New Brunswick

Health System Report Card

2010

www.nbhc.ca

To submit a first report card of the Health System of New Brunswick and allow a better understanding of health services in the province, the New Brunswick Health Council has gathered information from various sources.

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Introduction:

Just as student report cards provide parents with information on their performance, the New Brunswick Health Council (NBHC) has developed a report card of some important information about the quality of health services being delivered in the province.

The *New Brunswick Health System Report Card* is an attempt to produce a baseline picture of the health system to be used for measuring, monitoring and evaluating changes to health services over time and to assist with recommendations for improvements. Without a baseline picture of information and yearly updates, the results of changes to programs and services would be subjective.

Additionally, the organization of the *Report Card* reflects indicators of performance organized by sectors of care to highlight the importance of integrating programs and services. This is an effort to ensure that the citizen or patient remains the focus for improvement in health service quality since they must navigate through this health care system for effective management of their health or outcomes of care.

The performance index grade is based on using the Canadian average or the national benchmark as a reference point for a "C" grade. 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. It is also important to note that the data for the *safety dimension* and the *supportive/specialty sector* must be reviewed with caution due to the fact that more indicators would have produced a better representation of these dimensions. In addition, the analysis for the *equity dimension of quality* will be performed in the near future. Unfortunately, current data and indicators were not available or fully standardized for use at the time of this report.

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[1]. These dimensions of quality are: *Accessibility, Appropriateness, Effectiveness, Efficiency, Equity and Safety*.

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

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.

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, Organ and Tissue procurement, Safer Health Care Now initiatives, 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*[1], 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[2, 3] is defined as the combined functioning of public health and personal medical services.

In order for the NBHC to affect change in the system, it requires the development of a model or framework that allows the organizations in the system to identify themselves with the indicators being measured. Therefore, the NBHC chose to use ***Accreditation Canada's sector divisions of care***[4] and marry it with the dimensions of quality for the creation of the grid.

Extensive research was done to ensure that the definitions of the dimensions were aligned with regional, provincial/territorial, national and international standards. The NBHC also required extensive research on the definition of the sectors.

NBHC was involved in consultation with numerous individuals and groups from various departments and organizations totalling over 300 different provincial and national stakeholders.

The next step in this process was identifying performance indicators to populate the grid. During the literature review and consultation with key informants in the field of indicator development and use, over 400 indicators were discovered. The indicators were compiled from international, national and provincial bodies responsible for reporting on health care quality (WHO, UK, Australia, USA, Canada, Ontario, Saskatchewan and New Brunswick).

The indicators were of different types (input, process and outcomes) and different levels of measurement (client, program, system).

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 first set of indicators were comprised of those that met our acceptable criteria list[3], 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.

Once the starter set was developed, choosing a method for public reporting required further research. The method chosen was the use of a report card which contained performance index grades. These grades were comprised of system or process level indicators which reflect the dimension of quality or sector of care being measured.

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 areas where New Brunswick performs better than the national average in terms of the quality of health care provided to New Brunswickers and areas that require improvement.

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*. This will provide a baseline against which the impact of improvements can be measured.

Yearly report cards can be used to monitor and track changes over time. Although this information is available in the system, it has not been organized in a way that provides decision-makers a holistic view of the health system.

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.

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.

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*[5], the Fraser Institute[6] 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*[7] 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*[8] 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 2009*[9] 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*.

To begin the development or construction of the *Report Card* required a systematic approach which was guided by the mandate and values of the NBHC. This required building a framework while exploring available data sets for items that could populate the framework. This approach is often referred to as a Bi-Directional approach[10]. The process required patience, transparency, and flexibility while we tested the indicators against evidence produced by research and the common sense of the consultation process across all sectors of the health system. Having adopted a Bi-Directional approach with six quality dimensions of interest and four sectors of care, the first set of indicators were comprised of only those that met our acceptable criteria list.

The letter grading methodology was based on the most current available indicator data when the report was completed.

The index score is calculated in two different ways, depending on the definition of the indicator.

- If an increase of the indicator value represents an "improvement", then the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value.
- On the other hand, if a decrease of the indicator value represents an "improvement", then the score is created by dividing the Canadian value on the specific indicator by the New Brunswick value.

This number is then multiplied by 100 to create the New Brunswick performance index score. All numbers have been rounded up.

Example:

If the New Brunswick performance index score is 100, this means that the New Brunswick score and national score are the same.

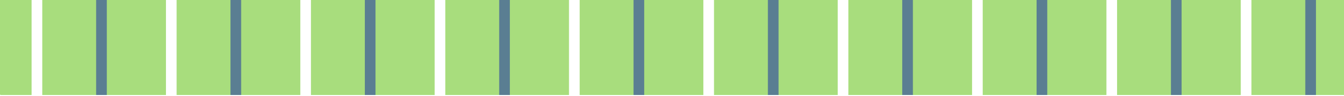
The Canadian value is either the national average or a benchmark set nationally.

**To receive a 'C' grade,
New Brunswick needs to be at par with the national average or benchmark.**

The scoring grid is as follows:

A+ = >122, A = 114-122, B = 105-113, C = 96-104, D = 87-95, E = 78-86, F = <78

This scoring grid takes into account provincial and territorial comparative indicators with small and large variations from the national average. It is based on the creation of evenly distributed bins or data ranges for each of the letter grades A through E. The A+ and F grades represent data ranges at both extremes of the scoring grid



Listed here is an outline of some advantages and disadvantages to using indices. [11, 12, 13]

ADVANTAGES

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.

DISADVANTAGES

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.

Challenges:

A number of challenges were encountered during the development process of the *Report Card*.

The first challenge began with discussions determining which programs and services would be represented in which sector of care (primary health, acute care, supportive/specialty and end-of-life/palliative care). This work required extensive stakeholder involvement across different sectors of care including obtaining agreement for which programs best reflected the sector of care being measured.

We also identified that for the "end-of-life/palliative care sector" most of the services and programs are delivered either through hospital services (*acute care*), Extra-Mural Program (*supportive/specialty*) or in a long term care facility (*supportive/specialty*) .

The next challenge arose around the level of indicator and the type of indicator the NBHC would proceed with in their selection process in order to be an effective catalyst for change. During these discussions it became evident that many system indicators were not easily accessible from an integrated care perspective or based on different sectors.

The indicators were heavily balanced toward hospital indicators in terms of performance and many administrative databases in New Brunswick were not easily accessible or the data was not standardized in order to facilitate measuring at zone levels, for drilling down purposes. This required choosing system or program level indicators from national databases for the initial starter set of indicators. Furthermore, these indicators required re-classification into the dimension of quality that was required to be measured.

Many indicators have been classified differently by different organizations responsible for performance measurement. The research undertaken by the NBHC allocated or classified the indicators for each dimension and sector of care based on a decision tree methodology.

Obtaining buy-in for this process was extremely labour intensive as well as challenging since accountability and data collection for these indicators reside within a variety of programs and services in the health care system.

Key Trends or Observations from the *New Brunswick Health System Report Card*:

Each dimension of quality is made up of a series of individual measures that reflect the programs and services offered in New Brunswick. There are two of these dimensions of quality that have the greatest variation in the performance of individual indicators. That is, there are some indicators where New Brunswick is performing extremely well (As) nationally and not performing as well (Fs). The first dimension is *Effectiveness*, which is briefly defined as doing what is required to achieve the best possible results. The second dimension is *Efficiency*, which is briefly defined as making the best use of resources.

In terms of the *Accessibility* dimension of quality, New Brunswick performs better than average on immediate or urgent care needs but lags behind on some wait times.

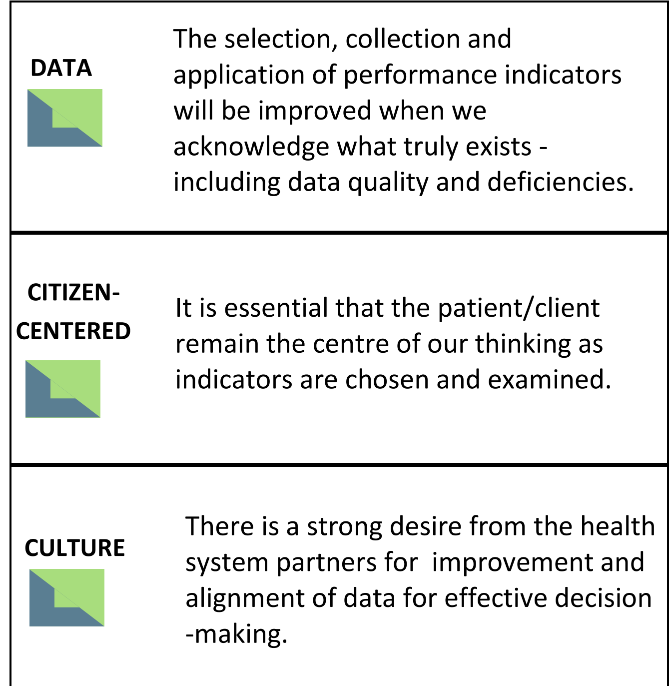
The performance index grade result on the *primary health* sector of care (defined as the care a person receives upon first contact with the health system, before referral elsewhere within the system focusing on health promotion, illness and injury prevention, and the diagnosis and treatment of illness) demonstrated that it was one of the sectors where the majority of the indicators were either only performing at par with the national average or not performing as well. This helped to identify that New Brunswick is not performing as well in areas such as access to primary care for prevention or treatment of minor health problems, prevention such as screening tests based on age related diseases or recommended clinical practice guidelines to maximize the achievement of obtaining best possible health results.

If areas represented by some of these indicators are not in balance, coordinated or integrated, the result can be unnecessary hospitalizations for conditions that would be best treated in the community. High-quality ambulatory care, including preventive and disease management services can assist in producing better health outcomes[14]. Although it is important to keep in mind that hospitalization rates can also be influenced by socioeconomic factors such as poverty[15].

Overall the *Report Card* tells us that New Brunswick performs "in the middle of the road" on health services quality compared to the other provinces and territories in Canada. It is important to note that within these performance grades it can be identified that some program and service areas are not performing very well while others are. This can provide New Brunswickers with an opportunity for improvement based on New Brunswick's best practices.

Moving Forward:

Data based on sector performance is currently not easily available or standardized to provide a more comprehensive picture. There are however current opportunities for success in the future.



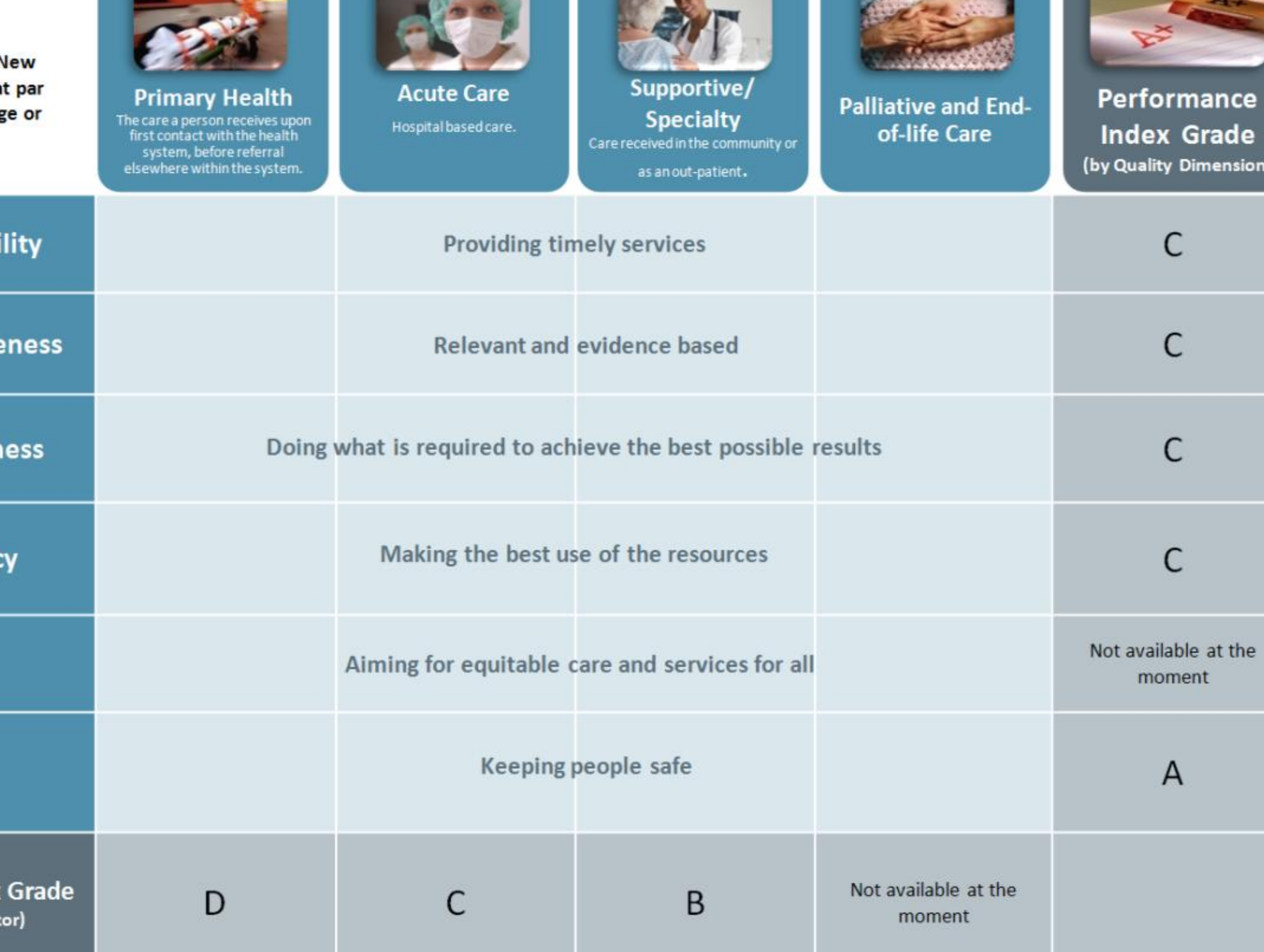
The NBHC is committed to continue working with all departments within the health system and outside the health system. This ongoing collaboration will assist in obtaining data that truly reflects a citizen-centered approach to providing quality health services in a sustainable and publicly funded health system.

Engage. Evaluate. Inform. Recommend.

New Brunswick Health System Report Card

New Brunswick Health System Report Card

To receive a 'C' grade, New Brunswick needs to be at par with the national average or benchmark.



Quality Dimensions	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.	Palliative and End-of-life Care	Performance Index Grade (by Quality Dimension)
Accessibility	Providing timely services				C
Appropriateness	Relevant and evidence based				C
Effectiveness	Doing what is required to achieve the best possible results				C
Efficiency	Making the best use of the resources				C
Equity	Aiming for equitable care and services for all				Not available at the moment
Safety	Keeping people safe				A
Performance Index Grade (by Health Care Sector)	D	C	B	Not available at the moment	

Health Care Sectors

Indicators by quality dimensions

Accessibility, Appropriateness, Effectiveness, Efficiency, Equity, Safety

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.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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	77.4% (2008)	79.5%	97	C	Statistics Canada *Table 105-0501* http://www.statcan.gc.ca
Has a regular medical doctor	90.8% (2008)	84.4%	108	B	Statistics Canada *Table 105*-0501 http://www.statcan.gc.ca
Difficulties accessing routine or on-going care	14.8% (2007)	16.7%	113	B	Statistics Canada *Table 105-3067* http://www.statcan.gc.ca
Difficulties accessing immediate care for a minor health problem	21.5% (2007)	25.8%	120	A	Statistics Canada *Table 105-3069* http://www.statcan.gc.ca
Family physicians and general practitioners who provide extended office hours regularly	14.8% (2007)	33.5%	44	F	National Physician Survey http://www.nationalphysiciansurvey.ca/nps
Contact with dental professionals in the past 12 months	55.4% (2005)	63.7%	87	D	Statistics Canada *Table 105*-0460 http://www.statcan.gc.ca
Household spending on prescription drugs as a percentage of after-tax income	76.6% (2006)	65.7%	86	E	Statistics Canada *Table 109-5012* http://www.statcan.gc.ca
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.					
Wait time for hip fracture surgery (proportion with surgery - same or next day)	67.7% (2007-2008)	62.5%	108	B	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Wait time for hip replacement surgery (within 26 weeks)	75.3% (Average from Jan-Dec 2009)	75%*	100	C	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for knee replacement surgery (within 26 weeks)	60.8% (Average from Jan-Dec 2009)	65%*	94	D	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for high-risk cataract surgery (within 16 weeks)	83.0% (Average from Jan-Dec 2009)	90%*	92	D	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx

Wait time for Coronary Artery Bypass Graft Surgery – Level 1 (within 2 weeks)	82.0% (Average from Jan-Dec 2009)	90%*	91	D	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for radiation therapy (within 28 days)	94% (2008)	75%	125	A+	Canadian Institute for Health Information – *Wait Times Tables - A Comparison by Province, 2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2010_E&cw_topic=2010&cw_rel=AR_1909_E
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.					
Family physicians and general practitioners with access to a psychiatrist for their patients (% good, very good, or excellent)	36.0% (2007)	31.1%	116	A	National Physician Survey http://www.nationalphysiciansurvey.ca/nps
Wait time for selected diagnostic tests: Magnetic Resonance Imaging (MRI), CAT (CT) scan, angiography (within 1 month)	49.3% (2007)	55.4%	89	D	Statistics Canada *Table 105-3004* http://www.statcan.gc.ca
Residents over 75 years of age that have access to long-term care beds	8.2% (2007-2008)	7.5%**	109	B	NB Department of Social Development – *2007-2008 Annual report* http://www.gnb.ca/0017/publications/AnnualReport0708.pdf Statistics Canada – *Online catalogue 92-591-XWE* http://www.statcan.gc.ca
Wait time for specialist visits for a new illness or condition (within 1 month)	44.3% (2007)	45.6%	97	C	Statistics Canada *Table 105-3002* http://www.statcan.gc.ca
Overall Performance Index			**99**	**C**	

The Canadian value is either the national average or a nationally set benchmark.

Letter grading methodology: The analysis is based on the indicator data available when the report was completed. The index score is calculated in two ways, depending on the definition of the indicator. If an increase of the indicator value represents an improvement, the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value. On the other hand, if a decrease of the indicator value represents an improvement, then the score is created by dividing the Canadian value on the specific indicator by the New Brunswick value. This number is then multiplied by 100 to create the New Brunswick performance index score. All numbers have been rounded up.

Example: If the New Brunswick performance index score is 100 ('C' grade), this means that the New Brunswick score and national score were the same.

Scoring Grid: A+ = >122, A = 114-122, B = 105-113, C = 96-104, D = 87-95, E = 78-86, F = <78
This scoring grid takes into account provincial and territorial comparative indicators with small and large variations from the national average.
IMPORTANT NOTE: A composite index grade should not be viewed in isolation from indicators on which it is based for any policy and/or planning decisions.

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 the rest of Canada.

* = Provincially set benchmark
**= Provincial benchmark with estimates based on residents actually in nursing homes and residents on waiting lists

Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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	76.5% (2005)	72.8%	105	B	Statistics Canada *Table 105-0442* http://www.statcan.gc.ca
Received a mammogram within the last 2 years, females aged 50 to 69 years	74.0% (2008)	72.5%	102	C	Statistics Canada *Table 105-0543* http://www.statcan.gc.ca
Breastfeeding initiation	75.0% (2008)	88.3%	85	E	Statistics Canada *Table 105-0501* http://www.statcan.gc.ca
Colorectal cancer screening above age 50 (colonoscopy in the past 5 years or a fecal occult blood test in the past 2 years)	40.5% (2008)	47.1%	86	E	Statistics Canada *Table 105-0541* http://www.statcan.gc.ca
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	90% (2008)	94%	96	C	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_E
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Cholesterol in the past 12 months	85% (2008)	82%	104	C	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_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	80% (2008)	80%	100	C	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_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	70% (2008)	74%	95	D	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_E
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.					
Hysterectomy age-standardized rate (per 100,000)	438 (2007-2008)	352	80	E	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Proportion of women delivering babies in acute care hospitals by Caesarean section	28.0% (2007-2008)	27.7%	99	C	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Cardiac revascularization age-standardized rate (per 100,000)	273 (2007-2008)	235	116	A	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
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 not available at the moment	--	--	--	--	--

Overall Performance Index			97	C	

The Canadian value is either the national average or a nationally set benchmark.

Letter grading methodology: The analysis is based on the indicator data available when the report was completed. The index score is calculated in two ways, depending on the definition of the indicator. If an increase of the indicator value represents an improvement, the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value. On the other hand, if a decrease of the indicator value represents an improvement, then the score is created by dividing the Canadian value on the specific indicator by the New Brunswick value. This number is then multiplied by 100 to create the New Brunswick performance index score. All numbers have been rounded up.

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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 the rest of Canada.

Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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.					
Reported that they have been diagnosed by a health professional as having high blood pressure	19.3% (2008)	16.4%	85	E	Statistics Canada *Table 105-0501* http://www.statcan.gc.ca
Direct patient care with a teaching component offered by a family physician or general practitioner based on the total worked hours per week	8.1% (2007)	7.2%	113	B	National Physician Survey http://www.nationalphysiciansurvey.ca/nps
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)	4.9% (2007)	6.0%	122	A	Statistics Canada *Table 102-4509* http://www.statcan.gc.ca
Risk-adjusted rate of acute myocardial infarction (AMI) readmission	6.2% (2005-2008)	5.1%	82	E	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of 30-day acute myocardial infarction (AMI) in-hospital mortality	10.4% (2005-2008)	9.4%	90	D	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of 30-day stroke in-hospital mortality	15.9% (2005-2008)	18.0%	113	B	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of in-hospital hip fracture (per 1,000)	0.8 (2005-2008)	0.8	100	C	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of asthma readmission	2.7% (2005-2008)	4.5%	167	A+	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of prostatectomy readmission	3.2% (2005-2008)	2.4%	75	F	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of hysterectomy readmission	1.1% (2005-2008)	1.1%	100	C	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Five-year survival estimates for primary sites of cancer (relative survival ratio)	58% (2000)	59.8%	97	C	Statistics Canada *Table 103-1573* http://www.statcan.gc.ca

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.					
Intentional self-harm (suicide) age-standardized mortality rate (per 100,000)	12.6 (2005)	10.9	87	D	Statistics Canada *Table 102-0552* http://www.statcan.gc.ca
1-Year acute care hospital readmission rate for individuals diagnosed with a mental illness (per 100)	24.6 (2005-2006)	22.9	93	D	Canadian Institute for Health Information – *Hospital Mental Health Services 2005-2006* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_364_E
Overall Performance Index			**102**	**C**	

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Letter grading methodology: The analysis is based on the indicator data available when the report was completed. The index score is calculated in two ways, depending on the definition of the indicator. If an increase of the indicator value represents an improvement, the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value. On the other hand, if a decrease of the indicator value represents an improvement, then the score is created by dividing the Canadian value on the specific indicator by the New Brunswick value. This number is then multiplied by 100 to create the New Brunswick performance index score. All numbers have been rounded up.

Example: If the New Brunswick performance index score is 100 (‘C’ grade), this means that the New Brunswick score and national score were the same.

Scoring Grid: A+ = >122, A = 114-122, B = 105-113, C = 96-104, D = 87-95, E = 78-86, F = <78
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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 the rest of Canada.

Quality Dimension – EFFICIENCY: Achieving the desired results with the most cost-effective use of resources.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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 (per 100,000)	576 (2007-2008)	326	57	F	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Contact with telephone health line in the past 12 months	9.5% (2005)	10.0%	95	D	Statistics Canada *Table 105-0259* http://www.statcan.gc.ca
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.					
Percent of hospitalizations that were related to an Alternate Level of Care (ALC)	5% (2007-2008)	4.3%	86	E	Canadian Institute for Health Information – *Analysis in Brief – Alternate level of care in Canada 2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_1751_E&cw_topic=1751&cw_rel=AR_2610_E
Average length of stay (ALOS) (in days)	7.9 (2007-2008)	7.1	90	D	Canadian Institute for Health Information – *Highlights of 2007–2008 Inpatient Hospitalizations and Emergency Department Visits* http://secure.cihi.ca/cihiweb/products/Quickstats_Highlight_document_20100113_en.pdf
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.					
Number of exams done by CAT (CT) scanners (per 1,000 population)	176.6 (2006-2007)	103.3	171	A+	Canadian Institute for Health Information – *Health Services - Diagnostic imaging* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=statistics_results_topic_medimaging_e
Number of exams done by Magnetic Resonance Imaging (MRI) scanners (per 1,000 population)	32.7 (2006-2007)	31.2	105	B	Canadian Institute for Health Information – *Health Services - Diagnostic imaging* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=statistics_results_topic_medimaging_e
Overall Performance Index			**101**	**C**	

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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 the rest of Canada.

**Indicators representing EQUITY to follow at a future date.

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.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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 not available at the moment	--	--	--	--	--
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.					
Indicators not available at the moment	--	--	--	--	--
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 not available at the moment	--	--	--	--	--
Overall Performance Index	--	--	--	--	--

Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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 not available at the moment	--	--	--	--	--
Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.					
Hospital Standardized Mortality Ratio (HSMR)	83 (2008-2009)	100	120	A	Canadian Institute for Health Information – *2009 HSMR Results* http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=hsmr_results_canada_e
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 not available at the moment	--	--	--	--	--
Overall Performance Index			**120**	**A**	

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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 the rest of Canada.

It is also important to note that the data for the *safety dimension* must be reviewed with caution due to the fact that more indicators would have produced a better representation of this dimension.

Indicators by sectors of care

Primary Health, Acute Care, Supportive/Specialty, Palliative Care

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**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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.					
Contact with a medical doctor in the past 12 months	77.4% (2008)	79.5%	97	C	Statistics Canada *Table 105-0501* http://www.statcan.gc.ca
Has a regular medical doctor	90.8% (2008)	84.4%	108	B	Statistics Canada *Table 105*-0501 http://www.statcan.gc.ca
Difficulties accessing routine or on-going care	14.8% (2007)	16.7%	113	B	Statistics Canada *Table 105-3067* http://www.statcan.gc.ca
Difficulties accessing immediate care for a minor health problem	21.5% (2007)	25.8%	120	A	Statistics Canada *Table 105-3069* http://www.statcan.gc.ca
Family physicians and general practitioners who provide extended office hours regularly	14.8% (2007)	33.5%	44	F	National Physician Survey http://www.nationalphysiciansurvey.ca/nps
Contact with dental professionals in the past 12 months	55.4% (2005)	63.7%	87	D	Statistics Canada *Table 105*-0460 http://www.statcan.gc.ca
Household spending on prescription drugs as a percentage of after-tax income	76.6% (2006)	65.7%	86	E	Statistics Canada *Table 109-5012* http://www.statcan.gc.ca
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards.					
Pap smear within the last 3 years, for females aged 18 to 69 years	76.5% (2005)	72.8%	105	B	Statistics Canada *Table 105-0442* http://www.statcan.gc.ca
Received a mammogram within the last 2 years, females aged 50 to 69 years	74.0% (2008)	72.5%	102	C	Statistics Canada *Table 105-0543* http://www.statcan.gc.ca
Breastfeeding initiation	75.0% (2008)	88.3%	85	E	Statistics Canada *Table 105-0501* http://www.statcan.gc.ca

Colorectal cancer screening above age 50 (colonoscopy in the past 5 years or a fecal occult blood test in the past 2 years)	40.5% (2008)	47.1%	86	E	Statistics Canada *Table 105-0541* http://www.statcan.gc.ca
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	90% (2008)	94%	96	C	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_E
Age-Standardized Percent of Adults With One or More of Four Select Chronic Conditions Who Had Measurements for Cholesterol in the past 12 months	85% (2008)	82%	104	C	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_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	80% (2008)	80%	100	C	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_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	70% (2008)	74%	95	D	Canadian Institute of Health Information- *Experiences With Primary Health Care in Canada-2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_2991_E
Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results.					
Reported that they have been diagnosed by a health professional as having high blood pressure	19.3% (2008)	16.4%	85	E	Statistics Canada *Table 105-0501* http://www.statcan.gc.ca
Direct patient care with a teaching component offered by a family physician or general practitioner based on the total worked hours per week	8.1% (2007)	7.2%	113	B	National Physician Survey http://www.nationalphysiciansurvey.ca/nps
Quality Dimension – EFFICIENCY: Achieving the desired results with the most cost-effective use of resources.					
Age-standardized acute care hospitalization rate for ambulatory care sensitive conditions (per 100,000)	576 (2007-2008)	326	57	F	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Contact with telephone health line in the past 12 months	9.5% (2005)	10.0%	95	D	Statistics Canada *Table 105-0259* http://www.statcan.gc.ca
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.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized.					
Indicators not available at the moment	--	--	--	--	--
Overall Performance Index			**94**	**D**	

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Health care sector - ACUTE CARE: The care provided in a hospital or a psychiatric facility.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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.					
Wait time for hip fracture surgery (proportion with surgery - same or next day)	67.7% (2007-2008)	62.5%	108	B	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Wait time for hip replacement surgery (within 26 weeks)	75.3% (Average from Jan-Dec 2009)	75%*	100	C	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for knee replacement surgery (within 26 weeks)	60.8% (Average from Jan-Dec 2009)	65%*	94	D	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for high-risk cataract surgery (within 16 weeks)	83.0% (Average from Jan-Dec 2009)	90%*	92	D	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for Coronary Artery Bypass Graft Surgery – Level 1 (within 2 weeks)	82.0% (Average from Jan-Dec 2009)	90%*	91	D	Surgical wait times in New Brunswick http://www1.gnb.ca/0217/surgicalwaittimes/Reports/02-e.aspx
Wait time for radiation therapy (within 28 days)	94% (2008)	75%	125	A+	Canadian Institute for Health Information – *Wait Times Tables - A Comparison by Province, 2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2010_E&cw_topic=2010&cw_rel=AR_1909_E
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards.					
Hysterectomy age-standardized rate (per 100,000)	438 (2007-2008)	352	80	E	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Proportion of women delivering babies in acute care hospitals by Caesarean section	28.0% (2007-2008)	27.7%	99	C	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Cardiac revascularization age-standardized rate (per 100,000)	273 (2007-2008)	235	116	A	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full

Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results.					
Low weight babies (live birth less than 2,500 grams)	4.9% (2007)	6.0%	122	A	Statistics Canada *Table 102-4509* http://www.statcan.gc.ca
Risk-adjusted rate of acute myocardial infarction (AMI) readmission	6.2% (2005-2008)	5.1%	82	E	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of 30-day acute myocardial infarction (AMI) in-hospital mortality	10.4% (2005-2008)	9.4%	90	D	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of 30-day stroke in-hospital mortality	15.9% (2005-2008)	18.0%	113	B	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of in-hospital hip fracture (per 1,000)	0.8 (2005-2008)	0.8	100	C	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of asthma readmission	2.7% (2005-2008)	4.5%	167	A+	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of prostatectomy readmission	3.2% (2005-2008)	2.4%	75	F	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Risk-adjusted rate of hysterectomy readmission	1.1% (2005-2008)	1.1%	100	C	Canadian Institute for Health Information - *2009 Health Indicators Report* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_2150_E&cw_topic=2150&cw_rel=AR_152_E#full
Five-year survival estimates for primary sites of cancer (relative survival ratio)	58% (2000)	59.8%	97	C	Statistics Canada *Table 103-1573* http://www.statcan.gc.ca
Quality Dimension – EFFICIENCY: Achieving the desired results with the most cost-effective use of resources.					
Percent of hospitalizations that were related to an Alternate Level of Care (ALC)	5% (2007-2008)	4.3%	86	E	Canadian Institute for Health Information – *Analysis in Brief – Alternate level of care in Canada 2009* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_1751_E&cw_topic=1751&cw_rel=AR_2610_E
Average length of stay (ALOS) (in days)	7.9 (2007-2008)	7.1	90	D	Canadian Institute for Health Information – *Highlights of 2007–2008 Inpatient Hospitalizations and Emergency Department Visits* http://secure.cihi.ca/cihiweb/products/Quickstats_Highlight_document_20100113_en.pdf

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Indicators not available at the moment	--	--	--	--	--
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized.					
Hospital Standardized Mortality Ratio (HSMR)	83 (2008-2009)	100	120	A	Canadian Institute for Health Information – *2009 HSMR Results* http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=hsmr_results_canada_e
Overall Performance Index			**102**	**C**	

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* = Provincially set benchmark

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**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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.					
Family physicians and general practitioners with access to a psychiatrist for their patients (% good, very good, or excellent)	36.0% (2007)	31.1%	116	A	National Physician Survey http://www.nationalphysiciansurvey.ca/nps
Wait time for selected diagnostic tests: Magnetic Resonance Imaging (MRI), CAT (CT) scan, angiography (within 1 month)	49.3% (2007)	55.4%	89	D	Statistics Canada *Table 105-3004* http://www.statcan.gc.ca
Residents over 75 years of age that have access to long-term care beds	8.2% (2007-2008)	7.5%**	109	B	NB Department of Social Development – *2007-2008 Annual report* http://www.gnb.ca/0017/publications/AnnualReport0708.pdf Statistics Canada – *Online catalogue 92-591-XWE* http://www.statcan.gc.ca
Wait time for specialist visits for a new illness or condition (within 1 month)	44.3% (2007)	45.6%	97	C	Statistics Canada *Table 105-3002* http://www.statcan.gc.ca
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results.					
Intentional self-harm (suicide) age-standardized mortality rate (per 100,000)	12.6 (2005)	10.9	87	D	Statistics Canada *Table 102-0552* http://www.statcan.gc.ca
1-Year acute care hospital readmission rate for individuals diagnosed with a mental illness (per 100)	24.6 (2005-2006)	22.9	93	D	Canadian Institute for Health Information – *Hospital Mental Health Services 2005-2006* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_364_E
Quality Dimension – EFFICIENCY: Achieving the desired results with the most cost-effective use of resources.					
Number of exams done by CAT (CT) scanners (per 1,000 population)	176.6 (2006-2007)	103.3	171	A+	Canadian Institute for Health Information – *Health Services - Diagnostic imaging* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=statistics_results_topic_medimaging_e

Number of exams done by Magnetic Resonance Imaging (MRI) scanners (per 1,000 population)	32.7 (2006-2007)	31.2	105	B	Canadian Institute for Health Information – *Health Services - Diagnostic imaging* http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=statistics_results_topic_medimaging_e
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.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized.					
Indicators not available at the moment	--	--	--	--	--
Overall Performance Index			**108**	**B**	

The Canadian value is either the national average or a nationally set benchmark.

Letter grading methodology: The analysis is based on the indicator data available when the report was completed. The index score is calculated in two ways, depending on the definition of the indicator. If an increase of the indicator value represents an improvement, the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value. On the other hand, if a decrease of the indicator value represents an improvement, then the score is created by dividing the Canadian value on the specific indicator by the New Brunswick value. This number is then multiplied by 100 to create the New Brunswick performance index score. All numbers have been rounded up.

Example: If the New Brunswick performance index score is 100 ('C' grade), this means that the New Brunswick score and national score were the same.

Scoring Grid: A+ = >122, A = 114-122, B = 105-113, C = 96-104, D = 87-95, E = 78-86, F = <78
This scoring grid takes into account provincial and territorial comparative indicators with small and large variations from the national average.
IMPORTANT NOTE: A composite index grade should not be viewed in isolation from indicators on which it is based for any policy and/or planning decisions.

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 the rest of Canada.

**= Provincial benchmark with estimates based on residents actually in nursing homes and residents on waiting lists

It is also important to note that the data for the *supportive/specialty sector* must be reviewed with caution due to the fact that more indicators would have produced a better representation of this sector.

-Indicators representing PALLIATIVE AND END-OF-LIFE CARE to follow at a future date.

Health care sector – PALLIATIVE AND END-OF-LIFE CARE: This care received by anyone facing a life-threatening illness. It provides physical, emotional and spiritual care and support for individuals and their loved ones.					
Indicators	**NB Value**	**Canadian Value**	**NB Performance Index Score**	**NB Performance Index Grade**	**Source**
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.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – APPROPRIATENESS: Care/service provided is relevant to the patients'/clients' needs and based on established standards.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – EFFECTIVENESS: The care/service, intervention or action achieves the desired results.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – EFFICIENCY: Achieving the desired results with the most cost-effective use of resources.					
Indicators not available at the moment	--	--	--	--	--
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.					
Indicators not available at the moment	--	--	--	--	--
Quality Dimension – SAFETY: Potential risks of an intervention or the environment are avoided or minimized.					
Indicators not available at the moment	--	--	--	--	--
Overall Performance Index	**--**	**--**	**--**	**--**	**--**

References:

1 – Government of New Brunswick, *CHAPTER N-5.105 New Brunswick Health Council Act* (NB: GNB, 2008), [online], from < http://www.gnb.ca/0062/PDF-acts/n-05-105.pdf >.

2 – A. Arah et al.,``Conceptual frameworks for health systems performance: a quest for effectiveness, quality, and improvement,`` International Journal for Quality in Health Care 15, 5 (2003) pp.377-398.

3 – E. Kelley and J. Hurst, Organisation for Economic Co-operation and Development, *Health Care Quality Indicators Project Conceptual Framework Paper (2006),* [online], from <http://www.oecd.org/dataoecd/1/36/36262363.pdf >.

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

5- Wait Time Alliance (WTA), *Unfinished business - Report Card on Wait Times in Canada June 2009(2009),* [online], from < http://www.waittimealliance.ca/June2009/Report-card-June2009_e.pdf >.

6- Fraser Institute [online], from <http://www.fraserinstitute.org/reportcards/hospitalperformance/>.

7 - The Conference Board of Canada, *How Canada Performs: A Report Card on Canada (2008)* [online], from <http://www.conferenceboard.ca/HCP/default.aspx >.

8 – Institute of Wellbeing, The Canadian Index of Wellbeing (2009), [online], from <http://www.ciw.ca/Libraries/Documents/FirstReportOfTheInstituteOfWellbeing.sflb.ashx>.

9- B. Eisen and A. Björnberg, The Frontier Centre for Public Policy, *Canada Health Consumer Index* 2009, (2009), [online], from <http://www.fcpp.org/files/1/78.%20CHCI%202009.pdf >.

10 – 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.

11 – A. Saltelli, "Composite indicators between analysis and advocacy", *Social Indicators Research* 81, 1 (2007) pp.65-77.

12 – M. Nardo *et al.*, "Handbook on Constructing Composite Indicators: Methodology and User Guide", *OECD Statistics Working Papers*, 2005/3, OECD Publishing.

13 – F. Booysen, "An overview and evaluation of composite indices of development", *Social Indicators Research* 59, 2(2002)pp.115-151.

14 – A. Bindman, et al., ``Preventable hospitalizations and access to health care.``, *Journal of Americain Medical Association* 274, 4 (1995)pp.305-311.

15 - J. Blustein, et al., ``Preventable Hospitalizations and Socioeconomic Status.`` *Health Affairs (Millwood)* 17, 2 (1998) pp.177-189.

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