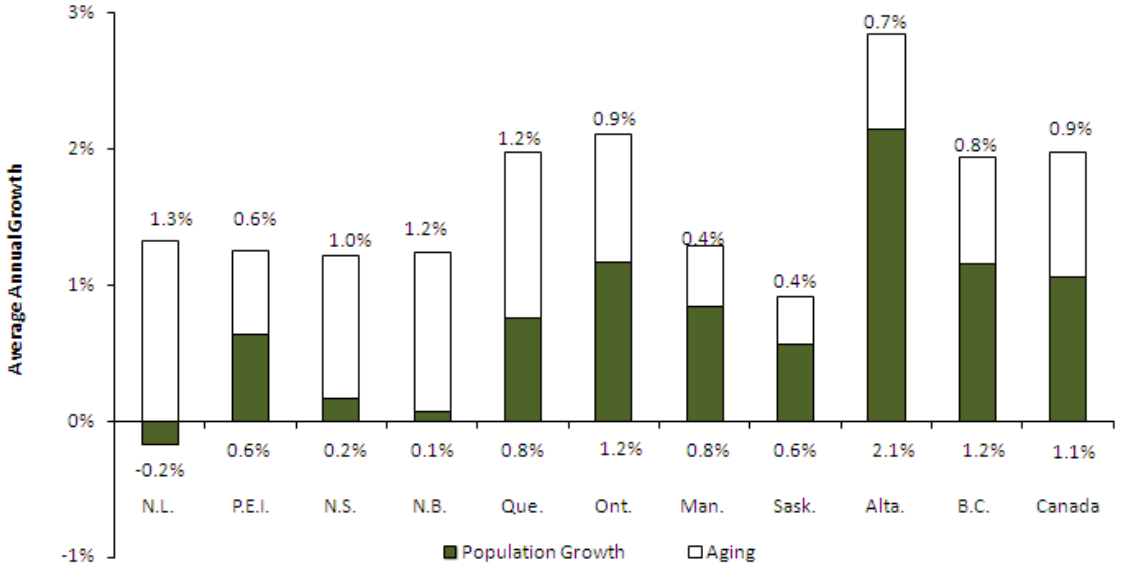
How are we distributing the resources geographically?

Demand trends

The demand for health care services is mainly driven by population growth and the health burden of the population. As a population grows in size or median age, and/or as it suffers from more chronic health conditions (influenced by aging, unhealthy lifestyles, unhealthy physical and socioeconomic environments), this may create the need for more health care services, thus more resources. Aging (especially when accompanied by chronic health conditions) seems to be the main contributor to the increasing demand in New Brunswick as a recent analysis by the Canadian Institute for Health Information (CIHI) highlighted (Figure 7[5]). The contribution of population growth to the average annual growth in health spending between 2001 and 2011 in New Brunswick was among the lowest in Canada (0.1%), whereas the contribution of "aging" was among the highest (1.2%).

The New Brunswick population compares poorly to the Canadian population with respect to lifestyle habits (as demonstrated by rates of obesity, smoking, and physical activity) and health outcomes. These factors need to be clearly measured and identified geographically (health regions/zones) for planning purposes.

Figure 7. The contribution of population increases and aging to growth in health spending varied from province to province (2001 to 2011)

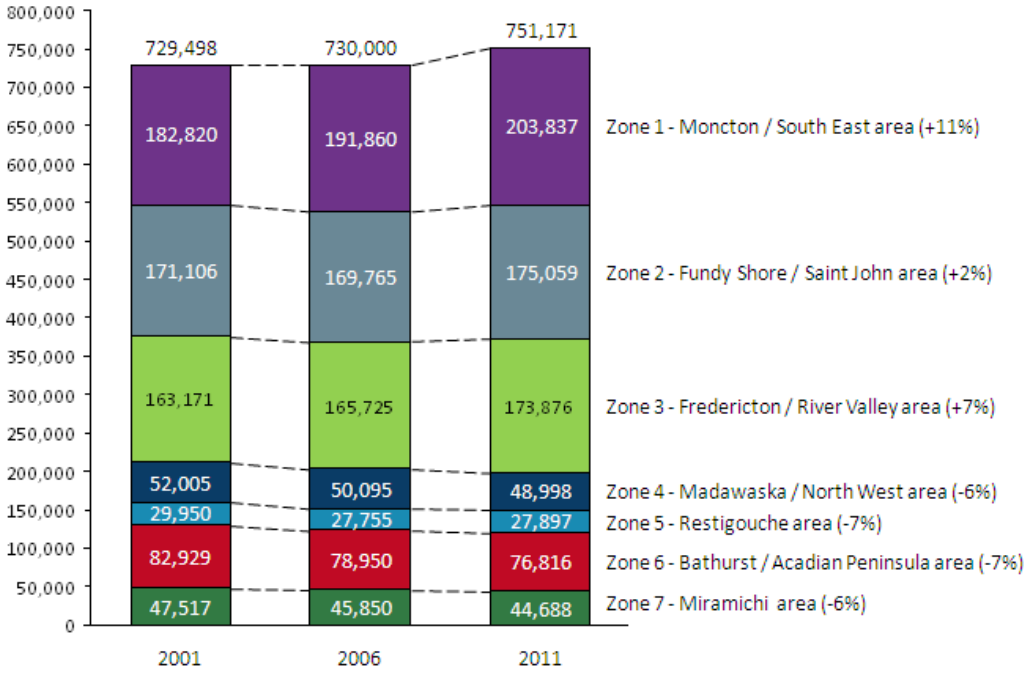


[5] Source: Canadian Institute for Health Information. National Health Expenditure Trends, 1975 to 2013. Ottawa, ON: CIHI; 2013.

Population Growth

New Brunswick's population has been growing very slowly, with an overall 3% increase between 2001 and 2011 (Figure 8[6]). This growth has been unevenly distributed within the province with zones 1 (Moncton/South East), 2 (Fundy Shore / Saint John area) and 3 (Fredericton / River Valley area) witnessing an increase in their population sizes, while the populations in zones 4 (Madawaska / North West area), 5 (Restigouche area), 6 (Bathurst / Acadian Peninsula area) are showing a decrease by 6 to 7 %. A contributor to this demographic shift is the effect of migration both from loss of population to other provinces as well as the movement of young adults from the north to southern part of the province, generating a higher proportion of seniors in the north.

Figure 8. Population count in New Brunswick by health region/zone (2001 to 2011)

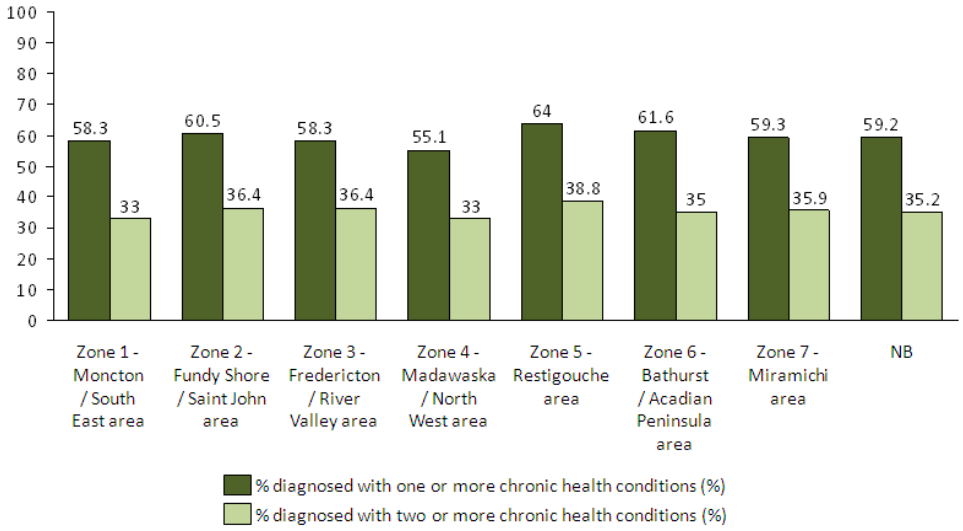


6 Source: Statistics Canada, Census 2001, 2006, 2011

Chronic Health Conditions

Fifty nine percent of New Brunswickers have at least one chronic health condition, and 35% have at least 2 conditions, with zones 5 having the highest percentages for both (Figure 9[7]). Zone 6 on the other hand demonstrates the second highest prevalence of people with one or more chronic health condition, yet it has one of the lowest prevalence of 2 or more chronic conditions. High blood pressure and heart diseases top the list among the reported chronic health conditions in New Brunswick both as a province and among the different zones (Figure 10[8]). Depression is more common in zone 1; cancer, Emphysema or COPD, as well as chronic pain and arthritis are more common in zone 2; depression, gastric reflux (GERD), and chronic pain and arthritis in zone 3; and chronic pain and emphysema or COPD in zone 4. Zone 5 seems to report higher prevalence rates across all top 10 chronic conditions (except for breathing diseases - asthma, emphysema and COPD) as compared to the New Brunswick average, whereas asthma and depression among zone 6 residents are more prevalent than their counterparts in New Brunswick.

Figure 9. Prevalence of chronic health conditions in New Brunswick by health region/zone (%, 2011)

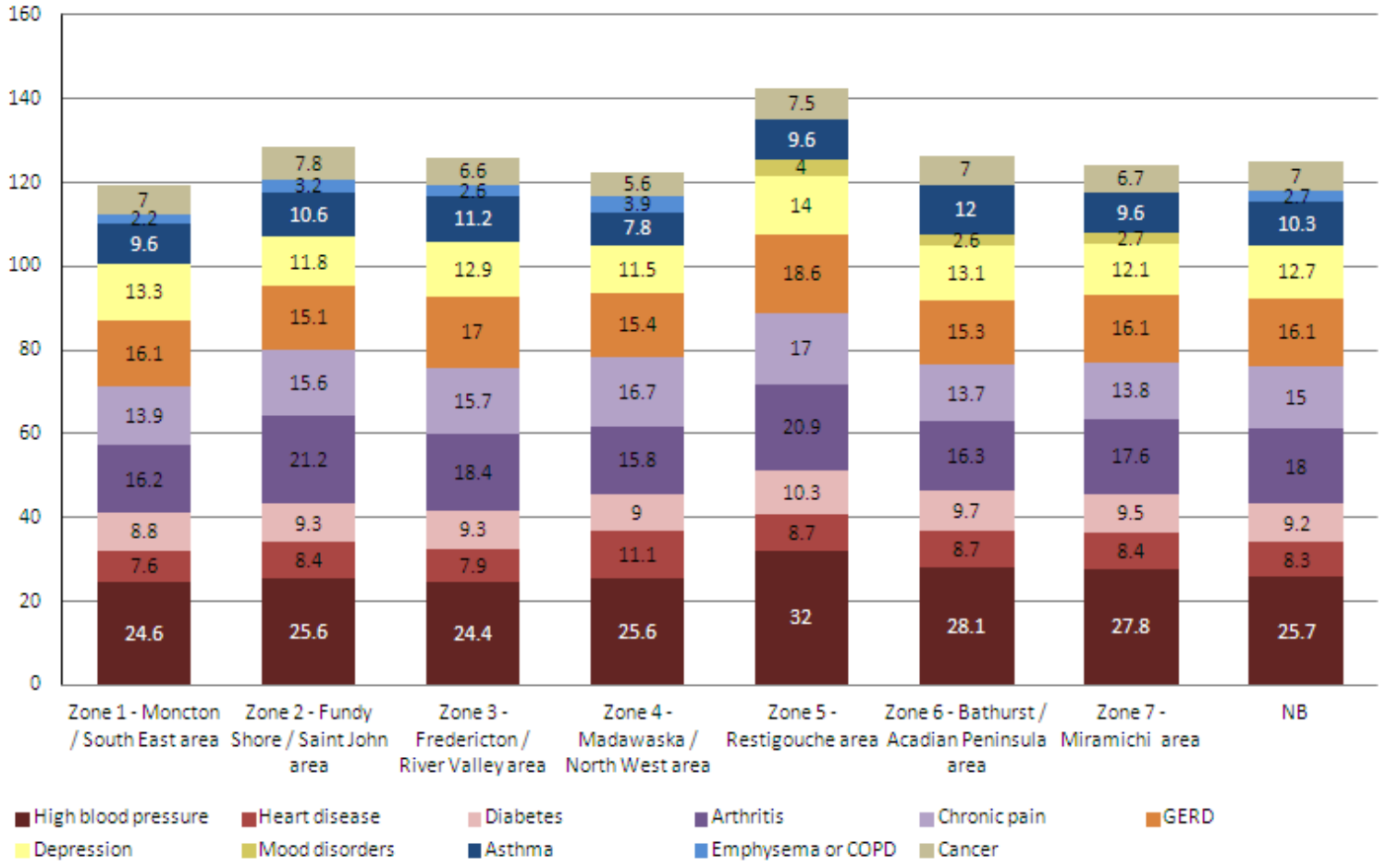


Observing the trends and factors contributing to the demand for health care services across the province, one cannot ignore the interesting mix of counterbalancing factors in zone 4, 5, 6, and 7. These factors include the shrinking populations on one side with the higher proportion of seniors, and more prevalent chronic health conditions on the other side. These changes support a thorough analysis of the needs of the population in these regions in order to adjust for age and chronic health conditions when determining the actual demand by zone, thus facilitating planning for the right amount and mix of resources needed.

7 Source: New Brunswick Health Council. Primary Health Care Survey, 2011

8 Source: New Brunswick Health Council. Primary Health Care Survey, 2011

Figure 10. Top 10 chronic health conditions by health region/zone



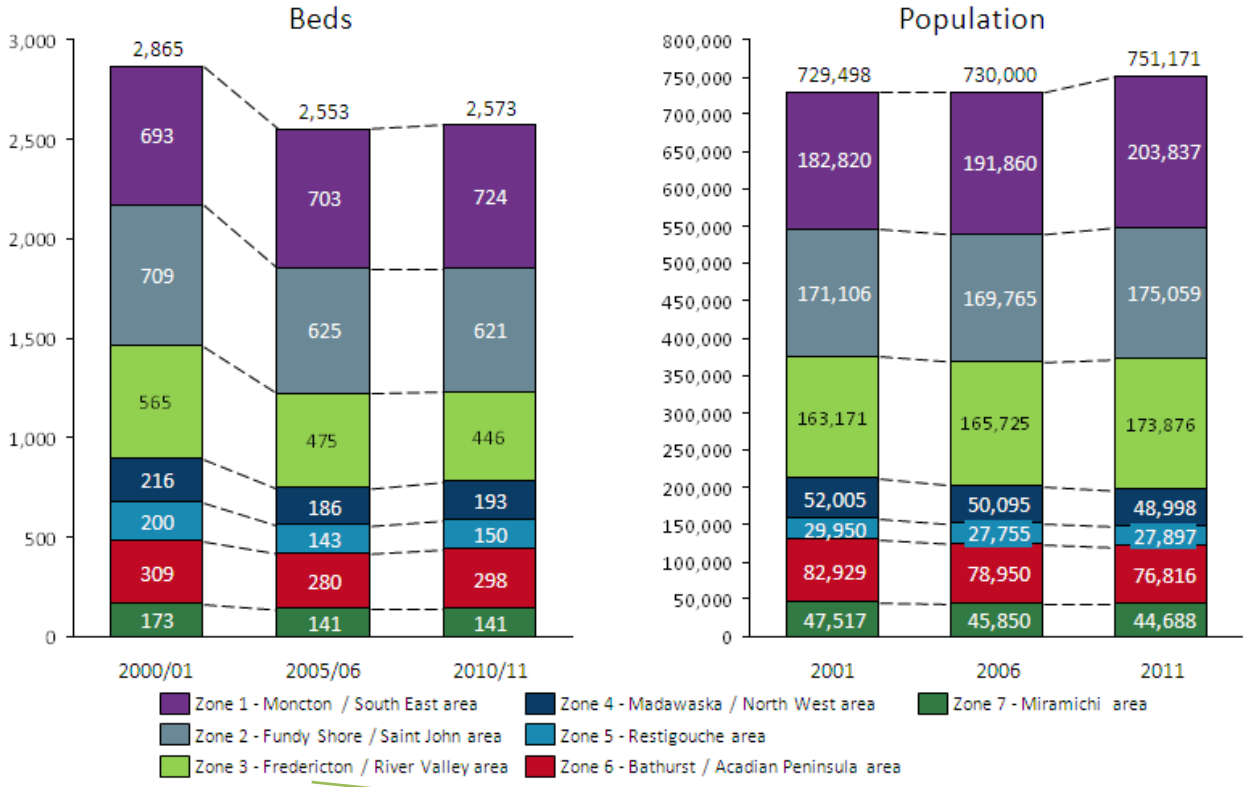
Note: GERD: Gastric Reflux COPD: Chronic obstructive lung disease

Supply trends

Although New Brunswick has more beds per population, they may not be optimally distributed geographically to meet the changing demands. The fact that almost 50% of New Brunswick's population is rural by nature presents a challenge to resource planning and needs to be accounted for when making comparisons and assessing system efficiencies. The rural nature of the province has influenced the distribution of resources historically and this has translated into the current trends and observations pertaining to supply characteristics, i.e. beds and human resources.

Beds represent a major health system cost driver especially that their operation require a higher intensity of services which often translates into staffing or availability of a certain level of human and physical resources.

Figure 11. Trends of beds in operation and population over time (2001 – 2011) (excludes psychiatric facilities)



Beds in some regions such as zone 2 and 3 have decreased disproportionately while trying to respond to a growing population (Figure 11[9]). Variability is observed upon comparing the rate of beds in operation by population across the province (Figure 12[10]), with the highest rate in zone 5 being almost double the lowest rate in zone 3.

Similarly, the North regions have higher rates of staffing (FTE counts) per population in comparison to the south, which continues to be challenged by a shortage in resources coupled with a growing population (especially in zone 1 where population growth matches Canada's rates at 11.5%). (Figures 13[11] and 14[12])

Figure 12. Rate of beds per 10,000 population by health region/zone, 2012-2013 (excludes psychiatric facilities)

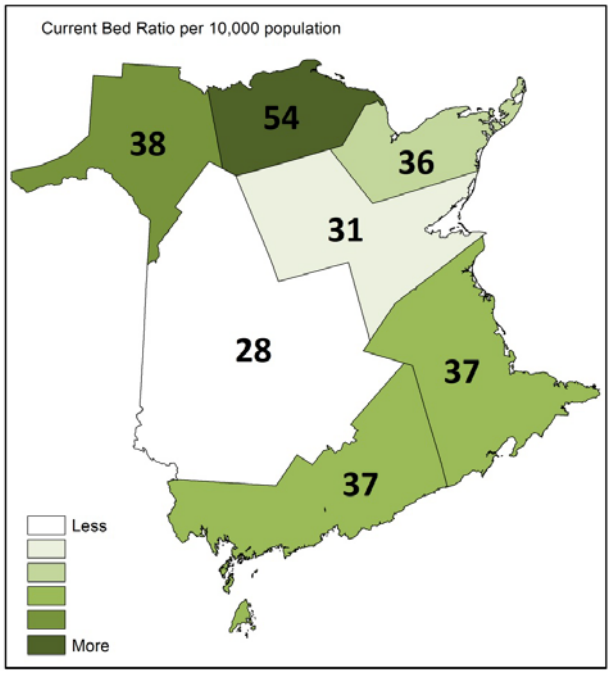
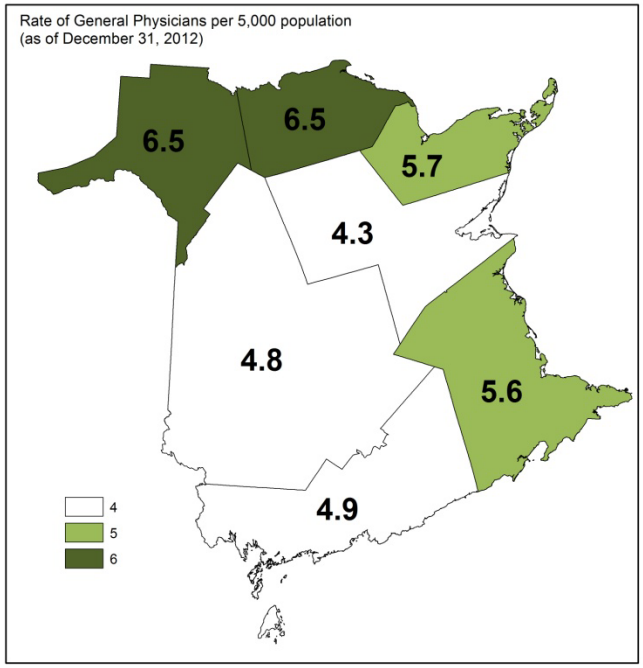


Figure 13. Rate of General Practitioners/physicians per 5,000 population by health region/zone (as of December 31, 2012)



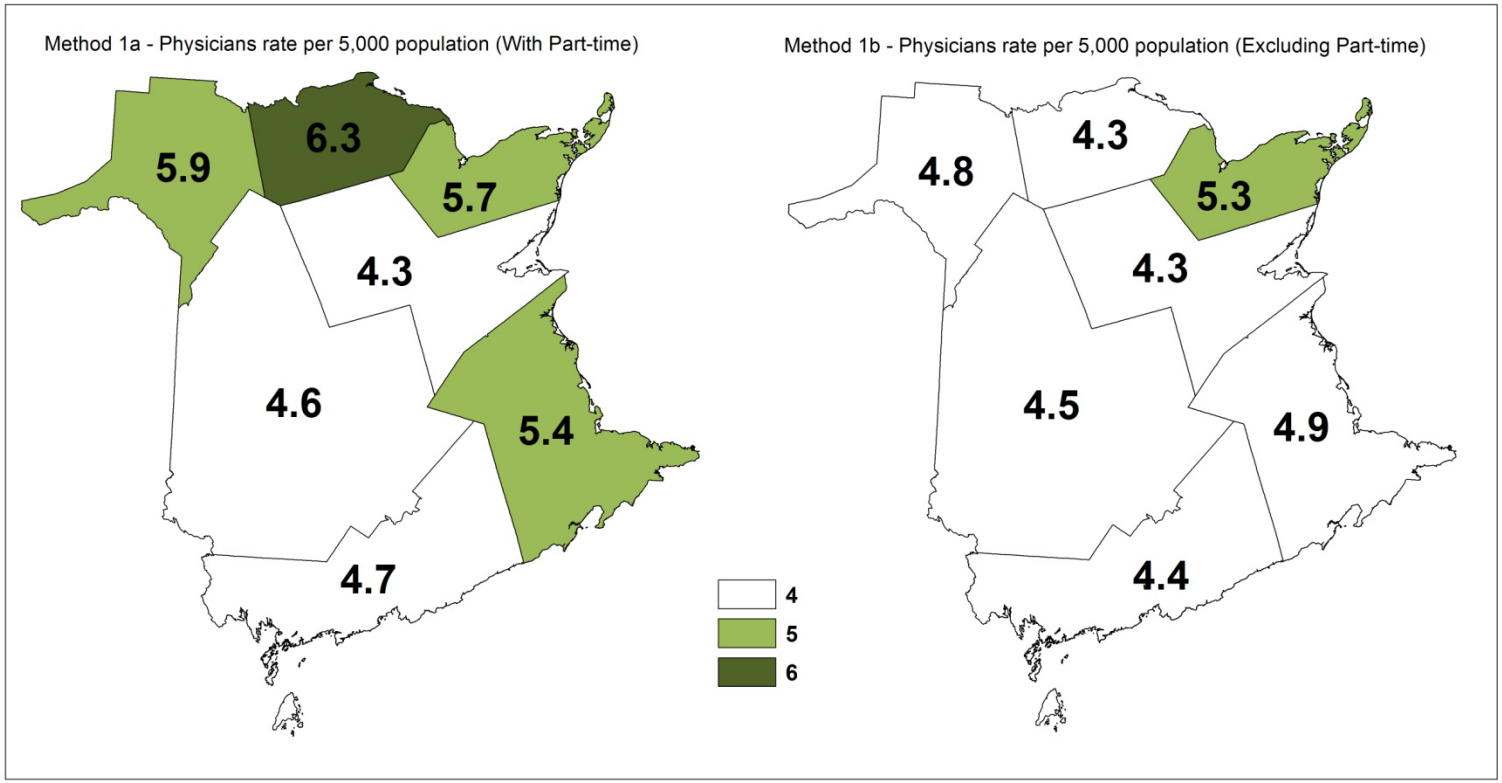
9 Source: Beds : DoH- HFUMS - Hospital Financial Utilization Management System. Beds In Operation. Population: Statistics Canada – Census data

10 Source for figure 12: New Brunswick Department of Health, Beds in operations count 2012-2013, n combination with Census 2011, Statistics Canada

11 Source for Figure 13: New Brunswick Department of Health, Health Human Resources Information - Medicare Information as of December 31 2012 , in combination with Census 2011, Statistics Canada

12 Source for Figure 14: New Brunswick Department of Health, Health Human Resources information - Medicare Information as of December 31, 2012, in combination with the annual population estimates by age and sex, July 1, 1996 to 2012, Census Subdivisions, New Brunswick, Statistics Canada

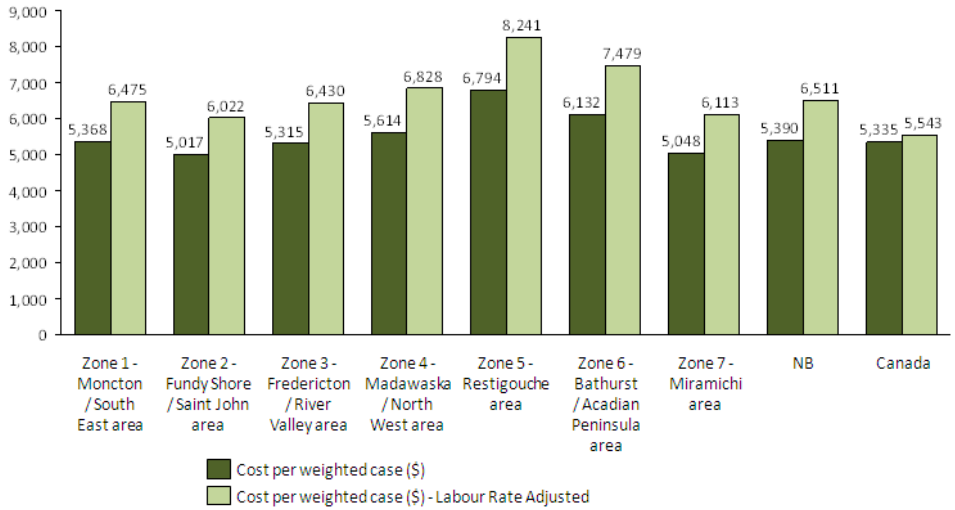
Figure 14. Physicians rate per 5,000 population by health region - 2012
(For all General Physicians/Family Physicians, excluding Hospitalists by health region/zone)



Having extra resources per population in regions where they have not been optimized can increase the costs of health care and induce inefficiencies in those regions, while leaving regions with fewer resources per population in a challenging supply-demand crisis.

New Brunswick demonstrates a relatively high cost per weighted case (both adjusted and unadjusted for labor cost), with zones 4, 5 and 6, exceeding the provincial average, indicating potential area for improvement in efficiency (figure 15[13]).

Figure 15. Cost Per Weighted Case ($, 2011-2012)



What can we do to match supply and demand?

Health systems are meant to serve the citizens, ensuring they receive the best quality of care they need, and helping them maintain or improve their health status and quality of life. Accordingly, health systems need to be designed around the needs of the population, and health resources distributed based on the needs of the communities they are meant to serve.

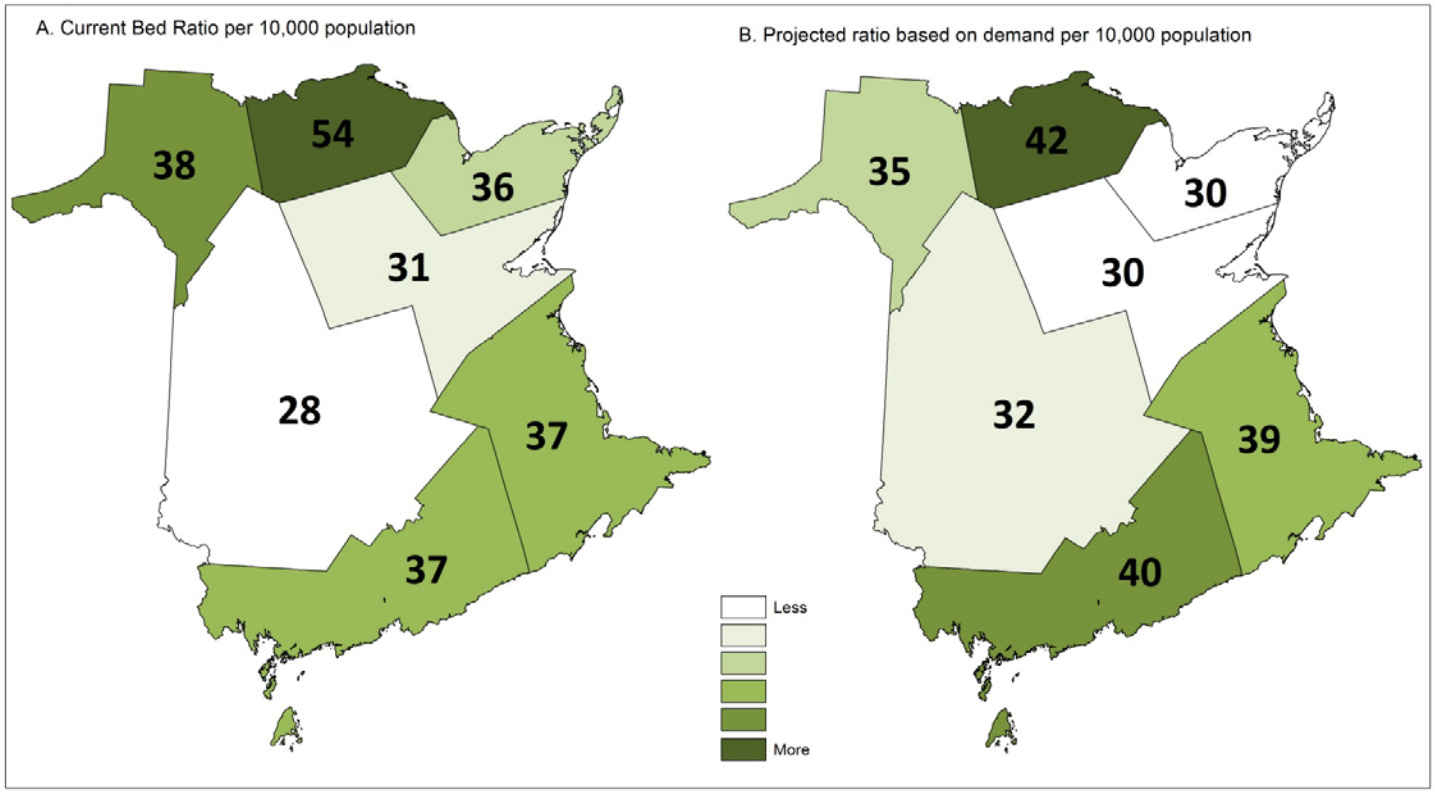
The New Brunswick Health Council underwent an exercise to adjust the bed counts per population in the different health regions/zones in New Brunswick based on key demand factors such as the prevalence of chronic health conditions, lifestyle patterns and the demand/ utilization of beds by patients from outside the health region (i.e. the inflow/outflow ratios). The adjustment revealed a new picture about how beds might

[13] Source: CIHI 2011-2012, Hospital Financial Performance

be allocated or redeployed within the province. This should be validated through a clinical services review to confirm these trends (Figure 16[14]).

Similarly, planning of human resources has to be based on current and forecasted demand, based on community and population needs, to inform decision making about recruitment and distribution.

Figure 16. Rate of beds per 10,000 population (current and suggested) by health region/zone, 2012-2013 (excludes psychiatric facilities)



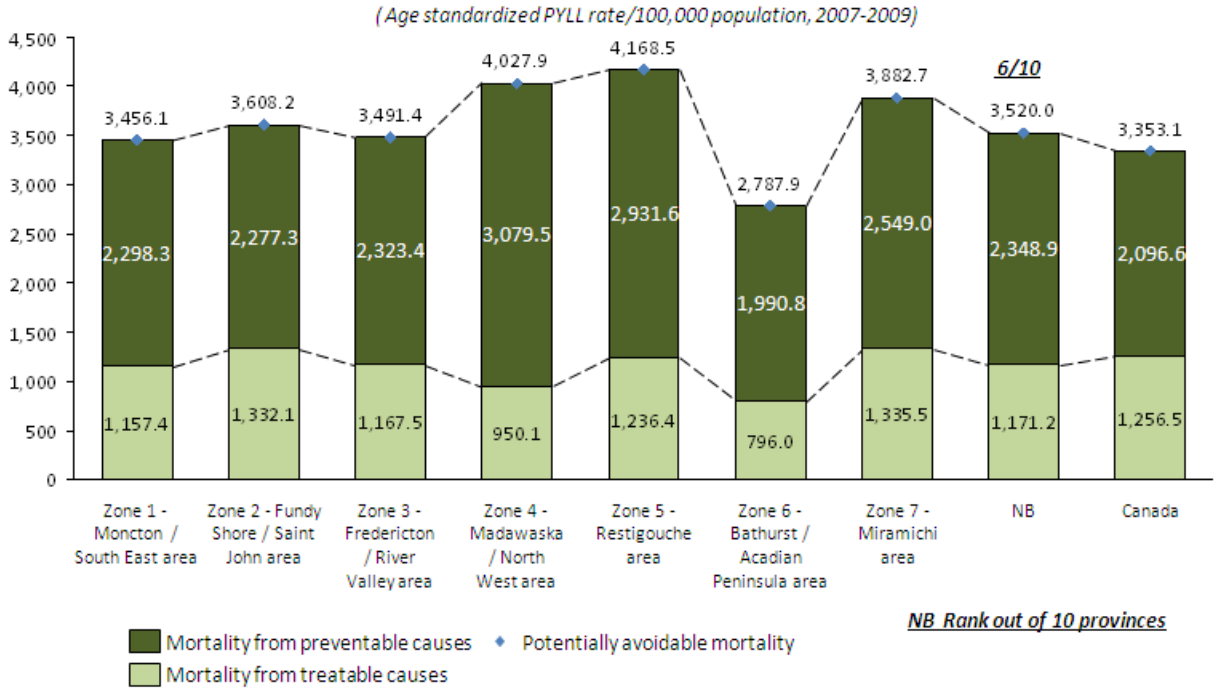
[14] Source for figure 16: New Brunswick Department of Health - Beds in operations count 2012-2013, Canadian Institute of Actuaries - Have Associates - Modeling New Brunswick's Future Healthcare Expenses and Resource Needs - Projected ratio 2012-2013

Below average health outcomes and health status

The key for a sustainable patient centered health system lies in the ability to leverage the available health resources to achieve better health care quality and to improve health outcomes for the citizens.

The concentration of costs and existing resources in the acute care sector (driven by the counts and distribution of beds), and the overall service provision model adopted being acute care focused, probably contributed to New Brunswick's 2nd best rating among Canadian provinces for years of life lost due to avoidable mortality from treatable causes (Figure 17[15]).

Figure 17. Avoidable mortality (Preventable vs. treatable) in New Brunswick by health region/zone



[15] Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates). CANSIM table 102-4311 Premature and potentially avoidable mortality, three-year average, Canada, provinces, territories, health regions and peer groups

Although this may be considered a positive outcome, it may come with a significant opportunity cost. The distribution of funds and resources may be reflecting a reactive approach which may not translate into a better quality of life for people, who develop more chronic health conditions, and eventually lose more potential years of life (PYLL) due to preventable causes of death. The fact that regions with the highest rates of beds per population (zones 4 and 5) also show the highest rates of avoidable mortality (especially due to preventable causes) highlights the fact that having more resources does not necessarily offer the warranty for better population health outcomes.

The poorer performance of the primary health care sector, and the lack integration and planning between the three health care sectors will probably further reinforce the reactive acute care based approach. The result will be a health system that continuously has to meet an increasing health burden and demand with existing resources; a health system that will be strained to improve performance and outcomes based on a cost containment model.

There are lessons to be learned from within New Brunswick to improve clinical services design towards improved health outcomes for the population. Zone 6 (Bathurst and the Acadian Peninsula) presents itself as an interesting example with the lowest rates of avoidable mortality (both treatable and preventable) despite some primary care experience challenges. Further analysis and exploration of the environment around health system performance in zone 6 can provide interesting insights to planning initiatives that can benefit from exploring the delivery of all key public programs and services in zone 6 and identifying the areas of strength.

Re-aligning our resources towards an integrated patient centered health system that addresses the full continuum of care and services,, might be an essential step in harmonizing standards and quality of care and improve health system performance. An integrated patient centered health system is what New Brunswickers' need to attain better health status, reduce the demand for expensive acute health care services, reduce the pressure on the health system, and consequently contain escalating health care costs for a sustainable health system.

Introduction:

Just as student report cards provide parents with information on their child's performance, the New Brunswick Health Council (NBHC) is committed to providing the citizens of New Brunswick with important information about the quality of health services being delivered in the province.

The *New Brunswick Health System Report Card* contains indicators of performance organized by sectors of care to highlight the importance of integrating programs and services. It also contains additional indicators to better reflect these programs and services that are being accessed by the citizens of New Brunswick. This is an effort to ensure that the citizen or patient remains the focus for improvement in health service quality as they must navigate through this health care system for effective management of their health.

The performance index grade compares New Brunswick's performance to the highest possible value achieved nationally. A performance index grade should not be viewed in isolation from indicators upon which it is based for any policy and/or planning decisions. The use of performance index grades provides the public an opportunity to obtain a sense of how the health system is performing in a holistic way.

In this complex system of programs and services, it is important that individuals or groups perform further analyses to obtain a more accurate picture of what is occurring and that they become informed about the quality of health care and health policies. Health indicators that are reported clearly and openly to the public helps patients, families and other citizens get involved in improving the quality of health services[16]. It is also important to note that the data for the *safety dimension, equity dimension* and the *supportive/specialty sector* are being reported in the second and third report cards but were unavailable for the first report card due to lack of standardization of the measures during

[16] Health Council of Canada, A Citizen's Guide to Health Indicators, A Reference Guide for Canadians January 2011 (2011), [online], from < http://www.healthcouncilcanada.ca/docs/rpts/2011/indicators/HCC_Indicators_Bookmark_Accessible.pdf >.

production of the first report. Although this report card is better balanced to reflect all dimensions of quality and sectors, there is still room for improvement.

Development of the *New Brunswick Health System Report Card*:

Performance measurement of the health system is extremely complex. For New Brunswick, it involves being able to measure, monitor and evaluate health services quality based on six dimensions of quality that the New Brunswick Health Council is required to report on[2]. These dimensions of quality are: *Accessibility, Appropriateness, Effectiveness, Efficiency, Safety and Equity*.

In addition to these dimensions of quality, the council measures performance through the perspective of the citizen, this encourages integrated care across sectors. There are four sectors of care which make up the Health Care System[17].

Dimensions of quality	Descriptor
Accessibility	The ability of patients/clients to obtain care/service at the right place and the right time, based on respective needs, in the official language of their choice.
Appropriateness	Care/service provided is relevant to the patients'/clients' needs and based on established standards.
Effectiveness	The care/service, intervention or action achieves the desired results.
Efficiency	Achieving the desired results with the most cost-effective use of resources.
Safety	Potential risks of an intervention or the environment are avoided or minimized.
Equity	Providing quality care/service to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity.

[17] We continue to be challenged on identifying indicators which will effectively measure the quality of the "end-of-life/palliative care sector". Since most of the services and programs are delivered either through hospital services (acute care), the Extra-Mural Program (supportive/specialty) or in a long term care facility (supportive/specialty), the challenge is data capture. Therefore, we will remove this sector for public reporting of the grades

Primary Health

•**PRIMARY HEALTH** is the care a person receives upon first contact with the health system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.

•Some programs and services included in Primary Health are: Public Health, Ambulance services, Community Health Centre, Family Physicians, Emergency Rooms, and Wellness.

Acute Care

•**ACUTE CARE** is the care provided in a hospital or a psychiatric facility.

•Some of the programs and services included in Acute Care are: Hospital Services, Cardiac Care Program, Ambulatory Care Clinics, Dialysis Services, and Psychiatric facilities.

Supportive / Specialty

•**SUPPORTIVE/SPECIALTY** *is the* care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and/or quality of life.

•Some of the programs and services included in Supportive/Specialty are: Community Mental Health Programs and Services, Extra-Mural Programs, Rehabilitation Services(Stan Cassidy Centre), Addictions Services, Social Development-Long Term Care.

Palliative and End-of-life Care

•**PALLIATIVE and END-OF-LIFE CARE** is for anyone facing a life-threatening illness. It provides physical, emotional and spiritual care and support for individuals and their loved ones.

•Most palliative programs and services are given either in the hospital (Acute Care) setting, at home through the Extra-Mural Programs or in a long term care facility.

A *health care system or health system* includes all individuals, institutions and resources involved in the prevention, treatment and management of injury, illness and disability and the preservation of mental and physical well-being through the services offered in the Province by medical and allied health professions. Health care is defined as the combined functioning of public health and personal medical services.

In order for the NBHC to support transformational change in the system, the current model or framework allows the organizations in the system to identify themselves with the indicators being measured and create focus around the importance of citizen-centred integrated care. Therefore, the NBHC chose to use *Accreditation Canada's sector divisions of care*[9] and marry it with the dimensions of quality for the creation of the grid.

Extensive research was performed to ensure that both the definition of dimensions and sectors were aligned with regional, provincial/territorial, national and international standards. In the first year over 400 indicators were discovered (compiled from international, national and provincial bodies responsible for reporting on health care quality such as: WHO, UK, Australia, USA, Canada, Ontario, Saskatchewan and New Brunswick) but only 48 were used. This year, similar to last year, there are 137 indicators. The expansion was based on stakeholder involvement requiring or requesting additional indicators and collective agreement through consultations for the majority of indicators selected. This approach facilitates the use of data for measuring and monitoring key programs and services.

The indicators chosen were based mainly on *outcome* and *system* level type indicators. These types of indicators are often strategic in nature and facilitate priority planning from a systems perspective. Most of the indicators were based on high-cost or high-volume program and service areas.

The indicators that the NBHC identified for use were those that were being collected from New Brunswick administrative databases and/or were available in the public domain: Canadian Institute for Health Information (CIHI), National Physician Survey, Statistics Canada and New Brunswick Department of Health.

The set of indicators were comprised of those that met our acceptable criteria list[5][18], that is:

1. Relevant to the concerns of our main target audiences,
2. Easy to understand,
3. Reliable and valid,
4. Timely,
5. Easy to obtain and are periodically updated,
6. Obtained through an open, transparent and inclusive consultative review process, and
7. Able to contribute to a coherent and comprehensive view of health system performance in New Brunswick.

[18] Accreditation Canada, [online], from <http://www.accreditation.ca/ >.

The method chosen for public reporting was the use of a report card which contained performance index grades.

	# of indicators in 2010 Report Card (48 indicators)	# of indicators in 2011 Report Card (111 indicators)	# of indicators in 2012 Report Card (137 indicators)	# of indicators in 2013 Report Card (137 indicators)
Dimensions of Quality				
Accessibility	17	29	28	28
Appropriateness	11	15	16	16
Effectiveness	13	20	26	26
Efficiency	6	13	13	13
Safety	1	14	20	20
Equity	0	20	34	34
Sector of Care				
Primary Health	19	51	51	51
Acute Care	21	40	51	51
Supportive / Specialty	8	20	35	35
Palliative and End-of-life Care*	0	0	0	0

**We continue to be challenged on identifying indicators which will effectively measure the quality of the "end-of-life/palliative care sector". Since most of the services and programs are delivered either through hospital services (acute care), the Extra-Mural Program (supportive/specialty) or in a long term care facility (supportive/specialty), the challenge is data capture. Therefore, we will remove this sector for public reporting of the grades.*

Purpose of the *New Brunswick Health System Report Card*:

The main purpose of the *New Brunswick Health System Report Card* is to provide New Brunswickers with a tool that would be easy to use for communicating and flagging key areas of focus as it relates to the quality of the health services being delivered.

To help frame the task at hand we can use the analogy of looking at the tip of an iceberg to attempt to explain the massiveness that lies beneath. The data presented in this report card assists in identifying how well New Brunswick performs in relations to other provinces in terms of health care quality.

Grading the health system based on overall dimensions of quality and sectors allows the public and decision-makers an opportunity to focus on some larger key areas in a very complex health care delivery system with numerous competing priorities. The deeper level of information or specific indicators within the performance index grade is intended for use by managers and others involved in measuring, monitoring and evaluating health services at the delivery end. It has the potential to allow organizations delivering the services to drill down to their own program-level indicators which have been aligned to the particular system indicator represented on the *Report Card*.

The *Report Card* and indicators hold the potential to:

- guide quality improvement activities;
- redesign services,
- keep people and organizations accountable for their performance,
- change policy and practice,
- inspire public debate.

Yearly report cards can be used to monitor and track changes over time. Although this information is available in the system, having it organised in a way that provides decision-makers a holistic view of the health system is the advantage of our report card.

This view can provide opportunities to identify how changes in programs and services can affect other programs and services in other sectors of care. It can also provide a unique lens in service gaps for patients/citizens moving through the health system. An example of this is Primary Health, which received a “D” grade in the 2010 Report Card. This helped direct the choice of the next sector for surveying. The result was, *New Brunswickers’ Experiences with Primary Health Care, 2011 Survey* (NBHC 2011). The survey results have helped stakeholders focus on primary care as an area of improvement (Fall 2011 Primary Care Stakeholder Summit).

Development of Performance Index Grades:

Indices or grades are commonly being used today by numerous organizations and institutions. CIHI has the *Wait Time Alliance Report Card*[19], the Fraser Institute[20] has report cards on hospitals and schools for select provinces in Canada, The Conference Board of Canada has a *How Canada Performs: A Report Card on Canada*[21] which assesses Canada's quality of life compared with that of its peer countries and the Institute of Well-being has the *Canadian Index of Well-being*[22] which is made up of domains related to well-being which are further made up of various indicators. Finally, there is also *The Frontier Centre for Public Policy, Canada Health Consumer Index 2010*[23] which produces reports on how well the ten provinces' health systems serve their residents.

The NBHC chose to follow suit with some of these examples and drawing on some of the methodologies in creating the performance index grades for the *New Brunswick Health System Report Card*.

Letter grading methodology for individual indicators:

The analysis is based on the indicators available when the report was completed. The letter grading is calculated by first identifying the lowest and highest values among provinces. The range is calculated and then divided by 7 to create cut-off points for grade separations. Grades are assigned to each of the ranges from A+, A, B, C, D, E, and F, in keeping with last year's grading method. A+ will correspond to the highest achievable interval and F to the lowest.

Example:

Step 1 – calculation of range:

i.e. range = the worse value (77%) minus better value (84%) = 7

Step 2 – calculation of interval:

i.e. range value of (7) divided by 7 letter grades = 1

[19] Wait Time Alliance (WTA), *Unfinished business - Report Card on Wait Times in Canada June 2010(2010),* [online], from < http://www.waittimealliance.ca/media/2010reportcard/WTA2010-reportcard_e.pdf >
[20] Fraser Institute [online], from <http://www.fraserinstitute.org/reportcards/hospitalperformance/
[21] The Conference Board of Canada, *How Canada Performs: A Report Card on Canada (2011)* [online], from < http://www.conferenceboard.ca/hcp/Details/Health.aspx >.
[22] Institute of Wellbeing, The Canadian Index of Wellbeing (2010), [online], from <http://www.ciw.ca/Libraries/Documents/HealthyPopulation_DomainReport.sflb.ashx >.
[23] B. Eisen and A. Björnberg, The Frontier Centre for Public Policy, *Canada Health Consumer Index* 2010, (2010), [online], from < http://www.fcpp.org/files/1/PS98_CHCI-2010_DC13_F!B.pdf >

Step 3 – grades are assigned to each interval

i.e. A+=84 to 83.1, A=83 to 82.1, B=82 to 81.1, C=81 to 80.1, D=80 to 79.1, E=79 to 78.1, F=78 to 77

In this case, if New Brunswick = is 80% the Grade for this indicator would be D.

When there is no grade associated to a specific indicator, either only local data was available or the two sources identified were not comparable for grading.

Equity grading methodology:

The Equity Dimension grade is calculated by evaluating health inequities based on the importance that access to good quality services has as a determinant to health outcomes[24].

Certain characteristics of the populations which were chosen for comparison for health equity were based on geography, aboriginal descent, language of service preference, gender, age, education and income.

Step 1: Assign a value of "1" to all characteristics where a significant difference was found or inequity present.

Step 2: Sum all values of "1" to create an inequity score.

i.e. 14

Step 3: Total all characteristics for evaluation to create range.

i.e. 20

Step 4: Divide range by 7 equal cut-off points for Grade levels.

i.e. A+ = 0 - 2.9, A = 2.9 – 5.7, B = 5.7-8.6, C = 8.6-11.4, D = 11.4-14.3, E = 14.3-17.1, F = 17.1.-20

Step 5: Assign the inequity score to a grade level. Lower number of inequities equals a better grade.

[24] Dahlgren C. Whitehead M. Levelling up (part 2): a discussion paper on concepts and principles for tackling social inequalities in health. Copenhagen: WHO Regional Office for Europe, 2006

i.e. 14 = D Grade.

Letter grading methodology for overall performance index grade:

To calculate score, grades are given values to be used for total scoring for trending over time and scoring is used to create overall grade and scoring is used to create overall grade A+ = 1, A = 2, B = 3, C = 4, D = 5, E = 6, F = 7.

Example: Accessibility overall Grade

Step 1 – list all individual grades

C, A+, B, B, D, D, E, F, C, A+, A+, D, D, A+, A+, B, A+, C, B

Step 2 – create average of overall grade using assigned scoring

(4+1+3+3+5+5+6+7+4+1+1+5+5+1+1+3+1+4+3) / 19 = 3.3

In this case, with a score of 3.3, Accessibility would get an overall grade of B (rounding down).

In situations where it is a value reaches 0.5 (i.e. 3.5) we would round up to the next grade level (i.e. 3.5 = C).

IMPORTANT NOTES:

- *The overall grade should not be viewed in isolation from indicators on which it is based for any policy and/or planning decisions.*
- *Grades need to be considered in the context of the National comparison, and the Pan-Canadian range. An indicator scoring a higher grade only implies a better position in terms of performance in comparison to other provinces. Actual trend of performance can be observed through the "Value Trend".*
- *Any analysis of "improvement" or "trend" remains limited in the absence of clear provincial performance targets*
- *All indicators with stars at the end (*) were also used in the New Brunswick Health System Report card 2010 (NBHC 2010).*

Please note that a grade does not equal better health results, it only speaks to the quality of services being provided when we compare New Brunswick to other provinces.

Listed here is an outline of some advantages and disadvantages to using indices. [25,26,27]

ADVANTAGES	DISADVANTAGES
1. .Such indices provide simple targets facilitating the focus of attention and can lead to the development of better policies and programs. 2. .The simplicity of a composite index facilitates necessary negotiations about its practical value and usefulness. 3. .Such indices provide a means for simplifying complex, multi-dimensional measures. 4. .They make it easier to measure and visually represent overall trends in several distinct dimensions over time. 5. .Increases in the comparability of information leading to increases in the capacity to make holistic assessments and balanced judgments . 6. .Increases in the capacity to make such holistic assessments and judgments reduce the likelihood of a public agenda being unduly influenced by the relatively narrow interests of a few at the expense of the broader interests of many. 7. .Because indices require construction based on conventions agreed upon by potential users, inventors have considerable flexibility for including desired and excluding undesired features. 8. .A single composite index representing a single value is an excellent communications tool for use with the public, including the news media, general public, and elected and unelected key decision-makers.	1. .A single index must oversimplify complex issues. 2. .A single index requires all issues to be significantly comparable. 3. .Particular issues will be buried in composite figures, including changes in component variables that significantly increase or decrease the composite figures. 4. .Inadvertent burying of some problems may produce overemphasis on others. 5. .Accuracy and comparability of data will be open to challenge. 6. .Index values have no clear meaning. 7. .Values of domains, variables and indices vary over time. 8. .Composite figures lack practical value, resulting from all their difficulties.

[25] C. Lance et al., ``A Comparison Between Bottom–Up, Top–Down, and Bidirectional Models of Relationships Between Global and Life Facet Satisfaction,`` Journal of Personality 57, 3, (1989): pp 601-624.
[26] A. Saltelli, "Composite indicators between analysis and advocacy", *Social Indicators Research* 81, 1 (2007) pp.65-77.
[27] M. Nardo *et al*., "Handbook on Constructing Composite Indicators: Methodology and User Guide", *OECD Statistics Working Papers*, 2005/3, OECD Publishing

Changing / Current Indicators:

Some of our indicators have changed as a result of changes in the source of data (e.g. differences in the questions covered by the National Physician Survey 2013; termination of some indicators by Statistics Canada, etc.), or changes in the methodology behind the indicators (e.g. immunization rates, labour adjusted cost per weighted case, Hospital Standardized Mortality Ratio, etc.). These indicators are well indicated in the actual indicator tables.

The NBHC continues to aim at representing as many programs and services to provide a more complete performance measurement tool which also mirrors the allocation of funds based on current financial reporting or annual reporting of these services.

Continued Challenges:

As we continue to monitor indicators for our health system report card, a number of challenges continued to present themselves.

Some indicators continue to undergo methodology changes by the source, impeding the ability to trend from one year to the next.

A continued challenge is the lack of national standardized benchmarks, limiting the possibility for grading, and eventually minimizes the contribution of those indicators to the overall grades by quality dimension, sector of care and the overall provincial grade.

The equity dimension is the most difficult to address from a measurement perspective since there are a number of different approaches or areas of possible focus. In addition, there is little consensus about the meaning of the terms “health disparities,” “health inequalities,” or “health equity”. The definitions can have important practical consequences, determining the measurements that are monitored by governments and the activities that will be supported by resources earmarked to address health disparities/inequalities or health equity. For the NBHC, access to good quality health services is an important health determinant[11] and therefore, understanding whether there are disparities for these vulnerable groups in New Brunswick is not only important but valuable for planning and policy purposes. Choosing a methodology to analyze health inequity was based on the study of the differences in access to family physicians, quality of primary health care providers and places and quality of hospital services across demographic characteristics. Calculating the overall grade for the equity dimension also required a slightly different approach than the overall grading methodology for all other dimensions of quality. The release of the results of the *Acute Care Experience Survey 2013* contributed to the update of the equity dimension within the acute care sector.

We continue to be challenged on identifying indicators which will effectively measure the quality of the “end-of-life/palliative care sector”. Since most of the services and programs are delivered either through hospital services (*acute care*), the Extra-Mural Program (*supportive/specialty*) or in a long term care facility (*supportive/specialty*), the challenge is data capture. Therefore, we have removed this sector for public reporting of the grades.

The next major challenge was in identifying indicators that were being collected for programs or services designated in our supportive/specialty sector which is more commonly referred to as “continuing care”. We identified four program areas: community mental health, home care, long term care and rehabilitation services. Although we were fairly successful at identifying and including indicators for at least three of these additional areas, finding provincial or international comparators was extremely limited.

The challenges continued, with being restricted to data or indicators that were able to provide flags for performance areas that require attention and that could drill down to zone level or even program level for further analysis and evaluation. In the first year, the 48 indicators were restricted to system or program level indicators from national databases in order to build comfort level with the use of the report card to create a common baseline performance picture.

Key Trends / Observations:

Accessibility:

Overall, accessibility remained at a "C" grade. Some improvement was achieved in having regular medical doctors (among the highest rates in Canada), with improvement in accessibility to immediate care for minor health problems, yet this was not coupled with better access to routine or immediate care as more people reported difficulties. Access to prescription drugs consistently highlights a financial barrier with a bigger percentage of average household expenditure going to prescribed medications in New Brunswick as compared to other provinces.

Performance on access to surgeries improved overall in comparison to other provinces, with some indicators showing improvement or stability, and more patients receiving the necessary hip fracture or knee replacement surgeries (hip fractures: "C" to "A+" and knee replacement from "E" to "C").

Wait time for long-term care home placement seems to be improving. The Extra-Mural Program is steadily serving more clients per population. Children and youth's access to mental health services needed within 30 days continues to trend in the wrong direction (41.7%).

Appropriateness:

Appropriateness is defined as the care or service provided that is relevant to the patients'/clients' needs and based on established standards. This year's report card has maintained a "C" grade for appropriateness. In acute care, some improvement was observed with fewer females delivering by c-section and more newborns and infants undergoing universal hearing screening. There is a room for improvement in the area of mental health hospitalizations that continue to increase. As for primary care, aside from the improvement in flu shots provided to the elderly, in children immunization, and in breastfeeding initiation, screening for breast cancer (mammogram) and cervical cancer (Pap test) require improvement. In supportive /specialty care, mental health screening has not shown major improvement, with only 39% getting screened within 48 hours.

Effectiveness:

From a health system perspective, this dimension of quality provided the most insight on outcomes of care and the significant gaps that exist to deliver an integrated system. Effectiveness is often reflective of outcomes on patients since the intervention or action should achieve the desired result. The grade on effectiveness dropped from a "C" to a "D", highlighting major gaps to be addressed.

Primary care still requires improvements in supporting effectiveness particularly in the area of prevention and health promotion. The population continues to see increases in the diagnosis of high blood pressure (23.3% from 21.7%). Despite the decrease in the hospitalization of ambulatory care sensitive conditions (potentially avoidable hospitalization), our grade fell to an "F", demonstrating the need for further efforts to match national efforts in curbing that rate.

The effectiveness of acute care appears to be going in the wrong direction with an average to poor performance in controlling or reducing readmission rates; however, in-hospital mortality (namely stroke related and general 5-day in-hospital mortality) showed some improvement and scored an "A" grade for each of these measures. An updated five-year relative survival ratio indicator for 4 major types of cancers demonstrated some decreases in performance compared to other provinces, especially in the area of colorectal cancer (Drop from "B" to "E" grade).

Within the supportive/specialty sector, New Brunswick has achieved better rates in adopting the Electronic Medical Record model, and major improvement as compared to other provinces in the percentage of people reporting pain or discomfort that prevents activities (from "E" to "B" grade). However, performance areas that should be addressed include mental health services within the area of repeat hospitalization (dropping from "A" to "D" grade) and self-injury hospitalization rates receiving an "F" grade.

Efficiency:

Efficiency is another dimension showing a drop from a "C" to a "D" grade this year. Except for a slightly better than average length of stay and improved efficiency of imagery machines with more exams per scanners being performed, the majority of indicators trend in the wrong direction.

This year, less urgent and non-urgent cases have contributed to a higher proportion of emergency Department visits. In addition, more inpatient days have been associated with Alternative Level of Care.

New Brunswick's rank on a number of financial indicators demonstrate one of the highest labour adjusted cost per weighted case in Canada

(receiving an “F” grade), increasing nursing inpatient services total personnel worked hours per weighted case (receiving an “E” grade), and increasing percentage of administrative service expenses (dropping from a “B” to a “C” grade).

Safety:

NBHC reports on 6 quality dimensions and, safety continues to be distinctive receiving the highest index grade in this year’s report card “A”.

Rates of injury hospitalizations (overall and due to hip fractures) have decreased highlighting possible improvements in injury prevention and management within the primary care sector.

Safety indicators in the acute care sector continue to place New Brunswick among the best performing provinces, however, with a trend that is starting to move in the wrong direction, as in-hospital hip fractures for elderly, and nursing sensitive adverse events for medical patients increase. Nosocomial infection rates continue to be below suggested targets, but the actual rate appears to be increasing slightly; the need to further understand and monitor this trend will be important.

Equity:

With respect to equity, the overall grade remained at “C”. The same inequities were reported for primary and supportive/specialty sector (from the previous report card). Those were based on differences in access and/or care experience rating by characteristics of the populations like geography, aboriginal descent, language of service preference, gender, age, education and income. Equity for acute care was updated based on the results of the recently released November results of the *Acute Care Survey 2013*). This year the acute care sector equity dimension (which is based on overall hospital rating) has not changed. Gender is not associated with inequity in acute care anymore; however, inequity emerged based on language of service preference.

2013 New Brunswick Health System Report Card*

**We continue to be challenged on identifying indicators which will effectively measure the quality of the "end-of-life/palliative care sector". Since most of the services and programs are delivered either through hospital services (acute care), the Extra-Mural Program (supportive/specialty) or in a long term care facility (supportive/specialty), the challenge is data capture. Therefore, we removed this sector for public reporting of the grades*

New Brunswick Health System Report Card 2013

Health Care Sectors

Primary Health

The care a person receives upon first contact with the health system, before referral elsewhere within the system.

Acute Care

Hospital based care.

Supportive/ Specialty

Care received in the community or as an out-patient.

Performance Index Grade
(by Quality Dimension)

Quality Dimensions

Accessibility	Providing timely services				C
Appropriateness	Relevant and evidence based				C
Effectiveness	Doing what is required to achieve the best possible results				D
Efficiency	Making the best use of the resources				D
Safety	Keeping people safe				A
Equity	Aiming for equitable care and services for all				C
Performance Index Grade (by Health Care Sector)		D	C	C	C

Comparison
2011, 2012 and 2013

Trending New Brunswick Health System Report Card

Health Care Sectors

Primary Health

The care a person receives upon first contact with the health system, before referral elsewhere within the system.

Acute Care

Hospital based care.

Supportive/ Specialty

Care received in the community or as an out-patient.

Performance Index Grade
(by Quality Dimension)

Quality Dimensions				2011	2012	2013
Accessibility	Providing timely services			B	C	C
Appropriateness	Relevant and evidence based			D	C	C
Effectiveness	Doing what is required to achieve the best possible results			C	C	D
Efficiency	Making the best use of the resources			C	C	D
Safety	Keeping people safe			B	A	A
Equity	Aiming for equitable care and services for all			D	C	C
Performance Index Grade (by Health Care Sector)	2011	C	C	B	C	
	2012	D	B	B		
	2013	D	C	C		

Indicators by quality dimensions

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade
* Core indicator since 2010

2013 - Indicators by Quality Dimension – ACCESSIBILITY

The ability of patients/clients to obtain care/service at the right place and the right time, based on respective needs, in the official language of their choice.

(Providing timely services)

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.							
Contact with a medical doctor in the past 12 months (%)*[1] (New source)	**2012**	**79.0%**	--	**75.7%-82.9%**	**C**	--	--
Has a regular medical doctor (%)*[1]	**2012**	**93%**	⇑	**75.2%-93.0%**	**A+**	**A+**	■
Difficulties accessing routine or on-going care at any time of day (%)*[2]	**2012**	**12.6%**	⇓	**13.1%-11.9%**	**D**	**A+**	◆
Difficulties accessing immediate care for a minor health problem at any time of day (%)*[2]	**2012**	**18.4%**	⇑	**29.6%-18.6%**	**A+**	**B**	■
Family practitioner and general practitioners who provide extended office hours regularly (%)[3]	2011	21.6%	--	7.0% - 31.3%	--	--	--
Patients who contact or are referred to their family physicians or general practitioners URGENTLY, can have an appointment the same day (%) (as reported by physicians)[4] (To be discontinued in 2014)	2010	41.8%	--	35.2% - 57.0%	D	D	--
Percentage of patients seen within 1 week for NON-URGENT visit with family physician or general practitioners (%) (as reported by physicians)[4](To be discontinued in 2014)	2010	18.3%	--	9.3% - 34.2%	D	D	--
First available appointment - from patient contacts with physicians office or referred to office by another physician – URGENT only (mean number of days)(as reported by physicians)[4](To be discontinued in 2014)	2010	3.43 days	--	3.66 days - 2.26 days	E	E	--
Contact with dental professionals in the past 12 months (%)*[2]	**2009-2010**	**60.8%**	⇑	**51.8%-71.6%**	**C**	**F**	■
Average household expenditure on prescribed medicines and pharmaceutical products per household (% of household spending)[5] (NEW)	**2011**	**0.91%**	--	**1.06%-0.55%**	**E**	--	--
Left without being seen from the Emergency Room (%)[6]	**2012-2013**	**5.5%**	⇑	**Zones: 7.6%-3.2%**	--	--	--
% of emergency calls done within the appropriate time (9 min –urban, 22 min – rural) for ambulance services (%)[7]	**2012-2013**	**94.73%**	⇓	**Target: 90%**	**A+**	**A+**	■
Emergency Room - Patients who are seen within 4 hours (%)[3]	2011	75.0%	--	73.0% - 96.0%	--	--	--

1. Statistics Canada, Table 105-0501. http://www.statcan.gc.ca
2. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
3. New Brunswickers' Experiences with Primary Health Care, 2011 Survey Results (NBHC 2011) . http://www.nbhc.ca/nb_primary_care_health_survey.cfm
4. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
5. Statistics Canada, Table 203-0022 http://www.statcan.gc.ca
6. New Brunswick Department of Health
7. Ambulance New Brunswick. http://www.ambulancenb.ca/

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade
* Core indicator since 2010

2013 - Indicators by Quality Dimension – ACCESSIBILITY

The ability of patients/clients to obtain care/service at the right place and the right time, based on respective needs, in the official language of their choice.

(Relevant and evidence based)

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
Wait time for hip fracture surgery (proportion with surgery - within 48 hours) (%)*[1]	**2011-2012**	**84.92%**	⇑	**76.76%-85.57%**	**A+**	**C**	■
Wait time for hip replacement surgery (within 26 weeks) (%)*[2]	**2010-2012**	**72.0%**	⇔	**52.0%-89.0%**	**C**	**D**	■
Wait time for knee replacement surgery (within 26 weeks) (%)*[2]	**2010-2012**	**61.0%**	⇑	**35.0%-84.0%**	**C**	**E**	■
Wait time for cataract surgery (within 16 weeks) (%)*[2]	**2010-2012**	**85.0%**	⇔	**57% - 88.0%**	**A+**	**A+**	■
Wait time for Coronary Artery Bypass Graft Surgery –Level II (within 42 days) (%)*[3]	**2012-2013**	**85.0%**	⇑	--	--	--	--
Wait time for radiation therapy (within 28 days) (%)*[2]	**2010-2012**	**94.0 %**	⇓	**89.0 % - 100.0 %**	**C**	**B**	◆
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an outpatient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.							
Wait time for selected diagnostic tests: Magnetic Resonance Imaging (MRI), CAT (CT) scan, angiography (within 1 month) (%)*[4]	2011	65.0%	--	60.9%-79.2%	E	E	--
Nursing home beds per 100 persons aged 75 and over (Rate per 100)*[5]	**2012-2013**	**8.1%**	**--**	**To be determined**	**To be determined**	**To be determined**	--
Wait time for specialist visits for a new illness or condition (within 1 month) (%)*[6]	**2011**	**41.2%**	⇓	**34.4% %-47.7%**	**C**	**C**	●
Experience difficulties getting specialist care (% with fair or poor access) (%)[7](To be discontinued in 2014)	2010	14.3%	--	30.7% - 13.8%	A+	A+	--
Median number of day to long term Care Home placement (days)[5]	**2012-2013**	**95.38 days**	⇑	**To be determined**	**To be determined**	**To be determined**	--
Extra-Mural Program – Clients served per 1000 [8]	**2012-2013**	**54.6**	⇑	**To be determined**	**To be determined**	**To be determined**	--
Extra-Mural Program – % Referred from community (%) [8]	**2012-2013**	**62.1%**	⇓	**To be determined**	**To be determined**	**To be determined**	--
Extra-Mural Program – % Referred from hospital (%) [8]	**2012-2013**	**27.5%**	⇓	**To be determined**	**To be determined**	**To be determined**	--
Percentage of service delivery done within 30 days (from referral to first visit) for child and youth mental illness (%) [9] (Excluding St.Stephen and Caraquet for differences in reporting systems)	**2012-2013**	**41.7%**	⇓	**Zones: 16.0%-63.4%**	--	--	--
Overall Performance Index					**C**	**C**	●

1. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
2. Canadian Institute for Health Information – Wait Times for Priority Procedures in Canada, 2013
3. Department of Health. Wait times in New Brunswick
4. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
5. NB Department of Social Development in combination with Census 2011 Statistics Canada Catalogue no. 99-004-XWE. http://www.statcan.gc.ca
6. Statistics Canada , CANSIM table 105-3002. http://www.statcan.gc.ca
7. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
8. New Brunswick Department of Health, Extra-Mural Program
9. New Brunswick Department of Health, Mental Health. (range used is New Brunswick Health Zones)

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade
* Core indicator since 2010

2013 - Indicators by Quality Dimension – APPROPRIATENESS:

Care/service provided is relevant to the patients'/clients' needs and based on established standards. *(Relevant and evidence based)*

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.							
Pap smear within the last 3 years, for females aged 18 to 69 years (%)*[1]	**2012**	**70.3%**	⇓	**66.8%-80.2%**	E	--	--
Received a mammogram within the last 2 years, females aged 50 to 69 years (%)*[1]	**2012**	**71.9%**	⇓	**62.3%-74.4%**	**A**	**A+**	◆
Breastfeeding initiation (%)*[2]	**2012**	**78.5%**	⇑	**59.3%-97.2%**	**C**	**D**	■
Colorectal cancer screening above age 50 (colonoscopy in the past 5 years or a fecal occult blood test in the past 2 years) (%)*[1]	**2012**	**42.0%**	⇓	**36.3%-62.2%**	**E**	**E**	●
Proportion of kindergarten children meeting immunization requirements (%)[3](Methodology change in 2010)	**2011-2012**	**73.2%**	⇑	**Zones: 52.6% - 96.9%**	--	--	--
% of adult 65 and over who received their flu shot in the last year (%)[2]	**2012**	**68.9%**	⇑	**55.6%-77.1%**	**B**	**B**	■
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Blood Pressure in the past 12 months (%)*[4]	2011	93.3%	--	88.0% - 97.0%	B	B	--
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Cholesterol in the past 12 months (%)*[4]	2011	79.8%	--	78.0 - 86.0%	E	E	--
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Blood Sugar in the past 12 months (%)*[4]	2011	76.6%	--	75.0% - 85.0%	E	E	--
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Body Weight in the past 12 months (%)*[4]	2011	64.3%	--	66.0% - 80.0%	E	E	--
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
Hysterectomy age-standardized rate (rate per 100,000)*[5]	**2011-2012**	**421**	⇓	**469-285**	**E**	**E**	●
Proportion of women delivering babies in acute care hospitals by Caesarean section (%)*[5]	**2011-2012**	**27.3%**	⇑	**32.0%-21.4%**	**C**	**C**	●
Universal newborn and infant hearing screening (%)[6]	**2012-2013**	**92.1%**	⇑	**Zones: 62.7% - 99.5%**	--	--	--
Use of Coronary Angiography Following Acute Myocardial Infarction (rate per 100)[7]	**2011-2012**	**72.64**	⇑	**56.24%-75.36%**	**A+**	**A**	■
Aged-standardized mental illness hospitalization rate (age-standardized rate per 100,000)[5]	**2011-2012**	**631**	⇓	**838-401**	**C**	**B**	◆
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an outpatient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.							
Proportion of mental health clients that had a screening assessment within 48 hours (%)[8]	**2012-2013**	**39.0%**	⇑	**Zones: 7.0%-70.0%**	--	--	--
Overall Performance Index					**C**	**C**	●

1. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
2. Statistics Canada, Table 105-0501. http://www.statcan.gc.ca
3. New Brunswick Department of Health, Office of the Chief Medical Officer of Health (range used is New Brunswick Health Zones)
4. New Brunswickers' Experiences with Primary Health Care, 2011 Survey Results (NBHC 2011) http://www.nbhc.ca/nb_primary_care_health_survey.cfm . In combination with Canadian Institute of Health Information-Experiences With Primary Health Care in Canada 2009 (for range) http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_E
5. Canadian Institute for Health Information - 2013 Health Indicators Report. https://secure.cihi.ca/estore/productSeries.htm?pc=PCC140
6. New Brunswick Department of Health, DAD/#M / AHIM
7. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
8. New Brunswick Department of Health, Mental Health. (range used is New Brunswick Health Zones)

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 - Indicators by Quality Dimension – EFFECTIVENESS:

The care/service, intervention or action achieves the desired results.

(Doing what is required to achieve the best possible results)

Indicators	NB Value (2013) Year	NB Value (2013) Value	Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.							
Age-standardized acute care hospitalization rate for ambulatory care sensitive conditions (rate per 100,000)*[1]	2011-2012	460	⇑	460-254	F	E	◆
Reported that they have been diagnosed by a health professional as having high blood pressure (%)*[2]	2012	23.3%	⇓	23.3% - 16.2%	F	F	●
Average weekly work hours in providing direct patient care with a teaching component- Excluding on-call activities (hours) (As reported by physicians)[3(NEW)]	2013	5.11 hours	--	2.33 - 9.68	D	--	--
% of registered diabetes patients are not in the optimal range of HbA1C less than 7% (%)[4]	2012	52.0%	⇑	To be determined	To be determined	To be determined	--
Physician participating in interprofessional practices (%)[3]	2013	16.2%	⇓	14.4%-28.2%	F	D	◆
Hospitalized Stroke Event (aged-standardized rate per 100,000)[1]	2011-2012	128	⇑	144-116	C	C	●
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
Low weight babies (live birth less than 2,500 grams) (%) * [5]	2011	5.9%	⇑	6.8%-5.3%	B	C	■
5-Day In-Hospital Mortality Following Major Surgery (rate per 1,000)[6]	2011-2012	6.45	⇑	9.82-5.44	A	C	■
Risk-adjusted rate of 30-day stroke in-hospital mortality (%)*[1]	2009-2012	14.9%	⇑	20.4%-13.5%	A	B	■
Risk-adjusted rate of 30-day acute myocardial infarction (AMI) in-hospital mortality (%)*[1]	2009-2012	7.4%	⇑	8.1%-6.4%	D	D	●
Risk-adjusted rate of 30-day acute myocardial infarction (AMI) readmission (%)*[1(New Methodology)]	2011-2012	14.2%	--	9.1%-14.2%	F	--	--
30-day readmission (Patients age 19 and younger) (Risk-adjusted rate, %) [1 (Formerly pediatrics readmission)]	2011-2012	6.1%	⇓	6.8%-5.5%	C	A+	◆
30-day surgical readmission (Risk-adjusted rate, %) [1]	2011-2012	6.7%	⇓	7.7%-6.0%	C	A	◆
30-day obstetric readmission (Risk-adjusted rate, %) [1]	2011-2012	2.5%	⇓	2.8%-1.7%	E	C	◆
30-day Medical readmission (Risk-adjusted rate, %) [1]	2011-2012	13.4%	⇓	14.7%-12.2%	C	B	◆
30-day Readmission for mental illness (Risk-adjusted rate %)[1]	2011-2012	12.7%	⇓	13.3%-8.6%	F	C	◆

1. Canadian Institute for Health Information - 2013 Health Indicators Report https://secure.cihi.ca/estore/productSeries.htm?pc=PCC140
2. Statistics Canada, *Table 105-0501* . http://www.statcan.gc.ca
3. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
4. New Brunswick Department of Health
5. Statistics Canada, *Table 102-4509* . http://www.statcan.gc.ca
6. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013- Indicators by Quality Dimension – EFFECTIVENESS:

The care/service, intervention or action achieves the desired results.

(Doing what is required to achieve the best possible results)

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
90-Day Readmission After Hip Replacement (rate per 100)[1]	2011-2012	3.76	⇑	4.39-1.49	E	E	●
90-Day Readmission After Knee Replacement (rate per 100)[1]	2011-2012	3.64	⇑	4.21-1.42	E	F	■
Five-year relative survival ratios for prostate cancer (relative survival ratio, %)[2]	2006-2008	95.0%	⇓	90.0%-97.0%	B	A+	◆
Five-year relative survival ratios for breast cancer (relative survival ratio, %) [2]	2006-2008	89.0%	⇑	85.0%-89.0%	A+	A	■
Five-year relative survival ratios for colorectal cancer (relative survival ratio, %) [2]	2006-2008	62.0%	⇓	61.0%-67.0%	E	B	◆
Five-year relative survival ratios for lung cancer (relative survival ratio, %) [2]	2006-2008	17.0%	⇑	15.0%-21.0%	D	C	◆
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an outpatient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.							
EMR SCORE (Electronic Medical Record Adoption Model score 0 to 7)[3]	2nd quarter 2013	3.058	⇑	0.552-4.285	B	A+	◆
Patients with repeat hospitalizations for mental illness (Risk adjusted %)[4]	2010-2011	11.7%	⇓	13.2%-9.5%	D	A	◆
Self-Injury Hospitalization (aged-standardized rate per 100,000)[4]	2011-2012	85	⇓	86-57	F	E	◆
Pain or discomfort that prevents activities (%)[5]	2012	14.5%	⇑	17.2%-13.0%	B	E	■
Overall Performance Index					D	C	◆

1. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
2. Canadian Cancer Registry and Canadian Vital Statistics Death database and life tables at Statistics Canada
3. HIMSS Analytics™ LLC . http://www.himssanalytics.org/
4. Canadian Institute for Health Information - 2013 Health Indicators Report https://secure.cihi.ca/estore/productFamily.htm?pf=PFC1791&lang=en&media=0
5. Statistics Canada, Table 105-0501 . http://www.statcan.gc.ca

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade
* Core indicator since 2010

2013 - Indicators by Quality Dimension – EFFICIENCY:

Achieving the desired results with the most cost-effective use of resources.

(Making the best use of the resources)

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.							
Contact with telephone health line in the past 12 months (%)*[1]	2011	12.9%	--	3.2% - 25.3%	C	C	--
Use of electronic records to enter and retrieve clinical patient notes (%)[2(NEW)]	**2013**	**39.8%**	**--**	**38.3% - 76.2%**	**F**	--	--
% of triage level 4 and 5 (Less urgent and Non-urgent) seen in the emergency room (%)[3]	**2012-2013**	**63.2%**	⇓	**Zones:72.2% - 55.8%**	--	--	--
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
Percentage of Alternate Level of Care (ALC) days to total inpatient days (%)*[3]	**2012-2013**	**23.0%**	⇓	**23.0%-8.3%**	**F**	**F**	●
Age standardized Average Length of Stay (ALOS) (in days) [4]	**2011-2012**	**7.7**	⇑	**6.4-8.7 days**	**C**	**E**	■
Cost per weighted case – Labor Rate Adjusted ($)[5(NEW)]	**2011-2012**	**$6,511**	**--**	**$6,723-$4,945**	**F**	--	--
Nursing Inpatient Services Total Personnel Worked Hours per Weighed Case (%)[5]	**2011-2012**	**58.1%**	⇓	**61.7%-42.9%**	**E**	**E**	●
Administrative Service Expense as a Percentage of Total Expense[5]	**2011-2012**	**4.9%**	⇓	**5.9%-3.7%**	**C**	**B**	◆
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an outpatient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.							
Number of exams done by CAT (CT) scanners (rate per 1,000 population)* [6]	**2011-2012**	**209**	**--**	**89-209**	--	--	--
Average number of Computed Tomography (CT) Exams per scanner (number) [6]	**2011-2012**	**9,276**	⇑	**6,206– 9,782**	**A+**	**C**	■
Number of exams done by Magnetic Resonance Imaging (MRI) scanners (rate per 1,000 population)*[6]	**2011-2012**	**50**	--	**32 -62**	--	--	--
Average number of Magnetic Resonance Imaging (MRI) Exams per scanner (number) [6]	**2011-2012**	**6,342**	⇑	**3,772 – 8,643**	**C**	**B**	◆
Average number of days to complete long term care generic assessment (days, from initial contact to complete assessment) [7(NEW METHODOLOGY)]	**2012-2013**	**53.59 days**	⇓	--	--	--	--
Overall Performance Index					**D**	**C**	◆

1. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
2. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
3. New Brunswick Department of Health
4. Canadian Institute for Health Information – Highlights of 2011-2012 Inpatient Hospitalizations and Emergency Department Visits, 2013. https://secure.cihi.ca/estore/productSeries.htm?pc=PCC526
5. Canadian Institute for Health Information, Hospital Financial Performance Indicators
6. Canadian Institute for Health Information –National Survey of Selected Medical Imaging Equipment, 2012.
7. New Brunswick Department of Social Development

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 - Indicators by Quality Dimension – SAFETY:

Potential risks of an intervention or the environment are avoided or minimized.

(Keeping people safe)

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.							
Physician who have access to electronic records in various locations, the records in these locations are electronically connected to each other to allow for access of the same electronic record from different settings (%) [1](To be discontinued in 2014)	2010	33.3%	--	21.4% - 45.0%	C	C	--
Percent of individuals who know what their medications are for (%)[2]	2011	46.7%	--	25.7% - 56.1%	--	--	--
Individuals who were injured that required hospitalization (Rate/100 000 population)[3]	**2011-2012**	**578**	⇑	**789-409**	**C**	**C**	●
Hospitalized hip fracture event rate (Age-standardized acute care hospitalization rate for fracture of the hip, per 100,000 population)[3]	**2011-2012**	**462**	⇑	**543-403**	**B**	**C**	■
Community error / harm rate (excluding hospital stay) (%)[2]	2011	3.4%	--	Zones: 6.7% - 1.2%	--	--	--
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
Hospital Standardized Mortality Ratio (HSMR)* [4](New methodology)	**2012-2013**	**92**	--	**110-84**	**B**	--	--
Error rate - % in the community who believe they have suffered harm or error during their stay at an acute care hospital (%)[5]	**2013**	**5.1%**	⇔	**Zones: 5.8%- 4.1%**	--	--	--
Score on the Care Transitions Measures (CTM) (coordination of hospital discharge care)[5]	**2013**	**38.8**	⇑	**Zones: 32.0-48.8**	--	--	--
Hand hygiene - % Compliance before Patient Contact (as reported by patients) (%)[5]	**2013**	**46.1%**	⇓	**Zones: 39.6%-61.3%**	--	--	--
Patients who believed that the hospital takes their safety seriously (%)[5]	**2013**	**77.3%**	⇑	**Zones: 74.0%-85.7%**	--	--	--
Inpatient Fall rate (reported falls in inpatient area per 1000 patient days)[6]	**2012-2013**	**5.61**	⇓	**Zones: 7.03-3.97**	--	--	--

1. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
2. New Brunswickers' Experiences with Primary Health Care, 2011 Survey Results (NBHC 2011). http://www.nbhc.ca/nb_primary_care_health_survey.cfm .
3. Canadian Institute for Health Information - 2013 Health Indicators Report https://secure.cihi.ca/estore/productFamily.htm?pf=PFC1791&lang=en&media=0
4. Canadian Institute for Health Information –HSMR Results http://ourhealthsystem.ca/#!/indicators/005/hospital-deaths-hsmr
5. Hospital Patient Care Experience in New Brunswick, 2013 Acute Care Survey Results (NBHC 2013)
6. Incident Reporting System, Horizon and Vitalité

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 - Indicators by Quality Dimension – SAFETY:

Potential risks of an intervention or the environment are avoided or minimized.

(Keeping people safe)

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.							
In-Hospital Hip Fracture in Elderly (65+) Patients (rate per 1,000)[1]	**2011-2012**	**0.89**	⇓	**1.49-0.6**	**B**	**A**	◆
Nursing-Sensitive Adverse Events for Medical Patients (rate per 1,000)[1]	**2011-2012**	**21.63**	⇓	**32.7-20.07**	**A+**	**A**	■
Nursing-Sensitive Adverse Events for Surgical Patients (rate per 1,000)[1]	**2011-2012**	**26.26**	⇑	**42.86-24.05**	**A+**	**A+**	■
Staff perceptions of patient safety at the unit level (% very good or excellent)[2]	2012	70%	--	--	--	--	--
Clostridium Difficile Associated Disease Rate (rate per 1,000 patient days)[3]	**2012-2013**	**0.31**	⇓	**Target 0.6**	**A+**	**A+**	■
MRSA Infection Rate or Methicillin-resistant staphylococcus aureus specific infection rate (rate per 1,000 patient days)[3]	**2012-2013**	**0.05**	⇓	**Target 0.6**	**A+**	**A+**	■
VRE infection rate (rate per 1,000 patient days)[3]	**2012-2013**	**0.0**	⇔	**--**	**A+**	**A+**	■
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an outpatient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.							
% of patients who reported staff talking about all the medications they were taking through EMP[4]	2012	72.3%	--	--	--	--	--
Intentional self-harm (suicide) age-standardized mortality rate (rate per 100,000)[5]	2009	10.4	--	15.5 – 8.5	A	A	--
Overall Performance Index					**A**	**A**	●

1. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
2. Patient Safety Culture Survey (Accreditation Canada) Horizon and Vitalite data
3. Infection, Prevention and Control, Horizon and Vitalité
4. New Brunswick Health Council. Home Care Survey 2012. http://www.nbhc.ca/home_care_survey.cfm
5. Statistics Canada, Table 102-0552. http://www.statcan.gc.ca

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013- Indicators by Quality Dimension – EQUITY:

Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity.

(Aiming for equitable care and services for all)

Indicators	NB Value	1 = difference is statistically significant
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.		
Has a family physician[1] (%)	92.6%	--
Rural	93.9%	1
Urban	90.9%	
Aboriginal	87.5%	1
Non-aboriginal	92.7%	
French	96.0%	1
English	93.4%	
Male	90.5%	1
Female	94.4%	
18-34	88.6%	1
35-54	92.2%	
55-64	95.3%	
65+	96.5%	
8th grade or less	92.6%	0
Some high-school	94.2%	
High-school, GED	91.1%	
College / trade diploma	93.7%	
Undergraduate degree	92.4%	
Graduate degree	92.2%	
Income < $25M	91.7%	0
Income $25M-$60M	92.7%	
Income >= $60M	92.7%	

1. New Brunswicker's Experience with Primary Health Care, 2011 Survey Results (NBHC 2011). http://www.nbhc.ca/nb_primary_care_health_survey.cfm

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013- Indicators by Quality Dimension – EQUITY:
Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity.
(Aiming for equitable care and services for all)

Indicators	NB Value	1 = difference is statistically significant
Health care sector - PRIMARY HEALTH: The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness.		
Overall rating of services from primary health care providers and places [1] (Score)		
Rural	100.3	0
Urban	99.6	
Aboriginal	90.7	1
Non-aboriginal	100.4	
French	102.4	1
English	99.1	
Male	97.7	1
Female	101.5	
18-34	94	1
35-54	97.4	
55-64	105.8	
65+	109.8	
8th grade or less	105.5	1
Some high-school	99.2	
High-school, GED	97.8	
College / trade diploma	98.9	
Undergraduate degree	103.1	
Graduate degree	102.5	
Income < $25M	99	0
Income $25M-$60M	100.6	
Income >= $60M	99.8	

1. New Brunswicker's Experience with Primary Health Care, 2011 Survey Results (NBHC 2011). http://www.nbhc.ca/nb_primary_care_health_survey.cfm

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 - Indicators by Quality Dimension – EQUITY:
Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity.
(Aiming for equitable care and services for all)

Indicators	NB Value	1 = difference is statistically significant
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.		
Overall hospital rating[1] (% 8, 9, or 10 on a scale of 0 to 10)	**75.4%**	
Rural	**76.4%**	0
Urban	**74.7%**	
Aboriginal	**71.4%**	0
Non-aboriginal	**75.3%**	
French	**78.4%**	**1**
English	**74.6%**	
Male	**76.0%**	0
Female	**74.8%**	
Under 45	**71.9%**	**1**
45-64	**75.1%**	
65+	**76.3%**	
8th grade or less	**81.8%**	**1**
Some high-school	**78.9%**	
High-school, GED	**74.8%**	
College / trade diploma	**72.1%**	
Undergraduate degree	**72.8%**	
Graduate degree	**66.0%**	

1. Hospital Patient Care Experience in New Brunswick, 2013 Acute Care Survey Results (NBHC 2013) http://www.nbhc.ca/care_experience_survey.cfm

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 - Indicators by Quality Dimension – EQUITY:
Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity.
(Aiming for equitable care and services for all)

Indicators	NB Value	1 = difference is statistically significant
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.		
Overall rating for home healthcare services (EMP) received [1] (% 8, 9, or 10 on a scale of 0 to 10)	96.7%	
Rural	96.7%	0
Urban	96.8%	
Aboriginal	92.1%	1
Non-aboriginal	96.9%	
French	97.6%	0
English	96.5%	
Male	96.5%	0
Female	96.8%	
Under 65	94.2%	1
65-74	97.2%	
75+	98.1%	
8th grade or less	97.9%	1
Some high-school	97.8%	
High-school, GED	97.4%	
Post-secondary	95.4%	
Less than $25,000	96.3%	0
$25,000 or more	97.0%	

1. New Brunswick Health Council. Home Care Survey (2012). http://www.nbhc.ca/home_care_survey.cfm

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 - Indicators by Quality Dimension – EQUITY:
Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity.
(Aiming for equitable care and services for all)

Indicators	NB Value	1 = difference is statistically significant
Health care sector - SUPPORTIVE/SPECIALTY: The care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.		
Overall rating for home support services received [1] (% 8, 9, or 10 on a scale of 0 to 10)	87.9%	
Rural	90.4%	1
Urban	85.2%	
Aboriginal	91.0%	0
Non-aboriginal	87.9%	
French	87.3%	0
English	88.2%	
Male	89.4%	0
Female	87.3%	
Under 65	84.8%	1
65-74	90.2%	
75-84	88.5%	
85+	90.0%	
8th grade or less	90.1%	1
Some high-school	90.4%	
High-school, GED	84.0%	
Post-seondary	86.3%	
Less than $25,000	87.8%	0
$25,000 or more	87.2%	

	2013 Grade	2012 Grade	Grade Trend
Overall Performance Index	**C**	**C**	●

1. New Brunswick Health Council. Home Care Survey (2012). http://www.nbhc.ca/home_care_survey.cfm

Indicators by sectors of care

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013– Indicators by Health care sector– PRIMARY HEALTH

The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension – ACCESSIBILITY: The ability of patients/clients to obtain care/service at the right place and the right time, based on respective needs, in the official language of their choice. (*Providing timely services*)							
Contact with a medical doctor in the past 12 months (%)*[1](New source)	**2012**	**79.0%**	--	**75.7%-82.9%**	**C**	--	--
Has a regular medical doctor (%)*[1]	**2012**	**93.0%**	⇑	**75.2%-93.0%**	**A+**	**A+**	■
Difficulties accessing routine or on-going care at any time of day (%)*[2]	**2012**	**12.6%**	⇓	**13.1%-11.9%**	**D**	**A+**	◆
Difficulties accessing immediate care for a minor health problem at any time of day (%)*[2]	**2012**	**18.4%**	⇑	**29.6%-18.6%**	**A+**	**B**	■
Family practitioner and general practitioners who provide extended office hours regularly (%)[3]	2011	21.6%	--	7.0% - 31.3%	--	--	--
Patients who contact or are referred to their family physicians or general practitioners URGENTLY, can have an appointment the same day (%) (as reported by physicians) [4](To be discontinued in 2014)	2010	41.8%	--	35.2% - 57.0%	D	D	--
Percentage of patients seen within 1 week for NON-URGENT visit with family physician or general practitioners (%) (as reported by physicians) [4](To be discontinued in 2014)	2010	18.3%	--	9.3% - 34.2%	D	D	--
First available appointment - from patient contacts with physicians office or referred to office by another physician – URGENT only (mean number of days) (as reported by physicians) [4](To be discontinued in 2014)	2010	3.43 days	--	3.66 days - 2.26 days	E	E	--
Contact with dental professionals in the past 12 months (%)*[2]	**2009-2010**	**60.8%**	⇑	**51.8%-71.6%**	**C**	**F**	■
Average household expenditure on prescribed medicines and pharmaceutical products per household (% of household spending) [5](NEW)	**2011**	**0.91%**	**--**	**1.06%-0.55%**	**E**	--	--
Left without being seen from the Emergency Room (%)[6]	**2012-2013**	**5.5%**	⇑	**Zones: 7.6%-3.2%**	--	--	--
% of emergency calls done within the appropriate time (9 min –urban, 22 min – rural) for ambulance services (%)[7]	**2012-2013**	**94.73%**	⇓	**Target: 90%**	**A+**	**A+**	■
Emergency Room - Patients who are seen within 4 hours (%)[3]	2011	75.0%	--	73.0% - 96.0%	--	--	--

1. Statistics Canada, Table 105-0501. http://www.statcan.gc.ca
2. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
3. New Brunswickers' Experiences with Primary Health Care, 2011 Survey Results (NBHC 2011) . http://www.nbhc.ca/nb_primary_care_health_survey.cfm
4. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
5. Statistics Canada, Table 109-5012. http://www.statcan.gc.ca
6. New Brunswick Department of Health
7. Ambulance New Brunswick. http://www.ambulancenb.ca/

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– PRIMARY HEALTH

The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards. *(Relevant and evidence based)*							
Pap smear within the last 3 years, for females aged 18 to 69 years (%)*[1]	**2012**	**70.3%**	⇓	**66.8%-80.2%**	E	--	--
Received a mammogram within the last 2 years, females aged 50 to 69 years (%)*[1]	**2012**	**71.9%**	⇓	**62.3%-74.4%**	**A**	**A+**	◆
Breastfeeding initiation (%)*[2]	**2012**	**78.5%**	⇑	**59.3%-97.2%**	**C**	**D**	■
Colorectal cancer screening above age 50 (colonoscopy in the past 5 years or a fecal occult blood test in the past 2 years) (%)*[1]	**2012**	**42.0%**	⇓	**36.3%-62.2%**	**E**	**E**	●
Proportion of kindergarten children meeting immunization requirements (%)[3](Methodology change in 2010)	**2011-2012**	**73.2%**	⇑	**Zones: 52.6% - 96.9%**	--	--	--
Adult 65 and over who received their flu shot in the last year (%)[2]	**2012**	**68.9%**	⇑	**55.6%-77.1%**	**B**	**B**	■
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Blood Pressure in the past 12 months (%)*[4]	2011	93.3%	--	88.0% - 97.0%	B	B	--
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Cholesterol in the past 12 months (%)*[4]	2011	79.8%	--	78.0 - 86.0%	E	E	--
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Blood Sugar in the past 12 months (%)*4	2011	76.6%	--	75.0% - 85.0%	E	E	--
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Body Weight in the past 12 months (%)*4	2011	64.3%	--	66.0% - 80.0%	E	E	--
Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results. *(Doing what is required to achieve the best possible results)*							
Age-standardized acute care hospitalization rate for ambulatory care sensitive conditions (rate per 100,000)*[5]	**2011-2012**	**460**	⇑	**460-254**	**F**	**E**	◆
Reported that they have been diagnosed by a health professional as having high blood pressure (%)*[2]	**2012**	**23.3%**	⇓	**23.3% - 16.2%**	**F**	**F**	◆
Average weekly work hours in providing direct patient care with a teaching component- Excluding on-call activities (hours) (As reported by physicians)[6](NEW)	**2013**	**5.11 hours**	--	**2.33 - 9.68 hours**	**D**	--	--
Registered diabetes patients who are not in the optimal range of HbA1C less than 7% (%)[7]	**2012**	**52.0%**	⇑	**To be determined**	**To be determined**	**To be determined**	--
Physician participating in interprofessional practices (%)[6]	**2013**	**16.2%**	⇓	**14.4%-28.2%**	**F**	**D**	◆
Hospitalized Stroke Event (aged-standardized rate per 100,000)[5]	**2011-2012**	**128**	⇑	**144-116**	**C**	**C**	●

1.Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
2. Statistics Canada, Table 105-0501. http://www.statcan.gc.ca
3.New Brunswick Department of Health, Office of the Chief Medical Officer of Health (range used is New Brunswick Health Zones)
4. New Brunswickers' Experiences with Primary Health Care, 2011 Survey Results (NBHC 2011)
http://www.nbhc.ca/nb_primary_care_health_survey.cfm . in combination with Canadian Institute of Health Information-Experiences With Primary Health Care in Canada 2009 (for range) http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_E
5. Canadian Institute for Health Information - 2013 Health Indicators Report. https://secure.cihi.ca/estore/productSeries.htm?locale=en&pc=PCC140
6. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
7. New Brunswick Department of Health

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– PRIMARY HEALTH

The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension –EFFICIENCY: Achieving the desired results with the most cost-effective use of resources. *(Making the best use of the resources)*							
Contact with telephone health line in the past 12 months (%)*[1]	2011	12.9%	--	3.2% - 25.3%	C	C	--
Use of electronic records to enter and retrieve clinical patient notes (%)[2(NEW)]	**2013**	**39.8%**	**--**	**38.3% - 76.2%**	**F**	--	--
% triage level 4 and 5 (Less urgent and Non-urgent) seen in the emergency room (%)[3]	**2012-2013**	**63.2%**	⇓	**Zones:72.2% - 55.8%**	**--**	**--**	**--**
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized. *(Keeping people safe)*							
Physician who have access to electronic records in various locations, the records in these locations are electronically connected to each other to allow for access of the same electronic record from different settings (%)[2] (To be discontinued in 2014)	2010	33.3%	--	21.4% - 45.0%	C	C	--
Percent of individuals who know what their medications are for (%)[4]	2011	46.7%	--	25.7% - 56.1%	--	--	--
Individuals who were injured that required hospitalization (Rate/100 000 population)[5]	**2011-2012**	**578**	⇑	**789-409**	**C**	**C**	●
Hospitalized hip fracture event rate (Age-standardized acute care hospitalization rate for fracture of the hip, per 100,000 population)[5]	**2011-2012**	**462**	⇑	**543-403**	**B**	**C**	■
Community error / harm rate (excluding hospital stay) (%)[4]	2011	3.4%	--	Zones: 6.7% - 1.2%	--	--	--

1. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
2. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
3. New Brunswick Department of Health
4. New Brunswickers' Experiences with Primary Health Care, 2011 Survey Results (NBHC 2011) . http://www.nbhc.ca/nb_primary_care_health_survey.cfm
5. Canadian Institute for Health Information - 2013 Health Indicators Report https://secure.cihi.ca/estore/productSeries.htm?locale=en&pc=PCC140

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 – Indicators by Health care sector– PRIMARY HEALTH

The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness

Quality Dimension – EQUITY: Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity. *(Aiming for equitable care and services for all)*

Indicators	NB Value	1 = difference is statistically significant
Has a family physician (%)[1]	92.6%	--
Rural	93.9%	1
Urban	90.9%	
Aboriginal	87.5%	1
Non-aboriginal	92.7%	
French	96.0%	1
English	93.4%	
Male	90.5%	1
Female	94.4%	
18-34	88.6%	1
35-54	92.2%	
55-64	95.3%	
65+	96.5%	
8th grade or less	92.6%	0
Some high-school	94.2%	
High-school, GED	91.1%	
College / trade diploma	93.7%	
Undergraduate degree	92.4%	
Graduate degree	92.2%	
Income < $25M	91.7%	0
Income $25M-$60M	92.7%	
Income >= $60M	92.7%	

1. New Brunswicker's Experience with Primary Health Care, 2011 Survey Results (NBHC 2011)

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 – Indicators by Health care sector– PRIMARY HEALTH

The care a person receives upon first contact with the health system, before referral elsewhere within the system. It focuses on health promotion, illness and injury prevention, and the diagnosis and treatment of illness

Quality Dimension – EQUITY: Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity. *(Aiming for equitable care and services for all)*

Indicators	NB Value	1 = difference is statistically significant
Overall satisfaction with services from primary health care providers and places (score)[1]		--
Rural	100.3	0
Urban	99.6	
Aboriginal	90.7	1
Non-aboriginal	100.4	
French	102.4	1
English	99.1	
Male	97.7	1
Female	101.5	
18-34	94	1
35-54	97.4	
55-64	105.8	
65+	109.8	
8th grade or less	105.5	1
Some high-school	99.2	
High-school, GED	97.8	
College / trade diploma	98.9	
Undergraduate degree	103.1	
Graduate degree	102.5	
Income < $25M	99	0
Income $25M-$60M	100.6	
Income >= $60M	99.8	

	2013 Grade	2012 Grade	Grade Trend
Overall Performance Index	**D**	**D**	●

1. New Brunswicker's Experience with Primary Health Care, 2011 Survey Results (NBHC 2011)

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– ACUTE CARE

The care provided in a hospital or a psychiatric facility.

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension – ACCESSIBILITY: The ability of patients/clients to obtain care/service at the right place and the right time, based on respective needs, in the official language of their choice. (*Providing timely services*)							
Wait time for hip fracture surgery (proportion with surgery - within 48 hours) (%)*[1]	2011-2012	84.92%	⇑	76.76%-85.57%	A+	C	■
Wait time for hip replacement surgery (within 26 weeks) (%)*[2]	2010-2012	72.0%	⇔	52%-89%	C	D	■
Wait time for knee replacement surgery (within 26 weeks) (%)*[2]	2010-2012	61.0%	⇑	35%-84%	C	E	■
Wait time for cataract surgery (within 16 weeks) (%)*[2]	2010-2012	85.0%	⇔	57% - 88.0%	A+	A+	■
Wait time for Coronary Artery Bypass Graft Surgery –Level II (within 42 days) (%)*[3]	2012-2013	85.0%	⇑	--	--	--	--
Wait time for radiation therapy (within 28 days) (%)*[2]	2010-2012	94.0 %	⇓	89.0 % - 100.0 %	C	B	◆
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards. *(Relevant and evidence based)*							
Hysterectomy age-standardized rate (rate per 100,000)*[4]	2011-2012	421	⇓	469-285	E	E	●
Proportion of women delivering babies in acute care hospitals by Caesarean section (%)*[1]	2011-2012	27.3%	⇑	32.0%-21.4%	C	C	●
Universal newborn and infant hearing screening (%)[5]	2012-2013	92.1%	⇑	Zones: 62.7% - 99.5%	--	--	--
Use of Coronary Angiography Following Acute Myocardial Infarction (rate per 100)[1]	2011-2012	72.64	⇑	56.24%-75.36%	A+	A	■
Aged-standardized mental illness hospitalization rate (age-standardized rate per 100,000)[4]	2011-2012	631	⇓	838-401	C	B	◆

1. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
2. Canadian Institute for Health Information – Wait Times for Priority Procedures in Canada, 2013
3. Department of Health. Wait times in New Brunswick
4. Canadian Institute for Health Information - Health Indicators Report 2013. https://secure.cihi.ca/estore/productSeries.htm?locale=en&pc=PCC140
5. New Brunswick Department of Health, DAD/#M / AHIM

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– ACUTE CARE

The care provided in a hospital or a psychiatric facility.

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results. *(Doing what is required to achieve the best possible results)*							
Low weight babies (live birth less than 2,500 grams) (%) *[1]	2011	5.9%	⇑	6.8%-5.3%	B	C	■
Risk-adjusted rate of acute myocardial infarction (AMI) readmission (%)*[2](New Methodology)	2011-2012	14.2%	--	9.1%-14.2%	F	--	--
Risk-adjusted rate of 30-day acute myocardial infarction (AMI) in-hospital mortality (%)*[2]	2009-2012	7.4%	⇑	8.1%-6.4%	D	D	●
Risk-adjusted rate of 30-day stroke in-hospital mortality (%)*[2]	2009-2012	14.9%	⇑	20.4%-13.5%	A	B	■
5-Day In-Hospital Mortality Following Major Surgery (rate per 1,000)[3]	2011-2012	6.45	⇑	9.82-5.44	A	C	■
30-day readmission (Patients age 19 and younger (Risk-adjusted rate, %) [2] (Formerly pediatrics readmission)	2011-2012	6.1%	⇓	6.8%-5.5%	C	A+	◆
30-day surgical readmission (Risk-adjusted rate, %) [2]	2011-2012	6.7%	⇓	7.7%-6.0%	C	A	◆
30-day obstetric readmission (Risk-adjusted rate, %) [2]	2011-2012	2.5%	⇓	2.8%-1.7%	E	C	◆
30-day Medical readmission (Risk-adjusted rate, %) [2]	2011-2012	13.4%	⇓	14.7%-12.2%	C	B	◆
30-day Readmission for mental illness (Risk-adjusted rate %)[2]	2011-2012	12.7%	⇓	13.3%-8.6%	F	C	◆
90-Day Readmission After Hip Replacement (rate per 100)[3]	2011-2012	3.76	⇑	4.39-1.49	E	E	●
90-Day Readmission After Knee Replacement (rate per 100)[3]	2011-2012	3.64	⇑	4.21-1.42	E	F	■
Five-year relative survival ratios for prostate cancer (relative survival ratio, %)[4]	2006-2008	95.0%	⇓	90.0%-97.0%	B	A+	◆
Five-year relative survival ratios for breast cancer (relative survival ratio, %) [4]	2006-2008	89.0%	⇑	85.0%-89.0%	A+	A	■
Five-year relative survival ratios for colorectal cancer (relative survival ratio, %) [4]	2006-2008	62.0%	⇓	61.0%-67.0%	E	B	◆
Five-year relative survival ratios for lung cancer (relative survival ratio, %) [4]	2006-2008	17.0%	⇑	15.0%-21.0%	D	C	◆

1. Statistics Canada, *Table 102-4509* . http://www.statcan.gc.ca
2. Canadian Institute for Health Information - 2013 Health Indicators Report https://secure.cihi.ca/estore/productSeries.htm?pc=PCC140
3. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
4. Canadian Cancer Registry and Canadian Vital Statistics Death database and life tables at Statistics Canada

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– ACUTE CARE

The care provided in a hospital or a psychiatric facility.

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension –EFFICIENCY: Achieving the desired results with the most cost-effective use of resources. *(Making the best use of the resources)*							
Percentage of Alternate Level of Care (ALC) days to total inpatient days (%)*[1]	**2012-2013**	**23.0%**	⇓	**23.0%-8.3%**	**F**	**F**	◆
Age standardized Average Length of Stay (ALOS) (in days)[2]	**2011-2012**	**7.7**	⇑	**6.4-8.7 days**	**C**	**E**	■
Cost per weighted case -Labor Rate Adjusted ($)[3(NEW)]	**2011-2012**	**$6,511**	--	**$6,723-$4,945**	**F**	--	--
Nursing Inpatient Services Total Personnel Worked Hours per Weighed Case (%)[3]	**2011-2012**	**58.1%**	⇓	**61.7%-42.9%**	**E**	**E**	●
Administrative Service Expense as a Percentage of Total Expense[3]	**2011-2012**	**4.9%**	⇓	**5.9%-3.7%**	**C**	**B**	◆
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized. *(Keeping people safe)*							
Hospital Standardized Mortality Ratio (HSMR)* [4(New methodology)]	**2012-2013**	**92**	--	**110-84**	**B**	--	--
Error rate - % in the community who believe they have suffered harm or error during their stay at an acute care hospital (%)[5]	**2013**	**5.1%**	⇔	**Zones: 5.8%- 4.1%**	--	--	--
Score on the Care Transitions Measures (CTM) (coordination of hospital discharge care)[5]	**2013**	**38.8**	⇑	**Zones: 32.0-48.8**	--	--	--
Hand hygiene - % Compliance before Patient Contact (as reported by patients) (%)[5]	**2013**	**46.1%**	⇓	**Zones: 39.6%-61.3%**	--	--	--
% patients who believed that the hospital takes their safety seriously (%)[5]	**2013**	**77.3%**	⇑	**Zones: 74.0%-85.7%**	--	--	--
Inpatient Fall rate (reported falls in inpatient area per 1000 patient days)[6]	**2012-2013**	**5.61**	⇓	**Zones: 7.03-3.97**	--	--	--
In-Hospital Hip Fracture in Elderly (65+) Patients (rate per 1,000)[7]	**2011-2012**	**0.89**	⇓	**1.49-0.6**	**B**	**A**	◆
Nursing-Sensitive Adverse Events for Medical Patients (rate per 1,000)[7]	**2011-2012**	**21.63**	⇓	**32.7-20.07**	**A+**	**A**	■
Nursing-Sensitive Adverse Events for Surgical Patients (rate per 1,000)[7]	**2011-2012**	**26.26**	⇑	**42.86-24.05**	**A+**	**A+**	■
Staff perceptions of patient safety at the unit level (% very good or excellent)[8]	2012	70%	--	--	--	--	--
Clostridium Difficile Associated Disease Rate (rate per 1,000 patient days)[9]	**2012-2013**	**0.31**	⇓	**Target 0.6**	**A+**	**A+**	■
MRSA Infection Rate or Methicillin-resistant staphylococcus aureus specific infection rate (rate per 1,000 patient days)[9]	**2012-2013**	**0.05**	⇓	**Target 0.6**	**A+**	**A+**	■
VRE infection rate (rate per 1,000 patient days)[9]	**2012-2013**	**0.0**	⇔	--	**A+**	**A+**	■

1. New Brunswick Department of Health
2. Canadian Institute for Health Information – Highlights of 2011-2012 Inpatient Hospitalizations and Emergency Department Visits 2013. https://secure.cihi.ca/estore/productSeries.htm?pc=PCC526
3. Canadian Institute for Health Information, Hospital Financial Performance Indicators
4. Canadian Institute for Health Information –HSMR Results http://ourhealthsystem.ca/#!/indicators/005/hospital-deaths-hsmr
5. Hospital Patient Care Experience in New Brunswick, 2013 Acute Care Survey Results (NBHC 2013)
6. Incident Reporting System, Horizon and Vitalité
7. Canadian Institute for Health Information – Canadian Hospital Reporting Project. http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent
8. Patient Safety Culture Survey (Accreditation Canada) Horizon and Vitalite data
9. Infection, Prevention and Control, Horizon and Vitalité

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 – Indicators by Health care sector– ACUTE CARE

The care provided in a hospital or a psychiatric facility.

Quality Dimension – EQUITY: Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity. *(Aiming for equitable care and services for all)*

Indicators	NB Value	1 = difference is statistically significant
Overall hospital rating (%)[1]	**75.4%**	
Rural	**76.4%**	0
Urban	**74.7%**	
Aboriginal	**71.4%**	0
Non-aboriginal	**75.3%**	
French	**78.4%**	**1**
English	**74.6%**	
Male	**76.0%**	0
Female	**74.8%**	
Under 45	**71.9%**	**1**
45-64	**75.1%**	
65+	**76.3%**	
8th grade or less	**81.8%**	**1**
Some high-school	**78.9%**	
High-school, GED	**74.8%**	
College / trade diploma	**72.1%**	
Undergraduate degree	**72.8%**	
Graduate degree	**66.0%**	

	2013 Grade	2012 Grade	Grade Trend
Overall Performance Index	**C**	**B**	◆

1. Hospital Patient Care Experience in New Brunswick, 2013 Acute Care Survey Results (NBHC 2013) http://www.nbhc.ca/care_experience_survey.cfm

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– SUPPORTIVE/SPECIALTY:

The care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension – ACCESSIBILITY: The ability of patients/clients to obtain care/service at the right place and the right time, based on respective needs, in the official language of their choice. (*Providing timely services*)							
Wait time for selected diagnostic tests: Magnetic Resonance Imaging (MRI), CAT (CT) scan, angiography (within 1 month) (%)*[1]	2011	65.0%	--	60.9%-79.2%	E	E	--
Nursing home beds per 100 persons aged 75 and over (Rate per 100)*[2]	**2012-2013**	**8.1%**	**--**	**To be determined**	**To be determined**	**To be determined**	--
Wait time for specialist visits for a new illness or condition (within 1 month) (%)*[3]	**2011**	**41.2%**	⇓	**34.4% %-47.7%**	**C**	**C**	●
Experience difficulties getting specialist care (% with fair or poor access) (%)[4] (To be discontinued in 2014)	2010	14.3%	--	30.7% - 13.8%	A+	A+	--
Median number of day to long term Care Home placement (days)[5]	**2012-2013**	**95.38 days**	⇑	**To be determined**	**To be determined**	**To be determined**	--
Extra-Mural Program – Clients served per 1000 [6]	**2012-2013**	**54.6**	⇑	**To be determined**	**To be determined**	**To be determined**	--
Extra-Mural Program – % Referred from community (%) [6]	**2012-2013**	**62.1%**	⇓	**To be determined**	**To be determined**	**To be determined**	--
Extra-Mural Program – % Referred from hospital (%) [6]	**2012-2013**	**27.5%**	⇓	**To be determined**	**To be determined**	**To be determined**	--
Percentage of service delivery done within 30 days (from referral to first visit) for child and youth mental illness (%) [7](Excluding St.Stephen and Caraquet for differences in reporting systems)	**2012-2013**	**41.7%**	⇓	**Zones: 16.0%-63.4%**	--	--	--
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards. *(Relevant and evidence based)*							
Proportion of mental health clients that had a screening assessment within 48 hours (%) [7]	**2012-2013**	**39.0%**	⇑	**Zones: 7.0%-70.0%**	--	--	--
Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results. *(Doing what is required to achieve the best possible results)*							
EMR SCORE (Electronic Medical Record Adoption Model score 0 to 7)[8]	**2nd quarter 2013**	**3.058**	⇑	**0.552-4.285**	**B**	**A+**	◆
Patients with repeat hospitalizations for mental illness (Risk adjusted %)[9]	**2010-2011**	**11.7%**	⇓	**13.2%-9.5%**	**D**	**A**	◆
Self-Injury Hospitalization (aged-standardized rate per 100,000)[9]	**2011-2012**	**85**	⇓	**86-57**	**F**	**E**	◆
Pain of discomfort that prevents activities (%)[10]	**2012**	**14.5%**	⇑	**17.2%-13.0%**	**B**	**E**	■

1. Statistics Canada, Canadian Community Health Survey, available through the New Brunswick Department of Health
2. NB Department of Social Development in combination with Statistics Canada – Online catalogue 92-591-XWE. http://www.statcan.gc.ca
3. Statistics Canada, CANSIM table: 105-3002. http://www.statcan.gc.ca
4. National Physician Survey. http://www.nationalphysiciansurvey.ca/nps
5. NB Department of Social Development
6. New Brunswick Department of Health, Extra-Mural Program
7. New Brunswick Department of Health, Mental Health. (range used is New Brunswick Health Zones)
8. HIMSS Analytics™ LLC . http://www.himssanalytics.org/
9. Canadian Institute for Health Information - 2013 Health Indicators Report. https://secure.cihi.ca/estore/productSeries.htm?locale=en&pc=PCC140
10. Statistics Canada, Table 105-0501 . http://www.statcan.gc.ca

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

* Core indicator since 2010

2013 – Indicators by Health care sector– SUPPORTIVE/SPECIALTY:

The care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.

Indicators	NB Value (2013)		Value Trend	Range of values from other provinces (worse to better value) Or benchmark/target	2013 NB Grade	2012 NB Grade	Grade trend
	Year	Value					
Quality Dimension –EFFICIENCY: Achieving the desired results with the most cost-effective use of resources. *(Making the best use of the resources)*							
Number of exams done by CAT (CT) scanners (rate per 1,000 population)* [1]	**2011-2012**	**209**	**--**	**89-209**	**--**	**--**	**--**
Average number of Computed Tomography (CT) Exams per scanner (number) [1]	**2011-2012**	**9,276**	⇑	**6,206– 9,782**	**A+**	**C**	■
Number of exams done by Magnetic Resonance Imaging (MRI) scanners (rate per 1,000 population)* [1]	**2011-2012**	**50**	--	**32 -62**	**--**	**--**	**--**
Average number of Magnetic Resonance Imaging (MRI) Exams per scanner (number) [1]	**2011-2012**	**6,342**	⇑	**3,772 – 8,643**	**C**	**B**	◆
Average number of days to complete long term care generic assessment (days, from initial contact to complete assessment) [2] (NEW METHODOLOGY)	**2012-2013**	**53.59 days**	⇓	--	--	--	--
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized. *(Keeping people safe)*							
% of patients who reported staff talking about all the medications they were taking through EMP [3]	2012	72.3%	--	--	--	--	--
Intentional self-harm (suicide) age-standardized mortality rate (rate per 100,000) [4]	2009	10.4	--	15.5 – 8.5	A	A	--

1. Canadian Institute for Health Information –National Survey of Selected Medical Imaging Equipment, 2012.
2. New Brunswick Department of Social Development
3. New Brunswick Health Council. Home Care Survey (2012). http://www.nbhc.ca/home_care_survey.cfm
4. Statistics Canada, Table 102-0552. http://www.statcan.gc.ca

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 – Indicators by Health care sector– SUPPORTIVE/SPECIALTY:
The care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.

Quality Dimension – EQUITY: Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity. *(Aiming for equitable care and services for all)*

Indicators	NB Value	1 = difference is statistically significant
Overall rating for home healthcare services (EMP) received (% 8, 9, or 10 on a scale of 0 to 10)[1]	96.7%	
Rural	96.7%	0
Urban	96.8%	
Aboriginal	92.1%	1
Non-aboriginal	96.9%	
French	97.6%	0
English	96.5%	
Male	96.5%	0
Female	96.8%	
Under 65	94.2%	1
65-74	97.2%	
75+	98.1%	
8th grade or less	97.9%	1
Some high-school	97.8%	
High-school, GED	97.4%	
Post-secondary	95.4%	
Less than $25,000	96.3%	0
$25,000 or more	97.0%	

1. New Brunswick Health Council. Home Care Survey (2012). http://www.nbhc.ca/home_care_survey.cfm

Value Trend:
⇑ Better performance
⇔ Same performance
⇓ Worse performance
Bold: Updated indicator

Grade trend:
■ Higher Grade (or same A+ grade)
● Same Grade
◆ Lower Grade

2013 – Indicators by Health care sector– SUPPORTIVE/SPECIALTY:
The care received in the community or as an out-patient to prevent, control, or relieve complications and/or side effects and to improve the citizen's comfort and quality of life.

Quality Dimension – EQUITY: Providing quality care to all, regardless of individual characteristics and circumstances, such as race, color, creed, national origin, ancestry, place of origin, language, age, physical disability, mental disability, marital status, family status, sexual orientation, sex, social status or belief or political activity. *(Aiming for equitable care and services for all)*

Indicators	NB Value	1 = difference is statistically significant
Overall rating for home support services received (% 8, 9, or 10 on a scale of 0 to 10) [1]	87.9%	
Rural	90.4%	1
Urban	85.2%	
Aboriginal	91.0%	0
Non-aboriginal	87.9%	
French	87.3%	0
English	88.2%	
Male	89.4%	0
Female	87.3%	
Under 65	84.8%	1
65-74	90.2%	
75-84	88.5%	
85+	90.0%	
8th grade or less	90.1%	1
Some high-school	90.4%	
High-school, GED	84.0%	
Post-secondary	86.3%	
Less than $25,000	87.8%	0
$25,000 or more	87.2%	

	2013 Grade	2012 Grade	Grade Trend
Overall Performance Index	**C**	**B**	◆

1. New Brunswick Health Council. Home Care Survey (2012). http://www.nbhc.ca/home_care_survey.cfm

Appendix: List of Causes of Death for Avoidable Mortality Indicator (CIHI, 2012)

Cause of Death	Preventable (Incidence Reduction)	Treatable (Case Fatality Reduction)
Infections		
Enteritis and other diarrhoeal disease	x	
Tuberculosis		x
Vaccine-preventable diseases	x	
Selected invasive bacterial infections		x
Sepsis		x
Malaria		x
Meningitis		x
Cellulitis		x
Pneumonia		x
Sexually transmitted infections, except HIV/AIDS	x	
Viral hepatitis	x	
HIV/AIDS	x	
Neoplasm		
Lip, oral cavity and pharynx cancer	x	
Esophageal cancer	x	
Stomach cancer	x	
Colorectal cancer		x
Liver cancer	x	
Lung cancer	x	
Melanoma skin cancer	x	
Non-melanoma skin cancer	x	
Malignant neoplasm of breast		x (Female only)
Cervical cancer		x
Uterus cancer		x
Testicular cancer		x
Bladder cancer		x
Thyroid cancer		x
Hodgkin's disease		x
Leukemia		x (Age<45)
Benign neoplasms		x

Cause of Death	Preventable (Incidence Reduction)	Treatable (Case Fatality Reduction)
Diseases of the Circulatory System		
Rheumatic heart disease	x	
Hypertensive diseases		x
Cerebrovascular diseases	x (50%)	x (50%)
Ischaemic heart disease	x (50%)	x (50%)
Other atherosclerosis	x (50%)	x (50%)
Aortic aneurysm	x	
Venous thromboembolism	x	
Diseases of the Respiratory System		
Chronic obstructive pulmonary disorders	x	
Asthma and bronchiectasis		x
Acute lower respiratory infections		x
Upper respiratory infections		x
Lung diseases due to external agents	x	
Adult respiratory distress syndrome		x
Pulmonary oedema		x
Abscess of lung and mediastinum; pyothorax		x
Other pleural disorders		x
Other respiratory disorders		x
Diseases of the Digestive System		
Peptic ulcer disease		x
Diseases of appendix; hernia; disorders of gallbladder, biliary tract and pancreas		x
Chronic liver disease (excluding alcohol-related disease)	x	
Diseases of the Genitourinary System		
Nephritis and nephrosis		x
Renal failure		x
Obstructive uropathy, urolithiasis and prostatic hyperplasia		x
Infl amatory diseases of genitourinary system		x
Disorders resulting from impaired renal tubular function		x

Cause of Death	Preventable (Incidence Reduction)	Treatable (Case Fatality Reduction)
Infant and Maternal Causes		
Complications of the perinatal period	x	x
Congenital malformations, deformations and chromosomal anomalies		x
Pregnancy, childbirth and the puerperium		x
Unintentional Injuries		
Transport accidents	x	
Falls	x	
Other external causes of accidental injury	x	
Drowning	x	
Fires and flames	x	
Accidental Poisonings	x	
Injuries of Undertermined Intent		
Injuries of undetermined intent	x	
Intentional Injuries		
Suicide and self-inflicted injuries	x	
Assault	x	
Alcohol and Drug Use Disorders		
Alcohol-related diseases, excluding external causes	x	
Drug use disorders	x	

Cause of Death	Preventable (Incidence Reduction)	Treatable (Case Fatality Reduction)
Nutritional, Endocrine and Metabolic Disorders		
Nutritional deficiency anemia	x	
Thyroid disorders		x
Diabetes mellitus	x (50%)	x (50%)
Adrenal disorders		x
Congenital metabolic disorders		x
Neurological Disorders		
Epilepsy		x
Disorders of Musculoskeletal System		
Osteomyelitis		x
Adverse Effects of Medical and Surgical Care		
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	x	
Misadventures to patients during surgical and medical care	x	
Medical devices associated with adverse incidents in diagnostic and therapeutic use	x	
Surgical and other medical procedures as the cause of abnormal reaction	x	