To Measure or Not to Measure?
Usability of Common Health Literacy Assessment Tools for Race/Ethnic Populations

C-MORE Health Literacy Seminar Series
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OBJECTIVES
• **Provide a forum** for the scholarly exchange of evidence-based, comparative effectiveness research & innovations for defining and enhancing the acquisition of general and disease specific health literacy

• **Promote interactive discussion** of current & new models and methods for enhancing the usability of health information & health-related surveys

• **Inculcate rigorous application of qualitative methods** to examine and promote linguistic & cultural appropriateness of health literacy interventions & measures

• **Increase awareness of patient-centered and ethno-medical perspectives** for implementing health services research addressing health literacy among vulnerable populations (aging, the poor, race/ethnic minorities)
Primary Objective of Improving Health Literacy?

To enhance a person’s capacity to effect behavioral changes that may translate into improved health-related quality-of-life outcomes

Behavioral Change!!

Health Literacy—Institute of Medicine

Ability to obtain, process, & understand basic health information needed to make appropriate health decisions and follow instructions for treatment

ability to obtain   Access
process           Navigation
understand        Knowledge
Health Literacy - World Health Organization

Achieving a level of **knowledge**, personal **skills** and **confidence** to take action to improve personal and community health by **changing personal lifestyles** and living conditions

- knowledge
- personal skills
- confidence

**Behavioral Change**

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C-MORE Perspective 2

Between **ability to obtain** (IOM) and **achieving** (WHO) health literacy there remains a substantial gap in our understanding about how best to improve access to understandable and culturally relevant health information to **enhance health literacy** and usable surveys to **assess health literacy**

**Barriers to Mitigating Health Disparities**
Components of Health Literacy
based on the IOM & WHO definitions

- Learning
- Skills building
- Confidence
- Compliance
- Outcomes

C-MORE Perspective 3
Health Literacy Components Model

Desirable components for health literacy measurement?
Translating Health Literacy Components to Constructs for Health Literacy Measurement

<table>
<thead>
<tr>
<th>HL Component</th>
<th>HL Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>knowledge</td>
</tr>
<tr>
<td>Skills building</td>
<td>self-management</td>
</tr>
<tr>
<td>Confidence</td>
<td>self-efficacy</td>
</tr>
<tr>
<td>Compliance</td>
<td>behavioral change</td>
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<tr>
<td>Outcomes</td>
<td>HRQoL</td>
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Types of Health Literacy

General Health Literacy

What everyone **should know** about health in general

Disease Specific Health Literacy

What a person **must know** about their specific health condition
**General Health Literacy**

Things everyone should know about!

- Chronic diseases: Epidemiology and community level risks
- Primary prevention: Immunization, nutrition, physical activity
- Secondary prevention: Screening - mammography, biomarkers
- Access to healthcare: Insurance types, uninsured access

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**C-MORE Perspective 5**

**Disease Specific Health Literacy**

The degree to which a person’s level of knowledge, self-management skills & confidence permits compliance with clinical management of disease-specific health conditions, and affects HRQoL outcomes
Disease Specific Health Literacy

- Knowledge: Risk factors, signs & symptoms, prevention
- Skills: Self-management, nutrition, physical activity
- Confidence
- Compliance: Visits, testing, monitoring, specialty-care, treatment
- Outcomes: general, physical and emotional well-being

Health Literacy Measures?

<table>
<thead>
<tr>
<th>Newest Vital Sign</th>
<th>REALM</th>
<th>SAHLSA</th>
<th>S-TOFHLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewestVitalSign.org</td>
<td>Rapid Estimate of Adult Literacy in Medicine</td>
<td>Short Assessment of Health Literacy: Spanish-speaking Adults</td>
<td>Short Test of Functional Health Literacy in Adults</td>
</tr>
<tr>
<td>Clinical assessment</td>
<td>Clinical and research</td>
<td>Clinical assessment</td>
<td>Research</td>
</tr>
<tr>
<td>Review nutrition label. Respond to 6 items</td>
<td>Read 66 words. Scored on correct pronunciation.</td>
<td>Select meaning of 50 words. Scored on number correct</td>
<td>Fill in missing words in 4 numerical items and 2 prose passages</td>
</tr>
<tr>
<td>English: Yes</td>
<td>English: Yes</td>
<td>English: No</td>
<td>English: Yes</td>
</tr>
<tr>
<td>Spanish: Yes</td>
<td>Spanish: Yes</td>
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</tr>
</tbody>
</table>
The Newest Vital Sign

Uses an Ice Cream Label

Administered when other vital signs are measured
6 questions are asked; 1 point per question

- Score of 0-1 suggests high likelihood (50% or more) of limited literacy
- Score of 2-3 indicates the possibility of limited literacy
- Score of 4-6 almost always indicates adequate literacy


NOTE: Verbal introduction is 4 sentences long with 11th grade reading level
REALM-R

The REALM-R is a brief screening instrument

- Assess adult patient’s ability to read common medical words.
- Designed to assist in identifying patients with poor literacy skills.
- REALM-R is a word recognition test
- Not a reading comprehension instrument


REALM-R Examiner Record

Patient Name/
Subject # ___________________ Date of Birth ________________
Date ___________________ Clinic ________ Examiner ___________________

Reading Level ____________
Grade Completed __________

fat ______ fatigue ______
flu ______ directed ______
pill ______ colitis ______
allergic ______ constipation ______
jaundice ______ osteoporosis ______
anemia ______

Fat, Flu, and Pill are not scored. We have previously used a score of 6 or less to identify patients at risk for poor literacy.

Score ______ (6 or less considered a risk for limited literacy)
SAHLSA-50

The Short Assessment of Health Literacy for Spanish Adults

- Based on the REALMs use of single words
- Not a word recognition test; a word meaning test
- Subject reads a word and chooses between a key (correct) and a distractor (incorrect) word
- Includes a ‘don’t know’ option

Short Assessment of Health Literacy for Spanish Adults (SAHLSA-50)

The Short Assessment of Health Literacy for Spanish Adults (SAHLSA-50) is a validated health literacy assessment tool containing 50 items designed to assess a Spanish-speaking adult’s ability to read and understand common medical terms. The SAHLSA was based on the Rapid Estimates of Adult Literacy in Medicine (REALM), known as the most easily administered tool for assessing health literacy in English.
Short Test of Functional Health Literacy in Adults
S-TOFHLA

Uses the CLOZE Procedure

4 numeracy items
- Take medication every 6 hours
- Normal blood sugar
- Appointment time
- Taking medication on empty stomach

2 reading passages
Passage A: Preparation for upper GI 4th grade level
Passage B: Medicaid rights and responsibilities 10th grade level

Your doctor has sent you to have a ________ X-ray.
- a. stomach
- b. diabetes
- c. stitches
- d. germs

You must have an_________ stomach when you come for ________.
- a. take
- b. empty
- c. incest
- d. anemia

The X-ray will _______ from 1 to 3 _______ to do.
- a. take
- b. view
- c. talk
- d. look

THE DAY BEFORE THE X-RAY
For supper have only ________ snack of fruit ________ and jelly, with coffee or tea.
- a. little
- b. broth
- c. attack
- d. nausea

a. toes
b. throat
c. toast
d. thigh