Funding Health and Social Care in Montréal, Québec: A Review of the Methods and the Potential Role of Incentives

February 2013

Jason M. Sutherland, PhD
Centre for Health Services and Policy Research
School of Population and Public Health, University of British Columbia
jsutherland@chspr.ubc.ca

Nadya Repin, MA
Centre for Health Services and Policy Research
School of Population and Public Health, University of British Columbia
nrepin@chspr.ubc.ca

R. Trafford Crump, PhD
Centre for Health Services and Policy Research
School of Population and Public Health, University of British Columbia
tcrump@chspr.ubc.ca

Canadian Foundation for Healthcare Improvement
cfhi-fcass.ca
ACKNOWLEDGEMENTS

This project was funded by the Canadian Foundation for Healthcare Improvement (CFHI). The authors note the contributions of Françoise Alarie, Francine Alie, Louise Ayotte, Pascale Beauchamp, Jean-Pierre Bluteau, Alain Boisvert, Marc Bourguignon, Alexandra Constant, Louis Côté, Aline Langlois, Normand Lantagne, Pascale Larocque, Jocelyn Lavallée, Mélanie Lemieux, François Lemoyne, Claude Paradis, Stephen Petersen, Guylaine Ranger, Carole Roy and anonymous CFHI reviewers.

The first author is a Scholar of the Michael Smith Foundation for Health Research and is the 2012-13 Harkness/CFHI Fellow in Health Policy and Clinical Practice.
# TABLE OF CONTENTS

Key Messages .......................................................................................................................... 1

Executive Summary ............................................................................................................... 2

Section 1: Overview of the Québec population ................................................................. 3

Section 2: Québec’s Health and Social Care System ......................................................... 3

Section 3: Delivery of Health and Social Services ............................................................. 3

Section 4: Spending and Utilization of Health and Social Services ............................... 3

Section 5: Current Funding Methods ................................................................................. 3

Section 6: Considerations for Funding Incentives ............................................................ 3

Conclusion .............................................................................................................................. 4

Summarizing Québec’s Publicly Funded Health and Social Care System ...................... 5

Section 1: Overview of the Québec population ................................................................. 6

Health of the Population ....................................................................................................... 7

Section 2: Québec’s Health and Social Care System .......................................................... 8

Financing Health and Social Services ................................................................................. 8

Ministère de la Santé et des Services Sociaux .................................................................... 9

Agences de santé et des services sociaux ............................................................................ 9

Agence de la Santé et des Services Sociaux de Montréal .......................................... 10

Health and Social Care Providers ...................................................................................... 11

Overview of Health Priorities .............................................................................................. 11

Section 3: Delivery of Health and Social Services ........................................................... 13

Programs Organization ....................................................................................................... 14

Program Area: Physical Health .......................................................................................... 15

Program Area: Loss of Autonomy Linked to Aging .................................................. 16

Program Area: Mental Health ................................................................................... 16

Program Area: Young Persons with Problems .......................................................... 17

Program Area: Cognitive Impairment and Pervasive Developmental Disorders .. 17

Program Area: General Services ................................................................................18

Program Area: Physical Impairment ............................................................................ 19

Program Area: Public Health....................................................................................... 19

Program Area: Addictions .......................................................................................... 20

Program Area: Support Programs ............................................................................. 20
LIST OF FIGURES AND TABLES

Figure 1: Healthcare coverage of the region of Montréal as provided by the ASSSM .................................................................10

Figure 2: Comparison of 2011 hospital per capita expenditures (forecast) for four provinces and overall Canadian expenditures .................................................21

Figure 3: Changes over time in per capita hospital expenditures (2010 and 2011 expenditures forecasted) ........................................22

Figure 4: Comparison of health expenditures for Montréal as a proportion of total Québec expenditures for selected program areas ...............................................23

Figure 5: Summary of historical trends in spending according to selected programs, ASSSM .........................................................................................24

Figure 6: Comparative Health Expenditures for selected Québec health regions and programs ........................................................................................................25

Table 1: Summary of bed use in the ASSSM 2010-2011 ........................................26

Table 2: Summary of institutions by mission in the ASSSM ......................................27

Table 3: Summary of Policy Questions and Key Points for Consideration in Moving Forward with Health and Social Care Funding Reforms in Montréal ..........46
KEY MESSAGES

- Healthcare costs in Québec now constitute around 45 percent of the government's program expenditures. In attempting to control these expenditures, the provincial government balances complex, and sometimes competing, priorities relating to timely access to healthcare, coordination between sectors and providing high quality, efficient care.

- The healthcare system in Québec is regionalized and funded by the Ministère de la Santé et des Services Sociaux (MSSS). Health regions are funded by the MSSS through a global budget. The MSSS is phasing-in population-based funding to its regions to reduce regional variations in health and social care services funding.

- The Agence de la Santé et des Services Sociaux de Montréal (ASSSM) is responsible for the organization, delivery and funding of (the majority of) health and social care providers in the Montréal region. The ASSSM currently funds its health and social care providers using global budgets.

- The ASSSM is exploring changes to the manner in which it funds its health and social care providers. Each of the ASSSM’s program areas has expressed increasing access to healthcare as a pressing priority.

- The ASSSM should align its funding reform efforts with those being pursued by the MSSS.

- Experience from other countries indicates that activity-based funding (ABF) is an effective funding mechanism for increasing volume of services and, thus, improving access. ABF is one policy option; while it may increase access to some services, ABF does not create incentives to improve coordination of care between sectors.

- ABF policies are likely to result in increases in activity, but the policy does not ensure that all activities are necessary. Thus, other policy options will have to be pursued if the ASSSM wishes to reduce over-utilization or inappropriate care.

- If ABF is pursed, the ASSSM should strengthen data collection in key clinical areas. Timeliness, comprehensiveness and accuracy of data need to be improved and monitored over time. Clear guidelines for data quality should be developed and enforced.

- Regardless of the funding mechanisms that are pursued, the ASSSM should develop additional sources of clinical data outside of hospitals in order to differentiate resident case mix. Data collection for non-acute patients should be pursued, such as for inpatient rehabilitation and mental healthcare.

- The ASSSM should develop a comparative reporting system to evaluate whether healthcare is being delivered in the appropriate setting based on the needs of the patient.
EXECUTIVE SUMMARY

Provinces across Canada are seeking new and innovative ways to manage the efficiency, effectiveness and quality of their healthcare systems. In the current political and economic climate, healthcare remains among the highest priorities for Canadians; at the same time, governments face the prospect of continued growth in healthcare expenditures at the expense of other program areas, such as education.

In light of the complex issues involved in trade-offs between funding different public services, provinces such as British Columbia (B.C.) and Ontario have begun to experiment with changes to funding healthcare providers. In particular, these two provinces have developed and implemented policies to partially fund hospitals on the basis of their activities, known as activity-based funding (ABF).

Increasingly, stakeholders of the health and social care system in Québec and Montréal are raising issues of health system funding and the role of potential reforms. Concurrently, as an element of the 2012 Québec budget, the government has established an expert panel to evaluate options for increasing access to healthcare using tools drawn from ABF methods with a view to begin implementing pilot projects in 2013.

There is strong support among some stakeholders in Québec to use ABF methods. The association representing Québec's hospitals and other health facilities (L'Association québécoise d'établissements de santé et de services Sociaux, or AQESSS) has endorsed ABF for hospital funding and has promoted the introduction of pilot projects for hospitalizations and same-day surgery. The McGill University Health Centre and the Québec Association of Health and Social Services Institutions have also endorsed ABF for hospital funding. A recent report by the Montréal Economic Institute outlines how ABF for hospitals could improve access and reduce wait times. Overall, there is increasing interest in Québec, and in Montréal, for exploring the different options for funding healthcare, and their associated implications.

ABF policies are not without their detractors. Canadian Doctors for Medicare expresses reservations regarding ABF's impact on administrative spending and patient access to a full range of services. The Canadian Healthcare Association has expressed concerns about emphasizing quantity over quality. The Canadian Centre for Policy Alternatives released a report suggesting that ABF would not address key concerns with the healthcare system that could be alleviated with a more integrated healthcare reform model. Recently, the Institut de recherche et d’informations socio-économiques published a report pointing out the limitations of ABF and encouraging Québec to look at other options for healthcare reform.

This report describes the methods and impacts of different approaches to funding healthcare in the Montréal region (physician payment and drug payment policies are excluded, as in Québec they are funded separately). The report begins by providing details of Québec's population, and is followed by a section that outlines the provincial and regional roles and responsibilities in organizing and funding health and social care. The next section examines the provincial and regional roles in delivering health and social services.

This report is a companion report to ‘Reviewing the Potential Roles of Financial Incentives for Funding Healthcare in Canada/Examen du rôle potentiel des incitations financières dans le financement des services de santé au Canada,’ published by the Canadian Foundation for Healthcare Improvement, which provides a detailed review of the literature describing the methods and results of different approaches to funding healthcare. Taken together, the two reports provide an opportunity to apply objective findings from the experiences of other countries with healthcare system funding reform to discussions on potential reforms to Montréal's funding of its health and social care system.
Section 1: Overview of the Québec population

This section provides a detailed overview of the population of Québec with a view to projecting future healthcare demand. With minor variations, the health of Québec's population is similar to the rest of Canada and Québec faces similar pressures due to an aging population. While the average age of Montréal's population is younger than the Québec average, the percentage of people over 65 is higher. Moreover, Montréal has a significantly more diverse population than the rest of Québec, primarily attributable to immigration, and has a higher proportion of people living in poverty.

Section 2: Québec’s Health and Social Care System

The Ministère de la Santé et des Services Sociaux (MSSS) is the provincial government ministry responsible for health and social care for residents of the province of Québec. Its mandate is outlined in legislation and its priorities are published in a strategic plan that covers a five year interval. From the MSSS, healthcare organization, delivery and funding are devolved to a series of regional agencies, such as the Agence de la Santé et des Services Sociaux de Montréal (ASSSM). From the level of regional agencies, the responsibilities for the delivery of front-line services are subsequently devolved to local public and private institutions and providers.

Section 3: Delivery of Health and Social Services

The health and social services system in Québec is divided into nine service programs and two support programs in each health region. This section describes the program areas, the key challenges facing each of those programs, and the ASSSM's objectives for each of those programs.

Section 4: Spending and Utilization of Health and Social Services

Spending and utilization of health services in Québec and Montréal follows many of the same patterns found in the rest of Canada. Health and social services account for the largest program expenditures by the Québec government. Québec spends proportionately more of its budget on healthcare than other provinces in Canada. Hospitals are the largest expense for Québec. Montréal is responsible for a significant proportion of total public health and social care spending in Québec.

Section 5: Current Funding Methods

Determining how much to spend on a region's health and social care services is a daunting challenge. This section provides a detailed overview of the methods for funding health and social care in Québec, from the MSSS to the ASSSM, and from the ASSSM to individual institutions.

In addition to the regional funding envelope, the MSSS also finances a special funding initiative to improve access to surgical care, replicated with health regions, the initiative is known as PAC (Programme d’accès à la chirurgie). This surgical care incentive program creates ABF-like funding incentives for additional surgical volumes.

Section 6: Considerations for Funding Incentives

Based on the health and social care objectives articulated by the ASSSM, policy options for changes to the funding of healthcare are presented, drawing heavily from international experiences described in the companion report, entitled 'Reviewing the Potential Roles of Financial Incentives for Funding Healthcare in Canada/Examen du rôle potentiel des incitations financières dans le financement des services de santé au Canada.'
Conclusion

Consistent with the experiences of other provinces, health and social care service providers in the ASSSM are advocating for additional funding to cover wage inflation, equipment, and expanding services to an increasing, and aging, population. For the ASSSM, allocating the global budget from the MSSS to institutions represents a significant challenge, and many legitimate patient and resident care demands will be under-funded and unrealized.

In this environment, it is fair to ask whether the current approach to funding health and social care services maximizes the value of current spending. The policy options available to the ASSSM are complex, and necessarily consider a balance of improving access, controlling expenditure growth, maintaining quality while restraining cost growth, and short- and long-term ability to adapt to changes in funding methods.

In this report, the key priorities of the ASSSM for health and social care services for the residents of Montréal are identified. Given the lack of objective evidence regarding the efficacy of methods for funding social care, there is little in the way of an evidence base with which to guide discussions regarding funding and resource allocation. Consequently, this report contains little discussion of policy options for funding social care. In contrast, there is a great deal of evidence regarding the funding of healthcare emanating from other countries, some of which has direct relevance to Québec. In this context, potential strategies for funding healthcare are discussed, and the report concludes with a discussion of key considerations for policy and decision-makers in Montréal.
SUMMARIZING QUÉBEC’S PUBLICLY FUNDED HEALTH AND SOCIAL CARE SYSTEM

In the current political and economic climate, healthcare remains one of the highest priorities for Canadians. At the same time, governments face the prospect of continued growth in healthcare expenditures that far outpaces inflation and increases in tax revenue. Consequently, provinces across Canada are seeking new and innovative ways to manage and organize their healthcare systems. In light of these challenges, provinces such as B.C. and Ontario have begun to experiment with changes to their policies for funding healthcare. In particular, some amount of hospital funding is now being allocated on the basis of the activities performed in hospitals, known as activity-based funding (ABF).

This report describes the methods used to fund health and social services in the province of Québec, with a specific focus on the region of Montréal (covered under the jurisdiction of the Agence de la Santé et des Services Sociaux de Montréal, or ASSSM). The report is constrained to considering only publicly-funded health and social care.

This report has two objectives; the first is to thoroughly describe the methods and approaches used by public entities to fund health and social care in Montréal, and the second is to provide recommendations regarding these funding approaches in the context of the objectives of the ASSSM. Reviewing the methods used to fund health and social services in Québec has important ramifications, as the financial incentives created by these methods directly affect the access and quality of services provided to residents of Québec.

This report is timely, as the ASSSM is exploring a range of options for funding health and social services in Québec. In particular, the ASSSM is evaluating whether there is evidence to support using additional or alternate funding methods to achieve its organizational objectives.

Components of this report are generic to all regions of Québec, since aspects of funding health and social care methods are standardized across Québec by the Ministère de la Santé et Services Sociaux (MSSS). For these components, there may be broad applicability to other health regions. However, the primary focus of this report is on organization, delivery and funding of health and social care in the ASSSM. Consequently, some details regarding the funding methods may be unique to the health and social services’ organization and delivery system of this region.

This report has six sections. The first section describes the socio-demographic and health characteristics of Québec’s population and highlights features that are unique to Québec and Montréal. The next section provides an overview of the provincial health and social care system, roles, responsibilities and priorities of the MSSS and ASSSM. The third section outlines the delivery of services and the organization of programs. The subsequent section outlines health expenditures in Québec and health and social system utilization across the province.

The fifth section provides a detailed overview of the current funding policies used in Québec. The section outlines how funding flows from the MSSS to the ASSSM and then from the ASSSM to individual health and social service providers. This section then focuses on the special funding initiative to improve access to surgical care, and concludes with a brief outline and evaluation of the data currently available to the ASSSM. This section relies on the companion report, Reviewing the Potential Roles of Financial Incentives for Funding Healthcare in Canada, in its references to the experience and evidence from other countries and provinces.

Using the information and evidence presented in the previous sections, as well as evidence from the companion report, the final section concludes with a comprehensive set of considerations regarding changes to healthcare funding for the ASSSM.
SECTION 1: OVERVIEW OF THE QUÉBEC POPULATION

The province of Québec has a population of 7.9 million residents, which has increased by 4.7 percent since 2006. Québec is the second most populous province in Canada, behind Ontario (12.8 million), and accounts for almost a quarter of Canada’s total population. The largest contribution to population growth in Québec is immigration; Québec is the second most popular destination for international immigrants to Canada, after Ontario. Montréal is the most populous region in Québec, with approximately 25 percent of Québec’s population, at 1.65 million people. The Montréal census metropolitan area (CMA), which includes suburbs of Montréal, has a population of 3.8 million and is the second largest CMA in Canada. Between 2011 and 2016, the population of Montréal is expected to grow by 2.8 percent while the suburbs around Montréal (Montérégie, Laval, Laurentides and Lanaudière) are expected to grow by 5.7 percent.

In 2011, Québec had a population slightly older than the national average of 39.7 years, with an average age of 41.4 years. The population of Montréal had a median age of 39.2 years, similar to other major cities in Canada. The age group of 20-44 years is overrepresented in Montréal compared to the rest of Québec. The proportion of people in Québec aged 65 and over in 2011 was 15.7 percent, similar to the proportion in Montréal. The infant mortality rate for Québec in 2007 was 4.5 per 1,000 and was well below the Canadian average of 5.1.

As of March 2012, the unemployment rate in Québec was 7.9 percent, higher than the Canadian (overall) unemployment rate of 7.2 percent. The 2005 median income for Québec families was $58,678, lower than the Canadian average of $63,866. The median income for Montréal families in 2005 was $61,361. As of 2006, approximately 22 percent of the population age 15 and over had a high school certificate or equivalent, and 16.5 percent had a university certificate, diploma or degree. This is slightly below the Canadian average of 25 percent with a high school certificate and 18 percent with a university education.

In 2006, 79 percent of Québec’s population self-reported French as a mother tongue; however, 40 percent of the population spoke both French and English. Almost 9 percent of Québec’s population consists of visible minorities, primarily Black, Arab and Latin American. According to the 2006 census, 63 percent of Montréal’s population had French only as a mother tongue.

Language is an important consideration in Québec relative to the provision of health and social care services. The Health and Social Services Act contains provisions for the availability of health and social services in English. The effects of this Act are felt particularly in Montréal, where 28 institutions are designated to make all services available in English, while 24 other institutions provide some services in English. The impact on the healthcare system in terms of costs and administration related to the need to provide healthcare services in two languages in areas like Montréal is unknown. However, administration costs in the province of Québec are higher than in other provinces on a per capita basis.

In 2011, Québec had a population density of 5.8 people per square kilometer. This was above the Canadian average of 3.7 people per square km, though significantly lower than the province of Ontario, which had a population density of 14.1 people per square km. In 2011, about 95 percent of Québec’s population lived in southern Québec and the remaining five percent lived in northern Québec (including the regions of Nord-du-Québec, Saguenay-Lac-Saint-Jean and Côte-Nord). Based on the 2006 census, 80 percent of Québec’s population lived in urban areas, which is the same as the national proportion. However, it is lower than B.C. and Ontario, which reported 85 percent of their populations residing in urban areas.
Health of the Population

Québec has had a life expectancy higher than the national average. In 2006, life expectancy in Québec was 78 years for men and 83 years for women with approximately the same expectancy for Montréal.28, 29

Since the early 2000s, cancer has been the leading cause of death in Québec.28 For men, the highest cancer rates are for prostate, lung and colorectal cancer.28 For women, the highest cancer rates are for breast and lung cancer.28 Québec has marginally higher rates of new cancer cases then the rest of Canada as well as a marginally higher death from cancer rate.30 Smoking rates in Québec for 2010 are higher than the Canadian rate, at 23 percent and 21 percent, respectively.31

In 2010, 5.5 percent of Québec’s adult population had diabetes.32, 33 This is lower than the national rate of 6.4 percent and the Ontario rate of 7.2 percent.32 The prevalence of obesity in Québec has increased from 13 percent in 1990 to 22 percent in 2004, and childhood obesity in 2004 was 8.8 percent.28 Obesity affects 15.7 percent of Montréal’s population, a proportion significantly lower than the proportion of obesity in Québec as a whole.34 Approximately 17 percent of Québec’s adult population has high blood pressure, similar to the rates in Ontario as well as the national average but higher than the rate in B.C. of 14.9 percent.32 The proportion of the adult population with chronic obstructive pulmonary disease is equal to the national average at 4.3 percent, and has been stable since 2005.32

The increasing prevalence of chronic diseases and multiple chronic diseases in an aging Québec population is expected to have a significant impact on expenditures in the health system. Canada-wide, in 2009, persons 65 and older accounted for 50 percent of hospital expenditures and those 70-89 years of age represented 38 percent of total hospital expenditures.34 These trends will impact expenditures in Québec in the long-term.35 Furthermore, the types of services necessary to accommodate an aging population will also need to shift, and Québec has identified the need to develop services relating to chronic diseases, cognitive impairment (e.g. Alzheimer’s) and home care services.28

The MSSS estimates that approximately 20 percent of the total provincial costs of providing health and social care can be attributed to poor health outcomes as a result of poverty, as a social determinant of health (including infant mortality, chronic diseases, addictions, and youth services).28 Around 35 percent of residents in Montréal have an income less than $15,000.13 The proportion of people living below the Statistics Canada low income cut-offs (LICO) is substantially higher in Montréal (29 percent) than for Québec (13 percent). Moreover, when comparing large Canadian cities, it is in Montréal that this proportion of low income residents is highest.13 In Montréal, there is also a difference of 10.6 years in life expectancy between the most affluent neighbourhoods and the most disadvantaged.
SECTION 2: QUÉBEC’S HEALTH AND SOCIAL CARE SYSTEM

Responsibility for health and social care services in Québec rests with the Minister of Health, the head of the MSSS. Like many other provinces in Canada, a regionally-based, multi-level governance system for health and social services has evolved in Québec. Under the MSSS, the next level of governance are the 18 autonomous regional agencies (funded by the MSSS), including the ASSSM. It is under the regional agencies that local service providers operate. Within this organizational structure, each level of governance has its own set of priorities that are communicated through strategic plans.

Financing Health and Social Services

In this report, healthcare financing refers to the methods used by various levels of government to raise money for the purchase of health and social care services. In Québec, the financing of health and social services is based on general taxation of income and property (individuals and businesses), health insurance premiums, sales tax and other government fees, revenues from some government corporations and federal transfers.36, 37

In contrast to healthcare financing described above, this report focuses on the funding of healthcare. This term refers to the methods and rules used by public agencies to purchase health and social care from public and private providers such as hospitals, post-acute care facilities, primary care providers, non-profit organizations, and mental health agencies.

A legislative framework outlines and defines the funding of health and social care in Québec. Québec has two public universal plans that insure (and publicly fund) hospital and medical services for the residents of Québec. These are known as the Hospital Insurance Plan (1961) and the Health Insurance Plan (1971), respectively.36

The Hospital Insurance Plan insures residents for all diagnostic and therapeutic services received during a hospital stay or at a hospital outpatient clinic. The plan insures nursing care, diagnostic procedures, accommodation in a ward and prescription drugs administered during the patients’ hospitalization.38 Medical services are covered under the Health Insurance Plan and are defined as those that are medically necessary and supplied by a general practitioner or a medical specialist.39 These funding mechanisms are consistent with the Canada Health Act and are similar to those programs for health services enacted in other provinces.

The range of insured services has changed over time in Québec. For example, insured services have expanded to include (partial) dental and drug insurance. In 1997 Québec implemented a basic prescription drug insurance plan, which is a population-based drug insurance program.36 The public program, called the Public Prescription Drug Insurance Plan, is based on a partnership between the government and private insurers. The program is funded through the Drug Insurance Fund, which is financed by the government of Québec and by premiums collected by the Fund from enrollees.34 The public plan insures Québec residents and their children that are not otherwise eligible for private insurance, people over 65, and those on financial assistance.40

Unlike the rest of Canada, some provision of dental care is insured in Québec.41 All residents are insured for oral surgery in hospitals (including follow-up).41 Children under 10 and residents on financial assistance are insured for a range of dental services, including examinations, x-rays, fillings, crowns, and extractions.42

---

Québec is the only province in Canada that has integrated health and social services into one Ministry. However, all three Canadian territories (Yukon, Northwest and Nunavut) have Ministries of Health and Social Services.

Ministère de la Santé et des Services Sociaux

While the government is the principal insurer of health services, the MSSS is the administrator of a range of defined health and social services. The mission of the MSSS, as described in the *Act Respecting Health Services and Social Services* (1971), is to maintain, improve and restore the health and well-being of Québec’s population by providing a range of health and social services guided by the principles of universality, equity and public administration.³⁶, ⁴³

The organization of health and social services in Québec has three levels of governance. At the highest level, the MSSS is the central authority for health services. The scope of this institution’s responsibilities includes planning, funding, evaluation of patient outcomes and the quality of health and social services provided in Québec.³⁶ The goals of the MSSS are centred around four domains:⁴⁴

- developing effective actions to address anticipated health and social issues,
- ensuring improved access and greater continuity of services,
- improving quality of services, and
- ensuring the efficient management of financial and human resources allocated to the healthcare system.

The MSSS outlines its progress against these established goals in an annual report. For example, one goal under improved access is to increase surgical capacity for specific interventions. The MSSS reports progress by the percentage of patients that receive care within six months for cataract surgery, hip and knee replacements and day surgery.⁴⁴

Agences de santé et des services sociaux

The middle level of governance of health and social services are the regional agencies (Agences de santé et des services sociaux). Québec is divided into 18 regionally-based health and social service agencies.³⁶ Each agency has a board of directors nominated by the MSSS, as well as a president and a chief executive officer appointed by an order in council.⁴⁵ The formal roles and responsibilities of the regional agencies are specified in the legislation *Loi sur les services de santé et les services sociaux* (LSSSS, articles 339 to 417), *Loi sur l’équilibre budgétaire du réseau public de la santé et des services sociaux (LEB)* and *Règlement sur la gestion financière des établissements et des conseils régionaux (RGF).*

The agencies are responsible for ensuring the health and well-being of residents in their region. This is achieved by managing the health and social services organized and delivered in their boundaries.⁴⁵ As autonomous bodies, the regional agencies are responsible for:³⁶

- ensuring the allocation of budgets to institutions and subsidies to non-profit community associations according to the MSSS-approved strategic plan (LSSSS, article 340, 4³; 350 and LSSSS, article 336, 454),
- developing their policies, priorities and multi-year strategic plans for allocating health and social services resources and evaluating results (LSSSS, articles 405, 1⁰ and LSSSS, articles 340; 346.1; 350),
- enforcing regulations for allocating health and social services resources, and monitoring providers’ spending (LSSSS, art. 342.1 and LEB, article 6, 8)
- ensuring effective use of health and social services resources (LSSSS, article 340, 7th; 350; LEB, art. 6 and LSSSS, article 351; LEB, article 8)
- exercising regional public health functions, and
- facilitating the deployment and management of local networks of services (e.g. health and social services centres).

**Agence de la Santé et des Services Sociaux de Montréal**

The ASSSM is responsible for the organization, delivery and funding of all publicly-funded, non-physician health and social care services to the residents of Montréal as shown in Figure 1. While the scope of the ASSSM’s responsibilities are broad, its primary objectives are to assess the health and welfare of the population of Montréal, identify health needs, and define and provide a basket of health and social services for the residents of Montréal. The ASSSM is governed by a board of directors and is ultimately responsible to Québec’s Minister of Health, as head of the MSSS.

**Figure 1: Healthcare coverage of the region of Montréal as provided by the ASSSM.**


---

As is the norm in other provinces, the majority of physician services are remunerated directly by the MSSS under a separate budget.
The ASSSM plays a critical role in the health and welfare of Montréal residents. The ASSSM is responsible for funding the delivery of health and social services, facilitating the coordination of health services in the region between providers, ensuring the integration and consistency of health and social care services, facilitating access to services and assuring continuity of care, and continuing the development of integrated health networks. Thus, the goals of the ASSSM are more narrowly focused (than those of the MSSS) based on its different area of responsibility. To accomplish these objectives, the ASSSM allocates financial resources (and provides some centralized, specialized expertise) to regional institutions and evaluates the performance of the Montréal health and social services network.46

**Health and Social Care Providers**

The local level is responsible for first, second and third line health and social care services. First line services are those relating to promotion, prevention and treatment of some clinical conditions. First line services are delivered at a patient’s first point of contact with the system and have minimal infrastructural requirements (in terms of specialized equipment).47 Some of these services include advocacy and prevention to address determinants of health, reduce risk factors and early detection of diseases and psychosocial problems, vaccinations and services provided by a social worker.47 Clinical activities considered to be first line services include those that support people living in the community who require assistance for medium or long-term support, such as care nurses for seniors.47 First line activities might include a mix of short- and long-term health and social care services to permit frail and elderly residents with complex health needs to remain in their homes.

Second line services are considered specialty services that are designed to address more complex problems and rely on major infrastructure and advanced technology, as well as specialized expertise.47 Second line services are typically provided through referrals from first line services.

Third line services are considered very specialized, and are typically accessible through referrals, only for people with highly complex problems.47 The prevalence of complex problems that require third line services is very low within the population.47

As part of reforms to the health and social services system in Québec enacted between 2004 and 2006, management contracts (i.e. accountability agreements) have been introduced between the various levels of governance.45 These contracts are signed between the MSSS and the regional agencies and there are additional contracts signed between each agency and the organizations providing services (the local level).45

**Overview of Health Priorities**

The MSSS releases five-year strategic plans which guide its annual planning and funding cycles. Identified priority areas are evaluated on an annual basis by the MSSS and a report with performance metrics is published.44 The 2010-2015 plan identifies six priority areas:28

- Ensuring a reasonable period for access to services.
- Continued improvement in the quality of services and innovative service delivery. This goal includes ensuring high quality care and safety of service delivery, valuing the contribution of academic institutions within the health and social services networks, and ensuring the integration and flow of clinical information.
- Prevention and promotion of healthcare, including reducing health inequalities. This includes guiding action across ministries for addressing the main determinants of health and welfare.
Promoting primary care in terms of the integration and prioritization of services. This goal includes improving access to primary care first line services, addressing the needs of the aging population, and promoting home support for people with disabilities.

Attracting, retaining and optimizing the contributions of human resources. This includes balancing the supply and demand of skilled labour and providing attractive working conditions.

Effective Management. This goal includes improving the performance of the health and social services system and providing accountable governance of the health and social services system.

Management contracts between the MSSS and the regional agencies reflect agreement between the MSSS and the agency regarding priority areas and goals. These areas of agreement are then reflected in the agency’s own goals and priorities, as expressed in its own strategic plan. The ASSSM 2010-2015 strategic plan identifies five major priorities which are organized around four objectives. The four objectives fall under the themes of:

- increasing the volume of services provided,
- increasing access to health and social services (and thus decreasing wait times),
- facilitating and creating incentives for the coordination of services across the spectrum of care, and
- improving quality of services.

In the strategic plan, the five regional priorities are:

- strong and person-centered front line services that provide quick access to diagnostic services and care (including access to family physicians);
- better management of chronic diseases;
- early intervention for toddlers, youth and their families;
- completing the implementation of the reorganization of services in the area of public health, mental health, elderly care, cognitive impairment and pervasive developmental disorders, physical impairment; and
- working with partners to reduce inequalities in health and wellness.
SECTION 3: DELIVERY OF HEALTH AND SOCIAL SERVICES

The Québec health and social care system had approximately 289 institutions, including 189 public, 47 non-profit and 53 private institutions as of 2011. Collectively, there are over 1,700 points of care across the province. In 2011 there were approximately 397,000 people working in the healthcare and social assistance industry in Québec.

Health and social care service delivery institutions are classified according to their main mission and there are five categories of missions:

- hospital centres (CHs) (centre hospitalier; there are two classes of CHs in Québec: general and specialized hospital care centres (CHSGSs) (centre hospitalier de soins généraux et spécialisés), and psychiatric hospital centres (CHSPs) (centre hospitalier de soins psychiatriques),
- residential and long-term care centres (CHSLDs) (centre d’hébergement et de soins de longue durée),
- local community service centres (CLSCs), (centre local de services communautaires),
- rehabilitation centres (CRs) (centre de réadaptation), and
- child and youth protection centres (CPEJs) (centre de protection de l’enfance et de la jeunesse).

In December 2004, Québec adopted the Act Respecting Local Health and Social Services Network Development Agencies. The Act gave agencies the responsibility to develop a new way of organizing services in each region based on local service networks. The creation of local services networks across Québec was intended to give stakeholders within a given territory additional responsibilities for the accessibility and continuity of services offered to their populations.

In this report, publicly-funded healthcare that is delivered outside of a hospital and within the community, such as services provided by CHSLDs, CLSCs, and CPEJs (commonly referred to in other parts of Canada as community-based care), will be referred to in this report as post-acute care.

Formal provider networks, known as health and social services centres (CSSSs), are at the heart of each local service network. The CSSSs were created by merging local CLSCs, CHSLDs, and in many (though not all) cases, CHSGSs. Through service contracts, the CSSS networks also include partner organizations, including community groups, pharmacies, and medical clinics. This approach is intended to bring services closer to patients and make services more accessible and better coordinated between institutions.

As of October 2011 there were 94 CSSSs in Québec. The mandate of the CSSSs, as outlined in the Act Respecting Local Health and Social Services Networks Development Agencies (2004), is four-fold:

- evaluate the health and well-being of regional populations to determine health and social care needs,
- coordinate the use of health and social care services,
- manage health and social care services offered, and
- further the development of integrated local care.

Each regional agency is responsible for signing performance contracts with the individual CSSSs in its boundaries. These contracts are monitored throughout the year to ensure compliance. Notably, not all health and social service institutions are merged into CSSSs. As of March 2011, 94 public institutions were not merged into CSSSs.
The creation of the CSSSs was in response to recommendations from the Clair Commission, which recommended merging institutions on a sub-regional basis to create integrated care delivery systems. The commission recommended a number of interwoven changes to the healthcare system centering on the development of integrated care delivery, many of which were not adopted or integrated into the CSSS model, limiting the ultimate effectiveness of these reforms. The CSSS budgets, contrary to the recommendations, remain historically based, physicians remain autonomous and paid by a third party through fee-for-service and there is no registration of patients. While CSSSs may be a more effective administrative structure, the effect on clinical practices and quality of care is not evident, nor are performance agreements linked to residents need (or demand), rather CSSSs tend to focus on providing services within the scope of balancing their budgets.

Programs Organization

Within each region, Québec’s health and social services system funds a broad range of public services. The MSSS has divided the organization and delivery of health and social care services into nine service programs and two support programs. The service programs include General Services and Public Health, which respond to the health and social needs of the entire regional population, as well as seven program specific services. The specific service programs include:

- Physical Health,
- Loss of Autonomy Linked to Ageing,
- Mental Health,
- Young Persons with Problems,
- Cognitive Impairment and Pervasive Developmental Disorders,
- Physical Impairment, and
- Addictions.

In addition to the nine programs above, there are two administration and general support programs whose responsibilities encompass activities to support the nine service programs. For example, their mandates include buildings and equipment management.

The MSSS created and implemented this structure with two principal aims. The first is to organize health and social care services on the continuum of care for those residents that need it, and secondly, to provide a structure that can plan, integrate and manage health and social care expenditures in one entity. The effectiveness of this structure, relative to other organizational structures, including the previous structure in Québec, is unknown as no comparable evaluations have been conducted.

Due to the organizational structure designed to promote integration, different programs may provide funding for similar clinical services. For example, post-acute rehabilitation may be funded through the program areas of physical care, physical impairment and loss of autonomy linked to ageing (such as geriatric rehabilitation).

To provide a thorough review of the health and social care delivery system in Québec, a brief summary of the activities of each program area is described, ordered according to their relative expenditures.
Program Area: Physical Health

The Physical Health Program (santé physique) is designed to deliver selected first, second and third line services. Services delivered under the Physical Health Program include emergency services (except for mental health reasons), hospitalizations (acute care episodes), outpatient services (i.e. dialysis, day surgery), specialized home visits, palliative care, and (some) dental surgery. Post-acute care and post-operative care are not included in this program.

The Physical Health Program accounts for the largest component of healthcare expenditures in Québec and in Montréal. For 2010-2011, Québec allocated $6,613 million for Physical Health services, representing 36.3 percent of overall health and social service program expenditures. In the ASSSM, the Physical Health Program accounted for 40.7 percent of the overall regional budget in 2010-2011, totalling $2,511 million, with 98 percent of expenditures for services delivered in public facilities.

Physical Health services are predominantly provided in hospital facilities. In Montréal, services delivered in CHSGSs accounted for 86.1 percent of Physical Health Program expenditures in 2010-2011 (a total of $2,162 million). An additional 12.1 percent of expenditures in this program area were for services delivered in institutions that fall under the umbrella of the CSSSs, which in many cases include a hospital. The remaining 1.8 percent of Physical Health expenditures was for Physical Health services delivered in CHSPs, CHSLDs, CRs and non-profit community associations.

In addition to the above funding, since fiscal year 2010-2011, the ASSSM has provided funding for ambulatory rehabilitation in a mix of settings, including outpatient and private clinics, adult day care, and through home care. These services have been provided in order to increase the access to rehabilitation services and inpatient rehabilitation beds, and to reduce emergency department congestion and alternative level of care (ALC) use.

For the Physical Health Program, the ASSSM has identified several objectives, including:

- increasing the volume of care and improving access to specialized services thereby reducing wait times,
- reducing alternative level of care (ALC) use in hospitals,
- strengthening the coordination and appropriateness of physical health services between providers’ settings (first, second and third line services) and improving chronic disease management, and
- improving the efficiency of laboratory services.

To strengthen the coordination of physical health services between providers and improve chronic disease management in this program area, the ASSSM has the objective of implementing first line project management of chronic diseases (based on Wagner’s Chronic Care Model), and will include improved training of health professionals and the establishment of hierarchical networks of interdisciplinary services for chronic disease management.
Program Area: Loss of Autonomy Linked to Aging

The Loss of Autonomy Linked to Aging Program (programme perte d’autonomie liée au vieillissement, or PPALV) provides a range of health and social services for the elderly. Services delivered under PPALV include, on a temporary or permanent basis, adult day care, lodging, home assistance, support and supervision services. It also includes rehabilitation, psychosocial care, nursing care and medical services to adults who, by reason of the loss of their functional autonomy or psychosocial condition(s), can no longer live in their homes.

For 2010-2011, Québec allocated $2,688 million for PPALV services, representing 14.6 percent of overall expenditures. In the ASSSM, PPALV accounted for 13 percent of the overall regional budget in 2010-2011, totalling $805 million with almost 15 percent of expenditures for services delivered in private facilities and one percent in non-profit community associations.

PPALV services are predominantly provided through CHSLDs. These centres may include the operation of a day centre or day hospital. In Montréal, 65.8 percent of expenditures in this program area were for services delivered in institutions that fall under the umbrella of the CSSSs (which include CHSLDs). Services delivered in CHSLDs that are not in a CSSSs network accounted for 26 percent of PPALV expenditures in 2010-2011. An additional 6.9 percent of expenditures in this program area were for services delivered in CHSGSs and 1.1 percent of expenditures were for services delivered in non-profit community associations.

PPALV must deal with an aging population in the Montréal region, in conjunction with one in four seniors living below the LICO and many living alone and without family support.

The ASSSM’s main objectives for PPALV are:

- increasing the supply of home support services and caregivers to allow seniors to remain in the home for as long as they wish,
- enhancing the care provided in nursing homes to meet the needs of patients with severe loss of autonomy,
- reducing preventable emergency visits,
- reducing ALC bed use, and
- strengthening the continuity of services across sectors using the CSSSs as a locus.

Program Area: Mental Health

The Mental Health Program (programme santé mentale, or PSM) offers health and social services for people who have persistent and severe mental health disorders, as well as for people who have transient mental disorders of varying intensities. Health and social care services delivered under the Mental Health Program includes non-acute and outpatient services delivered through the CSSS networks.

For 2010-2011, Québec allocated $1,093 million for Mental Health services, representing 6 percent of overall health and social program expenditures. PSM expenditures accounted for 6.6 percent of the overall ASSSM regional budget in 2010-2011, totalling $407 million. In the ASSSM, 93 percent of PSM expenditures were for services delivered in public facilities, 6.9 percent by non-profit community associations and less than one percent in private facilities.
While the services in the Mental Health Program are provided in a range of institutions, over half are provided in CHSPs. In the ASSSM, services delivered in CHSPs accounted for 54.1 percent of PSM expenditures in 2010-2011. An additional 14.6 percent of expenditures in this program area were for services delivered in CSSSs, 23.4 percent for service delivered in CHSGSs, 6.9 percent of expenditures for services delivered in non-profit community associations, and one percent for services delivered in CPEJs.

The ASSSMs objectives for the Mental Health Program include:

- improved management of community services, as provided by the CSSSs, through the implementation of first line teams for mental health services, and including the transfer of resources from hospitals to CSSSs;
- increasing access to inpatient and outpatient mental health services (and psychiatrists);
- having mental health nurses in emergency rooms;
- standardizing access to mental health services and crisis centres across Montréal; and
- improving the coordination of mental healthcare provided by different institutions.

**Program Area: Young Persons with Problems**

Social services for youth are provided under the Young Persons with Problems Program (programme jeunes en difficulté, or JED). Services delivered under JED include psychosocial services, including emergency social services, as articulated by the Youth Protection Act and the Youth Criminal Justice Act (2002), and services for child placement, family mediation, expertise at the Superior Court on child custody, and adoption and biological history. These services are predominantly delivered in child and youth protection centres (CPEJs).

For 2010-2011 Québec allocated $1,021 million for JED services, representing 5.6 percent of overall expenditures. In the ASSSM, JED accounted for 4.3 percent of the overall regional budget in 2010-2011, totalling $267 million with 92.5 percent of expenditures for services delivered in public facilities, 6.6 percent by non-profit community associations, with less than one percent delivered by private facilities.

In the ASSSM, services delivered in CPEJs accounted for 80.5 percent of JED expenditures in 2010-2011. An additional 12.9 percent of expenditures in this program area were for services delivered in CSSSs, and 6.7 percent for services delivered by non-profit community associations. ASSSM objectives for JED include:

- improving access to services,
- improving and harmonizing information systems, and
- improving the coordination of health and social services through transition periods between institutions.

**Program Area: Cognitive Impairment and Pervasive Developmental Disorders**

The Cognitive Impairment and Pervasive Developmental Disorders Program (programme déficience intellectuelle et troubles envahissants du développement, or DI-TED) provides services for those patients who have cognitive impairments or developmental disorders. Examples of the health and social services provided under this program area include physical and occupational therapy home services, support to the families of people with cognitive impairments, psychosocial services, and home nursing services.
For 2010-2011, Québec allocated $837 million for DI-TED, representing 4.6 percent of overall health and social service program expenditures. In the ASSSM, DI-TED accounted for 3.5 percent of the overall regional budget in 2010-2011, totalling $216 million. Approximately 10 percent of DI-TED expenditures were for services delivered in private facilities, and two percent in non-profit community associations.

Rehabilitative services are predominantly provided through CRs, specifically centres for cognitively impaired persons or persons with developmental disorders (CRPDI). In Montréal, health and social services delivered in CRs accounted for 90.3 percent of DI-TED expenditures in 2010-2011. An additional 7.7 percent of expenditures in this program area were for health and social services delivered in CSSSs and 2 percent of expenditures were for health and social services delivered in non-profit community associations.

The ASSSM identifies seven specific objectives for DI-TED in a 2009-2012 action plan, including:

- developing first line services for patients under five years of age;
- establishing integrated management for access to services;
- designating patient navigators at CSSSs;
- expanding access to early rehabilitation interventions for patients with developmental disabilities;
- improving access to crisis services and those delivered to patients with severe behavioural disorders;
- establishing an integrated model to access services and improve partnerships between CSSSs, CRs CHSGSs, child care and school systems; and
- improving access to health and social services offered to teenagers and adults with pervasive developmental disorders;

**Program Area: General Services**

The General Services Program (services généraux) provides selected first line clinical and assistance activities to the region’s residents. Services delivered under the General Services Program include some nursing services (e.g. Info-Health, family planning), diagnostic support, nutrition, physiotherapy, psychosocial services, short term home care, emergency and disaster response, and maternity services provided by a midwife. Physician expenditures and non-hospital provided drugs are not included in the funding allocated to this program.

For 2010-2011, Québec allocated $649 million for General Services, representing 3.6 percent of the overall health and social service program expenditures. In the ASSSM, the General Services Program accounted for 2.3 percent of the overall regional budget in 2010-2011, totalling $141 million. Less than 1 percent of expenditures in this funding envelope were for services delivered in private facilities.

Health and social services funded through the General Services Program are predominantly provided under the umbrella of the CSSSs. In Montréal, non-physician services delivered in institutions networked under the CSSSs accounted for 73.2 percent of the General Services Program expenditures in 2010-2011. Health and social services associated with the General Services Program are primarily delivered by CLSCs (which, in Montréal, are part of a CSSS), which provide first-line primary health and social services, health and social services of a curative nature and rehabilitation services. An additional 22.2 percent of expenditures in this program area were for health and social services delivered in non-profit community associations and 4.5 percent of expenditures were for services delivered in CHSGSs (such as services provided by a family medicine unit).
Objectives for the ASSSM’s General Services Program include:62

- improving residents’ access to family physicians,
- encouraging group practices and the development of interdisciplinary teams,
- increasing the availability of nurse practitioners,
- developing an integrated electronic health record accessible by all establishments, and
- addressing emergency room overcrowding.

The ASSSM is particularly interested in exploring how financial incentives can be used to encourage the CSSSs to increase accessibility to services and better target their services to their population characteristics.62

**Program Area: Physical Impairment**

The Physical Impairment Program (programme déficience physique, or DP) provides health and social services for residents with disabilities associated with hearing, vision, language and speech or motor skills.36 DP rehabilitative services are predominantly provided through CRs, specifically centres for physically impaired persons (CRPDP) and CSSSs. Specialized CRs for service delivery in this program include those for persons with hearing impairment (CRPDPA), visual impairment (CRPDPV), motor function impairment (palsy) (CRPDPM) and language impairment.56

For 2010-2011, Québec allocated $527 million for DP services, representing 2.9 percent of overall expenditures.57 In the ASSSM the Physical Impairment Program accounted for 2.2 percent of the overall regional budget in 2010-2011, totalling $135 million. Approximately 97 percent of DP expenditures were for services delivered in public facilities.

In Montréal, services delivered in CRs accounted for 35.5 percent of DP expenditures in 2010-2011. An additional 28.9 percent of expenditures in this program area were for services delivered in CSSSs, 17 percent for service delivered in CHSPs, 16.2 percent for services delivered in CHSGSs and 2.4 percent of expenditures were for services delivered in non-profit community associations.

ASSSM objectives for DP for 2010 to 2015 include:63

- increasing access to specialized services,
- reducing wait times for rehabilitation services,
- increasing the supply and quality of home support, and
- better coordination of health services provided by institutions through first line to third line services.

**Program Area: Public Health**

The Public Health Program (santé publique) provides first line Public Health services to the entire population (not targeted to specific residents). Services delivered under the Public Health Program include the promotion, prevention, and protection of health and well-being as well as disease surveillance.56 These services are predominantly provided under the network of the CSSSs at CLSCs.

For 2010-2011, Québec allocated $310 million for Public Health services, representing 1.7 percent of overall health and social program expenditures.57 In the ASSSM the Public Health Program accounted for 1.2 percent of the overall regional budget in 2010-2011, totalling $75 million.
Program Area: Addictions

The Addictions Program (programme dépendances) covers health and social services for people with addictions, such as alcoholism, drug addiction, and pathological gambling. Services delivered under the Addictions Program also include services for rehabilitation and detoxification, as well as harm reduction services (such as methadone treatments).

For 2010-2011, Québec allocated $96 million for Addictions services, representing 0.5 percent of overall health and social service program expenditures. In the ASSSM, the Addictions Program accounted for 0.4 percent of the overall regional budget in 2010-2011, totalling $27 million. Approximately 22 percent of Addictions expenditures were for services delivered in private facilities and 6.9 percent for services delivered in non-profit community associations.

Addictions services are predominantly provided through CRs, specifically centres for persons with an addiction (CRPAT). In Montréal, services delivered in CRs accounted for 82.5 percent of Addictions Program expenditures in 2010-2011. An additional 9.9 percent of expenditures in this program area were for services delivered in CHSGSs, 6.9 percent for services delivered in non-profit community associations, with a minor component for services delivered in CSSSs.

ASSSM objectives for the Addictions Program include:

- a two percent increase in the number of people who receive first line access to services, and
- ensuring that people with addictions can access specialized assessment services within 15 business days or less.

Program Area: Support Programs

There are two programs that provide administrative support and technical activities to support the nine service programs, described above.

The Administration and Service Support Program consists of two domains. The first domain includes administrative support for institutions. This includes activities such as the overall management, administration and provision of technical services related to the integration of electronic services. The second domain includes support services for the delivery of client services in institutions. This includes coordination of client services and nursing support, education, activities related to admission and registration of program clients, food and laundry.

The Management of Buildings and Equipment Support Program encompasses activities that support the physical settings of facilities, which include the operation of facilities, maintenance and repair, housekeeping, biomedical waste management and safety.

For 2010-2011, Québec allocated $2,865 million for Administration and Services Support, representing 15.7 percent of overall health and social service program expenditures. For the same year, Québec also allocated $1,529 million for the Management of Buildings and Equipment Support Program, representing 8.4 percent of overall expenditures.

In the ASSSM, the Administration and Services Support Program accounted for 16.5 percent of the overall regional health and social services budget in 2010-2011, totalling $1,023 million. During the same period, the Management of Buildings and Equipment Support Program accounted for 9.1 percent of the ASSSM’s budget, representing $563 million.
SECTION 4: SPENDING AND UTILIZATION OF HEALTH AND SOCIAL SERVICES

Public Spending on Health and Social Services

Public spending on health and social services in Québec accounted for $28 billion dollars in 2010-2011, or 45 percent of government program expenditures. For 2011-2012, the amount will increase to $29 billion and is projected to reach $31 billion in 2012-2013, an increase of 4.7 percent.

Total private sector expenditures in Québec for 2011 were estimated to be $12.4 billion, or $1,552 per capita, the second lowest per capita amount of private spending among Canadian provinces. Private sector expenditures make up 30 percent of total health expenditures in Québec.

Compared to other provinces, at 45 percent, Québec spends proportionately more of its budgets on healthcare; Alberta (41 percent), Ontario (37 percent) and B.C. (36 percent), for example, all spent proportionally less in 2010-2011.

Like the rest of Canada, hospitals account for the largest amount of total health expenditures in Québec. Hospital spending per capita in Québec is approximately $250 below the national average of $1,577. See Figure 2 for an interprovincial comparison of hospital expenditures. Out of the four most populous provinces in Canada, Québec has consistently had the lowest per capita hospital spending over the past decade (see Figure 3).

Figure 2: Comparison of 2011 hospital per capita expenditures (forecast) for four provinces and overall Canadian expenditures

Source: Canadian Institute for Health Information, National Health Expenditures Database, 2012.
Figure 3: Changes over time in per capita hospital expenditures (2010 and 2011 expenditures forecasted)

Health spending per capita


$2,000

$1,750

$1,500

$1,250

$1,000

$750

$500

Alberta  BC  Canada  Ontario  Quebec

Source: Canadian Institute for Health Information, National Health Expenditures Database, 2012.

Compared to the Canadian average, Québec spends significantly more per capita on other health institutions (e.g. nursing homes and residential care facilities) and on administration costs. Unlike other provinces, administration costs per capita have been increasing in Québec in recent years. According to 2011 forecasted figures, Québec will spend $87 per capita on administration, compared to $62 in B.C. and $63 in Ontario.

Public spending on health and social services in the ASSSM was estimated to account for $6.17 billion in 2010-2011, representing approximately $3,150 per resident. This is higher than in other regions, for example the Capital-National region spends approximately $2,900 per resident. These numbers do not take into account the specialized services that are provided to residents of the province that are only located within the ASSSM.
Spending on health and social services in the Physical Health program, which encompasses most hospital expenditures, accounts for the largest portion of health expenditures for the ASSSM. Montréal’s Physical Health spending accounts for approximately 38 percent of Québec’s total Physical Health spending, the remaining 62 percent is allocated to the other 17 regions in Québec. The remaining programs accounts for between 25 and 30 percent of Québec’s total health spending in each program area. See Figure 4 for a comparison of the ASSSM’s spending relative to overall Québec spending in key programs.

Figure 4: Comparison of health expenditures for Montréal as a proportion of total Québec expenditures for selected program areas

Consistent with overall Canadian trends, health expenditures have risen over time in the ASSSM. As shown in Figure 5, Physical Health has experienced steady increases in spending. In comparison, spending on rehabilitation services (combining both the Physical Disability and Cognitive Disability programs) has remained relatively stable over recent years.72

**Figure 5: Summary of historical trends in spending according to selected programs, ASSSM**

![Graph showing historical trends in spending](image)


Figure 6 compares expenditures for the physical health and PPALV programs for Montréal and two other major urban regions in Québec. Montréal is responsible for a large portion of spending in the physical health program and proportionately less so for the PPALV program, although still more than the nearest other regions.
Utilization of Health and Social Services

As of March 2011, there were 20,443 general and specialized care hospital beds in public and private healthcare institutions in Québec, corresponding to 2.6 beds per 1,000 residents.iii, 48 For the same period, there were 7,441 beds for general and specialized care hospitals in public and private institutions in the ASSSM, representing approximately 3.9 beds per 1,000 residents, though noting that some of the difference can be attributed to specialized services provided by the ASSSM.48

In 2010-2011, there were 725,426 hospitalizations in Québec, representing an average hospitalization length of stay of 7.2 days.73 For the same period, there were 157,805 hospitalizations in Montréal, averaging 8.0 days per stay.74 Montréal had the highest average length of stay in Québec, followed by James Bay at 7.9 days followed by Outaouais and Capitale-Nationale at 7.5 days.74

iii It is challenging to compare beds between Québec and other Canadian provinces due to differences in provinces’ approaches to counting the number of beds and different definitions regarding bed types. As well, Québec does not submit bed count data to CIHI for nationally comparable figures.
The number of long-term care and residential facility (CHSLD) beds in Québec for 2010-2011 was 39,711, corresponding to 37.8 beds for every 1,000 people aged 65 or older. Of the total number of residential and long-term care beds, 7.1 percent were privately funded. For the same period, Montréal had 13,244 long-term care and residential facility (CHSLD) beds. Overall in Québec there was a 97 percent occupancy rate for CHSLD beds.

For physical rehabilitation in Québec for 2010-2011 there were 470 beds with an occupation rate of 72 percent and an average length of stay of 47.3 days. For Montréal during this time, there were 67 beds with a 51 percent occupancy rate and an average length of stay of 61.4 days. Québec counts separately beds classified as intensive function rehabilitation, and for 2010-2011, had 736 beds with an occupancy rate of 93 percent and an average length of stay of 38.6 days. In Montréal during this time, there were 344 beds with a 96.4 percent occupancy rate and an average length of stay of 38.9 days.

For cognitive rehabilitation in Québec for 2010-2011, there were 300 beds with an 87.2 percent occupancy rate and an average length of stay of 203.5 days. For the same period, 74 of these beds were in Montréal with an 85.8 percent occupancy rate and an average length of stay of 249.2 days.

In 2010-2011 Québec had 3,314 psychiatric care beds with a 90.7 percent occupancy rate and an average length of stay of 25.7 days. During this time, 1,395 beds were located in Montréal with an occupancy rate of 93.3 percent and an average length of stay of 37.8 days.

Utilization of health and social care services for 2010-2011 in Montréal is broken down by program in Table 1.

Table 1: Summary of bed use in the ASSSM 2010-2011

<table>
<thead>
<tr>
<th>Program</th>
<th>Total Beds</th>
<th>Patient Days</th>
<th>Occupancy Rate (%)</th>
<th>Average Length of Stay (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical healthcare and geriatrics</td>
<td>5,805</td>
<td>1,781,666</td>
<td>84.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Psychiatric Care</td>
<td>1,395</td>
<td>475,080</td>
<td>93.3</td>
<td>37.8</td>
</tr>
<tr>
<td>Residential and Long-Term Care</td>
<td>13,244</td>
<td>4,744,277</td>
<td>98.1</td>
<td>215.6</td>
</tr>
<tr>
<td>Cognitive Rehab</td>
<td>74</td>
<td>23,178</td>
<td>85.8</td>
<td>249.2</td>
</tr>
<tr>
<td>Physical Rehab</td>
<td>67</td>
<td>12,456</td>
<td>50.9</td>
<td>61.4</td>
</tr>
</tbody>
</table>


For 2012, the Montréal network of health and social services included 86 institutions. Montréal also had over 400 medical offices, 26 family medical groups, 28 clinical networks, two integrated clinical networks and 549 non-profit community associations funded in some capacity by the ASSSM. The summary of institutions, public and private, is shown in Table 2, displayed according to whether the institutions are within or outside of a CSSS network.
Table 2. Summary of institutions by mission in the ASSSM

<table>
<thead>
<tr>
<th>Setting/Provider</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSSS</td>
<td>12</td>
</tr>
<tr>
<td>CLSC-CH-CHSLD</td>
<td>9</td>
</tr>
<tr>
<td>CLSC-CHSLD</td>
<td>3</td>
</tr>
<tr>
<td><strong>Non-CSSS</strong></td>
<td>8</td>
</tr>
<tr>
<td>CH</td>
<td>12</td>
</tr>
<tr>
<td>CH-CHSLD</td>
<td>1</td>
</tr>
<tr>
<td>CH-CHSLD-CR</td>
<td>38</td>
</tr>
<tr>
<td>CHSLD</td>
<td>2</td>
</tr>
<tr>
<td>CPEJ-CR</td>
<td>11</td>
</tr>
<tr>
<td>CR</td>
<td>1</td>
</tr>
<tr>
<td>CHSLD-CR</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
</tr>
</tbody>
</table>


In 2011, approximately 88,802 people in Montréal were employed in the various health and social service institutions, including 3,441 medical specialists, 2,336 general practitioners, 23,560 in nursing and cardiorespiratory services, 13,901 administrative professionals and 17,197 technicians and professionals.46
SECTION 5: CURRENT FUNDING METHODS

On an annual basis, the MSSS distributes a global budget to all Québec regions, often referred to as the regional funding envelope, as mandated in the Act Respecting Health and Social Services (c. S-4.2). This funding envelope is intended to provide operating funds for publicly funded health and social services in the health regions (though health and social services are delivered by a mix of public and private providers). In 2011-2012, the MSSS funding envelope for regional programs was approximately $17.9 billion.65

The funding envelope from the MSSS for health and social services represents approximately 80 percent of any specific regions’ revenue. The balance of revenues is derived from other sources, such as non-recurring projects and automobile or workplace insurance-related health services. In 2011-2012, the MSSS allocated $6,063 million to the ASSSM for health and social care (this amount differs from total ASSSM spending, as the ASSSM has additional sources of revenue).65

A Divergence of Funding Methods: MSSS to ASSSM

There is an annual planning cycle undertaken by the MSSS for determining the regional funding envelopes; two approaches are currently used. Up to fiscal year 2003-2004, the MSSS had relied exclusively on annual global budgets to fund regional agencies (though they had been evaluating alternative approaches). Based on this approach, global budget amounts were subject to increments attributed to ministerial priorities, such as reduction in emergency department congestion or perceived wait times for selected elective surgical procedures.

In fiscal year 2004-2005, the MSSS started to introduce a population-based funding method for each of the 11 program areas (as described in Section 3 of this report). Funding regions based on this type of approach is widely used by other provinces and is viewed by many as a more equitable approach to funding health and social care (in contrast to global budgets) since it reflects regional population characteristics (for additional details on population-based funding methods, see the companion report).

In Québec, the transition from global budgets to population-based budgets for regions started almost a decade ago. However, as noted by L. Jacobs, implementing reform in a provinces’ healthcare system is complex and deeply rooted in historical contexts.77 In the case of Québec, the transition from historically-based global budgets to a population-based approach is not yet complete.

Based on different methodologies, these two approaches derive significantly different funding amounts for each health agencies’ programs. In other words, a negative difference between the population-based funding amount and the historically-based funding amount makes a region richer, since the MSSS’s accounting of the characteristics of the population ascribes a lower funding amount than the historically-based approach.

With the approach based on population characteristics, the ASSSM’s funding amount would be $5,853 million.65 In contrast, based on historical data, the funding allocation for the ASSSM (2011-2012) is $6,063 million, a difference of $209 million (3.6 percent).65 Compared to other health agencies, the ASSSM has the biggest gap between the two funding allocations derived from the two different approaches, and is described to receive a sum of $209 million from the MSSS for funding health and social care services greater than the needs of Montréal’s population. Given the material differences between these two approaches, and the relevance to future health and social care funding in the ASSSM, each approach is described in detail below.
Method I: Historical-Based Funding

The first (and oldest) method for deriving the ASSSM funding envelope is based on historical budget information, which multiplies the current global budget by an ‘indexation’ rate. This approach adjusts each budget line (28 categories) by an indexation rate on a line-by-line basis to determine the budget for the upcoming year. When these 28 categories are summed, they form the basis of the regions’ global budget, or ‘composante globale.’

The timing of the budget is such that the ASSSM receives confirmation of its global budget for the upcoming fiscal year during the first week of April (the first week of the new fiscal year), categorized by public institutions, private institutions and special projects (and development).

Within the budget, indexation rates are applied to different types of institutions’ expenses to adjust funding levels. These categories of expenditures include union salaries, employment insurance, benefit expenses (such as holidays and other insured benefits) and employee’s progression through salary scales. The indexation rate is normalized to adjust for relative differences between unionized employees’ changes in wage rates.

Deriving global budgets for each category requires data over multiple years. Consider the development of regional global budgets for 2011-2012 which are developed during 2010-2011. During the fiscal year 2010-2011, expenditures for 2010-2011 are not yet finalized. Consequently, indexation rate adjustments for the 2011-2012 global budget is based on the 2009-2010 fiscal year (where the category-specific information is readily available). In a summative step, during fiscal year 2011-2012, the regions’ global budgets are prospectively adjusted for changes in expenditures different from the global budget that occurred in 2010-2011. In this manner, several years of expenditures are used to project the current fiscal years’ expenditures.

Method II: Population-Based Funding

The second funding method is based on the characteristics of the population in the region. This approach incorporates the regions’ population, regional characteristics and past utilization (or expenditures) for each program area to estimate future expenditures. As outlined in the companion report, this type of approach to deriving regional funding allocations is common in other Canadian provinces.

The MSSS’s application of population-based funding has four main steps. First, a ‘base’ year is established. Using the base years’ funding, the population-based approach (described in more detail below), is applied to each program area. In the third step, the indexation is applied to the results of the second step. In the fourth and final step, the funding for the program is summed (over the line items) to provide the total funding to the regional agencies (funding envelope), which includes a potential ‘allowed’ deficit (this step was eliminated for fiscal year 2012-2013).

The first step is to establish the spending for each program in the base year. Using the information from the contour financier des programmes, the MSSS calculates the net funding (adjusting for revenues) for each program. The second step derives the expected spending for each program of the regional agencies.

---

iv The financial contour (detailed balance sheet) of the programs is calculated annually by the MSSS to give a snapshot of the expenditures incurred in the network (to provide services and support programs). It is derived from cost center information (from the annual financial reports) of the institutions, post-acute care providers, and community-based organizations.
For some programs, the MSSS derives (adjusted) expected funding based on indicators of need; in others, funding is based on volume. An adjustment is also applied for non-residents’ use of specialized services.

An example is provided by the Physical Health Program, where the population-based amount represents the estimated expenditures for hospitalizations, day surgery, emergency room utilization, outpatient services, and specialized diagnostic services. A sub-step of this process classifies patients’ complexity and expected resource use. Patient severity and complexity scores are used as adjustment variables in the regression models (the MSSS uses APR-DRGs to classify patients into similar diagnostic or treatment groups).

As for the General Services Program, its activities represent a wide variety of institutionally- and community-located, or non-acute care, services. This diversity makes it challenging to determine the total population need for these services. To address this challenge, the MSSS uses an aggregation of several needs indices for the program calculation. For some components of the program, the MSSS uses a regression model of a ‘per capita weighted needs’ that takes into account variables for material and social deprivation and age distribution (48 percent of the interregional allocation). Factors used for the material and social deprivation to determine weighted needs index include the proportion of people aged 15 and over who have no high school diploma, the proportion of people aged 15 and over that are employed as well as their average earnings; the proportion receiving income from multiple sources; the proportion of people 15 and over living alone, whose legal status is separated or widowed; and the proportion of families with a single parent. Then, the expected expenditures of non-residents are added back to the funding amounts. The sum of the programs estimated expenditures represent the expected population-based amount.

Lastly, the regional funding envelope of each regional agency is determined. The MSSS uses the figures from the previous steps (described above) and adds special allocations, development budgets, and applies the indexation rate for drugs and medical supplies that it applies to each agency (a rate which it adjusts for the relative richness between regions).

In the ASSSM, a negative difference between the historical-based methods and population-based methods provide an indicator of the relative richness (of MSSS funding). In other words, since the figure is negative in the ASSSM, the value indicates that expenditures in the ASSSM are higher than they should be based on the patient’s characteristics, nature and volume of services provided, and the relative health and welfare of patients living in the region.

**Funding Methods in Transition**

Why are two methods for calculating global budget amounts in Québec maintained? The second, population-based, method was introduced to reduce inequities perpetuated by historically-based global budgeting and utilization patterns (for more on this limitation please see the companion report). The second method is designed to base a region’s health and social services funding on the characteristics of its residents and its delivery of (both general and specialized) services.
Yet for some regions, such as Montréal, the effects of the population-based method would, if fully implemented, have significant and immediate negative financial consequences. As described above, the ASSSM would experience a $209 million decrease in its funding envelope. At the program level, the effects are substantial; the ASSSM would experience a 26.3 percent loss in Public Health funding, an 11 percent loss in Mental Health funding and a 9.6 percent loss in Addictions funding.

The objective of the MSSS is to transition from historically-based global budgets to funding based on the characteristics of the population (for each program area). This transition between funding methods is ongoing. For the ASSSM, the gap in funding methods is being achieved by reductions in the development budget and in the indexation rate (discussed in more detail below). For example, between fiscal year 2004-2005 and 2010-2011, the ASSSM has experienced an $86 million funding reduction (noting that this amount is not an ‘overall’ reduction in the funding envelope, as it is attained through a reduction in growth of funding).

**Funding Specialized Care Services**

The MSSS does not recognize, nor reimburse, first and second line services provided to non-residents by the ASSSM, as these services are provided by every region (and are not exclusive to the ASSSM). Thus, with some exceptions, health and social care services provided by the ASSSM to non-residents represent a source of expenditures without a commensurate source of revenue from the MSSS.

In practice, the ASSSM provides some first and second line services to residents from outside of Montréal, notably the nearby suburbs, some of whom prefer to access healthcare services in Montréal (rather than in their geographic health region). The ASSSM estimates that 29 percent of health and social care services are provided to patients who reside outside of Montréal, most of which are provided to patients from the suburbs (Lanaudière, Laurentides, Laval, and Montérégie) with Montérégie accounting for the most non-resident use of services. The most common services provided to non-residents are general practitioner services, general surgery, cardiology, paediatrics and gynaecology, psychiatry and diagnostic imaging services.

To offset the expenditures on non-residents, the ASSSM has developed a limited set of agreements to recoup the costs of the provision of health and social care services to non-residents. For example, there is an agreement in place between the ASSSM and the suburbs of Lanaudière, Laurentides, Laval, and Montérégie to collect the costs of hospital services provided to patients 65 years and older who have been hospitalized outside of their region of residence.

At the same time, Montréal hosts healthcare institutions that offer specialized medical and surgical services to all residents of Québec. For these specialty care services (third line), the MSSS recognizes that the ASSSM acts as a referral centre for all regions across Québec.

**Access to Surgery Special Funding Initiative**

Québec has reported significant wait times for some elective surgeries for many years. Similar to other provinces, Québec has addressed these wait times by creating financial incentives for regions and hospitals to increase the amount of surgical services they provide. This funding initiative, known as the programme d’accès à la chirurgie (PAC), is administered by the MSSS, and is similar to those implemented in other provinces to expedite some types of hospital-based surgical care. The initiative began in 2004-2005 and targeted surgeries with significant wait times, including hip and knee replacements, cataracts, and other day surgeries.
For the supplemental funding initiative, the funding amount for each surgery is determined using the provincial average cost, which is adjusted for age, patient severity and intensity using relative cost weights (NIRRU; discussed in more detail below).

While the initiative places no limit on the volume of surgeries that providers can perform, institutional factors have blocked significant increases in surgeries (e.g. limited availability of anaesthesiologists). In the first years of the initiative, the Med-Echo hospital discharge database was used to derive counts of surgeries. Subsequently, in fiscal year 2011-2012, the number (and intensity) of surgeries has been derived from the Régie de l’assurance du Québec (RAMQ) data holdings (physician billings data).

This funding initiative, as initially conceived, had unintended consequences. Funding under the initiative only recognized additional surgeries performed in the operating room. As such, a significant number of surgeries that were previously performed on an outpatient basis were coded as inpatient procedures.

In the current form of the program (based on the physician billing data), changes were adopted; first, a larger number of surgeries were incorporated into the initiative and, secondly, the intensity of the surgeries 14 categories were reflected in the incentive funding. There are exceptions to the PAC initiative; private CHSLDs and institutions CH or CHSLD/CLSC with less than 20 cases per year are excluded.

The initiative's current form is not without challenges. For example, there are known issues around the timeliness of data and being able to identify in which institution the surgery occurred. In the latter case, since the surgery is reported in the physician billing database, the surgery is (provisionally) allocated to the surgeon (or physician) rather than the institution, reflecting the fact that there are surgeons who practice in multiple institutions (the ambiguity of setting is now being addressed by verifying with the anesthesiologist). Other unintended consequences include incomplete and missing data from surgeons affected by mixed forms of remuneration (salary and fee-for-service) and others affected by income caps.

While the incentives are for hospitals to increase the volume of surgical care, the MSSS’s funding from this program is attributed to the regional agencies (not the hospitals). The ASSSM is remunerated by the MSSS when the hospitals surpass threshold volume targets. In recent years, the ASSSM has supplemented the amount of revenue accruing from the MSSS under this incentive program by approximately $10 million per year.

**Funding Method: ASSSM to Providers**

In 1994, the regional health boards (later, agencies) in Québec, such as the ASSSM, were given the responsibility of allocating healthcare resources to institutions in their respective regions. With the exception of physician services and drugs, the local health agency is responsible for providing funds to the spectrum of health and social service providers in their region.

The legislation that governs the healthcare budget cycle is the *Balanced Budget Act of Public Health Network and Social Services*. This legislation outlines that the Minister will provide each Agency their respective budgets and, at the time of receipt of the funding envelope, the ASSSM has three weeks to determine the allocations to each institution (and possibly establish measures to reduce expenses).

The ASSSM distributes its global funding to its public and private institutions based on an indexation adjustment to their historical budget (with the exceptions noted in preceding sections of this report).
The Indexation Adjustment

Publicly funded health and social care is provided in both public and private facilities in the ASSSM region. Budgets for both public and private providers are largely derived using the historical-based funding (global budget) approach discussed above. For most institutions, the global budget represents approximately 80 percent of revenues (revenues can originate from other payers, such as those caused by workplace-based accidents or disabilities, in which case the revenue would originate from La Commission de la Sante et de la Securite du Travail du Quebec, CSST).

The ASSSM does not fund institutions under the CSSS networks individually, but instead allocates the total budget amount to the CSSS as a whole (based on historical amounts). The individual CSSSs distribute money to their facilities and providers, a process that remains masked to the ASSSM.

For institutions not within a CSSS, the ASSSM provides a total operating budget to each public institution. These public institutions allocate the budget to cover providers’ and managers’ salaries, expenses related to the provision of services, and contributions to capital funding. The operating budget may include adjustments for certain activities that have been designated to meet priority needs, new policies, or changing clinical resource allocations supported by the ASSSM or the MSSS.

The ASSSM uses the indexation rates provided by the MSSS and applies it to the institutions’ categories of expenses. The ASSSM retains 0.2 percent of the indexation rate (similar to a tax) to initiate its own programs or to respond to emerging clinical priorities not otherwise budgeted.

In some situations, public funding to privately owned institutions is calculated based on a flat rate for all services provided (in accordance with an agreement with the Minister), rather than on a program basis. The rate can be established as a daily rate paid for services provided to users and may include adjustments for scope of clinical and non-clinical activities, information management and advances for estimated salary and non-salary expenses. The rates tend to be uniformly applied to all privately-owned institutions providing similar services.

The Process for Setting Funding Envelopes

The Balanced Budget Act outlines that within three weeks of receiving the funding envelope from the ASSSM, each board of a public institution must adopt their (balanced) operating budget. In turn, each public institution’s board must share their annual budget plan with both the ASSSM and the MSSS. The detailed budget process of an institution ensures that the total funding amount from the ASSSM has been allocated to institutions for operating budgets for all the sites that an institution administers.

If a public institution does not think it can maintain a balanced budget (that is, if it is to run a deficit), the institution must notify the ASSSM and the MSSS. A recovery plan must be developed by the institution and approved by the Minister of Health. This recovery plan must describe in detail the impact of any proposed measures to eliminate the deficit on staff and public services.87

Evaluation of Current Funding Models

Quebec’s current method of funding health and social services reflect the inherent strengths and weaknesses of global budgets and population-based funding as described in the companion report. The primary strength of the current funding method is the ability to limit the growth in healthcare expenditures and activities through caps in budgets. In contrast, global budgets can also result in restricted access to services (in an effort to meet budgetary limits). Moreover, longer wait lists result in lower patient satisfaction with the healthcare system as a whole.
Population-based funding can be used to reduce historical inequities in regional funding. As described in the companion report, implementation of population-based models can also strengthen regional autonomy, provide flexibility, and reduce opportunities for politically-based interventions in health and social care funding (by increasing transparency). Transition to population-based funding is ongoing and the MSSS has not yet fully implemented its sophisticated population-based funding model.

Québec’s health and social care system has experienced many changes over the past few decades. Many of these reforms have been an attempt to address emblematic and highly public problems, notably wait lists (particularly for elective surgeries), overcrowded emergency rooms, and poor accessibility to primary care. Change in the organization and delivery of healthcare in Québec has been driven, in large part, by the recommendations from several public commissions, the 1966 Castonguay-Nepveu commission, the 1985 Rochon commission and the 2000 Clair commission.

Each of the commissions recommended that Québec health and social service delivery transition toward an integrated healthcare delivery system. The Castonguay-Nepveu commission resulted in the creation of a regional governance level and introduced the start of structures that would become the CLSCs. Systematic changes, as a result of the Rochon commission, included the strengthening of regional governance structures, including the responsibility of allocating budgets to the institutions (within their regions). The creation of the CSSSs and family medicine groups were derived from the recommendations of the Clair commission.

Over time, there has been a reasonably consistent shift towards the regionalization of services, as well as the development of structures intended to form an integrated healthcare delivery system. Strikingly, each of the three commissions described above recommended changes to physical payment models within Québec. To date, these recommendations have not been adopted.

Despite the mixed directions of funding reforms at the provincial level, the ASSSM is independently evaluating the potential for aligning its funding of healthcare services with its objective of increasing performance, as measures by improving access to care, improving quality and efficiency of delivery.

Data
Information regarding residents’ characteristics and their use of health services are needed in a timely, accurate and accessible form for a variety of reasons relating to policy, planning and funding. To complete this section, a review of the sources of data available to support funding reform efforts are included, noting that this section overlooks many specialized data collection processes which may not contribute to health system funding reform in the short- or medium-term.

Med-Echo
Med-Echo (Maintenance et exploitation des données pour l’étude de la clientèle hospitalière) is the database that is used to collect clinical and administrative data on acute hospital stays and day surgery, including general, specialized, and psychiatric care (if provided in hospital centres, CHSGSs and CHSPs). Med-Echo is a provincial database and is under the purview of the MSSS.

The Med-Echo database details the nature of a hospitalization, the type and amount of services provided to each patient, information on regional migration, and patient characteristics. It is used to gather information on the distribution of hospital stays in terms of interventions, diagnoses, and services used for differentiated patient's characteristics. The Med-Echo database is analogous to the Canadian Institute for Health Information's (CIHI) Discharge Abstract Database (DAD), which collects hospital discharge summary information reported to CIHI in other provinces.
The diagnosis data is coded according to the International Statistical Classification of Diseases and Related Health Problems, 10th version, Canada (ICD-10-CA). This is an international standard for reporting clinical diagnoses developed by the World Health Organization and adapted for Canadian use by CIHI. Treatment data is coded according to the Canadian Classification of Health Interventions (CCI) and cancer data is coded according to the International Classification of Diseases for Oncology (ICD-O3). CIHI owns the copyright for both the CCI and the ICD-10-CA and the government of Québec has license agreements in place for their use.

The data submitted to Med-Echo is used to assign APR-DRGs and NIRRU (indicators of expected relative costliness) to each hospitalization. APR-DRG is a case mix classification system used to classify acute hospitalizations into clinically discrete groups. The APR-DRG describes the outputs of hospitals, and is used in many countries for funding hospitals. The most current NIRRU are applied by the MSSS to retrospective hospitalizations in order to facilitate inter-year comparisons of hospital data.

Hospital cost data from the state of Maryland has been used to establish the NIRRU (measures of expected costliness of patients), though the Maryland cost data is adjusted to reflect differences in average length of stay between Québec and Maryland (with Québec having a longer average length of stay) based on differences of hospitalizations from the preceding three years of Med-Echo data by the MSSS.

The hospital summary data is provided to the ASSSM in two components by the MSSS. After year-end, the ASSSM receives the Med-Echo data (for hospitalizations which occurred in institutions in the province of Québec) approximately eight months after the close of the fiscal year. The APR-DRG data (and NIRRRU) is then provided by the MSSS to the ASSSM approximately another four months later.

For the past several years, the MSSS has sent retrospectively applied APR-DRG and NIRRU data to the ASSSM (to take into account the variation in DRG attribution), allowing comparison of weights (NIRRU) for the current year and two previous years (this step standardized the clinical groups and weights and permits between-year comparisons).

There is no validation process in place to assess the accuracy of the clinical, demographic or administrative data submitted to the Med-Echo database by the hospitals in the ASSSM region. The ASSSM, and the institutions under its responsibility that use the data, operate under the assumption that once the MSSS accepts the data, the data is accurate.

According to the ASSSM, the hospital stay data is the most reliable and widely used dataset for administrators, planners and researchers.

**Patient-Level Cost Data**

Within the ASSSM, patient-level cost data is collected at a number of (non-randomly selected) hospitals. Currently, six hospitals collect this data using Mediamed technology software (MAGIC-CPA). At this time, none of the acute inpatient hospitals in the ASSSM are providing this patient-level cost data to the ASSSM, nor is there is centralized means to evaluate the data's accuracy or comparability between hospitals.
Emergency Room Datasets: RQUCH 2012 and CPU 2013

These datasets collect information on daily emergency room visits. The data is collected in all facilities in Montréal and is used to create a dashboard of hospitals’ emergency rooms that is published online daily. Information on the dashboard includes stretcher occupancy rate and number of patient arrivals by ambulance.

This dataset on emergency room visits is collected for general statistics, and includes triage, length of stay and information on elderly (over 75 years) patients presenting to emergency. Some information is available instantly, including total number of patients in emergency, number of patients with mental health problems, occupancy rate, and wait times of patients. Data is updated daily, as well as for 24 and 48 hour periods. There is no validation process in place for the data, though the ASSSM has not reported concerns regarding the quality of the data.

SI-héberge

This database collects daily data on the requests for accommodation in residential and long-term care facilities, stays in accommodation, and the movement of patients within residential and long-term care institutions. According to the ASSSM, there is a validation process for the data, noting that reporting difficulties have been identified.

A clinical dataset, such as that used in Ontario, for characteristics of patients in residential and long-term care is not currently collected in the ASSSM. Thus, there is little known regarding the clinical characteristics of the long-term care patients in the ASSSM. Consequently, the intensity (and appropriateness) of care needs in long-term care provided under the purview of the ASSSM are challenging to evaluate.

Multi-sourced longitudinal datasets

The ASSSM coordinates the linkage of data files to enable the creation of longitudinal datasets that follow (anonymous) Montréal residents over time, between providers and settings. This data is used to analyse the continuum of care and develop models of projections of the patterns of use of health and social care in the ASSSM.

The ASSSM must receive authorization from the Information Access Commission to request linked data sources (from each data source the ASSSM identifies). Patient matching and extraction is carried out by each data holder with the ASSSM compiling the final linkages. The linked datasets can include the Med-Echo datasets, RAMQ data (which includes billed medical services), pharmaceutical billings, demographic data as well as deaths within hospitals, data from the Montréal CLSCs, ambulance data and the civil office for details on deaths in Montréal. Patient matching and extractions are done by each party for data that ranges from a year to a year and a half prior.

At the time of receipt of the data by the ASSSM, the data is at least two years old. The resulting dataset, although dated, is very detailed and highly useful to the ASSSM for research, evaluation and planning purposes.
SECTION 6: THE POTENTIAL ROLE OF FUNDING INCENTIVES

Introduction

There are limits to how much money is provided by the MSSS for the ASSSM to provide health and social care services to the residents of Montréal. With these funds, the ASSSM must make difficult decisions about how it allocates the fixed pool of funds between institutions for health and social services.

Given fiscal constraints, the ASSSM would like each of the ASSSM program areas to: 1) improve access to care, and 2) reduce inequities between institutions in their funding. Other significant objectives of the program areas include coordinating care and improving the quality of health and social care services (for a summary of priorities, listed by program area, see Appendix II).

In contrast to the significant body of evidence regarding health services funding reviewed in the companion report, the evidence supporting the effectiveness of funding reforms for social care are weak; consequently, discussion of social care funding is extremely limited, to nonexistent, in this concluding section of the report.

Exploring the Role of Funding Methods

Given the current economic climate, significant incremental funding for health and social care to expand services is unlikely to be available. Moreover, new financial incentives for healthcare are being explored in other countries which punish poor quality and reward coordination of care. The ASSSM’s current funding approach does not consider care quality, outcomes or care coordination. However, Québec is not unique in this dilemma; other provinces face similar challenges. Some provinces have opted to reform their funding methods in order to improve access to care, though none have currently implemented funding based on quality or care coordination.

Some important challenges exist for MSSS policymakers in order to improve access to healthcare services (increasing the volume of care) by devising innovative strategies that are respectful of constraints in funding growth, recognize historical inequities of funding and prevent declines in quality or effectiveness. In addition, while it is out of the scope of these considerations to deliberate whether population-based funding addresses the shortcomings of global budgets, the ASSSM has the responsibility and mandate for developing, implementing and administering methods for funding health and social services within the region of Montréal.

Within this context, key points regarding the contrast between current funding methods and the stated objectives of the program areas are reviewed. Each of these key points is prefaced by discussion of the potential for the ASSSM to pursue funding incentives. In this discussion, experiences from other jurisdictions are used to form a basis for recommendations.

Another important consideration is whether ASSSM initiatives will be over-run by expansive programs initiated and implemented by the MSSS. Clearly, the potential for using incentives within the ASSSM will only be effective if they are aligned with incentives created by the MSSS. Clear examples of how potential ASSSM funding initiatives will interact with other programs are the ongoing surgical incentive program (PAC) and the recently tasked expert advisory panel (Chaired by Dr. W. Thomson). Alternatively, the work of the expert advisory panel also presents a potential opportunity for the ASSSM to highlight the policy directions that they have considered in order to achieve their objectives described in previous sections.

François Lemoyne, ASSSM, personal communications, June 2012.
**Historical Inequities in Funding Institutions**

The ASSSM questions whether significant differences in (historical) funding levels between institutions is associated with growth in volume, differences in services or case mix, or if the efficiency of providers varies. These differences in funding are perpetuated by global budgets since unexplainable differences are carried across years by the indexation rate (described above). A clear path to understanding historical (perceived or actual) inequities in funding is to first determine whether there are case mix differences between institutions.

**Question 1: Can case mix be used to describe funding differences among institutions?**

This question does not consider the issue of prospectively funding healthcare services on the basis of patient characteristics (activity based funding). Rather, the question seeks to address whether differences in institutions' historical (or current) funding levels can be (partially) attributed to patient case mix (an institutions' case mix measurement can be independent of the methods used for funding).

Case mix based measurement is extensively applied for acute care and day surgery in Canada (by CIHI) and is used in many other countries. Case mix measurement has also been used for other sectors of care, such as long-term care (Ontario, Alberta, U.S.), mental healthcare (Ontario, U.S.), rehabilitation care (Ontario, U.S.) and home care (Alberta, U.S.) (reviewed in detail in the companion report).

The process to evaluate institutions’ case mix is based on using case mix algorithms (analogous to APR-DRG). These algorithms use patient-level clinical data as inputs to determine expected measures of costliness and patient acuity (or in some cases, expected mortality). In the ASSSM, comprehensive clinical data appears to be available only for acute inpatient and day surgery care.

**Recommendation 1.1:** The ASSSM should use (or develop) clinical and administrative data sources to derive case mix measures in sectors where it suspects inequities in funding exist between institutions.

For acute inpatient care, the ASSSM uses the APR-DRG system to measure differences in patients’ complexity and resource intensity.

**Key Point 1A:** The APR-DRG case mix system is an internationally recognized measure of hospital case mix

However, while the MSSS applies the APR-DRG algorithm to describe hospital’s expected expenditures, this does not necessarily mean that it is the best choice for the ASSSM to case mix adjust (and potentially fund) hospital’s activity. In this regard, the ASSSM should explore case mix algorithms that support its objectives (such as rewarding quality or coordination).

**Recommendation 1.2:** The ASSSM should evaluate case mix systems (in addition to APR-DRG) to support its objectives for case mix measurement of hospital activity.

The most common measure that reflects the cost of hospital inputs relative to the expected costliness of patients is the cost per weighted patient (CPWP). This amount is the sum of each facility’s expenditures divided by the sum of the weights of its patients (each APR-DRG has a cost weight).

---

Francois Lemoyne, ASSSM, personal communications, June 2012.
Derivation of hospitals’ CPWP allows a between-hospital comparison of funding which controls for differences in patient case mix.

Not all differences in CPWP are attributable to an inequitable distribution of funding. For example core services, such as Emergency Departments or teaching missions that are not reflected in the APR-DRG weights, may reveal substantial contributions to explainable differences in case mix adjusted funding.

**Key Point 1B:** Not all differences in case mix adjusted funding are attributable to historical inequities in funding, the ASSSM should control for other factors, such as teaching, that may contribute to variations in hospitals CPWP.

After adjusting for explainable differences in case mix (patient- and hospital-level factors), the residual may point to inequities in historically based funding. This amount can be interpreted in two ways, either relative under-funding of some institutions or relative over-funding of other institutions. Consequently, clear direction from the ASSSM is needed to identify the expected cost per weighted patient among institutions. In Ontario, the now defunct Integrated Population-Based Allocation model used multivariate linear regression to empirically derive the expected cost per weighted patient.

**Recommendation 1.3:** To identify potential under- or over-funding, the ASSSM should establish cost per weighted patient benchmarks.

If inequities in historically based funding amounts are going to be addressed, a transition plan (such as that being undertaken by the MSSS as it transitions to population-based funding), which caps (or otherwise slows) the rates of expenditure growth in over-funded institutions, is needed.

**Recommendation 1.4:** The ASSSM should develop a multi-year transition plan for addressing funding inequities between hospitals not otherwise explained by case mix or other factors (e.g., teaching).

For healthcare sectors other than acute inpatient care (e.g., inpatient mental health, inpatient rehabilitation, hospital-based chronic care, long-term care and home care) there are analogous methods for case mix measurement. These methods are based on detailed clinical and administrative data collected during the patients’ episode of care. The companion report includes a review of the data and case mix methods used in other healthcare sectors.

In the ASSSM, for non-acute care, these instruments have not been implemented (Ontario is an exemplar of clinical assessment instrument implementation for non-acute care).

**Key Point 1C:** For sectors where the ASSSM feels inequities in funding exist, such as rehabilitation, clinical assessment instruments need to be evaluated (with the support of clinicians) prior to proceeding to case mix measurement.

The implementation of standardized clinical assessment instruments preceding case mix measurement often takes several years, and necessary steps include:

- identifying the population of patients for whom case mix measurement is needed (e.g., inpatient and outpatient rehabilitation or hospital- or community-located long-term care),
- identifying possible clinical assessment instruments (and include extensive clinical input),
• establishing and implementing protocols for completing the assessment instrument (and allocating staff time to completing the instrument),
• developing and implementing an electronic reporting system,
• developing and implementing data validation routines (for patient-level cost and clinical data), and
• implementing and evaluating case mix algorithms.

Case mix measurement in the long-term care sector has been used to understand variations in funding between long-term care providers, adjusting for differences between patients. In Montréal, case mix measurement beyond the acute inpatient population has not proceeded at the same pace as in other provinces. For example, case mix measurement of long-term care patients has proceeded in B.C., Alberta and Ontario for many years (using the RUG-III method). An analogous approach can be pursued for funding emergency care. In the short term, the first two steps (listed above) can be achieved, while the remaining steps would involve several years of planning.

**Prospective Funding of Healthcare Services**

In a number of countries, and now some Canadian provinces, policies have been developed to fund healthcare institutions on the basis of their activity. The ASSSM has the flexibility to use whichever methods it feels appropriate to fund healthcare providers. Given that the identified priority in each program area is to improve access to healthcare services in Montréal, the key question is what policies are available to achieve this goal.

**Question 2: What are effective policy options available to the ASSSM to increase access to health services?**

There are significant limitations to global budgets, notably a lack of transparency and the tendency of providers to ration services in order to meet budgetary targets. However, global budgets are an effective tool to restrain growth in healthcare expenditures (if caps are rigidly enforced by the ASSSM). Thus, global budgets should remain a viable policy alternative for the ASSSM, depending on their objectives.

The evidence from a variety of settings and across several policy objectives is clear; ABF is an effective policy for increasing volume for surgical procedures. The evidence for P4P is more mixed; while there is a substantial literature base regarding the efficacy of P4P for physician payment, there is much less literature regarding the policy’s effect on institutions.

While some sectors of the healthcare system have less evidence linking ABF to increasing volume, there is evidence that ABF has been effective in increasing volumes for acute inpatient, outpatient and inpatient rehabilitative care.

| Key Point 2A: ABF is associated with increases in the volume of inpatient and outpatient acute care and inpatient rehabilitation |

While increasing the volume of acute care is a critical objective of the ASSSM, ABF has important limitations, among them:

• ABF for acute care is associated with an increase in overall expenditure (commensurate with an increase in volume),

---

vii For a thorough introduction to prospective funding, see companion report.
increases in the volume of clinical activity may be associated with relative profitability, and
increases in the volume of clinical activity may not be associated with effective or (more) efficient care.

Consequently, if the ASSSM implements ABF for hospitals, it should consider a limit on the amount of increase (or decrease) in funding and associate changes in activity with the needs of residents (using proxy measures, such as wait times, or estimates of need, such as those projected by the MSSS).

There is little systematic research supporting the use of ABF to increase the volume of care in home care, inpatient and outpatient mental healthcare, or publicly-funded community-located mental healthcare. However, there is a place for evaluating the equitability of the distribution of the ASSSM’s funding between providers (using case mix methods as described in the preceding section).

Assessing the Viability of ABF in the ASSSM for Acute Care Funding

As described above, there is a substantial body of research indicating that ABF is associated with increases in the volume of hospital-based acute care. High quality clinical, financial and administrative data is necessary to ensure the viability, integrity and sustainability of potential ABF initiatives.

Question 3: Is ABF viable within the ASSSM for funding acute care and day surgery in hospitals?

Hospitals record and report detailed clinical and administrative data to the MSSS. Thus, it appears that ABF may be viable for acute inpatient and day surgery care. However, critical factors necessary for ABF initiatives, such as defining hospital outputs, price setting (see text below for more detail on this point) and quality monitoring rely on accurate, comprehensive and timely data. While hospitals’ case mix adjusted data is provided by the MSSS to the ASSSM, the timeliness of the ASSSM’s access to data, for funding purposes, should to be shortened (hospitals cannot prospectively manage based on clinical activity of one year ago).

Recommendation 3.1: The ASSSM should partner with the MSSS for timely access to case mix adjusted hospital data

If the ASSSM is to proceed with ABF for acute care, it will require very timely access to data, ideally within one month of the discharge of the patient. In the short term, this appears to be a challenging objective due to the data flowing from the hospital to the MSSS (and not the ASSSM). Other provinces (such as Ontario) have successfully reduced the length of time between discharge and submission of electronic data to within one month, and the ASSSM will need to work with hospitals and the MSSS to achieve a shorter time period for data access.

Assessing the Viability of ABF in the ASSSM for Non-Acute Care Funding

The ASSSM knows very little about the healthcare it funds outside of acute inpatient and outpatient settings, such as long-term care (PPALV) and community-located (non-acute) mental healthcare. In addition, there is little information regarding the nature of services funded by the ASSSM’s Cognitive or Physical rehabilitation programs (and DI-TED).
For non-acute patients, case mix adjustment for ABF tends not to be based on the same data elements collected for acute care. For non-acute sectors, case mix adjustment has tended to be based on clinical assessment instruments which collect information on mobility and function. These datasets are not currently broadly implemented by providers in (or reported to) the ASSSM.

In this data-poor environment, implementing ABF (or even case mix measurement) does not appear feasible in the short term (noting that the objective of the ASSSM is to increase access to care). For example, the absence of information regarding services or intensity of care precludes using ABF in the ASSSM’s Young People with Problems Program or the Addictions Program.

Consequently, in the absence of case mix data in these sectors, critical factors necessary for ABF initiatives, such as defining hospital outputs, price setting and quality monitoring are currently lacking in the ASSSM.

**Question 4: In what other hospital sectors is ABF viable within the ASSSM?**

Based on the lack of detailed clinical data for inpatient mental health, inpatient rehabilitation, hospital-based chronic care, and emergency departments, it does not appear feasible to immediately proceed with ABF for these patient types (unless a fee-for-service type of arrangement is considered). Based on the extremely limited data available to the ASSSM, ABF initiatives in other sectors would lack an empirical basis. In the short term, the ASSSM should decide which patient types it seeks to pursue ABF policies for.

In the medium to long term, the ASSSM could proceed with issues related to the implementation of standardized clinical assessment instruments for various sectors. The selection and implementation of assessment instruments often takes several years and includes the following steps:

- identifying the population of patients for whom case mix measurement is needed (e.g., rehabilitation or long-term care),
- identifying possible clinical assessment instruments (with extensive clinical input),
- developing protocols for completing the assessment instrument (and allocating staff time to completing the instrument),
- developing and implementing an electronic reporting system, and
- developing data validation routines (for cost and clinical data).

At the same time, much clinical activity is masked from the ASSSM within the CSSSs. Understanding the allocations of financial, clinical and human resources within institutions under the CSSSs will be important to pursue if ABF is implemented. CSSSs should require providers to collect and report clinical data appropriate to the setting of care.

---

**Key Point 4A:** The ASSSM should understand the distribution of resources within the CSSSs in order to effectively monitor ABF initiatives (and changes in clinical activity)

**Key Point 4B:** The CSSSs should collect standardized clinical and utilization data (as described above) from all providers, which should be shared with the ASSSM
Implementing ABF in the ASSSM for Acute Care Funding

Much of the discussions regarding funding reforms are overly hospital-centric, a consequence of incomplete or nonexistent clinical data in many non-hospital sectors in the ASSSM. Given the current limitations regarding understanding patient populations and care needs, it appears that the only sector that can consider evidence-based ABF policies to improve access is the acute care sector. Even so, the effectiveness, efficiency and quality of these policies will remain unmeasured and unknown until gaps in the data are addressed. Given these limitations, if the ASSSM pursues ABF-based policies there are important preliminary steps to consider.

**Question 5: What are steps for the ASSSM to follow to proceed with ABF-based funding of acute care in hospitals?**

Stakeholders should be made aware of initiatives the ASSSM pursues regarding ABF. Non-alignment between key partners, including the MSSS and hospitals, may undermine ABF initiatives.

**Recommendation 5.1:** The ASSSM should develop a roundtable to engage stakeholders in discussions to potentially alter funding mechanisms prior to proceeding with implementation of ABF policies.

As with all case mix measurement methods, it is necessary to identify an approach to measuring and valuing hospital outputs. ABF for inpatient acute care uses price as a signal to providers to change the volume of care. Setting the price is critical to the success of ABF; over-valuing a procedure may result in a disproportionate increase in volume unrelated to patient need (and hospitals potential profit). Detailed cost data is needed for accurately setting prices. The MSSS currently uses patient cost data from Maryland, but it is not clear whether these data accurately reflect the costs of hospitals in the ASSSM. More accurate patient-level cost data are needed to accurately set prices.

**Recommendation 5.2:** The ASSSM should develop detailed patient-level cost data in hospitals and should share this data with the MSSS.

If ABF is pursued in the hospital sector within the ASSSM, any increase in acute care volumes will place pressure on the post-acute care sector. Related sectors must be prepared for the increase in patient discharges from hospitals or the ASSSM risks creating or exacerbating bottlenecks that blunt the effectiveness of potential ABF initiatives.

The lack of information (discussed above), makes it very challenging to manage growth in activity in post-acute care. In the short term, and in the absence of detailed patient-level information, resources may have to be directed to post-acute care to accommodate additional hospital discharges. Identifying the most appropriate and effective sectors targeted for expansion may be based on the patient types being discharged from hospital. In the longer term, new data sources will be able to direct resources to sectors where they are needed.

The information technology required in the short- and medium-term should support the collection of clinical, administrative and demographic data that can (also) be used for ABF. The information collected in each healthcare sector should be linkable, such that patients’ access, effectiveness and efficiency of utilization of healthcare services can be evaluated across settings, providers and over time. Permission to link a patients data should be sought from the Commission d’accès à l’information du Québec.
As in other provinces, there are gaps in the continuity of care that go unaddressed by the changes in funding policies discussed above. For example, the under-resourcing of home care or long-term care may restrict the ability of hospitals to discharge long-stay patients. The ASSSM must consider how to set priorities between and across sectors to achieve a more equitable funding approach that meets its stated goals. The ASSSM will have to consider how to make decisions regarding reallocating funds between hospitals via different funding arrangements. The ASSSM will have to think about how to approach these discussions with stakeholders. Funding decisions will have to be made for reallocating funding between individual hospitals, as well as between sectors (e.g., from hospitals to post-acute care providers).

Question 6: What actions should the ASSSM implement to monitor changes in funding policies?

The ability of the ASSSM to monitor changes in hospitals’ activities, including quality of care, is affected by timely access to data. In order to monitor the potential changes to quality, equity of access, timeliness of care, and inappropriate utilization commensurate with potential ABF initiatives, data must be closely monitored.

**Recommendation 6.1:** The ASSSM must develop the skills and personnel to closely monitor changes in hospitals’ activities

**Key Point 6A:** The ASSSM should share hospital monitoring skills with the MSSS and work collaboratively to develop policy guidelines to ensure accurate data (since the MSSS is ultimately responsible to the Minister of Health)

The integrity of data used for ABF initiatives must be transparent and maintained over time. Other jurisdictions have observed hospitals’ manipulation of data to increase revenues.

**Key Point 6B:** Implement policies and procedures to monitor the accuracy of clinical data (Med-Echo) collected by clinical coders (les archivists médicaux) and patient-level cost data

**Key Point 6C:** The ASSSM should ensure adequate training for clinical coders to support the collection and reporting of accurate data

Question 7: What are acceptable trade-offs for increasing access to care through ABF?

Other potential consequences of ABF initiatives may be less obvious, but can include changes to equity of access. While acute care volumes may increase, these changes may be uneven, disproportionately affecting some types of patients.

The ASSSM should carefully monitor change in wait times and volumes of care across patient types to ensure equity of access is evenly distributed (and not distorted by funding incentives – to hospitals or physicians). For example, if the gains in volume are disproportionately emanating from orthopaedics, then the ASSSM should consider whether this is a desirable outcome or not. The ASSSM should also monitor the appropriateness of care delivered to patients wherever possible.
Question 8: What is the best mix of funding methods?

Based on the evidence from other countries, the ability of hospitals' to improve cost efficiency using ABF policies is mixed. At best, hospitals reduce cost per admission by a small percentage. To counter pressures for additional spending, a blended model that constrains spending beyond a threshold amount is applied in many countries. In B.C., the Health Services Purchasing Organization (HSPO; discussed in the companion report) limited increases in hospital funding based on weighted patients to three percent (at which point, the marginal revenue falls to $0). Other countries have reduced the ABF-related (marginal) revenue to hospitals after targeted levels of activity have been met.

A portion of the budget could be allocated with ABF methods in order to provide incentives for increases in volume and more efficient care, while the remainder could be kept under a global budget to ensure a cap on expenditure and activity growth.

Key Point 8A: If ABF is pursued, the ASSSM should rely on a combination of funding policies and methods

Question 9: What is the best schedule for implementing funding reforms?

A phased-in approach to ABF has been pursued in many countries in order to ensure policy-makers and hospital administrators have time to adjust to the changes in funding.

It is also important to the success of potential ABF initiatives that ABF be viewed as a long-term commitment. The experience from several European countries is that it often takes several years for results from ABF to become evident. Consequently, a long term and stable commitment to the funding policy is critical in order to give healthcare providers time to change their behaviors and respond to incentives. In addition, some countries have found that one-off initiatives do not create long-lasting changes to the healthcare system.

Key Point 9A: If ABF is pursued, the initiatives should be phased-in over several years

Key Point 9B: If ABF is pursued, the strategy should be a long-term commitment

Question 10: What is the cost of implementing ABF?

It is difficult to estimate the potentially substantial costs associated with implementing ABF due to several confounding factors. For example, detailed clinical data collection is already occurring in acute care, so should these costs be included or excluded? Moreover, the costs associated with implementing ABF vary according to the perspective of who is bearing the costs. In the hospital sector, it is clear that there are costs associated with collecting patient-level cost data and administering the funding programs. However, outside of the hospital, which professions will collect detailed clinical information? How are these costs represented by the institutions, or should a significant portion of the data collection be attributed to routine management of the healthcare sector?

Thus, without a prescriptive plan for proceeding with ABF, the cost is difficult to estimate, though other countries’ implementations provide a forum for external consultations. For example, the U.K. estimates that early adopting organizations spend approximately £50 million nationally during the initial implementation of ABF-style funding (Payment by Results). These costs were largely borne
by individual organizations, which spent approximately £100,000 each during the implementation of PbR. These costs covered the implementation of activities such as monitoring changes in hospital activity, collecting patient-level cost data, surveillance of data quality, development and management of service contracts for hospitals and clinical engagement.

**Conclusion**

It is clear that the ASSSM suffers from the same afflictions that other provinces do, including increased intensity of services, some increased demand associated with an aging population and some inefficient and ineffective utilization. However, implementing ABF, even in one sector of the healthcare system, should not be viewed as a panacea for the health and social care system in Montréal (Table 3, below, provides a summary of the questions, recommendations and key points presented above).

The limitations of ABF are well known. The first is its lack of incentives to promote the coordination of care across health and social care sectors. This recurring issue could lead to bottlenecks within the system that jeopardize ABF initiatives (as discussed above). Moreover, there is a cost to implementing and managing ABF and the management skills necessary to adjust to ABF would have to be developed in the ASSSM and among healthcare providers in Montréal.

In addition, the scope of this review is limited to healthcare providers funded by the ASSSM. Physicians are paid directly by the MSSS, making these costs beyond the jurisdiction of regional agencies in Québec, an artifact which may have important consequences to policy options discussed in this report. Overall, the health and social care system in Montréal is complicated, has potentially overlapping objectives, and will likely require a complex solution that will need to be coordinated with the MSSS.

**Table 3: Summary of Policy Questions and Key Points for Consideration in Moving Forward with Health and Social Care Funding Reforms in Montréal.**

<table>
<thead>
<tr>
<th>1. Can case mix be used to describe funding differences among institutions?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendation 1.1</strong></td>
</tr>
<tr>
<td><strong>Key Point 1A</strong></td>
</tr>
<tr>
<td><strong>Recommendation 1.2</strong></td>
</tr>
<tr>
<td><strong>Key Point 1B</strong></td>
</tr>
<tr>
<td><strong>Recommendation 1.3</strong></td>
</tr>
<tr>
<td><strong>Recommendation 1.4</strong></td>
</tr>
<tr>
<td><strong>Key Point 1C</strong></td>
</tr>
</tbody>
</table>
2. What are effective policy options available to the ASSSM to increase access to health services?

Key Point 2A  ABF is associated with increases in the volume of inpatient and outpatient acute care and inpatient rehabilitation

3. Is ABF viable within the ASSSM for funding acute care and day surgery in hospitals?

Recommendation 3.1  The ASSSM should partner with the MSSS for timely access to case mix adjusted hospital data

4. How in what other hospital sectors is ABF viable within the ASSSM?

Key Point 4A  The ASSSM should understand the distribution of resources within the CSSSs in order to effectively monitor ABF initiatives (and changes in clinical activity)

Key Point 4B  The CSSSs should collect standardized clinical and utilization data (as described above) from all providers, which should be shared with the ASSSM

5. What are steps for the ASSSM to follow to proceed with ABF-based funding of acute care in hospitals?

Recommendation 5.1  The ASSSM should develop a roundtable to engage stakeholders in discussions to potentially alter funding mechanisms prior to proceeding with implementation of ABF policies

Recommendation 5.2  The ASSSM should develop detailed patient level cost data in hospitals and should share this data with the MSSS

6. What actions should the ASSSM implement to monitor changes in funding policies?

Recommendation 6.1  The ASSSM must develop the skills and personnel to closely monitor changes in hospitals’ activities

Key Point 6A  The ASSSM should share these skills with the MSSS and work collaboratively to develop policy guidelines to ensure accurate data (since the MSSS is ultimately responsible to the Minister of Health)

Key Point 6B  Implement policies and procedures to monitor the accuracy of clinical data (Med-Echo) collected by clinical coders (les archivistes médicaux) and patient-level cost data

Key Point 6C  The ASSSM should ensure adequate training for clinical coders to support the collection and reporting of accurate data

7. What are acceptable trade-offs for increasing access to care through ABF?

8. What is the best mix of funding methods?

Key Point 8A  If ABF is pursued, the ASSSM should rely on a combination of funding policies and methods

9. What is the best schedule for implementing funding reforms?

Key Point 9A  If ABF is pursued, the initiatives should be phased-in over several years

Key Point 9B  If ABF is pursued, the strategy should be a long-term commitment

10. What is the cost of implementing ABF?
BIBLIOGRAPHY


Statistics Canada. Percentage of population aged 14 years and under, 15 to 64 years and 65 years and over and median age, census metropolitan areas. 2010.


Statistics Canada. Labour force survey estimates (LFS), by census metropolitan area based on 2006 census boundaries, sex and age group, annual. 2011.


51 Agence de la santé et des services sociaux de Montréal. CSSS: Centre de la santé et des services sociaux. Montréal: Agence de la santé et des services sociaux de Montréal; 2012.


54 Agence de la santé et des services sociaux de Montréal. Programme Sante Physique. Montréal; 2012.

Funding Health and Social Care in Montréal, Québec


59  Agence de la santé et des services sociaux de Montréal. Programme santé mentale (PSM). Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

60  Agence de la santé et des services sociaux de Montréal. Programme jeunes en difficulté (JED). Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

61  Agence de la santé et des services sociaux de Montréal. Programme déficience intellectuel (DI) et troubles envahissants du développement (TED). Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

62  Agence de la santé et des services sociaux de Montréal. Programme services généraux. Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

63  Agence de la santé et des services sociaux de Montréal. Programme déficience physique (DP). Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

64  Agence de la santé et des services sociaux de Montréal. Programme dépendances. Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

65  Agence de la santé et des services sociaux de Montréal. Credits et coutour financiers. Montréal: Agence de la santé et des services sociaux de Montréal; 2012.


70  Canadian Institute for Health Information. National Health Expenditure Trends, 1975 to 2012 Spending and Health Workforce. 2012.

72 Agence de la santé et des services sociaux de Montréal. Les contours financiers par programme par année pour la région de Montréal. Montréal: Agence de la santé et des services sociaux de Montréal; 2012.


78 Ministère de la Santé et services sociaux Québec. Mode d’Allocation des ressources 2012-2013. Ministère de la Santé et services sociaux Québec; 2012.

79 Agence de la santé et des services sociaux de Montréal. Les nonRésidents. 2012.


83 Agence de la santé et des services sociaux de Montréal. Programme d’accès à la chirurgie répartition des allocations budgétaires aux établissements. Montréal: Agence de la santé et des services sociaux de Montréal; 2012.

Ministère de la santé et services sociaux Québec. Cadre de référence du Programme d'accès à la chirurgie établit par le MSSS. 2012.

Agence de la santé et des services sociaux de Montréal. Compte rendu et proposition du groupe de travail sur la méthode d'allocation des ressources du programme d'accès à la chirurgie. 2012.


Ministère de la Santé et Services Sociaux. Documentation des Variables, Banque de données dérivée : APR-DRG (J57) version 24.0.


### APPENDIX 1: ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALC</td>
<td>Alternate Level of Care</td>
</tr>
<tr>
<td>APR-DRG</td>
<td>All Patient Refined Diagnosis Related Groups</td>
</tr>
<tr>
<td>ASSSM</td>
<td>Agence de la santé et des services sociaux de Montréal</td>
</tr>
<tr>
<td>B.C.</td>
<td>British Columbia</td>
</tr>
<tr>
<td>CCI</td>
<td>Canadian Classification of Health Interventions/Classification Canadienne des Interventions</td>
</tr>
<tr>
<td>CH</td>
<td>Hospital Centre</td>
</tr>
<tr>
<td>CHSGS</td>
<td>General and Specialized Hospital Care Centre / Centre Hospitalier de Soins Généraux et Spécialisés</td>
</tr>
<tr>
<td>CHSLD</td>
<td>Residential and Long-term Care Centre / Centre d’Hébergement et de Soins de Longue Durée</td>
</tr>
<tr>
<td>CHSP</td>
<td>Psychiatric Hospital Centre / Centre Hospitalier de Soins Psychiatriques</td>
</tr>
<tr>
<td>CIHI</td>
<td>Canadian Institute for Health Information</td>
</tr>
<tr>
<td>CLSC</td>
<td>Local Community Service Centre</td>
</tr>
<tr>
<td>CMA</td>
<td>Census Metropolitan Area</td>
</tr>
<tr>
<td>CPEJ</td>
<td>Child and Youth Protection Centre/Centre de Protection de l’Enfance et de la Jeunesse</td>
</tr>
<tr>
<td>CPWP</td>
<td>Cost Per Weighted Patient</td>
</tr>
<tr>
<td>CR</td>
<td>Rehabilitation Centre/Centre de Réadaptation</td>
</tr>
<tr>
<td>CRPAT</td>
<td>Rehabilitation Centre for Persons with an Addiction</td>
</tr>
<tr>
<td>CRPDI</td>
<td>Centres for Mentally Impaired Persons or Persons with a Pervasive Developmental Disorder</td>
</tr>
<tr>
<td>CRPDP</td>
<td>Rehabilitation Centre for Physically Impaired Persons</td>
</tr>
<tr>
<td>CRPDPDA</td>
<td>Rehabilitation Centre for Persons with Hearing Impairment</td>
</tr>
<tr>
<td>CRPDPDM</td>
<td>Rehabilitation Centre for Persons with Motricity Impairment</td>
</tr>
<tr>
<td>CRPDPDV</td>
<td>Rehabilitation Centre for Persons with Visual Impairment</td>
</tr>
<tr>
<td>CSSS</td>
<td>Health and Social Services Centre/Centre de la Santé et des Services Sociaux</td>
</tr>
<tr>
<td>DAD</td>
<td>Discharge Abstract Database</td>
</tr>
<tr>
<td>DI-TED</td>
<td>Cognitive Impairment and Pervasive Developmental Disorders Program/Programme Déficience Intellectuelle Troubles Envaissants du Développement</td>
</tr>
<tr>
<td>DP</td>
<td>Physical Impairment Program/Programme Déficience Physique</td>
</tr>
<tr>
<td>ICD-O3</td>
<td>International Classification of Diseases for Oncology, 3rd edition</td>
</tr>
<tr>
<td>ICD-10-CA</td>
<td>International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canadian</td>
</tr>
<tr>
<td>JED</td>
<td>Young Persons with Problems Program/Programme Jeunes en Difficulté</td>
</tr>
<tr>
<td>LICO</td>
<td>Low-Income Cut Offs</td>
</tr>
<tr>
<td>MSSS</td>
<td>Ministère de la Santé et des Services Sociaux</td>
</tr>
<tr>
<td>NIRRU</td>
<td>Le niveau d’intensité relative des ressources utilisées</td>
</tr>
<tr>
<td>PPALV</td>
<td>Loss of Autonomy Linked to Aging Program/Programme Perte d’Autonomie Liée au Vieillissement</td>
</tr>
<tr>
<td>PSM</td>
<td>Mental Health Program/Programme Santé Mentale</td>
</tr>
<tr>
<td>RAMQ</td>
<td>Régie de l’assurance maladie du Québec</td>
</tr>
<tr>
<td>RGAM</td>
<td>Public Prescription Drug Insurance Plan</td>
</tr>
</tbody>
</table>
## APPENDIX II: SUMMARY OF PRIORITIES

<table>
<thead>
<tr>
<th>Priority</th>
<th>Access</th>
<th>Coordination of Services</th>
<th>Efficiency</th>
<th>Chronic Disease Management</th>
<th>Quality</th>
<th>HHR/Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSSS</td>
<td>to primary care, reasonable wait for all services</td>
<td>for primary care, aging populations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>innovative service delivery, high quality and safe attract, retain and optimize. Effective management of system</td>
</tr>
<tr>
<td>ASSSSM</td>
<td>General Services</td>
<td>to family physicians, ER overcrowding within CSSSs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Interdisciplinary teams, NPs</td>
</tr>
<tr>
<td>Public Health</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Physical Health</td>
<td>to specialized services, reduce wait times, ALC beds, increase volume between providers of lab services, unit costs</td>
<td>Chronic Care Model, interdisciplinary teams</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mental Health</td>
<td>to services, psychiatrists and crisis centres between institutions</td>
<td>-</td>
<td>-</td>
<td>standardization access first line teams (CSSSs), mental health nurses in ER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPALV</td>
<td>beds in nursing homes, home support services within CSSSs, between institutions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cognitive Impairment</td>
<td>wait lists (diagnostic, specialized services, CSSSs) between institutions</td>
<td>-</td>
<td>-</td>
<td>improved crisis and regular services first line services to under 5, patient navigators at CSSSs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Impairment</td>
<td>specialized services, wait times, increased home support between institutions</td>
<td>-</td>
<td>-</td>
<td>improve</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Addictions</td>
<td>to first line services and specialized assessment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Young People with Problems</td>
<td>wait lists for services transition periods</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>