

## Health Literacy and Older Adults: Its Impact on Health and Mental Health Disparity

Hee Yun Lee, Ph.D., LCSW  
Assistant Professor  
Fesler-Lampert Chair in Aging Studies  
School of Social Work  
University of Minnesota, Twin Cities



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## Introduction

Understanding the impact of health literacy on health outcomes is a vital part of providing effective care to older adults.

By recognizing low health literacy early and implementing methods of care that will take account into the needs of older adults, health professionals will not only **positively impact health and mental health outcomes**, but also they will help **minimize unnecessary health care costs**.



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## Learning Objectives

Upon completion of this webinar, health professionals will be able to:

- Define health literacy.
- Understand how levels of health literacy are determined and what the consequences are of low health literacy.
- Recognize who is at particular risk for low health literacy, and articulate how this impacts your practice.
- Identify unique challenges faced by older adults when navigating the health care system.
- Provide specific examples of ways in which health literacy can affect health outcomes.



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## How Will We Get There?

Steps toward accomplishing learning objectives:

- I. Defining Health Literacy
- II. Measuring Health Literacy
- III. Low Health Literacy: A Closer Look
- IV. Low Health Literacy: Who Is Impacted?
- V. Trends in Health Care: Relationship to Health Literacy
- VI. Bridging the Gap: Effective Communication and Health Literacy Interventions
- VII. Health Literacy and Aging: Additional Considerations



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## I. Defining Health Literacy



## What is Health Literacy?

### American Medical Association definition:

“A constellation of skills, including the ability to perform basic reading and numerical tasks required to function in the health care environment.”

*(Schwartzberg, VanGeest & Wang, 2005, p. 4)*

Simply put, health literacy has to do with how well people understand and are able to use pertinent information for health-related decisions.

### Healthy People 2010 definition:

“Health Literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”

*(Nielsen-Bohman, Panzer & Kindig, 2004, p. 4)*



## Implications of Health Literacy

### I. General implications:

- Without adequate health literacy, individuals might:
  - put off important screenings and tests
  - not stay up to date on preventative care
  - not understand or adhere to medication regimen

*(IOM Committee on Health Literacy, 2004)*



## For Example: Health Literacy and Health Disparity

### Studies reported that:

- 71% of Cambodian and Vietnamese respondents “did not know what cancer was” (Phipps and colleagues, 1999)
- 74% of Cambodian and Vietnamese respondents could not name any prevention methods. (Phipps and colleagues, 1999)
- 25% of Chinese respondents endorsed the belief that “cancer is contagious”. (Wong-Kim et al., 2003)
- Most of Asian Americans reported that cancer screening is unnecessary in the absence of symptoms. (Maxwell et al., 2000; Kandula et al., 2006)

**Increasing health literacy levels may positively impact health care utilization behavior and, resultantly, reduce health disparities among underserved populations.**



## Implications of Health Literacy (Cont'd)

### II. Financial implications:

- There is a higher rate of hospitalization and use of emergency services among patients with limited health literacy
- Limited health literacy may lead to billions of dollars in avoidable health care costs

(IOM Committee on Health Literacy, 2004)



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## Why is Health Literacy Important?

The U.S. Department of Health and Human Services estimates that more than **77 million** (more than one third of U.S. adults) have basic or below basic health literacy skills.



Image Source:  
[http://www.ca.gov/qa/qa1\\_resonance/](http://www.ca.gov/qa/qa1_resonance/)  
[Healthimg/doctor.www.png](http://healthimg.doctor.www.png)



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## II. Measuring Health Literacy

### What is included in health literacy?

- The individual consumer's abilities: writing, listening, speaking, arithmetic, and conceptual knowledge

#### But not only this! Also:

- Organization of health care systems
- Skills, preferences, and expectations of health information providers

#### In short:

- Health literacy is multifaceted, and thus hard to measure.

"Health literacy arises from a convergence of education, health services, and social and cultural factors...."

(IOM Committee on Health Literacy, 2004)



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## Measuring Health Literacy: The Challenge

A perfect assessment of health literacy would include:

- 1) Skills associated with listening and speaking
- 2) Knowledge of health issues (e.g., cancer screening guidelines)
- 3) Familiarity with scientific terms and medical jargon
- 4) Ability to perform literacy tasks using written and printed health-related information
- 5) Consideration of individual's health care system and providers



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## Levels of Health Literacy

The United States Department of Health and Human Services' Office for Disease Prevention and Health Promotion identifies four levels of health literacy:

1. **Proficient:** able to perform complex and challenging literacy activities
2. **Intermediate:** able to perform moderately challenging literacy activities.
3. **Basic:** able to complete simple everyday literacy activities
4. **Below Basic:** able to perform no more than the most simple and concrete literacy activities



<http://www.health.gov/communication/literacy/issuebrief/>



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## How Are Literacy Levels Determined?

Current health literacy assessment tools, used among adults in the U.S.:

1. Rapid Estimate of Adult Literacy in Medicine (REALM)
2. Test of Functional Health Literacy in Adults (TOFHLA)

Encouraging older adults to participate in these assessment tools can be challenging due to suspicion and distrust. These tools are used to determine low levels of health literacy, but those who have low levels are fearful of having their low health literacy scores discovered. However, health care providers can overcome these obstacles by *spending time with persons* and *describing the tests and their purpose*.



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## How Are Literacy Levels Determined?

1. Rapid Estimate of Adult Literacy in Medicine (REALM) assessment tool:

- Purpose / Aim of instrument
  - used to determine word recognition and pronunciation skills
  - designed to identify patients who have difficulty reading common medical and lay terms that are used routinely in primary care patient education materials
- Design of Instrument
  - 5 minutes to administer
  - 1 point for each correctly pronounced word from a list of 66 medical terms

(Center for Medicare Education, 2001)



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## How Are Literacy Levels Determined?

### 2. Test of Functional Health Literacy in Adults (TOFLA) assessment tool:

- Purpose / Aim of instrument:
  - Designed to measure patient's ability to understand and act on directions given by health-care providers
  - Reading comprehension and numerical ability
- Design of Instrument:
  - 22 or 7 minutes

Center for Medicare Education, 2001



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## How Are Literacy Levels Determined?

A large-scale attempt to measure health literacy was conducted via the health literacy component of the 2003 (and first-ever) **National Assessment of Adult Literacy (NAAL)**.

Specifically, the health literacy component of this survey measured adults' ability to perform literacy tasks using written and printed health-related information.

[http://nces.ed.gov/naal/health\\_dev.asp](http://nces.ed.gov/naal/health_dev.asp)



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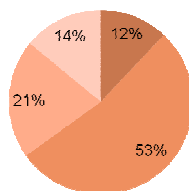
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## Distribution of Health Literacy Levels

Findings from the health literacy component of the 2003 National Assessment of Adult Literacy (NAAL):

### Health Literacy of U.S. Adults

■ Proficient ■ Intermediate ■ Basic ■ Below Basic



- Only **12 percent** of U.S. adults had proficient health literacy.
- **Over a third of U.S. adults—77 million** people—would have difficulty with common health tasks, such as following directions on a prescription drug label or adhering to a childhood immunization schedule using a standard chart.

<http://www.health.gov/communication/literacy/issuebrief/>



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## III. Low Health Literacy: A Closer Look



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### Low Numeracy Skills...

- Those with low *numeracy skills* will likely find it difficult to understand information that requires simple addition and subtraction or that requires reading maps or understanding simple charts

(Hernandez, 2009, p. 12)



### Low Reading Skills...

- The average U.S. adult reads on just an **eighth-grade level**, while most websites are designed for people whose reading level is **much higher**
- **4 out of every 10 people** who might benefit from text-based information and interventions will have a great deal of difficulty reading subject material

(Berland et al., quoted in Hernandez, 2009, p. 2)

(Hernandez, 2009, p. 12)



### Low media literacy...

- those with low *media literacy* may have difficulty deriving meaning from media-based health messages, not discerning bias, for example, or not listening for both explicit and implied messages

(Hernandez, 2009, p. 12)



### Low information literacy...

- those with low *information literacy* might be unable to see connections between information from multiple sources (books, pamphlets, and websites) or realize that one may have to triangulate pieces of information from various sources to build an entire picture of the subject matter

(Hernandez, 2009, p. 12)



## Consequences of Low Health Literacy

- Limited health knowledge, which leads to less understanding about medical problems
- Poorer self-reported health/mental health status
- Higher utilization of health services
- Higher health care costs



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## IV. Low Health Literacy: Who is Impacted?



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- **Race/Ethnicity:** “Low health literacy is widespread but disproportionately affects members of racial and ethnic minority groups.”  
*(Blake et al., 2010, p. 559)*
- **Education Level:** “Over three-quarters of adults with less than a high school degree were at the below basic level or basic level; that percentage decreased dramatically as education level increased.”
- **Age:** “Adults 65 or older were more likely to have below basic or basic health literacy skills than those under 65. The share of adults at these lower levels of literacy was greatest for those over 75; more than two-thirds had below basic or basic health literacy.”
- **The un- or under-insured:** “Whereas about one-fourth of those with employment-based health insurance were in the below basic or basic health literacy group, well over half of uninsured persons, Medicare beneficiaries, and Medicaid beneficiaries were in these groups.”  
*(findings from the 2003 NAAL, at <http://www.health.gov/communication/literacy/issuebrief/>)*



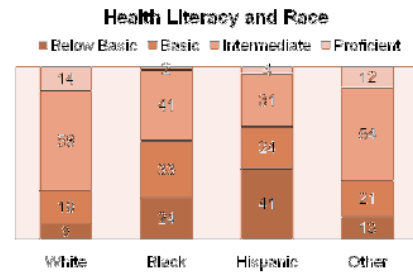
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## Health Literacy and Race

Health Literacy Findings from the 2003 NAAL:



<http://www.health.gov/communication/literacy/issuebrief/>



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## Health Literacy and Education

Health Literacy Findings from the 2003 NAAL:

Education	Below Basic	Basic	Intermediate	Proficient
Less than High School	49%	27%	23%	1%
High School Graduate/GED	15%	29%	53%	3%
Other College Attendance or Degree	6%	19%	65%	10%
Bachelor's Degree or Higher	3%	9%	58%	30%

<http://www.health.gov/communication/literacy/issuebrief/>



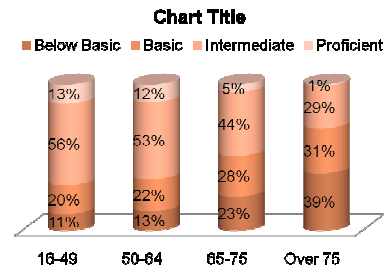
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## Health Literacy and Age

Health literacy findings from the 2003 NAAL:



<http://www.health.gov/communication/literacy/issuebrief/>



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## Health Literacy and Age

Health literacy findings from the 2003 NAAL:

Insurance Source	Below Basic	Basic	Intermediate	Proficient
Employer Provided	7%	17%	62%	14%
Military	12%	21%	56%	11%
Privately Purchased	13%	24%	54%	9%
Medicare	27%	30%	40%	3%
Medicaid	30%	30%	37%	3%
No Insurance	28%	25%	41%	6%

<http://www.health.gov/communication/literacy/issuebrief/>



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## V. Trends in Health Care: Relationship to Health Literacy



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## Trends in Health Care

### Shift in Culture of Medical Care:

- **In recent decades:** a shift from provider-centered care to consumer-centered care, with individuals being encouraged to search for answers themselves and to take greater responsibility for their own health.
- **Result?** Surge in consumer-directed material (self-help books, Internet websites, etc.)

(Hernandez, 2009, p. 10)

Are individuals with low levels of health literacy able to be wise and active consumers, or are they left behind?



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## Trends in Health Care

### Growing Prevalence: Health Information Technology (eHealth)

- **Aim:** Give consumers ownership & access to health information:
  - Electronic personal health records
  - Electronic health education libraries
  - Online personal health journals
  - Online self-assessment tools
- **Goal:**
  - Provide patients with access to their own health information as they move among providers and health plans
  - Improve access to the health care system for those whose access is impeded for whatever reason.

(Hernandez, 2009, p. 6)



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## Trends in Health Care

“In particular it is the elderly and those with limited literacy and number skills who are most likely to have low health literacy and thus be least able to take advantage of new health technologies”

(Hernandez, 2009, p. 2)

Can and do older adults participate in / benefit from the eHealth trend?



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## Trends in Health Care

### Concerns

- How thoroughly do individuals check sources of information?
- How well do they distinguish between reputable sources and others?
- Do internet resources widen the gap between the *haves* and the *have nots*?

“Electronic health systems might help individuals and communities with greater resources while leaving behind those with limited access to technology. Even if equal access to technology could be ensured, most health websites are designed for people with a strong understanding of health information”

(Workshop summary 3/24/09)



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## VI. Bridging the Gap: Effective Communication & Health Literacy Interventions



## Bridging the Gap: Health Literacy Interventions

### Tips for Clear Health Communication

- Avoid medical jargon
- Stick to key points (eliminate extraneous information)
- Have patients re-state information in own words to ensure comprehension

*(Blake et al., 2010, p. 560)*

- Ensure that information is accurate and accessible
- Provide medication information in patient's primary language and utilize translation services



## Bridging the Gap: Health Literacy Interventions

### What Makes a Health Literacy Intervention Successful?

- Tools that are **easy to comprehend, accessible, and personalized** to the special needs and interests of the target population
- **Good training** of the health care providers (e.g., around clear communication)
- **Adequate resources** demonstrating the commitment to meeting the health needs of a diversity of people

*(Blake et al., 2010, p. 559)*



## Developing and Assessing Interventions

**Intervention example:** Health literacy & medication adherence study

**Nature of study:** Qualitative study evaluating health literacy intervention aimed at improving patients' medication adherence within an inner-city health care system

### Features of intervention:

- Automated telephone call reminder system (reminder to refill prescriptions; patients able to activate refill by phone)
- Illustrated, portable medication schedule (included pictures of the medicines, drug indications, and dosing)
- Pharmacist training in clear health communication

**Results of study:** Response from both pharmacists and patients was generally positive.

*(Blake et al., 2010)*



## VII. Health Literacy and Older Adults: Additional Considerations



## Health Literacy and Older Adults

**Recurring Theme:** The percentage of aging adults in the U.S. population is growing at a significant rate. These changing demographics will increasingly impact the health care industry.

**A reminder:** the National Assessment of Adult Literacy (2003) found that:

- Only 3% of older adults were determined to be proficient in health literacy
- Adults ages 65+ have lower health literacy scores than that of all other age groups



## Health Literacy and Older Adults (cont'd)

Finding from a study by the Prudential Center for Health Care Research and two university medical schools:

Approximately 1/3 of Medicare enrollees had inadequate levels of health literacy, which suggests that many Medicare beneficiaries lack the basic skills required to make informed insurance and health-care decisions.

*(Gazmararian, 1999, cited in Kiefer, 2001)*

This suggests that older adults enrolled in **Medicare lack the basic skills required to make informed insurance and health care decisions.**

*(Center for Medicare Education, 2001)*

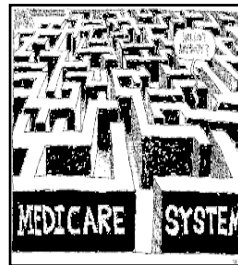


Image Source:  
<http://healthcare.zdnet.com/images/medicare-cartoon.gif>



## The Older Adult's Experience

### How Might One with Low-Literacy Experience Health Information Materials?

- Intimidating
- Confusing
- Even frightening

The information itself may be confusing, as well as the means of acquiring it (such as if unfamiliar computer technology is involved)



## Health Literacy Challenges Older Adults: Chronic Illness

- Approximately 80% of older adults have at least one chronic condition.
  - Higher levels of chronic conditions correlate to higher rates of medication consumption and visits to doctors.
- Older adults suffering from chronic conditions are more likely to need to navigate the health care system and understand complex health care information.
  - This is very challenging for older adults who have limited health literacy skills.

*(Quick Guide to Health Literacy, US Department of Health and Human Services)*



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## Health Literacy Challenges Older Adults: Chronic Illness

Betsy Dorsett, of the American Society on Aging (2006), writes:  
“[G]reater contact with the health care system may leave elders at greater risk for misunderstanding or not being able to read instructions given by their health care providers or pharmacists.”

Of the population of older adults who experience long-term illnesses, **70% of them had the lowest health literacy scores possible.**

*(Quick Guide to Health Literacy, US Dept of Health and Human Svcs)*



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## What to Expect When Working With Older Adults: Hearing Loss

- Hearing loss is common among older adults.
- 1 in 3 people over the age of 60 have hearing loss.
- About 1/2 of older adults age 85 and older suffer from hearing loss.

*Quick Guide to Health Literacy,  
US Department of Health and Human Services*



Hearing loss can compromise how a person processes health information, and can lead to misunderstandings, fatigue, and the need for information to be repeated.

Image Source:  
<http://www.houseofhearing.co.uk/Image/hearingloss.jpg>



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## What to Expect When Working With Older Adults: Vision Loss

- Almost 2/3 of adults with vision problems are older than 65
- Graphics, texts, or other visuals need to be tailored to the needs of older adults

*Quick Guide to Health Literacy,  
US Department of Health and Human Services*



Ensure any written information, including medication directions, are in large print. Also, navigating the Internet for health information might be an additional challenge with impaired eyesight.



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### What to Expect When Working With Older Adults: *Cognitive Challenges*



- Changes in cognition are normal as people age.
  - Reduced processing speed, greater tendency to be distracted and reduced capacity to process and remember new information.
- Older adults tend to remember and act on the last part of information of step-by-step instructions.

The fast presentation of materials, frequent change of focus, intrusions, and background distractions can create confusion for older adults.

*(Quick Guide to Health Literacy)*



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### What to Expect When Working With Older Adults: *Strengths*

- Wisdom, experience, and a positive attitude are common traits in older adults, allowing them to adapt to life challenges and changes.
- Empowering older adults and using their strengths allows for the best care to be provided to them, and for them to provide the best care to themselves.



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### Health Literacy and the Importance of TRUST

Dr. Olufemi Banjoko, M.D. who specializes in geriatric medicine at Park Nicollet Methodist Hospital in St. Louis Park, MN, offers this wisdom on the link between treatment plan compliance and the importance of patient trust.

<http://www.cehd.umn.edu/ssw/ContinuingEd/module2/Q8-Olufemi-Banjoko.html>



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### Writing Point

#### Consider the following case scenario:

Mr. Jones, a 69-year-old patient, had just gotten back from his doctor's appointment when his Care Coordinator called him so see how he was doing. Mr. Jones told the Care Coordinator about his visit with the doctor and that he was ordered to start taking baby aspirin. Mr. Jones said he didn't understand why adults would take baby aspirin since they were obviously not babies. He told the Care Coordinator that he was not going to take it.

#### Write down your responses to the following questions:

How would you explain baby aspirin and its benefits to Mr. Jones? How would you help Mr. Jones understand why it is important for him to take the aspirin? What would be some important things to consider when deciding how to explain this to Mr. Jones over the phone?



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