Health System Efficiency Project (HSEP)

A qualitative study of provincial and territorial health ministry perspectives

Final Report

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Executive Summary

Purpose of the Study
The goal of this study was to identify, explore and better understand health policy makers’ views regarding the desired inputs to and outcomes of health systems, to inform the development of tools to measure health system efficiency.

Methods
A descriptive, qualitative methodology was employed with key informant interviews as the data collection tool. The sampling frame for the study included current and former senior health ministry officials across all Canadian provinces and territories in Deputy Minister, Assistant/Associate Deputy Minister, Executive Director or Director positions and/or with portfolios relevant to the project’s focus on health system performance. The interview guide focused on two major topics: the objectives and outcomes of provincial/territorial health systems and the health system inputs required to achieve them.

Key Findings
Seventeen semi-structured interviews were conducted with senior health ministry personnel from 9 provinces and 2 territories. Interview respondents articulated the main objectives for their provincial and territorial health systems, which clustered around two main themes: i) those focused on the health care delivery system; and ii) those focused on promoting and improving the health of individuals and populations. Health care delivery system objectives were mentioned more frequently than broader health objectives by almost a two-to-one margin.

Emphasis on the diagnosis and treatment of illness and disease and ensuring that health care is available where and when it is required dominated respondents’ articulation of the main objectives of their jurisdiction’s health system. This was augmented by familiar depictions of the desired qualities of the care to be provided in the health system, namely that it be accessible, high quality, timely and person centered. Also mentioned were accountability-related objectives for health care systems, which focused on efficiency, effectiveness, sustainability, evidence and improving the public’s confidence in the health system. Respondents’ shared some uneasiness with, and at times resignation to, the health system’s narrow focus on health care objectives at the expense of broader health objectives.

A similar emphasis on acute care and care delivery outcomes versus individual/population health outcomes was observed in responses to questions about the main outcomes that health systems across the country are seeking to achieve. Improvements to accessibility, quality and safety were the most frequently discussed health care delivery outcomes while health status improvement was most articulated as a population health outcome. Several respondents also identified accountability- and capacity-related outcomes relevant to efficient resource use (e.g., reducing waste, value for money, cost
effectiveness) and improvements in the ability to plan for, analyze and measure outcomes as key outcomes for their health systems. Within the acute care system, timeliness, safety and quality were described as emerging outcomes, with the current and historical emphasis being given to volumes and outputs. This initial depiction of emphasizing some outcomes over others provided a useful transition to the next discussion theme, which focused on prioritizing health system outcomes.

Again, health care delivery outcomes trumped all else; however, no clear consensus emerged about the ‘most important’ health care delivery outcome. More interesting, perhaps, were the reasons cited for why a particular health care outcome was identified as most important which included consumer demand, the public’s understanding of health, as well as attention from the media, physicians, politicians, and administrators.

Similar concerns were raised about accessibility inappropriately trumping quality because the public tends to value access more than quality, which was seen to create significant challenges for health ministries. Several respondents were unable or unwilling to prioritize the health system outcomes they had previously identified. For some, all priorities are seen to be of equal status and must be pursued simultaneously.

Interview respondents provided detailed and insightful commentary on the trade-offs that are made between different health system outcomes within their respective health ministries. Respondents described the principal trade-off as occurring between the acute care system and other health domains such as health promotion and the social determinants of health.

The quality-accessibility trade-off and its perceived relationship to consumer demand was also further described with the suggestion that public demand (and the wait times it generates) is often impervious to quality considerations. A number of respondents suggested that health ministries have difficulty conceptualizing trade-offs among outcomes when developing policy, and, in particular, when it comes to contemplating multi-dimensional trade-offs such as quality versus safety versus timeliness.

Others stated that trade-offs are not explicitly considered until the budgetary process occurs and that real trade-off decisions are made at the provincial Cabinet table. The process of making trade-off decisions regarding health system priorities was described as a complicated consensus process, which require the agreement of the government, and related political and values considerations.

Finally, respondents identified a variety of barriers that prevent the health system from undertaking or fully engaging in decision-making regarding trade-offs. These include not using the available research, the lack of analytic capacity (e.g., integrated information systems, lack of real-time metrics), a bias to universality
and a lack of political will.

Measurement and monitoring of health system objectives was described as uneven with some areas having fairly sophisticated tools in place compared to others. Poor analytic capacity within health ministries was identified as a key barrier to more sophisticated monitoring; even the most well established measurement of health system delivery objectives tends to focus on outputs rather than outcomes.

With respect to the key inputs or resources that the health system uses to produce outcomes, respondents focused on the importance of human and financial resources as well as physical infrastructure. More noteworthy were the challenges identified to transforming inputs into outcomes. Highlighted among these were structural barriers such as funding arrangements, opposition from professional associations and jurisdictional boundaries. Also identified were the lack of accountability requirements for evidence-based care, and for the use of the most appropriate providers.

Conclusions
Several key messages emerge from our interviews with senior health ministry officials across the country. First, health ministries have clearly stated objectives for their health systems that are concerned with the achievement of both health system delivery and individual and population health goals. However, emphasis on acute care system objectives dominates as discussion focuses on specific priorities. Population health objectives are often presented as a means for reducing the reliance on the acute care system rather than as an end itself.

Second, health system objectives were often described through an accountability lens focused on accountability of health systems to the public, patients and families and for the use of public resources. As discussion moved from objectives to outcomes, priority was again given to health care delivery over population health outcomes. The achievement of specific volumes and outputs was often cited as the highest priority although outcomes related to timeliness, safety and quality were identified as ‘emerging’ and worthy of equal attention.

Third, our findings reveal that health ministries across the country have difficulty conceptualizing and making trade-off decisions, and when they do occur, the acute care system seems to trump other priorities.

Finally, the lack of internal analytic and managerial capacity was identified as a barrier to achieving desired health system objectives and to measuring and managing health system efficiency. The need to develop these capacities within the health system was seen to be as important, if not more so, than the political commitment required. Measurement and monitoring tools, and frameworks, were seen as key requirements to assist policy-makers with this task.
A. Project background and objectives

The Canadian Institute for Health Information (CIHI) is aiming to fill an important performance measurement gap by developing a tool that is methodologically sound and that will be useful to policy makers in their efforts to measure health system efficiency as part of the goal of improving health system performance. Understanding the perspectives of health system stakeholders is an important input to the development of this tool and to support consultations with health system leaders as the tool is refined and implemented.

The goal of the study was to identify, explore and better understand health policy makers’ views regarding the desired inputs to and outcomes of health systems for the purposes of informing tools to measure health system efficiency. Given that the management of health systems is a provincial and territorial responsibility, we sought a range of perspectives across Canadian provinces and territories to inform this work.

B. Literature review: Key findings

A literature search was conducted in order to locate any methodologies, strategies or other resources that would help to inform a qualitative assessment of key stakeholder beliefs and values regarding health system inputs and outcomes. This search revealed little published literature on the qualitative measurement of elite stakeholder values regarding health system performance assessment. In contrast, there is a vast and well-established empirical field of research on the measurement of health state preferences. In this body of literature, values are viewed as playing a critical role in health care decision-making at both the individual and policy levels. In a seminal four-part series of articles on measuring health-state preferences, Froberg and Kane (1988) outlined some of the key challenges associated with measuring values: choices are difficult to make and values involve trade-offs, values are not static but may change over time or in response to specific experiences; incorporating values into policy setting is even more difficult than doing so for clinical decisions regarding a single patient. The authors also state that preferences measurement has an important role to play in cost-utility analysis.

More recent literature on preference measurement makes the distinction between two types of methods for valuing health states -- those with their origins in psychometrics and those with their origins in decision theory and economics. Generally speaking, the psychometric approaches involve assessments by respondents regarding the presence, frequency or intensity of various assumptions, behaviors, capabilities or feelings. These responses are then aggregated to create scales that are used to assess the outcomes of medical interventions and to compare patients’ outcomes under different systems of care. In developing health
measures for economic evaluations, the goal is to obtain a single summary index reflecting people’s preferences for different health states (Kopec and Willison, 2003).

Salomon and Murray (2004) state that: “In summary measures of population health and analyses of cost effectiveness of health interventions, an essential data input is a set of weights associated with different health states, which provide the critical link between information on mortality and information on the spectrum of non-fatal health experiences of the living … ”

Only two published studies were found that attempted to assess the views of policy makers and/or senior decision-makers using qualitative methodologies with key informant interviews. One examined the views of stakeholders regarding hospital performance (Minivielle et al. 2008); the other examined stakeholder preferences concerning outpatient commitment for persons with schizophrenia (Swartz et al. 2003).

A search of the grey literature revealed only empirical, survey-based methodologies for measuring preferences. Most notable was The World Health Report 2000, Health Systems: Improving Performance, which examined health systems from around the world and outlined a range of factors that determine how health systems perform. The report outlined four key functions of health systems:

“…providing services; generating the human and physical resources that make service delivery possible; raising and pooling the resources used to pay for health care; and, most critically, the function of stewardship – setting and enforcing the rules of the game and providing strategic direction for all the different actors involved.” (WHO 2000; viii)

In order to develop indicators of health system goal attainment, the authors chose to measure the preferences of health system experts (WHO staff) and other interested individuals with regard to “… the relative importance of health system goals and on the normative choices involved in the measurement of those goals” (Gakidou, Murray & Frenk, 2000:7). The survey itself was conducted by means of an interactive, internet-based questionnaire. The authors noted that:

“…the purpose of …[the]… survey was not to describe preferences in a population, but rather to empirically derive a set of weights reflecting normative choices” (Gakidou, Murray & Frenk, 2000:8).

Overall, the survey methodology was intended to address three key shortcomings of the existing measurement literature in public health and social sciences: 1) making normative choices explicit rather than implicit; 2) utilizing an empirically-derived (rather than an arbitrarily selected) process for assigning parameter values; and, 3) demonstrating that it is possible to compare values around health and health systems across different jurisdictions.
C. Study Approach and Methods

This study employed a descriptive, qualitative methodology with key informant interviews as the data collection tool.

Sampling and Recruitment of Key Informants

The sampling frame for the study included current and former senior health ministry officials across all Canadian provinces and territories who held relevant Deputy Minister, Assistant/Associate Deputy Minister, Executive Director or Director positions for a minimum of two years or individuals who have recently departed from these positions (e.g., moved to a different portfolio in the same ministry, moved to a different ministry or left the public service altogether).

Key informants were selected using a combination of purposive and snowball sampling with positional criteria guiding the final decisions. These non-probability sampling techniques were best suited to the overall goal of this research study, which was to identify, explore and better understand the views and values of elite decision-makers with regard to the key health production functions/outcomes associated with their respective provincial/territorial health care systems. The goal of the sampling strategy was to identify individuals who, through their positions in government, were able to contribute most meaningfully to our thinking about the range of health system inputs and outcomes that are most highly valued and why (Tansey, 2007).

A first step in the recruitment process was to review the organizational charts for provincial and territorial health ministries across the country. Particular attention was given to individuals who held responsibility for cross-sectoral, strategic level and/or accountability and performance measurement portfolios (e.g., ADM, Health System Strategy Division or ADM, Health System Accountability and Performance). Preliminary selections were then reviewed with academic colleagues and relevant health ministry contacts in each province/territory to refine the list. Prospective interviewees were contacted by e-mail to request their participation in the study (see Appendix 1 for sample text).

Executive and administrative assistants were copied on the e-mail invitation to ensure receipt and timely response. A follow-up e-mail was sent three days after initial contact to confirm that the invitation was received and under consideration. Phone follow-up was initiated after three e-mail contact attempts with no response.
Informed Consent

The study received ethics approval from the Hamilton Health Sciences/Faculty of Health Sciences Research Ethics Board at McMaster University. A study information document and consent form was sent to all study participants (see Appendix 2). Signed consent forms were to be returned to the study co-ordinator before the interview was carried out.

Interview guide and interviews

Members of the research team drafted the interview guide through a two-stage process. In the first stage, team members brainstormed a list of draft questions that would elicit interviewees’ perspectives on two major topics: the objectives and outcomes of their jurisdictions’ health systems and the health system inputs required to achieve them. In a second stage, the interview guide was piloted three times with former health ministry officials. Revisions were made to the guide based on the feedback provided through these ‘mock’ interviews and further refinement of interview questions (see Appendix 3 for draft interview guide). All interviews were conducted by telephone and were audio-recorded.

Analysis

Audio recordings of all interviews were summarized to extract key themes and illustrative quotes from each interview question. Interview transcript data were also entered into QSR NVIVO 8, a qualitative data management and analysis program to facilitate the process of constant comparative method used to identify recurring themes across the interviews.

D. Findings

A total of 17 semi-structured interviews were conducted with senior health ministry personnel from 9 provinces and 2 territories (including 7 DMs, 9 ADMs, and 1 ED/Director).

1. Identifying health system objectives and outcomes

The first section of the interview focused on the identification and prioritization of health system objectives and outcomes. Interview respondents readily and precisely articulated key objectives for their provincial and territorial health systems (Table 1). These objectives clustered around two main themes – i) those focused on the health care delivery system; and ii) those focused on promoting and improving the health of individuals and populations. Almost all respondents listed at least one health care system objective and just over half also identified objectives related to population health. Several other objectives, which did not readily fall into either of these categories, were also identified. Objectives were most often phrased as very short statements with little or no elaboration.
Table 1: Objectives for the health system

<table>
<thead>
<tr>
<th>Health care delivery objectives:</th>
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<tbody>
<tr>
<td>• health care that is available where it is required (location) or in most appropriate setting</td>
</tr>
<tr>
<td>• diagnosis and treatment of disease</td>
</tr>
<tr>
<td>• high quality (or best) health care</td>
</tr>
<tr>
<td>• adequate and/or appropriate health care</td>
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<tr>
<td>• accessible health care</td>
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<tr>
<td>• timely health care</td>
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<td>• ever increasing access to health care services</td>
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<td>• effective care</td>
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<td>• efficient care</td>
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<tr>
<td>• evidence-based care</td>
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<tr>
<td>• improving the patient experience</td>
</tr>
<tr>
<td>• providing palliative services to ensure ‘best possible death’ for terminally ill patients</td>
</tr>
<tr>
<td>• creating an appropriate/healthy workplace environment for health providers</td>
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<tr>
<td>• appropriate mix of health human resources</td>
</tr>
<tr>
<td>• ensuring the highest standards of professional practice</td>
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<tr>
<td>Individual/population health objectives:</td>
</tr>
<tr>
<td>• best health status for individuals and population</td>
</tr>
<tr>
<td>• maintain, protect and improve the health and well-being of the population</td>
</tr>
<tr>
<td>• health promotion</td>
</tr>
<tr>
<td>• reduce inequalities relative to other jurisdictions</td>
</tr>
<tr>
<td>• disease/illness prevention</td>
</tr>
<tr>
<td>• addressing determinants of health</td>
</tr>
<tr>
<td>• advocating for healthy public policy</td>
</tr>
<tr>
<td>• prevent/respond to pandemics and outbreaks</td>
</tr>
<tr>
<td>• keeping people out of the acute care system</td>
</tr>
<tr>
<td>• to work with residents in order to enable them to take greater personal responsibility for their own health</td>
</tr>
<tr>
<td>• creating an appropriate environment for producing better health outcomes and health status</td>
</tr>
<tr>
<td>Accountability objectives:</td>
</tr>
<tr>
<td>• increasing public confidence in the health system</td>
</tr>
<tr>
<td>• creating a sustainable health system</td>
</tr>
<tr>
<td>• patient and/or family-centred care</td>
</tr>
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</table>

A dominant theme in discussions of health care delivery system objectives is *to be able to meet the needs of residents presenting with illness and disease*. This was frequently augmented by specific statements about the desired qualities of a well-functioning health care system (e.g., care should be timely, accessible, appropriate, high quality, patient-centered, etc.). In some instances, the overriding emphasis on health care delivery objectives was met with concern, such as the informant who stated that the *sole* objective of the health care system (as currently viewed by both the government and the public) is “... greater and greater access”. In addition to the fairly predictable list of care-related objectives, respondents also
offered a series of means-oriented objectives such as ensuring the right mix of health human resources and the highest standards of professional practice aimed at providing the necessary infrastructure and support for achieving end-state objectives such as accessible and appropriate care.

Individual and population health objectives covered an array of themes such as improving health status, promoting health, preventing illness, managing chronic disease, responding to the determinants of health and/or advocating for healthy policy. In several jurisdictions, health and the social services are integrated under one ministry. As noted by one respondent, this means that “when you talk about the objectives of the health ministry...you have to talk about the well-being of the population”.

Several informants linked the achievement of population health objectives to the achievement of reduced reliance on the acute care system. As one respondent noted, health promotion and disease prevention initiatives are necessary “… in order to ensure people don’t need us.”

Lastly, several interviews featured discussions about more over-arching accountability goals such as improved public confidence in the health system (accountability to the public), sustainable health systems focused on value for money (accountable use of resources) and health systems that are centered on patients and families (accountability to patients and families).

Following the opening discussion of health system objectives, interview respondents were then asked to talk about the main outcomes their health systems are seeking to achieve. On the whole, these discussions mirrored discussions of health system objectives in their emphasis on a more general set of goals or aspirations although, in some cases, interview respondents offered a more precisely defined set of outcomes.

Table 2 summarizes the outcomes identified by the study informants.
Table 2: Health system outcomes

Health care delivery outcomes:

- accessible care for everyone (including marginalized populations)
- appropriate care
- timely care
- improving/ensuring quality care
- coordinated service delivery
- ensuring system is seamless and well-integrated
- quality of the patient experience (seamless movement throughout the continuum care)
- patient satisfaction and engagement
- patient safety
- team work and communication
- stronger and more developed primary care system
- keeping people well through diagnosis and treatment
- ever increasing outputs and volumes (as an end in its own right)
- granular level outcomes for various programmatic areas (e.g., surgical wait times, safety of surgical experience, appropriateness of surgery, and effectiveness of discharge planning)
- reducing and controlling rates of various disease states such as cancer, cardio-vascular disease, and diabetes.
- accreditation and standards
- clinical pathways

Individual/population health outcomes:

- overall life expectancy and life expectancy at birth
- reduction of morbidity and mortality and associated factors
- reduce inequalities/disparities in health status
- ensure people are as healthy as possible for as long as possible
- health promotion and disease prevention
- early childhood development
- child health outcomes
- some social function for the elderly in terms of long-term care and housing
- improved health status and/or improve specific statistics/indicators (e.g., smoking, reduction of sedentary lifestyles, promotion of health lifestyles (e.g., fitness, nutrition)
- keeping people out of the health system
- clinical/person outcomes
- improved chronic disease management

Accountability/capacity outcomes:

- resource use: value for money, efficient and streamlined care, reducing unit costs, productivity, cost effective, sustainability, reducing errors and waste
- appropriate work environment for health providers
- improved ability to analyze data and measure outcomes (human resources and technology)
- improved capacity for high quality planning

The majority of respondents identified one or more outcomes related to the themes of health care delivery and population health. Several respondents also identified accountability- and capacity-related outcomes. Accountability outcomes relevant to efficient resource use were given considerable emphasis as in the earlier discussion of broader health system objectives. In addition, emphasis was given to identifying system capacity outcomes such as improvements in the ability to plan for, analyze and measure outcomes.
Improvements to accessibility, quality and safety were the most frequently discussed outcomes under the health care delivery theme while improving the health status of residents was the most commonly cited population health outcome. One respondent described two levels of focus in their health ministry: at the strategic level their focus is on improving the overall health and well-being of the population, and at a more operational or pragmatic level, the focus is on accessibility and quality of services.

Without prompting, several respondents cautioned that the main outcomes of the health system in their respective jurisdictions did not receive equal attention. Within the acute care system, timeliness, safety and quality were sometimes described as emerging outcomes, with the clear emphasis being given to volumes and outputs.

2. Prioritizing health system outcomes

Respondents were also asked to prioritize the outcomes they identified from most to least important. Health care delivery outcomes were routinely given higher priority over population health outcomes but there was no clear consensus about which health care delivery outcome was ‘most important’. More interesting perhaps are the reasons cited for why a particular health care outcome was identified as most important which include ‘consumer demand’, the ‘public’s understanding of health’, as well as ‘attention’ from the media, physicians, politicians, and administrators. As one informant observed:

“What it comes down to is what people on the street want. For the most part, people still feel ‘more is better’... Secondarily, although it’s not a driver ... there was a lot of government money on the table, for reducing wait times, which in most cases translated into increasing volumes.”

Another respondent noted that although high quality health care is the most important outcome (in her/his view), the public tends to value access more than quality, and this creates significant challenges for health ministries. Expanding on this theme, another participant noted that health system priorities are driven by the public’s understanding of health, which at its core, includes and ‘expectation of immediacy’ regarding the treatment of acute illness.

The outcomes ranked as second or third also varied widely and included short, goal-oriented statements regarding issues such as the development of an integrated approach to servicing health needs, chronic disease management or chronic health conditions, health promotion and disease prevention, efficient management and coordination of the health system, sustainability of the health system, accessibility, timeliness, and some of the social functions that the health systems provides to the elderly (e.g., long-term care).
For various reasons, several respondents were unable or unwilling to prioritize the health system outcomes they had previously identified or portrayed it as a complex process that is difficult to specify. One respondent noted that all of the priorities were of equal status and must be pursued simultaneously. Another respondent picked only one of his/her previously identified outcomes – ‘a strong primary care system’ – and explained that resolving this top priority would ameliorate many of the key challenges facing the health system in his/her province. Finally, one respondent stated plainly that the health ministry’s short- and longer-term priorities are determined by the health minister and the government:

“[The priorities are]...based upon the minister’s clear statements and statements made by the ministry in ... major documents of the recent past ... It’s what the minister and government have set as priorities.”

According to another respondent, prioritizing is based on a convergence of factors of which resources are a key element. For example, anything that can improve how resources are used would be seen to be a priority as well as evidence about the comparative effectiveness of different treatments. The public’s values toward different health issues was also viewed as an important consideration in determining priorities, particularly when the media shine a light on specific problems.

3. Trade-offs between health system outcomes

Our interview respondents provided detailed and insightful commentary on the trade-offs that are made between different health system outcomes within their respective health ministries. Their discussions addressed three key issues: 1) the types of trade-offs that are (or are not) made; 2) the process(es) through which trade-offs occur; and 3) the key barriers to making trade-off decisions.

Types of Trade-Offs

Interestingly, only half of the key informants chose or were able to identify domains in which trade-offs occur. Several respondents suggested that the principal trade-off occurs between the acute care system and other health domains:

“Acute takes priority ... what suffers is health promotion ... what suffers is some of the social sides of health care ... [that is] where the trade-offs occur ... chronic disease lies somewhere in the middle only because of the pressure of demography which is on us and will continue to be for the next twenty years ....”

In a similar vein, another informant noted that funding and acquiring inputs for the acute care system -- such as human resources, diagnostic, and treatment
technologies and medications -- occurs at the expense of population health, prevention, and chronic disease management. Furthermore, s(he) stated that:

“If we spent the money researching the best available ways to effect an improvement in population health, if we spent the money on that, that we spend on …[funding and acquiring inputs for the acute care system], we’d probably have a … moved beyond the era of posters and pamphlets.”

Another respondent noted that costs are a key component of decision-making regarding trade-offs, but that the ministry has difficulty conceptualizing trade-offs among outcomes when developing policy, and, in particular, when it comes to contemplating multi-dimensional trade-offs.

“I think they probably look at cost and volume trade-offs or they probably look at cost and safety, or cost and quality trade-offs, but I’m not sure they carefully look at [the trade-offs among] multi-dimensional objectives … things that are linked but not necessarily aligned, things like quality versus safety versus timeliness....”

Another theme that emerged from the discussion of trade-offs was evidence-based care. One respondent explained that more and more, trade-offs are being made on the basis of evidence.

“There are trade-offs and we are trying to be a lot more rigorous on that. So if a treatment is known to have some value, but is very limited then, you know, we are not always going to fund that ... People will say [that] we have a lot of base funding that doesn’t have evidence attached, and that’s probably fair. But as we fund new therapies, technologies ... we’re really going to be looking at the evidence...”

A final theme that emerged (and which was also referred to during the earlier discussion of outcomes) was the tension between quality and accessibility. One respondent noted that this particular trade-off is strongly associated with patient expectations. In fact, there is a positive correlation between public demand and the amount of money that is ‘pumped’ into the system. Indeed, public demand (and the wait times it generates) is often impervious to quality considerations.

“If everyone wants an MRI and demands it, and you [also] have long wait times, you have [to determine] if ... [it is] being ... [utilized] appropriately if you want to reduce the wait times.”

About half of our interview respondents did not identify any trade-offs among the main health system outcomes. One respondent stated that a single broad outcome – a strengthened primary care system – would ensure the entire system is well managed. Another respondent stated the outcomes are in fact inextricably linked, and what is required is a new culture and approach to managing health care at both
the organizational and health ministry levels. This respondent explained that administrators are reluctant to:

“...get down on the floor ... [and learn their own business by] ... seeing the experience of their patients ... Quality does not cost money, quality saves money. Patient flow does not cost money, it saves money... There are no trade-offs in my mind. The [actual] trade-off is that we have to learn to do our business differently. And the leaders have to be leaders, and actually change their perspective on the system...There is no value lost in any of this ....”

In contrast, most of the respondents who did not identify trade-offs explained that their health ministries have great difficulty conceptualizing and making trade-offs among outcomes. In fact, several respondents stated that trade-offs are not explicitly considered until the budgetary process occurs.

**Processes for Making Trade-offs**

Respondents described various scenarios in response to the question of how and when trade-offs are made. One respondent explained that priorities are essentially dictated by the health care delivery system. Moreover, changes to the status quo occur through a complicated “consensus process”, which ultimately requires the agreement of the government.

“It’s really a question of the priorities that come from the delivery system... [and] the willingness of the system to make change and to respond accordingly ... [this requires both] consensus ... [regarding] new investment ... and ... agreement of the government of the day to move in that direction. So it’s a very complicated consensus process that we go through... sometimes it comes as a result of public advocacy, sometimes political advocacy ... sometimes it comes from patient groups ... provider groups [or]...breakthroughs in either technology or treatment inventions ... so it can come from any number of directions...”

Another respondent explained how an ethics framework (originally developed for very specific funding issues related to drug coverage) has been used by the ministry to inform options that were presented to cabinet as part of the annual budget process.

Several respondents explained the policy-making and trade-offs occur strictly at the cabinet table in response to resource allocations. As one respondent put it:

“Trade-offs are not explicit in terms of the departments and the minister’s statements ... instead trade-offs become evident during the budget process, and at that point the ministry, acting in response to the treasury board, will make selections based upon resource allocations and those will vary from year-to-year ...that [budgetary process] is what forces the decision in terms of the trade-offs.”
Expanding on this theme, another respondent noted that trade-offs are ‘tangly political questions’ that are in essence ‘value choices’. Related to this is the view that priorities are constantly evolving and not static – the evolution of trade-offs can happen rapidly according to the policies of the current government or something that appears in the media, which attracts attention to a particular issue, or other societal values.

In some jurisdictions, it appears that decisions regarding trade-offs occur at various levels and points in time. One respondent noted that although the health ministry in his/her province does not have a highly prioritized system for making trade-offs (such as that utilized by The Oregon Health Plan) the health ministry funds several entities/organizations whose mandate includes conducting research and decision-making related to specific diseases/programs.

Finally, two respondents explained that decisions regarding trade-offs are actually made in a variety of settings within their respective health systems including RHAs, operations level (e.g., hospitals), at the Cabinet table and within the health ministry (in terms of options selected for consideration by cabinet).

“…. [health ministries] are very decentralized structures ...[and]...they force those kinds of decisions down to the regional health authorities and LHINs...I think that there is a structural dynamic there so that the [issues remaining within the purview of the health ministry] ... don’t [require] ... a lot of choices ... except when you are talking internally ... on a sector-by-sector basis”.

**Barriers to making trade-offs**

Respondents identified a wide variety of barriers that prevent the health system from undertaking or fully engaging in decision-making regarding trade-offs (Table 3).

**Table 3: Barriers to making trade-offs**

- available research is not fully utilized
- lack of information systems that provide truly integrated information (e.g., access to medical and health records, and ability to make comparisons between jurisdictions and provinces)
- lack of real time metrics
- reluctance to set targets and goals related to population health initiatives (because it is difficult to quantify what you can ‘buy’ through these programs)
- bias to universality (this is especially problematic in jurisdictions where the population is composed of many extremely small and geographically dispersed communities/populations)
- lack of analytic capacity (and technologies such as e-health) to demonstrate that the system is having an impact and/or placing its resources in the ‘most appropriate place’
- lack of understanding among politicians and public about 'living within budget and resource capacity'.
4. Measuring and Monitoring Activities

The majority of our informants provided a very general commentary on the specific measuring and monitoring activities that are currently being undertaken in their respective health ministries. Not surprisingly, many respondents noted that there are some domains in which measuring and monitoring are well-established, and others in which efforts are only just beginning or are in the very early stages of development (see Table 4). In contrast, other respondents stated that their health ministries lacked maturity with regard to measuring and monitoring, as well as a lack of appropriate metrics and internal capacity (e.g., staff with appropriate knowledge and skills). Indeed, one respondent stated that:

“It’s a highly valuable skill to be able to look at data, make sense of data, construct stories out of data, communicate data, and manage according to data....We [in the Ministry] don’t get a lot of looking at, using and building off of data ... we don’t have that type of leadership with people looking at it all the time ....As different types move in and out of the ministry, and perhaps as you get closer and farther away from elections, the amount of monitoring goes up and down.”

Overall, those measuring and/or monitoring activities that are well-established seem to align closely with the health system delivery objectives and outcomes outlined above. Indeed, one respondent stated the health ministry in his/her jurisdiction is very good at tracking outputs such as utilization rates, but lacks a sophisticated set of measures around outcomes. This respondent also noted that there are some exceptions, in areas such as cancer care and laboratory testing, where there has been an interest (sometimes prompted by critical incidents) to “dig-in and improve metrics”. Expanding on this theme, another informant noted that measurement tends to occur only in those cases where there is both strong interest and leadership.

The new and emerging areas of measuring and/or monitoring appear to provide some support for at least two of the three over-arching accountability themes -- creating a sustainable health system and increasing public confidence in the health system. As one respondent explained, clinical efficacy is:

"... becoming much more a part of where I believe decision-making will go but we’re at the very early stages of that ... so in other words what is the value of the last dollar placed in [a] ... procedure vis a vis other types of procedures .. so much more comparative analysis ... and where the value is judged to be wanting then either providing disincentives... or no incentives ... or outright removal or discouragement of certain types of procedures or interventions if they are not shown to have value for the outcome of the patient or the system more broadly”.

Some informants explained that measuring and monitoring activities do not fall solely within the purview of their health ministries. In Quebec, for example, there is an official ‘external observer’ of the health system in the form of the
Commissioner of Health and Well-Being, which is independent of the health and social services ministry. In other provinces, health regions also conduct such activities, and have the responsibility for these activities delegated to this level. Some respondents noted that although their health ministries maintain important data on acute and primary care, they often utilize information synthesized by other organizations and researchers.

Table 4: Health system measuring/monitoring activities

<table>
<thead>
<tr>
<th>Reasonably well-established:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• administrative data (including data collected via service purchase agreements)</td>
</tr>
<tr>
<td>• data on communicable diseases</td>
</tr>
<tr>
<td>• data on acute care</td>
</tr>
<tr>
<td>• data on primary care</td>
</tr>
<tr>
<td>• a range of indicators</td>
</tr>
<tr>
<td>• numeric monitoring of the health system (e.g., # of visits)</td>
</tr>
<tr>
<td>• financial monitoring of the system</td>
</tr>
<tr>
<td>• raw performance measures such as inputs and volumes of service</td>
</tr>
<tr>
<td>• measures of disease incidence and prevalence</td>
</tr>
<tr>
<td>• outputs</td>
</tr>
<tr>
<td>• human resources indicators (in terms of the provision of services)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emerging or early stages of development:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• public reporting (such as infection rates in hospitals)</td>
</tr>
<tr>
<td>• cost-benefit analysis (particularly in areas such as drug coverage)</td>
</tr>
<tr>
<td>• clinical efficacy</td>
</tr>
<tr>
<td>• waste quality measures</td>
</tr>
<tr>
<td>• sharing information with physicians regarding utilization of tests and best practices</td>
</tr>
<tr>
<td>• balanced score cards (that include outcome measures for all RHAs and risk management quality control indicators for the large health centres)</td>
</tr>
</tbody>
</table>

5. Health System Inputs

The vast majority of respondents readily and precisely identified a range of health system inputs (Table 5). The most frequently identified inputs were human resources, money and physical infrastructure. Several respondents commented on the link between funding and human resources. As one respondent explained:

“….sometimes all the money in the world will not buy you the right people so ...you have to look at them as two discrete categories [money and people] even though, ultimately, all of it can be expressed as money.”

In addition to the more predictable types of inputs, several respondents noted that individuals (as well as families and communities) are inputs because of what they can contribute to their own health.
Table 5: Health system inputs

- funding/money (provincial and federal)
- human resources (full range of health professionals and paraprofessionals, as well as support staff including housekeeping)
- correct number and mix of human resources
- physical infrastructure, facilities, bricks and mortar (including hospitals, community clinics, private offices, and long term care homes)
- virtual infrastructure (e.g., electronic medical and health records)
- information, data, evidence
- diagnostic and treatment technology
- mechanisms to ensure appropriate use of equipment/technologies
- drugs
- strong senior-level leaders
- regional health authority system
- department of health
- education system (i.e., secondary and post-secondary)
- necessary funding for education
- individuals
- families
- communities
- informal care-giving workforce

6. Barriers to transforming inputs into desired outputs or outcomes

Respondents readily identified a very detailed list of barriers that hinder the ability of their health ministries to transform inputs into desired outcomes (See Table 6). The most frequently identified barriers related to two broad themes: 1) health system structures and arrangements; and 2) internal analytic and managerial capacity.
Table 6: Barriers to transforming inputs into outcomes

1) Health system structures and arrangements
   - funding arrangements
   - influence of physicians
   - statutory laws
   - jurisdictional boundaries (vis a vis self-regulating professions and educational institutions)
   - sheer complexity of the system (i.e., silos, lack of integration, fragmentation)
   - lack of accountability mechanisms
     - to ensure uptake of evidence based care
     - to select most appropriate (rather than most highly trained) provider
   - achieving the consensus necessary to develop clinical pathways (e.g. agreement regarding definitions and processes)

2) Internal health ministry capacity (analytics/data and managerial)

3) Other:
   - politics
   - jurisdiction specific barriers
   - inability to attract/retain health providers (i.e., rural/remote/northern jurisdictions)
   - severe shortages of certain physician and non-physician health providers
   - inability to produce sufficient numbers of appropriately trained and practice-ready health providers in some smaller jurisdictions
   - socioeconomic conditions (in Canadian territories)
   - lack of technological infrastructure (e.g., satellites, bandwidth, telehealth, ehealth) in Canadian territories
   - inaccessibility of many remote, rural and/or northern communities and regions
   - lack of sufficient diagnostic and radiological equipment (in Canadian territories and smaller provinces)
   - unlimited public demand for health care
   - lack of personal responsibility for health
   - lack of citizen engagement

7. Health system structures and arrangements

Issues related to health system structures and arrangements were identified by two-thirds of respondents. Within this category, several respondents identified funding arrangements as a significant obstacle to achieving desired health system outcomes. As one respondent stated, there is a:

“...bad habit of sticking to global budgets, shadow billing, lump sums, historic project estimates with some adjustment of growth, rather than getting down to stuff ... like unit-based payment. That changes it right? When you know how much you’re paying, how much you’re getting for it, and you can raise units based...
on quality. Until [this changes] ...financing systems will continue to get in the way of good analytics”.

Others spoke about issues related to statutory law, jurisdictional boundaries, and professional roles/scope. As one respondent noted:

“....we have a well-articulated health care system that’s governed by statutory law[s]... [which]... are fixed positions in the sand and the system works within those fixed lines ... [and]... transformation ... notwithstanding the will to do it, there’s not an ability to do it because the structure of our system takes quite a long time to change, mostly because you need will to make the changes in statute law.”

This same respondent further explained how the influence of these structural arrangements interacts with political realities:

“...there is a certain range of services ...[that don’t] ... need to be provided in hospital...[and instead could be provided]... in a community clinic without all of the overhead ... But ... labor law would say that is the sale of a business, and hence you have to move the staff and all of the union agreements into the new arrangement ... so you cannot use the economic levers ... in order to achieve both the economic and the productive benefits ... you can’t get the productive benefit of transformation with all of these things still in place, and you can’t get rid of them unless governments choose to remove them. So then you always come back to the political process, and the political process doesn’t generally look at system design and effectiveness, it looks at political imperative, which is public opinion and those sorts of questions, which really have nothing to do with system effectiveness.”

In a similar vein, several respondents referred to the inability of government to make necessary changes related to health human resources due to the authority of self-regulating professions and educational institutions. As one respondent observed:

“...if you want to change anything in relation to those professions, it becomes very difficult for a government to do it ...[to]  have an impact on a professional group ... if you have an interest in changing the mix of health care workers in the system you are still pretty well subject to the choice of the universities...”

Another issue related to health system structures and arrangements was the relationship between the health system and physicians. As one respondent stated:

“... one of the biggest costs and service drivers ... [is that physicians] function ultimately as independent contractors. So physicians have a huge impact on the
system but [view themselves] ...as ... operating independently...linked to the system but independent of the system. I think it’s a huge barrier.”

Two respondents touched on the lack of accountability mechanisms within the health care systems in their respective jurisdictions. One discussed the need for a mechanism to ensure the uptake of evidence-based care, and the other stated that there needs to be an accountability mechanism for ensuring that the most appropriate (rather than most highly trained) providers deliver care.

Several informants commented on the ‘sheer complexity’ of the health system (as well as fragmentation and a lack of integration) as important barriers to achieving desired outcomes. One respondent observed how easy it is to generate unintended consequences, and how quickly people within the system “adapt” to changes in order to “maximize the benefit for themselves”.

In a similar vein, another respondent observed that health system workforce does not operate as an army, and indeed, is not always “pulling in same direction”. This respondent also explained that depending on one’s vantage point, the system might sometimes be viewed as provider-centric or system-centric (i.e., exists for the sake of the system itself and not for patients or providers).

Another respondent spoke about the “co-dependent” dynamic between the ministry and regional health authorities that conspires to inhibit innovation and creativity.

“...we’ve created a co-dependent relationship where [the health ministry] has kept a tight rein on the regional health authorities in terms of what [they can and cannot] ...do...and that’s been comfortable for the RHAs because they can always say to their ... their constituents, ‘well ...[the health ministry] ....won’t let us do that’ ...”

8. Barriers related to Analytic and/or Managerial Capacity

More than a third of respondents discussed a lack of analytic and/or managerial capacity as an important barrier to achieving desired outcomes. As one respondent stated:

“...I think we have pretty good leadership in the ministry and in policy and agency folks, but our problem is managerial capacity. And so the types of analytics that I would expect in a very good firm are rare across the system. I could count on one hand [the] ... places I’d turn for very rapid high quality analytics that can help me dig-in and sort out a problem. Capacity to use data is not very high and nor does [the] bureaucratic system ... encourage this.”
Other informants discussed the very slow uptake of key business principles and processes within the health sector.

“...health care has [not] viewed itself as ... a business ... [and has tended to believe that] ... there is not much [that can be] learn[ed] from business ...In more recent times, people are starting to feel that [this view] is mostly crap. That certainly parts of the health care system [are] very different than business, but much of what we do [is] ...a series of processes [just] like any other business. And we've never looked at [it] from that context...”

Another respondent noted that although there is some measurement being conducted by health departments and health authorities, tracking of inputs and outcomes is not being adequately or consistently performed at either a macro or a micro level. This respondent also cautioned that efficiency, innovation and control are more achievable at a micro rather than a macro level.

On the specific topic of data, one informant noted that both insufficient cost data and poor organization of available data are significant obstacles. More specifically, this respondent noted that it has only been very recently that the health ministry in his/her jurisdiction has “…started to get cost data from hospitals in a meaningful way ... that ability has not yet percolated through to other [health] sectors ...The level of data that is available is organized according to institutions, and there is not a good ability to understand trade-offs even within an individual’s trajectory of care.”

9. Other

Informants also identified a number of other important barriers that hinder their ability to transform health system inputs into the desired outcomes. In particular, respondents from the territories and some of the smaller provinces discussed the difficulties associated with rural, remote and or northern locations including:

- severe shortages of physician as well as other non-physician health providers
- attracting and retaining health providers
- producing sufficient numbers of locally and appropriately trained, practice-ready health providers
- socioeconomic conditions
- lack of technological infrastructure (e.g., satellites, bandwidth, telehealth, ehealth)
- physical inaccessibility
- lack of lack of sufficient diagnostic and radiological equipment

Finally other barriers included politics, a lack of citizen engagement and a lack of individual responsibility for promoting and maintaining health.
10. Managing Efficiency

Respondents were asked about what it would take to make them (and/or senior decision-makers within their ministries) feel that they could manage efficiency (or “value for money”) and/or take strong policy positions regarding efficiency. Although the responses were varied, a number of themes emerged.

Several informants stated that there was a need for increased analytic capacity within their respective health ministries as well as a need for a renewed focus on the central role of stewardship (as well as funder, monitor and policy-setter).

“[The health ministry has] …tended over the last period …to become very reactive … instead of proactive and … we’re going to have to rebuild those skills so that we are … good stewards [and] … leaders of the system. And it means that we’re probably going to have to do a little education of our current work force [and] …be very clear [regarding] … what we want from our future workforce in terms of good analytical skills, and being very comfortable challenging … RHAs [and] ….provider organizations …the skills and capabilities to ask the hard questions and demand the information and answers that we need and be supportive … clear and pretty tough....”

One respondent also reiterated his/her earlier stated comments regarding the need for their health ministries to adopt key business principles, and change the way things are done at the ground level.

Another respondent discussed the need for consensus regarding a small number of critical outcomes and indicators. More specifically, the health ministry should focus on what is doable in terms of measurement/monitoring, and recognize that (especially in the early stages of such exercises) not all of the necessary data will be available, nor will there be sufficient capacity to address an exhaustive list of outcomes.

Another theme that emerged was the need for frameworks, mechanisms and tools to help view the system in its entirety because ‘…one authority or group of providers cannot see the whole picture’. Political commitment for significant change was also cited as a way to better manage efficiency. One respondent discussed the need for collective effort on the part of all provincial/territorial premiers and ministers of health:

“Although the systems are so different … it would take getting all those parties together … if those parties are together, the boards of directors, the administrators of the system will tend to come on board. And so the challenge is given that all of the final decisions-makers are people who are…elected they …have to be willing to risk to the extent that would be necessary to make major changes …”
Other less frequently cited factors/issues that would enable health ministries to take strong policy positions with regard to efficiency (or ‘value for money’) included:

- RHAs that are more engaged and have clearer accountability in terms of efficiency and effectiveness
- Adoption of internal measures and control systems by individuals and organizations that run the day-to-day operations (e.g., hospitals, clinics, and front-line providers) of the health system
- Physician remuneration methods that incent both productivity and quality
- Public support
- Sufficient financial resources
- Sufficient time

E. Discussion and conclusions

There are several key messages that emerge from our interviews with senior health ministry officials across the country. First, health ministries have clearly stated objectives for their health systems that are concerned with the achievement of both health system delivery and population health goals. Although this dual focus was often articulated through broad health system goal statements, the emphasis on acute care system objectives clearly dominated as the discussion became more focused on specific priorities. Population health objectives tended to be presented as a means for reducing the reliance on the acute care system rather than as an end itself.

A second key message is that health system objectives were frequently discussed through an accountability lens focused on: 1) improving public confidence in the health system (accountability to the public); 2) sustainable health systems focused on value for money (accountable use of resources); and 3) health systems centered on patients and families (accountability to patients and families). Although these themes were cited less frequently than objectives related to health system delivery systems and population health, they were cited as important and emerging concerns in many health ministries.

As discussion moved from objectives to outcomes, similar priority was given to health care delivery over population health outcomes. The achievement of specific volumes and outputs was often cited as the highest priority although outcomes related to timeliness, safety and quality were identified as ‘emerging’ and worthy of equal attention. Two related issues worth noting are: i) the reported lack of system capacity – in terms of the ability to plan for, analyze and measure outcomes -- related to safety and quality of acute care as well as population health; and ii) reported problems identifying domains in which trade-offs occur between health system outcomes. Health ministries have difficulty conceptualizing and
making trade-off decisions, and when they do occur, the acute care system seems to trump everything else.

Measurement and monitoring of health system objectives was seen as uneven with some areas having fairly sophisticated tools in place compared to others. Poor analytic capacity within health ministries was identified as a barrier to more sophisticated monitoring; even the most well established measurement of health system delivery objectives tends to focus on outputs rather than outcomes.

On the inputs side, interview respondents focused their comments on the importance of human and financial resources as well as physical infrastructure. More noteworthy were the challenges identified to transforming inputs into outcomes. Highlighted among these were commonly cited structural barriers such as funding arrangements, opposition from professional associations and jurisdictional boundaries. Also noted was a concern about the lack of accountability requirements for evidence-based care and for the use of the most appropriate providers.

A final reflection worth noting is the extent to which respondents repeatedly emphasized, through their interviews, the lack of internal analytic and managerial capacity as a significant barrier to achieving desired health system objectives and to measuring and managing health system efficiency. The need to develop these capacities within the health system was seen to be as, if not more important, than the political commitment required.
References


Appendix 1

Dear Ms. xxxx:

RE: Request for consent to participate in a study

You are being invited to participate in a Canadian Institute for Health Information (CIHI) funded study, entitled “A Qualitative Study of Canadian Stakeholder Perspectives on Health System Inputs and Outcomes.” This study is being coordinated through the Centre for Health Economics and Policy Analysis (CHEPA) at McMaster University and is being led by Drs. Julia Abelson and Michel Grignon. Ethics approval for this study was granted in xxx 2011.

You are being invited to participate as an individual who has been involved in the process of public policy-making in the (insert province) health system. Your involvement in this study would mean participating in a 45-minute, semi-structured telephone interview to be scheduled at your convenience. During this interview, you will be asked to discuss your thoughts and views about health system inputs and outcomes to inform a broader project measuring health system efficiency. More specifically, you will be asked questions about what you think the key outcomes of the health system ought to be, how you think these outcomes might be measured, and what you think are the key resources that the health system makes use of to produce those outcomes.

All interviews and any communications that you share, which are not in the public domain, will be treated as confidential. Interviews will be recorded and transcribed and personal identifiers will be assigned to each transcript by research staff. Only members of the research team will have access to these transcripts. Confidential information will not be reported in a way that could identify individual participants, unless you have indicated that you are willing to have your name and/or position appear as the source of specific statements, and you have had the opportunity to review and approve those statements before your name and/or position is disclosed. Follow-up contact may be necessary, contingent on your agreement.

For your review, I have attached a Letter of Information and Consent Form (File #1), which outlines the study objectives and methods. If you agree to participate in this study, please:

1) Suggest a date and time for the interview or provide the telephone number and/or e-mail address for your assistant so I can arrange a date and time with him/her; and

2) Anytime between now and the interview, please read the Letter of Invitation and Consent Form, complete it, and fax it to me at 905-546-5211 (if I don't
receive it prior to the interview, you can read and complete it before we begin the interview and fax it to me after completing the interview).

Thank you for considering my request.

Sincerely,

Dianna Pasic
Senior Research Coordinator
Centre for Health Economics and Policy Analysis (CHEPA)
Department of Clinical Epidemiology and Biostatistics
McMaster University
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Appendix 2

Letter of Information and Consent Statement

A Qualitative Study of Canadian Stakeholder Perspectives on Health System Inputs and Outcomes

Principal Investigator:
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Sponsor:
Canadian Institute for Health Information (CIHI)

You are being invited to participate in a research study funded by the Canadian Institute for Health Information (CIHI) and led by Drs. Julia Abelson and Michel Grignon. In order to decide whether or not you want to be a part of this research study, you should understand what is involved and the potential risks and benefits. This form gives you detailed information about the research study. You will have the opportunity to discuss this form, and any questions or concerns you may have prior to participating in this research. Once you fully understand the study, you will be asked to sign the consent statement at the end of this form if you wish to participate.
**Purpose of the Study**
The purpose of the study is to explore the views and perspectives of senior health ministry officials and thought leaders across Canada about health system inputs and outcomes. The results of this study will be used by CIHI to develop tools to measure health system efficiency that are tailored to the Canadian context.

**Procedures Involved in the Study**
In signing this form, you agree to take part in a telephone (or in-person) interview. The interview should last approximately 45-minutes and will be scheduled at your convenience. The interview will be digitally-recorded to facilitate the analysis.

**Confidentiality**
All data collected during this study will be kept in a locked office in secure paper and electronic files that are accessible only to the research team. Your name and contact information will be kept separate from your interview transcript, which will be labeled with an anonymous number/letter code. Your data will be analyzed along with the data of several other study participants. Based on the full set of data, the investigators will identify shared themes and patterns. These will be described in the research reports, and some of the issues may be illustrated with selected quotations from the interviews. We might ask you if we can quote a specific statement on the record, but you are free to decline any such request and still remain in the study. If you are quoted in the research reports, your identity will be kept confidential so that readers cannot attribute the quote directly to you. Data collected during the study will be destroyed three years following the end of the study.

During the study, if there is any private, confidential or sensitive information that you provide to the research team, we ask that you indicate to us whether this information may be quoted or cited in the research report. If the information is sensitive for any reason, it will be considered during the analysis but will not be cited in the research reports (as per your instructions).

**The Costs and Benefits of Taking Part in the Study**
There are no physical risks involved in participating in this study. The main cost to you is the time you take to talk with the interviewer. We will pay for all telephone or travel charges associated with conducting the interview. There may also be some modest social and psychological costs associated with your participation in this study. For example, in asking you to comment on your views and experiences concerning health system outcomes and efficiency, you may feel that you are revealing information that could negatively affect you or your organization. We have sought to minimize these costs by ensuring the complete confidentiality of your responses, by offering you flexibility in choosing the time and location of the interview, and by providing you with assurances that you may withdraw at any time from the study without prejudice.
If you agree to take part in the study, you will not directly benefit from our research. However, we hope that the results of this study will help other researchers to develop tools for measuring health system efficiency in the Canadian context.

**Voluntarism**
Your participation in this research study is voluntary. You are free to withdraw at any time from the study and without prejudice. If you decide to withdraw before the interview begins, you will not be asked to participate in the interview. If you withdraw during the interview, we will stop the interview and you will be asked whether you would like to have the data that you have provided retained for use in the study or destroyed. If you decide to withdraw after the interview, but before the final study report is written, you may contact the investigators and specify what aspect of the data you have provided should be destroyed.

**Questions**
If you have questions or require more information about the study itself, please contact Ms. Dianna Pasic, Senior Research Co-ordinator, by telephone at (905) 525-9140 (ext. 22563) or email (pasicd@mcmaster.ca) or Dr. Julia Abelson, principal investigator for this study.

This study has been reviewed and approved by the Hamilton Health Sciences/Faculty of Health Sciences Research Ethics Board. If you have concerns or questions about your rights as a participant or about the way the study is conducted, you may contact:

Office of the Chair of the Hamilton Health Sciences/Faculty of Health Sciences Research Ethics Board at 1-905-521-2100 ext. 42013

*If you would like to participate in this study, please complete the Consent Statement on the following page.*
CONSENT STATEMENT
Signature of study participant

Title of Study:

_A Qualitative Study of Canadian Stakeholder Perspectives on Health System Inputs and Outcomes_

I have read the preceding information thoroughly. I have had the opportunity to ask questions, and all of my questions have been answered to my satisfaction. I agree to participate in this study. I understand that I will receive a signed copy of this form.

Participant:

______________________________________________________________________________
Participant’s Name

______________________________________________________________________________
Participant’s Signature  Date:

Consent form administered and explained by:

______________________________________________________________________________
Name and Title

______________________________________________________________________________
Signature  Date:

Principal investigator:

______________________________________________________________________________
Name

______________________________________________________________________________
Signature  Date:
Appendix 3
A Qualitative Study of Canadian Stakeholder Perspectives on Health System Outcomes and Inputs

Interview Guide

Introduction:

As you know, the purpose of today’s interview is to gather information that will be used by CIHI to develop tools to measure the efficiency of health systems in the Canadian context. In order to measure efficiency, we need to look at both the inputs to the health system and its outputs and outcomes. Through these interviews, we are interested in obtaining your views and perspectives regarding the main outcomes that the health system in your province is working to achieve and the key inputs required to achieve these.

A. Health Systems Objectives and Outcomes

A.1 What would you say is the main objective of the health system in (province)?

A.2 What are the main outcomes that the health system in (province) is trying to achieve?

A.3 (If not already addressed): Among the list of outcomes you just identified (interviewer recounts list), how would you prioritize these outcomes from most to least important, from the perspective of your health ministry?

A.4 Why have you prioritized them this way?

A.5 What trade-offs are made between some of the outcomes you have described?

A.6 Could you describe more fully how these trade-offs are made? For example, does this happen within the ministry of health or at the Cabinet table or somewhere else?

• Is anything about the process and methods used to make trade-offs that could be improved or that is problematic (e.g., metrics or timing)
• What measurement and monitoring activities is your health ministry engaged in to assess whether the health system is achieving these outcomes?

B. Health System Inputs

Preamble: Health systems are made up of a complex set of resources to meet the health needs of the population.
B.1 What are the main resources, or inputs, that health system uses to produce the outcomes you have listed above?

B.2 What do you think are the key barriers that affect your ability or the ability of the health system to transform these inputs into the outcomes that you listed above? (interviewer recounts list of most important outcomes)

B.3 Are there any other “inputs” that you think are required in order to achieve the health system outcomes that you believe are most important?

B.4 What would it take to make you feel like you could manage efficiency?

B.5 What do you think would make people (in your Ministry) feel comfortable about taking very strong policy positions on efficiency (and implementing and monitoring efficiency)?

B.6 Are there any dimensions, tools, or strategies that you think are particularly relevant or useful for tracking and measuring health system outcomes and inputs, and efficiency more generally?

B.7 What was the last performance report that you looked at that was actually useful to you?

C. Conclusion and Next Steps

C.1 Do you have any final comments or observations that you would like to make now that we are coming to the end of the interview?