Evidence Informed Improvement Package

bestPATH
Person-centred • Appropriate • Timely Healthcare

Supporting Health Independence

Ontario
Health Quality Ontario
ACKNOWLEDGEMENTS

This workbook is the result of the efforts of the Health Quality Ontario (HQO). For additional information about other resources, contact: Health Quality Ontario www.hqontario.ca

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bestPATH Overview

Health Quality Ontario’s bestPATH initiative focuses on the three key elements of health care delivery that define the best “PATH:” Person-centred, Appropriate, Timely Healthcare. bestPATH will focus the health care system on optimizing the care it delivers to Ontarians with chronic diseases. Individuals with one or more conditions such as: diabetes, congestive heart failure, coronary artery disease, stroke, and chronic obstructive pulmonary disease have complex care needs, involving primary care, home care, hospitals, and specialists. Establishing smooth transitions between these areas of care is critical to managing these conditions and ensuring that people consistently receive the treatments that are scientifically proven to benefit them. When they don’t, the results can be a worsening of their conditions and hospitalizations that might have been avoided. But when they receive evidence-informed, safe and reliable care that is better coordinated—the right drugs, monitoring, and timely access to services and procedures—their quality of life can be improved, and the burden on families and the health care system can be reduced.

bestPATH Triple Aims

Addressing these gaps in health care delivery requires nothing less than system-level transformation. Through its curriculum, bestPATH will strive to achieve this transformation with a triple aim approach that will re-focus the system to deliver:

1. **best Care** – Improve the care experience by making care more accessible, and provide a smooth journey through the system by ensuring clear communication and strong engagement, both among providers and between providers and recipients

2. **best Health** – Improve outcomes for persons with chronic conditions through the use of evidence-informed practices

3. **best Value** – Ensure that care occurs in the most appropriate setting, reducing the rate of unnecessary hospitalizations and contributing to more appropriate resource utilization
1.2 Areas of Focus

bestPATH will focus on three areas of improvement that are distinct, but interrelated throughout the health care system: transitions of care, chronic disease management, and enabling people to live independently and safely at home.

Some of the recommendations presented in this change package focus on functional integration of care and related activities to ensure that individuals get the right care, at the right time, by the right provider.
1.3 Sources of Evidence used in this Change Package

The change concepts and ideas presented in this change package have come from a number of sources and represent a range of evidence. This includes: topic-specific evidence-based analyses and reviews conducted by Health Quality Ontario or others, evidence-informed change packages/programs published by other organizations (such as the Institute for Healthcare Improvement, Canadian Patient Safety Institute), peer-reviewed articles and grey literature. Therefore the extent of evidentiary support for the change concepts varies.

Importantly, the experiences of persons who live with chronic disease and the burden of illness, as well as a broad array of providers (e.g., different sectors, professional roles) were collected. Recurring challenges and frustrations influenced the content and recommendations offered in the change packages.

Based on external consultations and emerging evidence, a handful of the themes are featured in all three of the bestPATH change packages. These are: a focus on incorporating evidence-informed practice guidelines; strengthening health literacy and one’s ability to self-manage health and health care; and reducing fragmentation of care. Importantly, these themes speak to the barriers to collaboration and focus on putting an individual's needs front and centre.

The continuum of evidence referenced to generate each of the change concepts is included.

Facts & Figures

In the case of post-hospital transitions, many patients are not getting the information they require when discharged from the emergency department (ED) or hospital. A 2010/11 international survey highlighted that only 69% of **sicker adults** reported that their regular doctor/general practitioner seemed informed about the care they received in hospital or after surgery, and only 73% reported that their regular doctor seemed informed about the care they received from a referred specialist.¹

More than half of the adults surveyed in Canada reported that upon discharge from hospital, they did not receive written **care plans**, arrangements for a follow-up visit, or instructions about what symptoms to watch for or whom to contact with potential questions.² In an Ontario study of persons discharged from Emergency Department, only 51% knew danger signs to watch out for after going home and 62% knew whom to call if they needed help.³
Section 2

How to use this Change Package
2.1 How to Use This Change Package

Changes That Will Lead to Improvement
Change doesn't always lead to improvement; however, all improvement requires change. Developing, testing and implementing change is integral for any improvement work but what types of changes will lead to improvement? A change concept is a general notion or approach that has been found to be useful in developing specific ideas for change that result in improvement. This guide describes change concepts that have been shown to lead to improvement in a variety of health care environments. Some change concepts can be quite general and are meant to inform the reader of potential themes for improvement, while others can be more specific and apply to a particular problem or area of focus.

Organization of Content
This change package provides information that can be used sequentially to complete a specific task (or series of tasks), or can be used selectively and independently, depending on the user’s needs.

This package includes:
• An overview of key elements that inhibit or enhance independent living in a community-based setting.
• Four (4) key change concepts that should be considered by all health care professionals to proactively prepare individuals with chronic illness to effectively manage their health and care, and to live more independently in their home environment.
• A deeper dive into the change concepts, including evidence on why these concepts are important and how they factor into helping people stay out of hospital. Also included are areas where there are breakdowns and challenges occur, as are relevant tools and resources.
Section 3
General Overview of Supporting Health Independence
3.1 General Overview of Supporting Health Independence

Why Focus on Enhancing an Individual’s Ability to Live Independently and Safely in the Community?

In 2010 there were approximately 4.8 million Canadians over the age of 65. Human Resources and Skills Development Canada estimates that this number will double by 2036 to approximately 10.4 million seniors living in Canada. Seniors are an important piece of Canadian culture, as they contribute a wealth of experience and knowledge to our population and help support younger generations.

Unfortunately, people are more likely to be burdened by poor health as they age. Chronic conditions and injuries such as falls are common contributors to poor health among seniors. Poor health can threaten independence, mobility and functional ability which can then increase the risk of falls, emergency department (ED) visits and hospitalizations. In Canada there were approximately 1.5 million seniors who fell one or more times in 2008. Families are often unable to provide the care necessary to help their loved ones remain at home after a fall-related injury. In fact, 35% of seniors who have been hospitalized for a fall-related injury are discharged to a continuing care setting. Therefore, as a result of hospitalization and rehabilitation costs, fall-related injuries are very costly for the Canadian health care system. The cost of falls among seniors over the age of 65 in Canada is approximately 2.8 billion dollars each year.

In order to maintain the health and independence of our seniors, and to shift to more cost-efficient health care management, it is essential that care is based on disease, injury and harm prevention rather than cure or more costly reactive treatment. As reported in HQO’s Quality Monitor (2012), only 80% of individuals discharged from hospital knew the purpose of medications to be taken at home and only 59% knew what side effects to pay attention to. Once at home, only 52% clearly understood when to resume normal activities, a gap that may lead to muscular deconditioning, falls, and social isolation. Based on current literature, we know there are practices that can be utilized to enhance a person’s independence and ability to live safely at home, minimizing unnecessary emergency department visits and hospitalizations.

Enhancing a person’s ability to live independently and safely at home is contingent upon collaboration between health care providers, the community, and the client or individual who requires ongoing care in the community.
3.2 General Overview of Supporting Health Independence

How can we improve a person’s ability to live more safely and independently in the community?

The general concepts outlined in this change package apply to promoting self-management of chronic illness and independent and safe living in any home environment. If the individual has been hospitalized, it is important to assess their readiness for discharge, their post-discharge needs, and their home environment. It is equally important to ensure that the person knows how to create and maintain a safe environment and knows how to monitor and manage their care. Once the individual is settled back into their home and community, ongoing assessment and support around setting appropriate goals and promoting self-management skills continues, as does ongoing assessment of the safety (and remediation of risk) of the home environment. While these concepts can be applied in a number of different health care settings and contexts, the level of emphasis or intensity will vary depending on the situation.

The following section introduces four (4) evidence-informed change concepts that, when implemented together, are predicted to improve the safety of the home environment and the effectiveness of self-management of chronic disease at home. These change concepts are listed below:

1. Assess and remedy safety risks within the home environment
2. Help the person develop the required knowledge and skills to independently manage their care and home environment
3. Empower and motivate the person to take a central role in their health and creating a safe environment
4. Implement Ontario Health Technologies Advisory Committee (OHTAC) “Aging at Home” recommendations to enhance a person’s ability to live independently and safely in the community

Experienced health care providers will note that many of these concepts overlap and are inextricably linked. In Section 4, important nuances, distinct activities and specific ideas for change are explored to more clearly illustrate how each concept can contribute to helping providers empower individuals to take control of their health and health care.
Section 4
Change Concepts
# 4.1 Evidence-Informed Change Concepts

Four (4) key change concepts have been identified to address major gaps in helping people – with or without chronic illness – to live independently and safely at home.

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<td>opinion, promising practice via field testing</td>
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<td>3. Empower and motivate the person to take a central role in their health and</td>
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4.2 Change Concepts

Assess and remediate safety risks within the home environment

- Conduct initial and regular assessments of the person's ability to manage the physical home environment. Confirm process for acquiring safety equipment and reconfiguring home environment to meet person's needs and limitations

- Regularly assess person's (and their caregivers') ability to properly use physical home supports, monitoring equipment and to problem solve when issues arise

- Work with the person and their caregivers to remove or improve unsafe conditions in the home environment

- Communicate and discuss significant changes to the person's clinical status with the broader health care team in a timely manner and share responsibility for adjusting the care plan accordingly. Team members may include:
  - The person and their caregivers
  - Home care providers
  - Community care providers
  - Specialists (e.g., endocrinologist)
  - Allied health care professionals

- Reconcile medications regularly and engage the primary care team and community pharmacist when discrepancies arise
4.3 Change Concepts

Help the person develop the required knowledge and skills to independently manage their care and home environment

- Identify the person’s (and their caregivers’) learning needs and ability to understand medical concepts
- Verify that the person understands their condition(s) and possesses the knowledge and skills needed to monitor and manage their prevention and treatment regimes.
- In collaboration with the primary care team, community care providers and informal caregivers, create and agree on processes for assessing, communicating and addressing changes to the person’s ability to self-manage disease conditions and cope with their physical environment.

- Create a “shame-free” environment that encourages questions. Empower the person to participate and voice their ideas and concerns by adopting a more person-centred communication style.
- Communicate in easy to understand language and use a variety of person-friendly materials. Use materials and communication formats that align with the person’s stated preferences.
- Use a variety of techniques (e.g., teach back, written materials, visual displays) to enhance and confirm the person’s understanding of information (e.g., care plan, taking medications, symptoms of declining health, when and how to get help).
4.4 Change Concepts

Empower and motivate the person to take a central role in their health and creating a safe environment

- Assess the person's motivation to set and achieve goals. Customize approach according to where they are with respect to motivation (e.g., resistant, contemplating change, ready) and ability
- Partner with the person to identify and agree on relevant, self-generated, achievable and measurable goals prior to providing services. Document these goals, give the person a copy, and discuss at every visit
- Provide necessary services to facilitate achievement of their goals; customize as per assessment
- Ensure the person and their caregivers clearly understand how to achieve their goals (e.g., visually display goals, milestones and key activities in a conspicuous place in the home)
- Use a variety of techniques and behaviours to guide self-management support to an individual during each episode of care
- Use a variety of tools to help the person and their family caregivers prepare for the next visit with a health care provider (see Toolbox)
- Recommend that the individual participate in self-management workshops (e.g., Living a Healthy Life with Chronic Conditions) or access specific tools and resources (e.g., web-based tools). Show the person how to access and register for local programs
- Collaboratively (e.g., primary care team, specialists, home care, community service agency) develop care plans that incorporate the person's goals, expressed preferences and needs, are evidence-informed and support management of chronic disease and illness
- Create processes to ensure that the person's goals are consistently and explicitly developed, documented, supported and shared with the care team. Ensure the person's goals are self-generated, reasonable, and measurable
4.5 Change Concepts

Implement “Aging at Home” recommendations from the Ontario Health Technologies Advisory Committee to enhance a person’s ability to live independently and safely in the community

- Prevent falls and falls-related injuries by:
  - Prescribing longer-term exercise programs for mobile seniors
  - Modifying the home environment for frail seniors; use gait stabilizing devices
  - Prescribing outdoor gait stabilizing devices for mobile, elderly individuals, coaching them on the proper use of those devices
  - Prescribing a combination of vitamin D and calcium to prevent falls in elderly women

- Improve and/or maintain urinary continence by:
  - Coaching individuals through behavioural interventions, including: bladder training techniques, bladder control strategies and self-monitoring techniques
  - Targeted support and education for pelvic floor muscle strengthening

- Provide formal and informal support for caregivers of persons with dementia, including:
  - Individual behavioural support to improve psychological health (e.g., coping skills, dementia-specific education)
  - Respite care for caregivers

- Provide person-specific interventions for persons living with dementia, including:
  - Targeted physical conditioning and exercise to delay progress of dementia, promotion of mobility and activities of daily living
  - Targeted cognitive conditioning to improve impairments

- Alleviate social isolation and loneliness by:
  - Enrolling individuals in community-based exercise programs featuring health and wellness for physically inactive seniors
  - Activate participation in phone and computer-mediated support groups
4.6 A Deeper Dive Into the Change Concepts

This section provides a more in-depth look at each of the change concepts, why they are important, and what breakdowns can occur in these aspects of an individual’s care. This section also provides some tools and resources that are specific, evidence-informed, and validated from various well-known and credible sources.

**Assess and remediate safety risks within the home environment**

*Why is it this important?*

**Adverse Events**

Adverse events occur for a variety of reasons. While most (if not all) hospitals, primary care practices, home care organizations and long-term care organizations in Ontario are working hard to reduce or eliminate adverse events relating to medications, falls and pressure ulcers, preventable emergency department visits and related admissions still occur. Using medications as an example, people (and especially the elderly) present to emergency departments with an assortment of prescribed medications that are expired, incompatible, or duplicated as a result of substitutions made while in hospital or a lack of coordination between different providers. Even if each and every medication was ordered, dispensed and administered or taken flawlessly, the aforementioned and all too common scenario is an adverse event resulting from poor care coordination and communication, and a failure to ensure that the person comprehends the prescribed medication regime.

Research commissioned by the Canadian Patient Safety Institute about adverse events in primary care asserts that, based on white and grey literature on patient safety in primary care, two themes emerge: missed or delayed diagnosis and medication management. Three aspects of primary care provision contribute to these errors: communication; administrative processes, and insufficient provider knowledge and skills. Identified contributors to patient safety in primary care are: communication, and in particular, the quality of information available to providers; the coordination of information sharing between providers; integration of new information into practice; the person’s ability to communicate with the provider(s); and, the person’s ability to understand and use the information provided to them. To date, the number of Canadians who experience an adverse event – or are harmed by an event – in primary care cannot be estimated. Adverse events take an emotional and physical toll on people with chronic illness and health care professionals, and add unnecessary strain on already strapped resources.
4.6 A Deeper Dive Into the Change Concepts

More details about adverse events from medication, falls, and pressure ulcers and wounds are outlined below.

- **Medications**
  Medications may pose a risk when individuals come home from the hospital. Upon discharge from the hospital, individuals may lack clarity on how the changes made to their medication regimen in hospital affects the medication regimen they were on prior to hospital admission. New medications may have been started to replace existing medications, doses of existing medications changed and some medications discontinued altogether. Not properly understanding the changes made can lead to inappropriate use of medications which may result in the individual experiencing an adverse event. In addition, medication can serve as a risk factor for falls. Several reviews examining the risk associated with falls in the elderly (in a variety of settings) identified antidepressants, benzodiazepines, non-steroidal anti-inflammatory drugs (NSAIDs), and psychotropic drugs (such as sedatives and hypnotics) as contributing to a higher risk of falls.¹⁵

- **Falls**
  Falls are one of the leading causes of preventable injury in Ontario amongst seniors and often lead to avoidable emergency department visits, hospitalizations, and admissions to long-term care homes. Unintentional injuries due to falls are also the costliest category of injury within Ontario’s health care system. According to recent Ontario data, 28% of home care clients report falling in the last 90 days and 11% reported unexplained injuries, burns and fractures.¹⁸ In long-term care, 14% of residents had a fall in the last 30 days.¹⁹ Fortunately, falls can be prevented to increase the quality of life for seniors and to alleviate the burden on the health care system.²⁰

- **Pressure Ulcers and Wounds**
  Pressure ulcers and wounds are preventable adverse events that are a serious concern for people with Chronic illness. In fact, the wound and resulting problems and limitations often become the chronic condition or exacerbate existing conditions. As reported in HQO’s Quality Monitor (2012), pressure ulcers continue to be a common problem in long-term care homes and among home care clients.²¹ Preventing wounds and pressure ulcers is paramount for enabling people to stay at home and reducing hospital admissions. Once a wound presents, early treatment and management according to best practice guidelines is key to facilitate healing and prevent the wound from becoming chronic. A multidisciplinary team approach (e.g., primary care team plus an Entero stomal Therapy Nurse, Chiropodist, Dietitian) is required to prevent the wound from occurring and adopt a holistic, person-centred approach to treating and managing a wound once it has been
4.6 A Deeper Dive into Change Concepts

In order for this to become a reality, timely and accurate communication of risk factors, assessments and observations among providers is required, coupled with collaborative problem-solving and care planning.

**Provincial and Regional Priorities**

Promoting safety at home is also the focus of provincial and regional priorities. In September 2010, falls prevention was identified as one of the key pan-Local Health Integration Network (LHIN) priorities. The output of a multi-sectoral effort to build a provincial framework for consistently preventing falls across the province of Ontario is the Integrated Provincial Falls Prevention Framework and Toolkit.

**Typical Breakdowns and Challenges**

Some of the breakdowns and challenges in a person’s care that can be addressed through independence and safety interventions include:

- People at high risk of adverse events are identified too late. Early identification of risk and the onset of an issue (e.g., wound or pressure ulcer) can ensure that those at risk get early intervention.

- Home care staff feel they do not have enough time to complete all best practices and required assessments.

- Family or home care staff may be concerned with the possibility that people may wander off of the premises or into danger if not restrained or under constant surveillance.

- An existing medical condition may lead to frequent falls that are extremely difficult to avoid.

- Medication side effects, such as confusion and dizziness, can lead to falls. Age can affect a drug’s effectiveness, sensitivity and toxicity, and it may be difficult to predict potential side effects.

- Risk assessment, discharge plans, status at discharge, and changes in the person’s clinical or functional status are not regularly communicated between key health care providers (i.e., primary care team, specialists, home care, community care agencies).

- People may have difficulty moving around. This increases the chance of falls or, if the person is not mobile, pressure ulcers and wounds.

- People fall when rushing to get to the toilet or while performing personal grooming.

- People underuse mobility aids, such as canes or walkers, even though they are known to prevent falls. This could be due to feelings of embarrassment about using them, because they are uncomfortable, because they don’t know how to use them, or because they were never offered.
4.6 TOOLBOX  All tools and resources were accessed / verified in April 2013.

Risk Assessment Tools
- Acute Care - Partners Healthcare System – Morse Fall Scale Module
- Community/Home Care
- Community Care Access Centres use a variety of assessment tools that are embedded in the InterRAI. These include following risk assessments:
  - Falls – InterRAI contact assessment, rehabilitation algorithm, RAI-Home Care, Falls Clinical Assessment Protocol (CAPs), interRAI Palliative Care
  - Pressure ulcers and wounds - InterRAI contact assessment, Service Urgency Algorithm (if client has wound that needs immediate care), RAI-Home Care, computer generated Pressure Ulcer Risk score (PURS)
  - Other risk assessments are available: American Geriatrics Society, FROP-Com – Screen and Guidelines, SAIL/PAL - AHRQ National Guideline Clearinghouse
- Long-Term Care - Scott Fall Risk Screening Tool for Residential Care, Morse Fall Scale Module

No standardized screening tool to assess falls risk can be used in all environments across the continuum of care; risk assessments will vary based on the person's environment and needs. It is also important to note that screening alone is not enough, and assessing risk should be accompanied by a plan to deal with the risk factors that are identified.

Prevention Toolkits

All tools and resources were accessed / verified in April 2013.
4.6 TOOLBOX  

All tools and resources were accessed / verified in April 2013.


Other Resources
- The Regional Geriatric Programs of Ontario have published a number of evidence-informed toolkits and resources to be used to support the ability of older persons to live safely and independently in the community. Please see http://rgps.on.ca/ for more information.


- Finding Balance Ontario – A website directed towards seniors, helping them prevent a fall before it happens so they can stay active and independent - http://www.findingbalanceontario.ca/

Medication Management Support
Health care providers play a key role in preparing a person to effectively and safely manage their medications at home. Simple guidelines can be used in conversations between any health care provider and the person and/or their family members. While these guiding principles can be shared at any point in a person's health care journey, they should be considered key elements of the initial and ongoing home care visits as well as the regular interaction with the primary care team.


- Safe Medication Use in Older Persons Information Page http://www.ismpcanada.org/beers_list/
A Deeper Dive into the Change Concepts

Set the Stage - Help The Person Develop The Knowledge and Skills to Independently Manage Their Care and Home Environment

Why is this important?
Post transition from hospital, individuals whose care is not well coordinated and communicated may find themselves in a treatment “no-man’s land” and at risk of re-admission, disruptions to their quality of life, and may possibly experience adverse events.

Health care consumers in Ontario are becoming more confident and are beginning to challenge all providers within the health care system to look beyond the disease and to treat the entire person; to be more empathetic and purposeful, and to involve individuals and their informal caregivers in their care. Care recipients and unpaid caregivers are a woefully underutilized resource. The more they are motivated and involved in care decisions, the less burdened each provider and sector will be. Ontarians want to be involved, but require the knowledge, skills, opportunity, and support.

Health Literacy is “the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions.” It represents a collection of skills necessary for people to act appropriately to health care information and to function effectively in the health care environment. Key skills include the ability to read and write prose (print literacy), interpret documents, use quantitative information (numeracy), and speak and listen effectively (oral literacy). According to the systematic review conducted by the Agency for Healthcare Research and Quality “differences in health literacy level were consistently associated with increased hospitalizations, greater emergency care use, lower use of mammography, lower receipt of influenza vaccine, poorer ability to demonstrate taking medications appropriately, poorer ability to interpret labels and health messages, and, among seniors, poorer overall health status and higher mortality.”
4.6 A Deeper Dive into the Change Concepts

Helping people with chronic illness increase their health literacy includes providing accessible information about their disease(s) and burden of illness, as well as direction on how to correctly interpret instructions, follow the care plan, and monitor symptoms for deterioration. These core functions underpin a person’s ability to live independently and safely in their home through self-management.

Self-management broadly refers to all these concepts and has been defined as the development of skills and confidence within patients and their families so that they can take responsibility for managing their daily activities, emotions, health and health care.28

Programs such as Stanford School of Medicine’s Chronic Disease Self-Management Program, as well as The Flinders Program and others, are structured self-management programs that aim to help people who live with chronic illness and their health care professionals work together and reliably and consistently assess and support self-management needs. Generally, topic specific workshops are offered to adults who are interested in how to better manage a life-long or chronic condition. Often, education provided to people who require health and medical care is static and not very interactive. On the other hand, self-management workshops and supports are designed to be interactive, dynamic and peer led.

For self-management to become a reality, person-centred supports and education to enhance health literacy and develop essential skills are needed.

Aside from formal programs, self-management support can also be incorporated as foundational for every interaction with the care recipient, in any environment. The challenge for health care professionals is to find ways to purposefully, consistently and actively embed self-management support into each and every interaction with an individual seeking care and related services. The goal is to help individuals with complex conditions better understand their conditions (and inter-relatedness of multiple conditions), establish appropriate goals, manage their condition and symptoms, and problem solve.

TIP!

Chronic disease self-management programs generally aim to help individuals deal with issues relating to:
- Living a healthy lifestyle
- Managing the social, emotional and physical impact of the illness
- Appropriate use of medications
- Communicating with family, friends and health care professionals
- Following treatment plans
- Monitoring symptoms
4.6 A Deeper Dive into the Change Concepts

Typical Breakdowns and Challenges
Some of the breakdowns and challenges in a person’s care that can be addressed through independence and safety interventions include:

• Health care providers share important health information with persons with chronic disease and illness on a daily basis. Often, learning is assumed and health literacy is not (or infrequently) assessed.

• Providers assume that a person understands disease, treatment, post-discharge instructions because: (i) the person says that they do; (ii) the person is educated or affluent; (iii) the person has been living with the chronic condition for a long time, and numerous other observations.

• Providers use complex medical language when providing information to the individual in need of care.

• Many health care professionals and providers receive little or no education in techniques for assessing and improving health literacy.

• Many recipients of health care information do not ask questions of the provider or admit that they are unclear about their disease, plans, medications, etc. Many do not feel empowered, or possess the skills to ask probing and effective questions.

• Many practice environments are not person-friendly, resulting in the care recipient feeling judged or dismissed when he/she asks a question.

• Confirmation of an individual’s comprehension of health care information and supporting self-management takes time. Time is a luxury for many providers.

• Formal self-management programs can be time consuming to implement and it is difficult to reach everyone who would benefit from the program.

• Many health care professionals and providers receive little or no education in the guiding principles and techniques available to support self-management in a practical manner and in any situation.

Did you know
Accreditation Canada has identified a Falls Prevention strategy and Home Safety Risk Assessment as a Required Organizational Practices. Please see the Accreditation Requirements of Practice Handbook. http://www.accreditation.ca/accreditation-programs/qmentum/required-organizational-practices/
4.6 TOOLBOX  All tools and resources were accessed / verified in April 2013.

Health Literacy Assessments

• A commonly used tool to measure health literacy is the Rapid Estimate of Adult Literacy in Medicine (REALM). This validated tool to measure health literacy takes about two minutes to administer. Contact Terry C Davis at t.davis1@lsuhsc.edu for a copy.

• Newest Vital Sign is an emerging tool to assess a person's ability to interpret print material using a simple ice cream label and six questions - http://www.bettycjung.net/201/Healthliteracy.pdf

Health Literacy Toolkits

• North Carolina Program on Health Literacy http://nchealthliteracy.org/index.html. This website includes a variety of resources including videos, teaching aids, assessment tools, a health literacy getting started toolkit and more.

• Agency for Healthcare Research and Quality (AHRQ) Health Literacy Universal Precautions Toolkit. The toolkit is based on the principles of universal precautions, or specific actions that providers can take to make health information more understandable for all patients. It is designed to be used by all levels of staff in practices providing primary care for adults and/or pediatric patients. http://www.nchealthliteracy.org/toolkit.


Communication Tools

4.6 TOOLBOX  All tools and resources were accessed / verified in April 2013.

Teach Back Resources

- Teach Back Technique. [http://www.ethics.va.gov/docs/infocus/InFocus_20060401_Teach_Back.pdf](http://www.ethics.va.gov/docs/infocus/InFocus_20060401_Teach_Back.pdf)

- Clinical Teach Back Cards, TMF Health Quality Institute
  Nurses in hospitals, nursing homes, home health agencies and physician offices will find this tool useful for teaching congestive heart failure (CHF) patients about their medications. Included are a cover reminder card, nine medication cards, three core measure (AMI, CHF and pneumonia) cards and a card listing ACE-inhibitors and beta blockers. Each medication card includes: 1) How the class of drug works, 2) What problems to report to the doctor/nurse, and 3) The brand or generic drug names by class. More information on this subject and similar resources can be found by visiting the Resource Center on the Texas Quality Improvement Organization website, managed by TMF Health Quality Institute, the Medicare Quality Improvement Organization for Texas. Teach back specific web resource: [http://texasqio.tmf.org/portals/0/Resource%20Center/Readmissions/Care%20Standardization/TeachBackCardSet2011.pdf](http://texasqio.tmf.org/portals/0/Resource%20Center/Readmissions/Care%20Standardization/TeachBackCardSet2011.pdf)
4.6 A Deeper Dive into the Change Concepts

Empower and Motivate the Person to Take a Central Role in Their Health and Creating a Safe Environment

Why is this important?
The many challenges to delivering optimal care to individuals with chronic conditions include the need to vigilantly monitor a variety of health indicators to optimize therapeutic interventions as well as the need to develop collaborative and productive relationships with the individual and their key informal caregivers who support them in the daily management of their conditions. Evidence suggests cultivating a continuous healing relationship in which care extends beyond the office visit to the home and community, and beyond the primary care physician to the multi-disciplinary team (including the care recipient and their caregivers). This type of self-management support will provide the necessary information, skills and confidence needed for persons who are living with chronic conditions to help them lead richer lives, and help the care teams feel joy in practice.

Persons with chronic conditions need to have a team to support their health and health care. However, they also need to take as much control of their health and care decisions as possible. The Institute for Health Information's New Partnerships for Health initiative reminds us that, when it comes to chronic illness, physicians and health care providers can only do so much – if they could cure a disease, it wouldn’t become chronic. It is up to the individual and their informal caregivers to do their part to maximize their health.

Activating individuals involves helping them to:
• Understand their condition
• Get physically active
• Eat healthy foods
• Make sure medications are taken properly
• Self monitor their conditions
• Reduce stress
• Deal with pain and fatigue
• Use complementary and alternative therapies

Managing chronic conditions is ongoing hard work for the individual, their family, informal caregivers and health care providers. True partnership and collaboration is solidified by their physician, other providers and practice staff demonstrating that they are working together to assist the person with optimizing their health. The concepts and resources presented relate to both concepts 2 and 3, as they are intricately related. Ensuring that all education provided strengthens the person’s knowledge and skills to stay healthy (change concept 2) is foundational for helping people self-manage their chronic conditions and adopt the behaviours necessary to keep them healthy over time (change concept 3).
4.6 A Deeper Dive into the Change Concepts

**Typical Breakdowns and Challenges**

Some of the breakdowns and challenges in enabling a person to take a central role in their care, that can be addressed through independence and safety interventions, include:

- Services needed exceed what caregivers can provide and what home care can offer.

- Family and informal caregivers, who provide 80% of home care for individuals with chronic conditions, may burn out or have health problems themselves.

- There were missed opportunities to prevent a decline in health (at home) that led to admission to an Emergency Department, hospital or long-term care home.

- People and family members may feel uncomfortable asking questions.

- It takes time to list the options for screening or treatment and to identify what’s important to people (e.g., side effects of treatment, cost of different options, etc.).

- Many practice environments are not person-friendly, resulting in the care recipient feeling judged or dismissed when they ask a question.

- Confirmation of an individual’s comprehension of health care information and supporting self-management takes time. Time is a luxury for many providers.

- Formal self-management programs can be time consuming to implement and it is difficult to reach everyone who would benefit from the program.

- Many health care professionals and providers receive little or no training in the guiding principles and techniques available to support self-management in a practical manner and in any situation.
4.6 TOOLBOX  All tools and resources were accessed / verified in April 2013.

**Self-Management Support: Toolkit for Clinicians**
The Institute for Healthcare Improvement (IHI) spearheaded a program to develop and test efficient approaches to empower individuals and their families to manage their chronic conditions. IHI’s New Health Partnerships initiative published a variety of excellent resources for clinicians and patients. Two key resources from this initiative are recommended below.

The IHI Partnering in Self-Management Support: A Toolkit for Clinicians provides information about how a primary care team can support a person’s need to self-manage before, during and following visits to the primary care practice. These concepts can, in many instances, be applied to other healthcare visits and/or environments including appointments with specialists, home care visits, or at rehabilitation clinics, to name a few:

**Collaborative Self-Management Support Model**
The Collaborative Self-Management Support (CSMS) Model provides information, tools and guidance to people and their families who are dealing with long-term or chronic conditions. The material is organized to help them manage their health and care on a daily basis so as to achieve and maintain optimum health:
- IHI Partnering in Self-management Support Information for People with Chronic Conditions (log in required)

These toolkits as well as additional resources are available at www.ihi.org (log in required).

In addition to the IHI’s New Partnerships Initiatives toolkits, there are numerous resources that can be used by health care professionals as well as the general public to help them prepare for the next visit and enhance the person’s ability to participate in care decisions and planning. Key resources are included in the table below.

**Tools to Guide Provider and Patient Behaviours and Practice Changes Before, During and Following An Appointment Pre- and Post-Health Care Visits**
4.6 TOOLBOX  All tools and resources were accessed / verified in April 2013.

- Partnering in Self-Management Support Rebuilding Chronic Care Three Patients at a Time
  http://www.ihi.org/knowledge/Knowledge%20Center%20Assets/Tools%20-%20PartneringinSelf-
  ManagementSupportAToolkitforClinicians_19158315-0e11-4ec3-b531-1003148e54f0/ProvidenceHealth_
  RebuildingChronicCareThreePtsataTime.pdf

- The College of Family Physicians of Canada. Primary Care Toolkit for Family Physicians. This link includes
  continuity-of-care/appendix.php

Tools and Activities to Help People Play a Central Role in Their Care

Note: unless otherwise indicated, tools are available in the IHI’s New Partnership resources (page 31).

Ask about preferences and experience, help person to prepare for visit, goal setting:

- Bubble Diagram
- Dinner Plate Menus for Diabetes (visit preparation form)
- DocTalk Form (visit preparation form)
- Beyond Ask Me 3 (visit preparation form)
- Conviction and Confidence Ruler
- Take Charge Poster

Use appropriate language and tools to help the person learn:

- Body outline diagram
- Teach back techniques

Create action plan:

- Action plan for patients

Help the person to know what to expect:

- Take charge poster

Use effective communication techniques:

- Physician tip sheet for self-management (AMA)

Proactively plan visits:

- Planned care visit workflow
4.6 A Deeper Dive into the Change Concepts

Motivate the Person to Fully Participate in Managing their Health and Achieve their Goals

Why is this important?
Ontario’s Chronic Disease Prevention and Management Framework (CDPM) prominently features self-management skill development and support. Ontario’s Extended Chronic Care Model for Chronic Disease Prevention and Management is based on British Columbia’s Expanded Care Model and the original Wagner Chronic Care Model, which recognizes that many people can alter the progression of chronic illness by becoming active agents for their own health with proper training and support. According to Wagner, chronic disease is best managed by productive interactions between the individual and his or her clinical health team, within a setting that utilizes a reliable, evidence-based approach to self-management. The ultimate goal of the management model is an informed, proactive and engaged person with chronic conditions, as well as a proactive and prepared practice team.\(^33\)

Wagner identified five self-management skills that form the core of self-management:\(^24\)
1. Problem solving
2. Decision making
3. Resource utilisation
4. Patient-provider relationships
5. Taking action

Self-management support is a key component of the CDPM framework. The aim of self-management can be described as developing skills and confidence within individuals and their families so that they can take responsibility of their own care.\(^35\) An individual should feel confident in their ability to carry out their care goals and empowered with the information necessary to achieve them. A patient-generated action plan with short-term, realistic care goals (e.g., daily exercise or diet plan) can give individuals confidence in managing their disease. Self-management studies with action plans had a greater tendency of demonstrating improved outcomes than those without action plans.\(^36\)

People with chronic conditions spend approximately 5% of their time with health care professionals; the rest of the time, they must manage their own health and care.\(^37\) Enhancing a person’s ability to independently manage their care (change concept 2) refers to assessing and strengthening a person’s comprehension of their disease, symptoms, ability to manage medications, and problem-solve. The third change concept—to make it possible for the person to take a central role in their health and creating a safe environment—is about empowering and motivating the individual to set goals and negotiate a care plan with their primary care team. These change concepts prepare the person to actively and confidently take control of their health and care with the support of a variety of health care providers.
Self-management is a process. It involves supporting the person as they develop the requisite knowledge and skills to be full partners in decision making and in managing their illness. At times, people with chronic illness require motivational supports to give them the will to take control of their health and care, to set goals and follow care plans, and to cope with the physical, emotional, and social challenges associated with chronic illness.

**Typical Breakdowns and Challenges**

Some of the breakdowns and challenges in supporting a person’s self-management can be addressed through independence and safety interventions. These breakdowns and challenges include:

- A lack of trained personnel makes self-management workshops and programs unavailable in many primary care settings.
- People with chronic conditions have been socialized into the medical model, fostering dependence on professionals, rather than a patient-physician partnership model.
- Ontario’s health care system is structured to support the medical model. Physicians and other health care providers have been trained and socialized into the medical model, fostering a dependence on professionals.
- Generally, practice team members do not possess the particular skills and techniques required to actively and effectively support a person in the self-management of their chronic conditions.
- Confirmation of an individual’s comprehension of health care information and supporting self-management takes time. Time is a luxury for many providers.
- Formal self-management programs can be time consuming to implement and it is difficult to reach everyone who would benefit from the program.

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**Guiding Principle**

Best Possible Medication History (BPMH) is the cornerstone of the medication reconciliation process. It must be done accurately, correctly, and in a timely manner to truly inform subsequent reconciliation of medications against admission and prescribed orders. BPMH can be done in the person’s home environment with support from community care agencies and pharmacists. For more information visit Institute for Safe Medication website at [http://www.ismp-canada.org/medrec/#tab2](http://www.ismp-canada.org/medrec/#tab2)
4.6 TOOLBOX

All tools and resources were accessed / verified in April 2013.

The Flinders Program™

- **The Flinders Program™** consists of a set of tools that are completed by both the client and the health care professional/workers, working together as a team.
  
  http://www.flinders.edu.au/medicine/sites/fhbhru/self-management.cfm#CarePlan

This program presents a few tools that are used to assess self-management capacity:

- **Partners in Health Scale (PIH)** – respondents score themselves on a nine point scale, with zero being the worst response and eight being the best.

- **Cue and Response (C&R) interview** – this is an interview-based adjunct to the PIH scale. The C&R process uses a series of open-ended questions or cues to explore the patient’s responses to the PIH scale in more depth. It enables the barriers to self-management to be explored, and it checks the assumptions that either the clinician or the client may have. The health professional can score the responses and compare their score with the client’s scores.

- **Problems and Goals Statement (P&G)** – this is another tool that can be used as an adjunct to the PIH and C&R process or as a stand-alone assessment.

The South West Self-Management Program

- A series of six week self-management workshops are offered to adults who want to live well with chronic conditions.

- This program is offered by the South West Community Care Access Centre (CCAC) in partnership with the South West LHIN.

- The program has numerous resources for health care professionals, including:
  
  - motivational interviewing
  - self-management toolkit

For more information, please visit their website at http://www.swselfmanagement.ca/content.aspx?id=21

The Stanford Chronic Disease Self-Management Program™

The Stanford Chronic Disease Self-Management (CDSM) Program™ is a structured group program that runs over six sessions for people with any chronic health problem. Training topics for this program include:

- Techniques to deal with problems such as frustration, fatigue, pain and isolation

- Appropriate exercise for maintaining and improving strength, flexibility and endurance

- Appropriate use of medications
A physician within primary care and mental health and who is a certified trainer in Stanford's CDSM program, recommends the following practice changes to support self-management:

- Communicate effectively with family, friends, and health professionals.
- Nutrition strategies to evaluate new and alternative treatments.

For more information, please visit http://patienteducation.stanford.edu/programs/cdsmp.html.

For more tools and resources, please refer to the resources presented for change concept #2.
4.6  A Deeper Dive into the Change Concepts

Implement “Aging at Home” Recommendations from the Ontario Health Technologies Advisory Committee to Enhance a Person’s Ability to Live Independently and Safely in the Community

Why is this Important?

Falls
Although estimates of fall rates vary widely based on the location, age, and living arrangements of the elderly population, it is estimated that each year, approximately 30% of community-dwelling individuals aged 65 and older, and 50% of those aged 85 and older will fall. Of those individuals who fall, 12% to 42% will have a fall-related injury. Major injuries, such as hip and wrist fractures occur in approximately 4–5% of falls. Injury due to a fall places a marked risk on the Ontario health system and is the leading cause of injury-related health care and emergency department visits for Ontarians aged 65 years and older. Length of hospital stay for these individuals is estimated to be 40% longer than for all-cause admissions, which has been shown to be affected by the severity of the injury as well as the need for community-based services to allow for an effective transition from hospital to home.

Falls result from the interaction of numerous intrinsic and extrinsic risk factors. Intrinsic factors relate to the physical, demographic, and health status of the individual and can be further grouped into medical risk, risk associated with activity level and independence, and medication risks. Extrinsic factors relate to the physical and socio-economic environment.

Dementia
Dementia is an irreversible and progressive condition that is characterized by a loss in cognitive function, often leading to social and occupational deconditioning. Evidence identifies dementia as one of the key predictors of a senior’s inability to live independently in the community. Cognitive decline associated with dementia is one of the most commonly cited reasons for institutionalization. Because of the level of dependency and risks associated with dementia, caregivers play a key role in the ongoing care and management of individuals with dementia. The increased burden of care giving contributes to a host of chronic conditions experienced by many informal caregivers.
4.6 A Deeper Dive into the Change Concepts

For some individuals with dementia, long-term care facilities provide the most appropriate care. However, there are many instances where people with dementia move into long-term care prematurely. For individuals with dementia and cognitive decline to remain in their home longer, caregivers require different types of formal and informal support services to alleviate the physical and emotional burden of providing care. It is estimated that 58,575 people in Ontario are providing care for persons with dementia. For people with dementia and Alzheimer’s, the goal is to strike a balance between independence and protection from harm.

Urinary Incontinence
Urinary incontinence (UI) affects an individual's independence and ability to function in daily life. Canadians with urinary incontinence have more frequent visits to their physicians and spend more time in hospitals and nursing homes than those Canadians without UI. Evidence suggests that more than 50% of community-dwelling women 45 years of age and older experience some urinary incontinence, and 1 in 5 admit that urinary incontinence affects their normal activities. This number is expected to increase as the population ages.

Caregiver Support
Caring for someone with dementia and chronic illness impacts every aspect of the caregiver’s daily life; the physical and emotional toll cannot be underestimated. For family and other caregivers, maintaining physical and emotional fitness is critical, as is seeking assistance when the reality of dealing with the evolving needs of the person with dementia seems overwhelming. Preparing oneself to provide ongoing care is essential. Caregiver burnout and an inability to cope with providing around the clock care for a loved one with chronic illness contributes to readmissions and longer hospital stays.
A Deeper Dive into the Change Concepts

Typical Breakdowns and Challenges

Some of the breakdowns and challenges in supporting a person's self-management can be addressed through independence and safety interventions. These breakdowns and challenges include:

- Services and interventions to support the behavioural changes necessary to improve urinary incontinence are inconsistent with respect to accessing services, responsibility for managing persons with urinary incontinence and what services/interventions people receive.

- Home Care staff lack familiarity with strategies such as prompted voiding to reduce incontinence.

- Respite care is difficult to define as seniors with dementia have complex and diverse needs.

- Available resources, both in terms of human resources and available hours of respite care, are inadequate to meet the existing demand for services.

- Individuals with dementia respond to familiar faces and an individualized approach. This is not always available based on current service delivery models in Ontario.

- Referrals for occupational therapy, physiotherapy, social workers, personal support workers and other supports are not done consistently, nor in a collaborative manner (i.e., not part of a multi-disciplinary community-based program).

- “Deconditioning” among hospitalized patients. Being in an unfamiliar environment like a hospital can accelerate one's loss of physical function.

- Lack of exercise or rehabilitation because services are not available, not tailored to the individual's needs or too expensive.

- Providers have difficulty recognizing pain, particularly among persons with dementia.

- People may be reluctant to take pain medications due to fear of addiction or tolerance or dislike of side effects (e.g., constipation).

- Physicians may be reluctant to prescribe pain medications and may worry that people will develop an addiction. This is a particular concern with narcotic agents. Age can affect a drug's effectiveness, sensitivity and toxicity, and it may be difficult to predict optimal dosages and potential side effects.

- People can experience social isolation, especially when living alone. A decline in general health or physical or psychological capacity may make people feel depressed, especially if it limits their daily activities.
In 2008, the Ontario Health Technology Advisory Committee (OHTAC) published its recommendations to help individuals who are “Aging in the Community.” These recommendations are based on evidence-based analyses generated by the Evidence Development and Standards advisory (formerly the Medical Advisory Secretariat) within Health Quality Ontario. These recommendations are included below, along with numerous resources to support implementation of these changes.

Key resources are also included below and are aligned with the OHTAC recommendations.

**Falls**
Prevention of falls and falls related injuries:
- Prescribing longer-term exercise programs for mobile seniors
- Modifying the home environment for frail seniors; use gait stabilizing devices
- Prescribing outdoor gait stabilizing devices for mobile elderly coaching individual on proper use of these devices
- Prescribing a combination of vitamin D and calcium to prevent falls in elderly women

**Resources:**
- Finding Balance Ontario – A website directed towards seniors, helping them prevent a fall before it happens so they can stay active and independent - http://www.findingbalanceontario.ca/
4.6 TOOLBOX  All tools and resources were accessed / verified in April 2013.

Urinary Incontinence
Improve and/or maintain urinary continence by:

• Coaching individuals through behavioural interventions, including bladder training techniques, bladder control strategies and self monitoring techniques

• Targeted support and education for pelvic floor muscle strengthening

Resources:
• Canadian Continence Foundation published a comprehensive resource for continence care and management. The resource is intended to be used primarily by the public however healthcare providers will find numerous resources which can be used to create individualized care plans, education programs and other supports. Importantly, the source includes resources to help individuals with continence challenges to modify behaviours, learn bladder training techniques and bladder control strategies.

• http://www.canadiancontinence.ca/pdf/The-Source.pdf


Dementia
Provide formal and informal support for caregivers of persons with dementia, including:

• Individual behavioural support to improve psychological health (coping skills, dementia-specific education)

• Respite care for caregivers

Resources:
• HelpGuide is a not-for-profit organization that provides user-friendly, evidence-informed, reliable and bias-free information to help individuals to improve their well-being and make better health decisions.

• The organization publishes numerous guides and toolkits to help support the informal caregivers who provide part time and around-the-clock care for their loved ones with Alzheimer's and dementia.
4.6 **TOOLBOX**  
*All tools and resources were accessed / verified in April 2013.*


The website also hosts numerous resources to help caregivers to prevent burnout, deal with depression, manage stress, relax and maintain their physical fitness: [http://www.helpguide.org/mental/stress_management_relief_coping.htm](http://www.helpguide.org/mental/stress_management_relief_coping.htm)

- Provide person-specific interventions for persons living with dementia, including:
  - Targeted physical conditioning and exercise to delay progress of dementia, promote mobility and performance of activities of daily living
  - Targeted cognitive conditioning to improve impairments

**Resources:**
- The Alzheimer Societies, in Canada and other countries, provide specific resources to help people with dementia and Alzheimer’s (and their caregivers) find the right balance between independence and protection from harm.

- The Alzheimer Society of the United Kingdom ([http://alzheimers.org.uk](http://alzheimers.org.uk)) publishes factsheets for a number of relevant topics relating to dementia care.

- Key factsheets are listed below:
  - Exercise and physical activity for people with dementia: [http://www.alzheimers.org.uk/factsheet/529](http://www.alzheimers.org.uk/factsheet/529)
5.1 Glossary

**Best Possible Medication History (BPMH)**
A medication history obtained by a pharmacist or their designate which includes a thorough history of all regular medication use (prescribed and non-prescribed), using some or all of the following sources of information: patient or caregiver interview; inspection of vials and other medication containers; review of a personal medication list; and/or follow up with a community pharmacy or review of a current medication list printed by the community pharmacy. ⁴⁹

**Care coordination**
Care coordination is comprised of the following elements:

- Numerous participants are typically involved in care coordination;
- Coordination is necessary when participants are dependent upon each other to carry out disparate activities in a person’s care;
- In order to carry out these activities in a coordinated way, each participant needs adequate knowledge about their own and others’ roles, and available resources;
- In order to manage all required patient care activities, participants rely on exchange of information; and integration of care activities has the goal of facilitating appropriate delivery of healthcare services. ⁵⁰

**Continuity of care**
Continuity of care is difficult to define and understanding how to achieve it is complex. An evidence based analysis, conducted by the Evidence Development and Standards Branch at HQO, asserts that continuity of care relates to both the quality of care delivered over time as well as the experience of care as it relates to satisfaction and coordination of care between providers. ⁵¹
Care transition
A care transition describes the transfer of a patient between different settings and health care providers during the course of an acute and chronic illness. [52](also see Transition)

Caregiver
Along with patients, physicians, nurses, pharmacists, social workers and other professionals, caregivers (family or otherwise) are often involved in the delivery of healthcare services, and can often have a role in care coordination. [53]

Care plan
A care plan is an agreement between a person and their health professional (and/or social services) to help you manage health day-to-day. It can be a written document or something recorded in patient notes. [54]

Change concept
A general notion or approach that has been found to be useful in developing specific ideas for change that result in improvement. [56]

Deconditioning
A complex process of physiological decline following a period of relative inactivity, bed rest or sedentary lifestyle. The result is functional impairment in such areas as mental status, degree of continence and ability to accomplish activities of daily living. In the elderly, deconditioning is often associated with falls, increased frailty, immobility and hospitalization. [56]

Fragmentation of care
As described by Dr Edward Wagner et al, “a fragmented healthcare system may be technologically sophisticated and organizationally inept. It is characterized by an emphasis on diagnosis and treatment, expensive duplication of effort, and lost efficiency resulting from inadequately, incorrectly or belatedly sharing information between many providers.” [57]

Health literacy
The degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions. It represents a collection of skills necessary for people to act appropriately to healthcare information and to function effectively in the healthcare environment. Key skills include the ability to interpret documents, read and write prose (print literacy), use quantitative information (numeracy), and speak and listen effectively (oral literacy). [58]
Integration of care

While there is no single definition of integrated care, integration of care refers to a means to reduce fragmentation in care through the coordination of services which are planned, managed and delivered by a range of healthcare professionals and informal carers between different organizational units.60

InterRAI

interRAI is a collaborative network of researchers (over thirty countries) committed to improving care for persons who are disabled or medically complex. The network aims to promote evidence-informed clinical practice and policy decision making through the collection and interpretation of high-quality data about the characteristics and outcomes of persons served across a variety of health and social services settings.

A suite of interRAI instruments have been developed, each for a different population. They are, however, designed to work together to create an integrated health information system that uses a common language.63

Medication reconciliation

The process of obtaining a complete and accurate list of each person’s current home medications (including name, dosage, frequency and route), and using that list when writing admission, transfer and/or discharge medication orders. The process includes comparing the list against the patient’s admission, transfer, and/or discharge orders, identifying and bringing any discrepancies to the attention of the prescriber and, if appropriate, making changes to the orders. Any resulting changes in orders must be documented.61

Sicker adults

The Commonwealth Fund International Health Policy Survey is conducted every year with a focus on general adults, sicker adults or primary care physicians. The 2011 survey included adults who reported at least one of the following: fair or poor health; received medical care in the past year for a serious or chronic illness, injury, or disability; hospitalization in the past two years (other than uncomplicated delivery of baby); major surgery in the past two years. The 2008 survey studied sicker adults as well, while the 2009 survey focused on primary care physicians and the 2010 survey focused on all adults.62
Teach-back: Teach-back is a way for practitioners to confirm that what they explain to the patient was clear and understood. Patient understanding is confirmed when the patient explains it back to the practitioner or does a return demonstration.  

Transition: A broad range of time-limited services designed to ensure healthcare continuity, avoid preventable poor outcomes among at-risk populations, and promote the safe and timely transfer of patients from one level of care, or from one type of setting to another. (also see Care Transition)

Virtual Ward Program: A group of Toronto based hospitals and researchers are trialling and researching this post-discharge intervention that uses a team-based approach to care for individuals with complex needs in their homes. Hospital-like systems like interdisciplinary teams, a shared medical chart and a single point of contact support the Virtual Ward Program.
Section 6

References and Appendix
References


35 Zwar, N., Harris, M., Griffiths, R., Roland, M., Dennis, S., Powell Davies, G., Hasan, I. (2006) A systematic review of chronic disease management. Research Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, UNSW.


LACE Index Scoring Tool

Step 1: Length of Stay
Length of stay (including day of admission and discharge): __________ days

<table>
<thead>
<tr>
<th>Length of stay (days)</th>
<th>Score (circle as appropriate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4-6</td>
<td>4</td>
</tr>
<tr>
<td>7-13</td>
<td>5</td>
</tr>
<tr>
<td>14 or more</td>
<td>7</td>
</tr>
</tbody>
</table>

Step 2: Acuteness of Admission
Was the patient admitted to hospital via the emergency department?
If yes, enter “3” in Box A, otherwise enter “0” in Box A.

Step 3: Co-morbidities (see next page for explanations)

<table>
<thead>
<tr>
<th>Condition (definitions and notes on reverse)</th>
<th>Score (circle as appropriate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous myocardial infarction</td>
<td>+1</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>+1</td>
</tr>
<tr>
<td>Peripheral vascular disease</td>
<td>+1</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>+1</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>+2</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>+2</td>
</tr>
<tr>
<td>Mild liver disease</td>
<td>+2</td>
</tr>
<tr>
<td>Moderate or severe liver disease</td>
<td>+4</td>
</tr>
<tr>
<td>Any tumor (including lymphoma or leukemia)</td>
<td>+2</td>
</tr>
<tr>
<td>Metastatic solid tumor</td>
<td>+6</td>
</tr>
<tr>
<td>Dementia</td>
<td>+3</td>
</tr>
<tr>
<td>Connective tissue disease</td>
<td>+3</td>
</tr>
<tr>
<td>AIDS</td>
<td>+4</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

If the TOTAL score is between 0 and 3 enter the score into Box C.
If the score is 4 or higher, enter 5 into Box C.

Step 4: Emergency Department Visits
How many times has the patient visited an emergency
department in the six months prior to admission (not including the emergency department visit immediately preceding the current admission? Enter this number or 4 (whichever is smaller) in Box E.

Add numbers in Box L, Box A, Box C, and Box E to generate LACE score and enter into box below.

If the patient has a LACE score is greater than or equal to 10 the patient is deemed high risk for readmission within 30 days of discharge.

Source: Virtual ward Program. St Michael's Hospital. Used with permission from Dr. Irfan Dhalla. July 2012.
# The Charlson Comorbidity Index

<table>
<thead>
<tr>
<th>Condition</th>
<th>Definition</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous myocardial infarction:</td>
<td>Any previous definite or probable myocardial infarction</td>
<td>Includes Remote MI. Does not include coronary artery disease without MI (e.g., unstable angina with no elevation in cardiac enzymes).</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>Any previous stroke or transient ischemic attack (TIA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other forms of intracranial hemorrhage (e.g., epidural, subdural and subarachnoid hemorrhage) are not included.</td>
<td></td>
</tr>
<tr>
<td>Peripheral vascular disease</td>
<td>Intermittent claudication, previous surgery or stenting, gangrene or acute ischemia, untreated abdominal or thoracic aortic aneurysm</td>
<td>Does not include DVT or venous ulcers. (If a patient has a vascular ulcer, ask the medical team to see if it is arterial or venous.)</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>Clinical diagnosis of diabetes mellitus</td>
<td>Does not include impaired fasting glucose or impaired glucose tolerance. Gestational diabetes is included.</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>Any patient with symptomatic CHF whose symptoms have responded to appropriate medications</td>
<td>Includes treated or compensated CHF.</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>Clinical diagnosis of COPD with use of bronchodilators and/or steroids.</td>
<td>Includes chronic bronchitis and/or emphysema. Does not include asthma.</td>
</tr>
<tr>
<td>Mild liver disease</td>
<td>Cirrhosis but no portal hypertension (i.e., no varices, no ascites) OR chronic hepatitis</td>
<td>Includes chronic hepatitis C and chronic hepatitis B (even without cirrhosis), other causes of hepatitis that are chronic (e.g., alcohol, autoimmune, etc.) and compensated cirrhosis. Simple fatty liver disease is not included.</td>
</tr>
<tr>
<td>Moderate or severe liver disease</td>
<td>Cirrhosis with portal hypertension (e.g., ascites or variceal bleeding)</td>
<td></td>
</tr>
<tr>
<td>Any tumor (including lymphoma or leukemia)</td>
<td>Solid tumors must have been treated within the last 5 years; includes chronic lymphocytic leukemia (CLL) polycythemia vera (PV).</td>
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<tr>
<td></td>
<td>Does not include cancers that have been treated curatively more than 5 years ago – e.g., breast cancer diagnosed and treated 6 years ago with no recurrence. Does not include benign tumours (e.g., lipoma). Does not include skin cancers. (If a patient has metastatic skin cancer, this would be included below).</td>
<td></td>
</tr>
<tr>
<td>Metastatic solid tumor</td>
<td>Any metastatic tumour</td>
<td>For patients with metastasis, do not include the score for malignancy.</td>
</tr>
<tr>
<td>Dementia</td>
<td>Clinical diagnosis of dementia</td>
<td>Note that this is an imprecise definition, and often you will have to ask the medical resident to give his or her opinion on whether the patient has dementia.</td>
</tr>
<tr>
<td>Connective tissue disease</td>
<td>Systemic lupus erythematosus (SLE), polymyositis, mixed connective tissue disease, moderate to severe rheumatoid arthritis, and polymyalgia rheumatica</td>
<td>In general, this includes any systemic connective tissue disease (e.g., dermatomyositis, vasulitis, systemic sclerosis, drug induced lupus, etc.). Relatively benign diseases (e.g., discoid lupus limited to the skin or osteoarthritis) and fibromyalgia should generally not be included.</td>
</tr>
<tr>
<td>AIDS</td>
<td>AIDS-defining opportunistic infection or CD4 &lt; 200</td>
<td>If the patient has a history of treated opportunistic infection (e.g., PCP) in the past, or a history of a CD4 count &lt; 200, the patient is classified as having AIDS for the purpose of this study.</td>
</tr>
</tbody>
</table>
