



Health Literacy Supplement

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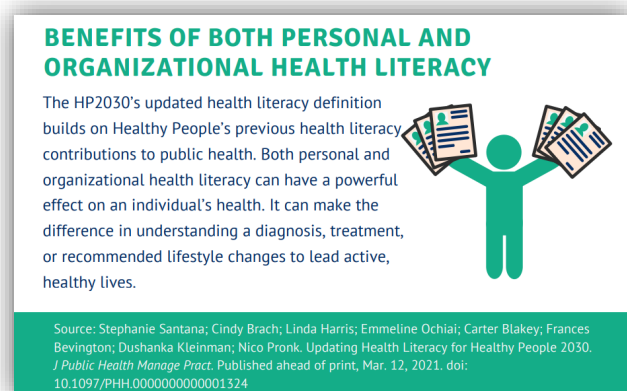
Health Literacy Supplement

Background

[Health literacy](#) was formerly defined by the U.S. Department of Health and Human Service (HHS) as “the degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions.” With HHS’ updated version of Healthy People 2020, came a number of [changes](#). The number of objectives was significantly reduced, 10-year targets were set for objectives related to social determinants of health (SDOH), and the definition of health literacy was updated. The 20 year-old definition was updated to emphasize the need for both personal health literacy and organizational health literacy.

[Healthy People 2030](#) provides the following definitions:

- **“Personal health literacy** is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.”
- **“Organizational health literacy** is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.”



Source: [Updating Health Literacy for Healthy People 2030](#), *JPHMP Direct*, 2021.

The [Network of the National Library of Medicine](#) (NNLM) reports, “nearly 9 out of 10 adults struggle with health literacy.” Health literacy is a national problem resulting in poorer health, an increased burden upon the healthcare system, and an increase in morbidity and mortality. “It is the product of individuals’ capacities *and* the demands the health information places on individuals to decode, interpret, and assimilate health messages” ([Andrulis & Brach, 2007](#)). Health literacy can be dynamic, changing in high stress situations ([Edward, 2021](#)).

Healthy People 2030 indicates that the United States lacks a current national measure of personal health literacy, and failure to address personal health literacy increases health disparities. Organizational health literacy is a SDOH; even those with personal health literacy can be harmed by receiving care from a local organization with low health literacy. Improving health literacy results in better prevention of health problems, improved management of health issues, and reduced healthcare costs. [The National Action Plan to Improve Health Literacy](#) calls us to actively engage in the complex task of improving both personal and organizational health literacy. ([Healthy People 2030](#))

Factors affecting one's health literacy include:

- Communication methods and styles
- Physical or mental limitations
- [General literacy](#)
- [Digital literacy](#)
- [Food literacy](#)
- [Numeracy skills](#)
- SDOH



Health literacy affects one's ability to:

- Make informed healthcare decisions
- Interpret risks and benefits regarding care
- Lead a healthier lifestyle
- Get necessary and appropriate medical care
- Better understand their health issues, especially chronic diseases
- Access and understand medical records
- Participate in shared-decision making
- Take medication as prescribed
- Understand healthcare legislation and be an informed voter
- Complete follow-up care – visits, lab work, postoperative care, and related services

“Understanding healthcare literacy, cultural competency, and health disparities/inequalities is essential for providing empathetic care to patients and their family members” ([Polster, 2018](#)). Patient outcomes are adversely impacted by poor health literacy. Clear communication between patients and providers is essential.

A [2019 article](#) featured in *Harvard Public Health Review* identifies three main components to effective communication in the health care setting:

1. Health literacy
2. Cultural competency
3. Language barriers

Ineffective communication occurs when there are deficits associated with any of these components. Two factors

Interpreter services indirectly increase the cost and length of treatment visits. However, implementing online translation tools such as [Google Translate](#) and [MediBabble](#) may improve the quality of healthcare delivery, patient safety, and level of satisfaction for both patient and provider.

Source: [Shamsi et al., 2020](#).



affecting health care literacy are the patient's ability to comprehend and the complexity of the health system. Patients are expected to understand or navigate health care costs; reimbursement; insurance plan requirements; multifaceted treatment plans; the impact of comorbidities; medication tier plans; evidence-based information; self-management of one or more disease processes; differences between emergency, urgent, and routine care; and how to make maintainable lifestyle changes. ([Ratna, 2019](#))

Scenario

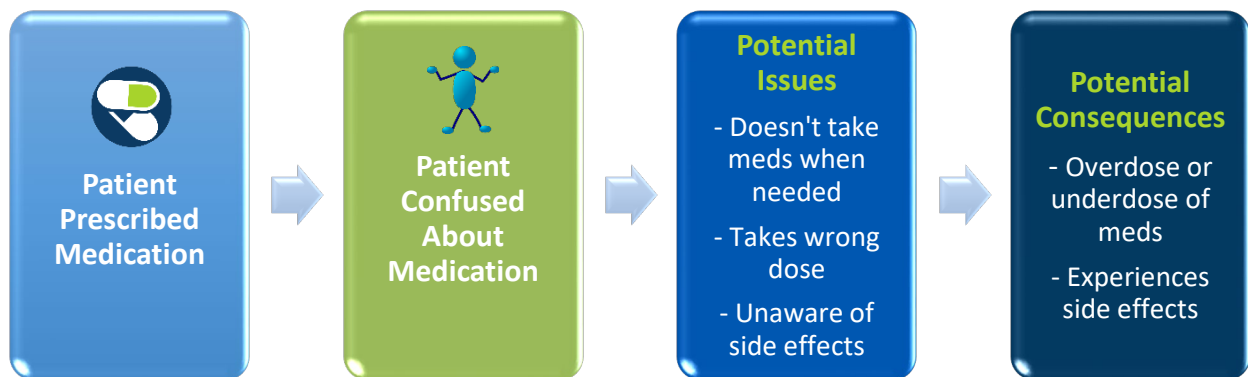
As healthcare becomes more complex, low health literacy skills can lead to more severe consequences for patients. Let us assume we have an insured patient who has access to transportation and the financial means to pay for his meds. English is his first language. This patient already lacks a number of common barriers that can affect one's health care. What could go wrong?

“ Studies have shown that **40-80%** of the medical information patients are told during office visits is forgotten immediately, and nearly half of the information retained is incorrect. ”

Source: [AHRO](#), 2020.

During an office visit, the patient was prescribed a medication to be used as needed. The [teach-back](#) discussion was not used, and he left the appointment without a clear understanding of the symptoms that would necessitate medication administration. He may unnecessarily take medication or fail to take it when it is indicated. If he received a number of medications, some of which require cutting to meet the dosing requirements, he may not possess the numeracy skills to accomplish this task. The result may be overdosing or underdosing of medication. He could have a

reaction which he may not recognize due to failure to understand the side effect paperwork that accompanied his medication. If we add in a language barrier, lack of a support system, shift work that necessitates the patient use a 24-hour pharmacy 20 miles from his home, a short-term memory deficit, and failure to complete high school, it is easy to see that despite the patient's best efforts, he may not be able to appropriately follow provider instructions. As one can see health literacy and social determinants of health can have a significant impact upon the patient's [self-care](#).



Suggested resources:

- [Health Literacy Patient Survey](#) – Use this to assess patients’ perceptions regarding the organization’s explanations of health information.
- [Always Use Teach-back! Training Toolkit](#) – The toolkit focuses on learning and coaching teach-back while using plain language.
- Teach-back handout - [10 Elements of Competence for Using Teach-back Effectively](#)
- [Plain Language Materials & Resources](#) compiled by the CDC.
- [Microsoft Word Readability and Level Statistics](#) – This website provides instructions for determining the reading level of a document.

Healthy People 2030’s Health Literacy Objectives

“The level of health literacy of individuals or communities often mirrors disparities in society” ([Lopez et al., 2022](#)). Because of its impact on public health, attaining health literacy is both a foundational principle and an overarching goal of Healthy People 2030. Six objectives were developed in relation to health literacy:

1	Increase the health literacy of the population – HC/HIT-R01	<ul style="list-style-type: none"> • This objective has research status which means, at this time, it lacks evidence-based interventions to address it, and reliable baseline data may not be available. A change in status will be reflected on the link provided.
2	Increase the proportion of adults whose health care provider checked their understanding – HC/HIT-01	<ul style="list-style-type: none"> • Of adults aged 18 years and older, 25.6 percent reported that a health care provider asked them to describe how they will follow instructions in 2019. • The target is 32.2 percent.
3	Decrease the proportion of adults who report poor communication with their health care provider – HC/HIT-02	<ul style="list-style-type: none"> • Of adults aged 18 years and older, nine percent reported poor provider communication in 2019. • The target is eight percent.
4	Increase the proportion of adults whose health care providers involved them in decisions as much as they wanted – HC/HIT-03 shared-decision making tools added here	<ul style="list-style-type: none"> • Of adults aged 18 years and older, 57.2 percent reported that their health care providers always involved them in decisions about their health care as much as they wanted in 2020. • The target is 62.7 percent.
5	Increase the proportion of people who say their online medical record is easy to understand – HC/HIT-D10	<ul style="list-style-type: none"> • This objective has developmental status which means there are evidence-based interventions to address it, but no reliable baseline data at this time. A change in status will be reflected on the link provided.
6	Increase the proportion of adults with limited English proficiency who say their providers explain things clearly – HC/HIT-D11	<ul style="list-style-type: none"> • This objective has developmental status which means there are evidence-based interventions to address it, but no reliable baseline data at this time. A change in status will be reflected on the link provided.

Health Literacy Data

While health literacy has been deemed a high-priority public health issue, baseline data and evidence-based interventions are lacking. Data on adult literacy and numeracy skills is collected and reported by the U.S.

Department of Education (ED). However, the only national data on health literacy skills was published in 2006 and referenced [2003 data](#), according to the [CDC](#). In that [study](#), researchers found that only 12 percent of U.S. adults had proficient health literacy, meaning 88 percent lack the skills to navigate the current health care system and aptly address their healthcare needs. Other more recent research has investigated the relationship between literacy and numeracy skills and educational attainment, employment, and health status. Through this data, it becomes clear there is an intertwining of social determinants or social drivers of health and health literacy. ([CDC, 2022](#))



The [Program for the International Assessment of Adult Competencies \(PIACC\)](#), in a cyclical, large-scale study conducted by the National Center of Education Statistics, found that overall average scores in literacy, numeracy, or digital problem solving were not measurably different for U.S. adults between 2012/14 and 2017. While adults aged 16 to 74 were surveyed, the focus of the report was on the age range of 16 to 65. Educational attainment levels were categorized into three groups: less than high school, high school, and more than high school. Employment status was also categorized into three groups: employed, unemployed, and out of labor force.

Based on 2017 results, adults attaining higher education levels scored higher than those with lower education levels in both literacy and numeracy. The results held true at each level. With digital problem solving, the average score for adults with a high school education when compared to those with less than a high school education was not measurably different. There were no statistically significant changes in average scores for employed U.S. adults in literacy, numeracy, or digital problem solving between 2012/14 and 2017. Curiously, adults who were out of the labor force scored lower in digital problem solving in 2017, and unemployed adults showed an increase in both literacy and numeracy skills as compared to 2012/14, with an increase in the number performing at the highest level (3 or above) in numeracy.



Non-native born U.S. adults scored higher in literacy and problem solving in 2017 compared to 2012/14, showed no statistically significant changes in average scores during the same time. Regarding health status, the percentage of U.S. adults reporting “fair” or “poor” health increased from 15 to 17 percent. Accordingly, those reporting “excellent” or “very good” health decreased from 57 to 54 percent. For literacy, numeracy, and digital problem solving, adults reporting higher levels of health scored higher than those with lower levels of health. These results echo those from the ED’s

study, [The Health Literacy of America's Adults: Results from the 2003 National Assessment of Adult Literacy](#).

Health Literacy Universal Precautions

We have all come to know universal precautions as they apply to infection control, but there are now health literacy universal precautions. The U.S. Department of Health and Human Services created the [Health Literate Care Model](#) which calls for health care providers to take a universal precautions approach and adopt actions that can result in increased patient engagement in health promotion, disease prevention, decision-making, and self-management. A [universal precautions approach](#) includes treating all patients as if they are at risk of not understanding health information, employing a range of strategies for clear communication, and confirming that patients understand what providers are saying.

The Agency for Healthcare Research and Quality offers a [Health Literacy Universal Precautions Toolkit](#) for primary care practices. The second edition is an evidence-based comprehensive guide designed to help practices enhance support for patients of varying literacy levels. The Toolkit provides 21 tools addressing spoken communication, written communication, self-management and empowerment, and supportive systems.

Using a Health Literacy Universal Precautions Approach

- ✓ Structuring the delivery of care as if everyone may have limited health literacy
 - You cannot tell by looking
 - Higher literacy skills ≠ understanding
 - Anxiety can reduce ability to manage health information
 - Everyone benefits from clear communications



Adapted from [Health Literacy: Hidden Barriers and Practical Strategies Presentation](#) (Slide 3), AHRQ, 2020.

Training Courses

New skills must be learned in order to adapt and effectively meet the needs of the patients being served. The CDC offers [Health Literacy Training](#) designed for health professionals. The training consists of three courses:

1. Health Literacy for Public Health Professionals
2. Fundamentals of Communicating Health Risks
3. Effective Communication for Healthcare Teams: Addressing Health Literacy, Limited English Proficiency and Cultural Differences.

Four additional courses are undergoing updates but will be available on the same link in the future.

The [CDC](#) recognizes the [Pennsylvania Health Literacy Coalition](#) (PAHLC) as an organization that exemplifies goals from the [National Action Plan to Improve Health Literacy](#). PAHLC provides resources and training, keeping best practices at the forefront. Priorities of PAHLC “include fostering collaboration

and partnerships, building infrastructure for health literacy training, and creating a culture of health literacy in Pennsylvania.” Consider contacting PAHLC as your organization endeavors to address health literacy.

For those seeking no-cost non-CDC training courses, [Health Literacy on Demand](#) is a one hour, self-paced course designed for professionals and offered by the NNLM. Numerous health literacy training options of varying duration can be found [here](#). According to [PAHLC](#), up to 90 percent of Pennsylvanians have difficulty comprehending health information. Given its ever-increasing importance, consider adding health literacy training as a professional development goal for staff.

Health Literacy Action Plan

Becoming a health literate organization will take time, intention, planning, and continual reassessment. Align the organization’s strategic plan as well as mission and vision statements with a goal to positively impact the health of patients by actively addressing health literacy.

Ten Attributes of Health Literate Health Care Organizations	
1	Has leadership that makes health literacy integral to its mission, structure, and operations.
2	Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement.
3	Prepares the workforce to be health literate and monitors progress.
4	Includes populations served in the design, implementation, and evaluation of health information and services.
5	Meets the needs of populations with a range of health literacy skills while avoiding stigmatization.
6	Uses health literacy strategies in interpersonal communications and confirms understanding at all points of contact.
7	Provides easy access to health information and services and navigation assistance.
8	Designs and distributes print, audiovisual, and social media content that is easy to understand and act on.
9	Addresses health literacy in high-risk situations, including care transitions and communications about medicines.
10	Communicates clearly what health plans cover and what individuals will have to pay for services.

Adapted from [Ten Attributes of Health Literate Health Care Organizations](#), Institute of Medicine or of the National Research Council, 2012.

Assess how well the organization currently meets the needs of its patients, solicit feedback, and implement changes. Consider a deeper dive into issues the organization is already tracking, such as medication adherence and compliance with follow-up visits, which can be impacted by health literacy.

There are many tools and resources available to guide organizational change.

- Utilize "[Making Health Literacy Real: The Beginnings of My Organization's Plan for Action](#)" as a framework when endeavoring to improve health literacy as an organization. It may be helpful when operationalizing a strategic plan.
- [HLE2 The Health Literacy Environment of Hospitals and Health Centers: An Updated Assessment Tool for Identifying Facilitating Factors and Barriers to Information, Care, and Services](#) offers a revised tool for identifying and rating literacy related factors within an organization.
- [Health Literacy Tool Shed](#) – Find the right health literacy measurement tool to meet your needs.
- [Health Education Materials Assessment Tool](#) from the National Library of Medicine aids one in determining if patient-facing materials are “easy-to-read.”
- [The Health Literacy Environment Activity Packet](#) is to be used by staff in an effort to evaluate the organization from a patient's point of view.
- The National Institutes of Health provides information and a number of resources on [clear communication](#) as it relates to health literacy, plain language, and cultural respect.

Organization Resources:

- For a guide on simplifying the user experience of a health website, consult [Health Literacy Online](#).
- [CDC Clear Communication Index](#) serves as an aid for the development and assessment of communication products.
- [CAHPS Health Literacy Item Sets](#) can be used as a quality improvement tool. Available surveys aid in acquiring patient perspectives and measuring how successful health care professionals are at reducing health literacy demands on patients.
- [Strategies to Improve Communication Between Pharmacy Staff and Patients: Training Program for Pharmacy Staff](#) helps educate pharmacy staff on the problem of low health literacy and how to improve communication with this population.
- The National Library of Medicine and its partners offer a [Digital Health Literacy Curriculum](#) for interested parties to use in their communities.



Patient Resources:

- "[National Action Plan to Improve Health Literacy](#)", Appendix B: What You Can Do To Improve Health Literacy provides suggestions for individuals, communities, and educators.
- [MyHealthfinder](#) offers plain language content, in English and Spanish, about health promotion and disease prevention.
- [Evaluating Internet Health Information: A Tutorial](#) provides a tutorial and checklist to help individuals assess the reliability of health information on the internet.

- [The Over-the-Counter Medicine Label: Take a Look](#) provides information to help patients decipher non-prescription medication labels.
- [Navigating the Health Care System](#) is a health literacy curriculum originally created for adolescents and young adults but recently updated to include an adult version.
- Patients can prepare for medical appointments by visiting [Question Builder Online](#), choosing appointment type, selecting associated questions they would like to ask, and printing the resulting list.