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Health Literacy in BC: Current Status and What can you do about it?

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Outline



- **What is health literacy?**
- **Why should you be concerned about it?**
- **What can you do?**
- **Where can you get resources to help you?**

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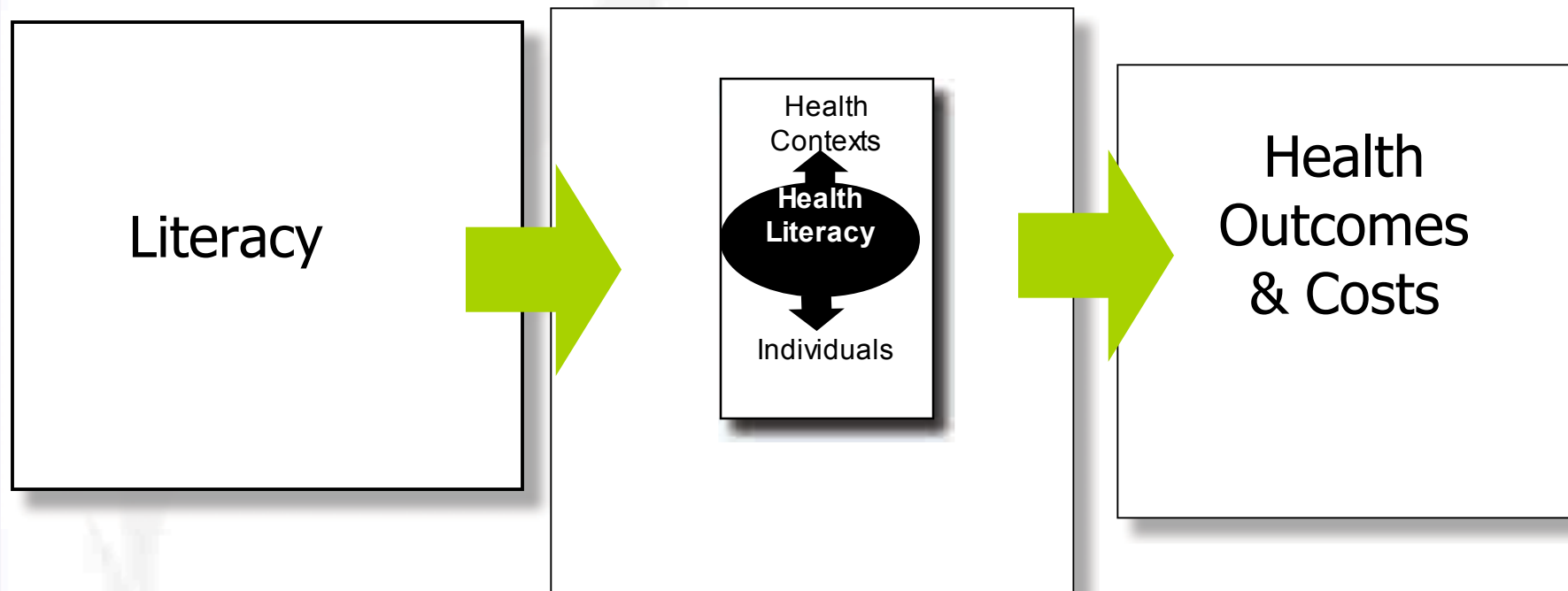
Early Definitions of Health Literacy:

- Cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information in ways which promote and maintain good health (Nutbeam, 1998)
- Ability to read and comprehend prescription bottles, appointment slips, and other essential health-related materials" (A.M.A., 1999).

Institute of Medicine Definition:

- The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (I.O.M., 2004)

Health Literacy Framework (I.O.M., 2004)



British Columbia Definition

- *The degree to which people are able to access, understand, appraise and communicate information to engage with the demands of different health contexts in order to promote and maintain good health across the life-course (Kwan, Frankish and Rootman, 2006)*

CPHA Expert Panel Definition:

- 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 (Rootman and Gordon-El-Bihbety , 2008)

Why is Health Literacy important?

1. Large numbers of people appear to have low levels of health literacy
2. Lower levels of health literacy appear to be related to poorer health outcomes
3. Increasing rates of chronic disease will increase need for health literacy skills
4. Lower health literacy appears to be related to higher health care costs
5. Increasing complexity of the healthcare system and the deluge of health information now available put high demands on people for health literacy skills
6. Low health literacy may reflect inequities in health

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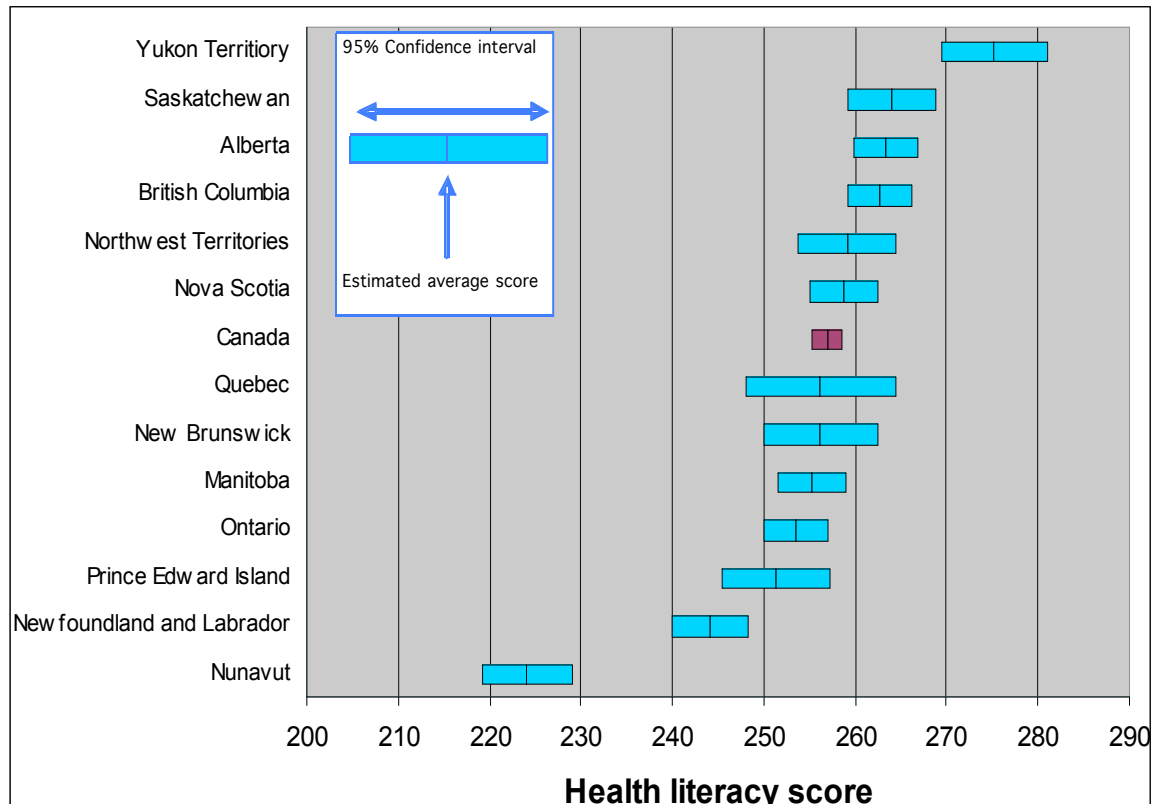
Many people in Canada have low levels of HL:

- Based on the 2003 IALSS, **11.7 million** working age residents of Canada (55%) are estimated to lack the minimum level of health literacy needed to effectively manage their health information needs (CCL, 2007).
- When seniors are added, an estimated **14.8 million** may be without adequate health literacy skills. An estimated 88% of respondents 65+ fell below Level 3 on the Health Literacy Scale in the 2003 IALSS survey (CCL, 2007).

Level 3 is considered the minimum level of proficiency required to meet the demands of modern day life including those posed by health information

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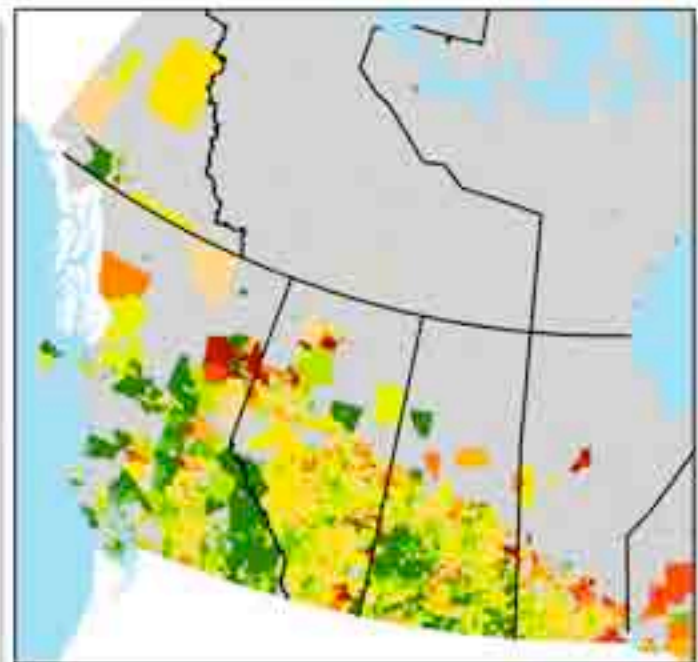
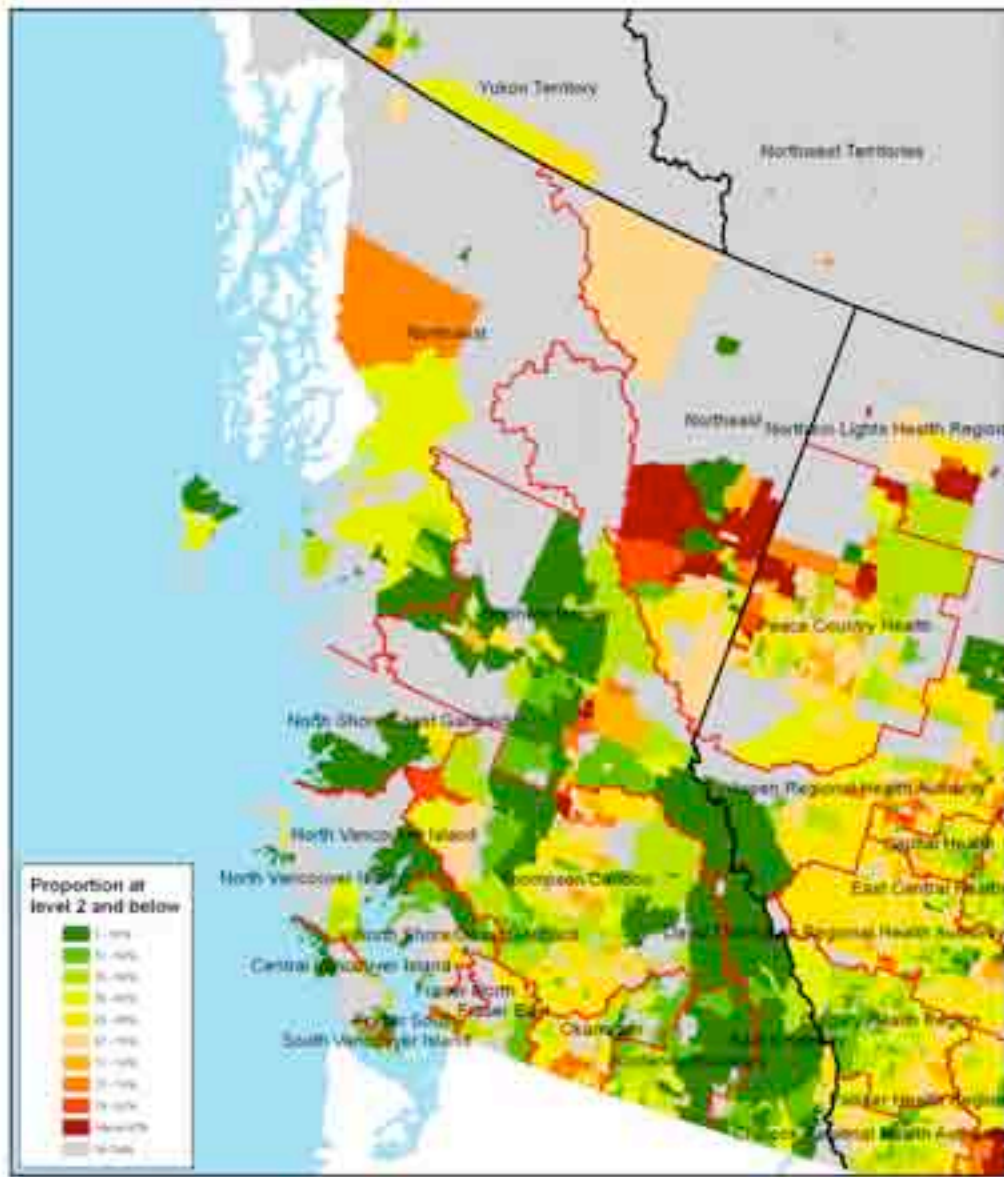
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Source: Health Literacy in Canada: Initial Results, 2007, CCL,
based on IALSS 2003

The Distribution of Health Literacy in British Columbia

Proportion of adult health literacy at level 2 and below, ages 16 and older



Health Region	Proportion at level 2 and below
British Columbia	34%
East Kootenay	43%
Kootenay/Boundary	48%
Champlain	50%
Thompson/Cariboo	58%
Fraser East	58%
Fraser North	54%
Fraser South	58%
Richmond	61%
Vancouver	59%
North Shore/Coast Garibaldi	50%
South Vancouver Island	49%
Central Vancouver Island	50%
North Vancouver Island	53%
Northwest	61%
Northern Interior	49%

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Health Literacy Scores by Self-perceived General Health Status, Canada, 2003

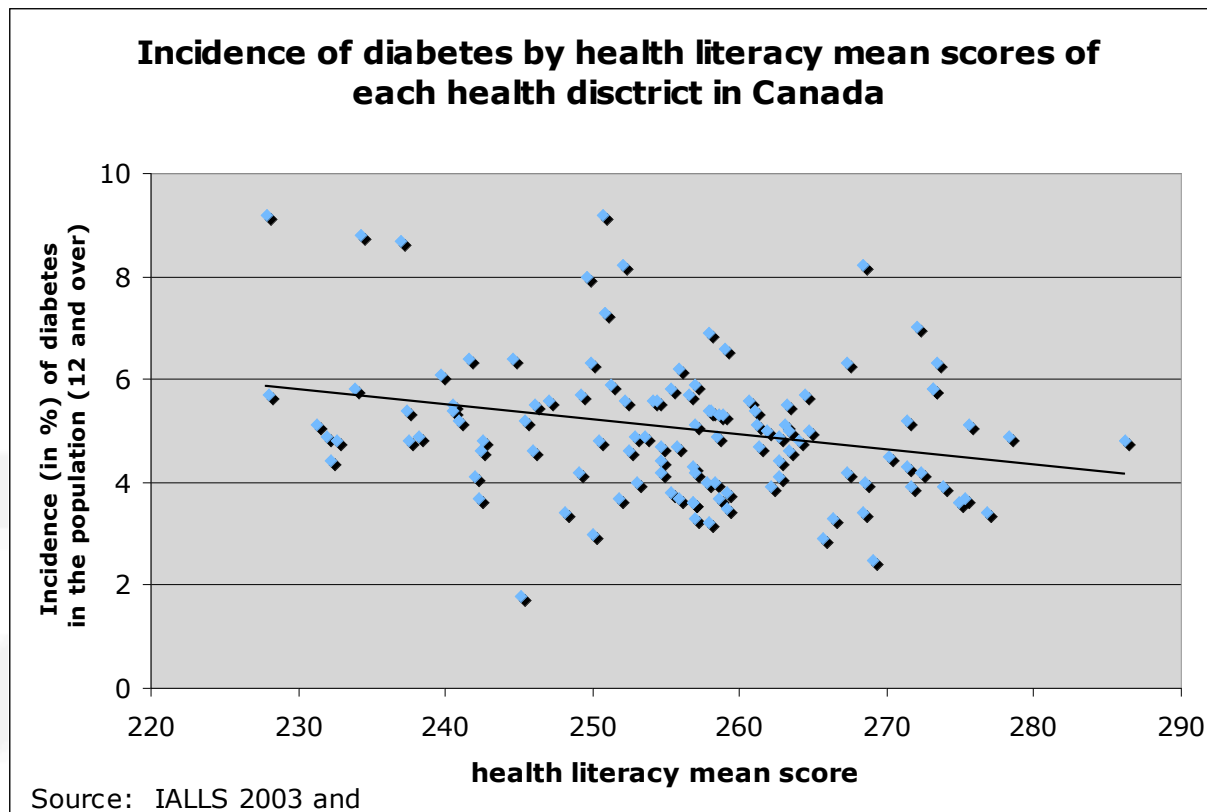


Health outcomes related to low health literacy include:

- Longer hospitalizations (Baker et al., 1997, 2002).
- Higher rates of cervical cancer (Lindau et al., 2002)
- Higher rates of diabetes (CCL, 2008)
- Higher mortality (Baker et al., 2007; Sudore, 2006)

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Source: Health Literacy in Canada: A Healthy Understanding, 2008, Canadian Council on Learning, based on IALSS 2003

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Health Literacy (Reading proficiency) and mortality:

- A recent U.S. study (Baker et al., 2007) examined the all-cause and cause-specific (cardiovascular, cancer, and other) mortality of 3260 Medicare enrollees over age 56 in 4 US metropolitan areas.
- Older adults with inadequate and marginal health literacy levels had a 50 per cent higher mortality rate over a five-year period than those with adequate skills.
- Low health literacy was the top predictor of mortality after smoking, and was a more powerful variable than both income and years of education.
- Another recent study found that limited literacy, as measured by the REALM, was independently associated with a nearly two-fold increase in mortality in the elderly (Sudore, et al., 2006).

Low reading proficiency is associated with:

- Inappropriate medication use and compliance with physician orders (Williams, et al., 1995; Kalichman, et al., 1999)
- Less use of preventive services and less care seeking (Scott, et al., 2002)
- Less expression of health concerns (Rudd et al., 1999)
- Difficulties using health care system (Davis et al. 1996; Brez and Taylor, 1997)

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Increasing chronic disease and health literacy:

- The number of people with arthritis in Canada aged 15 and older is projected to increase from approximately 4.59 million in 2006 to 5.5 million in 2016 (Health Canada, 2003)
- One of the ways to address chronic disease which is being increasingly used is patient self-management (McGowan, 2005)
- Low health literacy is a barrier to effective self-management. A review of randomized control trial studies found that 62% of patients with lower reading skill levels were unable or unwilling to engage in self-management (Johnston et al., 2006)
- Improving literacy and health literacy should lead to improved self-management of chronic diseases

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Health Literacy (Reading Proficiency) and Cost:

- An analysis of expenditure data from a study of public hospital patients found that predicted in-patient spending for a patient with inadequate HL (Reading Proficiency) was \$993 higher than a patient with adequate reading skills. A difference of \$450 remained after controlling for health status (IOM, 2004).
- Another study which looked at Medicare users found that the Medicare costs of those with less than a 3rd-grade reading level were \$10,688/year, while the costs for those with greater than 4th-grade reading level were \$2,891 (Weiss and Palmer, 2004)

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Estimated Economic Drain of Low Health Literacy on U.S. Economy:

- “initial approximation places an order of magnitude of the cost of low health literacy to the U.S. Economy in the range of \$106 billion to \$238 billion annually” (Vernon et al., 2007)
- “When one accounts for the future costs of low health literacy that result from current actions (or lack of action), the real present day cost of low health literacy is closer in range to \$1.6 trillion to \$3.6 trillion” (Vernon et al., 2007)

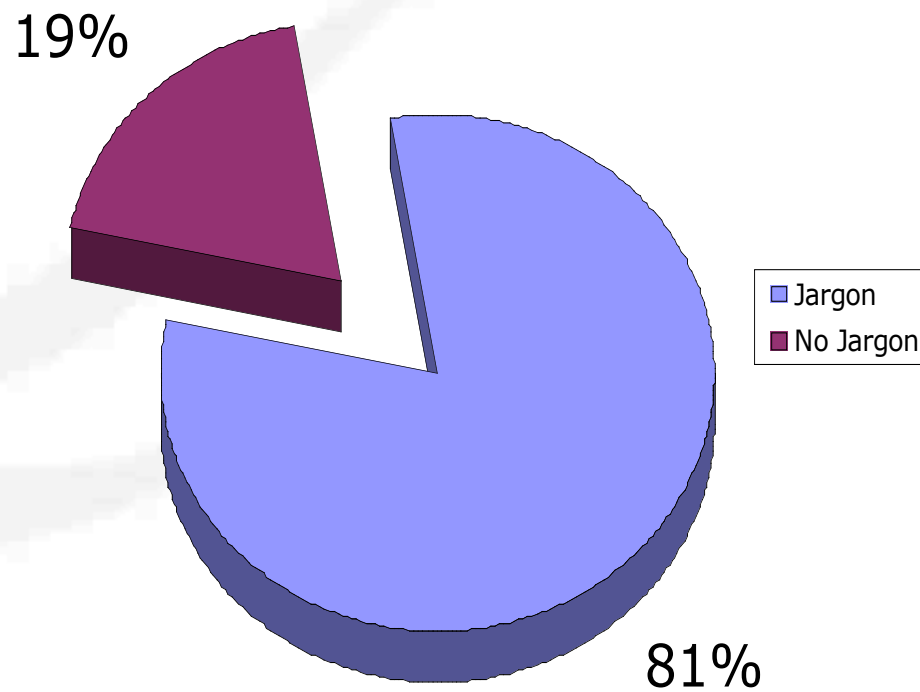
Demands of health information materials:

- Over 800 studies have found that health-related material for patient education far exceeds the reading levels of the average adult (Rudd, 2007) A Canadian study found that the mean reading level of patient education materials in a primary care clinic in Montreal was grade 11.5 (Smith and Haggerty, 2003)
- A recent study of health information websites in Canada, the U.K. and Australia found that the content of all sites was written at a higher level than recommended by literacy organizations. The lowest level was grade 11 (Petch, 2004)

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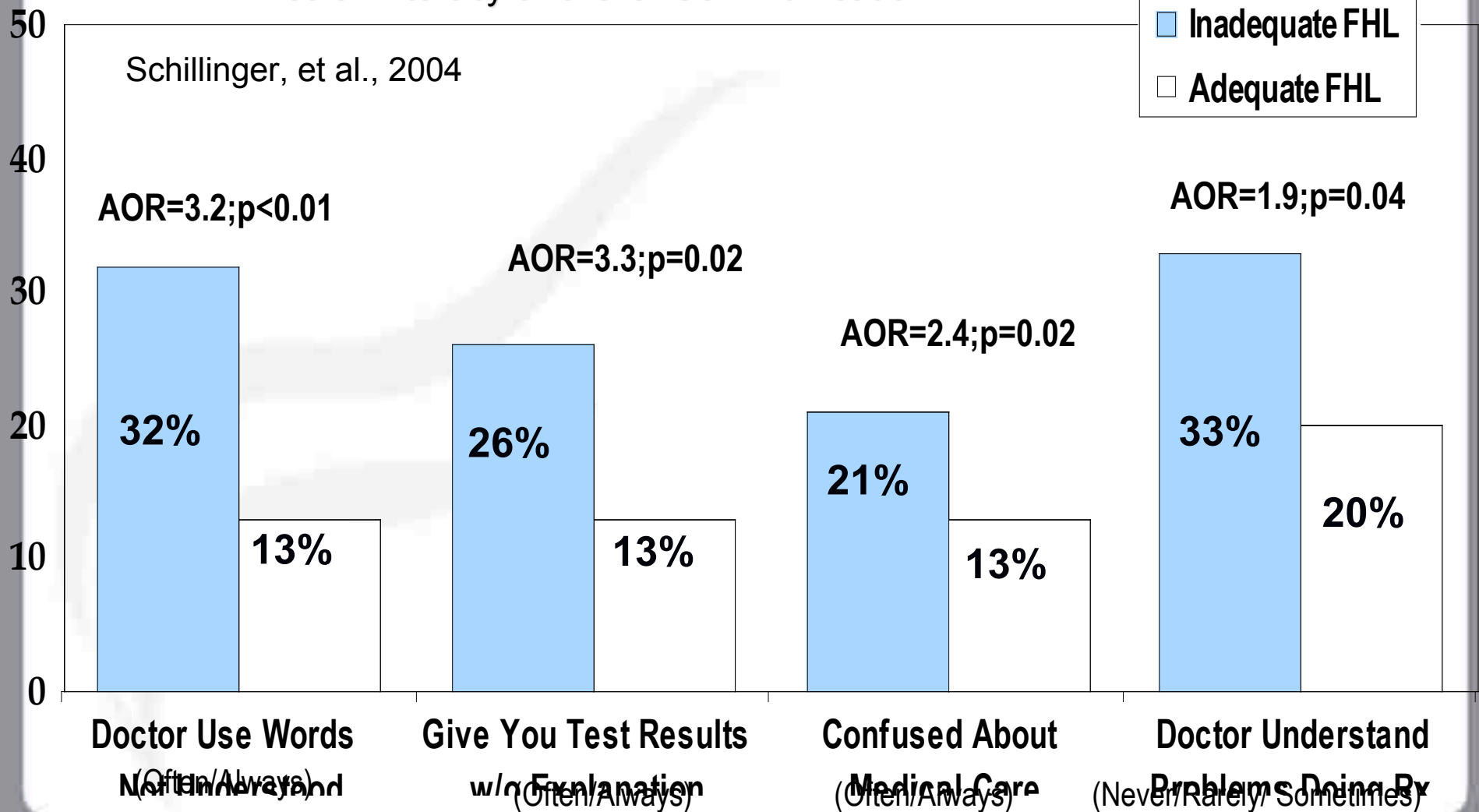
Jargon use in physician visits



Castro. et al., 2007

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Health Literacy and Oral Communication



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Low Health Literacy may be a reflection of Inequities in health:

- Certain population groups appear to be more likely to experience lower levels of literacy and health literacy. They include:
 - Older adults
 - Immigrants
 - Adults with low levels of educational attainment
 - People whose mother tongue is neither English nor French
 - Recipients of social assistance
 - Residents of particular provinces or territories

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Research on Health Literacy and Arthritis:

- Three studies on prevalence of low HL among Arthritis patients in US (Pincus, et al., 2000) Scotland (Gordon, et al., 2002), and Australia (Buchbinder, et al., 2006). All found that about 1/6 of patients had low reading levels.
- A US population study found that among respondents with professionally diagnosed arthritis, those who had higher levels of education were more likely to engage in physical activity/exercise as were those who had taken an arthritis education class (Fontaine et al., 2006)
- A Canadian study found less education was associated with higher potential need for arthroplasty but not will willingness to consider undergoing the treatment (Hawker, et al., 2002)

Research on Health Literacy and Arthritis:

- “Researchers and practitioners in rheumatology have yet to examine links between patients’ literacy skills and health outcomes” (Rudd, et al., 2007)
- “In addition, only one early study reports on evaluation findings of an education program designed for audiences with low literacy skills. No other studies report on efforts to increase health literacy in arthritis, reduce the demands of print materials for education or research purposes, or on efforts to ameliorate the effects of limited literacy skills among patients” (Rudd et al. 2007)

What can you do about low health literacy?

- Identify people who are likely to have difficulty understanding health information
- Practice clear communication
- Create supportive environments
- Advocate for improvements

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Strategies to identify people with low HL:

- Observation
- Questioning
- Testing

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Signs to look for:

- Routinely miss appointments
- Arrive without completed forms
- Never refer to written information
- Avoid filling out forms
- Rely on others to read material
- Claim to have vision problems when asked to read
- Ask a lot of questions...or none
- Ignore or misunderstand advice

(Gillis, 2004)

Signs to look for (Cont.):

- Read slowly with obvious effort
- Read something faster with no comprehension
- Never jot down instructions
- Show facial signs of frustration or anxiety when reading
- Attempt to read material upside down
- Have problems understanding how to access appropriate services

(Gillis, 2004)

Informal Questions to ask:

- “How do you learn best?”
- “What would help you most as you learn about your illness and how to take care of yourself?”
- “What help do you need for taking this medicine properly?”

(IOM, 2004, p.54)

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Promising Screening Questions:

- How often do you have someone help you read hospital materials?
- How confident are you in filling out medical forms by yourself?
- How often do you have problems learning about your medical condition because of difficulty understanding written information?

(Chew, et al., 2004)

Possible Tests:

- Wide-Range Achievement Test (WRAT-3; Justak and Wilkinson, 1993)
- Rapid Estimate of Adult Literacy in Medicine (REALM; Parker, et al., 1995)
- Newest Vital Sign (Weiss, 2007)

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General Principles of Clear Communication:

- Use plain language
- Link information to previous knowledge
- Tailor information
- Personalize the message
- Be respectful, sensitive and caring
- Reinforce and repeat information
- Use multiple approaches including visuals
- Communicate in whatever ways work

(Andrus and Roth, 2002; Osborne, 2005)

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Plain Language:

- Plain language is a way of organizing and presenting information so that it makes sense and is clear and easy to understand for the intended audience.
(www.cpha.ca/en/pls.aspx)

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How to make verbal Communication clearer:

- Limit advice to key information
- Partition information into easy to understand parts
- Provide visual or verbal images
- Present context first
- Make instruction interactive
- Offer examples
- Tailor message
- Verify comprehension

(Doak, et al., 1998)

The teach-back/show me techniques:

- Do not simply ask, “do you understand”?
- Instead, ask to explain or demonstrate how they will undertake a recommended treatment or action
- If person does not explain correctly, assume that you have not provided adequate teaching. Re-teach the information using alternative approaches
(Weiss, 2003)

Assessment of Readability:

- Flesch-Kincaid score (Microsoft Word)
- S.M.O.G. Readability Formula (NLHP/CPHA, 1998)
- Plain Language G.R.I.D. (NLHP/CPHA, 1998)

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The CPHA PLS uses the L.I.D. Approach. *L.I.D.* means that the principles of plain language and clear design are applied to your documents:

- **Language**

The language of the text is revised using:

- plain words
- point form
- short sentences

- **Information**

The information in the text is re-organized to make it easy to understand. Less important or redundant information is removed

- **Design**

The material is designed or redesigned to guide readers through the text easily

(www.cpha.ca/en/faq.aspx)

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Planning Steps for Developing Written Materials:

- Assess educational needs of audience
- Limit educational objectives
- Focus content on behaviour
- Present context first
- Build to complexity
- Include reader interaction
- Select visuals and layouts that match culture and gender

(Doak, et al., 1996)

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Clear Design Tips:

- Use left flush justification
- Choose type that is clear and easy to read
- Use mixture of uppercase and lowercase letters
- Use bullets for lists
- Use ample “white space”
- Pay attention to how the text looks on the page
- Use appropriate illustrations and graphics

(CPHA, 2005)

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How to provide a supportive environment:

- Increase use of non-written information
- Assess suitability of materials
- Invite relatives and friends to participate
- Include community workers in team
- Offer ways to learn more
- Take additional training
- Provide training to colleagues
- Collaborate with others
- Participate in research

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Non-written information:

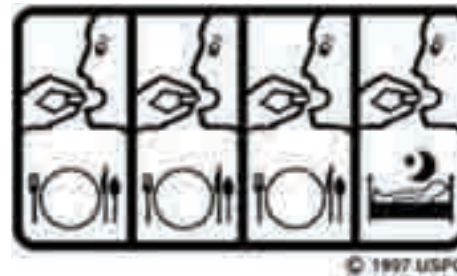
- Videos
- Audiotapes and CD's
- Photographs and illustrations
- Pictograms

(Andrus and Roth, 2002)

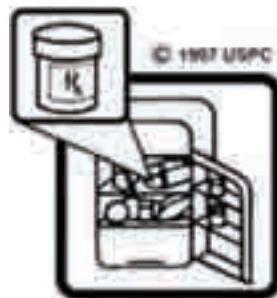
Examples of Pictograms (from <http://www.usp.org/>):



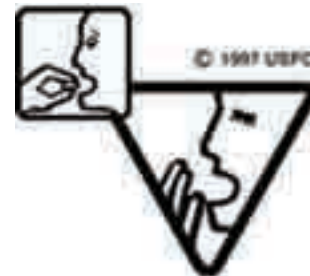
Take by mouth



Take 4 times a day, with meals and at bedtime



Store in refrigerator



This medicine may make you drowsy

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Other Possibilities:

- Picture books
- Storytelling
- Drama
- Puppets
- Computer-based programs (www.2aida.org)
- Small discussion groups

(Andrus and Roth, 2002)

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Advancing Research:

- “the literature provides very few evidence-based strategies for improving health literacy or meeting the needs of those with limited literacy” (Andrus and Roth, 2002)
- “Collaborative efforts between the health professions, education, public health, social work, and individual patients are needed” (Andrus and Roth, 2002)

Advocating for change

- Advocate for attention to literacy and health literacy in your workplace
- Lobby your politicians to pay more attention to literacy and health literacy issues

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What could and should be done by a Health Authority?:

- Commit to addressing literacy, particularly as it relates to health
- Establish Literacy and Health Committee
- Conduct audit of facilities, services and programs in terms of literacy and health literacy demands on public
- Examine health literacy maps and consider implications for action
- Implement and evaluate health literacy intervention
- Provide training opportunities for staff related health literacy
- Form stronger links with the literacy community
- Support the development of research on literacy and health and health literacy

(Rootman, 2007)

Key Recommendation of CPHA Expert Panel on Health Literacy

- *A comprehensive, coordinated, cooperative and integrated Pan-Canadian Strategy on Health Literacy be developed, funded and implemented to improve the level of health literacy in Canada, and the extent to which people receive the support they need to cope with the health literacy demands they encounter (Rootman and Gordon-El-Bihbety, 2008)*

Key Resources

- Canadian Council on Learning website: ccl-cca.ca
- NLHP and CPHA, Easy Does it! Plain Language and Clear Verbal Communication Training Manual <http://www.pls.cpha.ca/>, 1998.
- Rudd, R., and Anderson, J., Health Literacy Environment of Hospitals and Health Centers, Available at www.bcsall.net
- Weiss, Health Literacy: A Manual for Clinicians. AMA Foundation, 2007. Available from [www.ama-assn.org].
- Clear language workshops offered by CPHA and FCAF

Key readings

- Canadian Council on Learning, *Understanding Health Literacy*, Ottawa: CCL, 2008.
- Chiarelli L. *Increasing Understanding of the Impact of Low Health Literacy on Chronic Disease Prevention and Control*. CPHA 2006. Report for the Public Health Agency of Canada.
- Institute of Medicine, *Health Literacy: A Prescription to End Confusion*, Washington: National Academies of Science, 2004.
- Osborne, H., *Health Literacy from A to Z*, Toronto: Jones and Bartlett Publishers, 2005.
- Romilly, L., *Patient self-management: Health literacy skills required*, Ottawa: Canadian Council on Learning, June 19, 2007. [www.ccl-cca.ca]
- Rootman, I. & El-Bihbety, D., *A Vision for a Health Literate Canada*, Ottawa: CPHA, 2008

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Question for you?

What else can you and the organizations that you are a part of do to address the issue of health literacy?

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