Healthy Aging and Health Literacy
From Awareness to Action

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Disclosure Statement

I have no conflicts of interest to declare
Topics today

- General literacy and health literacy information
- Why it matters
- Improving verbal and written communication
- Resources
Do you know?

Which of the following is the strongest predictor of an individual’s health status?

A. Age
B. Income
C. Literacy skills
D. Employment status
E. Education level
F. Racial or ethnic group

Answer:
Do you know?

Which of the following is the strongest predictor of an individual’s health status?

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E. Education level
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Answer:

Literacy skills
What is Literacy?

National Assessment of Adult Literacy (NAAL 2003)

“Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.”
What is Literacy?

- Literacy is a combination of skills:
  - Verbal
  - Listening
  - Numeracy
  - Critical analysis
  - Writing
  - Reading
More than just reading grade level

- **Prose Literacy**
  - Written text like instructions or newspaper article

- **Document literacy**
  - Short forms or graphically displayed information found in everyday life

- **Quantitative Literacy**
  - Arithmetic using numbers imbedded in print
What is Health Literacy?

The Institute of Medicine 2004

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

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Literacy VS Health Literacy

Almost everyone will have difficulty with health literacy at some point.

Much harder for those that do not:

- Read very well.
- Speak English as their primary language.
Two Sides to the Equation

- It’s all about effective communication
  - Verbal
  - Written
  - Multi-media

- It has to be presented in a way that is understandable to most people.
In Their Own Words
2003 National Assessment of Adult Literacy

- Data released 12/05
- ~17,000 people participated
- Over age 15
- Living in households and prisons
2003 National Assessment of Adult Literacy

- 4 categories of literacy
  - Below basic
  - Basic
  - Intermediate
  - Proficient
2003 National Assessment of Adult Literacy

- Below Basic literacy – one piece of information

- Can:
  - Sign name on a document
  - Identify a country in a short article
  - Total a bank deposit slip
2003 National Assessment of Adult Literacy

- Below Basic literacy – one piece of information

- Cannot:
  - Enter information on a social security card application
  - Locate an intersection on street map
  - Calculate the total cost on an order form
Basic literacy – two related pieces of information

Can:

- Identify YTD gross pay on a paycheck
- Determine price difference between tickets for 2 shows
2003 National Assessment of Adult Literacy

- Basic literacy – two related pieces of information

- Cannot:
  - Use a bus schedule
  - Balance a check book
  - Write a short letter explaining error on a credit card bill
2003 National Assessment of Adult Literacy

34-55% of adults are at below basic and basic literacy levels
National Adult Literacy Survey

ONLY 39%

of Wisconsin adults at Below Basic and Basic Literacy

Below Basic: over 523,000 ~14%

Basic: over 933,000 ~25%
Wisconsin Population Facts

- Over 780,000 adults
  - >age 15,
  - Are not in school
  - Do not have a high school diploma or equivalent
2003 National Assessment of Adult Literacy

- NAAL health literacy assessment
- 28 questions specifically related to health
  - 3 clinical
  - 14 prevention
  - 11 system navigation
NAAL Health Literacy Assessment

- Entire population
  - Proficient: 12%
  - Intermediate: 53%
  - Basic: 22%
  - Below basic: 14%
NAAL Health Literacy Assessment

Basic and Below Basic Health Literacy

- Entire population: 36%
- White: 28%
- Native Americans: 48%
- Blacks: 58%
- Hispanics: 66%
NAAL Health Literacy Assessment

- Basic and Below Basic Health Literacy
  - Age 16-64: 28-34%
  - Age 65+: 59%
Basic and Below Basic by education level

- In High School, GED or HS grad: 34-37%
- Less than/some High School: 76%
The Big Secret

% of low literate adults that have not told their:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>52%</td>
</tr>
<tr>
<td>Friends</td>
<td>62%</td>
</tr>
<tr>
<td>Spouse</td>
<td>68%</td>
</tr>
<tr>
<td>Health care providers</td>
<td>75%</td>
</tr>
<tr>
<td>Co-workers</td>
<td>85%</td>
</tr>
</tbody>
</table>
More likely to have Low Literacy

- Older
- Immigrants
- Less education
- Non-white
More likely to have Low Literacy

- Low-income
- Medical Assistance
- Incarceration
You Can’t Tell by Looking

Many below basic people don’t fit the stereotypes

- 75% born in USA
- 50% are white
- 40% hold full or part time jobs
NAAL Health Literacy Assessment

- Basic and Below Basic by Self-reported health status
  - Excellent 25%
  - Very Good 28%
  - Good 43%
  - Fair 63%
  - Poor 69%
The Impact of Low Literacy on Health

- Poorer health knowledge
- Poorer health status
- Higher mortality
The Impact of Low Literacy on Health

- Increased hospital use
- Increased Emergency Department use

Mixed results for:
  - Use of preventive services
  - Chronic health care
  - Tobacco use
Poorer Health Knowledge

- Understanding prescription labels
  - 395 patients
    - 19% low literacy (6th grade or less)
    - 29% marginal literacy (7-8th grade)
    - 52% adequate literacy (9th grade and over)
  - 5 prescription bottles

Poorer Health Knowledge

- At least one incorrect
  - 63% low literacy
  - 51% marginal literacy
  - 38% adequate literacy

Poorer Health Knowledge

“Take two tablets twice daily”

<table>
<thead>
<tr>
<th>Stated correctly</th>
<th>Demonstrated correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>71% low literacy</td>
<td>35%</td>
</tr>
<tr>
<td>84% marginal literacy</td>
<td>63%</td>
</tr>
<tr>
<td>89% adequate literacy</td>
<td>80%</td>
</tr>
</tbody>
</table>

“Show me how many pills you would take in one day.” Counted out 4 tablets—correct
Poorer Health Status

Diabetics with retinopathy

36% inadequate
19% adequate
Increased Mortality

- Age 70-79
- 2512 participants
- Reading level 8\textsuperscript{th} grade or less
- Five Year Prospective Study

Increased Mortality

Risk of Death

Hazard ratio: 1.75

Low Literacy
19.7%

Higher Literacy
10.6%
More Hospitalizations

2 year hospitalization rate for patients visiting ED

- Low: 31%
- Adequate: 14%
Other Issues Impact Understanding

- All visual impairments
  - age 65 and older = 13%
  - About half can be corrected with glasses
- Some impairment from cataracts
  - Age 90+ = almost 100%

http://canadiantaskforce.ca/wp-content/uploads/2013/03/Chapter78_visual_elder94.pdf?9d7bd4
**Other Issues Impact Understanding**

- **Hearing impairments**
  - 60-69: 44%
  - 70-79: 66%

Other Issues Impact Understanding

- Cognitive impairment
  - 65 and older
    - 6% severe dementia
    - 10-15% mild-moderate
    - Increases with advancing age
A New Cause for Non-Compliance?

- Medications
- No-shows
  - Testing
  - Referral
Where do we go from here?

Vision:

Every patient or their caregiver understands what the health issue is, what to do about it and why it’s important.
How do we get there?

- Education
- Effective Communication
- Universal Design

If it works for people with limited literacy or limited English skills, it will work for everyone.
Improve Verbal Communication

- SLOW DOWN
- Sit face to face
- Plain language:
  - Explain or remove medical jargon
- Simple diagrams
Check Understanding

Teach back method

“I imagine you’re really worried about this [diagnosis]. I’ve given you a lot of information. It would be helpful to me to hear your understanding about your [diagnosis] and its treatment.”

Check Understanding

“What will you tell your partner about what we talked about today?”

“Tell me what you’re going to do when you get home.”
Check Understanding

“I want to be sure that I explained your medication correctly. Can you tell me how you are going to take this medicine?”

- Start slow
  - Use with the last patient of the day
  - Plan what words you will use

- Written material can help reinforce
The Difference One Word Can Make

Ask the right question:

- Is there something else you want to address in the visit today?
- Is there anything else you want to address in the visit today?

Something VS Anything

- 280 patients, 20 clinicians, acute care visits
- Using “some” reduced unmet concerns by 78%
- Using “any” was no better than usual care
- No change in visit length
Inviting Questions

- What are your questions?
- Tell me your questions.
20% of American adults read at or below the 5th grade level.

Most health care materials are written above the 10th grade level.
Written Materials - Common Mistakes

- Too much detail
- Hard words are not explained
- Pictures do not reinforce the message
- No examples
Reading Grade Level

- Review materials for reading level
  - 5th – 6th grade reading level
  - Flesch-Kincaid grade level
    - Tends to calculate 1.5-2 grades lower
Reading Grade Level

- Review materials for reading level
  - SMOG - Simple Measure Of Gobblygook
  - OKAPI
  - Available on-line
Written Materials

- Use short sentences.
- Simple language
  - Monosyllable words
  - “Plain language”
Written Materials

- Be consistent with words and terminology.
- Define technical or difficult words.
<table>
<thead>
<tr>
<th>Exercise regularly</th>
<th>Exercise 3-5 days per week for 40 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t lift anything heavy</td>
<td>Don’t lift anything over 10 pounds.</td>
</tr>
<tr>
<td>Get adequate rest</td>
<td>Get at least 7 hours/night</td>
</tr>
</tbody>
</table>
Written Materials

- Important concepts first
- Use bulleted lists instead of blocks of text
- Use headings and subheadings
Written Materials

- Use 12-14 point type for text.
- Use 16-18 point bold type for headings.
- Use upper case and lower case for the text.

ALL CAPITOLS ARE HARDER TO READ
More hints….

- Have a 50/50 blend of white space and type.
- Use summary techniques.
- Read over the instructions—highlight important parts with color.
- Use pictures, multimedia, video, etc
Objectives

- Acquire an understanding of the definition of literacy, health literacy and the magnitude of the problem in Wisconsin.
- Identify people at increased risk of low literacy
- Acquire an understanding of specific activities they can do to improve verbal communication with all patients, especially low literacy adults
- Identify the important issues to address when developing educational documents for low literate adults

Flesch-Kincaid Grade Scale: 12
Objectives

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Flesch-Kincaid Grade Scale: 12
Topics today

- General health literacy information
- How to recognize people with low literacy
- How to improve communication
- Factors to consider when creating documents

Flesch-Kincaid Grade Scale: 12
Topics today

- Health literacy.
- Finding people with low literacy.
- How to improve communication.
- How to make things easier to read.

Flesch-Kincaid Grade Scale: 7.1 (talking for communication = 5.1)
Where to find plain language materials

- MedlinePlus
- Multimedia
- Some materials optimized for smart phones
- Foreign language materials
Where to find plain language materials

- Centers for Disease Control and Prevention
  - http://www.cdc.gov/healthliteracy/
- Search for topic of interest + “easy to read”
Where to find plain language materials

- Institute for Healthcare Advancement
- Written at the 5th grade level
- Volume Discounts - $12.95 to $5.75
- Non-profit rate = $5, up to 500 books
Where to find plain language materials

- What To Do For Senior Health
BeST Communication

Better, Safer Care Through Clear Communication

- BeST Communication
- Goal: improve communication between informal caregivers and healthcare professionals
BeST Communication

Collaboration between:

- Community Academic Aging Research Network
- UW Schools of Pharmacy, Nursing and Medicine
- Aging and Disability Resource Center - Green County
BeST Communication

- Four small group interactive educational sessions
- Increase caregiver self-efficacy
- Decrease caregiver burden
Follow up session in Woodland Room

- Best Communication details
  - Looking for feedback
- Q & A
- More health literacy resources
- Critical appraisal of documents
Low literacy is a **common problem**

Low literacy **affects health**

Effective communication **is the key**
What can **YOU** do?

- Raise awareness
  - Colleagues
  - Leadership
  - Friends
  - Legislators
What can **YOU** do?

- Change your **own** behavior
  - Slow down
  - Remove the jargon
  - Check understanding
What can YOU do?

- Something VS anything
- Invite questions
- Infuse health literacy concepts into current projects
AHRQ Resources

- AHRQ Summary of Literacy and Health Outcomes

- Health Literacy Universal Precautions Toolkit
  - [http://www.ahrq.gov/qual/literacy/](http://www.ahrq.gov/qual/literacy/)
Prescription Labeling

- Michael Wolf and other’s work:
  - Spanish, Chinese, Vietnamese, Russian, Korean prescription instructions

- Food and Drug Administration (FDA)
  - Communicating Risks and Benefits
    http://www.fda.gov/downloads/AboutFDA/.../UCM268069.pdf

- United States Pharmacopeia (USP)
  - New prescription labeling requirements
    http://www.pharmacy.ca.gov/laws_regs/labeling_requirements.pdf
Collections

- Health Literacy Wisconsin
  - [http://www.healthliteracywisconsin.org/resources.jsp](http://www.healthliteracywisconsin.org/resources.jsp)

- Health Literacy Special Collection
  - [http://www.healthliteracy.worlded.org/index.htm](http://www.healthliteracy.worlded.org/index.htm)

- CDC Health Literacy Page
Keep In Mind

- Universal Design
- Health Literacy Definition
  - The degree to which individuals have the capacity to obtain, process, and understand basic information and services needed to make appropriate decisions regarding their health.
Want a copy?

- Presentation
- Health literacy resources list

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“Action expresses priorities.”

“Be the change that you want to see in the world.”

---Mohandas Gandhi
Questions?