The Importance of Health Literacy

Overview and Call to Action: Health Literacy Improvement

This program has been provided and paid for by Merck Sharp & Dohme Corp., a subsidiary of **Merck & Co., Inc.**



Table of Contents

Chapter 1	Awareness of Health Literacy	4
Chapter 2	Knowledge of Health Literacy	12
Chapter 3	Strategies for Health Care Professionals	.20
Chapter 4	Health Literacy Case Studies	33
Chapter 5	Commitment From Merck	37



Learning Objectives

- Define health literacy and know how it relates to other types of literacy
- Understand why health literacy is important and what factors contribute to low health literacy
- Describe strategies and tools health care providers can use to foster better patient understanding and improved health outcomes
- Apply health literacy principles to real-world examples of patients' challenges
- Explain Merck's commitment to improving health literacy



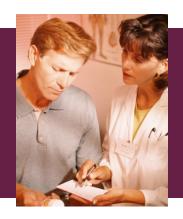
Chapter 1:

Awareness of Health Literacy



Defining Health Literacy

• **Health literacy** is the capacity to¹:



Obtain, process, and understand basic health information and services



Make appropriate health care decisions

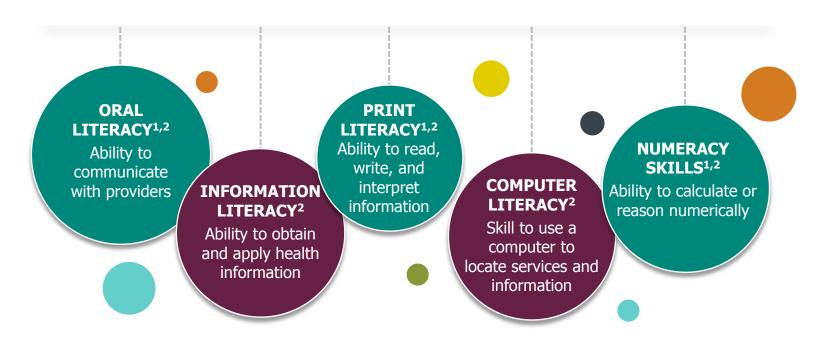


Access services and navigate the health care system



Agency for Healthcare Research and Quality. Executive Summary. Evidence Report/Technology Assessment Number 199. Health literacy interventions and outcomes: an updated systematic review. March 2011. http://archive.ahrq.gov/research/findings/evidence-based-reports/litupsum.pdf. Accessed February 5, 2016.

Skills Involved in Health Literacy^{1,2}



- Agency for Healthcare Research and Quality. Executive Summary. Evidence Report/Technology Assessment Number 199. Health literacy interventions and outcomes: an updated systematic review. March 2011. http://archive.ahrq.gov/research/findings/evidence-based-reports/litupsum.pdf. Accessed February 5, 2016.
- National Network of Libraries of Medicine. Health literacy. http://nnlm.gov/outreach/consumer/hlthlit.html#Skills_Needed_for_Health_Literacy. Accessed February 8, 2016.



National Statistics on Health Literacy

The 2003 **National Assessment of Adult Literacy** – *the first* and only large-scale assessment of health literacy¹ – showed that:

- Only 12% of US adults have *Proficient* health literacy skills, suggesting that most Americans lack important skills needed to prevent or manage disease²
- 36% of adults have *Basic* or *Below Basic* health literacy and cannot perform moderately challenging health literacy tasks, such as³:



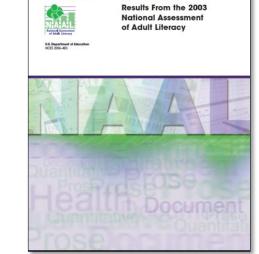
Determine a healthy weight range, based on a graph that relates height and weight to body mass index (BMI)



Find information to define a medical term by searching through a complex or unfamiliar document



Interpret a childhood immunization schedule using a standard chart



The Health Literacy of

America's Adults

- 1. National Center for Education Statistics. Health literacy. https://nces.ed.gov/naal/health.asp. Accessed March 7, 2016.
- 2. Brega AG, et al. Health literacy universal precautions toolkit. AHRQ Publication No. 15-0023-EF. Rockville, MD: Agency for Healthcare Research and Quality; January 2015.
- 3. Kutner M, et al. The Health Literacy of America's Adults: Results from the 2003 National Assessment of Adult Literacy. US Department of Education (NCES 2006–483). September 2006.



Key Findings on US Adult Literacy Skills

The results from a 2013 international literacy survey known as the **Program for International Assessment of Adult Competencies (PIAAC)** indicate that a significant number of American adults have limited literacy skills. Some **key findings are**^{1,2}:



1 in 6 American Adults Have Less-Than-Basic Print Literacy

Roughly 36 million US adults have only basic vocabulary knowledge and struggle when working with anything other than short texts



Nearly 1 in 3 Have Less-Than-Basic Numeracy Skills

Almost 30 percent of US adults have difficulty solving anything beyond simple mathematical operations involving counting, sorting, and basic arithmetic



The US Lags Behind in Digital Literacy, Problem Solving

American adults performed below the international average when it came to using digital technology to acquire and evaluate information, communicate with others, and perform practical tasks



^{1.} National Center for Education Statistics. What is PIAAC? https://nces.ed.gov/surveys/piaac/index.asp. Accessed March 8, 2016.

PIAAC Gateway. PIAAC Fact Sheet: New data on the skills of American adults. http://static1.squarespace.com/static/51bb74b8e4b0139570ddf020/t/55df6eafe4b071c5652995b7/1440706223683/Digital+Promise+Fact+Sheet.pdf. Accessed March 8, 2016.

Populations Vulnerable to Low Health Literacy







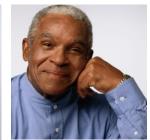












Health literacy challenges can affect people of all **ages**, **races**, **incomes**, and **education levels**¹

However, some population groups are more vulnerable to low health literacy¹

- The elderly (age 65+)
- People with less than high school education
- People living in poverty
- Racial and ethnic minorities
 - Hispanic and black individuals in the US are 3 to 4 times more likely than white individuals to have low literacy skills²
- People with limited English proficiency (LEP)
 - One-third of adults with low-literacy skills are immigrants for whom English is a second language²



US Department of Health and Human Services (HHS). Office of Disease Prevention and Health Promotion. National Action Plan to Improve Health Literacy. Washington, DC: Author. 2010.

^{2.} OECD. OECD Skills Studies. Time for the U.S. to Reskill? What the Survey of Adult Skills Says. OECD Publishing; 2013. http://dx.doi.org/10.1787/9789264204904-en. Accessed March 17, 2016.

Factors Affecting Health Literacy

A person's ability to **find**, **understand**, and **act upon** health information is affected by¹:

- 1 Communication skills of lay persons and health care professionals
- Lack of knowledge about health topics, such as understanding the relationship between lifestyle factors and various health consequences
- A person's embarrassment or shame about their skill level, leading to misunderstandings or patient errors in following instructions
- Demands of the situation or context, such as stressful health events or unfamiliar medical procedures
- Complexity of the health care system, such as difficulty filling out forms, understanding costs, locating services, and accessing and evaluating information on the Internet
- 6 Cultural background and beliefs



The Important Role of Culture in Health Literacy

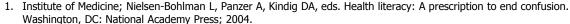




Learning about patients' ethnic backgrounds and cultural traditions should not lead to stereotyping or assumptions, but should help providers deliver good patient-centered care Culture is integral to health communication; health literacy must be understood and addressed within the context of culture and language¹

A person's understanding and response to health information is affected by their^{1,2}:

- Cultural background of both the patient and provider
- Attitudes and beliefs about health and illness
- Social and family influences
- Communication style, eg, native language, the meaning of words and gestures



National Network of Libraries of Medicine. Health literacy. http://nnlm.gov/outreach/consumer/hlthlit.html#Skills_Needed_for_Health_Literacy. Accessed February 8, 2016.



Chapter 2:

Knowledge of Health Literacy



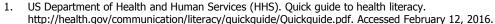
Why Is Health Literacy Important?

Health literacy can affect a person's ability to¹:

- 1 Access health care services
- 2 **Use** services appropriately
- 3 Adopt health-promoting behaviors
- 4 Manage chronic conditions
- 5 Navigate the health care system
- 6 Act on health-related news & information

Poor health literacy...

is a stronger predictor of a person's health than age, income, employment status, education level, and race²



Weiss BD. Health Literacy: Health literacy and patient safety: Help patients understand. The American Medical Association (AMA) Foundation and the AMA. May 2007.



Impact on Prevention and Wellness Efforts

Health literacy is **essential** in efforts to^{1,2}



Encourage use of appropriate preventive measures, eg,
health screenings, mammograms,
recommended vaccinations



Teach patients
about health benefits,
risk factors, and adherence
to treatment plans



Inform and alert the public about important health recommendations



"When people receive accurate, easy-to-use information about a health issue, they are better able to take action to protect and promote their health and wellness."²



- Howard K. Koh, MD, MPH, Assistant Secretary for Health



Berkman ND, Sheridan SL, Donahue KE, et al. Health Literacy Interventions and Outcomes: An Updated Systematic Review. Evidence Report/Technology Assessment No. 199. AHRQ Publication Number 11-E006. Rockville, MD. Agency for Healthcare Research and Quality. March 2011.

^{2.} US Department of Health and Human Services (HHS). Office of Disease Prevention and Health Promotion. National Action Plan to Improve Health Literacy. Washington, DC: Author. 2010.

Connection to Chronic Disease Management

Self-management of chronic diseases

may be challenging for people with low health literacy¹



In 2012,
About 1 out of
every 2 adults
(117 million Americans) had
at least 1 chronic
condition²

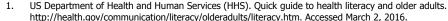


In 2012,
2 out of 3
elderly adults
(aged 65 and older) had
multiple chronic
conditions³



"Without clear information and an understanding of the information's importance, people are more likely to skip necessary medical tests, end up in the emergency room more often, and have a harder time managing chronic diseases such as diabetes or high blood pressure."

 The State of Aging and Health in America 2013, Centers for Disease Control and Prevention



Centers for Disease Control and Prevention. Chronic disease overview. http://cdc.gov/chronicdisease/overview/index.htm. Accessed February 14, 2016.



Centers for Disease Control and Prevention. The state of aging and health in America 2013. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services: 2013.

Impact on Health Care Costs

Low health literacy costs the US economy an estimated **\$106** (lower bound) to **\$238 billion** (upper bound)^{1*}



For example, a health-literate male patient with diabetes would know²:



His cholesterol level, blood pressure, and BMI—and what these mean for his health



How his disease can be managed with proper diet and exercise



What medicines he takes and how to use them safely and appropriately



How to test his blood sugar and what the results mean



How to choose the best health plan, doctor, dentist, and pharmacists

^{*} Based on an analysis of 2006 expenditure data from the Medical Expenditure Panel Survey (MEPS), 2006 US Census Bureau data, and the 2003 NAAL survey of US health literacy levels.



Vernon, et al. Low health literacy: implications for national health policy. The National Patient Safety Foundation. October 2007.

^{2.} Parker RM, Jacobson KL. Health literacy (fact sheet). Emory Schools of Medicine and Public Health. February 2012.

Impact on Adherence

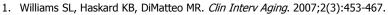


Inadequate health literacy can be associated with **lower adherence to treatment plans,** due in part to poor communication between providers and patients^{1,2}

Clear communication helps people feel more involved in their health care and increases the likelihood that they will follow through on their treatment plans³



A recent study of patients with type 2 diabetes found those with limited health literacy were more likely to be *unintentionally* nonadherent, such as forgetting or having trouble remembering to take medications³



^{2.} Fan JH, et al. *The Diabetes EDUCATOR*. 2016;42(2):199-208.



^{3.} Brega AG, et al. AHRQ Health literacy universal precautions toolkit. AHRQ Publication No. 15-0023-EF. Rockville, MD: Agency for Healthcare Research and Quality; January 2015.

Relationship to Health Disparities

There is a strong correlation between health literacy and health disparities¹

Patients' **cultural and linguistic differences** directly impact their health literacy levels¹

Low health literacy contributes to an increased prevalence of health disparities among vulnerable populations¹



Promoting health literacy is a strategy to both reduce disparities and improve the provision of patient-centered care





Link Between Low Health Literacy and Patient Health Outcomes^{1,2}

Health Care¹

- Increased hospitalization
- Greater emergency department care
- Lower use of mammography

Personal²

- Negative psychological effects, such as shame
- Lower self-confidence to control one's own health behaviors

Health¹

- Poorer ability to demonstrate taking medications appropriately
- Poorer ability to interpret labels and health messages
- Lower overall health status among elderly, eg, physical limitations*
- Higher risk of mortality among elderly*

Societal

- Increased health care costs^{3,4}
- Health disparities⁵

5. Benjamin RM. *Pub Health Rep.* 2010;125(6):784-785.



^{*} Refers to studies of elderly groups with inadequate vs adequate health literacy.1

^{1.} Agency for Healthcare Research and Quality. Executive Summary. Evidence Report/Technology Assessment Number 199. http://archive.ahrq.gov/research/findings/evidence-based-reports/litupsum.pdf. Accessed February 5, 2016.

^{2.} Lee TW, et al. Asian Nurs Res. 2012;6:128-136.

^{3.} Haun JN, et al. *BMC Health Serv Res* 2015;15:249. doi:10.1186/s12913-015-0887-z.

^{4.} Vernon, et al. Low health literacy: implications for national health policy. The National Patient Safety Foundation. October 2007.

Chapter 3:

Strategies for Health Care Professionals



First Steps Toward Improving Patient Communication

Taking steps to assess your practice and raise awareness of health literacy may lead to strategies to help improve communication with patients and help achieve better health outcomes¹



Form a Team



Raise Awareness



Work to Improve Communication

- Form a leadership team to champion health literacy
- Conduct a health literacy assessment
- Develop a health literacy improvement plan

- Understand how it affects patients
- Identify vulnerable populations
- Recognize patient behaviors

- Implement tools to improve communication
- Use Teach-Back method
- Use Universal Precautions



1

Form a Team

Develop a Health Literacy Improvement Plan

In order to identify areas of your practice that are in need of improvement, your health literacy leadership team should¹:

- Conduct a health literacy assessment
- Review results and determine which areas you want to improve
- Select appropriate tools to improve communication with patients, such as:

Examples of Tools to Improve Health Literacy ¹			
Universal Precautions	Teach-Back Method		
Brown Bag Medication Review	Trained Interpreters		
Reminders	Action Plans		
Easy-to-Read Materials	Friendly Environment		
Bulletin Boards	Signs/Visuals		



2

Raise Awareness

Patient Behaviors

Although you cannot look at a patient and assume low health literacy, it is helpful to be aware of some **common patient behaviors that could signal this**¹:



Difficulty completing health forms



Frequently missed appointments



Lack of follow-through with laboratory tests or referrals to specialists



Noncompliance with medication regimens



Inability to list and describe the purpose of prescribed medications





Work to Improve Communication Use Universal Precautions

Universal Precautions are an approach that assumes **anyone** may have difficulty understanding health information¹

Implementing **Universal Precautions** means creating an environment where patients of all literacy levels can understand and participate appropriately in their health and health care^{1,2}

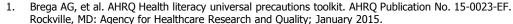


Universal precautions are beneficial for both the patient and the provider



"... while interventions and materials that address health literacy barriers may have greater effects on individuals with limited health literacy, many of those at higher health literacy levels also prefer and benefit from them."²

— US Department of Health and Human Services



 US Department of Health and Human Services (HHS). Office of Disease Prevention and Health Promotion. National Action Plan to Improve Health Literacy. Washington, DC: Author. 2010.



A Systematic Approach to Promote Health Literacy

Practices can focus on **4 improvement areas¹** to enhance clear communication and minimize risks of low health literacy in their patients' care

Four areas of focus:





$oldsymbol{f 1}$

Improve Written Communication Use Plain Language

Use words that people can understand the first time they read or hear them¹ Organize
information so the
most important
points come
first¹

Use simple language, avoid jargon, define medical terms¹

Use active voice, conversational style, short sentences¹



$oldsymbol{f 1}$

Improve Written Communication

Design Easy-to-Read Materials

Use graphics and visuals to enhance understanding^{1,2}

Reading level at 6th grade or
below¹

state content clearly, with essential, rather than "nice-to-know" information^{1,2} Chunk
information,
bullets, clear
headings,
divisions, white
space^{1,2}



^{1.} US Department of Health and Human Services (HHS). Quick Guide to Health Literacy. Fact Sheet. Basics. Available at health.gov/communication/literacy/quickguide/factsbasic.htm. Accessed June 1, 2013.

DeWalt DA, et al. Health literacy universal precautions toolkit. AHRQ Publication No. 10-0046-EF. Rockville, MD: Agency for Healthcare Research and Quality; April 2010.

2

Improve Spoken Communication

Use Teach-Back Method

Studies estimate that:

40% to 80%

of medical information presented by HCPs is **forgotten immediately**¹⁻³

Nearly **1/2** of what is remembered is **incorrect**^{2,3}



The "Teach-Back" or the "show me" method may help²

It is a way for HCPs to confirm that information was explained to patients clearly

Patient understanding is confirmed when patients can explain it back²

- 1. Kessels RP. J R Soc Med. 2003;96(5):219-222.
- Brega AG, et al. Health literacy universal precautions toolkit. AHRQ Publication No. 15-0023-EF. Rockville, MD: Agency for Healthcare Research and Quality; January 2015.
- 3. Anderson JL, et al. *Rheumatology*. 1979;18(1):18-22.





Improve Spoken Communication

Teach-Back Tips

Trying the Method

Plan the approach, use handouts, practice, and assess results **Make it part of the routine**¹

Asking for the Teach-Back²

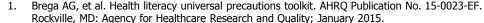
I want to be sure that
I explained your medication
correctly. Can you tell me how
you are going to take
this medicine?

Can you please describe the 3 things you agreed to do at home to help you manage your condition?

I want to be sure I explained everything clearly. Can you please explain it back to me so I can be sure I did?



Teach-Back is **NOT** a test of patients' knowledge. It is a test of how well the concept was explained.²



DeWalt DA, et al. Health literacy universal precautions toolkit. AHRQ Publication No. 10-0046-EF. Rockville, MD: Agency for Healthcare Research and Quality; April 2010.





Improve Self-Management and Empowerment

Help **improve patient self-management and empowerment** by creating an environment that encourages patients to ask questions and get involved in their own care

Some examples¹:

- Encourage patients to write down questions while waiting for their appointment
- Work with patients to discuss their health priorities and develop an action plan to promote behavior change
- **Explain** how to take medications correctly and offer patients assistance setting up a system (eg, reminders)
- **Review** medications with patients at least annually and after any significant medical event to ensure patient is following clinical recommendations





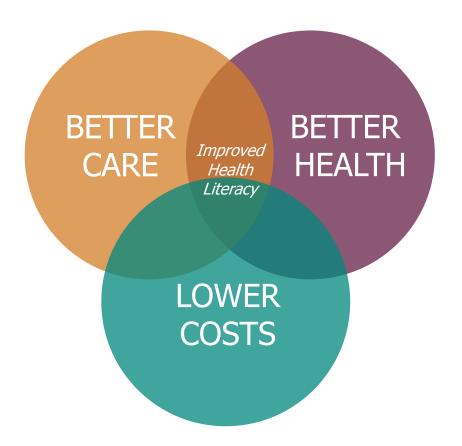
Supportive Systems for Patients

Implement supportive systems for patients to improve health literacy, such as¹:

- Assess patients' language preference
- Communicate in a linguistically and culturally-appropriate manner
- Demonstrate knowledge and sensitivity to patients' cultural beliefs and customs
- Assist patients in finding assistance for medication costs and filling out applications as needed
- Ask patients if they have questions or need extra support
- Confirm (by mail or phone) patient follow-through after a referral is made
- Maintain an updated list of community resources and refer patients as needed



National Quality Strategy Supports Improved Health Literacy



The National Quality Strategy supports improved health literacy to help achieve its three overarching aims* for quality improvement¹:

- Better health
- Better care
- Lower costs

* The National Quality Strategy's three overarching aims build upon the Institute for Healthcare Improvement's **Triple Aim**®

Brands mentioned are the trademarks of their respective owners.



Chapter 4: Health Literacy Case Studies



Health Literacy Case Study #1

- Rhonda is a 23-year-old white female from a small rural community who completed high school, but reads at a 5th-grade level. She speaks rapidly, with a strong accent, and many of her words are not discernable. She prints when writing, with letters often reversed and misspelled. She smokes a pack of cigarettes a day. She brings her 5-year-old son to the clinic because of shortness of breath and wheezing. Her son is diagnosed with asthma, sent home with a nebulizer with albuterol and saline, steroid inhalers, spacers, two oral medications, and a peak flow meter.
- The nurse hands Rhonda a written sheet with medication instructions and reviews the information with her. Rhonda listens attentively, but doesn't ask any questions, and confirms to the nurse that she understands the instructions. She is also advised to stop smoking in the house and near her son, which she says she will do. She is asked to bring him back for follow-up in 1 week.
- Three days after her clinic visit, Rhonda brings her son to the emergency room in acute respiratory distress. She tried to use the nebulizer with albuterol but "it didn't work." She confused the oral medications, giving her son the 2 different pills twice per day rather than 1 of each once per day. Her son's clothing smells like cigarette smoke. Rhonda has no record of peak flow results because she did not use the meter, not remembering why it was needed.





Health Literacy Case Study #2

- Ms. Jackson is a 50-year-old African American woman who works as a school bus driver. She is not married and lives alone, but she has one daughter who lives close by and visits once a week.
- She sees her doctor for a routine physical examination that included a normal breast examination, and a mammogram was recommended. She has never had a mammogram. She has a friend of the same age, who was recently diagnosed with breast cancer after finding a breast lump during a self-exam.
 Ms. Jackson had not found a lump in her breast on self-exam, and her breast examination with her doctor was normal.
- She was surprised when her doctor handed her a referral for a mammogram and told her to go to the front office to make an appointment with Radiology. The front office asked her preferences for the appointment time and confirmed she had transportation. However, on her appointment day, she decided not to show up for her mammogram. She did not discuss this further with her provider.





For Discussion

- ? What are some of the health literacy issues that may have led to this situation?
- ? Were there signs that this patient may not understand the instructions given?
- ? If you were this patient's doctor, how would you handle this situation?
- Plan would you communicate information to the patient about her procedure or medications and negotiate a treatment plan with her?
- What patient support systems could the clinic put in place to improve adherence and outcomes for patients in the future?



Chapter 5:

Commitment From Merck



Merck's Commitment

"Health literacy is vital to achieving the best possible results from medical care, medicines, and vaccines... We must partner with patients to promote their understanding of their medical condition or disease, the reasons they are being treated, and the appropriate use of medications and other treatments. This will result in maximizing the benefit and minimizing issues when using our medicines. Merck is committed to improving health literacy as part of our mission to improve health."

- 2014 Merck Corporate Responsibility Report



Merck's Commitment to Developing Health Literacy Resources

Merck is committed to improving health communication and supporting quality improvement through its efforts to:

- Use a Standardized Health Literacy Approach
- Apply Health Literacy Principles to Patient Educational Materials
- Develop Culturally Appropriate Patient Health Educational Materials
 - Use diversity in images
 - Translate materials into multiple languages
- Develop Customer/Consumer Resources
 - Health Literacy Customer Presentation
 - Cultural Competence brochures for HCPs
 - o Teach-Back Technique Communication Guide for HCPs
 - Merck Connect
 - MerckEngage[®]



Use a Standardized Health Literacy Approach

Merck's **standardized health literacy approach** integrates health literacy principles in the design of patient health education materials, including (but not limited to) the following steps¹:

- Identify the target audience and know their needs, interests, and behaviors
- **Define** purpose and state objectives in the title, cover illustration, and/or introduction
- **Limit** the scope of the content; include "need to know" information relevant to the audience, not "nice to know"
- Focus on concrete behaviors, skills, and instructions
- **Ensure** reading level is appropriate and allows as many people as possible to read and understand the materials
- Write using plain language, conversational style, active voice, simple sentences, short lists, explanations of technical terms and data that are easy to understand
- Choose graphics that are friendly, relevant, action-oriented, and reinforce
 objectives, as well as reflect the age, gender, and culture of the intended audience
- Translate using high-quality translation services and interpretation of content



Apply Health Literacy Principles to Patient Educational Materials

Develop Easy-to-Read Brochures

DIABETES

Diabetes and your eyes

Diabetes can damage your eyes and is the leading cause of blindness among adules.

Diabetes may cause these common eye problems

- Cataracts. These make your vision foggy or cloudy.
- Glaucoma. This is high pressure in your eye. It can also damage your vision.
- Diabetic retinopathy. This is damage to the retina. The retina is a thin layer of tissue covering the back of the eye.

If you have diabetes, be sure to have your eyes checked by an eye doctor at least 1 time every year.



Normal vision



Blurry vision



Vision with retinopathy*

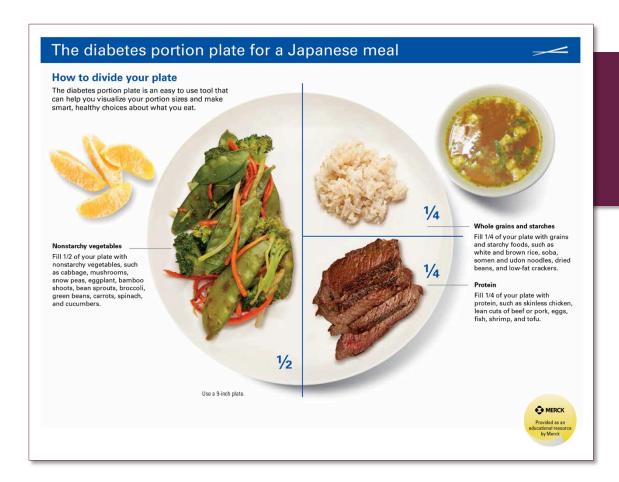
"You may be able to see clearly and still have retinopathy."

The material uses a **visual aid** to illustrate diabetic retinopathy, making a complex topic **easier to understand**



Develop Culturally Appropriate Patient Educational Materials

Use Diversity in Images



Patient brochure depicting a culturally appropriate diabetes meal for **Japanese patients** — in English



Develop Culturally Appropriate Patient Educational Materials

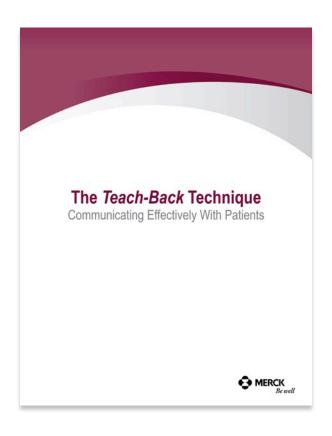
Translate into Multiple Languages



Patient brochure depicting a culturally appropriate diabetes meal for Japanese patients — **in Japanese**



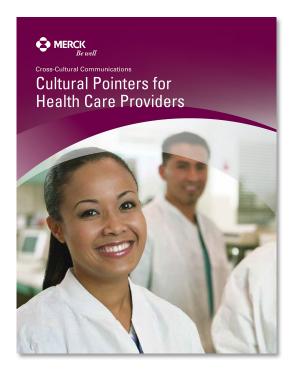
The *Teach-Back* Technique Communication Guide for HCPs

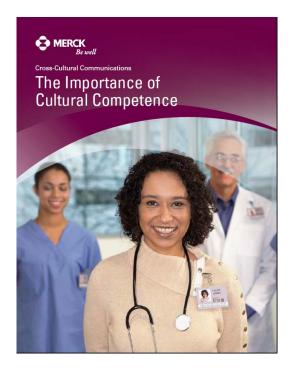


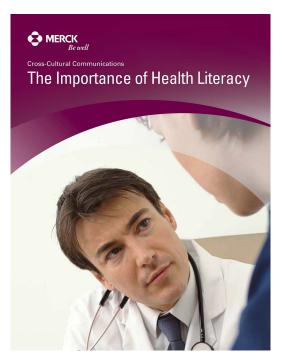




Cultural Competence and Health Literacy Brochures for HCPs







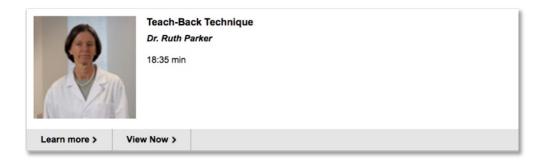


Merck Connect

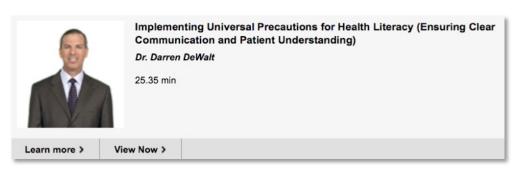


Merck Connect: An integrated suite of resources for health care professionals to provide educational materials, disease state information, patient support content, and product information

An online video by Dr Ruth Parker teaching and modeling the use of "Teach-Back"



An online video by Dr Darren DeWalt that provides tips on implementing **universal health literacy precautions**

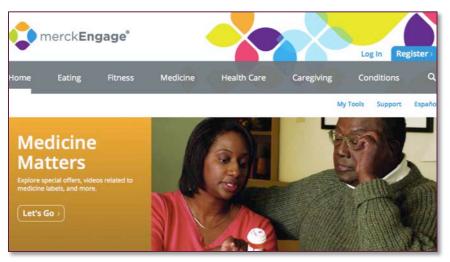




Customer Engagement Platform

MerckEngage.com

In English



In Spanish





Conclusions

- A significant number of Americans have limited health literacy skills, and/or may face health literacy challenges
- Health literacy is essential to prevention and wellness, chronic disease management, adherence, and reducing health disparities
- There is a correlation between low health literacy, higher health care costs, and poorer health outcomes
- There are many strategies HCPs may use with their patients to enhance communication, such as implementing Universal Precautions and using the Teach-Back method
- Merck is committed to creating and sharing customer health communication resources and supporting quality improvement

