

Health Literacy: Challenges and Solutions



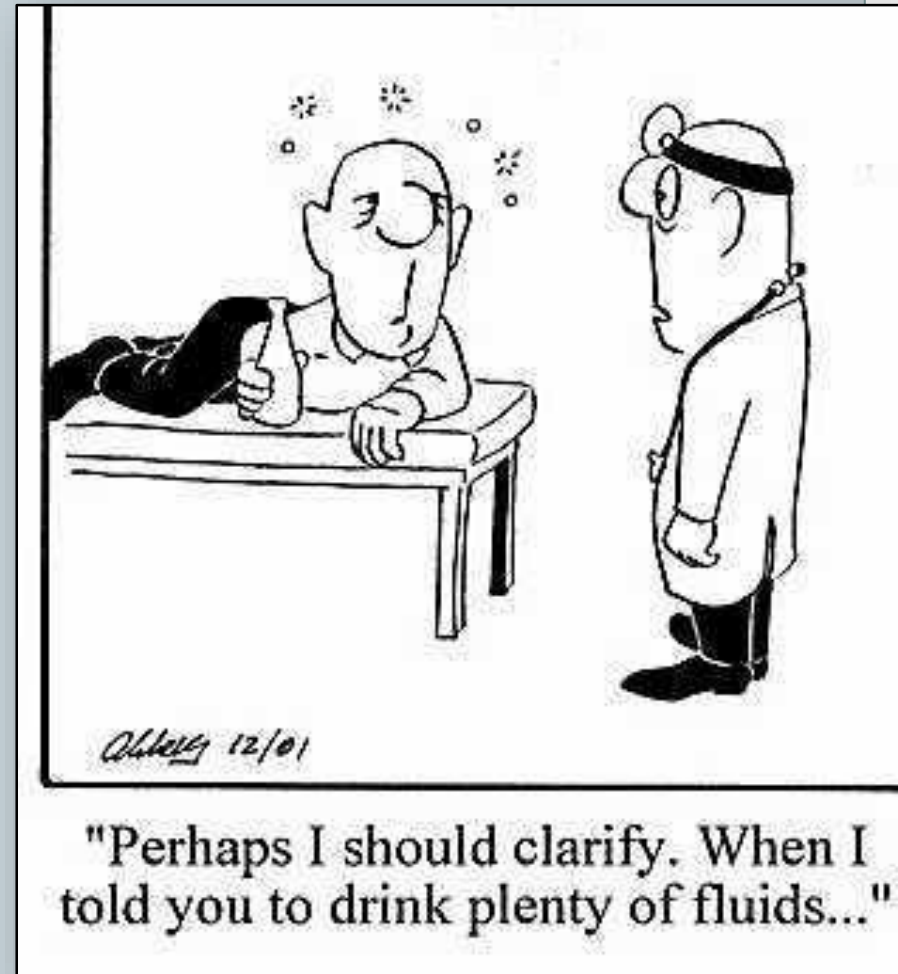
Terri Ottosen
Consumer Health Coordinator
National Network of Libraries of Medicine
Southeastern/Atlantic Region

<http://nnlm.gov/sea/>



Agenda

- Health Literacy in the U.S.
- Many Challenges
- Some Solutions



What is 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 care decisions”

- Ratzan, S., and R. Parker (2000) and Healthy People 2010

“The ability to read, understand, and act on health information”

- Pfizer (2002)

Two Sides to the Story



At first, health literacy was considered to be a characteristic of the individual.

Increasingly, researchers and practitioners are looking at both sides of the coin:



graphic by Dalen Gilbrech

Shared with permission from Dr. Rima Rudd, Harvard School of Public Health

www.hsph.harvard.edu/healthliteracy

Health Literacy is...



- **A shared function of social and individual factors**

Health and Human Services

Communicating Health, 2003

Institute of Medicine

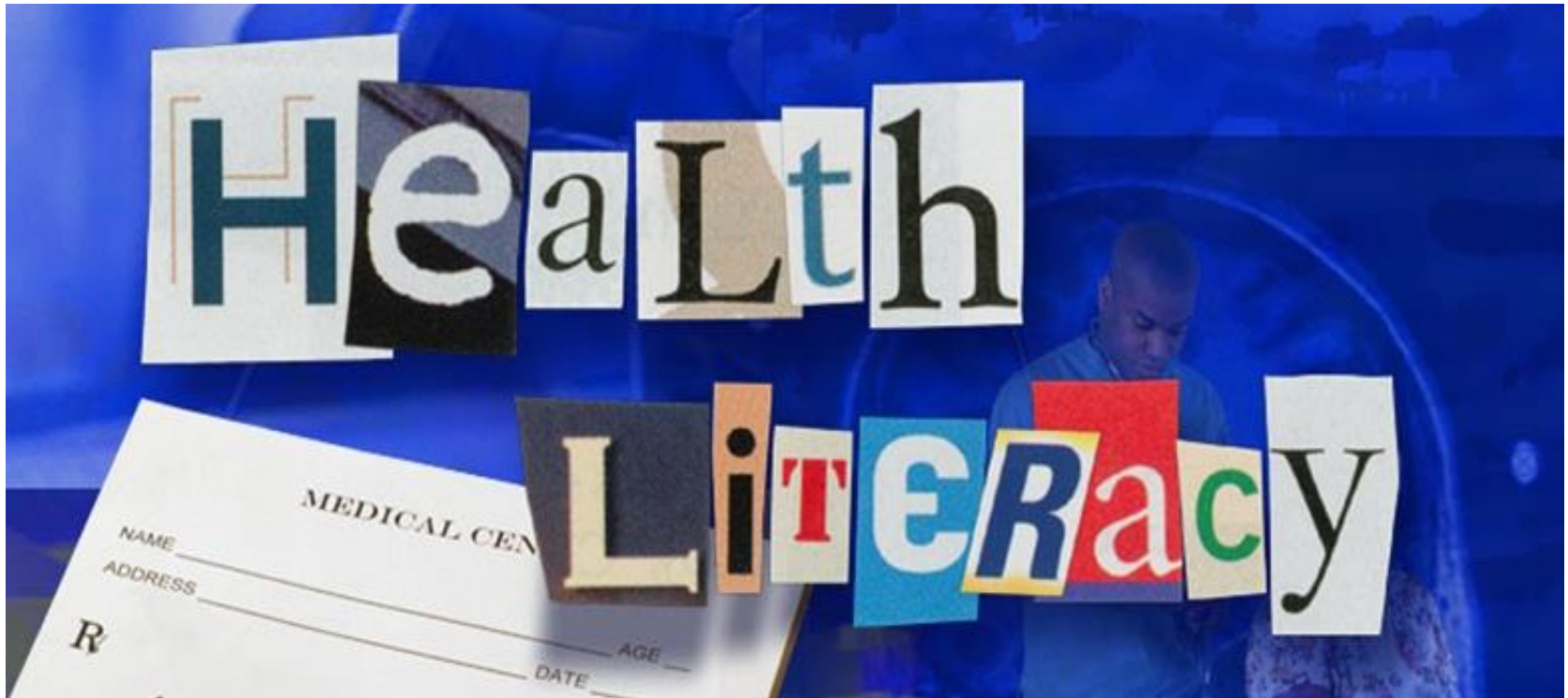
Health Literacy: A Prescription to End Confusion, 2004

- **An interaction**

Institute of Medicine

Health Literacy: A Prescription to End Confusion, 2004

American College of Physicians



<http://www.youtube.com/watch?v=ImnlptxIMXs>

Health Literacy Is Needed for:

- Pill bottles
- Appointment slips
- Informed consent
- Discharge instructions
- Health education materials
- Insurance applications
- Other?



7 Health Literacy Abilities



- Knowing when and where to seek information
- Verbal communication skills to describe health issue
- Understand HPs responses
- Assertiveness (successful communication)
- Literacy
- Retaining, processing information
- Skills in applying the information

Determinants of Health



- Age
- Income
- Literacy Skills
- Employment Status
- Education Level
- Race or Ethnic Group



Fill in the blanks



- One out of ? American adults reads at the 5th grade level or below, on average.

one out of 5

- On average, Americans read at the 8th to 9th grade level, yet most health care materials are written above the ? grade level.

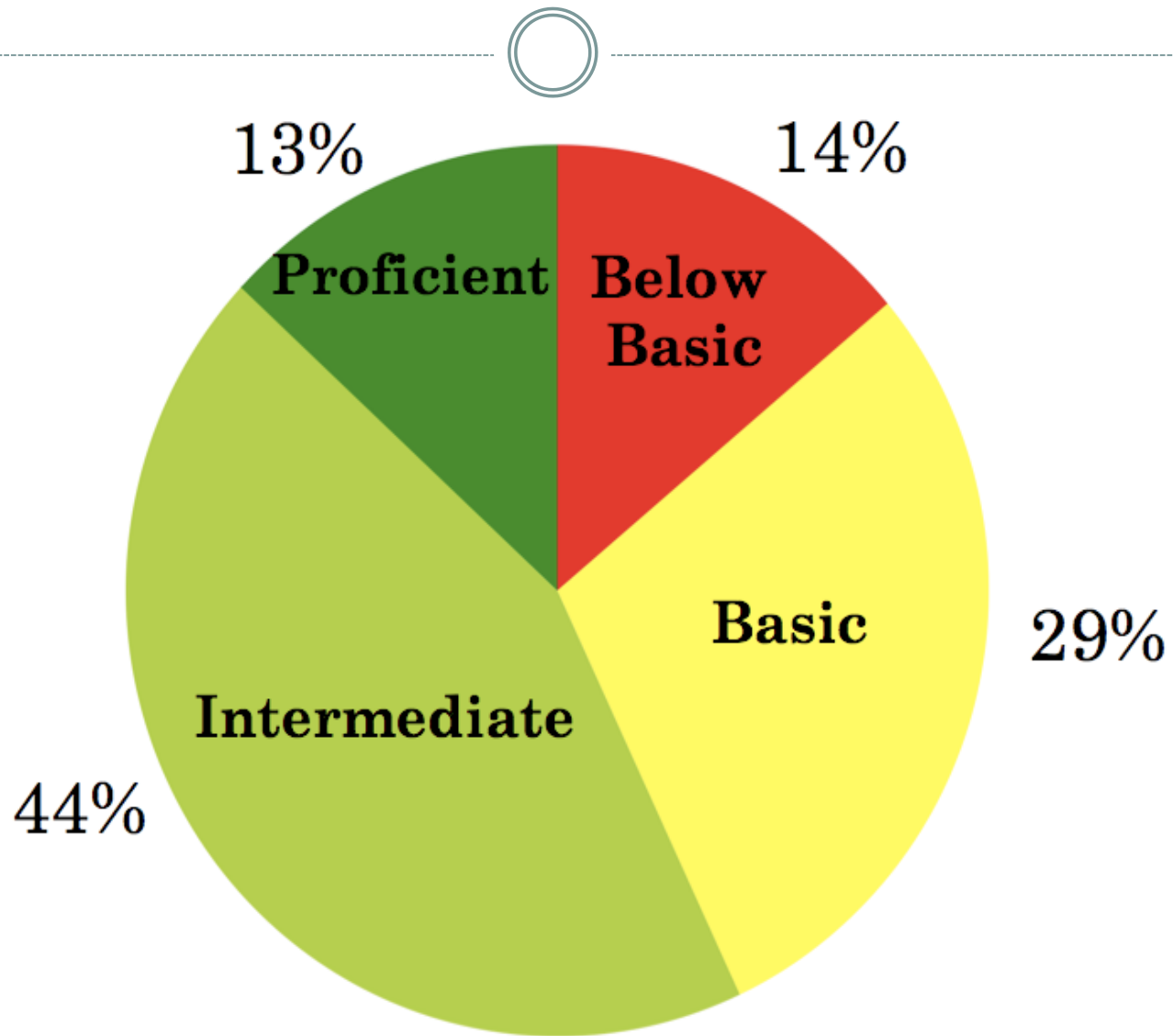
10th grade

National Assessment of Adult Literacy (NAAL)



- Most up to date portrait of literacy in U.S.
 - Scored on 4 levels
 - Lowest 2 levels cannot:
 - Use a bus schedule or bar graph
 - Explain the difference in two types of employee benefits
 - Write a simple letter explaining an error on a bill
- For more info: <http://nces.ed.gov/naal/>

NAAL Statistics - 2003



Changes in Demand/Complexity



Population Changes:

- Growing elderly population
- Growing number of Americans with limited English proficiency
- Disparities in access and/or quality of education

Health System Changes:

- Increase of number of medications prescribed
- Shorter hospital stays
- Heavier reliance on forms and written instructions
- More self-management occurs in the home

Cultural Competency



- Tailor messages to specific groups
- Avoid stereotypes
- Visuals should reflect the audience:
 - Age of reader
 - Consider diversity
 - Use current styles
 - Get user input for color choices



Lockton Aviation Photography

Do You Understand?



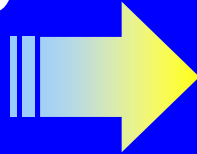
“Transverse and longitudinal response functions have been extracted for ^3He , ^{12}C , ^{40}Ca , ^{48}Ca , and ^{56}Fe up to a momentum transfer of 550. The quenching of the longitudinal response function in the quasi-elastic region is significant and might be a signature of modification of the intrinsic properties of the nucleon in nuclear matter.”

--Zein-Eddine Meziani. Transverse and longitudinal response functions in quasielastic electron scattering from nuclei . Nuclear Physics A
Volume 446, Issues 1-2, 16 December 1985, Pages 113-122

Directional Signs



**Ambulatory
Entrance**



Hospital XYZ

- Some people become confused about whether this entry was intended for ambulances or for patients

**Ambulatory
Entrance**



- The use of visuals clarify the message
- Contrast in color makes it easy to read
- Try to be consistent when hanging signs

Universal Symbols



Symbols and Rx Labels

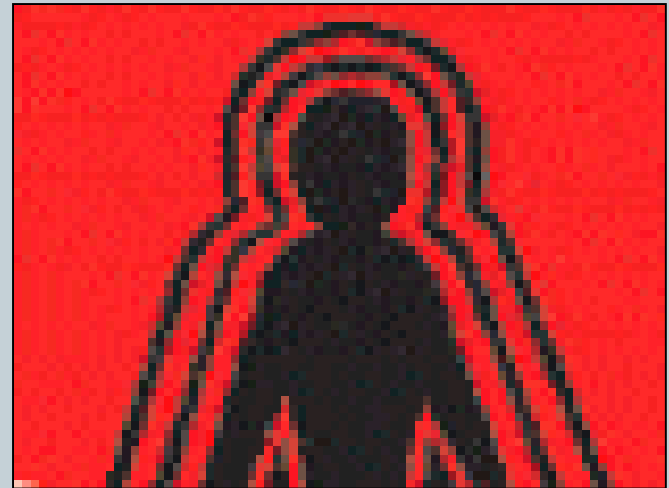
- Labels are seemingly simple but not necessarily clear.
- Mistakes are more likely the more medication a patient takes.
- Ability to read a Rx label does not guarantee ability to understand and act.



Prescription Drug Warning Labels



- What does this picture mean?
 - “Somebody is dizzy”
 - “Don’t touch this stuff”
 - “Take anywhere”
 - “Chills or shaking”
 - “Having an experience with God”







Some Common Medication Mistakes



- Assuming drug you take home is one Dr. prescribed
 - Look-alikes:
 - Celexa for depression, Celebrex for arthritis – Zantac for ulcers, Xanax for anxiety
- Not reading or following directions on drug's label or FDA leaflet (take with food, do not chew or crush)
- Not keeping track of all medicines you use
- Storing meds improperly or keeping too long

Tips for Information Seeking and Use



- Engage with written materials (medical dictionary, encyclopedia, etc.)
- Access online health information – reliable and authoritative, physician/hospital comparisons and homework
- Critically evaluate information sources
- Use social media (videos, chatting, support groups)
- Engage with research (evidence, new treatments, clinical trials)
- Ask Questions!!



The health of the caregiver is important, too.

Advice on caring for yourself on our Caregivers page



→ Health Topics

→ Drugs & Supplements

→ Videos & Cool Tools



**MEDICAL
DICTIONARY**



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anemia aspirin
asthma

diabetes

fibromyalgia
gabapentin gout

hypertension

hypothyroidism

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Health News

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[Children Exposed to HIV Before Birth at Risk for Language Delay](#)

[Some IVF Patients Don't Follow Doctor's Orders](#)

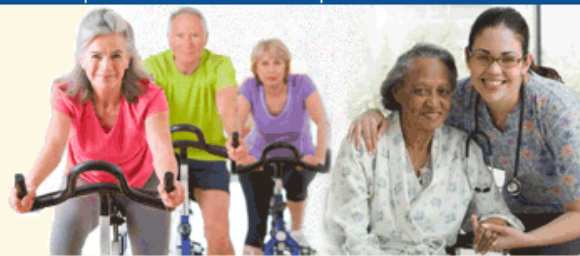
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NIH SeniorHealth

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Health and wellness information for older adults from the National Institutes of Health.

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[Older Drivers](#)

Exercise Stories

People of all ages and physical conditions benefit from exercise and physical activity. These [exercise stories](#) feature older adults and the diverse activities they enjoy.



Health Videos

Many of our health topics feature short videos that complement the information in the topic. The [health videos](#) offer up-to-date medical information, tips for healthy living, and inspiring stories of older adults who are coping with diseases or conditions of aging.



Free Tips on Healthy Aging

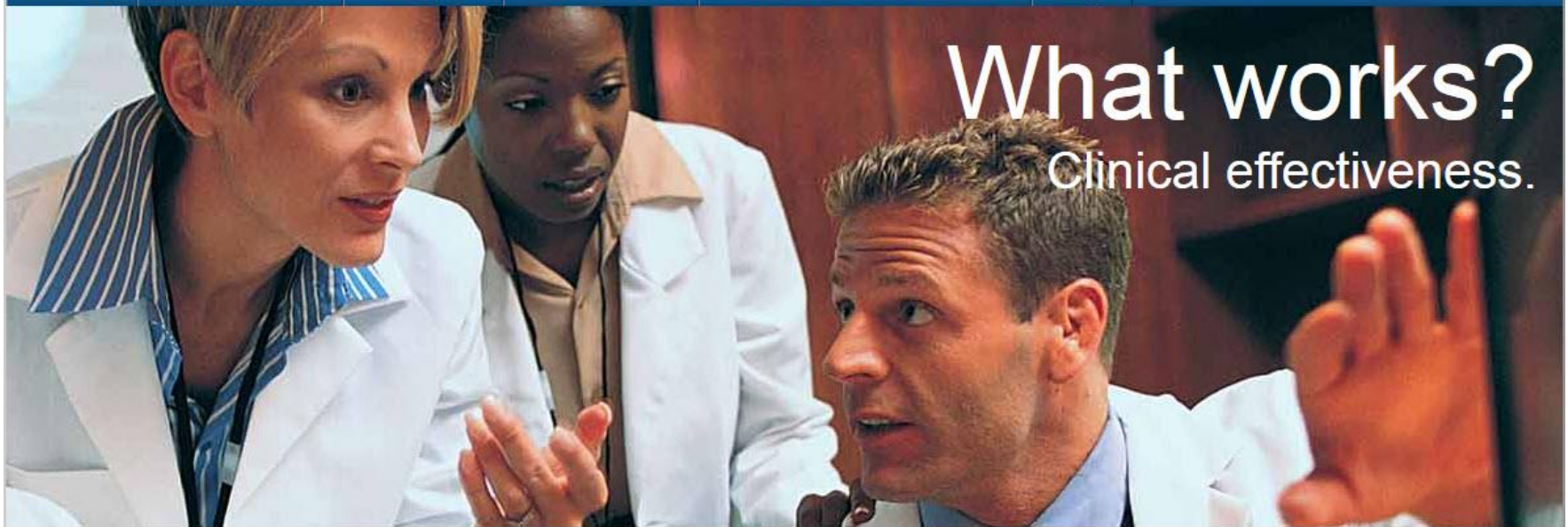


[Sign up here for free tips on healthy aging from NIH SeniorHealth.](#)

Training Tools

Are you interested in helping older adults learn to search online health information on their own? Review the [Training Tools](#) for more





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with others who share
your experiences




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your history & progress
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Depression

Diabetes

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Miscarriage

Multiple Sclerosis

Latest Activity



restorativepose gave mike12358 a ray of sunshine 2:34pm



adaptableportra13 wrote a Journal Entry 2:34pm

ClinicalTrials.gov currently lists **141,470 studies** with locations in all 50 states and in **182 countries**.

Text Size ▾

Search for Studies

Example: "Heart attack" AND "Los Angeles"

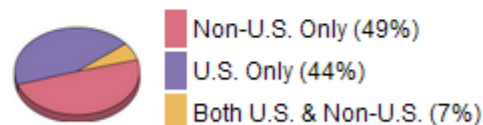
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Locations of Recruiting Studies



Total N = 29,686 studies
Data as of March 04, 2013

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*patient***INFORM** is a program that brings together the publishers of the world's leading medical journals and the world's most trusted health organizations to provide patients and their caregivers with access to some of the most up-to-date, reliable and important research available about the diagnosis and treatment of specific diseases.

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The purpose of this site, *patient*INFORM.org, is to help you:

1. Use the web sites of **participating health organizations** to find information about recent

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[2011 CUE Annual Membership Meeting Presentations](#)

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CONSUMERS UNITED FOR
EVIDENCE-BASED HEALTHCARE

Consumers United for Evidence-based Healthcare (CUE) is a national coalition of health and consumer advocacy organizations committed to empowering consumers to make the best use of evidence-based healthcare (EBHC). CUE, organized in 2003 when the USCC invited advocacy groups to join a consumer advocate-scientist partnership, is a pioneering effort to improve consumers' ability to engage in and demand high quality healthcare.

□

[2012 CUE ANNUAL MEMBERSHIP MEETING PRESENTATIONS](#)



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Ask Me 3 is a patient education program designed to improve communication between patients and health care providers, encourage patients to become active members of their health care team, and promote improved health outcomes. The program encourages patients to ask their health care providers three questions:

1. What is my main problem?
2. What do I need to do?
3. Why is it important for me to do this?

Studies show that people who understand health instructions make fewer mistakes when they take their medicine or prepare for a medical procedure. They may also get well sooner or be able to better manage a chronic health condition.

Inquire About Ask Me 3 Cobranding Opportunities:

Cobrand Ask Me 3 materials with your organization's logo.

[Contact Us](#) for more information regarding Ask Me 3 Cobranding.

Stand Up for Patient Safety Members

Organizations that are members of the Stand Up for Patient Safety Program can receive complimentary, production-ready Ask Me 3 materials and have permission to cobrand them with their organization's logo. For more information, [Contact Us](#) via e-mail.

Purchase Ask Me 3 Products for Your Patients

[Click here](#) to order patient brochures, posters, key tags, buttons, and note pads through the NPSF Store.

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Limited Health Literacy Leads to...



- Underutilization of services
- Increased medication errors
- Poor understanding of health
- Increased hospitalizations
- Poor health outcomes
- Increased healthcare costs

What Can We Do?



Change the Skill Side:

- Improve literacy skills of the public
- Improve communication skills of professionals

Change the Demand Side:

- Recalibrate the norm and identify literacy barriers
- Lower Demands
- Remove Barriers

Dr. Rima Rudd

Harvard School of Public Health

www.hsph.harvard.edu/healthliteracy

Tips for Successful Communication: Patients and Consumers



- Ask questions! ([Ask Me 3](#) or online question builders)
- Write down doctor's answers or take notes
- Start a health care journal or PHR
- Bring someone with you to appointments
- Use “I” statements: I don't understand
- Be assertive
- Mirroring

Tips for Message Content: Health Care Providers



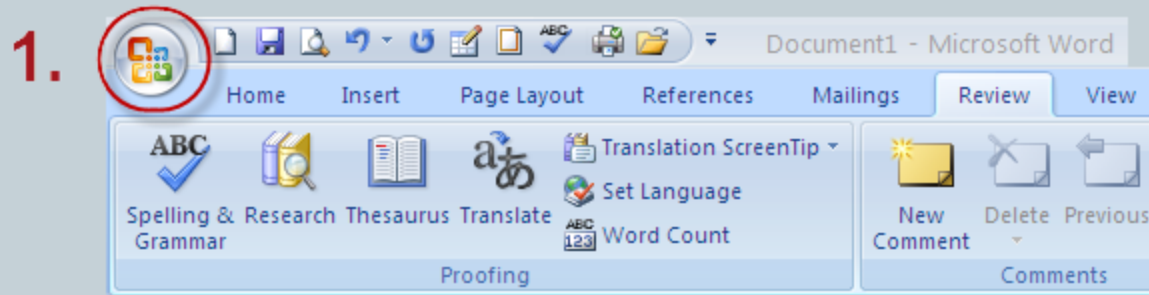
- Ask patients to “teach back” care instructions
- Use videos and/or easy-to-read materials
- Use commonly understood words:
 - “Keeps bones strong” vs. “Prevents osteoporosis”
 - “Chest pain” vs. “Angina”
- Limit the amount of information given
 - Less than 1/2 of the information provided during a visit is retained

Readability Assessment Overview



- Method
 - Word count
 - Syllables
 - Sentence length
- Readability of Materials
 - Fry
 - [SMOG](#) – Free calculators online
- Patient Literacy (REALM, TOFHLA, Newest Vital Sign)
- Computer software

Quick Readability Testing in Word



- Click the **Microsoft Office Button**, then click **Word Options**
- Click **Proofing**
- Be sure **Check grammar with spelling** is checked
- Under **When correcting grammar in Word**, select the **Show readability statistics** check box

Quick Fry Readability Field Test



1. Test 3 passages of 100 words each
2. Count the number of sentences
3. Count the number of syllables
4. Find the average number of sentences and syllables
5. Plot the numbers on the graph to determine grade level

Example:



A cold and the flu (also called influenza) are alike in many ways. But the flu can sometimes lead to more serious problems, such as pneumonia. A stuffy nose, sore throat, and sneezing are usually signs of a cold. Tiredness, fever, headache, and major aches and pains probably mean you have the flu. Coughing can be a sign of either a cold or the flu. But a bad cough usually points to the flu.

Know when to call your doctor. You usually do not have to call your doctor right away if you have signs of a cold or flu.

Count sentences

A cold and the flu (also called influenza) are alike in many ways. But the flu can sometimes lead to more serious problems, such as pneumonia. A stuffy nose, sore throat, and sneezing are usually signs of a cold. Tiredness, fever, headache, and major aches and pains probably mean you have the flu. Coughing can be a sign of either a cold or the flu. But a bad cough usually points to the flu.

Know when to call your doctor. You usually do not have to call your doctor right away if you have signs of a cold or flu.

8 sentences

Count Syllables



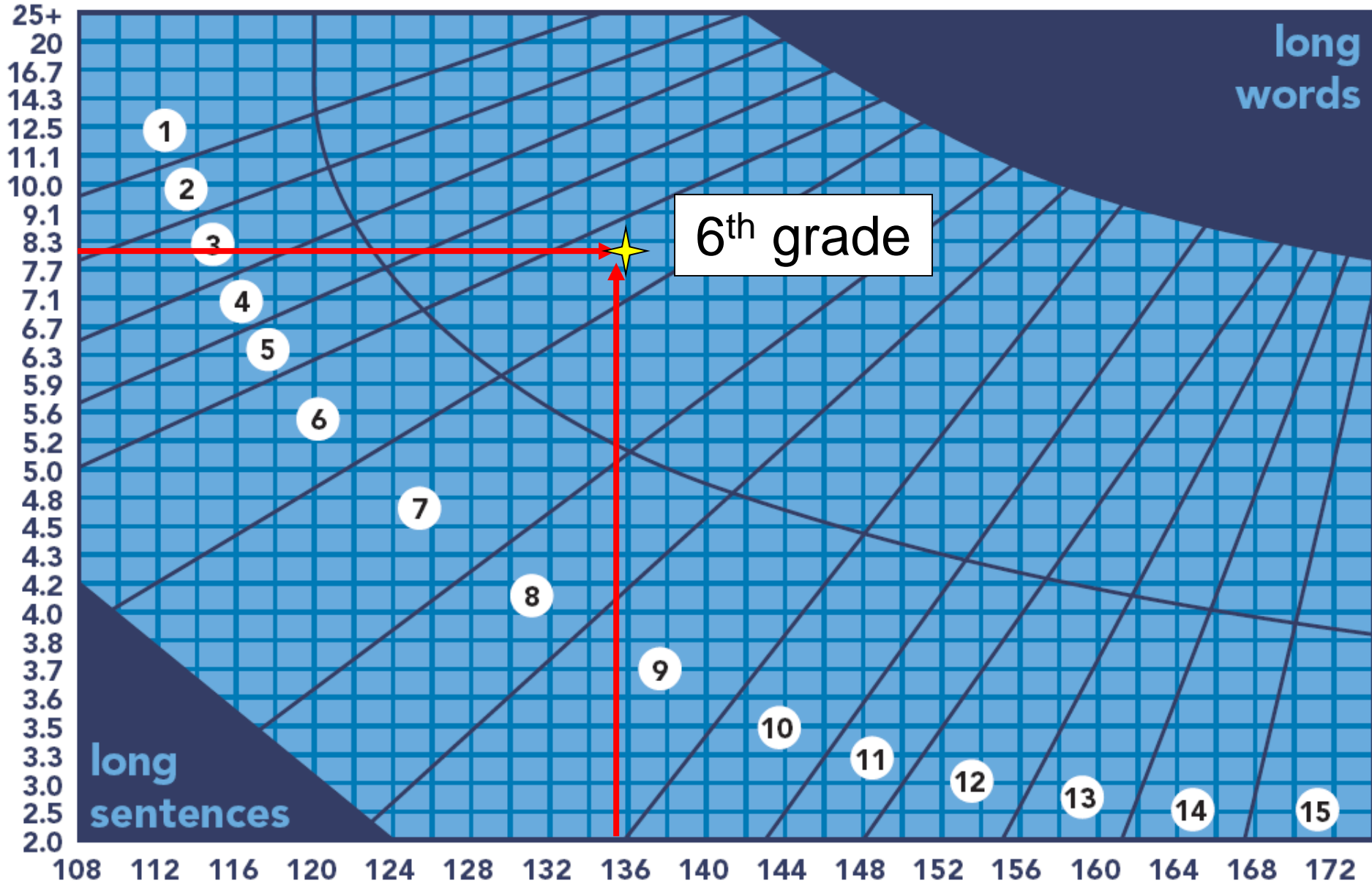
A cold and the flu (al-so called in-flu-en-za) are a-like in m-any ways. But the flu can some-times lead to more se-ri-ous prob-blems, such as pneu-mo-nia. A stuffy nose, sore throat, and sneez-ing are usu-al-ly signs of a cold...

135 syllables

FRYGRAPH

Fry graph for readability; grade levels

y: average number of sentences per hundred words; x: average number of syllables per hundred words



In Summary, or . . . Why Does it Matter?



- “Literacy matters in healthcare because life-threatening or potentially harmful mistakes may happen when people cannot read or understand written information.” *



- *Osborne, Helen. (2005). *Health Literacy from A to Z*. <http://www.healthliteracy.com>

And...



- “Unless there are major strides forward in our ability to communicate essential health information, the “health gap” that currently exists in this country between those with high and low educational attainment is likely to grow.” *



- *Baker, D.W. (1999). “Deciphering the Connections Between Literacy and Health.” *Journal of General Internal Medicine*.

Thank You!



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