Health Quality Transformation 2013
Qualité de la santé

Health Literacy and its Effect on Health Outcomes

Moderator:

Nick Kates, MB,BS FRCP(C) MCFP(hon)

Director of Programs, Hamilton Family Health Teams

Presenter Disclosure

- **Session Name:** Health Literacy and its Effect on Health Outcomes
- **Presenters: Dr. Nick Kates,** Dr. Linda Shohet, Lina Rinaldi, Kelly O'Halloran

- **Relationships with commercial interests:**
  - Not Applicable

Disclosure of Commercial Support

- This session has received no commercial support

Mitigating Potential Bias

- Not applicable

Session Objectives

1. Develop an understanding of the key attributes of health literacy identified in recent research, including links to individual health outcomes, quality and risk, and costs.
2. Discuss the role of health care providers and organizations regarding health literacy and identify strategies to become a "health-literate organization."

Speakers:

Linda Shohet, PhD

The Centre for Literacy

Lina Rinaldi,

COO/CNE, Brant Community Healthcare System & Co-Executive Sponsor

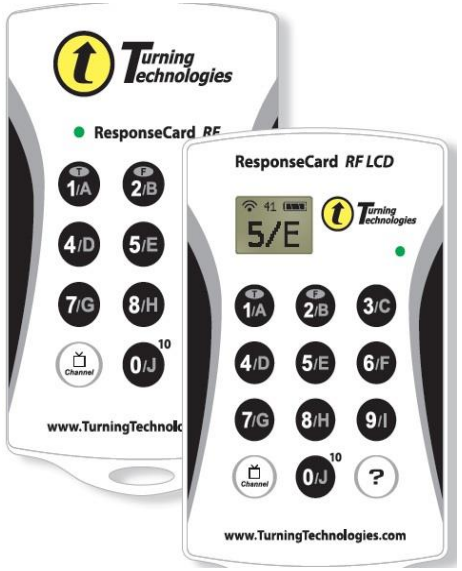
Kelly O'Halloran, RN(EC), MScN,

Hamilton Health Sciences & Project Manager

Audience Participation – Keypad

We want to know what you think

- You will be asked for your input at the beginning and end of the session
- Using the keypad on your chair, answer by choosing only one response
- Answer within the time allotment
- See the aggregate response instantly



Using your keypad, answer the following question:

Warm-up Question

One of the following statements about Ontario is incorrect. Which one is it?

a) Ontario contains a third of the world's supply of fresh water

b) The world's biggest coin can be found in Ontario

c) The amethyst is the official gem of Ontario

d) 10 pin bowling was invented in Ontario

e) 28% of Ontarians were born outside of Canada

Using your keypad, answer the following question:

Survey Question 1

What, in your opinion, is the most important aspect of health literacy?

a) Using plain language to communicate
b) Testing patient/client/resident reading skills
c) Testing the communication skills of the health care provider
d) Providing patients/clients/residents health information in different languages
e) Helping patients to understand and navigate the health system

Using your keypad, answer the following question:

Survey Question 2

To what extent do you believe that your organization is health literate?

a) Not at all
b) Somewhat
c) Mostly
d) Completely
e) Not sure what it means

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Health Literacy –
A Transformative concept

Linda Shohet, PhD
The Centre for Literacy

Surprising Facts

A significant portion of adult Canadians have some difficulty with literacy and numeracy

Adult Canadians have higher proficiency in problem-solving in technology rich environments (PS-TRE) than OECD average

Adults 16-24 are not as proficient in PS-TRE as those 25-34

The variation in proficiency varies as much across provinces and territories as between countries

Source: OECD, PIAAC Findings,Slides 8, 10,11,12
http://www.centreforliteracy.qc.ca/sites/default/files/Thorn_W-OECD.pdf

Overview

- Definitions of literacy and health literacy: Evolving concepts and issues
- Measuring literacy levels: Canadian data from PIAAC
- Literacy and health: What we do and do not know
- Health literacy and health care providers: Implications for practice
- Calgary Charter: Principles in teaching health literacy
- MDCME credit module 2013

Literacy: Change Over Time

FROM

An absolute condition of literate/illiterate

TO

A continuum of skills/abilities

Literacy problem: Any gap between demand of the context and skill of the individual

Literacy is an Evolving Concept

Using printed and written information to function in society, to achieve one's goals and to develop one's knowledge and potential

International Adult Literacy and Skills Survey (IALSS, 2003)

Literacy is the interest, attitude and ability of individuals to appropriately use socio-cultural tools, including digital technology and communication tools to access, manage, integrate and evaluate information, construct new knowledge and communicate with others in order to participate effectively in society.

Program for the International Assessment of Adult Competencies (PIAAC) 2010-2013

Literacy

Literacy is a complex set of abilities needed to understand and use the dominant symbol systems of a culture – alphabets, numbers, visual icons – for personal and community development. The nature of these abilities, and the demand for them, vary from one context to another….

The Centre for Literacy 1989 (www.centreforliteracy.qc.ca)

Health Literacy as Evolving Concept

Health literacy combines the thinking and social skills that determine the motivation and ability of individuals to find, understand and use information in ways which promote and maintain good health. Health literacy means more than being able to read pamphlets and make appointments. By improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment.

World Health Organization (WHO), 1998

But health literacy **goes beyond the individual**. It also depends upon the skills, preferences, and expectations of health information providers: our doctors, nurses, administrators, home health workers, the media, and many others. Health literacy arises from a coming together of education, health services, and social and cultural factors, and combines research and practice from different fields.

Health Literacy: A Prescription to End Confusion Institute of Medicine, 2004

The ability to access, understand, evaluate and communicate information as a way to promote, maintain, and improve health in a variety of settings across the life-course.

A Vision for a Health Literate Canada: Report of the Expert Panel on Health Literacy, Canadian Public Health Association, 2008

Health Literacy – Broadened Concept

The ability of individuals to find, assess and use health information to make appropriate health decisions and maintain good health, and the capacity of systems and organizations to provide that information in ways accessible to all (universal precaution)

Four domains:

- *Fundamental:* includes language and numbers
- *Scientific/technological:* includes some understanding of physical and natural sciences, technology, and scientific uncertainty
- *Civic/community:* includes media literacy, knowledge of local, provincial and federal government processes
- *Cultural*: includes recognition of community beliefs, customs, view of the world, and social identity

Zarcadoolas, Pleasant & Greer

International Adult Literacy Surveys
IALS 1994, IALSS 2003, PIAAC 2013

- Organisation for Economic and Cooperative Development, (OECD), StatsCan, and US agencies
- Compares literacy rates in participating industrialized countries
- Defined 5 levels of literacy
- 2003 survey included health literacy component
- PIAAC 2013 - shift to competencies – includes literacy, numeracy, reading components, problem-solving in technology-rich environments (PS-TRE), and gathered personal information on Background Questionnaire, incl. health-related
- PIAAC Canada: 27,000 respondents, largest sample of 24 countries

PIAAC Literacy: Average Proficiency Score and Percent of Population at Each Level, Selected Provinces and Territories, Canada 2013

	Average Proficiency Score	Below L1	Level 1	Level 2	Level 3	Level 4/5
NF/LA	**265.5**	3.4	17.2	36.2	33.6	9.6
Quebec	**269**	4.1	14.9	34.3	35.5	11.3
Ontario	**275.5**	3.9	11.1	31.8	38.3	14.9
Canada	**273.5**	3.8	12.7	32.0	37.6	13.9

PIAAC Level 4-5

- Integrates skills to read, analyze and synthesize ideas from multiple sources
- In Canada: 13.9%
- In Ontario: 14.9%
- Draws on earlier definitions of information literacy
- **Most health information requires Level 4/5 skills**

Health Literacy in Canada

- IALSS sub-analysis from 2003
- Applying literacy in a health context
- Asked 190 questions in five areas of health: promotion, protection, prevention, care and maintenance, system navigation
- Data used in 2008 health literacy reports

What do we know?

- Almost half of adult Canadians have some difficulty reading/understanding print or digital text
- The percentage varies by province and territory
- The percentage of population who have difficulty with health information is 60%+
- Difficulties are identifiable in specific population segments: immigrants, seniors, aboriginal, francophone

What do we know?

- Most health information still communicated via print
- Health information rapidly being transferred to web
- Health literacy is about more than literacy.
- Also about other media “literacies”: visual, audio, television, online (PS-TRE)
- Research on health literacy has been narrow until recently: print materials, readability, individual skills, healthcare settings, NOW broadening
- Promising interventions, limited evaluation

So what?

The obligation falls on providers and systems

To make appropriate accommodations for a range of communication barriers

Education, language, disability, age, learning preference….

New Approaches

Many measures of health literacy

e.g. REALM, TOFHLA,HALS, NVS, SIRACT, MART, LAD et al

Shortcomings: not theory-based, limited approach: reading, word recognition, lack cultural sensitivity, potentially harmful label on patients in clinical settings, do not evaluate spoken communication, focus on a single dimension while health literacy involves multiple dimensions

Andrew Pleasant, http://www.centreforliteracy.qc.ca/publications/briefs/measuring/1.htm

The American Medical Association recommended that health literacy screening is not appropriate for routine clinical practice but is more appropriate for research applications (Elliott 2008). *http://www.ama-assn.org/amednews/2008/06/02/hlsd0602.htm*

Measuring Health Literacy in Organizations and Systems

US: Agency for Healthcare Research and Quality (AHRQ) created a "health literacy assessment tool" (AHRQ, 2011)

Joint Commission (US) - health literacy standards are part of hospital accreditation process

Calgary Charter – Principles to Teach HL

Set of principles to underpin HL curricula –

Proposed following HL Institute in Calgary 2008

Addresses both skills of individuals and barriers created by health service providers and systems. Prior definitions largely focused on the patient, and under-emphasized the role of health system personnel.

Distinguishes between health literacy and communication

Health literacy -- use of a set of skills and abilities.

Communication -- process of exchanging information.

Some, not all, the skills are the same.

e.g., a person could have excellent communication skills, but not be very health literate.

http://www.centreforliteracy.qc.ca/Healthlitinst/Calgary_Charter_Oct_09.pdf

Calgary Charter

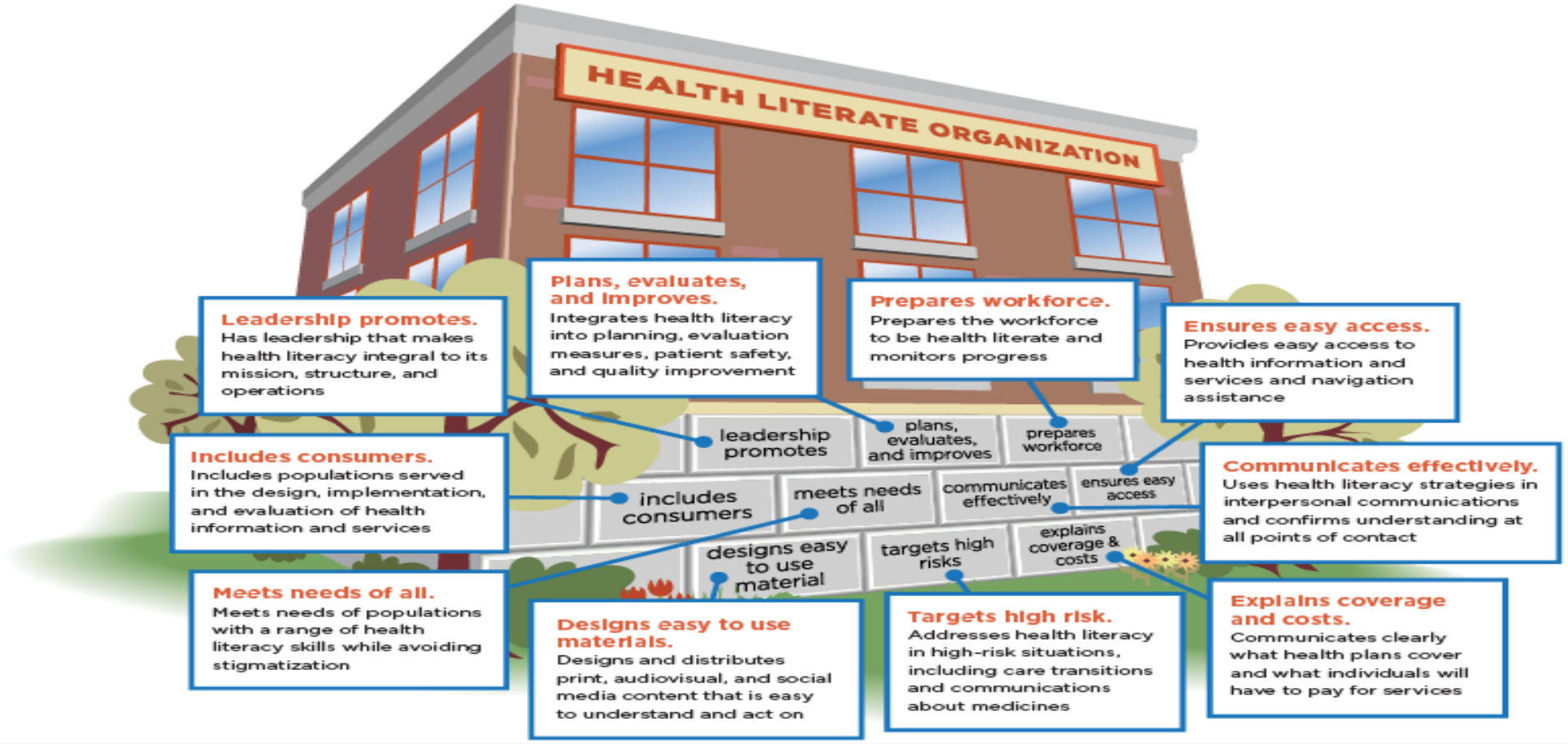
Health literacy applies to all individuals and to health systems.

- **An individual can be health literate** by using the skills needed to find, understand, evaluate, communicate, and use information.
- **Providers can be health literate** by presenting information in ways that improve understanding and ability of service users to act on the information.
- **Systems can be health literate** by providing equal, easy, and shame-free access to and delivery of health care and health information.

Health Literacy 2013

- HL research increasing and broadening
  - Health literacy studies on Pub Med on November 5, 2013: 5718
  - 1700 went up between 2010 and 2012
  - 1018 went up between July 2012 and Nov 2013 incl focus on health outcomes, safety, risk, quality
- *Ten Attributes of Health Literate Health Care Organizations*, IOM June 2012

10 Attributes of Health-Literate Organization



This graphic reflects the views of the authors of the Discussion Paper "Ten Attributes of Health Literate Health Care Organizations" and not necessarily of the authors' organizations or of the IOM. The paper has not been subjected to the review procedures of the IOM and is not a report of the IOM or of the National Research Council.

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Discharge Transitions Bundle Project

Lina Rinaldi,
COO/CNE, Brant Community Healthcare System & Co-Executive Sponsor

Acknowledgement

- Teresa Smith, President, Hamilton General Hospital, Hamilton Health Sciences & Co-Executive Sponsor
- HNHB CCAC & specifically the CCAC Rapid Response Transition Team.

Hamilton Niagara Haldimand Brant (HNHB) LHIN Patient Flow Steering Committee

- History
  - Provincial Alternate Level Care (ALC) Expert Panel - 2006
  - HNHB LHIN ALC Steering Committee - 2007
  - Membership

To promote, support and inform strategies across HNHB LHIN regions that will ensure persons are in the most appropriate setting, optimize system capacity and avoid & reduce duplication by integrating sectors

Annual Action Plan Logic Model

Why Support the Development of a Discharge Transitions Bundle?

- Unplanned 30-day readmissions accounted for an estimated $705 million in Ontario hospital costs in 2008/09.
- Ontario's 30-day readmission rate of 15% is high in comparison to some leading health systems.
- Occur not just for clinical reasons, but can also occur for socioeconomic reasons.
- Are often the result of deficiencies in coordination and communication within the health care system, such as failure to ensure that a patient has a follow-up visit scheduled with his or her primary care physician at the time of discharge.
- Avoidable readmissions are not linked solely to hospital activity, which means there is a great need to ensure effective communication and coordination to support safe, effective transitions across all sectors of the care continuum.

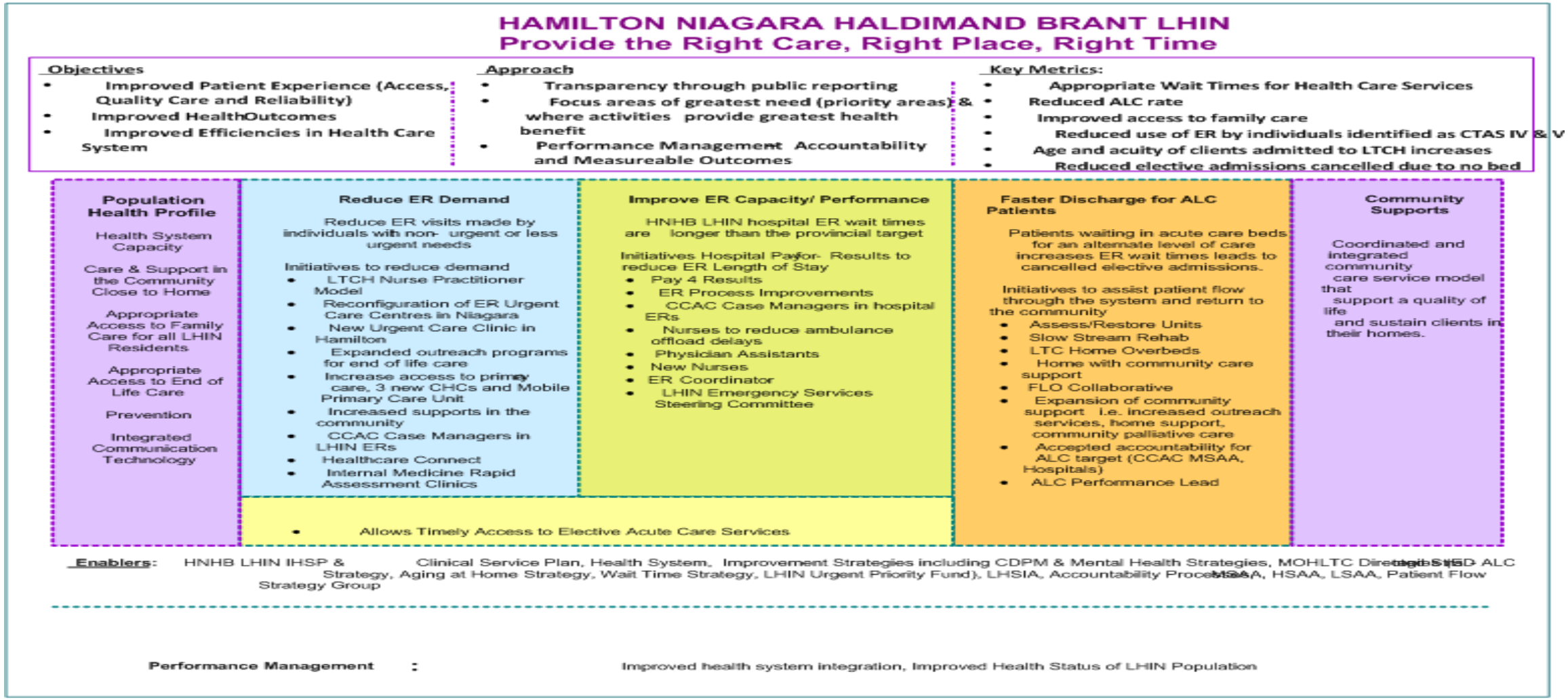
Allaudeen, N., Vidyarthi, A., Miselli, J., Auerback, A., (2011). Redefining Readmission Risk factors for General Medicine Patients. Journal Of Hospital Medicine 6(2) MOHLTC (2011). Enhancing the Continuum of Care. Report of the Avoidable Hospitalization Advisory Panel.

Percentage of COPD and HF Inpatient Cases Readmitted to Any Hospital Within HNHB Within 30 Days of Discharge

April 1, 2012 to September 30, 2012

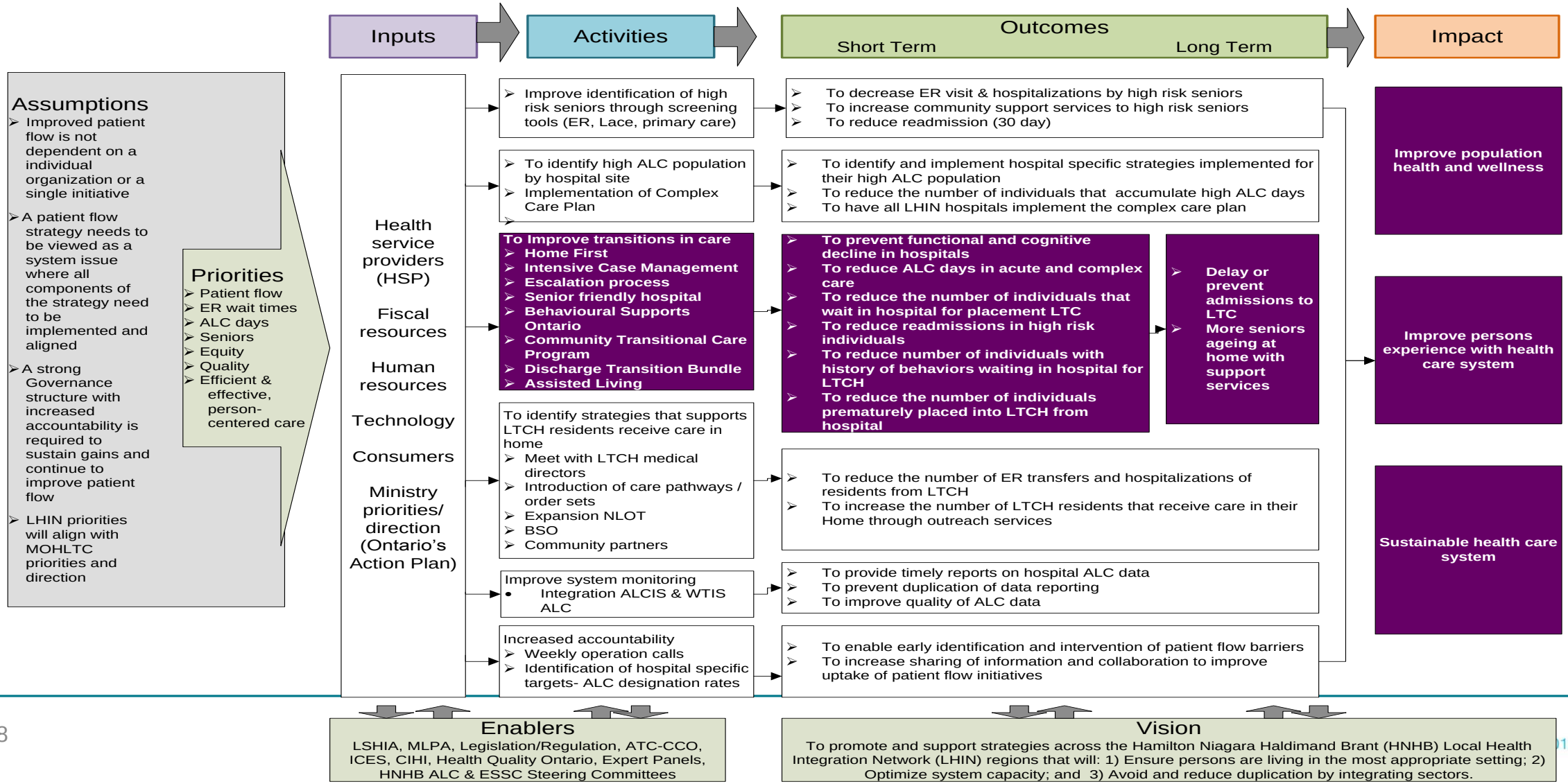
CMG Description	Not Readmitted	Readmitted ≤30 days	Readmitted > 30 days	Grand Total	**% Readmitted within 30 days**
COPD	865	252	204	1321	**19.1%**
HF (no angiogram)	843	287	177	1307	**22.0%**

HNHB LHIN Patient Flow Steering Committee (Formerly ALC steering)



HNHB LHIN Patient Flow Steering Committee (Formerly ALC steering)

HNHB LHIN Alternate Level of Care 2012-13 Action Plan Logic Model



HNHB LHIN Patient Flow Steering Committee (Formerly ALC steering)

HNHB LHIN Patient Flow Steering Committee Work Plan 2012-13

Activities	Outcomes	Leads & Participants	Anticipated Timeline	Status
➢ Discharge transitions Bundle by HQO: • Written discharge instructions • Teach-back • Discharge summary at discharge • LACE scoring (identifying high risk patients) • Discharge checklist (e.g., medications, referrals, appointments). • "warm hand-off" (phone call from hospitalist / MRP to primary care) • Follow-up with home care (at day one if high risk).Follow-up with family physician (within 5 days if high-risk) • Medication reconciliation	➢ To improve transitions in care ➢ To reduce 30 day readmissions ➢ To produce a tool-kit for all LHIN hospital to utilize for easier adoption of best practices	T. Smith L. Rinaldi HHS, BCHS, CCAC	2012-13	Anticipated completion March 31, 2013. Phase 2 for 2013-14.

HNHB LHIN Patient Flow Steering Committee (Formerly ALC steering)

HNHB LHIN Patient Flow Steering Committee Work Plan 2013-15

Activities	Outcomes	Leads & Participants	Anticipated Timeline	Status
➢ Implementation of the HNHB Discharge Transition Bundle to 5 Hospital Corporations (smaller sites can partner with larger sites to expand roll-out) ➢ Dissemination of the COPD teach back bundle ➢ Creation of and dissemination of the HF teach back bundle	➢ To improve transitions in care from hospital to community ➢ To reduce 30 day readmissions in COPD & HR ➢ To avoid/prevent unnecessary ER visits / hospitalizations ➢ To improve patient experience ➢ To increase connectivity with Primary Care	Sponsors: T. Smith and L. Rinaldi Project Manager: Kelly O'Halloran	Completed by March 31, 2014	Update to Patient Flow Steering Committee @ Q1, Q2, Q3, Q4

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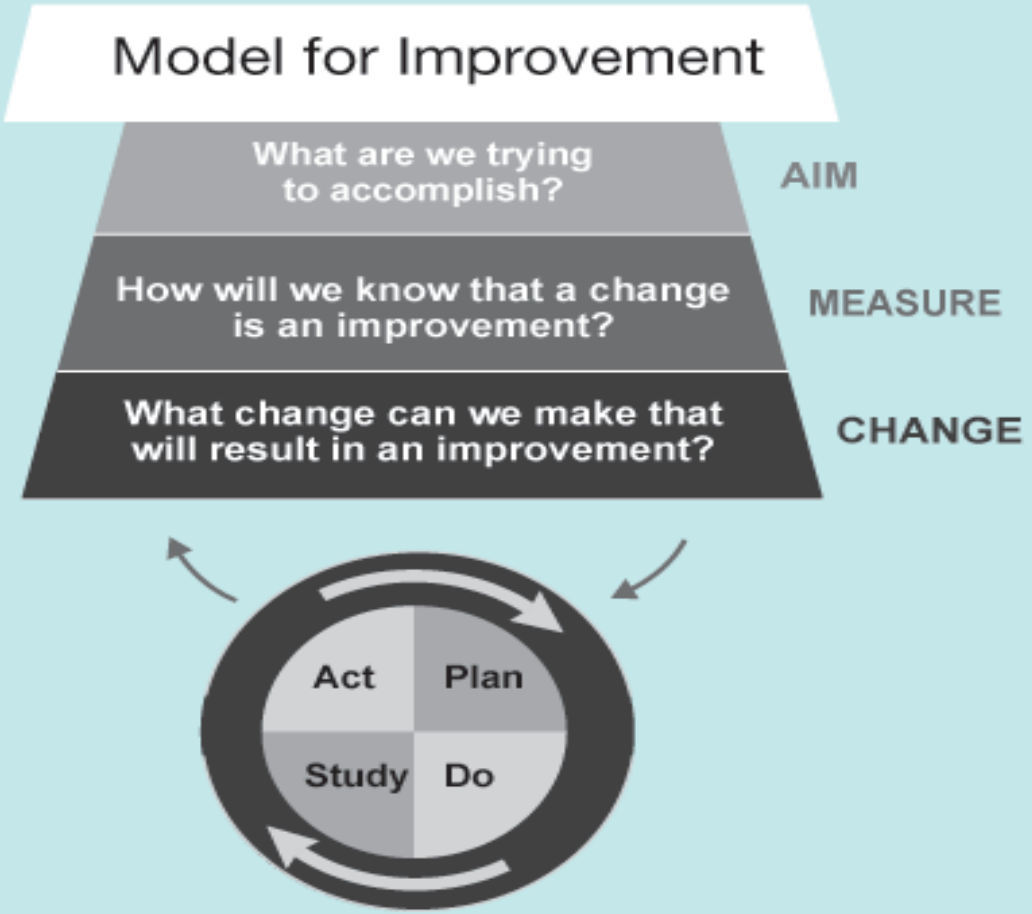
Development & Implementation

Kelly O'Halloran, RN(EC), MScN,
Hamilton Health Sciences & Project Manager

The Quality Improvement Framework



What are we trying to accomplish?

- Improve quality of care.
- Improve quality of life for patients and families.
- Enhance patient/caregiver understanding of their clinical condition and their care plan.
- Assist patients and caregivers to develop self-management skills.
- Improve continuity of care for patients post-discharge from hospital.
- Identify and support patients and caregivers at risk post-discharge from hospital.
- Reduce avoidable Emergency Department (ED) visits and readmissions to hospitals.

How will we know that a change is an improvement?

System Outcomes - Acute Care

- All Cause 30 Day Re-admissions.
- Number of days between the last discharge and readmission.
- Number of Urgent Care Clinic/Emergency Department visits before readmissions.

System Outcomes - Community

- Number of unattached patients referred to Health Care Connect.
- Primary care visit within 7 business days for patients at high and moderate risk for readmission.

Process Measures – CCAC

- Referral to CCAC 48 hours prior to discharge when possible for all patients admitted for <72 hours.
- CCAC assessment with RAI-Contact Assessment for patients referred to CCAC completed within 24 hours for high risk patients.
- First CCAC Rapid Response Transition Team (RRTT) visit for high-risk patients within 24 hours from discharge and within 48 hours for moderate-risk patients.

How will we know that a change is an improvement?

(continued)

Process Measures - Acute Care

- Number of patients with evidence of teach-back documented.
- Number of high and moderate risk patients with copy of standardized Discharge Orders at time of discharge, including full list of medications and follow-up appointments.
- Number of high and moderate risk patients and GPs provided with medication prescription/medication list (should include not only current prescriptions but admission medications).
- High and moderate risk patients provided information at discharge on who to contact and how to use medications.
- Discharge Medication List sent to Pharmacy upon discharge, including full list of medications.
- Patients at moderate and high risk for readmission will have family doctor appointment scheduled in 7 business days from discharge.

Balancing Measures

- Length of stay (LOS) in acute care.

What change can we make that will result in an improvement?

- Use teach-back to educate patients and caregivers.
- Use teach-back to assess health literacy and risk.
- Partner with patients and caregivers to develop self-management skills.
- Provide patients and caregivers with written education materials to support knowledge transfer.
- Educate staff and physicians regarding teach-back and health literacy.

What change can we make that will result in an improvement? (continued)

- Ensure timely follow-up with family physician for patients and caregivers at risk.
- Ensure timely follow-up with CCAC for patients and caregivers at risk.
- Complete medication reconciliation prior to discharge from hospital.
- Conduct warm hand-off between hospital, family physician and CCAC.
- Adopt teach-back across health sectors and continue to assess risk.
- Standardize patient and caregiver education materials across health sectors.

Progress to date

- PDSAs completed on all components of the COPD Discharge Transition Bundle and Bundle finalized – April 2013.
- PDSAs included feedback from patients, families, caregivers and health professionals across health sectors.
- Heart Failure (HF) Bundle finalized – September 2013.
- Implementation of COPD and HF Bundles at all HNHB LHIN hospitals – 2013/2014.
- Formal evaluation of pilot units – January 2014.

LESSONS LEARNED

- There is limited knowledge about chronic disease management/self management and health literacy across health sectors.
- Education is not consistently provided to patients/caregivers.
- Many health professionals “tell” patients what they should do with little explanation or assessment of understanding.
- Assessment of supports required in community has not consistently included assessment of health literacy.
- Standardizing education materials assists novices and busy health professionals.

LESSONS LEARNED (continued)

- Making education materials available in different formats assists patients/caregivers and busy health professionals.
- Patients/caregivers appreciated the time taken by health professionals to provide education AND to assess and address gaps or barriers.
- Health professionals were very pleased with the feedback received from patients/caregivers and felt they made a difference.
- Health Links should continue to build on this work.

Video: Teach Back

Click for Video

Using your keypad, answer the following question:

Survey Question 1

What, in your opinion, is the most important aspect of health literacy?

a) Using plain language to communicate
b) Testing patient/client/resident reading skills
c) Testing the communication skills of the health care provider
d) Providing patients/clients/residents health information in different languages
e) Helping patients to understand and navigate the health system

Using your keypad, answer the following question:

Survey Question 2

To what extent do you believe that your organization is health literate?

a) Not at all
b) Somewhat
c) Mostly
d) Completely
e) Not sure what it means

SESSION SUMMARY

QUESTIONS?

Next Steps

Evaluations – Session 10

- Please complete your session evaluations using either the HQT app or the paper form provided. You can also scan the QR code to be taken directly to the survey site.

Keypad

- Please leave the audience response keypad on your chair

- **3:00 p.m.** Refreshment break (Level 800)
- **3:30 p.m.** Award Ceremony - Minister's Medal Honouring Excellence in Health Quality & Safety (Level 800, Hall G)