

Health Literacy: Implications for Dental Hygienists



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2007





Objectives



Gain understanding of what literacy and health literacy are



Gain awareness of extent of low literacy and health literacy in Canada



Gain awareness of impact of low literacy and health literacy on health and chronic disease self-management



Gain awareness of barriers for people with low literacy and health literacy









Acquire strategies to address literacy and health literacy barriers to promotion and preservation of health in the context of dental hygiene



Gain awareness of resources that can assist in addressing barriers in the context of dental hygiene



Outline

-  Literacy and health literacy
-  Scope of low literacy and health literacy
-  Impact of low literacy and health literacy on health and chronic disease self-management
-  Barriers for people with low literacy and health literacy
-  Addressing barriers
 - Actions that can be taken by individual dental hygienists
 - Actions that can be taken by dental hygienists as a professional group
-  Resources for addressing low literacy and health literacy



The Canadian Path to Health Literacy

- Growing interest in literacy in the late 1980's
- OPHA/Frontier College Literacy and Health project (1989-1993)
- National Literacy and Health Program (1994-present)
- CPHA Clear Language Service (1997-present)
- National Conferences on Literacy and Health (2000, 2004)
- National Literacy and Health Research Project (2002-2006)
- CPHA Expert Panel on Health Literacy (2006-2007)



Health literacy

- How many of you have heard the term health literacy before coming here?
- What does it mean to you?



Definition of Literacy 1

- “ability to understand and employ printed information in daily activities—at home, at work and in the community—to achieve one’s goals and develop one’s knowledge and potential” (International Adult Literacy Survey, OECD and Statistics Canada, 2005)



Definition of Literacy 2

- “ability to read, write and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one’s goals, and develop one’s knowledge and potential” (US National Literacy Act, 1991)



Definition of Literacy 3

- “a complex set of abilities to understand and use the dominant symbol systems of a culture for personal and community development” (Centre for Literacy of Quebec, 2000).



Definition of Literacy 4

- Literacy is the ability to understand and use reading, writing, speaking and other forms of communication as ways to participate in society and achieve one's goals and potential (Canadian Expert Panel on Health Literacy, April 23, 2007)



Definition of Health Literacy 1

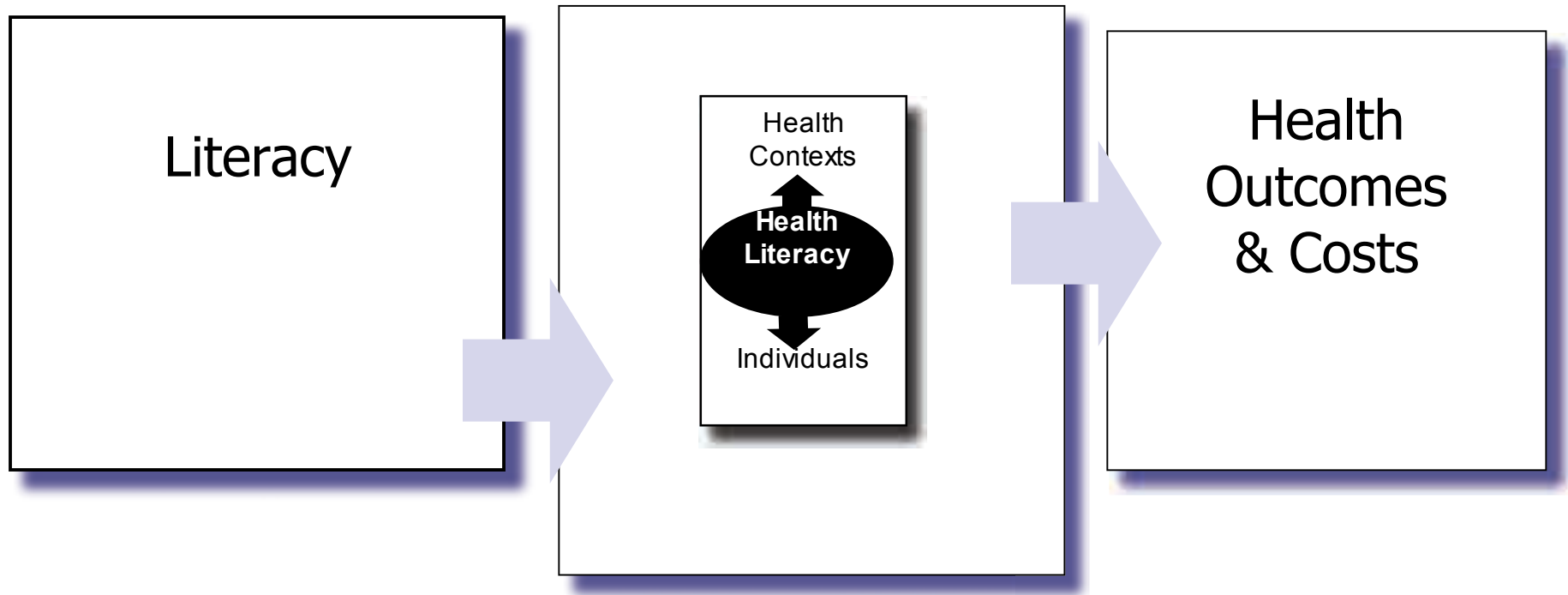
- “ability to read and comprehend prescription bottles, appointment slips, and other essential health-related materials” (Ad-Hoc Committee on Health Literacy, 1999).

Definition of Health Literacy 2

- 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)





Definition of Health Literacy 3

- *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*

(B.C. Health Literacy Research Team, 2006)



Definition of Health Literacy 4

- Health literacy is the ability the ability to access, understand, evaluate and communicate information in order to promote, maintain and improve health in a variety of settings across the life course (Canadian Expert Panel on Health Literacy, April 23, 2007)



Vision for a Health Literate Canada

- All people in Canada have the capacity, opportunities and support they need to obtain and use health information effectively, to act as informed partners in the care of themselves, their families and communities, and to manage interactions in a variety of settings that affect health and well-being (Expert Panel on Health Literacy, April 23, 2007)



Questions? Comments?





Extent of low literacy and health literacy in Canada

- What proportion of the Canadian population have less than adequate health literacy skills?



Extent of low literacy and health literacy in Canada

IALSS literacy scores among working age Canadians:

- 42% fell below Level 3 on the **Prose Scale**
- 43% fell below Level 3 level on the **Document Scale**
- 50% fell below Level 3 the **Numeracy Scale**
- 55 % fell below Level 3 on the **Health Literacy Scale**
- 58% fell below Level 3 on the **Problem-Solving Scale**

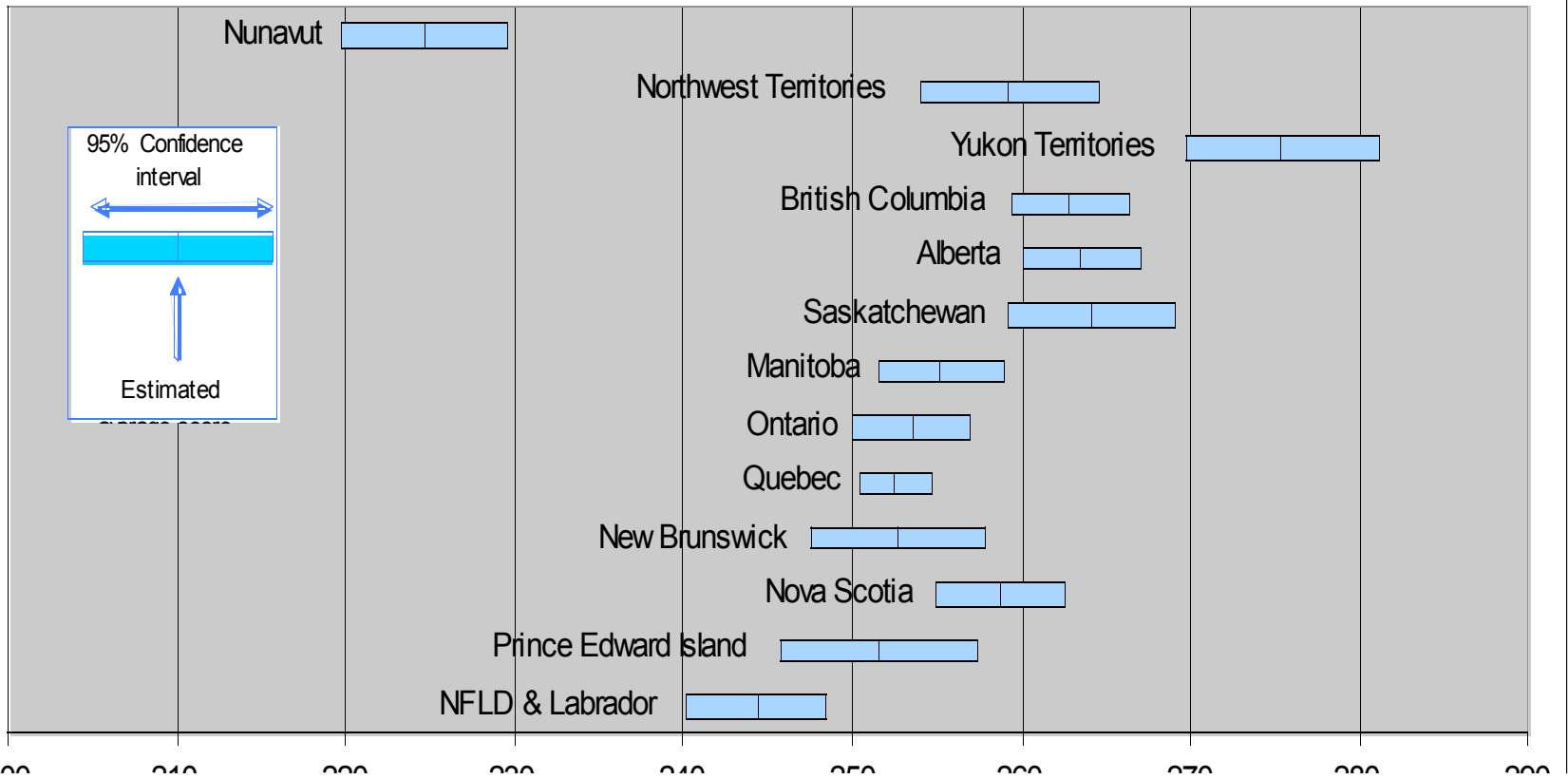
- ***88% of Canadians over the age of 65 fell below Level 3 on the Health Literacy Scale***

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

Source: Canadian Council on Learning, 2007.

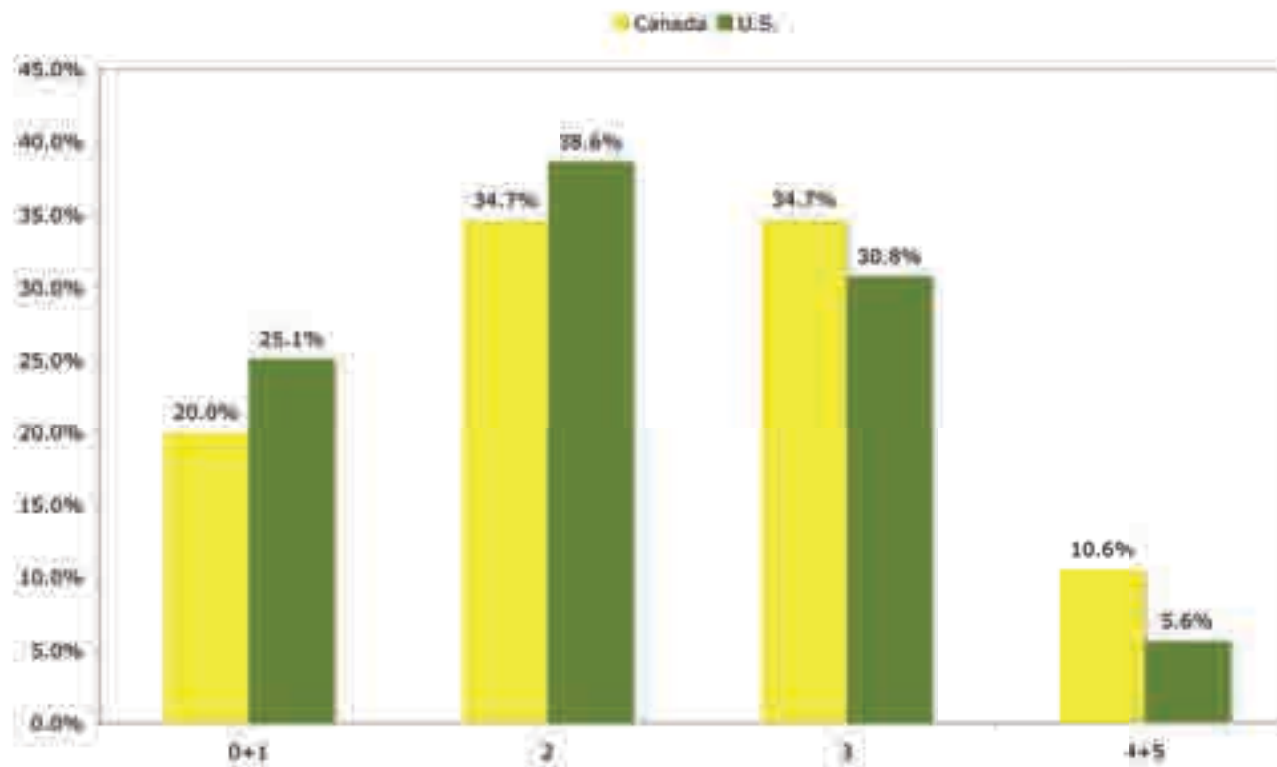



Health Literacy Scores and Confidence Intervals by Province, Canada, 2003



Health Literacy Levels: Canada & U.S.

Health Literacy Levels, age 16-65, Canada and U.S., 2003





Groups with lower literacy/health literacy (CCL, 2007)

- Older adults
- People with less education
- People with lower income
- Non-English or French speakers
- Franco-phones
- Immigrants
- Aboriginal people




Questions? Comments?





Impact of low literacy and health literacy on health

- What kind of impacts do low literacy and health literacy have on health?

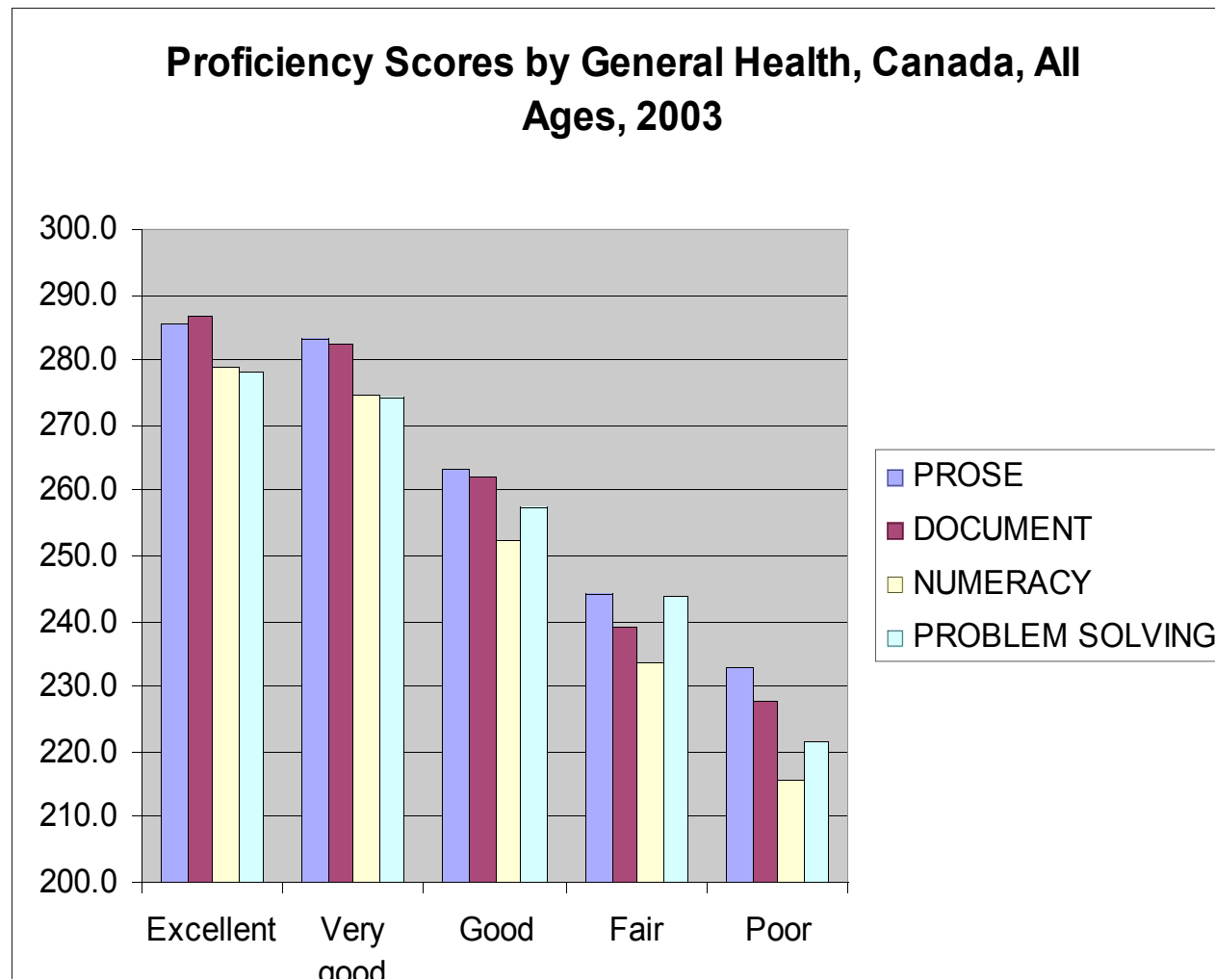


Impacts of low literacy and health literacy on health

- Poorer health status (Baker et al., 1997, 2002; Roberts and Fawcett, 1998)
- More hospitalization (Baker et al. 2002; Endres et al., 2004)

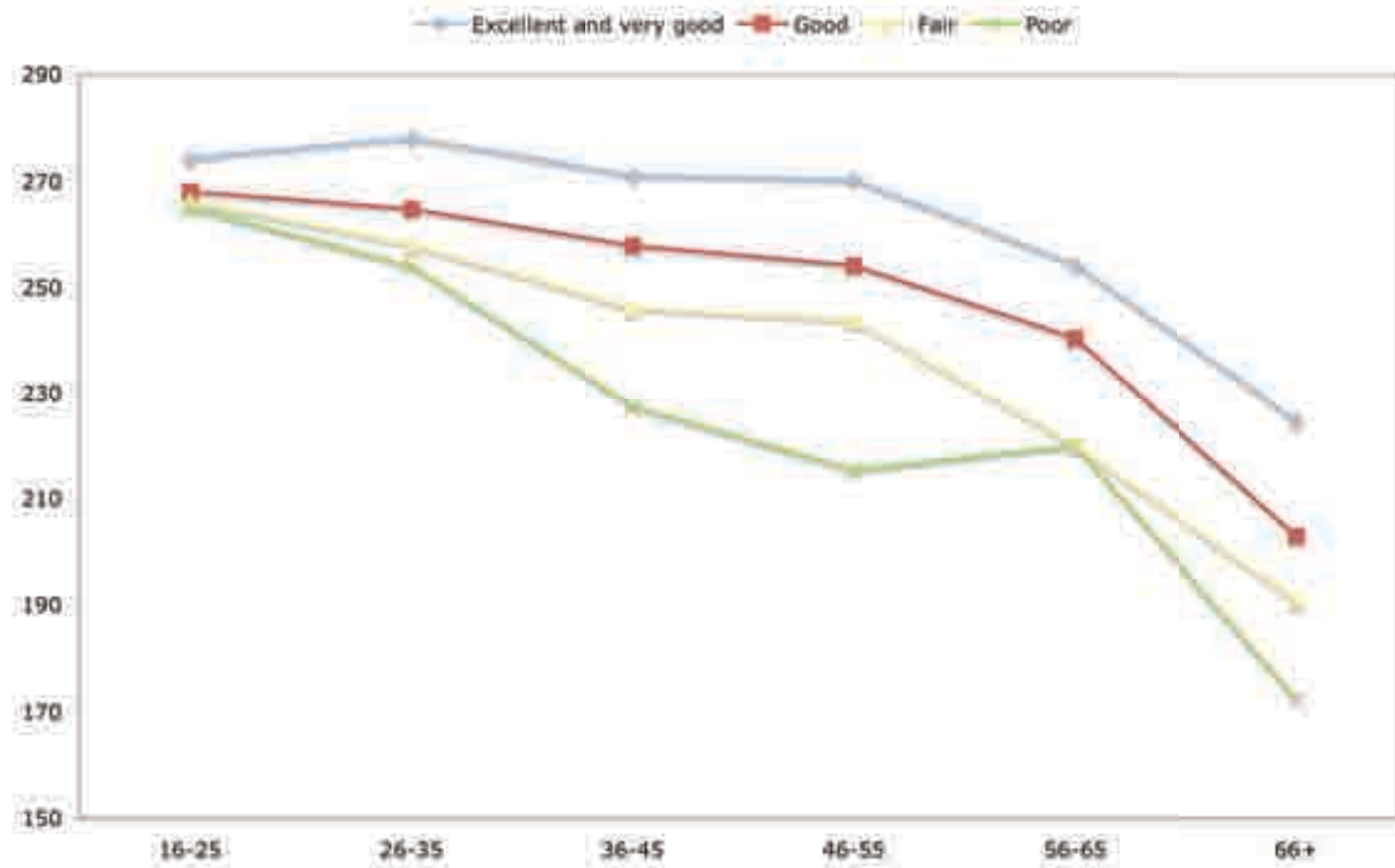


Proficiency Scores by General Health for All Ages



Health Literacy by Age and Health Status

Health Literacy by age and health status, Canada, 2003³

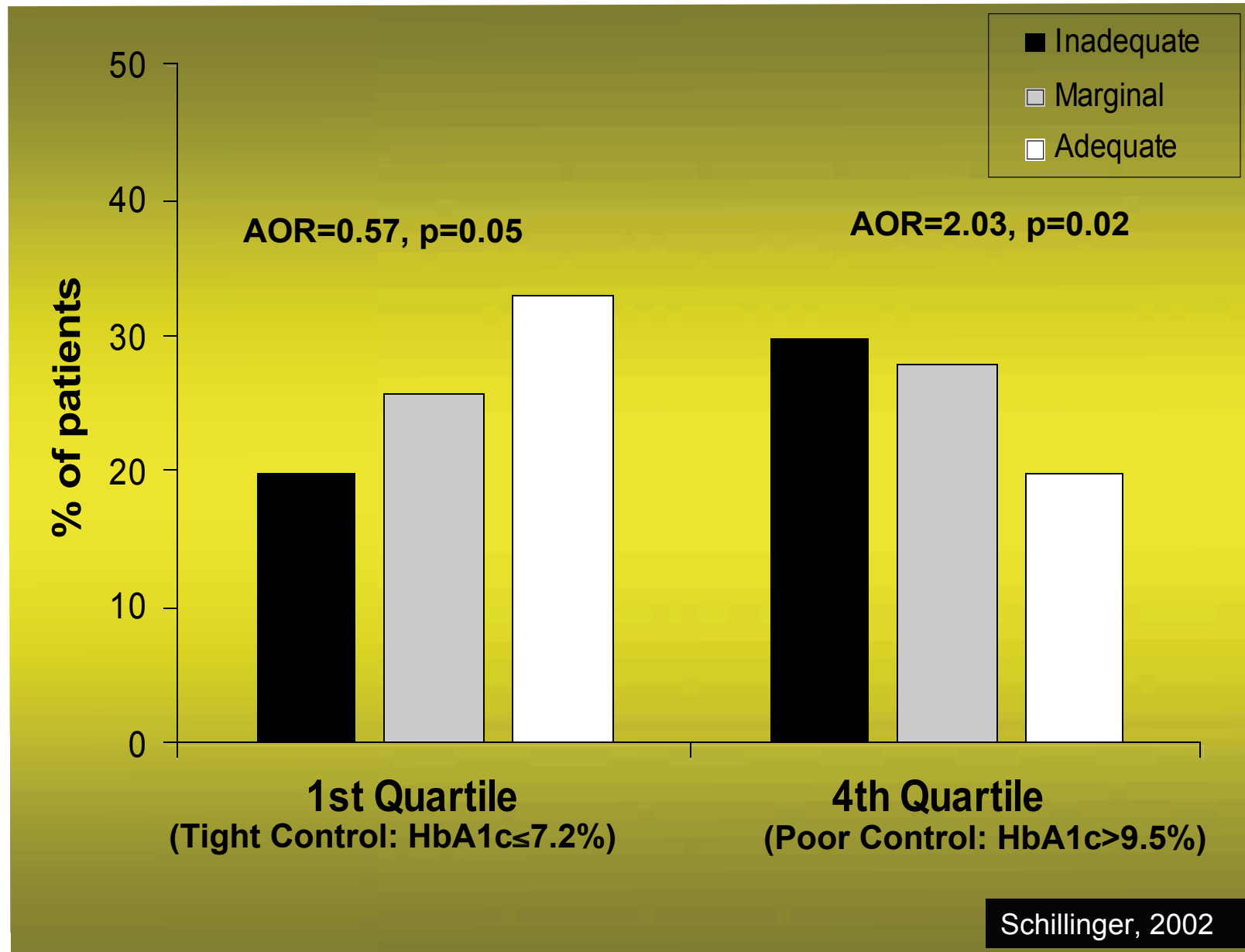





Impacts of Low Literacy and HL on Self-Management Behaviours

- 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; Bennett et al., 1998)
- Difficulties using health care system (Davis et al. 1996; Brez and Taylor, 1997)
- Less expression of health concerns (Rudd et al., 1999)
- Poor glycemic control and increased prevalence of self-reported complications due to poor control, including retinopathy (Schillinger et al., 2002,2003)

Health literacy level and diabetes control

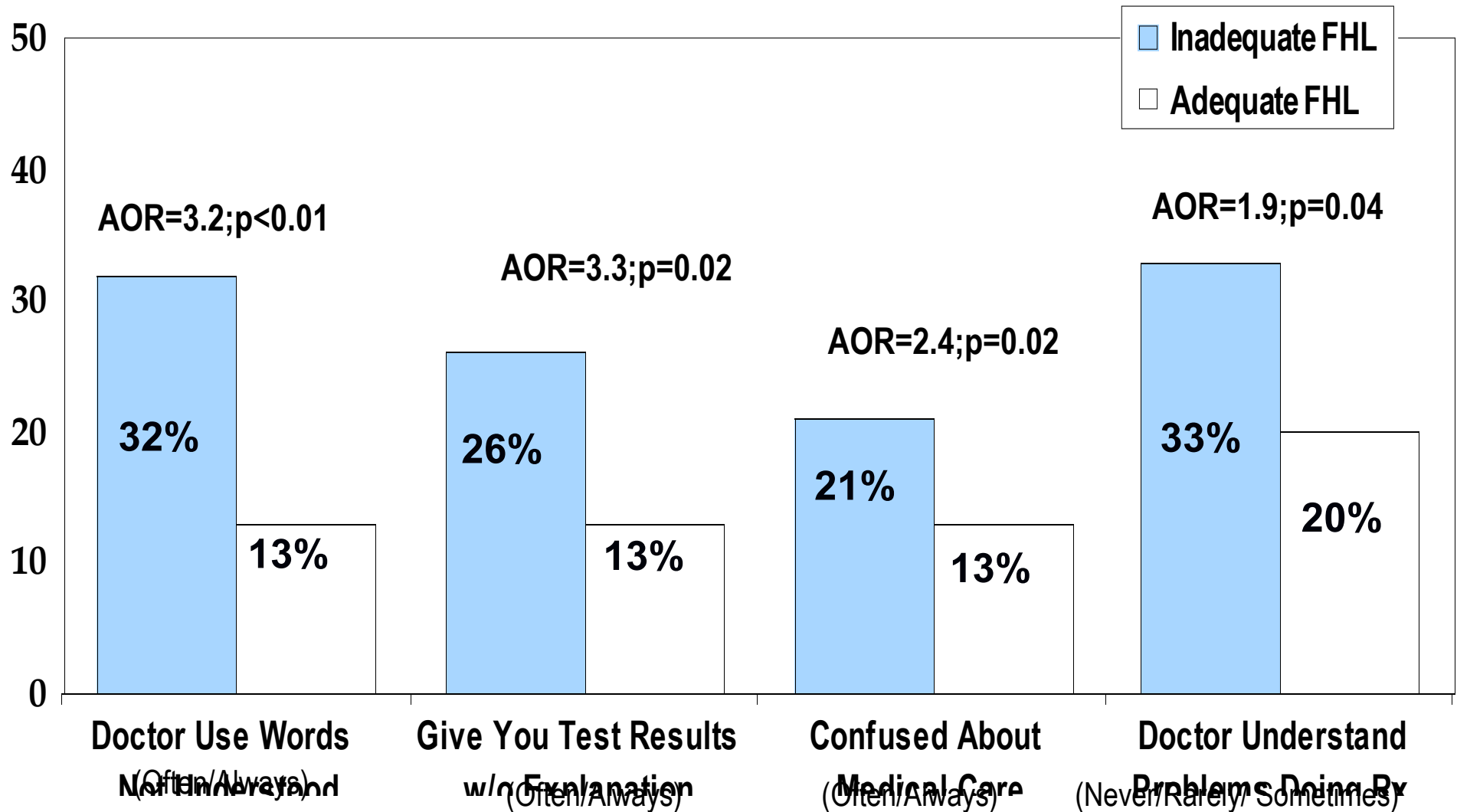




Impacts of Low Literacy and HL on Self-Management (Cont.)

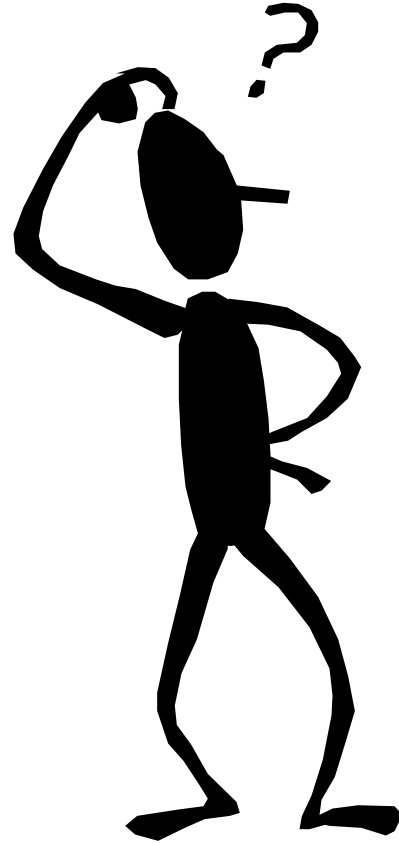
- Less health knowledge (Gazmararian, et al., 2003)
- Less sharing in decision-making about treatment (Kim et al., 2001; Schillinger et al., 2002)
- Worse communication with practitioners (Schillinger, et al., 2004)

Health Literacy and Oral Communication






Questions? Comments?





Barriers for people with low literacy and health literacy

- What kinds of barriers do people with low literacy and health literacy face in promoting and preserving their health?



Barriers for People with Low Literacy and HL

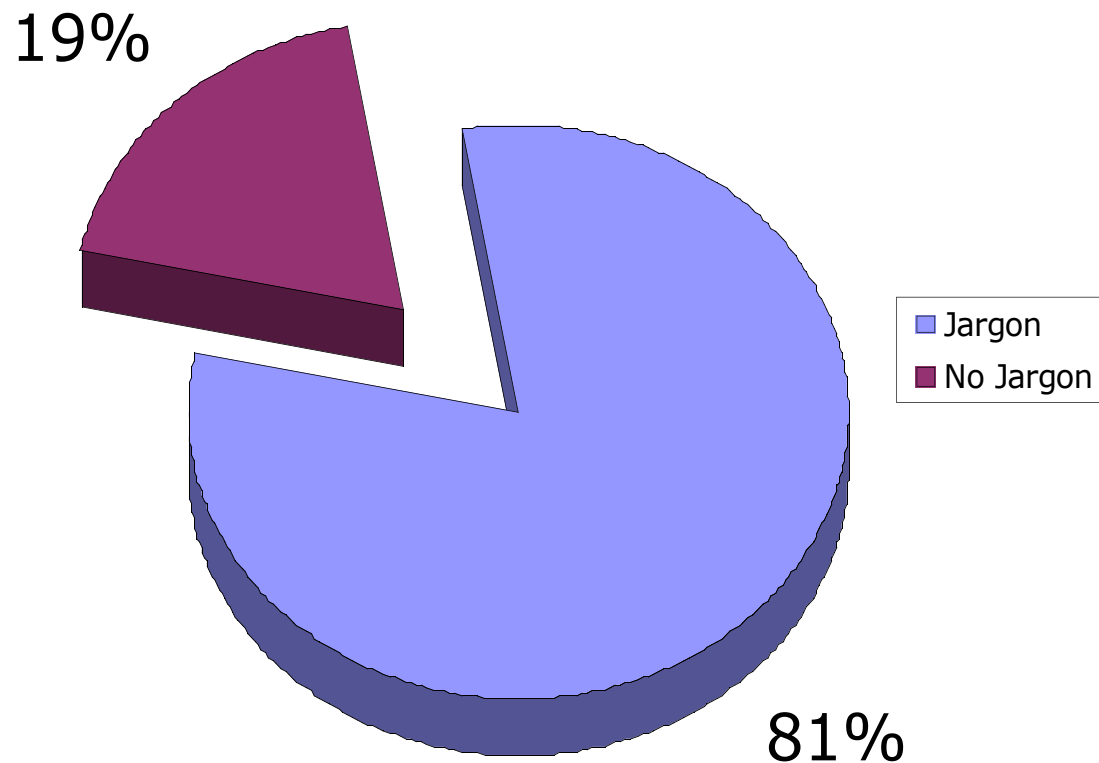
- Language
- Cultural beliefs
- Stigma
- Readability of health materials
- Communication by practitioners



Readability of Health Materials

- Over 300 studies in the US have found that health related material for patient education far exceeds the reading levels of the average adult (IOM, 2004)
- Recent 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)

Jargon use in all visits



n = 74

mean JPV= 5

mean JPM=.25

Castro 2003

After being diagnosed with recurrent aphthous stomatitis involving the epithelium of the buccal mucosa, Winston did what he thought was necessary

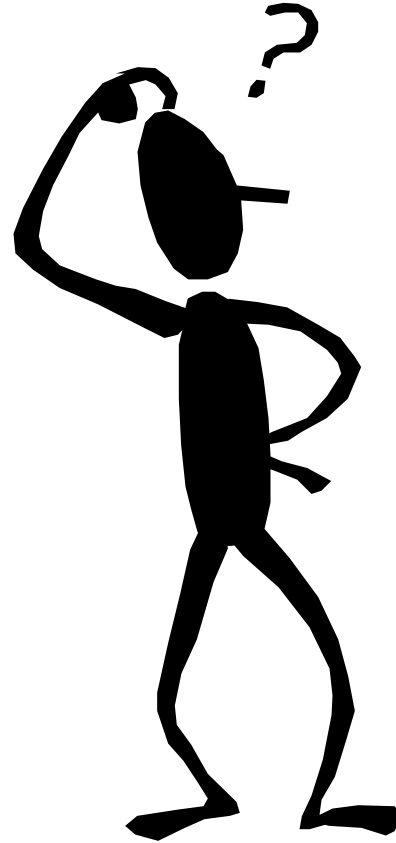


Which is a funny thing to do for a canker

SOURCE: Canadian Public Health Association, Plain Language Service. Reprinted with permission.



Questions? Comments?





Addressing barriers

- What can you do to address the barriers?
- What can dental hygiene professional organizations do?



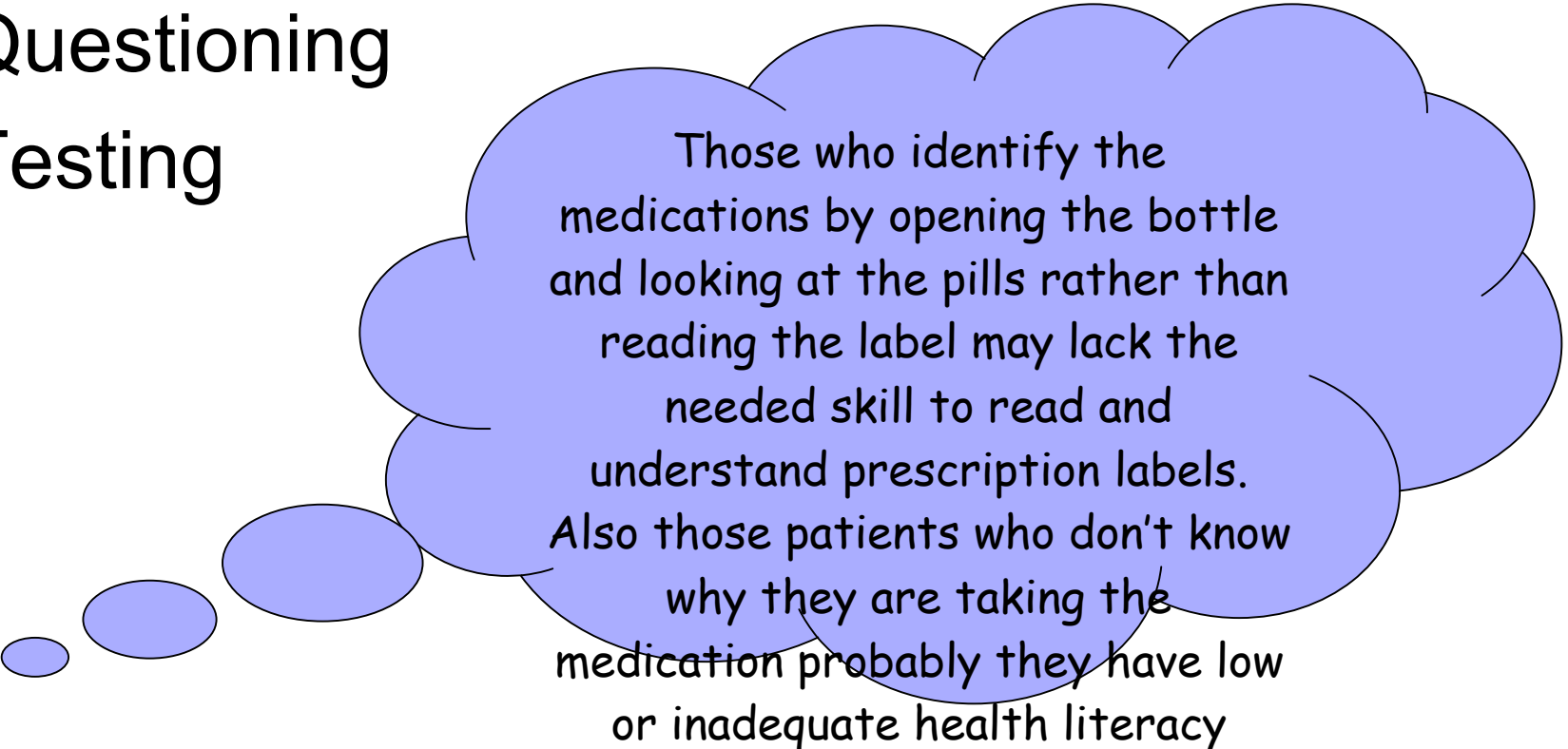
What can you do to address barriers?

- Use and develop strategies to identify people with low health literacy
- Acquire and adopt effective strategies for providing dental hygiene information and education to people with low literacy and health literacy
- Support development of literacy and health literacy friendly environments
- Advocate for attention to literacy and health literacy issues
- Research on literacy and health literacy in dental hygiene



Possible Strategies to identify people with low HL

- Observation
- Questioning
- Testing



Those who identify the medications by opening the bottle and looking at the pills rather than reading the label may lack the needed skill to read and understand prescription labels. Also those patients who don't know why they are taking the medication probably they have low or inadequate health literacy



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

(Gillis, 2004)



Signs to look for (Cont.)

- Show facial signs of frustration or anxiety when reading
- Attempt to read material upside down
- Have problems understanding how to access appropriate services
- 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
- Ask a lot of questions...or none

(Gillis, 2004)



Differences between people with high and low literacy skills

High Literacy Skills

- Interpret meanings
- Vocabulary fluency
- Look up uncommon words
- Grasp the context
- Persistent reader

Low Literacy Skills

- Take works literally
- Read slowly, sound out letters
- Skip uncommon words
- Miss the context
- Tire quickly

(Doak, et al., 1996)



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)



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)



Measuring health literacy

Reading Recognition tests

Useful predictors for general reading ability in English and to identify low-level readers in health care setting

They are the most commonly because they are the easiest and quickest type of instrument to administer and to score.

Reading Comprehension tests

Assess the patient's ability to read and understand text written at different levels of difficulty.

Those types of tests need more time and skill to administer than word recognition tests.

■ Davis TC, Michielutte R, Askov EN, Williams MV, Weiss BD. Practical assessment of adult literacy in health care. *Health Educ Behav* 1998 Oct;25(5):613-24.

■ Doak CC, Doak LG, Root JH. *Teaching patients with low literacy skills*. 2nd ed ed. Philadelphia: J.B. Lippincott; 1996.



Possible Tests

- Wide-Range Achievement Test (WRAT-3; Justak and Wilkinson, 1993)
- Rapid Estimate of Adult Literacy in Medicine (REALM; Parker, et al., 1995)
- Ask people to read a passage and ask them questions about it (Rootman, et al., 2005).

**RAPID ESTIMATE OF ADULT LITERACY IN
MEDICINE (REALM)©**

TABLE C-1 REALM

Patient Name/ Subject # _____		Date of Birth _____	Reading Level _____
Date _____	Class _____	Examiner _____	Grade Completed _____
List 1	List 2	List 3	
Fat	Fatigue	Allergic	
Flu	Pelvic	Menstrual	
Pill	Jaundice	Testicle	
Drow	Infection	Colitis	
Eye	Exercise	Emergency	
Stress	Behavior	Medication	
Smear	Prescription	Occupation	
Nerves	Notify	Sexually	
Germ	Gallbladder	Alcoholism	
Meals	Calories	Irritation	
Disease	Depression	Constipation	
Cancer	Miscarriage	Gonorrhea	
Caffeine	Pregnancy	Inflammatory	
Attack	Arthritis	Diabetes	
Kidney	Nutrition	Hepatitis	
Hormones	Menopause	Antibiotics	
Herpes	Appendix	Diagnosis	
Scrape	Abnormal	Potassium	
Bowel	Syphilis	Anemia	
Asthma	Hemorrhoids	Obesity	
Recall	Nausea	Osteoporosis	
Incent	Directed	Impetigo	
		SCORE	
		List 1 _____	
		List 2 _____	
		List 3 _____	
		Raw Score _____	

Measuring health literacy

Test Of Functional Health Literacy in Adults (TOFHLA)

PASSAGE B: Medicaid Rights and Responsibilities

I agree to give correct information to _____ if I can receive Medicaid.

a. bill
b. call
c. see
d. ache

I _____ to provide the county information to _____ any

a. agree
b. prove
c. send
d. gain

a. hide
b. risk
c. discharge
d. prove

statements given in this _____ and hereby give permission to

a. emphysema
b. application
c. gallbladder
d. relationship

the _____ to get such proof. I _____ that for

a. inflammation
b. religion
c. iron
d. county

a. investigate
b. entertain
c. understand
d. establish

Medicaid, I must report any _____ in my circumstances

a. changes
b. hormones
c. antacids
d. charges

within _____ (10) days of becoming _____ of the change.

a. three
b. one
c. five
d. ten

a. award
b. aware
c. away
d. aware

I understand _____ if I DO NOT like the _____ made on my

a. this
b. this
c. that
d. than

a. marital
b. occupation
c. adult
d. decision

case, I have the _____ to a fair hearing. I can _____ a

a. fight
b. left
c. wrong
d. right

a. request
b. refuse
c. full
d. need




Limitations of health literacy instruments

- There are no health literacy tests for listening and speaking.
- Tests cannot determine the cause or type of reading or learning difficulty.
- Predominantly in the English Language.



Questions? Comments?





Strategies for providing dental hygiene information and education to people with low literacy or health literacy

 Practice clear oral communication

 Provide clear written materials



Clear oral communication

- What are things to keep in mind in providing clear oral communication for people with low literacy/health literacy?



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)



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
- Verify comprehension


(Doak, et al., 1998)



How to make Verbal Communication Clearer (Cont.)

- Organize your information
- Use common words
- Give client chance to express feelings
- Make direct eye contact
- Use written information as backup

(NLHP/CPHA, 1998)



How to make verbal communication clearer (Cont.)

- Plan with clients
- Let client know what you are thinking
- Explain procedures and ask permission
- Focus on client

(NLHP/CPHA, 1998)



The teach-back/show me techniques

- Do not simply ask, “do you understand”?
- Instead, ask patients 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)



Questions? Comments?



Providing written information

- How do you determine that written material is appropriate for someone with low literacy/health literacy?

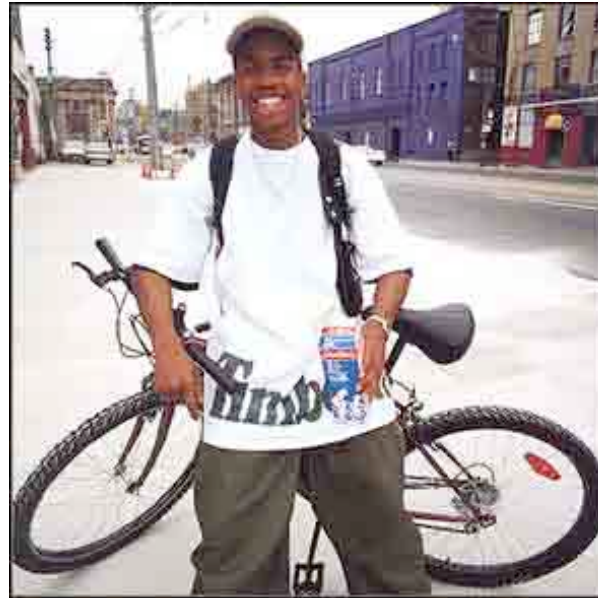


Keep your teeth for life.



[NEXT PAGE](#)

You can keep
your teeth
healthy
every day.



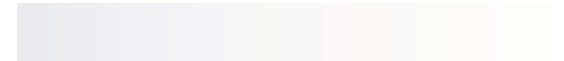
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Eat healthy food.
Good for your teeth



Bad for your teeth



If you eat these
foods try to:

- brush your teeth
after,
- rinse your
mouth with
water, or
- chew sugar-free
gum.

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Smoking can cause dental disease.



If you smoke, try (again?) to quit.

To help yourself quit:

- set a quit date within 2 weeks,
- ask for help from family and friends,
- sign up for a quit smoking program,
- get the nicotine patch from a doctor, or nicotine gum from a pharmacy, and
- try to avoid places where you normally smoke.

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For healthy teeth in babies



- If your baby sleeps with a bottle, use water, not juice or milk. Water won't hurt a baby's teeth.
- Wipe your baby's gum and teeth once a day with a **clean**, wet cloth.
- If you see brown stains on the teeth, see a dentist. It may be a cavity.

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If you don't have much money for a dentist, you can:

- go to a college or university dental clinic,
- go to your local community health centre or clinic,
- talk to the workers at your local drop-in, shelter, hostel or friendship centre, or
- talk to a welfare worker.

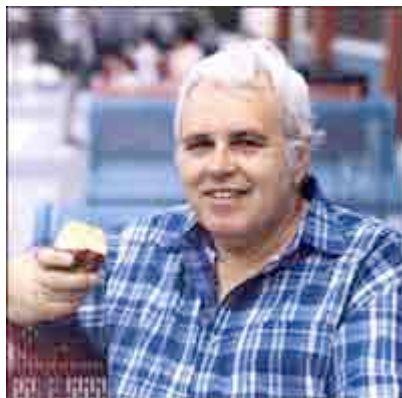


COVER

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Start now and live your life with healthy teeth!



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To order more copies, call
1-416-703-8481

© Central Toronto Community Health
Centres, 1998

<http://www.nald.ca/library/learning/dent/English/page1.htm>

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Question regarding pamphlet

- What are some of the things that you notice about this pamphlet that make it suitable for people with low literacy or health literacy?



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)



Assessment of Readability

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



Plain Language G.R.I.D.

- Grade Level: Is the information written at a Grade 4-6 level?
- Relevance: Is the information what your client needs and wants to know? Is it sensitive to their cultural background?
- Interest: Is it written in a friendly and conversational style?
- Design: Does it follow clear design principles.

(NLHP/CPHA, 1998)



Questions? Comments?





Providing a supportive environment

- What can you do to provide a supportive environment for people with low literacy/health literacy?



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
- Advocate for change



Non-Written Information

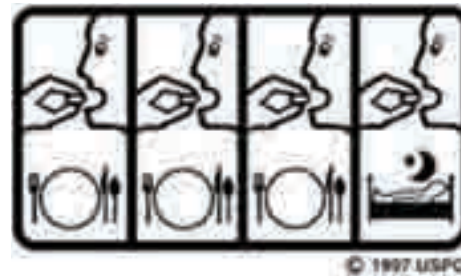
- Use videos
- Use audiotapes and CD's
- Use photographs and illustrations
- Use pictograms

(Andrus and Roth, 2002)

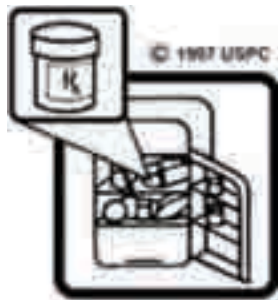
Examples of Pictograms (from <http://www.usp.org/>)



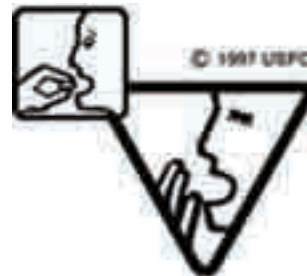
Take by mouth



Take 4 times a day, with meals and at bedtime



Store in refrigerator



This medicine may make you drowsy



Other Possibilities

- Picture books
 - Storytelling
 - Drama
 - Puppets
 - Computer-based programs (www.2aida.org)
 - Small discussion groups
- (Andrus and Roth, 2002)



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)



Development and Evaluation of an Oral Health Literacy Instrument

**Dania A.
Sabbahi**

Supervisor

Dr. Herenia P. Lawrence

Committee members

Dr. Irving Rootman

Dr. Hardy Limeback



Objectives

1. To develop an Oral Health Literacy instrument and test its validity and reliability.
2. To develop an Arabic version of the Oral Health Literacy instrument (originally in English) and evaluate its accuracy.




Advocating for change

- What can you and the organizations that you belong to do to improve health education for people with low literacy?




Advocacy

- Support ESL and Adult Education
- Encourage provision of services in multiple languages
- Develop and encourage the development of “cultural sensitivity”
- Advocate for policies and practices to improve access to services and to address structural barriers to health



Actions that can be taken by dental hygienists as a professional group

- Make health literacy a **mandatory component of curricula in dental hygiene programs**
- Make demonstrated proficiency in health literacy a **requirement for professional registration, certification and practice for dental hygienists**
- **Undertake assessments/audits** of literacy and health literacy friendliness of dental practices
- **Develop policies** on use of plain/clear language and visual symbols in health communications
- **Develop professional guidelines and practice standards** for health communications and interactions

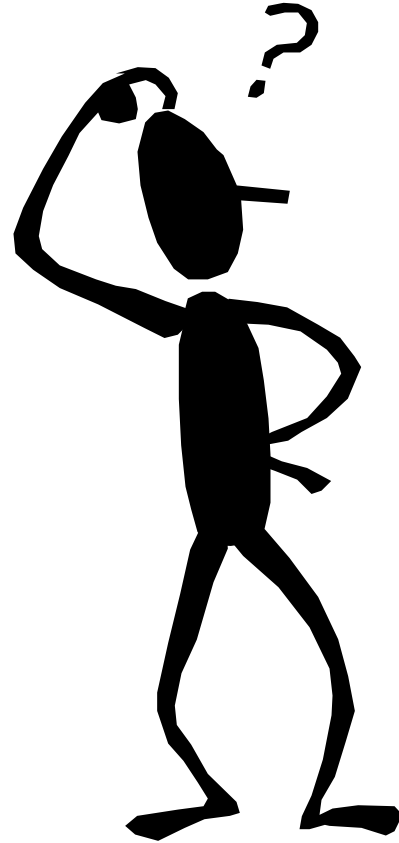


Actions that can be taken by dental hygienists as a professional group (Cont.)

- Advocate for Literacy and Health Literacy
- Provide Training opportunities on Literacy and Health Literacy
- Join National Literacy and Health Program



Questions? Comments?





Resources for Literacy and Health Literacy



Key Organizations

- Canadian Public Health Association
- CCL Health and Learning Knowledge Centre, University of Victoria
- Movement for Canadian Literacy
- Fédération canadienne pour l'alphabétisation en français
- National Collaborating Centre on Determinants of Health



Key Print Resources

- Canadian Council on Learning, “State of Learning in Canada: No Time for Complacency,” Report on Learning in Canada 2007 (Ottawa:2007). [www.ccl-cca.ca]
- Institute of Medicine, Health Literacy: A Prescription to End Confusion, Washington: The National Academies Press, 2004. [www.iom.edu]
- Literacy Alberta, The Literacy Audit Kit, Edmonton: Literacy Alberta, 1997. [www.literacyalberta.ca]
- NLHP and CPHA, Easy Does it! Plain Language and Clear Verbal Communication Training Manual 1998. [www.pls.cpha.ca/]
- Osborne, Helen, Health Literacy: From A to Z, Sudbury, Mass: Jones and Bartlett, 2005.
- Rudd, Rima and Anderson, Jennie, The Health Literacy Environment of Hospitals and Health Centers, Boston: Harvard School of Public Health, 2006. [www.nscsall.net]
- Weiss, Barry, Health Literacy: A Manual for Clinicians. AMA Foundation, 2003.



Key Websites

- National Literacy and Health Program (www.nlhp.cpha.ca)
- National Adult Literacy Database (www.nald.ca)
- Canadian Council on Learning On-line Resource Centre (www.ccl-cca.ca)
- Health Literacy Studies, Department of Health and Social Behavior, Harvard School of Public Health
- (<http://www.hsph.harvard.edu/healthliteracy>)



Conferences

- IUHPE Conference, Vancouver, June 10-16
- Canadian Public Health Association Conference, September 16-19



Key Video's CD's

- Health Literacy: A Prescription to End Confusion, Washington, Institute of Medicine. (www.iom.edu)
- Health Literacy: Making the Connection, Halifax: Ministry of Health, Nova Scotia. [abagaen@gov.ns.ca]



To Contact me

- irootman@uvic.ca

What
you
say

What they are thinking...

Thank You

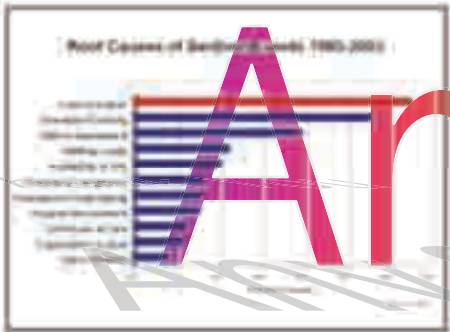


What's wrong? - I don't see any problems. There's nothing with the baby! (Example)

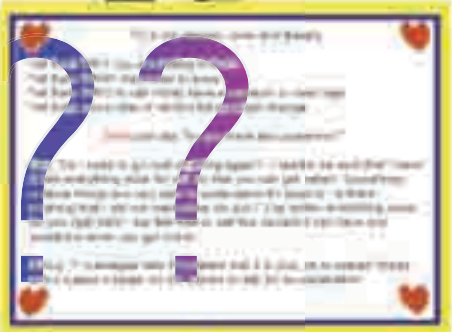
This cell phone is all about - I need to call my office.



Do you think this thing will pop a wheelie?



Any



Communication is not just words...