

# Health Literacy & Plain Language

**Sabrina Kurtz-Rossi, M.Ed.**

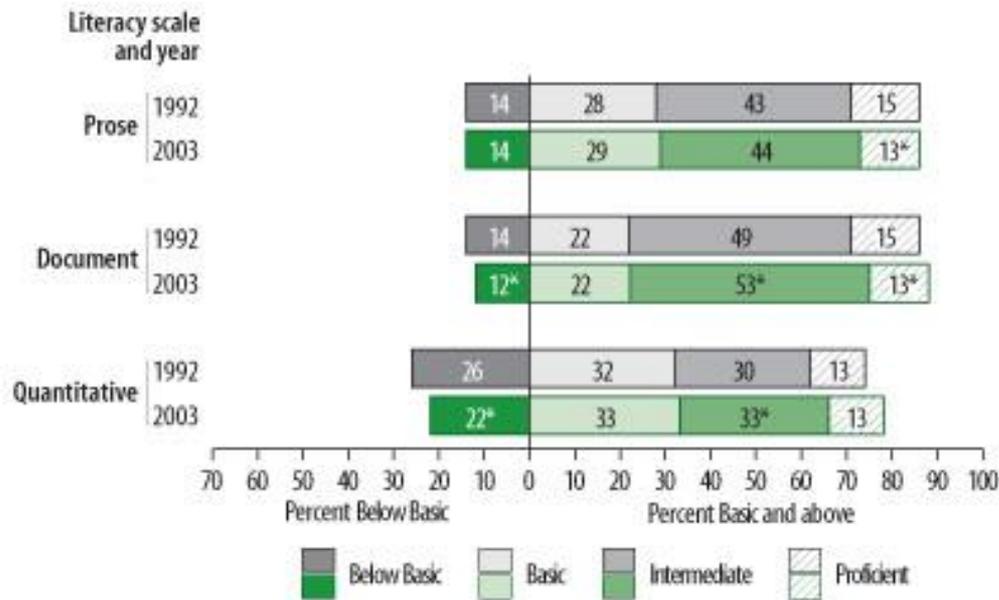
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**Tufts University School of Medicine**

# Literacy is Contextual



# National Assessment of Adult Literacy (NAAL)



- 14% *Below Basic* (30 million)
- 29% *Basic* (63 million)
- 44% *Intermediate* (95 million)
- 13% *Proficient* (23 million)

Percent of adults scoring Below Basic, Basic, Intermediate, and Proficient: 1992 and 2003

**Source:** U.S. Department of Education, Institute of Education Science, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.  
[http://nces.ed.gov/naal/health\\_results.asp](http://nces.ed.gov/naal/health_results.asp)

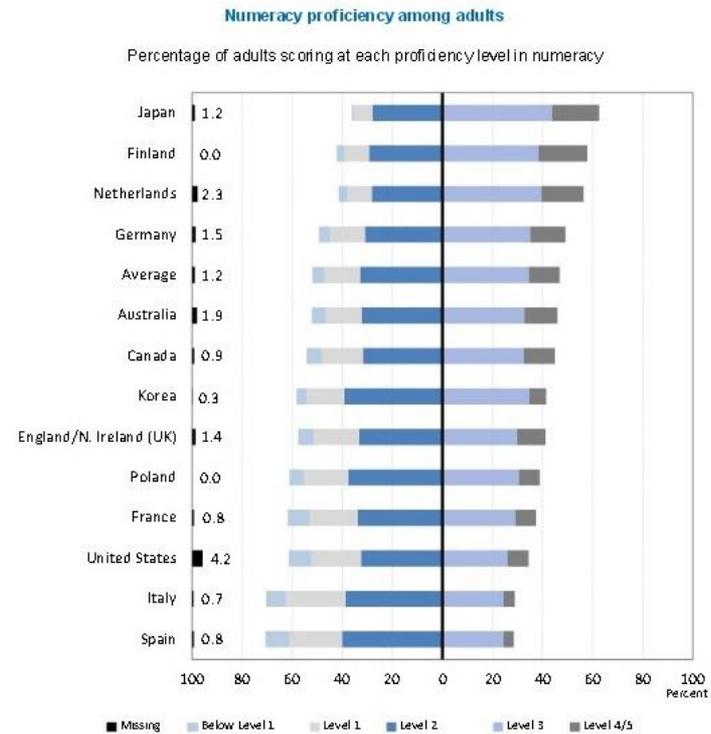
# Program for International Assessment of Adult Competencies (PIAAC)

## 2012 Survey of Adult Literacy Country Specific Results

### United States

- Larger proportions of adults in US than in other countries have poor literacy and numeracy skills
- Socio economic factors have strong impact on adult literacy
- Literacy skills are linked to employment outcomes as well as personal and social well-being

**Source:** Goodman, M. et al. (2013). Literacy, Numeracy, and Problem Solving in Technology-Rich Environments Among U.S. Adults: Results of the Program for the International Assessment of Adult Competencies 2012: First Look. U.S. Department of Education, Washington, DC: National Center for Education Statistics. Retried 1.9.13 from <http://nces.ed.gov/pubsearch>.



# What are the literacy demands in health and healthcare?

**Drug Facts**

**Active ingredient (in each tablet)** Chlorpheniramine maleate 2 mg. **Purpose** Antihistamine

**Uses** Temporarily relieves these symptoms due to hay fever or other upper respiratory allergens: sneezing, runny nose, itchy, watery eyes, itchy throat

**Warnings**  
 Ask a doctor before use if you have:  
 ■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis  
 ■ trouble urinating due to an enlarged prostate gland

**Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives**

**When using this product**  
 ■ You may get drowsy ■ avoid alcoholic drinks  
 ■ alcohol, sedatives, and tranquilizers may increase drowsiness  
 ■ Be careful when driving a motor vehicle or operating machinery  
 ■ excitability may occur, especially in children

**Directions**  
 adults and children 12 years and over: take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours  
 children 6 years to under 12 years: take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours  
 children under 6 years: ask a doctor

**Other information** store at 20-25° C (68-77° F) ■ protect from excessive moisture

**Inactive ingredients** D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch

**MAY CAUSE DROWSINESS OR DIZZINESS**

**SHAKE WELL**

**TAKE WITH FOOD**

**DO NOT DRINK ALCOHOLIC BEVERAGES WHEN TAKING THIS MEDICATION**



AMERICAN RED CROSS VOLUNTEER SERVICE CENTER  
 1000 UNIVERSITY AVENUE  
 NEWTON, MASSACHUSETTS 02459-1000

Medical Record Form  
 This form shall remain the property of the American Red Cross. It is loaned to you for your use only. It is to be returned to the office of origin when no longer needed. It is to be kept in a safe place and not to be loaned to anyone else.

1. Name (Last, First, Middle Initial) \_\_\_\_\_  
 2. Address \_\_\_\_\_  
 3. City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 4. Telephone (Area Code) \_\_\_\_\_  
 5. Date of Birth \_\_\_\_\_ Sex \_\_\_\_\_  
 6. Race \_\_\_\_\_  
 7. Religion \_\_\_\_\_  
 8. Marital Status \_\_\_\_\_  
 9. Occupation \_\_\_\_\_  
 10. Education \_\_\_\_\_  
 11. Social Security Number \_\_\_\_\_  
 12. Date of Admission \_\_\_\_\_  
 13. Date of Discharge \_\_\_\_\_  
 14. Date of Death \_\_\_\_\_  
 15. Date of Re-admission \_\_\_\_\_  
 16. Date of Re-admission \_\_\_\_\_  
 17. Date of Re-admission \_\_\_\_\_  
 18. Date of Re-admission \_\_\_\_\_  
 19. Date of Re-admission \_\_\_\_\_  
 20. Date of Re-admission \_\_\_\_\_

You are now on Ground Floor	
<ul style="list-style-type: none"> <li>Accident &amp; Emergency ... Ground Floor - North Wing</li> <li>Admissions ... Ground Floor - South Wing</li> <li>Anaesthetics ... Floor 13</li> <li>Assistive Communications Service (ACS) ... Floor 2</li> <li>Audiology ... Floor 1</li> <li>Boardroom ... Ground Floor - South Wing</li> <li>Cardiology ... Floor 5</li> <li>Coronary Care Unit (CCU) ... Floor 5</li> <li>Care for the Elderly ... Floor 1</li> <li>Coffee Shop/Café ... Floor 1</li> <li>Diabetes Offices ... Floor 9</li> <li>Diabetes Day Centre ... Floor 9</li> <li>EH &amp; F MH NHS Trust ... Floors 3 &amp; 4</li> <li>EMT Unit ... Floor 1</li> <li>Endocrinology Offices ... Floor 9</li> <li>ENT ... Floor 1</li> </ul>	<ul style="list-style-type: none"> <li>South Wing →</li> <li>Pilot Wing →</li> <li>West Wing</li> <li>Radiotherapy ... Ground Floor - East Wing</li> <li>Renal Ward / Surgery ... Floor 1</li> <li>Restaurant, Margravite ... Floor 2</li> <li>Rheumatology ... Ground Floor - East Wing</li> <li>Security ... Ground Floor - West Wing</li> <li>Shops ... Ground Floor - West Wing</li> <li>Social Work ... Floor 2</li> <li>Speech &amp; Language Therapy ... Floor 2</li> <li>Surgery / Renal Ward ... Floor 1</li> <li>Surgery Office ... Floor 8</li> <li>Surgical Outpatients ... Floor 4</li> <li>X-ray (imaging) ... Floor 1</li> <li>WARDS</li> <li>Marshall Keesley Ward ... Floor 9</li> <li>Medical Admissions Ward ... Floor 9</li> <li>Ward 4 South - Vascular Surgery ... Floor 4</li> <li>Ward 4 North - Vascular Surgery ... Floor 4</li> </ul>

100 mg A-2169 Lot 92H78011

**SIGMA**

**3'-AZIDO-3'-DEOXYTHYMIDINE**  
 (AZT; Azidothymidine) (30516-87-1)

Desiccate  
 Store at less than 0°C

C<sub>8</sub>H<sub>10</sub>N<sub>2</sub>O<sub>4</sub> FW 267.2  
 Purity > 99% (HPLC)

For laboratory use only. Not for drug, household or other uses.

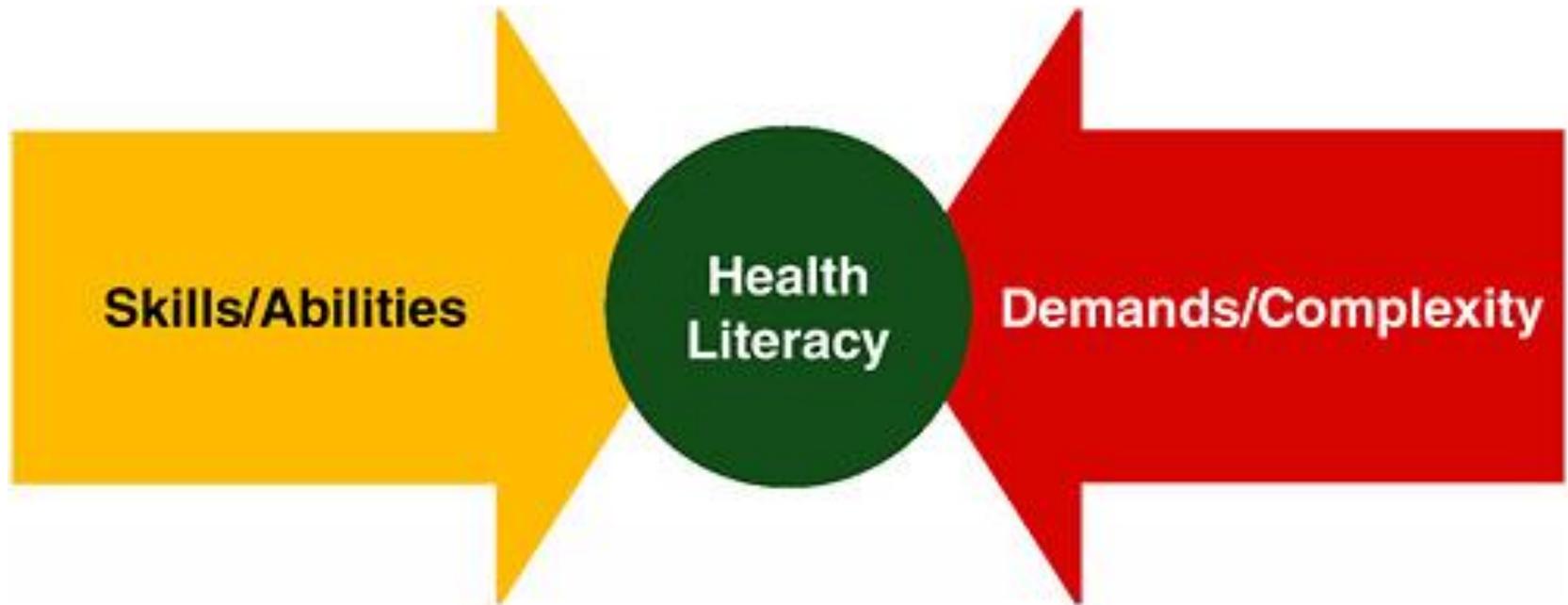
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# Most Cited Definition

**Health Literacy:** The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (DHHS, 2000)

**Source:** Department of Health and Human Services (2000). Healthy People 2010. Washington, DC: U.S. Government Printing Office. Originally developed by SC Ratzan & RM Parker (Eds.), National Library of Medicine Bibliographies in Medicine: Health Literacy. NLM Pub. No. CBM 2000-1. Bethesda, MD: National Institutes Of Health, U.S. Department of Health and Human Services.

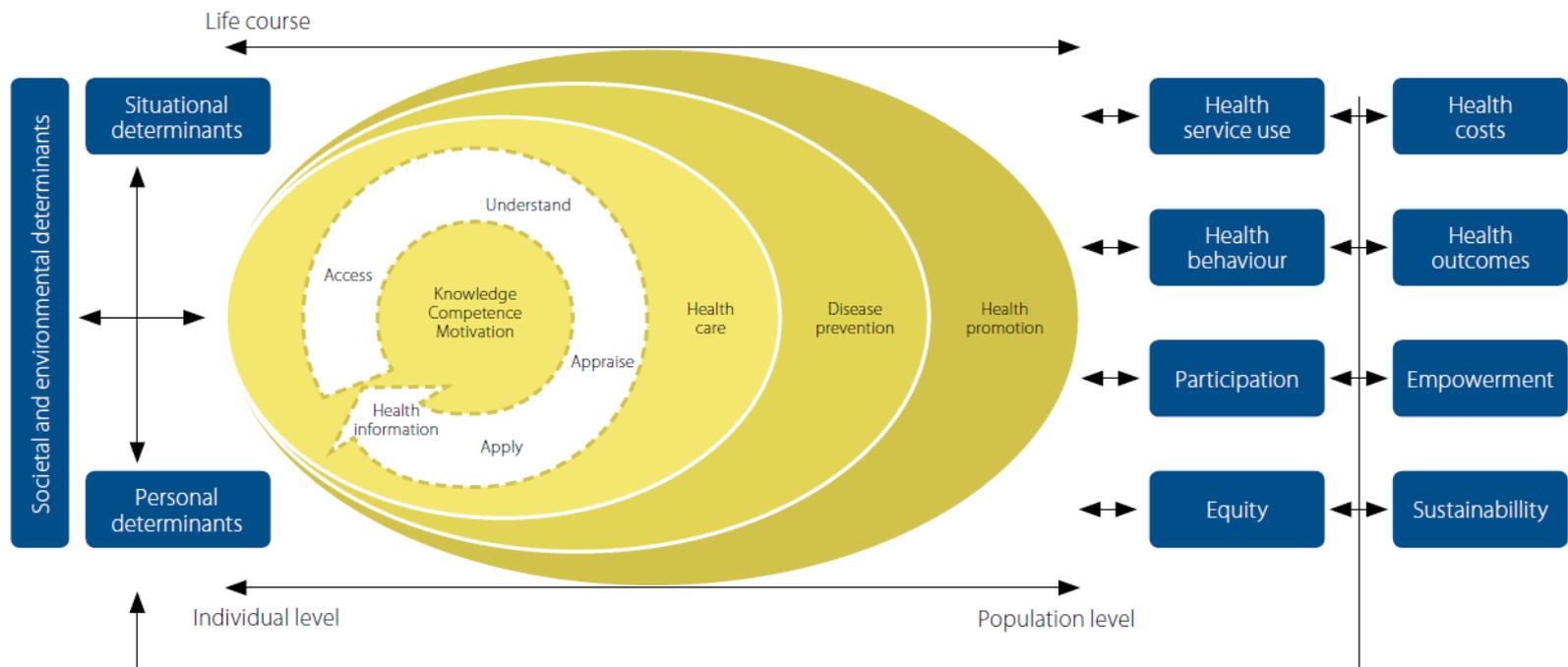
# Health Literacy A Two-way Street



**Source:** Institute of Medicine (US) Roundtable on Health Literacy. Measures of Health Literacy: Workshop Summary. Washington (DC): National Academies Press (US); 2009. 6, Measuring Health Literacy: What? So What? Now What? Available from: <https://www.ncbi.nlm.nih.gov/books/NBK45386/>

# Expanded Model

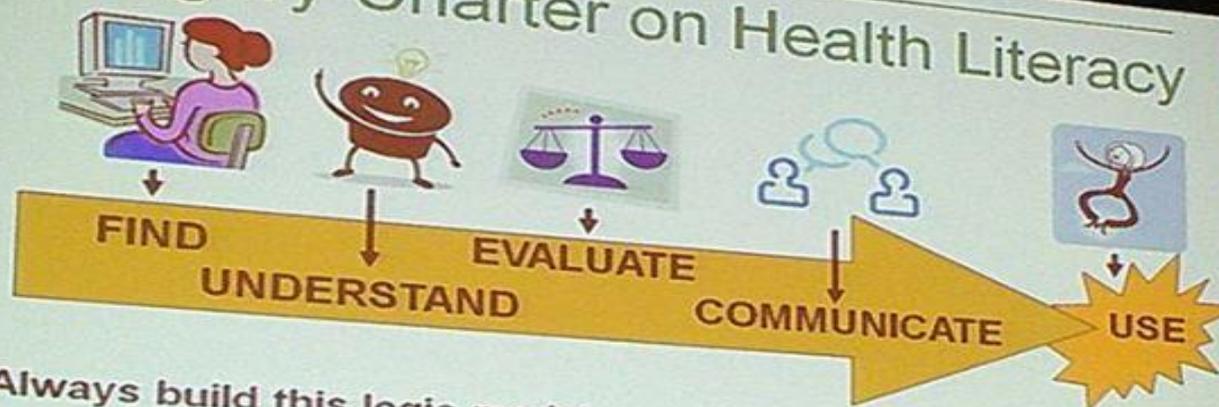
**Fig. 2. Conceptual model of health literacy of the European Health Literacy Survey**



Source: adapted from: Sørensen K et al. Health literacy and public health: a systematic review and integration of definitions and models. *BMC Public Health*, 2012, 12:80.

# Health Literacy Skills

## Calgary Charter on Health Literacy



- Always build this logic model on a foundational awareness of:
- Fundamental literacy - if your language fails, you fail.
  - Scientific literacy - if you remove the science, you fail.
  - Cultural literacy - if you ignore culture, you fail.
  - Civic literacy - if you don't engage and empower people, you fail.

CANYONRANCH *Institute*

THE POWER OF KNOWLEDGE IN A HEALTHY WORLD

**Source:** The Calgary Charter as a framework for health literacy curriculum development and evaluation. Presented by Andrew Pleasant at the 2013 IHA Health Literacy Conference in Irvine, CA. May 2013.

# Domains of Health Literacy (Nutbeam 2001)

- **Functional health literacy** – basic skills in reading and writing to function effectively in everyday situations
- **Interactive health literacy** – more advanced skills to derive meaning and apply to changing circumstance
- **Critical health literacy** – cognitive and social skills to critically analyze and use information for change

**Source:** Nutbeam D. Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21<sup>st</sup> century. *Health Promotion International*, 15, 259-267. 2001.

# At First Glance – Readability

- Numerous studies show readability of health materials far exceed skills of patients
- Studies of Web-based health information show similar results



**Source:** Institute of Medicine Committee on Health Literacy: A Prescription to End Confusion. Nielsen-Bohlman L, Panzer AM, Kindig DA, eds. Washington, DC: The National Academies Press; 2004.

# Measuring Health Literacy

The Newest Vital Signs

Nutrition Facts	
Serving Size	1/2 cup
Servings per container	4
Amount per serving	
Calories 250	Fat Cal 120
	%DV
<b>Total Fat</b> 13g	20%
Sat Fat 9g	40%
<b>Cholesterol</b> 28mg	12%
<b>Sodium</b> 55mg	2%
<b>Total Carbohydrate</b> 30g	12%
Dietary Fiber 2g	
Sugars 23g	
<b>Protein</b> 4g	8%

\* Percent Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

**Ingredients:** Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.

- Test of Functional Health Literacy in Adults (TOFHLA)
- Rapid Estimate of Adult Literacy in Medicine (REALM)

**Source:** Haun JN, Valerio MA, McCormack LA, Sorensen K, Paasche-Orlow M. Health Literacy Measurement: An Inventory and Descriptive Summary of 51 Instruments. *J Health Comm.* 2014;19(sup2): 301-333.

# Measuring Health Literacy



<http://healthliteracy.bu.edu/>

**Source:** Haun JN, Valerio MA, McCormack LA, Sorensen K, Paasche-Orlow M. Health Literacy Measurement: An Inventory and Descriptive Summary of 51 Instruments. *J Health Comm.* 2014;19(sup2): 301-333.

# Affects on Health Outcomes

- **Low health literacy is linked to...**
  - Under-utilization of services
  - Increased medication errors
  - Poor knowledge about health
  - Increased hospitalizations
  - Poor health outcomes
  - Increased healthcare costs



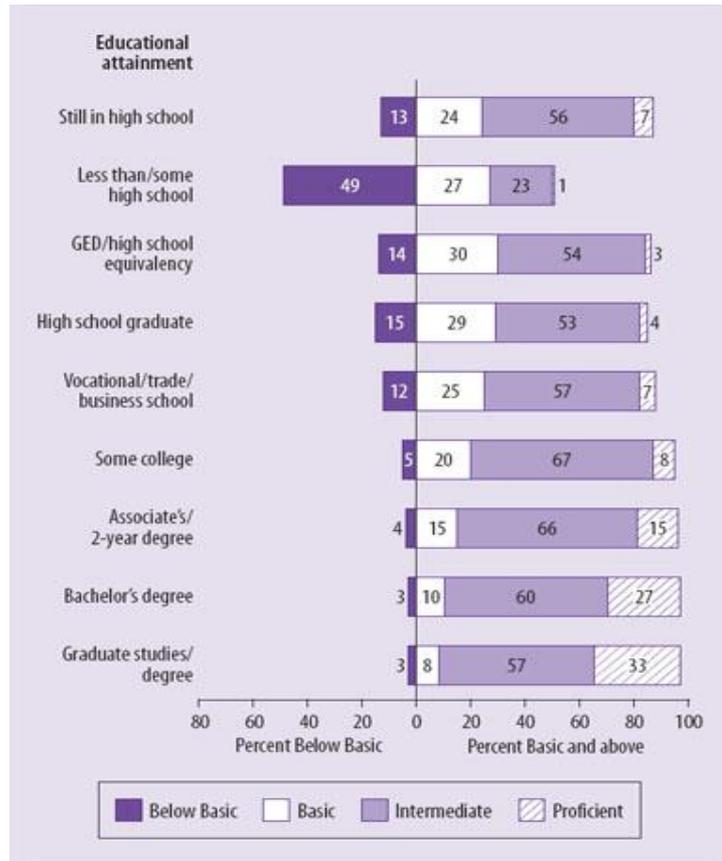
**Source:** Berkman N, Sheridan S, Donahue K, et al. Health Literacy Interventions and Outcomes: An Updated Systematic Review. Evidence Report/Technical Assessment No. 199. Prepared by RTI International-University of North Carolina Evidence-based Practice Center under contract No. 290-2007-10056-1. AHRQ Publication Number 11-E006. Rockville, MD. Agency for Healthcare Research and Quality. 2011.

# Activity

## Discuss in pairs

**What are the challenges your patients or clients have understanding health information?**

# Who is at Risk? Less Educated



- Nearly 50% of adults with less than a high school diploma had Below Basic health literacy

**Source:** U.S. Department of Education, Institute of Education Science, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.  
[http://nces.ed.gov/naal/health\\_results.asp](http://nces.ed.gov/naal/health_results.asp)

**Percentage of Adults in Each Health Literacy Level by Highest Educational Attainment**

# Who is at Risk? Older Adults



**Percentage of Adults in Each Health Literacy Level by Age**

- **Adults in the oldest age group – age 65 and older – had lower health literacy than adults in the younger age groups**

**Source:** U.S. Department of Education, Institute of Education Science, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.  
[http://nces.ed.gov/naal/health\\_results.asp](http://nces.ed.gov/naal/health_results.asp)

# Health Literacy and Health Equity

<b>Percentage of Whites in each literacy level</b>	<b>Percentage of Blacks in each literacy level</b>	<b>Percentage of Hispanics each literacy level</b>
Below basic: 9%	Below basic: 24%	Below basic: 41%
Basic: 19%	Basic: 34%	Basic: 25%
Intermediate: 58%	Intermediate: 41%	Intermediate: 31%
Proficient: 14%	Proficient: 2%	Proficient: 4%

**Source:** U.S. Department of Education, Institute of Education Science, National Center for Education Statistics, 2003 National Assessment of Adult Literacy. [http://nces.ed.gov/naal/health\\_results.asp](http://nces.ed.gov/naal/health_results.asp)

# Who is at Risk? Everyone



Cindy Marks



Maria Rodriguez



Joseph Morton



Sabrina Kurtz-Rossi

**In health care a high level of health literacy  
is expected and often assumed**

# What Are We Doing About It?

- Reduce barriers, create health literate organizations and systems
- Increase the health literacy on individuals, families and communities
- Create policies to promote population health literacy

**Source:** Berkman N, Sheridan S, Donahue K, et al. Health Literacy Interventions and Outcomes: An Updated Systematic Review. Evidence Report/Technical Assessment No. 199. Prepared by RTI International-University of North Carolina Evidence-based Practice Center under contract No. 290-2007-10056-1. AHRQ Publication Number 11-E006. Rockville, MD. Agency for Healthcare Research and Quality. 2011.

# Health Literacy Policy

- Plain Language Writing Act (2010)
- Affordable Care Act (DHHS, 2010))
- Services Standards (OMH 2013)
- Shanghai Declaration on health literacy and sustainable development (WHO 2016)



# Health Literacy and Adult Education



**English language learners working on a cancer health literacy curriculum**

**Source:** Santos MG, Handley MA, Omark K, and Schillinger D. ESL Participation as a Mechanism for Advancing Health Literacy in Immigrant Communities. *J Health Comm.* 2015;19(sup2):89-105.

# Attributes of a Health Literate Organization

1. Has **leadership** that makes health literacy integral to its mission structure and operation
2. Integrates health literacy into planning, evaluation, **patient safety and quality improvement**
3. Prepares the **workforce** to be health literate and monitors progress
4. Includes **populations served** in the design, implementation and evaluation of health information and services
5. Meets need of populations with a range of health literacy skills while **avoiding stigmatization**
6. Uses health literacy strategies in **interpersonal communication** and confirms understanding at all points of contact
7. Provide easy access to health information and services and **navigation assistance**.
8. Designs and distributes print, audiovisual, and social media content that is **easy to understand and act on**
9. Addresses health literacy in **high-risk situations**, including care transitions and communications about medicine
10. Communicates clearly what **health plans** cover and what individuals with have to pay for services.

**Source:** Institute of Medicine Roundtable on Health Literacy. Attributes of a Health Literate Organization

[http://iom.edu/~media/Files/Perspectives-Files/2012/Discussion-Papers/BPH\\_Ten\\_HLit\\_Attributes.pdf](http://iom.edu/~media/Files/Perspectives-Files/2012/Discussion-Papers/BPH_Ten_HLit_Attributes.pdf)

# Create a Shame-free Environment



**Questions are the Answer**

[www.ahrq.gov/QuestionsAreTheAnswer](http://www.ahrq.gov/QuestionsAreTheAnswer)

- **Encourage questions**
  - What is the problem?
  - What do I need to do?
- **Engage all staff**
  - Front desk
  - Medical Assistants
  - House Keeping

**Source:** American Medical Association Foundation and American Medical Association. *Health Literacy and Patient Safety: Help Patients Understand*. Chicago, IL: American Medical Association; 2007.

# Avoid Jargon

## Jargon

## “Living room” language

Diagnosis.....	Cause of your illness
Anti-inflammatory.....	Lowers fever and swelling
Nasal congestion.....	Stuffy nose
Lesion.....	Wound, sore, cut
Risk factor.....	Will increase your chance ...

# Check for Understanding



**Source:** American Medical Association Foundation and American Medical Association. *Health Literacy and Patient Safety: Help Patients Understand*. Chicago, IL: American Medical Association; 2007.

# Provide Language Assistance

- Interpreter services
- Translation of materials



*Communicating Effectively Through an Interpreter* Kaiser Permanente



**Birth control methods brochures in five languages. Action for Boston Community Development (ABCD)**

# Plain Language: A Strategic Response



- Communicate in **everyday language**
- Use **images** that are **relevant** to your audience
- **Limit** information to **need to know**
- Break complex information into **chunks**

**Source:** Stableford S, Mettger W. (2007). Plain Language: A Strategic Response to the Health Literacy Challenge. *Journal of Public Health Policy*. 28:71-93.

# Key Points

- Low health literacy is linked to poor health outcomes and increased costs
- Health literacy is a health equity issue
- Interventions aim to build skills AND reduce complexity
- Use plain language as a strategic response