

**HALIFAX**  The Canadian Healthcare Safety Symposium

**Controversies in Healthcare Safety**

October 11-13, 2007  
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**Educating providers to communicate with patients**

The role of health literacy in healthcare safety

Linda Shoet, PhD  
The Centre for Literacy  
October 11, 2007

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**Overview**

- Eye-openers: Activities
- Definitions of literacy and health literacy: Changing concepts and issues
- Measuring literacy levels: Canadian data
- Literacy and health: What we do and do not know
- Communication and patient safety: Implications for practice
- Conclusions

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**Read this! (Eye-opener 1)**

Your naicisyhp has dednemmocer that you have a ypoconoloc. Ypoconoloc is a test for noloc recnac. It sevlovni gnitresni a elbixelf gniweiv epocs into your mutcer. You must drink a laiceps diuqil the thgin erofeb the noitanimaxe to naelc out your noloc.

From: Weiss, *Health Literacy: A Manual for Clinicians*. American Medical Association Foundation and American Medical Association, 2003



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**Tahw Ouy Deen ot Wonk tuoba Snoitcefni retfa Yregrus (Eye-opener 2)**

Tsom sneitap ohw evah yregrus od llew. Tub semitemos sneitap teg snoitcefni. Siht sneppah ot tuoba 3 tuo fo 100 sneitap ohw evah yregrus. Snoitcefni retfa yregrus nac dael ot rehto smelborp. Semitemos, sneitap evah ot yats regnol ni eht latipsoh . Ylerar, sneitap eid morf snoitcefni. Sneitap dna rieht ylimaf srebmem nac pleh rewol eht ksir fo noitcefni retfa yregrus. Ereh era emos syaw...

IHI, What You Need to Know about Infections after Surgery: A Fact Sheet for Patients and Their Family Members



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**How I learn (Eye-opener 3)**

A tool to uncover individual learning preferences

Potential use for patient intake – an indirect means to learn about literacy and learning preferences



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**Definitions of literacy**

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 (2003)



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**Definitions of 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 of Quebec (www.centreforliteracy.qc.ca)



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**Health literacy selected definitions**

*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

\* All definitions have been slightly edited. Bold lettering is mine. (LS)



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### Health literacy selected definitions

*...the degree to which **individuals** can get, process, and understand the basic health information and services they need to make appropriate health decisions. 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



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### Health literacy selected definitions

Four areas:

- 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

C. Zarcadoolas, A. Pleasant & D.S. Geer. Center for Environmental Studies, Brown University



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### Measuring literacy

- International Adult Literacy and Skills Survey (IALSS 2003)
- Evaluated the basic skills of 23 000 Canadians
- One measure -- prose literacy, i.e. the knowledge and skills needed to understand and use information from text



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### IALSS findings

- Measured 4 domains:
  - Prose
  - Document
  - Numeracy
  - Problem-solving

#### Key finding of 1994 and 2003 surveys

- Up to half of North American adults have some difficulty with the printed word.
- Little change over a decade

IALS: International Adult Literacy Survey Database <http://www.statcan.ca/english/freepub/89-588-XIE/about.html>  
 Information on IALSS: <http://www.statcan.ca/cgi-bin/indb/p2SV.pl?Function=getSurvey&SDDS=4406&lang=en&db=IMDB&dbf=f&adm=8&dis=2>



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### IALSS Prose literacy scale

**Level 1** - People have great difficulty reading simple text and using printed information

- **Level 2** - People are limited in their reading skills. They can only deal with material that is simple and laid out clearly.
- **Level 3** - Respondents can make low-level inferences from what they read in a text. (The minimum literacy skills level required for today's workplace.)
- **Level 4 and 5** - People can combine several pieces of information and solve complex problems.

1] adapted from "IALSS Background Information", Yukon Literacy Coalition, <http://www.yukonliteracy.ca/resources/IALSS.html>



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### Average proficiency score and percent of population at each proficiency level, Canada, provinces and territories, 2003

Prose literacy	Average proficiency score	Level 1	Level 2	Level 3	Level 4/5
Newfoundland and Labrador	263	24.0	30.8	32.8	12.4
Prince Edward Island	272	19.9	29.6	34.0	16.6
Nova Scotia	276	17.3	27.5	38.4	16.8
New Brunswick	264	22.7	33.3	31.6	12.4
Quebec	266	22.3	32.3	32.8	12.6
Ontario	270	21.3	26.7	35.0	17.0



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**Average proficiency score and percent of population at each proficiency level, Canada, provinces and territories, 2003 (cont'd)**

<b>Prose literacy</b>	Average proficiency score	Level 1	Level 2	Level 3	Level 4/5
Manitoba	274	18.2	28.1	37.2	16.5
Saskatchewan	283	13.5	26.6	38.9	21.0
Alberta	283	13.6	25.9	39.6	21.0
British Columbia	281	17.3	22.7	37.2	22.9
Yukon	292	10.5	22.9	39.3	27.3
Northwest Territories	275	19.3	25.8	35.1	19.8
Nunavut	230	47.2	25.8	19.5	7.5
Canada	272	19.9	27.8	35.4	17.0



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**Institute of Medicine (2004)**

*Health Literacy: A Prescription to End Confusion*

Linked to three previous IOM reports:

- *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* (2003)
- *Speaking of Health: Assessing Health Communication Strategies for Diverse Populations* (2002)
- *Crossing the Quality Chasm: A New Health system for the 21st Century* (2001)



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**Linked issues**

- Communication
- Quality and risk
- System and organizational change
- Differences/disparities in health care among groups
- Cultural appropriateness
- Connections not often reflected in practice



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**Agency for Healthcare Research and Quality**

*Patient Safety Initiative: Interim report to the Senate Committee on Appropriations (2003)*


- Identified communication as #1 root cause of adverse events

<http://www.ahrq.gov/qual/pscongrpt/psini2.htm#RootCauses> Retrieved 01/10/07

*Literacy and Health Outcomes Summary (2004)*

- Low reading skill and poor health are related
- Effectiveness of interventions less well known

<http://www.ahrq.gov/clinic/epcsums/litsum.pdf> Retrieved 01/10/07

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**Literacy and Health Outcomes Summary (2004)**  
**AHRQ**

Difficulties with current HL research:

- Wide variety of measures and range of outcomes hard to compare
- Limited or no longitudinal components
- Short-term knowledge gain rather than health outcomes
- Excessive focus on reading ability and health
- Multiple component interventions inhibit understanding of specific portion re effect

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**Literacy and Health Outcomes Summary (2004)**  
**AHRQ**

Recommended future research:

- Investigate whether and how literacy affects self-report of use of health care ..
- Examine factors that mediate reading ability and health outcomes
- Prospective cohort studies of H and L relationships – measure incident outcomes or assign cause and effect
- Improved reporting of study interventions, stats and results

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**The Joint Commission report -- strategies to address health literacy and protect patient safety (2007)**

35 recommendations include:

- Sensitization, education and training of clinicians and health care organization leaders and staff re health literacy issues and patient-centered communications
- Enhanced training and use of interpreters for patients



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**JHACO recommendations (cont'd)**

- Re-design of informed consent forms and the informed consent process
- Design of public health interventions that are audience-centered and can be communicated in the context of the lives of the target population
- Development of patient-friendly navigational aids in health care facilities



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**JHACO recommendations (cont'd)**

- Use of established patient communication methods such as “teach back”
- Expanded adaptation and use of adult learning centers to meet patient health literacy needs
- Development of patient self-management skills
- Health care organization assessment of the literacy levels and language needs of communities served

“What Did the Doctor Say?: Improving Health Literacy to Protect Patient Safety” at <http://www.jointcommission.org>



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**Literacy as determinant of health**

Public Health Agency of Canada

- Key determinants of health
  - #3 Education and literacy

<http://www.phac-aspc.gc.ca/ph-sp/phdd/determinants/determinants.html#education>

- How Does Literacy Affect the Health of Canadians?
  - <http://www.phac-aspc.gc.ca/ph-sp/phdd/literacy/literacy.html>

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**Health literacy in Canada  
Initial Results from the IALSS 2007**

Canadian Council on Learning Report  
Analysis of Sub-set of IALSS data based on items related to health activities beyond medical encounter:

- Health promotion
- Health protection
- Disease prevention
- Health care and maintenance
- Systems navigation

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**Health literacy in Canada  
Initial Results from the IALSS 2007**

Findings:

- Overall average level of HL in Canada is low
- 60% of adult Canadians lack capacity to obtain, understand and act on health information...
- Less than high school education- performance lower. Gap widens with age
- Varies significantly by province and territory
- Large differences in average literacy between different population sub-groups, especially the elderly.

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**Forthcoming in Canada**

CPHA Expert panel report:  
*A Vision for a Health-literate Canada*

NCC-DH, PHAC, Health Literacy Working Group  
 Environmental scan of Canadian health literacy research  
 Module and report on Family literacy and health

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**Definition of Key Terms \***

- **Health promotion** -- the “process of enabling people to increase control over and to improve their health” (World Health Organization)  
 Mission of public health is actualized through health promotion and disease prevention.
- **Health education** -- the full range of activities that involve communicating health information to people

\* Abridged from *Advancing Health Literacy: A Framework for Understanding and Action*  
 Zarcadoolas, Christina; Pleasant, Andrew F.; Green, David S. John Wiley & Sons, Inc., 2006

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**Definition of Key Terms**

- **Health communication** -- the use of human and mass or multi-media and other communication skills and technologies to educate or inform an individual or public about a health issue and to keep that issue on the public agenda

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**Definition of Key Terms**

- **Social marketing** -- the merging of traditional marketing and advertising strategies to persuade people to act in specific ways on social issues such as health and the environment
  - focuses on designing and evaluating messages and campaigns through careful audience analysis, segmentation, identification of target audiences (market segmentation), understanding those audiences, and ultimately tailoring communications for a desired effect.
  - begins with knowing what people do and do not do, and why. Goal: behaviour change.



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**Definition of Key Terms**

- **Consumer decision making** -- involves the active cognitive and emotional roles individuals play in attending to, evaluating, and acting on health information
- **Health literacy** -- the wide range of skills and competencies that people develop to seek out, comprehend, evaluate, and use health information and concepts to make informed choices, reduce health risks, and increase quality of life



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**Principles for effective health communication**

- Know your audience
- Use initial and in-process field research methods to inform your approach
- Collaborate with your target audiences to cooperatively write and create materials and messages
- Field-test using a combination of observations, in-depth reader-listener response interviews, focus groups, and panels
- Budget time, money, and personnel for the entire effort
- Evaluate the impact of your communication campaign periodically

Adapted from *Advancing Health Literacy: A Framework for Understanding and Action*  
Zarcadoolas, Christina; Pleasant, Andrew F.; Greer, David S. John Wiley & Sons, Inc., 2006



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**Determine the goals for your communication**

- Is it to inform or educate, or both?
- Is it to gather information through a survey or a questionnaire?
- Is it to produce action or change of behaviour?
- Will it be used with mediation; i.e. will someone assist the patient or public?
- What medium or technology will be used?
- What types of health literacy are required?

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**Determine the goals for your communication**

- What health literacy skills will the message help develop?
- To whom is it tailored?
- How culturally appropriate is the message?
- What does it require the target audience to understand about science, health, civic and cultural factors?

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**Determine the goals for your communication**

- Will this message be repeated and reinforced in any way?
- How will you know if the message is understood?
- How will you involve the audience early and often in the design of your messages or campaigns?
- Have you capitalized on spoken and written competencies?

Adapted from *Advancing Health Literacy: A Framework for Understanding and Action*, Zarcadellas, Pleasant and Green, 2006.

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### Applying the guidelines

Apply the communication guidelines to the following two fact sheets:

- What You Need to Know about Heart Attacks

<http://www.ihl.org/NR/rdonlyres/BF6EBD0E-D20D-41C0-8009211BDD94FE5B/0/AcuteMyocardialInfarctionPtsandFamilies.pdf>

- What You Need to Know about Ventilator-Associated Pneumonia

- Source: IHI 100k lives Campaign



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### Conclusions from audience discussion

Some conclusions after applying the guidelines to 2 information sheets from IHI 100k lives Campaign:

- The intention of the sheets was good – to help families
- The communication of intent was problematic
  - name of campaign not clear –
  - ”100k” sounds like a marathon
  - Motto not easily understandable

Some is not a number, soon is not a time



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### Conclusions, cont'd

- Problems with communication
  - Mix of plain language, medical abbrev (VAP) and legal ( disclaimer at bottom)
  - Mix of “should know” and “crisis” information 9(“Act Fast” box)
  - Key message of each sentence not clear

Two sheets – symptomatic of health communication problems across the field



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**Where do we go from here?**

- Teach staff in all health care settings, including home care, to assess information and education materials
- Teach staff in all health care settings to assess client/patient literacy needs
- Integrate health literacy into all health care curriculum
- Integrate health communication function into all health care organizations

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**Where do we go from here?**

- Keep talking, keep including sessions in conferences and other professional training activities
- Lobby policy makers to include literacy in health care frameworks, with budget and assessment mechanisms

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Thank you to the workshop participants for so much thoughtful response and feedback after the session.

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