The 10th anniversary of the CCS Heart Failure Guidelines Program offers an opportunity to capitalize on 10 years of investment by broadening the program to impact the quality of care and quality of life of those living with and at risk of heart failure.
Contents
Introduction ............................................................................................................................................ 2
Opportunity ............................................................................................................................................ 2
Program Activities and Objectives ........................................................................................................ 3
  1) Promote the use of HF Guidelines across the health care spectrum ........................................... 3
     a) Create a comprehensive and renewable guideline document........................................... 3
     b) Expand the KT distribution network to reach a wider HC audience ................................. 3
     c) Design tools and products tailored to HC provider knowledge needs ................................. 3
     d) Increase uptake of the guidelines through strategic partnerships ................................. 4
  2) Engage people with heart failure and their families ........................................................................ 4
     a) Myth-busting in provider and patient populations .......................................................... 4
     b) Collaborate to develop patient educational materials tied to CCS Guidelines ..................... 4
     c) Promote primary and secondary prevention ....................................................................... 4
  3) Lead strategic implementation of the CCS heart failure quality indicators (QI) ......................... 4
  4) Promote team-based approaches to heart failure management ................................................. 5
     a) Improve communication between community-based practitioners and specialists ............. 5
     b) Establish a CCS standard of care for heart failure .............................................................. 5
  5) Promote primary, secondary and tertiary prevention ................................................................... 5
     a) Work with public health partners ....................................................................................... 5
     b) Promote research needed for early screening .................................................................... 5
Summary ............................................................................................................................................... 5
Appendix A: 10th Anniversary Initiative Draft Budget ...................................................................... 7
Appendix B: Current HF KT Program Tools and Activities: .............................................................. 9
Appendix C: Dr. Maura Ricketts Report ............................................................................................ 10
Introduction
In 2005, CCS launched its flagship knowledge translation program for heart failure. Since then, CCS members have contributed thousands of hours of volunteer time and CCS has invested hundreds of thousands of dollars in heart failure guideline development and knowledge translation activities. The success of this program is noted by the large numbers of participants that continue to attend CCS led heart failure workshops, the thousands of downloads of the CCS heart failure apps and the wide circulation of the CCS heart failure pocket guides and slide decks as well as the significant web traffic that accesses the information and tools.

The 10th anniversary offers a unique opportunity to capitalize on this investment by broadening the program to impact the quality of care and quality of life of those living with and at risk of heart failure. The CCS contracted Dr. Maura Ricketts, a public health physician, to undertake research and survey the community as to how the CCS can impact heart failure management over the coming years. The full report is provided for reference and background information. She noted that the CCS, with partners, is best positioned to take strategic actions to promote the use of the HF Guidelines across the health care spectrum, engage survivors through self-management and lead implementation of quality indicators and practices.

Opportunity
Based on the findings of Dr. Rickett’s research and input from CCS member heart failure experts, the CCS is undertaking a multi-year, multi partner expansion of our HF KT program that focuses on improving the quality of care for HF patients by taking strategic actions to:

1. **Promote the use of the heart failure guidelines across the health care spectrum**
2. **Engage people with heart failure and their families**
3. **Lead strategic implementation of the CCS heart failure quality indicators (QI)**
4. **Promote team-based approaches to heart failure management ; and**
5. **Promote primary, secondary and tertiary prevention**

The CCS is seeking funding partners that will support this initiative over the next 3 years. With a total investment projected at over 1 million over 3 years, we are seeking 3-5 supporters to kick start the program with an initial investment of $200,000 - $300,000 each. A draft budget is included in Appendix A.
Support is sought through educational grants and supporters remain at arm’s length from program decisions. It is through this generous support that we are able to collaborate on dissemination activities, design, develop and update our tools and deliver expert led guideline education. In addition to the inherent benefits of guideline dissemination, support of the 10\textsuperscript{th} Anniversary Heart Failure KT Program holds the following direct opportunities for supporters:

- 5,000 copies of our HF pocket guide “Is this Heart Failure and what should I do?” for your distribution to practitioners;
- Recognition of your support on the pocket guides and on the guidelines section of our website; and
- Opportunity to promote our accredited events and guideline tools to your medical network

Program Activities and Objectives

Our heart failure knowledge translation program uses a multipronged year-over-year, interactive approach to dissemination of guideline recommendations and education. As guideline updates are released, our tools, activities and resources are adapted and updated. This 10\textsuperscript{th} anniversary initiative will build on the already successful HF KT program by adding program activities and objectives for each of the 5 strategic actions outlined.

1) Promote the use of HF Guidelines across the health care spectrum

   a) \textit{Create a comprehensive and renewable guideline document}

   - Review the evidence from the original guideline and all subsequent annual updates to produce graded evidence tables that will form the foundation for development of a comprehensive guideline document
   - Using the evidence tables, and CCS heart failure guidelines, develop a comprehensive guideline document that is chaptered with supporting text that clearly articulates the evidence behind the recommendations
   - Disseminate and implement the comprehensive guideline in an online format that is easily accessible, user friendly, searchable and linked to the original published guidelines and updates.

   b) \textit{Expand the KT distribution network to reach a wider HC audience}

   - Directly expand the CCS HF Guideline network beyond the specialist community by engaging, tracking and establishing ongoing communications to disseminate knowledge to the full spectrum of HC providers
   - Raise awareness and disseminate knowledge through collaboration and partnerships that use the partners’ own distribution networks

   c) \textit{Design tools and products tailored to HC provider knowledge needs}

   - Continue to develop and collaborate on regional workshops and webinars but work to extend the program to the family practice and allied health communities
10th Anniversary Initiative

- Continue to update and improve CCS’ popular heart failure tools (app, referral form, pocket guide, compendium, slide decks, algorithms)
- Undertake surveys to understand the target audiences’ needs and preferences
- Tailor guideline CME to specific target audience needs (workshops, webinars, reference guides, HC provider educational materials)
- Collaborate on the development of clinically oriented (vs. intervention-oriented) resources and point-of-care tools

**d) Increase uptake of the guidelines through strategic partnerships**

- Collaborate with patient order set companies in an effort to increase uptake of CCS guidelines in hospitals
- Collaborate with EMR systems providers to identify opportunities to integrate guideline recommendations and decision algorithms directly into EMR systems

2) Engage people with heart failure and their families

**a) Myth-busting in provider and patient populations**

- With partners, advocate for and educate both health care providers and their patients about HF myths and misconceptions

**b) Collaborate to develop patient educational materials tied to CCS Guidelines**

- Collaborate to provide patients, their families and caregivers with the resources and knowledge that improves skills in self-management and helps them become more effective self-managers

**c) Promote primary and secondary prevention**

- Work with PHAC to fund the development of health promotion programs for the primary and secondary prevention of HF and acute events caused by heart failure, particularly to improve the capacity of HC providers in the community to teach their patients about primary and secondary prevention, and self-management
- Work with HC system funders to develop a strategic approach to the identification of the 5% of HF patients who consume the 60-70% of HC services, with a focus on self-management

3) Lead strategic implementation of the CCS heart failure quality indicators (QI)

- Continue implementation of CCS’ clinically relevant quality indicators
- Set standards and benchmarks for HF based on QI
- Advocate for the collection of clinically relevant data about HF care based on QI
- For more information the CCS heart failure quality indicators (QI) initiative, please visit [www.ccs.ca](http://www.ccs.ca)
4) Promote team-based approaches to heart failure management

   a) *Improve communication between community-based practitioners and specialists*
      
      - Review, update and promote the use of the CCS HF referral form
      - Work with partners to identify and address communication gaps

   b) *Establish a CCS standard of care for heart failure*
      
      - Establish a CCS standard of care for heart failure that includes a heart failure plan for every patient with heart failure
      - Working with partners, develop a patient-oriented HF plan and educate patients about HF plans

5) Promote primary, secondary and tertiary prevention

   a) *Work with public health partners*
      
      - Support public health (PH) colleagues who are trying to improve PH capacity to promote and prevent chronic diseases through advocacy and by including PH approaches in guidelines for HF management
      - Work with PH partners to improve HC provider knowledge of and referral to preventative services provided through PH departments

   b) *Promote research needed for early screening*
      
      - Promote research needed to identify tools for early screening for heart failure in order to prevent acute HF events

Summary

As the Canadian population ages there will be an increase in the incidence and prevalence of heart failure. Patient advocates, academics, health care providers and the health care system itself have identified myriad gaps in heart failure management. By improving heart failure management we can improve the health of people with or at risk of heart failure. Adapting health care to implement measures that can minimize the harms caused by heart failure is a job that must begin immediately. It is a job for many partners because HF changes a person’s life course, placing their health in the hands of so many different health and care providers.

The 10th anniversary of the CCS Heart Failure Guidelines Program offers a unique opportunity to capitalize on past investment and broaden the program to further impact the quality of care and quality of life of those living with and at risk of heart failure. CCS, with partners, is best positioned to take strategic actions to promote the use of the HF Guidelines across the health care spectrum, engage survivors through self-management, lead implementation of quality indicators, promote team-based
approaches and encourage and support prevention. As such, the CCS is seeking up to 5 funding partners that will support this initiative over the next 3 years. With a total investment projected at over 1 million over 3 years, we are seeking 3-5 supporters to kick start the program with an initial investment of $200,000 - $300,000 each.

The CCS could not deliver this extremely important program without support such as yours. We hope you will consider partnering with us. For more information, please contact:

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oliver@ccs.ca  www.ccs.ca  
Tel: (877/613) 569-3407 ext. 407
### Appendix A: 10th Anniversary Initiative Draft Budget

<table>
<thead>
<tr>
<th>Activity</th>
<th>Resource</th>
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<td>CCS Heart Failure QI</td>
<td>PHAC</td>
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### CCS Heart Failure Guidelines Program – 10th Anniversary Initiative

<table>
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<tr>
<th>Objective</th>
<th>Continue implementation</th>
<th>Set standards</th>
<th>Promote Team Based Approaches</th>
<th>Update referral form</th>
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Appendix B: Current HF KT Program Tools and Activities:

Regional Workshop Series
Each year, our experts develop and deliver accredited, interactive, case-based workshops at medical meetings across Canada. Our workshops engage practitioners, primarily physicians, but also nurses and pharmacists in active dialogue in support of evidence-based practice in the management of heart failure. They are an important dissemination vehicle and are equally important for collecting feedback on practitioner needs. In 2014, they delivered workshops at the ACC Rockies, Montreal Heart Summit, Toronto/Ottawa Heart Summit, the Canadian Cardiovascular Congress, CFPC’s Family Medicine Forum and Arrhythmia Update. Each year these workshops reach well over 1200 practitioners.

Webinars
Accredited webinars have become an important and cost effective dissemination vehicle as they deliver important guideline information to those health professionals who do not have the opportunity to attend regional workshops. They also serve as an excellent feedback mechanism for presenters. In 2015, we plan to offer webinars on the 2014 HF Update as well as practical solutions to medication titration and the challenges in the management of heart failure. All webinars are accredited for MOC section.

Pocket Guide and Educational slide decks
The HF KT program develops and disseminates the handy pocket guide “Is this Heart Failure and what should I do?”

These handy pocket guides are available in both French and English and serve as quick-reference tools that feature essential diagnostic and treatment recommendations. In 2014, over 8,000 printed pocket guides were distributed to practitioners and institutions across Canada. The online versions of the pocket guide and our educational slide decks are also popular and have been downloaded from our website over 700 times in the past 15 months.

Guideline Smartphone App
Our Guideline smartphone app is designed to facilitate the adoption of the HF guidelines into daily clinical practice by healthcare professionals. It has been extremely well received by the cardiovascular community with an average of 10,000 downloads annually.

Our Heart Failure experts also collaborated with the Alberta Health Services to develop a heart failure medication titration app that supports healthcare professionals in the initiation, titration, assessment and monitoring of 4 drug classes commonly used to treat heart failure

Heart Failure Compendium
With over 500 recommendations published in 10 years, program evaluation and user feedback highlighted the need for a compendium of HF guideline recommendations currently in force. So our experts rationalized, organized and categorized the recommendations and practical tips and we developed a use friendly web tool that helps practitioners search, filter, relate and cross-reference our heart failure guidelines.
Appendix C: Dr. Maura Ricketts Report
CCS HF Guidelines: Addressing Quality of Care and Quality of Life over the next 10 years

The Epidemiology tells a story

The mortality rate for cardiovascular disease (CVD) decreased dramatically from 1960 to 2004, due to lower rates of smoking and physical inactivity, increased consumption of vegetables and fruit, and better screening, diagnosis and treatment of high blood pressure and dyslipidemia. Nine out of ten Canadians over the age of 20 years have at least one risk factor for CVD: smoking, physical inactivity, less than recommended daily consumption of vegetables and fruit, stress, overweight or obesity, high blood pressure, or diabetes. Two in five have three or more of these risk factors. The Public Health Agency of Canada projects “an increase in the number of deaths due to CVD [due] to increases in the prevalence of obesity and diabetes”. ¹

Just over 5% of the population of Canada is living with heart disease. ² 43.5% of people with heart disease rate their health as “poor”, 30% report difficulties with activities of daily living and 70% are limited in their ability to carry out activities that they once enjoyed. ³

The “natural history” of heart failure (HF) consists of progression punctuated by acute events. Approximately 2.2% of people with a diagnosis of HF were hospitalized in 2005/06; ⁴ 8.7% are readmitted after 30 days; 14% after 90 days and 23.6% after one year ⁵. Not only is hospitalization the largest contributor to CVD health care costs (17.8%), there is evidence that HF patients who are more frequently admitted do not live as long as those who avoid admission. ⁶ Adherence to best practices, as described in CCS HF guidelines, should reduce the occurrence of acute events and improve the quality of life and longevity of people with or at high risk of HF.

It is reasonable to suppose that the reduction of acute events, emergency room visits and hospital admissions, and compression of illness into the final period of life would have an important impact on health care costs, the sustainability of our health care system and, most importantly, to the quality of life of HF patients, their families and caregivers. ⁷

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¹ (PHAC, 2009)
² Statistical Update Measures, Chronic Disease Indicator Framework, Public Health Agency of Canada downloaded 16 October 2014
³ (PHAC, 2009)
⁴ (PHAC, 2009)
⁵ Reference pending. Data quoted in (Coutts, 1020)
⁶ (Setoguchi, Warner-Stevenson, & Schneeweiss, 2007)
⁷ Reference pending “preventing ill health is a major solution for reducing healthcare costs (Keefe et al., 2007)
Opportunity

In 2005, CCS launched their Heart Failure (HF) Guideline Program, a program dedicated to evidence based quality care for heart failure patients. In 2006, the first guideline on heart failure diagnosis and management was published and CCS has continued to update the guideline through focused annual reviews.

2015 marks the 10\textsuperscript{th} anniversary: CCS members have contributed thousands of hours of volunteer time and CCS has invested hundreds of thousands of dollars in knowledge translation (KT), education and the production of physician tools. The 10\textsuperscript{th} anniversary offers an opportunity to capitalize on this investment by broadening the program to impact the quality of care and quality of life of those living with and at risk of HF. As a case in point, the success enjoyed by Hypertension Canada\textsuperscript{8} was a result of a shifted focus onto promoting hypertension screening and increasing knowledge translation activities to improve the quality of care. Their actions led to doubling in the decline in age and sex adjusted mortality rates for stroke and congestive heart failure and a more than 50% decline in mortality rates for acute myocardial infarct.

The CCS HF Guidelines 10\textsuperscript{th} Anniversary offers an opportunity to catalyze CCS’ investment and make a difference in the field of Heart Failure.

What is needed?

Research and expert opinion shows that multi-year, multi-partner initiatives can attract sustainable multi-funder support and are more likely to succeed when the partners share a common goal.

In 2015, CCS is well positioned to use the 10\textsuperscript{th} anniversary to reach out to the community with a feasible but flexible proposal, achieve a common vision and mobilize its partners to act.

Values

- \textit{Earlier diagnosis and screening can prevent the onset of HF, reduce the number and impact of acute events and preserve heart function}
- \textit{Better clinical management can be achieved by taking action to increase the use of the HF guideline}
- \textit{Better quality of life can be achieved by supporting people with heart failure, their families and caregivers with the skills and tools they need}

\textsuperscript{8} (Healthy Blood Pressure Framework, 2012)
Goals

- In the short term, improve the quality of care for HF patients by taking strategic actions to promote the use of the HF Guidelines across the health care spectrum, engage the survivors through self-management, and lead strategic implementation of HF Quality Indicators. This goal will resonate with clinicians, patients and their advocates, health care system funders and industry.

- In the long-term, the coalition will build on the early accomplishments in order to make a measurable impact on the life course of people with HF and at high risk for heart failure.

### Overview of Action Plan

<table>
<thead>
<tr>
<th>Activities that could begin early in the initiative</th>
<th>Activities that may be better suited for later in the initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create a comprehensive guideline document</td>
<td></td>
</tr>
<tr>
<td>1.1 Rationalize the 2006 guideline and annual updates into a comprehensive and renewable document</td>
<td></td>
</tr>
<tr>
<td>1.2 Adapt Guidelines to incorporate the knowledge health care providers need in the community setting</td>
<td></td>
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<tr>
<td>2. Collaborate on targeted KT tools and activities</td>
<td></td>
</tr>
<tr>
<td>2.1 Expand the KT distribution network to reach a wider health care (HC) audience</td>
<td>2.3 Design tools and products that can be integrated with chronic disease management</td>
</tr>
<tr>
<td>2.2 Design tools and products tailored to HC provider knowledge needs</td>
<td>2.4 Evaluate HF interventions at the level of the health care system</td>
</tr>
<tr>
<td>3. Increase adherence to guidelines by addressing systematic barriers</td>
<td></td>
</tr>
<tr>
<td>3.1 Myth-busting in provider and patient populations</td>
<td>3.3 Establish, advocate and promote community-based standards of care, team support and patient heart failure plans</td>
</tr>
<tr>
<td>3.2 Establish standards and benchmarks based on CCS Quality Indicators</td>
<td>3.4 Remove compensation-associated barriers to adoption of HF Guidelines</td>
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<tr>
<td>4. Engage people with heart failure and raise public awareness</td>
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</tr>
<tr>
<td>4.1 Patient self-management</td>
<td>4.3 Improve patient access to HF specialists and services</td>
</tr>
<tr>
<td>4.2 Raise awareness and create the tools needed to help clinicians and people with heart failure achieve the best health outcomes</td>
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</tr>
<tr>
<td>5. Promote 1&lt;sup&gt;st&lt;/sup&gt;, 2&lt;sup&gt;nd&lt;/sup&gt; &amp; 3&lt;sup&gt;rd&lt;/sup&gt; prevention</td>
<td></td>
</tr>
<tr>
<td>5.1 Primary &amp; secondary prevention</td>
<td>5.2 Secondary &amp; tertiary prevention</td>
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</table>
Action: Short Term Goals

1 Create a comprehensive guideline document

The CCS process for developing HF Guidelines demonstrates excellence and CCS is unique in its practice of providing regular updates to its guidelines. In a typical year, CCS reaches about 1,000 practitioners through workshops and webinars. CJC HF publications were downloaded almost 31,000 times since 2010, and CCS’ heart failure app was downloaded over 15,000 times. However, guidance products need to be more useful and user-friendly from the perspective of community-based physicians.

1.1 Rationalize the 2006 guideline and annual updates into a comprehensive and renewable document

The majority of people with heart failure are treated in the community. HC providers, including those working in emergency departments, family practitioners/general practitioners (FP), nurse practitioners and clinical nurses, need access to guidelines that are tailored to their needs within the point-of-care environment, that can be searched easily, integrate recommendations for multiple chronic diseases and can be usefully consulted during the patient visit.

'Rationalize the 2006 CCS guidelines and all subsequent updates into a comprehensive and renewable guideline document that is organized in chapters with sections that are tailored to the needs of a wider range of community-based health care providers'

Implement the comprehensive guideline in a format that is easily accessible, user friendly, searchable and linked to the original published guideline or update.

1.2 Adapt Guidelines to incorporate the knowledge HC providers need in the community setting

Collaborate with other health care, knowledge translation and patient-oriented organizations, e.g. the College of Family Practitioners of Canada (CFPC), Canadian Association of Emergency Physicians (CAEP), Canadian Council of Cardiovascular Nurses (CCCN), Public Health Agency of Canada (PHAC), and Heart & Stroke Foundation (HSF) to:

Undertake surveys to understand the target audiences’ needs and preferences
Use this knowledge to tailor guidelines to target audiences’ needs and preferences especially point of care needs
Improve the integration of HF guidelines into chronic disease (CD) guidelines and CD management systems after consulting CD experts regarding potential barriers and solutions

---

9 (Baker R)
2. Collaborate on targeted KT tools and activities

2.1 Expand the KT distribution network to reach a wider HC audience

A strategy to communicate the guidelines to a wider audience and to promote knowledge awareness among other HC providers is needed. Collaborate with partners to:

- Directly expand the CCS HF Guideline network beyond the specialist community by engaging, tracking and establishing ongoing communications to disseminate knowledge to the full spectrum of HC providers
- Raise awareness and disseminate knowledge through collaboration and partnerships that use the partners' own distribution networks

2.2 Design tools and products tailored to HC provider knowledge needs

CCS’ HF guideline app, drug titration app, pocket guides, slide decks and compendium are model tools. To enhance the community-based providers’ access to and uptake of CCS HF guidelines, similar tools and products are needed to integrate knowledge needed by community based HC providers into guidance for chronic disease management.

Collaborate with other health care, knowledge translation and patient-oriented organizations, e.g. (CFPC), (CAEP), (CCCN), (PHAC), (HSF) and Canadian Chronic Care Model (CCM) sites to:

- Design clinically oriented (vs. intervention-oriented) resources, apps and point-of-care tools that are integrated with chronic disease management systems such as CCM
- Increase the variety of KT tools and products (workshops, webinars, reference guides, HC provider educational materials, point of care tools etc.) and broaden the audience to include more community based HC providers
- Design KT products that combine HF Guidelines with chronic disease guidelines

3 Increase adherence to guidelines by addressing systematic barriers

Canadian reviews identify health care delivery design as both most important and having the strongest evidence of capacity to improve chronic diseases management. Numerous publications, including a 2013 Cochrane review, describe the many barriers to improved adherence. Examples include:

- Chronic Care Model examples in Canada: Alberta - Comprehensive Home Option of Integrated Care for the Elderly (CHOICE); Québec - Système intégré pour personnes âgées fragiles (Integrated System for Frail Elderly Persons; SIPA); Nova Scotia - Improving Cardiovascular Outcomes in Nova Scotia (ICONS) and Novel Approach to Cardiovascular Health by Optimizing Risk Management (ANCHOR) and in the United States, the Program of All-Inclusive Care for the Elderly (PACE).

References:

10 Chronic Care Model examples in Canada: Alberta - Comprehensive Home Option of Integrated Care for the Elderly (CHOICE); Québec - Système intégré pour personnes âgées fragiles (Integrated System for Frail Elderly Persons; SIPA); Nova Scotia - Improving Cardiovascular Outcomes in Nova Scotia (ICONS) and Novel Approach to Cardiovascular Health by Optimizing Risk Management (ANCHOR) and in the United States, the Program of All-Inclusive Care for the Elderly (PACE).
11 (O’Meara, Thibodeau-Jarry, Ducharme, & Rouleau, 2014)
12 (Kreindler)
13 (Flottorp, et al., 2013)
compliance with guidelines, which would improve clinical outcomes and reduce overall costs for health care.\textsuperscript{14}

3.1 Myth-busting in provider and patient populations

If patients or their providers have the false impression that HF management is ineffective in their hands, the implementation of more aggressive treatment plans, which can improve health outcomes, even of elderly patients, may be deferred.\textsuperscript{15,16}

\begin{itemize}
  \item With partners, advocate for and educate both health care providers and their patients about HF myths and misconceptions
\end{itemize}

3.2 Establish standards and benchmarks based on CCS Quality Indicators

CCS has clinically relevant quality indicators (QI) but implementation is incomplete.

\begin{itemize}
  \item Set standards and benchmarks for HF based on QI
  \item Advocate for the collection of clinically relevant data about HF based on QI
\end{itemize}

4 Engage people with heart failure and their families

Approximately 40\% of the improvement in health that can be achieved by a person with HF is as a result of the better treatment.\textsuperscript{17,18} Family members and caregivers have a prominent role in the care of people with HF yet may not have the knowledge, skills and tools needed.\textsuperscript{19}

4.1 Patient Self-Management

Teaching patient self-management is an evidence-based method that improves health.\textsuperscript{20} Collaborate with HC providers and partners including HSF to:

\begin{itemize}
  \item Ensure that HF self-management recommendations are tied to the CCS guidelines
  \item Provide patients, their families and caregivers with the resources and knowledge that improves skills in self-management and helps them become more effective self-managers
  \item Develop patient-oriented educational materials that are written to the cognitive capacity of their patients and clients, available in multiple languages and adapted to cultural differences
\end{itemize}

\textsuperscript{14} (Muzbek, Brixner, Benedict, Keskiniansian, & Khan, 2008)
\textsuperscript{15} (Castaldo)
\textsuperscript{16} (Hobbs & Erhardt, 2002)
\textsuperscript{17} (Regional Office for Europe, WHO)
\textsuperscript{18} (European Society of Cardiology, 2012)
\textsuperscript{19} See references 15, 16
\textsuperscript{20} (Philip A. Ades, et al., 2013)
4.2 Increase awareness of patients about guidelines

In a study of more than 1000 CD patients (including HF) in a Canadian province, the majority did not receive health promotion/disease prevention education or appropriate follow-up.\(^{21}\)

- **Working with partners, develop a patient-oriented HF plan and educate patients about HF plans**

5 Promote primary, secondary and tertiary prevention

5.1 Primary prevention & Secondary Prevention

More than half of the improvement in health that can be achieved by a person with HF is as a result of improving their personal health habits. Close to 90% of myocardial infarctions might be prevented with lifestyle interventions.\(^{22}\) An overall 32.7% decline in the incidence of heart failure in Ontario (1997 – 2007) was attributed to preventive efforts to control smoking, blood pressure and cholesterol.\(^{23}\)

- **Work with PHAC to fund the development of health promotion and programs for the primary and secondary prevention of HF and acute events caused by heart failure, particularly to improve the capacity of HC providers in the community to teach their patients about primary and secondary prevention, and self-management**
- **Include PH partners in the HF Anniversary planning**

**Action: Long-term Goals**

1. **Maintain the comprehensive guideline document**

2. **Collaborate on targeted tools and activities**

2.3 **Design tools and products that can be integrated with chronic disease management**

Chronic Care Models (CCM) are associated with better health outcomes.\(^{24,25,26}\) CCS HF guidelines need to be fully integrated with the recommendations for complex patients and chronic diseases management.\(^{27}\) Supported by partners,

\(^{21}\) (Levesque, Ehrmann-Feldman, Lemieux, Tourigny, Lavoie, & Tousignant, 2012)

\(^{22}\) (Akesson, Larsson, Discacciati, & Wolk, 2014)

\(^{23}\) (Yeung, Boom, Gro, Lee, Schultz, & Tu, 2012)

\(^{24}\) (Tsai, Morton, Mangione, & Keeler, 2005)

\(^{25}\) (Hung, et al., 2008)

\(^{26}\) (Singh & Ham, 2006)

\(^{27}\) (Gauvin, Gauvin, & Wilson, 2013)
è Include chronic disease management specialists in guideline development
è Integrate HF guidelines with chronic disease management guidelines and practices in order to make the tools and products more useful to generalists in the community setting

2.4 Evaluate HF interventions at the level of the health care system

Funding for the evaluation of programs and processes implemented by the health system is reported as difficult to obtain. Evaluations that assess an intervention’s impact on health outcomes are essential to justify continued implementation. However, the data available in existing databases in Canada does not include CCS core HF Quality Indicators.28 Supported by HF partners, take action to ensure the
è Evaluation of the impact of interventions on health outcomes, including pilot studies and other HC system interventions,
è Implementation of continuous quality improvement processes for knowledge translation products
è Evaluation of the impact of CCS Guidelines on health outcomes
è Use of HF data definitions and QI by HC administrative databases and data bases used for the evaluation of new HF interventions or pilot studies

3 Increase adherence to guidelines by addressing systematic barriers

Canadian reviews identified health care delivery design as the initiative with the strongest evidence of capacity to improve chronic diseases management29 and changes in the organization of health care as particularly important.30 Numerous authors31,32,33 advise that it is more cost efficient to provide supports for the elderly, their families and caregivers to manage the elderly in the community and keep them in their homes.

Improving compliance with guidelines would improve clinical outcomes and reduce overall costs for health care.34

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28 Verbal communication, Dr. McKelvie
29 (Kreindler)
30 (O’Meara, Thibodeau-Jarry, Ducharme, & Rouleau, 2014)
31 http://umanitoba.ca/outreach/evidencenetwork/elderlycosts
32 (Tu, Jackevicius, Lee, Donovan, & Canadian Cardiovascular Outcomes Research Team, 2010)
33 http://umanitoba.ca/outreach/evidencenetwork/aging-population
34 (Muzbek, Brixner, Benedict, Keskinians, & Khan, 2008)
3.3 Establish, advocate and promote community-based standards of care, team support and Patient heart failure plans

Optimal care requires much of the HC provider – monitoring and titrating medications for multiple medical conditions requires clinical expertise that exceeds that of caring for any one of the individual conditions. Within the HC system, management of acute episodes is well handled, but post-discharge and care provided in the community is fragmented and delivered by a variety of HC providers who may be unaware of each other’s’ recommendations. Standardized care processes are an evidence-based tool for improving clinical outcomes, and reducing mortality and readmission rates. In Canada, heart failure plans are recommended, as are hub and spoke models, multi-disciplinary primary care teams and “ready access” to specialized heart failure clinics.

- Advocate for improvements in hospital to community transitions and increase hospital accountability for patients after discharge into the community
- Collaborate with patient order set companies (PatientOrderSets.com) in an effort to increase uptake of CCS guidelines; collect and use feedback from providers to improve the content and uptake
- Improve communication between community-based practitioners and specialists e.g. work with PT governments to provide compensation for cardiologists who counsel and support for community based practitioners remotely e.g. telemedicine, by phone and email.
- Promote team-based approaches to heart failure management
- Establish a CCS standard of care for heart failure that includes a heart failure plan for every patient with heart failure

3.4 Remove compensation associated barriers to adoption of HF Guidelines

Numerous publications, including a 2013 Cochrane review, describe the many barriers to compliance with guidelines. Inadequate or absent compensation is a barrier to implementation, particularly if it prevents a health care provider from having the time required to take care of a patient. Most provinces provide FPs with billing codes that compensate them for the extra time needed to provide complex care; cardiologists need extra time and appropriate compensation to manage their HF patients.

35 Verbal communication, semi-formal survey conducted by Dr. Ricketts October 2014
36 Quoted in (Baker, et al., 2008)
37 Verbal communication, semi-formal survey conducted by Dr. Ricketts October 2014 with Dr. G. Moe
38 (Cardiac Care Network of Ontario, 2014)
39 Verbal Communication, semi-formal survey conducted by Dr. Ricketts October 2014
40 (Flottorp, et al., 2013)
 Advocate for the correction of payer inequities that hinder care, particularly improved compensation for cardiologists managing heart failure

 Advocate for compensation that promotes the adoption of heart failure plans for every patient with heart failure

 4 Engage people with heart failure and their families

 Approximately 40% of the improvement in health that can be achieved by a person with HF is as a result of the better treatment.\(^{41,42}\) Family members and caregivers have a prominent role in the care of people with HF yet may not have the knowledge, skills and tools to help.\(^{43}\)

 4.3 Improve patient access to HF specialists and services

 “More immediate access to rapid cardiovascular care after emergency department discharge, along with improved clinical pathways for physicians are critical to help patients manage their condition and reduce hospital visits”.\(^{44}\)

 Support research and pilot studies designed to improve patient access to services and improve communication among and with their health care providers\(^{45}\)

 Engage patients and their families in understanding the gaps in HC services

 5 Promote primary, secondary and tertiary prevention

 5.2 Secondary & tertiary prevention

 Studies in Canada have demonstrated that although blood pressure and lipid care is high across all models of delivery, there is considerable room for improvement in secondary prevention of HF, particularly in the care for diabetes, smoking and waistline screening.\(^{46,47}\)

 A person with HF can achieve about 40% of the improvement in health if best practice treatment recommendations are followed. Research to identify methods for community based screening for heart failure is underway.\(^{48,49,50,51}\) However, if health care providers and patients

\(^{41}\) (Regional Office for Europe, WHO)  
\(^{42}\) (European Society of Cardiology, 2012)  
\(^{43}\) See reference\(^{16}\)  
\(^{44}\) (Bhatia, et al., 2014): Quote from [http://www.ices.on.ca/Newsroom/News-Releases/2014/Heart-failure-patients-have-better-outcomes-when-treated-at-larger-community](http://www.ices.on.ca/Newsroom/News-Releases/2014/Heart-failure-patients-have-better-outcomes-when-treated-at-larger-community) downloaded 22 Oct 2014  
\(^{45}\) (Ahmed, et al., 2013)(Singh & Ham, 2006)  
\(^{46}\) Authors will be contacted to determine which HF guidelines were used. CCS cited as a source CV guidelines  
\(^{47}\) (Liddy, Singh, Hogg, Dahrouge, & Taljaard, 2011)  
\(^{48}\) (Alter, et al., 2012)  
\(^{49}\) (Van Spall, et al., 2011)
believe that HF is a diagnosis without real potential for improvement, screening and aggressive treatment are unlikely.\textsuperscript{52}

- Support PH colleagues who are trying to improve PH capacity to promote and prevent chronic diseases through advocacy and by including PH approaches in guidelines for HF management
- Work with PH partners to improve HC provider knowledge of and referral to preventative services provided through public health departments
- Promote research needed to identify tools for early screening for heart failure in order to prevent acute HF events
- Improve the capacity of HC providers to manage patients with newly diagnosed, mild to moderate and slowly progressive disease in order to compress morbidity into later years of life
- Work with HC system funders to develop a strategic approach to the identification of the 5% of HF patients who consume the 60-70% of HC services, with a focus on self-management

\section*{Conclusion}

The potential for improvement in heart failure management and therefore the health of people with or at risk of heart failure is neglected and underestimated. If the prevalence of risk factors increases, and as the Canadian population ages, regardless of age, there will be an inexorable increase the incidence and prevalence of HF. The tragic levels of disability, frequent hospitalizations and premature death that currently accompany the diagnosis cannot remain unchallenged, particularly since there are so many ways to support patients, their families, their caregivers and their health care providers to reduce the risks and maximize health care management of HF.

Adapting health care to implement those measures that can minimize the harms caused by HF is a job that must begin immediately. It is, after all, a job for many partners because HF changes a person’s life course, placing their health in the hands of so many different health and care providers.

Patient advocates, academics, health care providers and the health care system itself have identified myriad gaps in HF management. In fact, there is no lack of potential for improvement, 

\begin{itemize}
\item \textsuperscript{50} Ko, et al., 2008
\item \textsuperscript{51} See Reference 16
\item \textsuperscript{52} References pending. “Patients with heart failure at greatest risk of death are least likely to receive ACE inhibitors, ACE inhibitors and/or ARBs, and β-adrenoreceptor antagonists” (Lee, et al., 2005)
\end{itemize}
quite the opposite. A shared vision and concerted action is called for. Base our actions on scientific evidence where available and reasoned action where it is not, but do not wait to begin.

- **Comprehensive guidelines for HF prevention and management**
- **Knowledge translation tools that are needed by HC providers in the community**
- **Increase adherence to the guidelines by looking at the barriers and finding solutions**
- **Engage people with heart failure, their families and caregivers**
- **Prevent HF and its disabilities through the combination of health promotion, screening, secondary prevention and interventions for the most severely affected people**