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Addressing Health Literacy and Numeracy: A Focus on Nutrition

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In the U.S., 54% of adults read below a sixth-grade level, and only 12% of U.S. adults have the health literacy skills needed to manage the demands of our complex health care system.[1]

Stress or illness can further compromise these individuals' ability to absorb and use health information.[2] Patients with low health literacy and numeracy are more likely to have poor health outcomes, lower medication adherence, delays in seeking care, increased hospitalizations, higher mortality, and higher health care costs than those with higher health literacy.[3,4]

A person's ability to follow dietary recommendations (e.g., reading food labels, calculating nutrition information, establishing schedules for eating around medications, etc.) is particularly crucial for managing chronic diseases such as diabetes and cardiovascular disease, given the addition of pharmacotherapies. Patients with higher nutrition literacy and numeracy skills are more likely to interpret food labels correctly and have better health outcomes.[7]

This document identifies screening tools for health literacy and numeracy, provides guidance on how to use nutrition food labels in patient education, and offers strategies to improve patient comprehension of medical information.

HEALTH LITERACY

Health literacy is the degree to which individuals can find, understand, and use information and services to inform health-related decisions and actions for themselves and others.[5]

Examples: Finding and accessing care, processing verbal medical instructions, and making informed decisions).

HEALTH NUMERACY

Health numeracy refers to the ability to understand clinical and public health data subjectively and/or apply it objectively.[6]

Examples: Calculating portion sizes or nutrition information

Patients with low health literacy and numeracy are likely to have difficulty understanding and processing medical information needed for their own care or the care of a loved one.

Health Literacy and Numeracy Screening Tools

Health literacy and numeracy assessments are foundational components for achieving excellent patient outcomes. While screening for health literacy and numeracy has not yet been shown to improve health outcomes, consensus statements support universal health literacy and numeracy precautions. This means "providing understandable and accessible information to all patients, regardless of their literacy or education levels."[8] For patients needing to adopt healthy diet changes and increase activity long-term, health literacy and numeracy are needed to make and monitor choices.

Using the following resources, primary care teams can choose a method to assess their patient's health literacy and numeracy and adopt recommended strategies to tailor conversations.

Agency for Healthcare Research and Quality (AHRQ) Health Literacy Universal Precautions Toolkit: A wide range of resources is available in this toolkit, including assessment tools for individuals and practices, tools to improve patient engagement and education, and training for the teach-back method.[9]
ahrq.gov/health-literacy/improve/precautions/index.html

Health Literacy Tool Shed: This collection of assessment tools, funded by the National Institute of Health's National Library of Medicine, can be narrowed down to specific diseases such as diabetes. For example, the Diabetes Numeracy Test evaluates a wide range of numeracy skills used by patients with diabetes, especially the ability to use the Nutrition Facts Panel (NFP) label.[10]
healthliteracy.bu.edu/specific_context=6

Newest Vital Sign: This validated test developed by Pfizer uses a nutrition label and six questions to quickly assess health literacy and numeracy in English and Spanish.[8,11] The test only takes three minutes to administer and requires both reading and math skills to complete. A score less than four indicates patients are at high risk for low health literacy.
cdn.pfizer.com/pfizercom/health/nvs_flipbook_english_final.pdf

Single Item Literacy Screener: This validated tool can be used in the clinic to identify patients who may need help reading health materials. The team can easily collect the information in about 15 seconds while taking vital signs.[12]

Single Item Literacy Screener

"How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?"

1 – Never **2 – Rarely** **3 – Sometimes**
4 – Often **5 – Always**

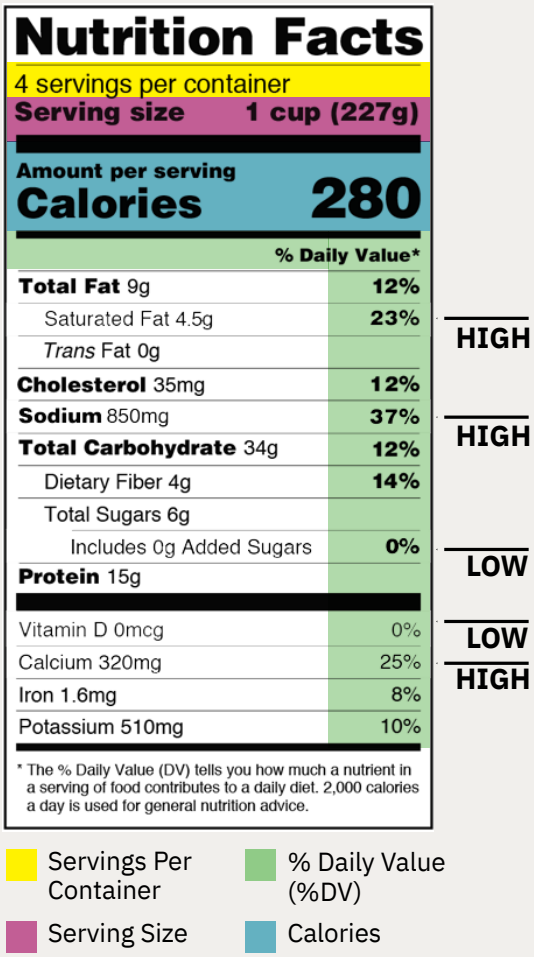
Scoring: ≥ indicates some difficulty reading, printed health related material (i.e., positive screen)

Understanding Nutrition Food Labels

It is important for primary care teams to assess a patient's health literacy/numeracy and use methods and tools to help these patients better manage their health conditions and participate in collaborative decision making about their care. Nutrition education using simplified teaching methods that emphasize understanding food labels has been shown to improve blood pressure and blood glucose levels.[13,14]

Nutrition Facts Panel

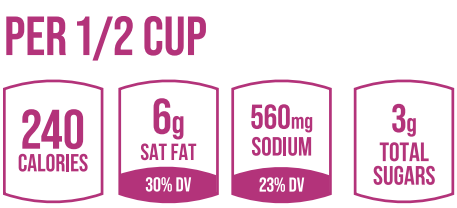
The Nutrition Facts Panel (NFP), developed by the U.S. Food and Drug Administration (FDA) in 1990 and revised in 2016, was intended to provide information to the public needed to follow dietary recommendations and make healthier food choices.[15] However, the NFP has been criticized as too complex for many consumers, particularly those with low health literacy and numeracy.[15-18] Recognizing this, the FDA now provides educational information about the new food label for teachers, parents, and other consumers.[15] Most have links to PDFs that can be used in the office, including information about what percent Daily Value (%DV) is considered high and low. However, many of these resources assume a proficient reading level and access to a computer or smartphone with sufficient data access. Primary care providers can use the NFP in addition to a visual dietary guide like MyPlate or the Cardi-OH DASH Diet Plate to assist patients with limited health literacy and numeracy.



Use %DV to determine if a food serving is high (≥ 20% DV) or low (≤ 5% DV) in an individual nutrient.

Patient understanding can be reinforced through guidance, repeat visits, and practice, focusing on a few prioritized areas on the label at any given appointment. These areas can then be correlated to better choices on the plate. For example, grams of carbohydrate can be discussed at an office visit with labels and teach-back for a basic goal for meals (i.e., 30-45 grams of carbohydrate per meal). This iterative and step-wise approach can help patients to improve and adapt choices and dietary patterns practically, moving toward healthier eating patterns over time.

Front of Package Label
The Front of Package (FOP) label, also known as the Facts Up Front label, is voluntarily adopted by food manufacturers and has been used worldwide since 2011. The FOP's simple, easy-to-use format highlights key information from the NFP label about calories, saturated fat, sodium, and sugar – nutrients recommended to be limited in the Dietary Guidelines for Americans.[19] The four nutrient facts are always presented together as a consistent set.[20]



Adapted from Facts Up Front[21]

Primary care teams may use the FOP label to provide patients with daily goals and limits that require only basic arithmetic to understand, giving patients with low literacy and numeracy the ability to make healthier food choices. The FOP label can be quickly reviewed as part of a clinical visit, giving the patient a useful tool to use until they can connect with a registered dietitian or Diabetes Self-Management Education and Support (DSMES) provider or program.

For more information, access Cardi-OH's expanded resources on health literacy, addressing disparities in cardiovascular disease and diabetes, and personalizing care to optimize outcomes.

Strategies for Primary Care Teams to Improve Patient Comprehension of Medical Information

Accessible and effective health literacy tools and information equip patients to participate in shared decision making, select recommended care plans, and adhere to health and lifestyle choices. When patients are identified as having low health literacy and/or numeracy, primary care teams can use targeted interventions to improve their patients' understanding and promote improved health literacy and numeracy. Some evidence-based strategies include:[22-30]

Communicating with Patients:

- Use jargon-free language when communicating with patients.
- Focus on key messages and consistently repeat them in written, verbal, and visual approaches
- Ask patients to repeat back what they learned using the teach-back method.
- Adapt or design written materials for the sixth-grade reading level or lower.
- Adopt technology and eHealth interventions in patient education (i.e., videos and interactive self-help tools) for use during visits and in medical waiting or counseling areas. At home, patients can search for educational videos about "food labels" on YouTube, offered by official government or educational institutions, such as the FDA or American Diabetes Association.
- Encourage regular follow-up visits to improve understanding and answer questions.
- Use interpreter services if a language barrier exists.
- Engage family members, caregivers, and support persons in patient education sessions and equip them with appropriate resources.
- Refer to one-on-one educational sessions with a specialist (i.e., diabetes educator, pharmacist, registered dietitian).

Enhancing Provider Skills and Teamwork:

- Have primary care teams complete health literacy training (e.g. the basic use of the NFP and FOP).
- Implement a team-based approach for screening and teaching for low health literacy and numeracy.

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Partners

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