What is Health Literacy?

Health literacy is defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” ¹

Health literacy refers to the skills necessary for an individual to participate in the health care system and maintain good health. These skills include reading and writing, calculating numbers, communicating with health care professionals, and using health technology (e.g., an electronic diabetes monitor).

Who has Low Health Literacy?

An estimated 90 million Americans have low health literacy,² including many:

- With lower socioeconomic status or education;
- Who are elderly;
- With low English proficiency (LEP) and/or who are non-native speakers of English; and
- Who are receiving publicly-financed health coverage or other socio-economic assistance.

The burden of low health literacy does not lie only on the individual. Health care organizations must also be health literate to reduce the demands placed on individuals.³

Why is Health Literacy Important?

People make choices about their health every day: what to eat, when to see a doctor, whether or not to smoke. In order to stay healthy, individuals must know how to read the labels on food and medicine, locate the nearest health center, report symptoms to health professionals, understand insurance paperwork, and pay medical bills. These can be complicated tasks and the skills to achieve them are not explicitly taught by the health care system or other educational and social institutions.

The consequences of low health literacy are felt by:

- Individuals, families, and communities struggling to access quality care or maintain healthy behaviors;
- Health care delivery systems unable to provide safe and effective services; and
- Governments, employers, insurers, and patients facing higher costs.

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What is the Impact of Low Health Literacy?

Low health literacy can result in:

- Medication errors;
- Low rates of treatment compliance due to poor communication between providers and patients;
- Reduced use of preventive services and unnecessary emergency room visits;
- Ineffective management of chronic conditions, due to inadequate self-care skills;
- Longer hospital stays and increased hospital re-admissions;
- Poor responsiveness to public health emergencies; and
- Higher mortality.\(^4\),\(^5\)

Compared to those with proficient health literacy, adults with low health literacy experience:

- 4 times higher health care costs
- 6% more hospital visits
- 2 day-longer hospital stays

Source: Partnership for Clear Health Communication at the National Patient Safety Foundation.

Through all its impacts – medical errors, increased illness and disability, loss of wages, and compromised public health – low health literacy is estimated to cost the U.S. economy up to $236 billion every year.\(^6\)

What are Ways to Address Low Health Literacy?

Solutions for addressing low health literacy rely both on individual health care consumers as well as broader societal structures like the health care system, educational institutions, and the media. Interventions in the health system fall into three broad categories:

1. Making print, oral, and electronic health information easier to understand (e.g., at a fifth-grade reading level);
2. Providing education to improve literacy skills and empower individuals; and
3. Reforming health care delivery to be more patient-centered.

RESOURCES

Visit the hyperlinks below for more information.

**The Health Literacy of America’s Adults** – Results from the 2003 National Assessment of Adult Literacy by the National Center for Education Statistics.

**Health Literacy: A Prescription to End Confusion** – The landmark report on health literacy from the Institute of Medicine.

**Health Literacy Interventions and Outcomes** – Agency for Healthcare Research and Quality systematic review.

**Health Literacy Fact Sheets** – A series of health literacy fact sheets produced by CHCS that provide guidance in identifying and addressing low health literacy.


\(^4\) Neilsen-Bohiman et. al., op cit.


How is Low Health Literacy Identified?

Low health literacy can seem invisible, but it is present among patients seeking care and made worse by the complexity of services provided by health care organizations.

Health care organizations should assume that every individual may have difficulty understanding health care information. They can use universal precautions1 to reduce the complexity of their verbal and print communications to reach all patients more effectively. However, organizations that want to prioritize interventions for patients with the poorest levels of health literacy – and health status – may benefit from using some informal and formal health literacy assessments to identify these individuals and develop appropriate services and supports.

Informal Patient Assessments

Adults with low health literacy report feeling a sense of shame and may hide their struggles with reading or health vocabulary.2,3 There are, however, informal ways to identify individuals who may be at higher risk for low health literacy. Such patients may:

- Frequently miss appointments;
- Fail to complete registration forms;
- Be unable to name medications or explain their purpose or dosing;
- Identify pills by looking at them, not reading label;
- Be unable to give coherent, sequential medical history;
- Show lack of follow-through on tests or referrals; and/or
- Repeatedly use statements such as "I forgot my reading glasses," "I'll read through this when I get home," or "I'm too tired to read," when asked to discuss written material.

During conversation, the following questions may help a provider or health administrator assess the health literacy needs of an individual:

- Medical terms are complicated and many people find them difficult to understand. Do you ever get help from others in reading prescription labels, completing insurance forms, or using health materials?
- A lot of people have trouble reading and remembering health information because it is difficult. Is this ever a problem for you?
- What do you like to read? (Newspapers are generally at 10th-grade reading level and news magazines are at the 12th-grade level). What do you rely on most to learn about health issues? Everyone has a unique source. TV? Radio? Internet? Friends and family?

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Formal Patient Assessments

Formal assessments can help organizations systematically address health literacy in their quality improvement processes. Assessments can be administered separately or portions can be incorporated into existing tools such as performance metrics, patient and staff satisfaction surveys, and focus groups.

Below are three common tools used by organizations to identify individuals with low health literacy by assessing their word recognition and reading comprehension (visit the hyperlinks for more information):

- **REALM/D (Rapid Assessment of Adult Literacy in Medicine/Dentistry)**: Measures ability to read common medical words.
- **SAHLSA (Short Assessment of Health Literacy for Spanish-speaking Adults)**: Form of the REALM for adults who speak Spanish as a primary language.
- **TOFHLA (Test of Functional Health Literacy in Adults)**: Measures reading and numeracy using common medical scenarios and materials. Assigns inadequate, marginal, or adequate health literacy scores to users. Also available in a shortened seven-minute s-TOFHLA version (original version is 22 minutes long).

**KEY CONSIDERATIONS WHEN IDENTIFYING LOW HEALTH LITERACY**

- Use a combination of informal and formal measures to gain a more nuanced understanding of individuals’ abilities.
- Conduct assessments in private settings, and with sensitivity and respect, to ensure that patients do not feel ashamed, inferior, or like “targets of study.”
- Distinguish low literacy skills from cognitive decline, developmental disability, or mental health disorder.
- Differentiate English proficiency from literacy. Individuals who are more – or highly – proficient in a non-English language do not necessarily have low literacy.

Organizational Assessments

Health care organizations can also use the following tools to identify areas for improvement in their services and communication approaches (visit the hyperlinks for more information):

- **Consumer Assessment of Healthcare Providers and Systems (CAHPS) Item Set for Addressing Health Literacy** (31 supplemental items for use with the CAHPS Clinician and Group Surveys);
- **Health Literacy Assessment Questions** (for primary care practices);
- **Health Plan Organizational Assessment of Health Literacy Activities**; and

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Health Literacy and the Role of Culture

**Individuals’ social and cultural contexts are inextricably linked to how they perceive and act on health information.**

An individual’s perception of his or her health is shaped not only by personal convictions, but also by the beliefs of his or her racial, ethnic, religious, social and/or linguistic communities. These personal and collective values can be summed up as culture, and they influence an individual’s health literacy. Culture can impact how individuals:

- Define what they feel is a health problem;
- Express concerns about the problem or report symptoms;
- Decide what type of service should be obtained, when, and from whom; and
- Respond to treatment guidance.

If cultural norms do not match up with the dominant values of the health care system, an individual – even with adequate reading, writing, and numeracy skills – can have trouble accessing health services, communicating with providers, and pursuing effective self-management. Such cultural mismatches – along with low socio-economic levels and historic discrimination – have contributed to disparities in health and health care experienced by individuals in racial, ethnic, and linguistic minority groups.

Low health literacy is both a key cause and effect of these disparities. National estimates suggest that minority populations tend to have greater rates of low health literacy. Further, studies show that when controlling for health literacy, racial and ethnic disparities in health care quality and outcomes often disappear.

**Cultural Competency**

Cultural competency refers to the “practices and behaviors that ensure that all patients receive high-quality, effective care irrespective of cultural background, language proficiency, socioeconomic status, and other factors that may be informed by a patient’s characteristics.” Improving the cultural competency of health materials, personal interactions, and services is an important step toward addressing low health literacy among diverse populations.

**National Standards for Culturally and Linguistically Appropriate Services**

In 2000, the Office of Minority Health developed National Standards on Culturally and Linguistically Appropriate Services (CLAS) to provide a common understanding and consistent definition of culturally and linguistically appropriate services in health care. These standards are designed to offer a practical framework for providers, payers, accreditation organizations, policymakers, health administrators, and educators. Learn more about the CLAS guidelines at [https://www.thinkculturalhealth.hhs.gov/Content/clas.asp](https://www.thinkculturalhealth.hhs.gov/Content/clas.asp).

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Strategies to Improve Cultural Competency in Health Organizations

Provider-Patient Communication

- Give guidance on nutrition and lifestyle that aligns with patients' cultural, dietary, and/or religious values;
- Respect cultural norms around body language, clothing, and gender during appointment interactions; and
- Be sensitive when asking questions to clarify understanding or dispel pre-conceived notions.

Care Management

- Include diverse backgrounds and skill sets in care teams to meet patients' range of medical and social needs;
- Provide culturally-relevant education and management tools to facilitate self-care and shared decision-making; and
- Link patients with community-based services and supports outside of the clinic.

Health Information

- Reduce the use of health industry jargon;
- Translate health materials into multiple languages and provide interpreter services for in-person encounters;
- Represent racially and ethnically diverse groups in the images and content of materials; and
- Tailor prevention and health promotion messages to diverse communities using social marketing strategies.

Workforce Training

- Increase racial, ethnic, and linguistic diversity among professional and paraprofessional providers (e.g., physicians, physician assistants, nurses, behavioral health specialists, community health workers, peer navigators, etc); and
- Train providers and front-line staff in cross-cultural communication, trust-building, and motivational interviewing.\

SPOTLIGHT ON LIMITED ENGLISH PROFICIENCY

More than 23 million Americans have limited English proficiency (LEP). While their lack of skills in English drives their low health literacy, it is important to differentiate literacy from English-language proficiency. For example, some individuals with adequate health literacy may be more adept at a non-English language than English, and there are many individuals who have inadequate health literacy, even though English is their primary language. Individuals with LEP experience similar problems to those with low health literacy, such as delay or denial of services, issues with medication management, and underutilization of preventive services. Translation and interpretation services are recognized as best practices in engaging individuals with LEP. Title VI of the Civil Rights Act of 1964 requires all entities (e.g., state agencies, hospitals, providers) receiving federal funds to provide these services.

Resources for Providing Culturally Competent Care

Visit the hyperlinks for more information.

- **Consumer Assessment of Healthcare Providers and Systems (CAHPS) Cultural Competence Item Set:** Survey instruments that assess provider cultural competency. Part of the suite of CAHPS Clinician & Group Surveys developed by the Agency for Healthcare Research and Quality.

- **Health Resources and Services Administration – Culture, Language and Health Literacy:** Resources such as tools, assessments, and articles for health care providers, particularly those serving the uninsured, isolated or medically vulnerable, such as Federally Qualified Health Centers, Essential Community Providers, Rural Health Centers, and Community Health Centers.

- **DiversityRx:** Resource website for delivering health care to minority, immigrant, and indigenous communities.

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Improving Print Communication to Promote Health Literacy

While most health care materials are written at a 10th-grade reading level, the average American reads at only a 5th-grade level. Materials that are simple, attractive, and relevant are more likely to effectively reach patients.

Key Components of Effective Print Materials

Individuals rely on print materials when they are unable to speak directly with a health care professional, or when they are unable to engage fully in a verbal encounter. Materials that effectively communicate health messages will generally adhere to the following principles:

1. Plain and clear language is used and content is relevant to the audience.
   - Assumes minimal background knowledge.
   - Sentences are short. Messages are simple.
   - Presents numbers and percentages simply. Does not require extra calculation.
   - Uses commonly understood words. Minimizes multi-syllabic words.

2. Ideas are organized clearly.
   - Provides background information or needed context.
   - Contains logical flow of information.
   - Groups information into meaningful sections with clear headings.
   - Uses key points, summaries, and highlights to emphasize main points.

3. Layout and design facilitate reading and comprehension.
   - Lot of white space (fewer words or less dense text).
   - Bullets and/or Q&A format used to break up text, and graphics used to clarify text.
   - Dark text (preferably black) on a light or white background.
   - Large and familiar font. Consistent use of font sizes and styles throughout document.
   - Upper and lower case letters (use of all caps can make text difficult to read).
   - Left-justified margin.

Testing and Improving Print Materials

Health care organizations can use quality improvement processes to help create materials that will be most useful for patients. These involve getting input from patients, creating materials, testing them with patients, and refining the materials to ensure they are effective.

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PROCESS FOR DEVELOPING EFFECTIVE HEALTH COMMUNICATION MATERIALS

Step 1. Define the key health problem or areas of interest (e.g., low use of preventive services) and identify your intended audience (e.g., Hispanic and African-American women).

Step 2. Engage the intended audience. Focus groups, surveys, patient advisory councils, or community advisory boards can be good mediums to seek input. Determine the audience’s needs, beliefs/values, level of knowledge, and perceived barriers related to the identified health topic.

Step 3. Determine key concepts and messages based on your knowledge of the audience.

Step 4. Design a draft of the materials.

Step 5. Pilot materials with the intended audience, or an available subset. Patient volunteers or community partner organizations may be good sources for a pretest audience. Incentives such as gift certificates might help gain their participation.

Step 6. Revise draft according to feedback from the pretest audience.

Step 7. Publish and distribute materials.

Step 8. Evaluate the audiences’ satisfaction and understanding, using focus groups, surveys, and related tools.

Using Instruments to Assess Print Materials

Grade-level readability is a common metric for print materials. It is based on the number of difficult words (usually words with three or more syllables) and the length of sentences. However, even materials written at a low reading level may be difficult to comprehend if content is poorly organized or not designed well. The following instruments may help organizations assess their materials (visit the hyperlinks for more information):

- **Flesch-Kincaid Grade Level and Flesch Reading Ease Score**: Analyzes readability based on the number of syllables per word and words per sentence in addition to other measures.

- **FOG (Frequency of Gobbledygook)**: Assigns a grade level based on sentence length, number of words, and number of polysyllabic (>3) words.

- **Fry Readability Formula**: Measures readability of small documents using sample sizes of 100 words. Identifies more difficult words or sentences.

- **SMOG (Simple Measure of Gobbledygook)**: Analyzes reading level of prose in sentence and paragraph format.

- **SAM (Suitability Assessment of Materials)**: Measures readability based on content, literacy demand, graphics, layout, learning stimulation, and cultural appropriateness. Can also measure audio-visual materials.

- **PMOSE/ IKIRSCHE Document Readability Formula**: Assigns a grade-level to charts, tables and other non-prose documents.

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Improving Oral Communication to Promote Health Literacy

Health information that is delivered in a clear, engaging, and personally relevant manner can promote understanding, action, and self-empowerment, no matter the literacy level of the recipient.

Oral communication, particularly between providers and patients in a medical setting, is a critical medium through which vital information is shared and decisions are made. The following strategies should be used to promote health literacy:

- **Create a safe and respectful environment.** Greet patients warmly. Make eye contact. Take the time to get to know the patient and earn his or her trust.

- **Use speech that is easy to understand.** Slow down your speaking pace. Limit content to a few key points. Be specific and concrete, not general. Use words that are simple and familiar. Avoid complex technical jargon or acronyms (see Simplified Language examples in the box below).

- **Keep the individual engaged in the conversation.** Use pictures, physical models, videos, or interactive media to aid technically complex conversations. Ask open-ended questions to facilitate discussion. Get to know what the patient cares about most – family, friends, work, hobbies – and incorporate those into your health discussions.

- **Confirm patient understanding.** Ask the individual to “teach back” the information you have imparted. Remind the individual that many people have difficulty understanding the materials. Summarize key points.

### Simplified Language Swap-Outs

<table>
<thead>
<tr>
<th>Common Term</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible</td>
<td>Qualified, or able to get</td>
</tr>
<tr>
<td>Hormone</td>
<td>Natural or manmade chemical that can impact your energy, mood, and/or growth</td>
</tr>
<tr>
<td>Hypertension</td>
<td>High blood pressure</td>
</tr>
<tr>
<td>Infection</td>
<td>Problem caused by germs; reason you clean open wounds</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>Related to breathing</td>
</tr>
<tr>
<td>Supplement</td>
<td>Add to, in addition to</td>
</tr>
</tbody>
</table>

For more, see: [http://stacks.cdc.gov/view/cdc/11500/](http://stacks.cdc.gov/view/cdc/11500/)

### HEALTH LITERACY SNAPSHOT

An older Asian-American man cannot understand the dosage label on his medication. For fear of taking the wrong dosage, he does not take it at all. His back pain gets worse and he is not able to go into work for a whole week. He recalls being rushed through his appointment and unable to understand the doctor’s accent. He left without being able to ask any other staff for help as they seemed too busy.
Preparation for Health Care Encounters

To improve the quality and content of in-person encounters, providers, care managers, health plan administrators, and other professionals can ask patients to prepare for their medical visits by:

- Making a list of two or three questions they want answered;
- Bringing in a list of all medications (prescription, over-the-counter, vitamins/herbal) or the actual bottles;
- Bringing copies of recent test results or reports from other health care providers, including any personal health records;
- Asking a family member or friend to accompany them to help write down information or remember what was said; and/or
- Reporting all symptoms and anything that does not seem quite right during their office visit, and asking the provider to repeat instructions at the end of the visit.

Supports in the Medical Office Environment

Beyond the interactions with health care professionals, other aspects of the medical office environment – unreadable signage, complicated layouts, or chaotic environments – can impact patient experiences. Individuals with lower health literacy may feel intimidated in professional health care environments. This may lead them to avoid seeking out services, asking clarifying questions, challenging a provider’s assumptions, or sharing vital personal details during medical appointments.

Health care institutions can pay attention to the following to help ensure that individuals with low health literacy will successfully participate in health care services:

- The facility’s name is clearly displayed outside the building and entry signs are visible.
- The signs use plain, everyday words such as “Walk-in,” in addition to “Ambulatory Care.”
- Maps, including handheld ones, are available to navigate the premises.
- Overhead signs use large lettering and are in languages of major population groups.
- Color codes or symbols are used consistently on walls and floors to mark paths.
- All staff wear a form of identification such as a uniform, nametag, or button.
- There is a welcome or information desk with friendly personnel.
- Multilingual and racially/ethnically diverse providers and administrative staff are available.

Motivational Interviewing: Helping Providers and Patients Reach Goals Together

Motivational interviewing is a patient-centered method of engagement and ongoing communication that is based on meeting patients in a comfortable, familiar environment; addressing goals defined by the patient; and gradually helping patients work toward more ambitious goals. It is a promising technique that is increasingly used by providers to support patients with complex chronic conditions and significant social barriers. Providers looking to better address the needs of individuals with low health literacy can use this model, or incorporate its elements into care delivery. For more information: www.motivationalinterview.org.
Health Literacy: Policy Implications and Opportunities

Health care policymakers nationwide are seeking to expand insurance coverage, improve care, and control costs. To meet these goals, health care programs must focus on the cultural, linguistic, and social barriers facing vulnerable populations, including those with low health literacy.

Affordable Care Act

The Affordable Care Act (ACA)\(^1\) is the most significant piece of health care legislation in recent history. Though there are only four explicit mentions of the term “health literacy” in the law, the ACA indirectly addresses this topic in the following areas:\(^2\)

1. **Coverage Expansion**: Millions of Americans will gain insurance through the state-based exchanges and Medicaid beginning in 2014.\(^3\)
   For such expansion to be successful, outreach efforts and enrollment methods must be streamlined, easy to understand, and coordinated with other social services and community programs.

2. **Equity**: Moving toward universal coverage and creating the same “floor” for the lowest-income populations should help address some of the fundamental disparities in access to care, but only if there is attention to culture, language, and literacy.

3. **Workforce**: Provider training and diversity provisions in the ACA will help build a workforce with the background, cultural competency, and patient-centered orientation to adequately meet care needs across all levels of patient health literacy.

4. **Health Care Information**: From medication management to provider performance rating, patient information must be presented in a way that is accessible to the millions of Americans with low literacy skills.

5. **Public Health and Wellness**: The development of consumer information – whether in print, electronically, or otherwise – on issues ranging from prevention to emergency preparedness must be done with low literacy in mind, and in partnership with local communities.

6. **Quality Improvement**: The promotion of payment and delivery system redesign models such as health homes and accountable care organizations, and emphasis on quality measurement and reporting presents many new opportunities for making the business and policy case for investments in health literacy.

**Additional Federal Policy Efforts Related to Health Literacy**

**National Action Plan to Improve Health Literacy**

The *National Action Plan to Improve Health Literacy*, released in 2010 by the U.S. Department of Health and Human Services, outlines seven goals that address the importance of health and safety information that is accurate, accessible, and actionable. It addresses how payers, the media, government agencies, health care professionals, and community institutions can work together to tackle the national problem of low health literacy.\(^4\)

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Plain Writing Act of 2010

This legislation requires the federal government, including all health agencies, to use “plain writing” guidelines in every covered document – both print and electronic. This includes every document that agencies issue or substantially revise, including letters, publications, forms, notices, or instructions. It also includes any document necessary for the public to obtain a federal government benefit or service; file taxes; or comply with federal requirements.  

Healthy People 2020

Healthy People 2020 is a set of 10-year goals for improving the health of Americans. It provides national benchmarks for meeting specific aims around health promotion and disease prevention. Several objectives explicitly speak to health literacy principles.

National Resources to Address Health Literacy

Following are a variety of resources available to health care policymakers, providers, and administrators looking to address health literacy (visit the hyperlinks below to access each resource).

- **Health and Human Services (HHS)**
  - Overview and Resources
  - Health Literacy Action Plan
  - A Guide to Writing and Designing Easy-to-Use Health Web Sites
  - Expanding the Reach and Impact of Consumer e-Health Tools
- **Center for Disease Control (CDC)**
  - Health Literacy Resources
- **National Institutes of Health (NIH)**
  - Clear Communication: A NIH Health Literacy Initiative
- **Health Resources and Services Administration (HRSA)**
  - Free Online Course for Health Professionals and Students
- **Agency for Healthcare Research and Quality (AHRQ)**
  - Health Literacy Universal Precautions Toolkit
- **Institute of Medicine (IOM)**
  - Roundtable on Health Literacy
- **Surgeon General**
  - Improving Health by Improving Health Literacy
- **The Joint Commission**
  - Improving Health Literacy to Protect Patient Safety

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