Understanding New Brunswick's Health Care Costs and Capacity to Deliver Health Care:

Relationship Between Health Care and Sustainability

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New Brunswick Health Council
Engage. Evaluate. Inform. Recommend.

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Introduction

A good place to start when it comes to understanding the integral relationship between health care and sustainability is with understanding sustainability.

At its very simplest level we can understand it as:

The human population living in such a way that does not prevent future generations from meeting their needs.

Nationally a panel discussion in 2008 looking at *"Sustainability in Public Health Care: What Does It Mean"* drew attention to the fact that focus on sustainability in health care has led to an expansion of the concept to include more than fiscal concerns[1]. It appears to include many ideals such as

- equity
- choice
- compassionate care
- confidence
- quality

These ideals often lend to extending into economic, social, and political dimensions. If one is to attempt to define or measure sustainability, it will be very important to be specific about its scope when used since a broad use of the term makes it difficult to understand and to measure. At the same time, a focus on spending alone will not resolve the full range of concerns being expressed regarding sustainability.

Recently, the New Brunswick Department of Health has defined sustainability as:

"Making reasonable and informed choices for the best affordable and equitable healthcare now and in the future."

The 4 elements or guiding principles which guide decision-making are: "Sustainability is Citizen-Centered; and focuses on Health Outcomes by delivering Quality & Timely Services that are Efficient and Affordable."[2]

This is important to note since the New Brunswick Health Council (NBHC) has as one of its strategic axes to ''*measure, monitor and evaluate the sustainability of health services*'' in New Brunswick. Part of the New Brunswick Health Council's work includes examining the Department of Health's 4 elements which guide decision-making with respect to sustainability. These elements or guiding principles for the system are:

1. Is centered around citizen needs;
2. Ensures optimal health outcomes;
3. Provides quality and timely service delivery;
4. Is efficient and affordable.

In order for the NBHC to report on these elements, make recommendations or comment on sustainability, we must first have a clear picture of each component.

- We chose to start with ***measuring health outcomes*** through our Population Health Snapshot report.

- Next, we released our report card that provided the baseline ***measurement for the quality of health services*** being delivered in New Brunswick.

- The citizen-centred element will be measured through the care experience survey of acute care hospitals (***patient satisfaction***) as well as ***citizen engagement initiative*** currently underway.

The current report will focus on ***measuring the costs*** to fund programs and services ***and the capacity to deliver health care*** in New Brunswick in comparison to the rest of Canada. The report will also examine the current and future cost drivers and demand for New Brunswick's health system.

What are we trying to sustain?

New conceptual models of sustainability acknowledge the importance of sustaining health status and not merely a delivery system or an organization. These models are systemic; they take into consideration all the elements which contribute to sustainability, and encompass both supply and demand issues. These models also take into account the socioeconomic context of health systems as having a potentially significant bearing on the types and degrees of sustainable programs, services and outcomes that can be achieved[3].

The *Socioeconomic Environment* refers to a collection of contextual factors that contribute to sustainability and need to be taken into consideration when designing, implementing, and measuring the performance of a health system. A province's level of economic development and corresponding availability of resources for supporting a health system are important initial factors in determining what levels of sustainability can be realistically achieved in a given time frame. Likewise, a province with a predominantly rural, dispersed population has to overcome barriers to sustainability that are greater than those in a more urbanized province.

Canada's health care system does not have adequate means of separating wants and needs. Decisions must be made about choices and limits. When tough choices need to be made, both decision-makers and the public must be confident that they are made fairly.

The *Canada Health Act* recognizes that publicly provided health care does not include all possible health care. It establishes "*medically necessary*" hospital and physician services as publicly insured services[4]. This has left the provinces to struggle over how medical necessity is defined while trying to contain rising health care costs. Provinces are left to decide what services could appropriately be delisted from provincial health plans. General dental care, physiotherapy, speech therapy, vision care, chiropractic care are examples of services which are often not covered by provincial health plans. How do we decide what is publicly covered and what is not?

This decision was made long ago in history when Canada's focus of public funding was mainly on hospital and physician services. Now, provinces have chosen to fund home care, drugs, and long-term care. The role of other health professions have assumed an importance that was not foreseen. It is evident that choices over what kinds of care are covered and which ones are left to be paid for through private spending were arrived at by default without clear rationale.

This brings about the concept that the context of sustainability of health care in the real world of finances has two parts; **fiscal (costs) sustainability** and **clinical (programs and services) sustainability**.

What have we learned about sustainability?

Sustainability can often be at the mercy of the public and politicians. Here are some examples of decisions that can have an impact on sustainability:

- When government decisions are made to cut taxes and spending in other, non-health sectors this can have an impact on the size of budgets. In times when health care spending remains contant or increases over certain years, shrinking budgets can have a huge impact on the proportion of government budgets that health care will consume[5].
- Many solutions for improving efficiency and quality in health care exist, but these solutions are not consistently applied in the same manner.
- Shifting the focus from hospital-based care towards preventative and primary care interventions has been linked to reduced aggregate health care spending[6].
- Involvement of health care providers is critical in creating sustainable change.
- Funds currently being managed in the system may need to be used differently (reducing waste and integrating services) before new investments are made. This requires a willingness and commitment to make fundamental changes in the way health care is organized and delivered. Innovation and ideas from other sectors should be welcomed.
- Multi-year budgets may help to generate efficiencies and cost savings over time while encouraging innovation and organizational change for long term planning. Single-year funding reduces the level of flexibility required to achieve and sustain longer term visions.
- Human resources need to be better employed and deployed. To do this, we need to allow professionals to practice to the full scope of their skills and qualifications, and increase the amount of time health care providers spend in actual clinical service delivery. In addition, providers can be organized into teams to manage care more effectively[1].

The next section of this report deals with the costs and the capacity to deliver health care in New Brunswick in comparison to the rest of Canada. It provides a baseline measure from which to monitor in the future.

Cost to deliver all the programs and services

There is no doubt that provincial health care costs have increased at a significant pace in the past five and ten years: increasing by an average of approximately 7% in the past ten years[7]. If these rates of increase stay higher than revenue growth or GDP growth over the long-term, then they are of course, unsustainable.

Historically, spending on health care as a percentage of GDP has been used to measure spending on health care in relation to the country's overall wealth. As concern has turned to the sustainability of the system, new metrics -such as government spending on health care as a percentage of total government spending- are being used.

What is Gross Domestic Product(GDP)?

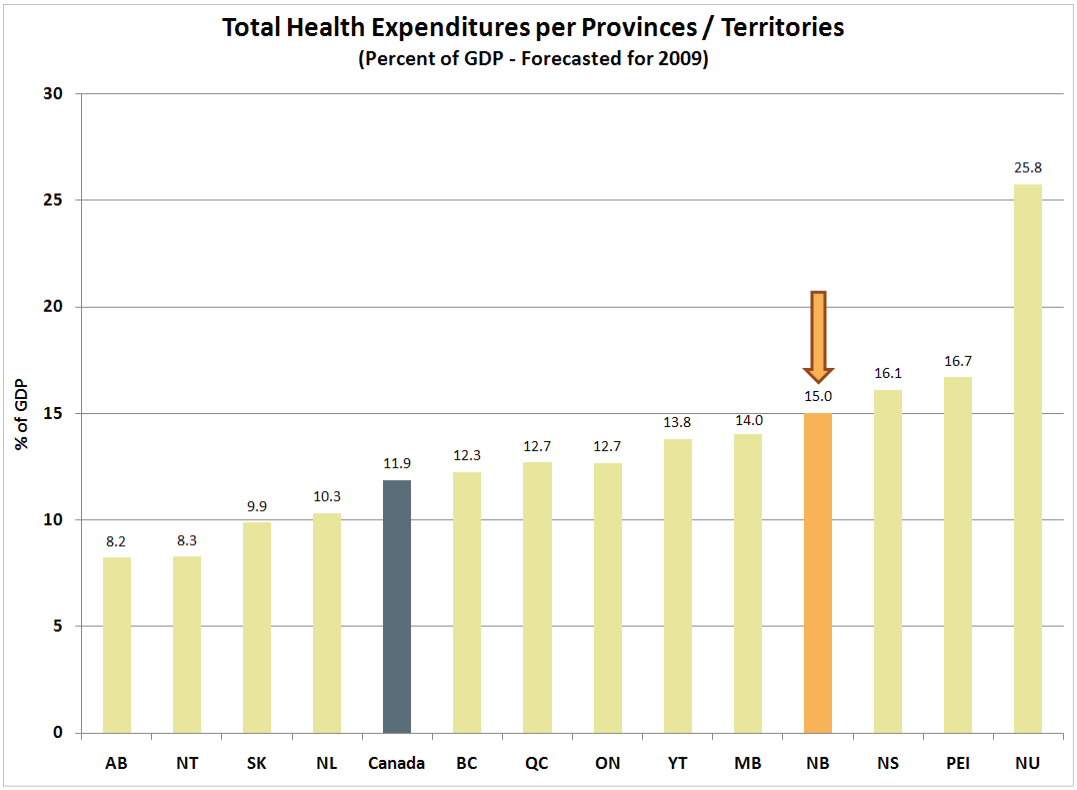
GDP is defined as the total value of all goods and services produced within that territory during a given year. GDP is designed to measure the market value of production that flows through the economy.

- Includes only goods and services purchased by their final users, so GDP measures final production.
- Counts only the goods and services produced within the country's borders during the year, whether by citizens or foreigners.
- Excludes financial transactions and transfer payments since they do not represent current production.

Measures both output and income, which are equal.

When we speak of New Brunswick this is what it translates into; New Brunswick total health expenditures represents 15% of the GDP (figure 1) and this places New Brunswick in the top four provinces and territories in spending.

Figure 1:

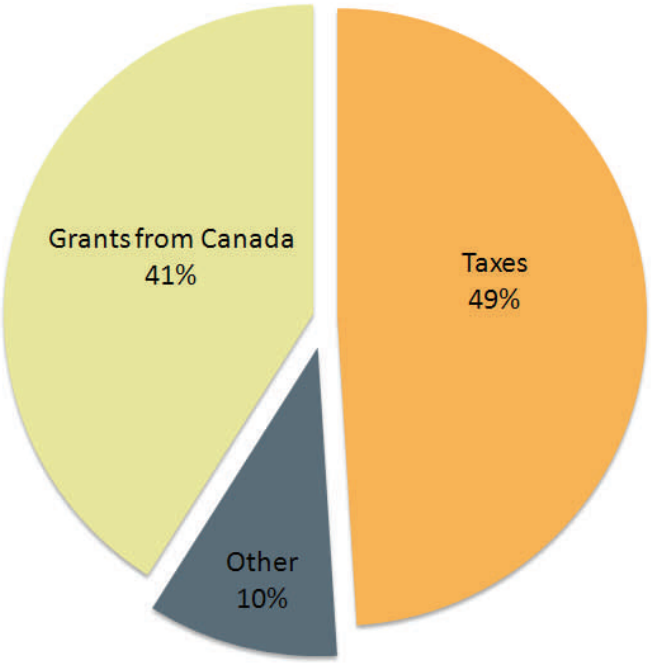


Source: Canadian Institute for Health Information, National Expenditure Database, 2009 (includes expenditures from the New Brunswick Department of Wellness, Culture and Sport—Wellness, the New Brunswick Department of Health and the New Brunswick Department of Social Development—Long Term Care).

Now let us turn our attention to understanding revenue and expenses. For New Brunswick, the main sources of revenue are either taxes or grants from the Government of Canada (figure 2).

Figure 2:

Percentage of Revenue by Source, for the Province of New Brunswick for 2009



Grants / Transfers from the Government of Canada
Fiscal Equalization Payments
Canada Health Transfer
Canada Social Transfer
Other

New Brunswick's own source of revenue

Taxes

Other
Return on Investment
Licenses and permits
Sale of Goods and Services
Royalties
Fines and Penalties
Miscellaneous

Source: Province of New Brunswick, Economic and Fiscal Update 2009-2010, March 6 2010

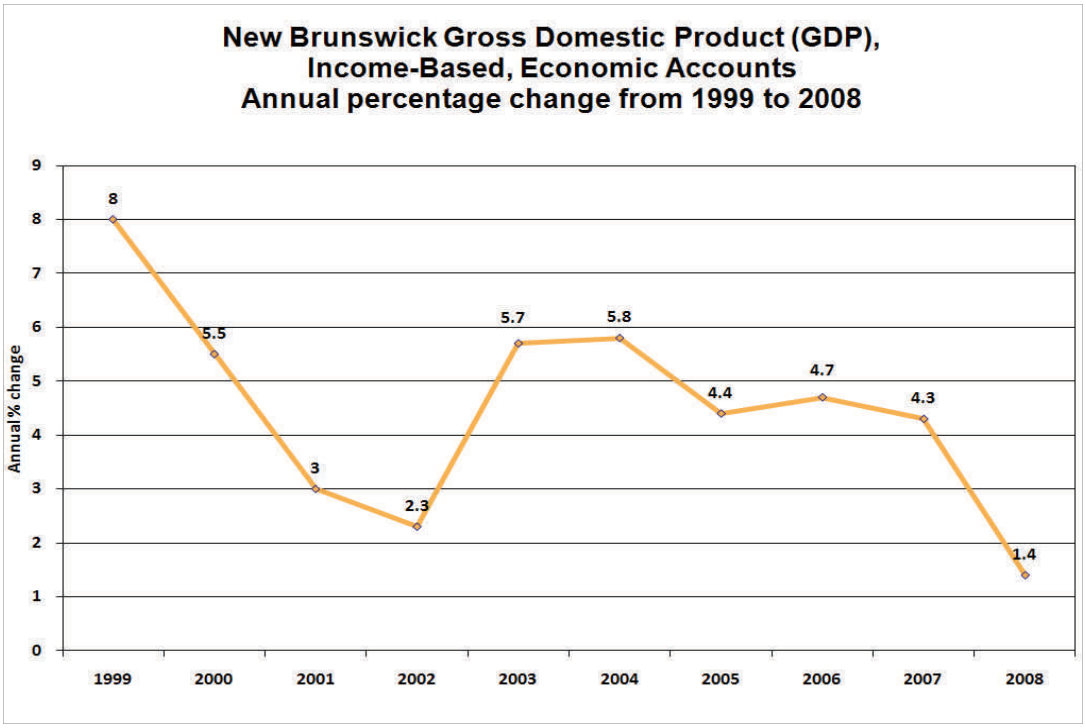
The economy in New Brunswick is based both on urban and rural areas. The urban areas which have modern, service-based economies dominated by the health care, educational, retail, financial, and insurance sectors. These sectors are reasonably equitably distributed in three urban centres. In addition, heavy industry and port facilities are found in Saint John; Fredericton is dominated by government services, universities, and the military; and Moncton has developed as a commercial, retail, transportation, and distribution centre with important rail and air terminal facilities.

The rural primary economy is best known for forestry, mining, mixed farming, and fishing. Our large reserves of lead, zinc and copper are found in the northern part of the province around Bathurst. Potash and salt deposits are centred in the southern region, primarily around Sussex. Although peat harvesting takes place primarily on the Acadian Peninsula, this resource can be found in a broad diagonal zone that stretches from the south to the northeast of the province[8].

When we look at trends over time for New Brunswick for Income Growth GDP, figure 3 tells us that we have been on a slow decline over the past ten years and in particular the last couple of years. In terms of annual expenditure growth for health care (figure 4) it has also been on a slow decline; a pattern similar to our annual income growth rate. This helps explain the "*squeezing out phenomenon*" where health care appears to be consuming a larger slice of a shrinking pie which will eventually consume the entire government budget and threaten other public priorities such as education or social assistance[1].

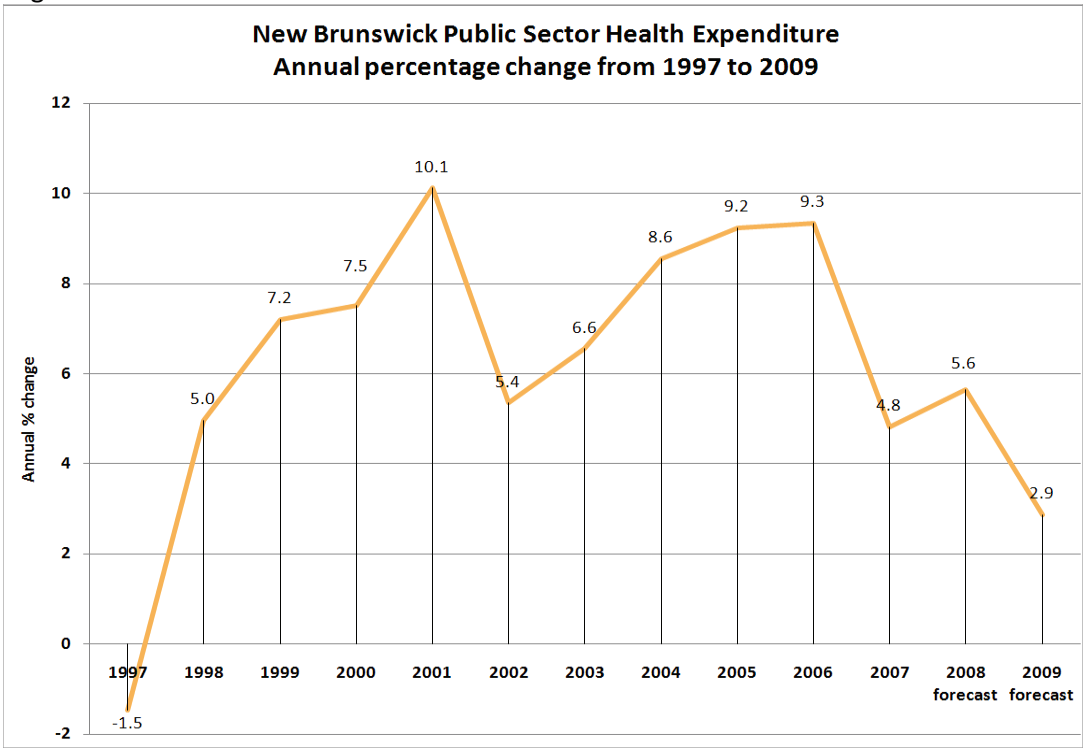
It also suggests that slowing of health care costs in New Brunswick can occur. What is important to note is that at some point expenditure growth must be lower than income growth in order for true sustainability to be possible.

Figure 3:



Source: Statistics Canada, Provincial and Territorial Economic Accounts Review, 2009

Figure 4:



Source: Canadian Institute for Health Information, National Expenditure Database, 2009

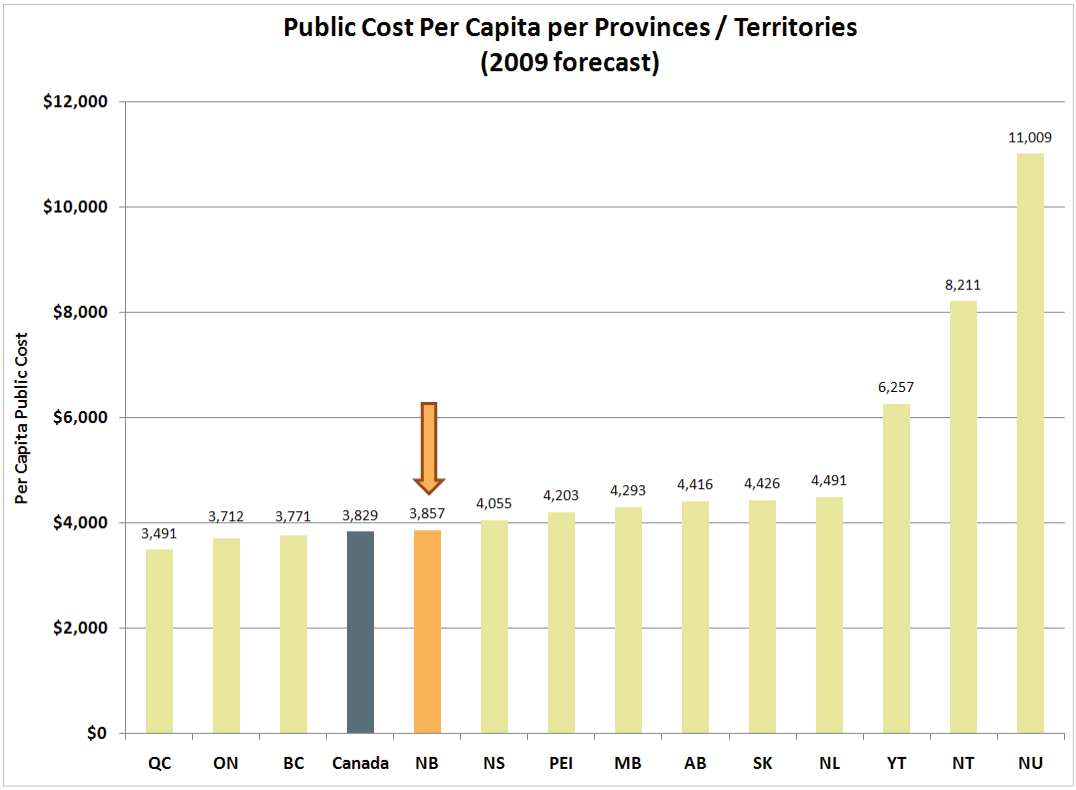
(includes expenditures from the New Brunswick Department of Wellness, Culture and Sport—Wellness, the New Brunswick Department of Health and the New Brunswick Department of Social Development—Long Term Care).

The next important piece of information is the understanding about how much money is being spent per capita in New Brunswick as it relates to the public portion of health care expenditures.

Many factors contribute to such variation in spending patterns, including demographic differences, health status, patterns of health service delivery, geography and population density, and the costs of providing care in diverse environments[9].

Across jurisdictions, total health expenditure per capita is influenced by different age distributions, population density and geography across the provinces/ territories. Based on 2009 projected costs, New Brunswick will spend approximately $3,857 per person based on the public portion of total health expenditures (figure 5). This places New Brunswick as 4th lowest of all the provinces and territories and just above the national average.

Figure 5:



Source: Canadian Institute for Health Information, National Expenditure Database, 2009
(includes expenditures from the New Brunswick Department of Wellness, Culture and Sport—Wellness, the New Brunswick Department of Health and the New Brunswick Department of Social Development—Long Term Care).

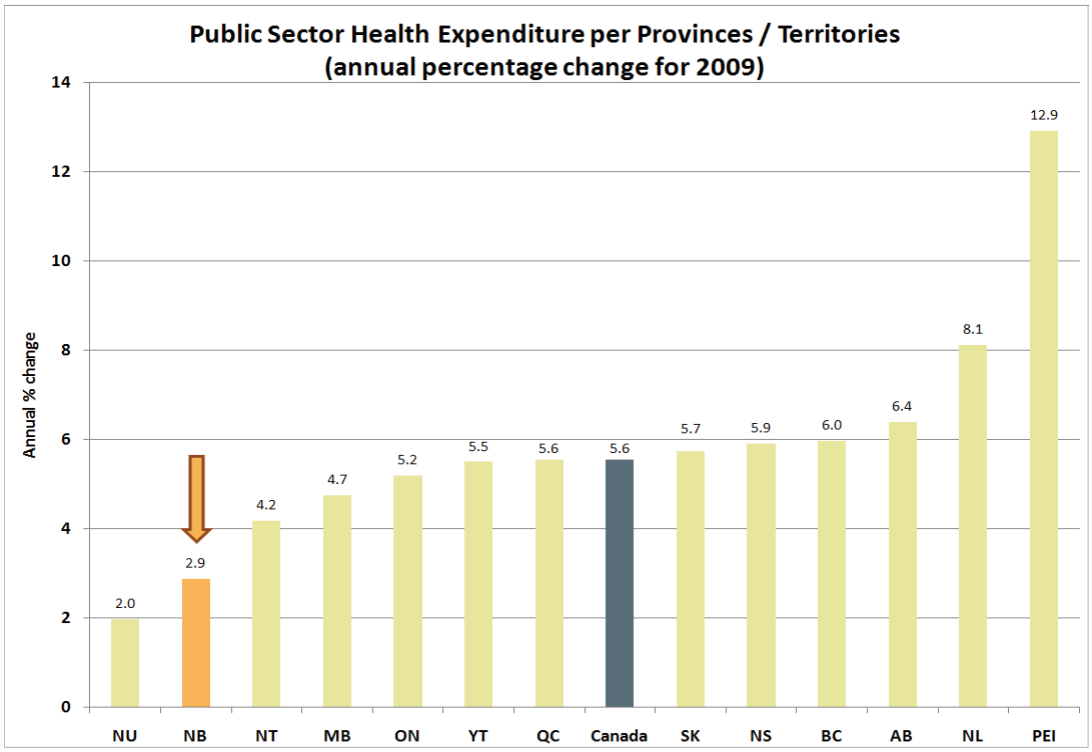
The Department of Health planned for a slowing of the growth rate of health expenditures last year as part of their plan on moving towards sustainability. They set their first target for 2010/2011 at a 4.5% growth rate based on their average expenditure growth rate at 8.6% for the past ten years.

The NBHC was able to review expenditures from the Department of Health comparing real one-year annual change from 2007-2008 to 2008-2009. After the review, the Department of Health expenses came in at a total cost of $2.46 billion compared to $2.34 billion in the previous year.

This represents a real growth expenditure of 5%, a positive trend towards their goal. According to the Canadian Institute of Health Information's projected cost for 2009, which includes the expenditures of the Department of Wellness, Culture and Sport (Wellness) and the Department of Social Development (Long Term Care), New Brunswick is projected to experience one of the slowest public expenditure growth rates at 2.9%[10](figure 6).

The slowing of the growth rate last fiscal year appeared to come from a decrease of: capital expenses, physician salaries and administration. This was offset by some small increases in hospital expenses, drugs, other institutions, other health spending and other professional costs (figure 7).

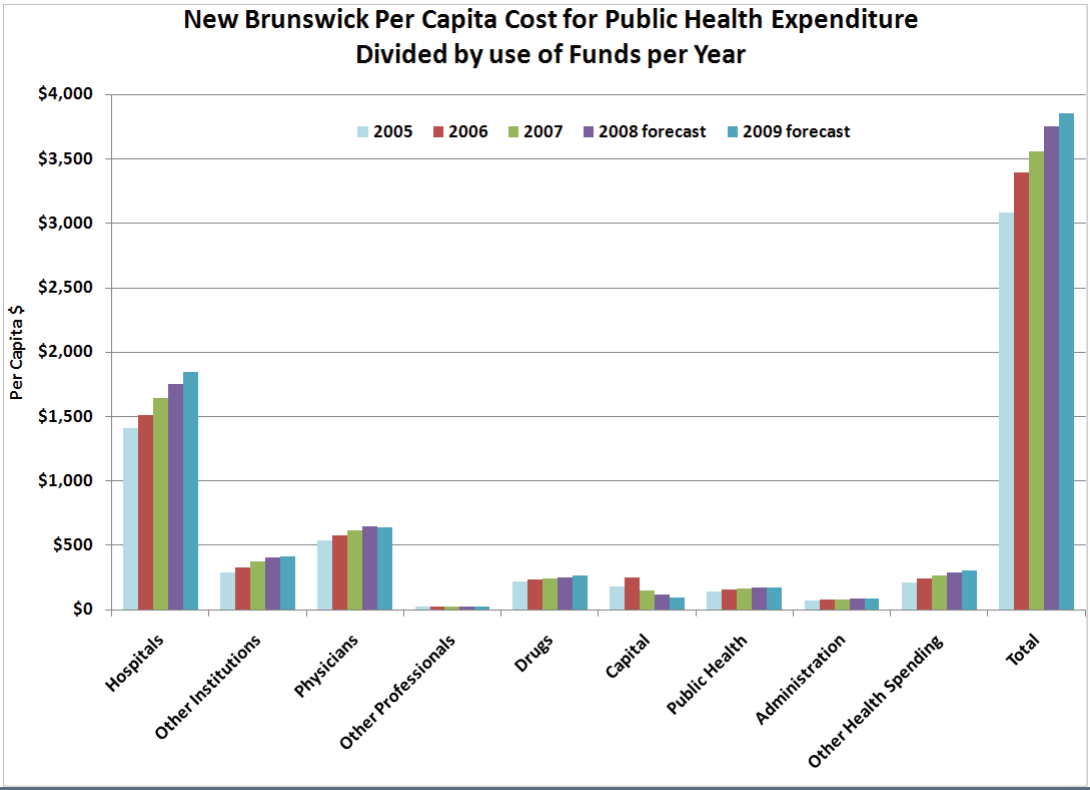
Figure 6:



Source: Canadian Institute for Health Information, National Expenditure Database, 2009

(includes expenditures from the New Brunswick Department of Wellness, Culture and Sport—Wellness, the New Brunswick Department of Health and the New Brunswick Department of Social Development—Long Term Care).

Figure 7:



	Hospitals	Other Institutions	Physicians	Other Professionals	Drugs	Capital	Public Health	Administration	Other Health Spending	Total
2005	$1,411	$286	$537	$22	$215	$182	$143	$73	$214	$3,083
2006	$1,509	$328	$578	$21	$232	$253	$156	$76	$243	$3,397
2007	$1,640	$378	$613	$22	$241	$151	$166	$82	$268	$3,562
2008 forecast	$1,756	$406	$645	$22	$254	$121	$170	$87	$292	$3,753
2009 forecast	$1,848	$415	$642	$23	$269	$93	$173	$87	$304	$3,857

Source: Canadian Institute for Health Information, National Expenditure Database, 2009

(includes expenditures from the New Brunswick Department of Wellness, Culture and Sport—Wellness, the New Brunswick Department of Health and the New Brunswick Department of Social Development—Long Term Care).

Capacity to deliver care…how do we compare nationally?

The provision of high-quality health care relies upon a complex network of critically important elements, including efficiency of operations, compliance with scientific evidence, adequacy and optimal distribution of resources, and compassionate and responsive interactions between staff and patients. The delivery of these elements depends upon the predictable capacity of the system to provide health care that meets both individual and population needs.

This section focuses on the current programs and services available in New Brunswick[11, 12](table A).

Table A: New Brunswick health system expenses and current program and services per health care sector based on 2.9 billion dollars of expenditures in 2008-2009.

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.
Prescription Drug Program
Public Health Provincial Epidemiology Communicable Disease Control - Immunization Program - Surveillance - Inspection Services - Health Protection Program (food, air, water)
Promotion of healthy lifestyles / healthy families Early Child intervention (ECI) 3.5 Years Old Health Clinic Baby Friendly Initiatives Healthy Eating Dental Health Healthy Learners and School Program Sexual Health Program Injury / Disease Prevention Initiatives Tobacco
Ambulance Services
Primary Health Care Chronic disease prevention and management Telecare services
Community Health Centres
Health Centres NB Breast Cancer Screening Services
Department of Wellness, Culture and Sport - Wellness portion

ACUTE CARE
The care provided in a hospital or a psychiatric facility.
Hospital Services Cardiac Care Program Ambulatory Care Clinic - Dialysis services Universal Newborn Infant Hearing and Screening Program Provincial phenylketonuria case management service Cochlear Implant Follow-Up Services Organ and Tissue Procurement Safer Health Care Now - 10 initiatives Utilization management Inpatient psychiatric care
Psychiatric Facilities Centracare Restigouche Hospital Centre
Other Subservices Facilities
Out of Province Hospital Payments
** The province of New Brunswick has collected 47.1 million dollars from other provinces or countries to provide health care service in New Brunswick to their population.*

PRIMARY HEALTH EXPENSES 2008-2009:	
Department of Health	$513,943,266
Department of Wellness Culture and Sport	$7,344,000
Overall	**$521,287,266**
% of total	**17.9%**

ACUTE CARE EXPENSES 2008-2009:	
Department of Health	$1,648,908,409
Overall	**$1,648,908,409**
% of total	**56.7%**

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.

Community Mental Health Centres
- Acute Services
- Child and Adolescent Services
- Youth Treatment Program
- Adult Long Term Services
- Mental Health Prevention / Promotions Initiatives
- Suicide prevention program

Mobile Lithotripsy Service

Extra-Mural Program

Rehabilitation Services
- Stan Cassidy Centre for Rehabilitation

Addictions Services

Seniors Rehabilitative Equipment Program

Department of Social Development
- Long Term Care

DEPARTMENT OF HEALTH ADMINISTRATIVE AND CAPITAL EXPENSES

Capital Equipment

Capital Construction

Medicare Services

Administration
- Senior Management
- Financial Services & Internal Audit
- Human Resources
- Contract Management and Corporate Services
- Communication
- Official Languages
- Information Technology
- Planning

Hospital Liability Protection
- Surgical Access Management

Medical Education

New Brunswick Cancer Network & Cancer Registry

New Brunswick Health Council

FacilicorpNB's expenses are included in primary health, acute care and supportive/specialty.

SUPPORTIVE / SPECIALTY EXPENSES 2008-2009:	
Department of Health	$164,910,544
Department of Social Development	$436,282,000
Overall	**$601,192,544**
% of total	**20.7%**

DEPARTMENT OF HEALTH ADMINISTRATIVE AND CAPITAL EXPENSES 2008-2009:	
Department of Health	$137,356,776
Overall	**$137,356,776**
% of total	**4.7%**

Overall expenses for New Brunswick by sectors of care for 2008-2009:

		% of total
Primary Health	$521,287,266	17.9%
Acute Care	$1,648,908,409	56.7%
Supportive / Specialty	$601,192,544	20.7%
Department of Health (Administrative and Capital Expenses)	$137,356,776	4.7%
New Brunswick Health System Expenses (2008-2009)	**$2,908,744,995**	**100.0%**

Source: Combination of the Government of New Brunswick, Annual Report of Hospital Services for the Fiscal Year Ending March 31, 2009 Data Table I-3(a), and Department of Health Annual Report for 2008-2009, as well as the New Brunswick Financial Statement of Public Accounts for the fiscal year ended 31 March 2009

The <u>resources</u> or <u>capacity</u> to deliver these programs and services are:

- **staffing**
- **equipment**
- **information technology**

In order to appreciate if New Brunswick has the capacity it needs to deliver the current programs and services offered in health care today, we felt it was important to create a group of indicators that best represents the capacity to deliver health care services and compare those resources to the rest of Canada (using per capita comparison). The attached Table B provides overall simple targets, and we constructed an overall index score in order to simplify a multi-dimensional measure. This measure will also be useful for monitoring resource trends over time and it will represent a dimension of sustainability which specifically relates to the "*capacity*" to deliver health care. Based on what the index tells us, New Brunswick appears to have enough capacity to deliver the programs and services based on the current clinical program design or structures. See ***Appendix — Resources / Capacity Indicators***, for the full complement of indicators.

Table B: Resources/Capacity Indicators

Indicators	NB Value	Canadian Value	NB Index Score	NB Rating	Source
Hospital beds available per 1,000 population	4.08 (2007-2008)	3.43	119	◆	Canadian Institute for Health Information *Quick Stats – Hospital Beds Staffed and In Operation, Fiscal Year 2007-2008* www.cihi.ca Statistics Canada (2006 Census) www.statcan.gc.ca
Staffing per 100,000 population (see appendix for explanation)	2,439 (2008)	1,945	125	◆	Canadian Institute for Health Information *Canada's Healthcare Providers – 2008 Provincial Profiles: A Look at 24 Health Occupations* www.cihi.ca
CAT (CT) scanners per million population	20.0 (2007)	12.8	156	◆	Canadian Health Services Research Foundation *Quality of Healthcare in Canada – A Chart book* http://www.chsrf.ca Canadian Institute for Health Information www.cihi.ca
Magnetic resonance Imaging(MRI) scanners per million population	6.7 (2007)	6.8	99	▫	Canadian Health Services Research Foundation *Quality of Healthcare in Canada – A Chart book* http://www.chsrf.ca Canadian Institute for Health Information www.cihi.ca
Use of electronic patient records	16.1 (2007)	25.7	63	●	Canadian Health Services Research Foundation *Quality of Healthcare in Canada – A Chart book* http://www.chsrf.ca National Physician Survey 2007 http://www.nationalphysiciansurvey.ca
Overall Index & Rating			**112**	◆	

The Canadian value is the national average.

Rating methodology:

The analysis is based on the indicator data available when the report was completed. The index score is calculated as follows: the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value. This number is then multiplied by 100 to create the New Brunswick index score. All numbers have been rounded up.

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

Rating:

- ◆ Higher than the national average (>104)
- ▫ At the national average (96 to 104)
- ● Lower than the national average (<96)

This rating takes into account provincial and territorial comparative indicators with small and large variations from the national average.

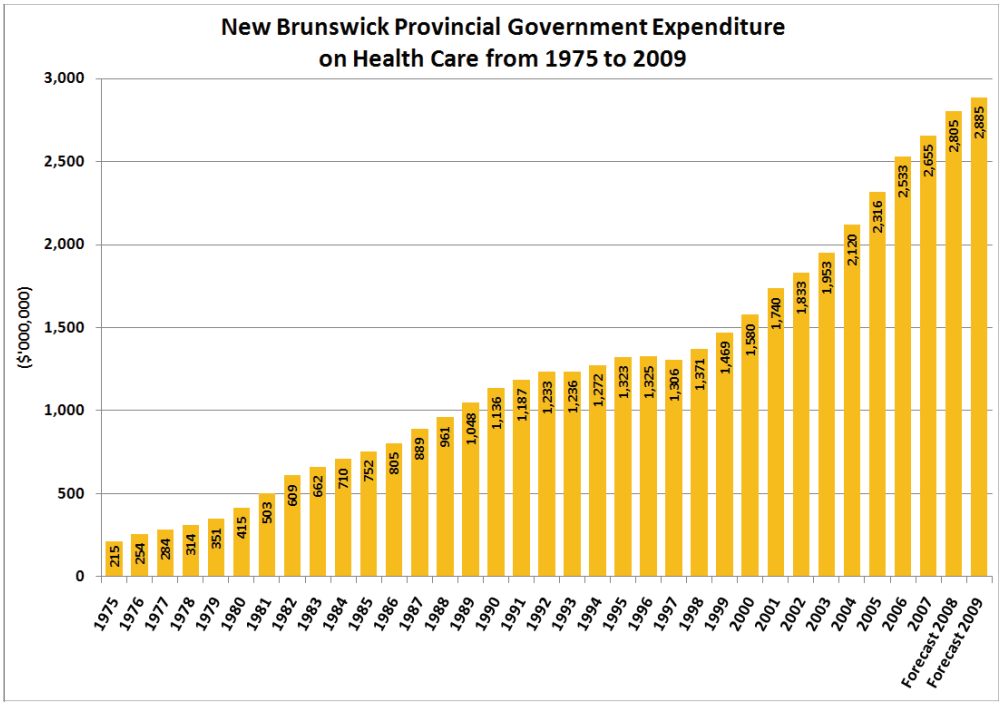
Pressures to the system that need to be considered for future planning

Rising Costs

Recent provincial/territorial health care budgets have risen well in excess of inflation, population growth, or the economy. Provincial and territorial health expenditures for Canada are currently close to $56 billion. Even with modest changes in the pattern of service delivery, basic factors (population growth, aging, inflation, rising costs for current programs) are projected to increase health expenditures by approximately 5% per year.

The following figures 8 and 9 reflect the trending patterns of New Brunswick's public health expenditure from both the historical and future perspectives.

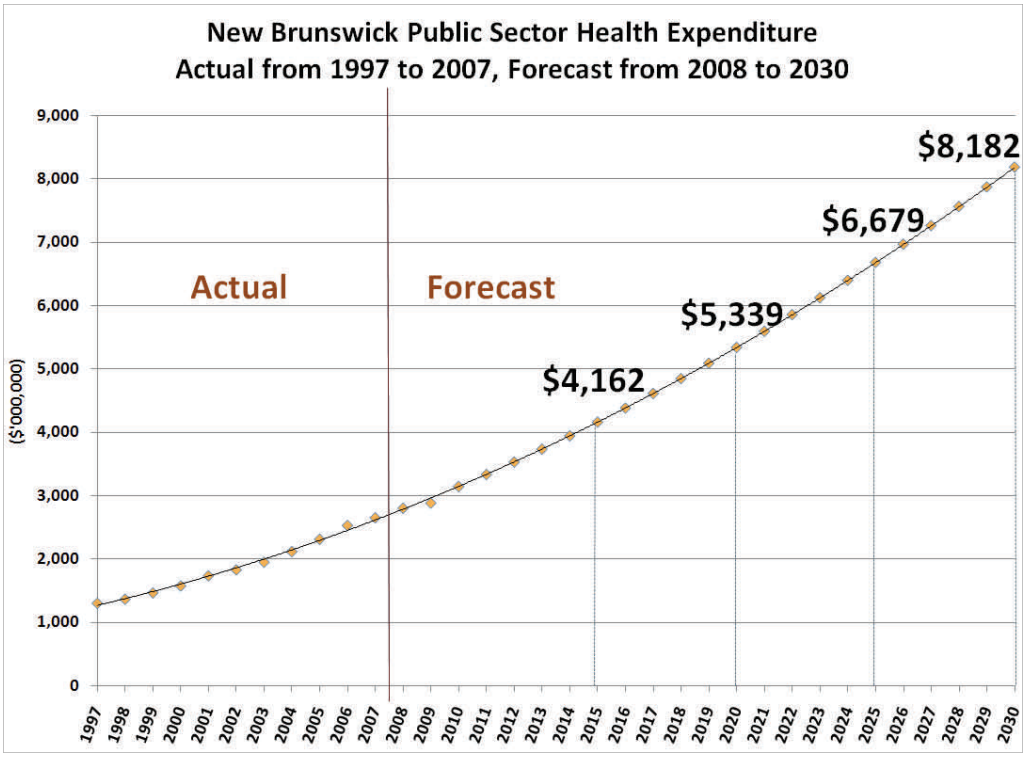
Figure 8:



Source: Canadian Institute for Health Information, National Expenditure Database, 2009

(includes expenditures from the New Brunswick Department of Wellness, Culture and Sport—Wellness , the New Brunswick Department of Health and the New Brunswick Department of Social Development—Long Term Care).

Figure 9:



Public sector health expenditure includes various Government of New Brunswick departments:

- Department of Wellness, Culture and Sport (Wellness)
- Department of Health
- Department of Social Development (Long Term Care)

Note:

Formula used for projection:
Polynomial projection
$y = 3.253232x^2 - 12{,}891.276998x + 12{,}771{,}230.863483$
$R^2 = 0.994$

Source:
Created by author based on historical data from the Canadian Institute for Health Information National Health Expenditure Database, 2009
Projection curve may vary based on range of years used for analysis

Demographic Population Changes

As the proportion of the population over 65 years of age grows larger, demands for health services will drastically increase at the same time that the size of the working age population that pays for their health care services is expected to decline. The data show that, "seniors aged 65 or over accounted for 13% of the nation's population in 2001, up from almost 12% in 1991. Projections indicate this proportion will reach 15% by 2011. At the other end of the age spectrum, 26% of the population was aged 19 or younger, down from 28% in 1991. If fertility remains low, this could fall to less than 23% by 2011…The population aged 45 to 64 increased 36% between 1991 and 2001, due to entry of the baby boomers into this group. As a result, Canada's working-age population has become more dominated by older individuals"[13].

An analysis of census data shows that aging will be a major cost for health care. In fact, the Interim Report of the Provincial and Territorial Ministers of Health (IRPTMH 2000) made conservative projections of annual average cost increases of almost 5% for the next 27 years. These projections do not include the effect of new technologies, increased quality and access expectations, information technologies or labour costs[14]. Based on these forecasts, growth in health expenditures is predicted to outpace population growth by a substantial margin.

Emerging Technologies and Pharmaceuticals

Examples of cost drivers include: emerging technologies such as major joint surgery, neonatal and fetal technologies, dialysis, organ transplantation, genetic testing and therapy. In addition, access to new or more costly pharmaceuticals will also impact on costs.

Changing Expectations

The baby boom generation entering into the age of health service consumption may significantly alter patterns of use of health services. Their expectations are dramatically different from those of their parents and grandparents. These changing expectations are leading to:

- an explosion in the use of home care,
- increased visits to doctors,
- additional diagnostic testing,
- demand for shorter waiting lists,
- demand for advanced technology,
- surgical procedures,
- demand for alternate services (e.g., short-term care, rehab, elder care, palliative care, respite care) and
- the need for clinicians to stay up-to-date.

Responding to these expectations has, and will continue to drive up the cost of care.

Through the Internet, the new consumers have access to timely research on the newest innovations and advancements in health care and expect these best services for both themselves and for their families. People no longer want the health care system to deliver basic services but now expect to have all of the options, all of the time, wherever they live.

Other Cost Drivers

Higher rates of illness, chronic conditions and premature death that occur in certain regions of Canada and in Aboriginal communities will put pressure on the need for increased federal support and provincial/ territorial budgets. There are other cost pressures faced by certain jurisdictions related to population density and geography. Rural and remote service delivery represents an additional cost driver. The difficulty of recruitment and retention of service providers, as well as the long distances involved, mean that rural and remote service delivery costs per patient can have an impact on the health system costs in general.

Conclusion

New Brunswickers continue to be well served by their health care system based on their satisfaction of the health system in general (89.6% of New Brunswickers are satisfied with the health system, 2007)[15], but is under serious challenges due to rising demand, and cost structures. Every province and territory faces a growing demand for health care services fueled by demographics, new technologies, pharmaceuticals and other growing costs of service provision.

Even with moderate changes in the pattern of service delivery, basic factors (population growth, aging, inflation, rising costs for current programs) are projected to increase health expenditures by approximately 5% per year.

However, this report also shows that a number of cost drivers have the potential to raise the growth of costs to well in excess of these numbers. Examples of these drivers include: new technologies, pharmaceuticals, and increased incidence of chronic and new diseases.

It is clear that provinces and territories will have to continue to actively manage the system to address the magnitude of expenditure pressures to meet future demand. The public will also need to make informed choices for appropriate use of the system.

What is important to note is that for financial and clinical sustainability to occur in New Brunswick, planning for the future will be critical. In order for sustainability to occur there will need to be a balance between a low per capita cost, adequate capacity and resources, quality health care services, and citizen satisfaction with the health system while providing the best health outcomes for the population of New Brunswick.

The information from this report will contribute to the overall baseline picture of sustainability from which the New Brunswick Health Council will build its overall recommendations to the Minister of Health.

Appendix:

Resources / Capacity indicators

Indicators	NB Value	Canadian Value	NB Index Score	NB Rating	Source
Overall indicators					
Hospital beds available per 1,000 population	4.08 (2007-2008)	3.43	119		Canadian Institute for Health Information *Quick Stats – Hospital Beds Staffed and In Operation, Fiscal Year 2007-2008* www.cihi.ca Statistics Canada (2006 Census) www.statcan.gc.ca
Staffing per 100,000 population*	2,439 (2008)	1,945	125		Canadian Institute for Health Information *Canada's Health Care Providers – 2008 Provincial Profiles: A Look at 24 Health Occupations* www.cihi.ca
CT scanners per million population	20.0 (2007)	12.8	156		Canadian Health Services Research Foundation *Quality of Healthcare in Canada – A Chartbook* http://www.chsrf.ca Canadian Institute for Health Information www.cihi.ca
MRI scanners per million population	6.7 (2007)	6.8	99		Canadian Health Services Research Foundation *Quality of Healthcare in Canada – A Chartbook* http://www.chsrf.ca Canadian Institute for Health Information www.cihi.ca
Use of electronic patient records	16.1 (2007)	25.7	63		Canadian Health Services Research Foundation *Quality of Healthcare in Canada – A Chartbook* http://www.chsrf.ca National Physician Survey 2007 http://www.nationalphysiciansurvey.ca
Overall Index & Rating			**112**		

Indicators	NB Value	Canadian Value	NB Index Score	NB Rating	Source
Staffing indicators					
Registered nurses per 100,000 population	1,038 (2008)	786	132		Canadian Institute for Health Information *Canada's Health Care Providers – 2008 Provincial Profiles: A Look at 24 Health Occupations* www.cihi.ca
Licensed practical nurses per 100,000 population	365 (2008)	223	164		
Social workers per 100,000 population	205 (2008)	141.7†	145		
Physicians (excluding residents) per 100,000 population	194 (2008)	196	99		
Pharmacists per 100,000 population	93 (2008)	88	106		
Medical laboratory technologists per 100,000 population	86 (2008)	57	151		
Medical radiation technologists per 100,000 population	69 (2008)	49	141		
Physiotherapists per 100,000 population	60 (2008)	51	118		
Dental hygienists per 100,000 population	48 (2008)	67	72		
Dietitians per 100,000 population	43 (2008)	32.6†	132		
Psychologists per 100,000 population	41 (2008)	47	87		
Dentists per 100,000 population	39 (2008)	58	67		
Occupational therapists per 100,000 population	39 (2008)	38	103		

Indicators	NB Value	Canadian Value	NB Index Score	NB Rating	Source
Staffing indicators (continued)					
Respiratory therapists per 100,000 population	31 (2008)	26	119		Canadian Institute for Health Information *Canada's Health Care Providers – 2008 Provincial Profiles: A Look at 24 Health Occupations* www.cihi.ca
Speech-language pathologists per 100,000 population	26 (2008)	22	118		
Health information management professionals per 100,000 population	17 (2008)	12	142		
Optometrists per 100,000 population	15 (2008)	14	107		
Chiropractors per 100,000 population	8 (2008)	23	35		
Audiologists per 100,000 population	7 (2008)	4	175		
Environmental public health professionals per 100,000 population	7 (2008)	4	175		
Nurse practitioners per 100,000 population	7 (2008)	5	140		
Medical physicists per 100,000 population	1 (2008)	1	100		
Staffing Index and Rating			**125**		

Data in this table provides an overview of selected health professions, but should be used within the limitations noted in the source document.

* Total as a sum of all health professionals in *Staffing Indicators*

† Average provincial value (excluding Québec)

The Canadian value the national average.

The Canadian value is the national average.

Rating methodology:

The analysis is based on the indicator data available when the report was completed. The index score is calculated as follows: the score is created by dividing the tabulated New Brunswick value on the specific indicator by the Canadian value. This number is then multiplied by 100 to create the New Brunswick index score. All numbers have been rounded up.

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

Rating:

◆ Higher than the national average (>104)
▫ At the national average (96 to 104)
● Lower than the national average (<96)

This rating takes into account provincial and territorial comparative indicators with small and large variations from the national average.

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New Brunswick Health Council

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