Canadian Health Services Research Foundation

National Health Leadership Survey on Ambulatory and Community Care

Final Report

January 6, 2012
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Executive Summary

Overview
Canada's healthcare system faces mounting pressure as the population ages and the prevalence of chronic conditions continues to rise. The traditional focus on providing complex and chronic disease care within the acute setting is contributing to already existing pressures on wait times, alternate level of care days, and patient access and flow. In response to these challenges, and the recognition that the acute setting may not be optimal for providing patient-focused chronic care, many provincial health ministries and healthcare organizations are launching initiatives to better manage complex chronic conditions in the community and improve the patient care experience.

Recognizing the need to address this issue, the Canadian Health Services Research Foundation (CHSRF) engaged PricewaterhouseCoopers LLP (PwC) to conduct a National Health Leadership Survey on Ambulatory and Community Care to:

- Understand what Health Leaders are thinking;
- Continue to help establish a channel for engagement with Health Leaders;
- Identify leaders and leading practices in ambulatory and community care;
- Identify integrated care interventions to improve care for patients with complex needs; and
- Gather insights for use in CHSRF’s programs and events.

Approach
Structured interviews were used to collect qualitative data for the community and ambulatory care study. Collaboratively, CHSRF and PwC identified and reached out to over 220 potential participants from across the country. In total, 53 health leaders, including general internal medicine practitioners, general practitioners and administrators representing all of the provinces and the combined territories responded and participated in the study. Ontario, Quebec and British Columbia had the highest percentage of participants.

Interview data was analyzed using a Grounded Theory approach comprised of three phases of interviews. Following the first phase, interview questions were modified to improve clarity and enhance alignment with the goals of the research study. The second and third phases were anchored by theming of interview findings.

Key Findings
Numerous themes emanated throughout the health leader interviews, with consistency generally found across regions and roles (e.g., general internal medicine, general practitioner, executive). An overview of the themes is provided below.

Interprofessional Teams Working to Full Scope of Practice
- Need to transition from siloed, hierarchical care to interprofessional team-based care
- Non-physician providers should be leveraged
- Interprofessional team members should be used to their full scope of practice

Locally Accessible Integrated Care
- Care should be available at the local level where feasible
- Strategies to improve access to care include
  - Co-located services / one-stop shop
  - Innovative use of technology

Primary and Secondary Prevention
• Complex chronic disease care needs to begin with prevention and carry across the continuum
• Ongoing and proactive secondary management is required to avoid the need for acute care

**Patient Centred Self-Management**

• Information and tools should be provided to patients to enable them to take an active role in their care
• Providers need to provide patient-centred services that listen to the experience of their patients, and engage the appropriate support systems

**Coordinated Patient-Focused Care Across the Continuum**

• Linkages between acute and community care providers need to be strengthened
• Technology should be used to enhance linkages and coordination e.g. electronic medical record, data repositories
• Care coordination should be provided by the most responsible provider with consideration for the utilization of patient navigators for more complex patients

**Evidence-Based Practice**

• Models of care need to be evidence-based
• Outcome metrics should inform decision making and funding of quality care
• Evidenced based care pathways support adherence to best practice

**Key Opportunities for Advancing Effective Management of Complex Chronic Disease**

Throughout the health leadership interviews the message that the way in which chronic complex care is planned for and delivered needs to change was consistent and clear. Numerous examples were provided of chronic disease models as well as models of interprofessional practice, prevention and promotion and care coordination that can support change; however, no clear path was provided in terms of how to achieve the health leadership vision of a system that promotes an integrated, comprehensive, interprofessional, and accountable model of chronic complex care across the continuum.

As the journey to change begins, CHSRF may wish to continue to work with health leaders across Canada to develop an implementable action plan. As identified through interviews, potential areas for further discussion may include:

• Increasing enrolment in residency programs for general internal medicine, geriatrics and family medicine
• Transforming health professions undergraduate curricula to include training on interprofessional care, quality and safety
• Utilizing role models and clinical practice experiences to increase health professional trainees’ capacity and exposure to interprofessional care, complex chronic disease management and care of the elderly
• Realigning funding and payment structures to support the services required to manage complex chronic diseases
• Advocating for policies and legislation to support interprofessional and integrated chronic disease care, particularly at the community level
• Identifying health leaders to advocate for and implement new community and ambulatory based models of care
• Supporting the creation and evaluation of innovative models of care
• Engaging citizens in a dialogue on approaches to most effectively deliver care for complex chronic disease
Approach and Methodology

The Canadian Health Services Research Foundation (CHSRF) identified three objectives of the 2011 national survey:

1. Engage with clinical, primary and community care leaders;
2. Identify areas for improvement in ambulatory and community care; and
3. Identify integrated care interventions that lead to improved care for patients with complex needs.

To accomplish these goals PricewaterhouseCoopers LLP (PwC) reached out to health care leaders from each of the provinces and territories to conduct a national leadership survey.

Interview Approach:

PricewaterhouseCoopers used a structured interview approach to collect the required qualitative data for the community and ambulatory care study. CHSRF and PwC worked collaboratively to develop the interview guide (see Appendix 2) and the text for the email invitation to potential participants. PwC developed an analysis plan, describing how information would be collected, aggregated, and themed. The analysis plan was approved by CHSRF. PwC submitted the interview guide, invitation to participate, and analysis plan to the Institutional Review Board (IRB) Services for ethics review; approval was granted following minor revisions to improve clarity. CHSRF developed a list of more than 220 Health Leaders from across the country and invited these individuals to participate in the survey. To underscore the importance of the project to CHSRF, the invitation to participate in interviews was sent from the President of CHSRF and the CEO Forum Chair. PwC followed up with each invitee to schedule one-on-one interviews. To encourage participation, CHSRF resent the invitation to those who had not responded to the initial invitation. In an effort to meet the jurisdictional targets, up to five attempts were made to promote the study with potential participants. In addition, PwC team members identified and reached out to health leaders from across Canada who had not been on the original list from CHSRF.

In total, fifty-three health leaders from across the country participated in the study. PwC conducted all of the interviews by telephone beginning August 5, 2011 through to November 15, 2011. All participants were offered the opportunity to complete the interview in French or English. A majority of the interviews were conducted in English.

Analysis Approach:

Grounded Theory principles were used to analyze the interview data (see Figure 1). Grounded Theory is a systematic methodology that involves generating theories from data during the research process. The data collection and analysis plan comprised three phases of interviews and analyses. As depicted in Figure 1, after the completion of the initial 10 interviews themes were collated and a consultation with CHSRF led to minor modifications of the questions to enhance clarity. Data was collected, reviewed, and re-visited as new themes emerged during additional data collection. PwC removed all identifying information from participant responses to protect and be respectful of respondent confidentiality. These inductive

Figure 1
Grounded Theory Analysis Approach

| Potential Interview Pool N = 228 |
| Conduct 10 Interviews |
| Analyze Interview Themes |
| Revise questions if necessary |
| Conduct 20 Interviews |
| Analyze Interview Themes |
| Revise questions if necessary |
| Conduct 25 Interviews |
| Analyze Interview Themes |

steps were used to analyze the interview data, develop themes or categories, and revise the interview guide or probing questions to gain deeper insights in subsequent interviews.

**Participant Profile**

This section provides an overview of the interview participants. Efforts were made to interview executives, general internal medicine providers and general practitioners (non GIM) from each province.

The following table summarizes the number of Health Leaders from across the country who were invited from each province and the actual participation rate. The highest proportions of participants were from British Columbia, Ontario and Quebec.

Table #1: Health Leader Participation by Province

<table>
<thead>
<tr>
<th>Province</th>
<th>Number Invited</th>
<th>Interviews Completed</th>
<th>Total Number of Interviews Completed (by Province) / Total Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>16</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>British Columbia</td>
<td>18</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>Manitoba</td>
<td>18</td>
<td>5</td>
<td>9%</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>13</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Newfoundland / Labrador</td>
<td>10</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>19</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Ontario</td>
<td>73</td>
<td>12</td>
<td>23%</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>7</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Quebec</td>
<td>31</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>10</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Territories</td>
<td>8</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>National</td>
<td>19</td>
<td>3</td>
<td>6%</td>
</tr>
</tbody>
</table>

| Total Row               | 242            | 53                   |                                                             |

The following table illustrates the distribution of participants by role.

Table #2: Health Leader Participation by Role

<table>
<thead>
<tr>
<th>Role</th>
<th>Total</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>28</td>
<td>53%</td>
</tr>
<tr>
<td>General Internal Medicine Specialist</td>
<td>16</td>
<td>31%</td>
</tr>
<tr>
<td>General Practitioners (Non GIM)</td>
<td>9</td>
<td>17%</td>
</tr>
</tbody>
</table>
**Key Findings**

**Overview**

The key themes identified below represent findings that were expressed in a majority of the interviews with health leaders. Themes generally crossed over interview questions and were generally consistent across roles and geographies. However, examples of differences across roles (general internal medicine, general practitioner, executive) and regions are provided where they exist.

Despite jurisdictional differences, varied role responsibilities, and professions represented in the interviews, health leader study participants demonstrated marked agreement regarding the key issues and opportunities for improving the care of people with complex, chronic diseases. With few exceptions, the participants largely focused on what needs to be done differently in terms of supportive structures (e.g., information systems) and processes (e.g., training of health professionals), funding (e.g., physician remuneration), legislation (e.g., privacy legislation), and accountability (e.g., quality outcomes) rather than what they as health care leaders and practitioners might do as individuals. A number of participants prefaced their comments with an admission that they could identify many of the problems in the current system, but had limited solutions to offer in terms of how to implement their recommendations. Nonetheless the analysis of responses led to the synthesis of some very consistent directions for the management of complex chronic diseases in the future. A diagram developed by PwC to represent these findings can be found in Appendix A.

It is important to note that overall, health leaders identified that they were pleased that such a study on community and ambulatory care was taking place, and they expressed enthusiasm at the opportunity to participate.

**Interprofessional Teams Working to Full Scope of Practice**

Patients experiencing complex chronic conditions frequently receive care from multiple providers, who are often focused on their own area of specialty. To best serve individuals living with complex chronic conditions, there is a pressing need to break down siloed, hierarchical and fragmented care and focus on bridging the boundaries between professions, providers and institutions through the development of more integrated and coordinated interprofessional service delivery models.

To most effectively manage complex chronic care needs across the continuum, a majority of participants stressed the importance of shifting to an interprofessional and team-based model of care that focuses on partnerships, collaborative care and leveraging of non-physician providers. It was suggested that models of complex chronic disease care should support the concept of shared-care, where all providers play an equally important role and are accountable for quality care. The usefulness of this model was particularly emphasized for rural and remote regions where health human resources are often limited and challenged to provide care to geographically dispersed populations.

Leveraging professionals to their full scope of practice was seen by all participants as a priority and requirement to building a sustainable complex chronic disease model of care. Pharmacists, nurse practitioners and social workers were all identified as key members of the interprofessional team who should be more effectively utilized. Some
health leaders also noted that patient service workers could play a significant role in a community-based complex chronic disease strategy.

To most effectively work to full scope of practice within an interprofessional team, primary care providers, it was suggested, need to have the necessary skills, competencies and confidence to provide comprehensive care. It was also noted that clearly defined roles and accountabilities are needed to ensure seamless care and avoid duplication of services.

**Physician Roles**

Specialists, and in particular general internal medicine (GIM) practitioners were unanimously viewed by health leaders as playing an important role in the care of individuals with complex chronic disease. However, both clinical and non clinical health leaders generally did not see a unique or expanded role for the GIM, overwhelmingly expressing the view that the GIM should function in the role of consultant. Some survey participants from rural regions did however note that the GIM practitioner can play an important role in emergency department care for individuals with complex chronic conditions. Noting the overall scarcity of GIMs, health leaders identified that regardless of the extent of their role, consideration should be made as to how best to leverage and effectively utilize the expertise of the GIM, particularly in relation to the most complex cases.

Health leaders across jurisdictions suggested that an expanded role for family physicians should be considered as a mechanism for effectively managing complex chronic disease and minimizing the incidence of referral to multiple specialists. Some family physicians suggested that they are best positioned to provide the oversight of care for people with chronic conditions, noting however that additional training and resources may be required to support the management of these complex patients. Regardless of roles, all providers expressed the view that not all care needs to be delivered by physicians.

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“Primary care needs to be strong. GIMs should play an advisor role to primary care providers as needed. GIMs need to be accessible”

~ GIM, Alberta
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**Locally Accessible Integrated Care**

Access to high quality, integrated, community-based services was noted to be of the utmost importance in preventing the onset and escalation of complex chronic disease, and attending to the ongoing needs of this population. This view was grounded in the recognition that those with the least access to resources and supports (e.g., the elderly, those living below the poverty line, immigrants, isolated cultural groups, and those in remote regions), are the most at risk for developing chronic conditions. Without local access to care, financial, transportation and social barriers may hinder these vulnerable populations from accessing primary and secondary disease management services, resulting in a high probability that acute exacerbations of their conditions might not be identified until a crisis occurs. Similarly it was noted that without community-based and accessible services these barriers may impact on successful discharge from acute care settings.

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“People will continue to utilize acute settings for chronic and complex disease care if services aren’t available locally or if they feel that they will receive better or faster care than in the community”

~ Executive, Saskatchewan
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Regardless of region, multiple opportunities to provide services at the community level were identified. Community-based clinics and “one-stop shops” were identified by both clinicians and non clinicians across regions as important structures to enable the provision of complex chronic disease care in the community. Bringing together cross sector services (e.g. health services, public health services, social services, and community services) was seen as an opportunity to share resources, integrate services, break down silos of care, facilitate collaboration, and provide a more patient-centered approach to care. Similarly, it was noted that opportunities to provide complex chronic disease services in settings where people are already likely to congregate should be explored; examples included senior centres, and shopping centres. Health leaders also stressed the importance of utilizing clinic-based interprofessional and integrated models of care that leverage non physician providers (e.g. nurse practitioners, and rehabilitation specialists).

Other home-based and community supports, including peer led support groups and adult day care, were also viewed as being essential to enhance the health and well-being of individuals with complex chronic conditions and minimizing the incidence of hospitalization. In general, there was a strong sentiment expressed by non-physician health leaders that individuals should have some choice in where and how they access services.

Although health leader respondents unanimously expressed the view that complex chronic disease care needs to be accessible to individuals within their local communities there was recognition that access to specialists for management of exacerbations of complex disease is not always feasible within some communities. To address this issue, respondents suggested that efforts can be made to be more innovative and to effectively leverage the use of mobile services and technology solutions including telehealth and telehomecare. To this end, the virtual ward concept being utilized by St Michael's Hospital and a number of other Greater Toronto Area hospitals, as well as centres in Winnipeg, was recognized as an innovative use of technology and health human resources to enable earlier discharge and to maintain people in their communities while receiving care. This model also extends the reach of interprofessional teams and access to specialist care on an as needed basis.

**Key Findings:**

- **Care should be available at the local level where feasible**
- **Strategies to improve access to care include**
  - Co-located services / one-stop shop
  - Innovative use of technology

**Primary and Secondary Prevention**

Health leaders suggested that connected care across the continuum begins with prevention and health promotion that focuses on the identification of populations at risk, the provision of preventative education across the lifespan, information and access to services that support early detection, and strategies that address the social determinants of health. Health promotion and disease prevention strategies should be incorporated across the care continuum and carried out by all providers within the full range of health settings.

Participants frequently identified the importance of prevention and health promotion activities that:

- Target at risk groups
- Involve sectors working together at local, provincial and national levels
- Integrate with existing strategies and leverage messaging (e.g. smoking cessation, cancer screening)
- Focus on addressing key behavioural risks related to lifestyle

*“We need to change the funding model to invest in public health and support prevention and promotion early on so that people don’t end up in acute care. Hospitals don’t improve population health”*

*~ Executive, Quebec*
• Address equity issues in access to care
• Are culturally sensitive / competent

Specific prevention and education opportunities that were identified included group-based behavioural change and healthy lifestyle interventions such as nutritious cooking classes, pregnancy, parenting and breastfeeding support, and affordable and accessible opportunities for physical activity. Additionally, it was suggested that employers should be incented to play a role in supporting healthy lifestyles among their employees (e.g., payment for health club memberships, provision of exercise facilities and access to weight loss and smoking cessation clinics in the workplace).

In terms of secondary prevention, the concept of early intervention and proactive management of people with complex, chronic disease was identified as an important factor in keeping them out of emergency departments and avoiding hospitalization. Providing mechanisms for on-going monitoring of complex chronic disease was suggested in the form of outreach programs, the “virtual ward” concept, telehomecare and case management.

Key Findings:

- Complex chronic disease care needs to begin with prevention and carry across the continuum
- Ongoing and proactive secondary management is required to avoid the need for acute care

Patient Centred Self-Management

The concept of self-management with the “patient as partner” continuously surfaced as a value that should be embedded in the way in which complex chronic conditions are managed. Patients, it was noted, are ultimately responsible for their health, and should have access to information and resources so that they can be empowered to take an active role in their care and make informed decisions. Health leaders pointed to strong national and international evidence that self-management can significantly improve the health and quality of life of individuals living with complex chronic disease by enabling earlier and more consistent management of symptoms, reducing the escalation of illness, and integrating coping mechanisms into care. Utilizing a self-management approach that puts patients at the centre by listening to and appreciating their experiences will, it was suggested, help patients to feel more empowered, optimistic about their health status, and invested in their care; as a result, they will be more likely to make efforts to achieve better outcomes.

“When we prepare people in the community and give them the tools to self manage we all win; people feel empowered and involved and are more likely to use resources more appropriately”

~ Executive, Manitoba

Participants described important aspects of effective self-management programs including:

- Ongoing access to the right information
- Education that informs healthy lifestyles and raises awareness of risks
- Shared decision making between the patient and providers
- Collaborative care planning
- Tools that support individualized chronic disease management with consideration for unique psychosocial and cultural circumstances and preferences

The inclusion of families and other community support systems - including educators, spiritual/religious providers, and caregivers - in the self-management model was recognized as a key component of enabling and empowering
individuals to be engaged in their own care; this was noted to be of particular importance in rural and remote areas. Peer-based programs such as “Get Better Together”, a licensed version of the Stanford University Self-Management Model, were also noted as an effective approach to help individuals with chronic complex conditions take control of their health. Clinical and non clinical health leaders across jurisdictions indicated that it will be important to continuously develop, implement and evaluate self-management models.

**Key Findings:**

- **Information and tools should be provided to patients to enable them to take an active role in their care**
- **Providers need to provide patient-centred services that listen to the experience of their patients, and engage the appropriate support systems**

**Coordinated Patient-Focused Care Across the Continuum**

Chronic complex disease management has traditionally focused on acute episodic care delivered by silos of health providers and care sectors. Consistent with the Canadian Medical Association’s presentation on Chronic Diseases Related to Aging given to the House of Commons Standing Committee in October, 2011[^2], participants consistently expressed the need to move to delivery models that provide longitudinal, patient-centred care across the continuum. To decrease siloed care and increase coordination and collaboration, health leaders identified that linkages between acute, primary and community care need to be strengthened.

With few exceptions a majority of health leaders described the need to more effectively utilize technology to enhance linkages and coordinate and inform care. Those in clinical roles most frequently cited the need to utilize an integrated electronic medical record. An electronic medical record was described as a vehicle to support communication and collaboration, reduce duplication of information and services, and enable providers to be more efficient with their time and more respectful of patients’ time. In discussing self-management of chronic diseases, clinical and non clinical participants across regions also stressed that patients should be able to access their own health records in order to more actively participate as partners in their care.

Beyond an electronic medical record, participants also noted that there is a need for integrated systems such as regional or centralized data repositories (e.g., LIS, PACS, drug information systems) where information can be accessed by authorized clinicians from wherever they are providing care (e.g., Alberta Netcare). Regardless of the systems being utilized, participants indicated that they should be user friendly, enable sharing of information across providers and sectors, and that systems should be able to interface with one another.

Patient navigation and care coordination were also identified as mechanisms to support seamless and coordinated care across the continuum, particularly for more complex patients who require multiple services. While participants generally felt that the most responsible care provider should play a role in supporting coordination and linkages through the system, a number of participants, particularly general practitioners and executives, also expressed the idea that in addition to the most responsible provider there should be dedicated navigators who provide a point of contact for the patient, and lead coordination efforts across sectors. These roles, it was noted, will need to be clearly defined to avoid duplication. Kaiser Permanente provides an example of a care coordination program that utilizes a nurse-based model with consultation from clinical social workers who provide clinical and educational support to complex patients.

Key Findings:

- Linkages between acute and community care providers need to be strengthened
- Technology should be used to enhance linkages and coordination e.g. electronic medical record, data repositories
- Care coordination should be provided by the most responsible provider with consideration for the utilization of patient navigators for more complex patients

Evidence-Based Practice

Regardless of the vision for chronic and complex disease care, participants unequivocally voiced that any model of care needs to be based in evidence with appropriate outcome metrics to support decision making and accountability.

This theme was intricately linked to participant comments regarding current funding models. Today’s system is driven more by numbers (e.g. reducing wait times, increasing access, decreasing LOS) than by measures of quality and demonstrations of value for health care expenditures. Participants consistently expressed the need to link the delivery and funding of care to quality outcomes.

“More care isn’t necessarily better care. The money that is wasted on care that has no evidence of outcome improvement and no benefit could be better spent”

~ General Practitioner, Nova Scotia

Additionally, participants voiced the need to create expectations for adherence to best practices and the use of tools such as care pathways substantiated by evidence. Opportunities exist to rein in the significant variability that continues to prevail within clinical practice across the country. Agreed upon and consistently defined, applied and reported outcome measures and the widespread adoption of evidence-based practices will provide funders with the capacity to raise accountability expectations and more robustly evaluate the delivery of care.

Key Findings:

- Models of care need to be evidence-based
- Outcome metrics should inform decision making and funding of quality care
- Evidenced based care pathways support adherence to best practice
Opportunities for Advancing Effective Management of Complex Chronic Disease

Throughout the health leadership interviews the message that the way in which chronic complex care is planned for and delivered needs to change was consistent and clear. Numerous examples were provided of chronic disease models as well as models of interprofessional practice, prevention and promotion and care coordination that can support change; however, no clear path was provided in terms of how to achieve the health leadership vision of a system that promotes an integrated, comprehensive, interprofessional, and accountable model of chronic complex care across the continuum.

As the journey to change begins, CHSRF may wish to continue to work with health leaders across Canada to develop an implementable action plan. Through the health leadership interviews, a number of potential areas for further discussion were identified; these are described below and are corroborated by the Canadian Academy of Health Sciences report on Transforming Care for Canadians with Chronic Health Conditions3.

Health Human Resources

Throughout the interviews, participants noted challenges related to health human resource shortages. Both clinical and non-clinical leaders across jurisdictions expressed concern regarding the lack of family physicians, primary care providers, geriatricians and general internal medicine specialists. It was suggested that these fields are not attractive to physicians-in-training who associate these areas of practice with a high administrative burden, uninspired work, and a low return on investment. Some clinicians also suggested that physicians in training lack appropriate awareness of these important fields due to lack of exposure, and an absence of mentors and role models. These views are corroborated in the literature where there is a recognition that the shortage of general internal medicine practitioners is impacting on the standard of care for those with multisystem disease.4,5

In considering health human resource issues, a number of clinicians suggested that there may be opportunities to better utilize geriatricians in the provision of complex chronic care. It was noted that although there are shortages of geriatricians, there may be opportunities to effectively leverage this expertise to further support family physicians, primary care providers, and general internal medicine practitioners in caring for individuals with complex chronic conditions.

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Education

Health service leaders, particularly those with a clinical background, identified that the professional training system is doing a disservice to students and ultimately the health care system by failing to provide adequate training to support a shift to community-based models of care. It was suggested that the educational system needs to be transformed to incorporate foundations in quality, patient safety and team-based, interprofessional care. Consistently, clinicians and non-clinicians across jurisdictions agreed that exposure to these care constructs needs to occur throughout the education process, and should include hands-on opportunities that bring different health professionals together in academic and clinical settings. It was also suggested that healthcare organizations can play an important role in teaching and supporting interprofessional team-based care and should ensure that both formal and informal mechanisms are in place to support collaboration and shared responsibility for quality and safety. Both academic and clinical settings, should, health leaders proposed, provide opportunities for mentoring and role modelling.

Funding

At a system level, a number of participants indicated that funding structures should be transitioned away from an acute care focus and instead aligned with strategies to provide care at the community level, concentrating on disease prevention and early identification of those at risk. It was recognized however that careful consideration is needed to determine how to most effectively restructure funding, noting that removing funding from acute care and transitioning it to community care is not necessarily the solution as resources are still required at the acute level. Participants suggested that research is needed to better understand potential funding models (e.g. the New Zealand model where “money follows the patient”), and the relative costs of providing care in acute versus community settings.

Funding structures were also discussed in terms of physician remuneration. Health leaders overwhelmingly agreed that the current fee structure for physicians does not support and instead hinders the provision of comprehensive, quality care for individuals with chronic complex conditions. It was suggested that the current model discourages physicians from working in teams, collaborating, and utilizing a population health approach that focuses on prevention and care needs across the continuum. Participants suggested that physician fee structures should be remodelled to incentivize and align with a community-based, patient-centred, and interprofessional model of care.

Policies and Legislation

Opportunities exist to realign government legislation and policies to support quality complex chronic care – at both the acute and community level. As an example, a significant number of participants expressed concern that the current privacy legislation creates unnecessary barriers to integrated care, making it challenging for information to be shared across providers and sectors and inhibiting coordinated and seamless care across the continuum. Other structural constraints identified included those arising from the regulation of health professions and legislation such as the public hospital act. In at least three provinces, executive leader participants also mentioned structural challenges that arise in unionized environments. Individuals indicated that
union regulations and collective agreements are not always congruent with or supportive of changes to health care delivery that “match what we want to do” in community and ambulatory care.

A number of participants suggested that there needs to be a national agenda for the management of complex chronic disease, with the implementation of policies that focus on prevention and promotion, address the social determinants of health, and support professionals in working to their full scopes of practice.

Institutional level policies and governance structures should also be designed, to support quality care for individuals with chronic and complex conditions. Internal policies need to ensure that the right people are providing the right care at the right time and in the right way. For both national and institutional level policies, leaders are needed to guide the agenda, set the tone for the way in which care is provided and to facilitate the implementation of and adherence to accountability structures.

Engage Citizens

While interviews with health leaders from across Canada provided important insights and recommendations to shape the way in which chronic and complex disease care is delivered, to achieve a truly patient-centred approach to care, consideration should be given to engaging citizens in this important discussion. As highlighted by a number of interview participants, a comprehensive chronic disease strategy will need to be culturally sensitive, and should take into consideration the unique experiences of diverse populations and immigrant communities.

“We need to learn from people how they want to be managed”
~ GIM, Ontario

### Key Opportunities for Advancing Effective Management of Complex Chronic Disease:

- Increase enrolment in residency programs for general internal medicine, geriatrics and family medicine
- Transform health professions undergraduate curricula to include training on interprofessional care, quality and safety
- Utilize role models and clinical practice experiences to develop health professional trainees’ capabilities and increase exposure to interprofessional care, complex chronic disease management and care of the elderly
- Realign funding and payment structures to support the services required to manage complex chronic diseases
- Advocate for policies and legislation to support interprofessional and integrated chronic disease care, particularly at the community level
- Identify health leaders to advocate for and implement new community and ambulatory based models of care
- Support the creation and evaluation of innovative models of care
- Engage citizens in a dialogue on approaches to most effectively deliver care for complex chronic disease
- Develop an implementable action plan that identifies the processes, people, and resources required to change the way in which complex chronic disease care is delivered
Conclusion

The themes arising from the health leader interviews are substantially grounded in the need to provide patient-centred, connected, accessible, empowered, and informed care. Many of the participants described the need for patient-centred care models that recognize the important link between the social determinants of health and the development and subsequent management of complex, chronic diseases. In addition, clinicians in particular described the need for a shared definition of chronic disease that is inclusive of mental health and addictions, cancer, and other life-long conditions.

The structure, roles and scopes of work of health human resources were also identified as major areas of focus throughout the interviews. In particular, the use of interprofessional teams, optimized scopes of practice, and the need for care navigation, case management, and evidence-based approaches to care were considered central concepts to improving the care of people with complex, chronic conditions. Comprehensive care across the continuum was viewed to include efforts to reduce disease progression, engage patients and their families in care planning and self-management, and also address the needs of patients requiring palliative and end of life care.

Participants also identified mechanisms to enhance and improve care transitions between settings, providers and phases of care. In particular, integrated access to information for providers and patients was seen as a central issue needing attention. Moreover, the integration of locally accessible community services into approaches to the management of complex, chronic disease was deemed to be essential to a comprehensive model of complex, chronic disease care.

The findings described above have been echoed in reports by the Canadian Medical Association\(^6\), the Canadian Academy of Health Sciences\(^7\), and the Nuffield Trust and King’s Fund National Strategy in the U.K.\(^8\) Although past research on complex chronic disease care has resulted in similar findings to those uncovered in this report, the Health Leadership Survey takes the next step in this important dialogue by demonstrating that the issues related to complex chronic disease care and the vision for transformation cross regional boundaries, and are consistent in both rural and urban settings. This study also shows that generally speaking there is a unified vision for complex chronic disease care across providers regardless of professional designation (e.g., general internal medicine, general practitioner, nurse, social worker), health leadership role (e.g., executive, clinician), and health setting (e.g., community care, acute care). These findings are important in that they speak to the need and appetite for a national agenda for the management of complex chronic disease across the continuum. A national agenda should, health providers express, address prevention and promotion, the social determinants of health and should support health care professionals in working to their full scope of practice.

Recognizing the need for change in complex chronic disease management is an important first step in the transformation journey. There is now however a pressing need to move the agenda forward by developing an actionable implementation plan that will support the health leadership vision of a system that promotes an integrated, comprehensive, interprofessional and accountable model for complex chronic care across the continuum.

\(^8\) http://www.nuffieldtrust.org.uk/our-work/projects/developing-national-strategy-promotion-integrated-care
Appendix 1: Guiding Framework
**Guiding Framework**

The themes arising throughout the study were substantially grounded in the need to provide *comprehensive, connected, accessible, empowered, and informed* services.

Many of the participants described the need for comprehensive care models that address not only the broad spectrum of health and wellness but also the significant impact of the social determinants of health on the development and management of chronic disease. Comprehensive care across the continuum should include efforts to reduce disease progression, engage patients and their families in care planning and self-management, and address the needs of patients requiring palliative and end of life care. In order to achieve connectedness along the continuum, mechanisms are needed to support seamless care transitions across settings, providers and phases of care.

Figure 2 demonstrates a model of comprehensive and connected care that was developed based on the findings from the health leadership study. The model represents the intersection of patients / families, and providers across the sectors, and situates both in the context of the broader communities in which they live and work. The model, which aligns with the Expanded Chronic Care Model – building on Wagner’s Chronic Care Model - encompasses the themes identified through this study:

- Interprofessional Teams Working to Full Scope of Practice
- Locally Accessible Integrated Care
- Primary and Secondary Prevention
- Patient Centred Self-Management
- Coordinated Patient-Focused Care Across the Continuum
- Evidence-Based Practice

**Figure #2: Model of Comprehensive Connected Care**

**Values:**

- Patient-Centric
- Connected
- Empowering
- Accessible
- Informed

**Enabled by:**

- Funding
- Accountability
- Technology
- Evidence

**Community Services**

- Advocacy Groups
- Community Health Centres
- Voluntary Organizations
- NGOs
- Schools
- Pharmacies, Labs, Clinics

**IP Teams**

- Acute-Episodic Care
- Long Term Care
- Home Care
- Employers

**Individuals/Families**

- Primary Care
- Mental Health & Addictions
Appendix 2: Interview Guide
Interview Guide

1. What are the opportunities to significantly improve the quality of care for patients with complex and chronic conditions? How? In what priority ranking?

2. a) From your perspective and experience, is it possible to treat these patients more actively and intensively in the community to reduce or avoid hospitalization, or to discharge them from hospital sooner?

   b) What are the opportunities to "bend the cost curve" by managing these patients more actively in the community?

3. What could facilitate better provision and coordination of care for patients with complex and chronic conditions across the continuum of care (e.g. acute care, specialty care, primary care, home services and community services)? What accountability practices should be put in place to support the delivery of integrated services?

4. In order to support primary care, promote positive patient outcomes, and reduce ED visits and hospitalization, what is the potential role that GIM specialists could play in the management of patients with complex, chronic conditions in the community?

5. What are the barriers to the provision of coordinated services?

6. Do you know of any interventions or approaches provincially, nationally or internationally that you feel are effective or show promise for providing services to patients with complex chronic conditions? What are the barriers to implementing these effective approaches in your context?

7. What common values do you think need to exist in order to successfully coordinate care?

8. In terms of interprofessional teams, are there training practices that help or hinder the provision of care to patients with complex, chronic conditions? What changes, if any, would you recommend?

9. Do you believe that providers (e.g. family health teams, GIM specialists, primary care providers, etc.) should be assigned an agreed-upon population in order to be responsible for delivering service to that population? Is there a way of better integrating their care services and set joint accountability for optimal patient management? What are the barriers?

10. Do you have any other insights or suggestions to better support patients with complex, chronic conditions?
Appendix 3: Themed Responses by Question
Question 1:

What are the opportunities to significantly improve the quality of care for patients with complex and chronic conditions? How? In what priority ranking?

- Focus on prevention across the life span
- Implement national and system policies that support prevention
- Remove silos and facilitate collaboration amongst providers
  - Interprofessional teams
  - Utilize health human resources to full scope of practice
- Promote patient-centred care that engages the patient in their own self management
- Improve access to care through the provision of community based services and / or transportation strategies
  - Collocation of health and non health services
  - Leverage technology such as tele-medicine
- Improve communication, coordination and collaboration across the continuum
  - Electronic medical record
- Enhance primary care
- Reward quality through incentives
- Conduct ongoing research to better understand evidence-based practice and what works
- Ensure appropriate financial and health human resources to support care in the community
Question 2:

a) From your perspective and experience, is it possible to treat these patients more actively and intensively in the community to reduce or avoid hospitalization, or to discharge them from hospital sooner?

- Effective treatment in the community can help reduce unnecessary hospitalization and support earlier discharge. In order to achieve this, the following processes and strategies are required:
  - Implementation of prevention and health promotion strategies across the lifespan
  - Equitable access to care
    - Requires the appropriate resources at the community level to be successful and prevent hospitalization / re-hospitalization e.g. homecare, caregiver support, funding
    - More effectively leverage technology
  - Implement quality discharge planning processes in the acute care setting
  - More effectively utilize health human resources
    - Utilize interprofessional teams to provide care with providers working to their full scope of practice
    - Enhance primary care, including the use of nurse practitioners
  - Maintain communication and collaboration across the continuum
    - Partnerships between acute and community providers
    - Share information through technology such as an electronic medical record

b) What are the opportunities to "bend the cost curve" by managing these patients more actively in the community?

- Some health leaders stated that care in the community may not cost less than care in the acute setting; however the avoidance of repeat hospitalizations and the overall impact of chronic disease on the health system should decrease by enhancing care in the community
  - Prevention strategies including those that address the social determinants of health
  - Implement patient-centred self management strategies
  - Collocate services and share resources
  - Interprofessional teams working to full scope of practice
  - Utilize technology and mobile clinics
Question 3:

What could facilitate better provision and coordination of care for patients with complex and chronic conditions across the continuum of care (e.g. acute care, specialty care, primary care, home services and community services)? What accountability practices should be put in place to support the delivery of integrated services?

- Common tools / system for sharing information e.g. electronic medical record
- Appropriate complements of health human resources
- Patient navigator / case manager
- Virtual ward – links providers
- Collocation of services
- Removing silos and practicing in interprofessional teams
- Accountability structures with outcome indicators that support teamwork, communication and comprehensive care
- Provide incentives to achieve quality care and outcomes; changes to way in which physicians are remunerated
Question 4:

In order to support primary care, promote positive patient outcomes, and reduce ED visits and hospitalization, what is the potential role that GIM specialists could play in the management of patients with complex, chronic conditions in the community?

- Model of care should be interprofessional
  - GIMs are a part of the circle of care
  - Engage in partnerships with primary care providers / shared care
- Role should be consultation based with a focus on providing support to primary care team
- Provide care for the most acute / specialist care
- More GIMs are needed
Question 5:

What are the barriers to the provision of coordinated services?

- Medical model supports silos
  - Interprofessional teams are need to support coordinated services
- Health system funding models
  - Funding support care in acute settings
- Remuneration models
  - Lack of incentive
  - Funding models reward behaviours that don’t match with the vision of complex and chronic disease care
- Legislation e.g. privacy, scope of practice
- Institutional policies
- Unions, collective agreements
- Lack of time, money and resources
  - Insufficient health human resources
- Absence of integrated tools for sharing of information
- Training / education that supports silos
**Question 6:**

Do you know of any interventions or approaches provincially, nationally or internationally that you feel are effective or show promise for providing services to patients with complex chronic conditions? What are the barriers to implementing these effective approaches in your context?

Health leader interview participants identified various national and international models and processes that show promise in supporting community and ambulatory care for individuals with complex chronic conditions. The table below provides examples identified by participants. Some participants also referenced the Institute for Healthcare Improvement Effective Interventions to Reduce Rehospitalizations: A Compendium of 15 Promising Interventions⁹; a number of these interventions are included in the table.

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<th>Example</th>
<th>Location</th>
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Health leaders identified the following barriers to implementing leading practice approaches to ambulatory and community care for individuals with complex chronic disease:

**Health System Structures**
- Disease centric models that lack focus on prevention, promotion and comprehensive care
- Silos of care
- Silos of funding
- Information gaps and silos
- Physician remuneration models
- Legislation (e.g., health professions, privacy)
- Shortages in health human resources
- Medical hierarchy
- Lack of incentives for quality outcomes
- Important services not funded (e.g., phone, home consultations, smoking cessation therapies)

**Processes**
- Lack of accountability for quality outcomes
- Ineffective communication
- Inefficiencies in referrals
- Duplicative, disconnected care and documentation

**Providers**
- Providers not practicing to full scopes of practice
- Shortages (NP, GIM, Primary care, rural/remote communities) and surpluses (specialists)
- Need for role clarity and shared understanding of knowledge and skills of various health professions
- Evidence-based practice and use of care pathways should be a requirement
- Health professions training programs need common foundational knowledge and practice regarding interprofessional
Question 7:

What common values do you think need to exist in order to successfully coordinate care?

- Patient centred
- Shared responsibility
- Collaboration
- Teamwork / commitment to interprofessional practice
- Holistic
- Prevention focused / health centric
- Accessibility
- Accountable
Question 8:

In terms of interprofessional teams, are there training practices that help or hinder the provision of care to patients with complex, chronic conditions? What changes, if any, would you recommend?

- Interprofessional training needs to be embedded in the curriculum of all health training and needs
  - Interprofessional training should begin at the commencement of health training programs and should continue throughout
  - Curriculum for all health professions should include components of interprofessional team work
  - Medical students should begin training in the hospital and community earlier so that they learn to interact and work collaboratively with interprofessional team members
- Interprofessional training needs to continue in the clinical setting - training in context
  - Interprofessional rounds
  - Interprofessional course work
  - Better utilize mentors and modelling of behaviour
- Within the education system and in clinical settings, professionals should be trained together in the same setting to break down silos
- Training content should include teamwork, communication, comprehensive care, geriatric care
- Teach skills to support working in partnership with patients and other health and non health professionals
- Other opportunities to improve interprofessional care include:
  - Protected time for coordination
  - Clear role definitions
  - Incentivizing people to work in teams (remuneration)
  - Remove legislative barriers
  - Enable non physician practitioners to work to their full scope of practice
Question 9:

Do you believe that providers (e.g. family health teams, GIM specialists, primary care providers, etc.) should be assigned an agreed-upon population in order to be responsible for delivering service to that population? Is there a way of better integrating their care services and set joint accountability for optimal patient management? What are the barriers?

- Mixed views were presented in terms of the value and feasibility of population-based care. Healthcare leaders who felt that a population-based model should be explored identified that it:
  - Supports a better understanding of the unique needs of the population, and therefore enables more comprehensive care and the development of targeted programs to close gaps around needs
  - Supports a more comprehensive view of patients
  - Increases patient comfort and familiarity with their providers
  - Decreases silos
  - Facilitates attachment to providers
  - Allows for clear accountability

- The majority of health leaders, whether they agreed with a population-based approach or not, identified the following considerations:
  - How do you assign populations but still enable patient choice
  - How do you balance the severity of illness within difference geographies
  - Requires appropriate resources and supports
  - Rural and remote regions may be challenged to implement a population-based approach due to size and disbursement of the population as well as health human resources
  - May discourage practitioners from practicing
Question 10

Do you have any other insights or suggestions to better support patients with complex, chronic conditions?

- Care should be provided by interprofessional teams
  - Need to promote interprofessional education
  - Build capacity of health human resources to provide interprofessional care
- Approach needs to be patient-centred, using a self-management model that engages the patient and his or her family / caregivers
  - Consider health literacy
- Care needs to be accessible
  - Leverage technology
  - Consider co-location of services
- Care needs to occur across the continuum of the disease and across the lifespan
  - Develop cross-sectoral partnerships
- Align financial incentives to team-based care
- Practice needs to be evidence-based
  - Conduct ongoing research to gauge leading practice
  - Measure outcomes to ensure accountability
- Develop and implement change management strategies
  - Leadership needs to play a key role in driving change