Meeting the health literacy needs of all patients

VNAA Best Practice for Home Health
Objectives

1. Define health literacy
2. Evaluate the consequences of limited literacy
3. Examine methods to assess literacy levels
4. Review 10 attributes of a health literate organization and identify next steps for your agency
Health literacy defined

• “The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” (Healthy People 2010)

• In addition to listening, analytical and decision-making skills, health literacy includes:
  – Prose literacy (reading text)
  – Document literacy (navigating an appointment slip)
  – Quantitative literacy (figuring calories in multiple servings)
Visual definition of health literacy

Health Literacy

Patient’s skills and abilities

Health system’s demand and complexity

Insights from an IOM Work Group

• In high-functioning health care teams, patients are members of the team; not simply objects of the team’s attention; they are the reason the team exists and the drivers of all that happens

• The much-repeated phrase “nothing about me without me” conveys a powerful image of patients actively involved in care decisions

• In team-based care, fulfilling this promise means integrating patients, families, and caregivers into health care teams

Source: Challenges at the Intersection of Team-Based and Patient-Centered Health Care
JAMA, October 3, 2012—Vol 308, No. 13
For most patients, system demands exceed their skill level

- Most health materials are written at a level that exceeds the reading skills of the average high school graduate

Source: Rudd, R. 2010. “Literacy and Health.” Harvard School of Public Health
Prevalence of low health literacy

- Nine out of ten adults lack the skills needed to manage their health - including a chronic illness.

2003 National Assessment of Adult Literacy:
- Proficient: 12%
- Intermediate: 52%
- Basic: 22%
- Below Basic: 14%
Sample tasks typical of each literacy level

• Below Basic (14%) Searching a short, simple text to find out what a patient is allowed to drink before a medical test

• Basic (22%) Using a television guide to find out what programs are on at a specific time

• Intermediate (52%) Consulting reference materials to determine which foods contain a particular vitamin, or identifying a specific location on a map

• Proficient (12%) Interpreting a table about blood pressure, age, and physical activity, or comparing viewpoints in two editorials

Adult health literacy by highest level of education

Adult health literacy by age

Question: Who are the chronically ill?
Answer: 80% of those 65 and older

Source: Health Serv Res. 2002 August; 37(4): 849–884
Factors affecting health literacy of patients with chronic diseases

• Age related sensory disabilities
• Cognitive abilities
  – Speed of mental processing
  – Working memory
• Depression
• Disease complexity
• Medication effects
Cognitive aging: effect on health literacy

- Process information at a slower pace
- Less working memory
- Difficulty in comprehending abstractions
- Difficulty with mental multitasking
- Mid morning energy level highest
Homecare population

- Majority are elderly
  - 85.6% are age 65 or older

- Majority are chronically ill
  - 80% with one chronic condition
  - Almost 50% with more than one chronic condition

- Some cognitive impairment
  - 23.7% assessed with mild impairment
  - 12.5% assessed with moderate to severe impairment

- Some depression
  - Ranges from 10% - 40% depending on chronic disease

Examples of health system demand and complexity

- Discharge instructions that tell patients to take their medications:
  - “BID”
  - “PRN”
- Prescription labels:
  - 10 point font
  - Confusing instructions
- Hospital signage:
  - Nephrology
- Lack of written reinforcement of verbal instructions:
  - Up to 80% of patients forget what their doctor said as soon as they leave the doctor’s office

How reducing health system demand and complexity can help patients

Improves patient outcomes

Increases patient engagement & empowerment

Health literacy
Being able to understand impacts outcomes

• Low health literacy associated with:
  – Adverse health outcomes
  – Increased risk of hospitalization
  – Increased mortality rates
  – Increased cost to U.S. economy: estimates vary but all are in the billions due to increased utilization

• Why? Individuals with low health literacy are more likely to:
  – skip necessary medical tests
  – use the emergency room more often
  – have a harder time managing chronic diseases like diabetes or high blood pressure

Source: IOM Report on Health Literacy: A Prescription to End Confusion
Source: Baker et al. AJPH. 2002. 92:1278
Source: JAMA, April 27, 2011 – Vol. 305, No. 16
Patients feel responsible for their health

- Blue Shield of California Foundation survey of poor and near-poor Californians asked:

  "Who is responsible for your care?"

  73% said "I am"

Being able to understand appears to be the key to patient engagement across populations

- The extent to which patients feel informed about their health and confident about taking a role in their care decisions predicts their engagement independently of – and more strongly than:
  - Education
  - Income
  - Gender
  - Race/ethnicity
  - Language spoken at home
  - Type of care facility used

Clear information increases patient engagement and empowerment

- Information about one’s health leads to greater patient empowerment and engagement; these, in turn, predict a desire for more health-related information.

Assessing patient skills: behavioral indicators of low health literacy

• Red flags: Patients say things like:
  – “I lost my glasses”
  – “I’d like to discuss this with my family”
  – “I have a headache now and can’t focus”

• Medication Review
  – Looking at the medication vs. reading label
  – Unable to name medication
  – Does not know why taking medication
  – Does not know medication timing

• Non-adherence to treatment plan
Assessing patient skills: ask a simple question

“How happy are you with your reading skills?”

Or

“How enjoyable do you find reading?”
The (adapted) Newest Vital Sign

Health Literacy Assessment
Adapted (sodium) Newest Vital Sign

1. If you eat the entire container, how much sodium will you eat?
   Answer: 200 mg

2. If you are allowed to eat 60 milligrams of sodium as a snack, how much ice cream could you have?
   Answer: 1 serving, or ½ cup, or ¼ of the container

3. Your doctor advises you to reduce the amount of sodium in your diet. You usually eat 2000 milligrams of sodium each day, which includes one serving of ice cream. If you stop eating ice cream, how much sodium would you eat each day?
   Answer: 1850

4. Pretend that you are allergic to the following:
   - Penicillin, peanuts, latex gloves and bee stings.
   Is it safe for you to eat this ice cream?
   Answer: No

5. If the patient answered “no” to question 5, ask:
   Why not?
   Answer: Because it contains peanut oil

SCORE = TOTAL # ANSWERED CORRECTLY

Interpretation
0 – 1: suggests high likelihood (>50%) of limited literacy
2 – 3: indicates the possibility of limited literacy
4 – 5: almost always indicates adequate literacy

Nutrition Facts
Serving Size: ½ cup
Servings per container: 4

<table>
<thead>
<tr>
<th>Amount per serving</th>
<th>%DV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>250</td>
</tr>
<tr>
<td>Fat Cal</td>
<td>120</td>
</tr>
<tr>
<td>Total Fat</td>
<td>13g</td>
</tr>
<tr>
<td>Sat Fat</td>
<td>9g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>28mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>50mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>30g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>2g</td>
</tr>
<tr>
<td>Sugars</td>
<td>23g</td>
</tr>
<tr>
<td>Protein</td>
<td>4g</td>
</tr>
</tbody>
</table>

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

Effective communication between teacher and learner

- Printed materials + oral interaction = most effective results
- Health literacy score provides an idea of where patient is starting
- What sort of “cognitive Velcro” is already present?

$2,000 salt bucks

Source: “Salt Bucks” Veronica Callahan, RN Heart Failure Care Transitions Coordinator
Assessing Health System Demands: HHCAHPS Item Set for Health Literacy

• HHCAHPS for Clinicians and Groups
  – Measures from the patient’s perspective, to what extent health care professionals have succeeded in reducing health literacy demands
  – Communication with providers
  – Medication instructions
  – Help with filling out forms
Health literacy and cultural competence overlap in the HHCAHPS Survey

<table>
<thead>
<tr>
<th>Number in the Health Literacy Item Set</th>
<th>Item Wording</th>
<th>Number of corresponding items in the Cultural Competence Item Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication with provider</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HL1.</td>
<td>In the last 12 months, how often were the explanations this provider gave you hard to understand because of an accent or the way the provider spoke English?</td>
<td>CUI1</td>
</tr>
<tr>
<td>HL2.</td>
<td>In the last 12 months, how often did this provider use medical words you did not understand?</td>
<td>CU2</td>
</tr>
<tr>
<td>HL3.</td>
<td>In the last 12 months, how often did this provider talk too fast when talking with you?</td>
<td>CU3</td>
</tr>
<tr>
<td>HL4.</td>
<td>In the last 12 months, how often did this provider use pictures, drawings, models, or videos to explain things to you?</td>
<td></td>
</tr>
<tr>
<td>HL5.</td>
<td>In the last 12 months, how often did this provider ignore what you told him or her?</td>
<td>CUI4</td>
</tr>
<tr>
<td>HL6.</td>
<td>In the last 12 months, how often did this provider interrupt you when you were talking?</td>
<td>CUI5</td>
</tr>
<tr>
<td>HL7.</td>
<td>In the last 12 months, how often did this provider show interest in your questions and concerns?</td>
<td>CUI6</td>
</tr>
<tr>
<td>HL8.</td>
<td>In the last 12 months, how often did this provider answer all your questions to your satisfaction?</td>
<td>CUI7</td>
</tr>
<tr>
<td>HL9.</td>
<td>In the last 12 months, how often did this provider give you all the information you wanted about your health?</td>
<td></td>
</tr>
</tbody>
</table>

First 9 questions on both item sets are nearly identical
Health literacy and cultural competence

• Questions that may elicit insight into cultural preferences
• 4 C’s
• What do you call your problem?
• What do you think caused your problem?
• How do you cope with your condition?
• What are your concerns about your condition/treatment?

Source: Geri-Ann Galanti (www.ggalanti.org)
How to start aligning today

Patient’s skills and abilities

Health Literacy

Health system’s demand and complexity
Your road map: 10 attributes of a health literate organization

“...an organization that makes it easier for people to navigate, understand, and use information and services to take care of their health.”

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Universal Precaution approach in all verbal and written communications

• Universal precaution approach is defined as:
  – “Principles and practices applied to all patients to prevent effects of literacy mismatches in health care settings.”

• Just like washing your hands before examining a patient. You wouldn’t think of washing your hands for some and not others.

• Universal precaution approach is appropriate for the majority of patients regardless of:
  – Reading ability
  – Education level
  – Socioeconomic status

Universal Precaution approach to verbal communication

• Slow down
• Use simple terms
  – One or two syllable words
  – Avoid medical jargon
• Begin with important information first and limit new information to 3 - 5 points
• Repeat the information or instructions
• Have the patient repeat the information (use the “teach back” method)
Universal Precaution approach to written communication

• College educated readers’ response to health information written at 5th grade level:
  – Recall of key messages
  – Satisfaction
  – Test of two brochures on same topic:
    6th grade level  10th grade level
  – Which one was preferred by patients of all reading and socioeconomic levels?

Example of a Universal Precaution approach to symptom monitoring

- Heart failure stoplight
- Easy to act on
- Used in home health and in ambulatory care settings
Universal Precaution approach is available in a variety of formats

- Video, print, or interactive - depending on the patient’s learning style and access to information (internet access? computer at home? smartphone?)
<table>
<thead>
<tr>
<th>Medicine</th>
<th>Important Information, in Simple Terms</th>
<th>Incorporating This Information into a Pill Card</th>
<th>Possible Graphics Used</th>
</tr>
</thead>
</table>
| Simvastatin 20mg | • Take 1 pill at night  
• For cholesterol | • Picture of one pill at night/bedtime (shown by moon) | • Night/bedtime |
| Furosemide 20mg | • Take 2 pills in the morning and 2 pills in the evening  
• For fluid | • Picture of two pills in the morning (shown by rising sun) and two pills in the evening (shown by setting sun) | • Morning  
• Evening |
| Insulin | • Inject 24 units before breakfast and 12 units before dinner  
• For diabetes (sugar) | • Picture of syringe in the morning (shown by rising sun) and evening (shown by setting sun)  
• Picture of bag of sugar | • Syringe  
• Sugar  
• Morning  
• Evening |

Health literacy appropriate medication sheet

Getting started at your practice or agency

• How do you eat an elephant?
  – Assess
  – Revise
  – Design
  – Test
1. Assess: Who is the audience? What is the purpose?

Get feedback from the audience:
- Is the information clear and easy to understand, or is there text that is confusing or offensive?
- Is there enough room to write responses?
- Is the information helpful? Does it serve the intended purpose?
- Determine reading level (but don’t stop here!)
- Assess any text by cutting and pasting it into a readability program like ReadabilityFormulas.com. Note that readability formulas should not be your only evaluation tool because reading level is only one aspect of readability.
- Documents should be written at the 4th - 6th grade level
- Identify complex words and jargon
- Words over three syllables are generally considered inaccessible, as are acronyms and medical jargon
- Consult the Centers for Disease Control and Prevention’s Plain Language Thesaurus for Health Communications for alternate, plain-language words
2. Revise

- Create content using plain language
- Clearly state how to prevent or manage disease without a lot of extra information
- Ask yourself, “Is this information something the patient needs to know or do to stay healthy?”
- Chunk the information
- Include clearly defined headings and divisions between sections of information allowing for a lot of white space on the page
- Use short, simple sentences
- Write at a reading level between 4th - 6th grade
- Pay attention to word choice
- Limit the use of medical jargon. If using a medical term, be sure to define it in parentheses after the word
- Avoid using words with over two syllables
3. Design

- Format for maximum accessibility
- Design materials with plenty of white space
- Aim for a minimum of 12 point font
- Use serif type (Times New Roman) vs. sans-serif (Arial)
- Use check boxes
- Low literate patients often avoid writing answers because of poor spelling, so offer check boxes next to common answers

- Include “don’t know” options
- Give patients the option of checking a “don’t know” box so they don’t feel compelled to check inaccurate information
- Bold key words
- This helps draw attention to the main point. ALL CAPS is a no-no
- Use visuals and graphics
- Visuals and graphics that relate to the text can help explain your message
4. Test

• Get audience feedback...again
  – Ask:
• If the information is clear and easy to understand, or if there is text that is confusing or offensive
• Whether there is enough room to write responses
• Whether the information was helpful
• What is missing that is important to them


“1. Assess” slide incorporated advice from the CDC Health Literacy Blog
For future reference:

Tip sheet: Evaluating and creating accessible health materials

Evaluating and creating accessible health materials

Background

The Institute of Medicine defines health literacy as a person’s ability to obtain, process and understand basic health information and services needed to make appropriate health decisions. Yet according to a study at the Harvard School of Public Health, most health materials are written at a level that exceeds the reading skills of the average high school graduate.

Making sure that your health materials align with patients’ abilities to understand them is essential. The following excerpts from the AHRQ Health Literacy Universal Precautions Toolkit provide strategies for developing accessible patient materials.

Assess current materials

Use the following guidelines and resources to assess your current patient-facing materials:

Determine reading level

You can assess any text by cutting and pasting it into a readability program like ReadabilityFormulas.com. Note that readability formulas should not be your only evaluation tool because reading level is only one aspect of readability. Documents should be written at the 4th—6th grade level.

Identify complex words and jargon

Words over three syllables are generally considered inaccessible, as are acronyms and medical jargon. Consult the Centers for Disease Control and Prevention’s Plain Language Theatrum for Health Communications for alternate, plain-language words.

Get patient feedback

Ask patients if the information is clear and easy to understand, or if there is text that is confusing or offensive. When assessing a form, ask whether there is enough room to write responses. Finally, ask whether the information was helpful.