



By: Matthew Frese Christina Gallo Andrew Grzybowski Lori Hall Helen Kostarides Lauren Welch



INTRODUCTION

Each day in this country, adults confront health decisions that may have life-changing consequences. However, our ability to obtain and understand health information is severely inadequate. In fact, nearly nine out of ten adults in the United States have difficulty using health information that is routinely available.¹

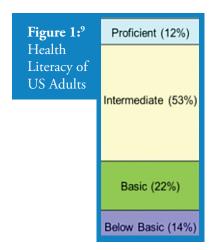
This alarming statistic indicates low health literacy. As originally defined by Dr. Ruth Parker and Dr. Scott Ratzan, health literacy is "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions." ² This definition is accepted by the US Department of Health and Human Services (HHS) and the Institute of Medicine (IOM). Individuals who have low health literacy are less knowledgeable about their health and less likely to use preventative services. They are more likely to have problems with adherence, require hospitalization, and face higher mortality risk. Unfortunately, the majority of adults in the United States currently face this struggle. According to the Department of Education's National Assessment of Adult Literacy, only 12 percent of US adults are sufficiently proficient in health literacy to absorb health information and use it effectively to benefit their health.³

We at Med Learning Group consider the current poor state of health literacy an epidemic that demands our collective attention. Without addressing the low health-literacy rate in the United States, we will not be able to provide the optimal quality of healthcare that all of us in the health professions are striving to achieve. We also believe that managing health literacy is integral to fulfilling the objectives of the *National Strategy for Quality Improvement in Healthcare* (National Quality Strategy), i.e., 1) advancing the overall quality of healthcare by making it more patient-centered, reliable, accessible, and safe; 2) improving the health of the US population through proven interventions to address behavioral, social, and environmental determinants of health; and 3) reducing the cost of quality healthcare.⁴

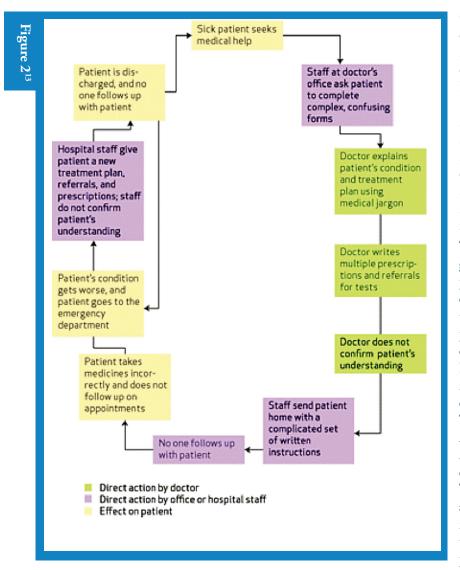
Continuing medical education (CME) has an important role to play in fighting this epidemic by helping healthcare professionals recognize and learn how to manage low health literacy. This white paper will serve as a call to action for CME providers and supporters to bolster their efforts and to become more involved in the campaign to improve health literacy. We will quickly review the clinical evidence supporting health literacy concerns and highlight the important role of CME in health literacy improvement. Furthermore, we will make the case that addressing issues in health literacy provides a unique opportunity for CME to be at the forefront of the National Quality Strategy. Instead of just identifying the need, we will also review a few key components to be included in the design of an effective health-literacy program, as illustrated by a recent successful activity we conducted. Finally, we will address the issue of health literacy from the perspective of an industry supporter.

Health Literacy: An Epidemic

There is an abundance of evidence that health literacy is in fact a problem that needs to be addressed. Citing data from the Department of Education's National Assessment of Adult Literacy, HHS reports approximately 77 million Americans would find common health tasks "such as following directions on a prescription drug label" difficult.⁵ According to the Center for Health Care Strategies, "nearly 36% of adults in the United States have low health literacy, with disproportionate rates found among lower-income Americans eligible for Medicaid," ⁶ and "only 12 percent of adults have proficient health literacy." ⁷ As shown in Figure 1, more than one-third of adults qualify as "basic" or "below basic" in terms of health literacy, "which means they may fail to understand critically important warnings on the label of an over-the-counter medicine." ⁸



According to Dr. Michael Wolf, Associate Division Chief of Research for Internal Medicine at Northwestern University, only 10 percent of the patients leaving a physician's office will be able to follow medication instructions correctly. ¹⁰ Poor communication between physicians and patients combined with low health literacy leads to reduced use of preventative services, low adherence to treatment plans, medication errors, an increase in chronic illnesses, unnecessary trips to the emergency room, and poor responsiveness to public health emergencies.¹¹ These consequences of low health literacy are estimated to "cost the U.S. economy between \$106 billion and \$236 billion annually." ¹² Figure 2 illustrates the cycle of confusion that individuals with low health literacy face and the resulting ineffective and costly healthcare.



Given the current situation, there is no doubt that addressing health literacy needs to be made a priority in this country. With the 2010 Patient Protection and Affordable Care Act (2010 ACA) seeking to extend health insurance coverage to approximately 32 million lower-income adults, the need to address health literacy increases exponentially.¹⁴ Without efforts to improve their health literacy, the newly insured will not be in a position to take full advantage of their coverage.

The good news is that the federal government, in partnership with the private sector and non-governmental organizations, has begun to champion this cause in recent years, establishing a path to improve health literacy across the country. In fact, Assistant Secretary for Health, HHS, Dr. Howard Koh stated in 2010 that "Health literacy is the currency for everything we do."¹⁵ That same year, HHS released The National Action Plan to Improve Health *Literacy* to stimulate a multi-sector campaign to directly address the issue. The strategy employs a systems-based approach to outline steps all stakeholders in the healthcare community should take to improve health literacy and overall patient care.

In addition, the 2010 ACA addresses health literacy as part of its focus on patient-centered care and its requirement that all insurance companies and healthcare providers offer clear, consistent, and easily digestible health information to their customers. In addition, the 2011 National Quality Strategy, which will subsequently be discussed in more detail, sets forth objectives and strategies that will directly lead to greater health literacy, such as improving communication and coordination of care and engaging patients and family as partners in their care.

The term health literacy also considers each person's skills and abilities during his/her interaction with the healthcare system's own demands and complexities. In partnership with these public efforts, multiple industry efforts continue to focus on developing interventions that improve individual skills and abilities to understand and use information to improve health. Attention has recently been focused on efforts to reduce system complexity and encourage healthcare providers and organizations to engage in health-literate practices.

As described below, these policy initiatives also highlight the pivotal role CME plays in improving health literacy and ultimately benefiting patient care. Med Learning Group strongly believes it is the responsibility of the CME community to ride this momentum and develop programs that both recognize and aggressively address this epidemic, currently the "elephant in the room."

A Call to Action

In launching efforts to improve health literacy among the US population, *The National Action Plan to Improve Health Literacy* highlights the importance of CME in health-literacy management. Despite health literacy's impact on patient adherence and health outcomes, HHS explains that "health literacy is a relatively new clinical concept" and "most health care professionals already in practice have not had formal training in improving communication skills." ¹⁶ After years of learning and memorizing complex medical jargon, physicians are then expected to be able to explain symptoms and treatment plans to patients who have no medical background whatsoever.



We agree with HHS that "educators and licensing, credentialing, and accreditation organizations play a unique and critical role in shaping the training and practice standards for all types of healthcare and public health professionals" and "can lead the way in changing the skills and competency of professionals and the organizations in which they practice."¹⁷ As the IOM's Committee on Health Literacy states in its top recommendations for addressing health literacy, "professional schools and professional continuing education programs in health and related fields, including medicine, dentistry, pharmacy, social work, anthropology, nursing, public health, and journalism, should incorporate health literacy into their curricula and areas of competence." ¹⁸ Moreover, it is clear that the US Congress also agrees; Section 5301 of the 2010 ACA seeks to encourage such education around health literacy, providing preference for training grants "for qualified applicants" that "provide training in enhanced communication with patients...and in cultural competence and health literacy." ¹⁹

With all this in mind, we must bolster our efforts to train healthcare professionals in how to recognize low health literacy in patients and to employ the right communication tools to ensure that their patients receive optimal care. We can do this through CME focused exclusively on health literacy, as well as diligently including learning objectives focused on physician-patient communication and patient-centric care in all our CME programs. Such efforts would closely align with the priorities of the National Quality Strategy, placing CME at the forefront of national efforts to improve patient care.

Health Literacy & the National Strategy for Quality Improvement in Health Care: A Unique CME Opportunity

The National Quality Strategy seeks to "promote quality healthcare in which the needs of patients, families, and communities guide the actions of all those who deliver and pay for care." The strategy aims to improve the quality of healthcare in the United States through more patient-centered, safe, and accessible care; to promote healthy communities by addressing environmental determinants of health; and to make care more affordable.

To achieve these goals, the strategy has identified six priorities:

-) Making care safer by reducing harm caused in the delivery of care; 2+2
 - Ensuring that each person and family are engaged as partners in their care;
 - Promoting effective communication and coordination of care;
 - Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease;
 - Working with communities to promote wide use of best practices to enable healthy living; and
 - Making quality care more affordable for individuals, families, employers, and government by developing and spreading new healthcare delivery models.

Health literacy is central to these objectives and priorities. Improving healthcare practitioners' ability to manage patients with low health literacy will encourage more engaged patients and families, effective communication, routine use of preventive medicine, healthy living strategies, and less expensive hospital visits.

2

\$

A central aim of CME is to provide educational opportunities that advance the objectives and priorities of the National Quality Strategy. It is our duty to help healthcare providers develop the skills and obtain the tools necessary to provide more patient-centered, reliable, safe, and accessible care that will improve the health of the US population.

Well-planned educational activities that incorporate health-literacy management tools provide the perfect opportunity for CME to fulfill this responsibility and contribute to overall quality improvement.



Figure 3 outlines specific ways that CME on health literacy can contribute to several of the priorities in the National Quality Strategy.

Figure 3	National Healthcare Strategy Priority	Support Provided by Health Literacy CME
	Making care safer	Educating healthcare practitioners (HCPs) on different ways to manage patients with poor health literacy will better enable HCPs to elicit information about existing conditions and ensure proper diagnosis.
	Each person and family engaged as partners in care	Case-based educational sessions help demonstrate how HCPs can help patients and their families better understand the importance of treatment and encourage adherence.
	Effective communication and coordination of care	CME can teach HCPs various communication methods that more effectively improve patients' medical awareness and coordinate with patients' other care providers.
	More affordable quality care through new healthcare delivery models	By helping patients understand the importance of their treatment, HCPs will improve adherence and reduce the need for unnecessary and costly trips to the emergency room.

Key Components of a Health Literacy CME Program

If we are willing to accept as fact that healthcare practitioners need to be taught how to manage patients with poor health literacy, how do we go about it? The same characteristics that result in successful adult learning also apply here: interactive, case-based, and self-directed education that generates reflection upon one's own practices. Using Med Learning Group's enduring health-literacy program *Bringing Outcomes into Focus: Recognizing and Managing Low Health Literacy*, also known as *Treatment Minutes*, as a case study, we will highlight two key learning principles that we believe particularly apply to the subject of health literacy. These principles drove our program to motivate practice change in ways that contribute to the priorities of the National Quality Strategy. In particular, we will examine the science of implementation and the inclusion of learning techniques that encourage learners to recall what they learned and adopt the recommended practice changes. We will also highlight the power of partnerships with professional societies, patient advocacy groups, and associations for collaboration, validation of content, and access to learners. These implementation tools applied to a health-literacy activity will create an efficacious CME program that addresses the majority of the National Quality Strategy's priorities, as outlined in Figure 3.



Med Learning Group's Treatment Minutes, a web-based activity supported by Eli Lilly and Company's Grants Office, launched on October 30, 2013. It is designed to meet the educational needs of primary care physicians, specialty physicians, and all allied healthcare practitioners who interact with the patient community.

Structured similarly to *60 Minutes*, CBS's well-established documentary show, Treatment Minutes employs a moderator who poses questions to our faculty panel, with patient-clinician vignettes interspersed throughout the hour to demonstrate ways of addressing low health literacy. To ensure audience engagement, participants are asked a series of multiple-choice questions based on the vignettes. We were fortunate to have faculty representing some of the nation's leading health-literacy experts: Dr. Ruth Parker, Professor of Medicine and Pediatrics at the Emory University School of Medicine; Dr. Michael Wolf, Associate Division Chief of Research for Internal Medicine at Northwestern University; and Cindy Brach, a Senior Health Policy Researcher at the Agency for Healthcare Research and Quality (AHRQ). The program also includes a personalized poster portal where participants can design a poster to hang in their office, as well as a downloadable health-literacy toolkit with helpful reminders of clinical pearls and a compiled listing of resources where they can learn more about health literacy.



Treatment Minutes has been our most popular enduring program, with over 12,190 views and 2,470 course completions as of July 2014. Shortly after the launch of this program, the Columbia University School of Nursing contacted Med Learning Group to say that they would be sharing this program with students and practitioners alike. Our outcomes analysis included an assessment of knowledge and competence in health literacy pre- and post-activity and a follow-up behavior modification survey sent 60-90 days post-activity to assess practice change. So far, it has shown strikingly positive results. More than 90% of participants have indicated that they intend to implement practice changes after completion of the course, particularly in the realm of improved physician-patient communication and ways to educate patients about their diagnosis and treatment plan. Of the participants who have completed our follow-up behavior modification survey so far, 81% indicated that they frequently or always ask participants direct questions about clinical information and medication, compared with only 57% of participants in the pretest. Furthermore, over 77% of participants indicated that they have taken steps post-program to create an environment where most or all of their patients feel comfortable discussing health literacy.

In addition, 616 participants chose from a variety of images to personally design posters that were subsequently mailed to them. Based on participant feedback, we understand these posters are being hung in waiting rooms as patient education and in physicians' personal offices and treatment rooms to encourage in-practice reflection of lessons learned. Moreover, 852 participants downloaded the health literacy toolkit to enable them to research ways to overcome particular issues of low health literacy that their individual patients may face.

Of note, we found relatively lower levels of comfort among our participants in areas affecting their ability to provide patients with resources to help guide insurance choices; a key learning objective in our program. There were relatively lower baselines in our pre/post activity questions in this area, and only 46% of responding participants reported they have taken steps post-activity to help patients understand their insurance options. As noted above, with the 2010 ACA seeking to extend health insurance coverage to approximately 32 million lower-income adults, this is a particularly timely and pressing issue.

Based on behavior modification surveys, we have also identified barriers to implementing lessons learned. These include time constraints, number of patients being seen, office hierarchy, practice setting implications such as ICU limitations, difficulty overcoming language barriers, and patients' emotional responses. We are taking these into consideration as we design future health literacy activities. These barriers signal that systems-based education that involves the patient's entire healthcare team would be particularly useful in effecting change.

Overall, we consider Treatment Minutes to be an enormous success that has set the groundwork for Med Learning Group to launch more activities in this crucial area of CME. In the following sections, we will look at two characteristics of the program that we believe profoundly strengthened Treatment Minutes and contributed most to its reach and impact: the science of implementation and the power of partnerships.

The Science of Implementation

Dr. David Peters, Chair of the Department of International Health at Johns Hopkins Bloomberg School of Public Health, commented that implementation research looks at how healthcare policies and programs "work in 'real world' settings" and how to promote the wide-scale use of potential solutions in the healthcare system.²⁰ It is important for CME programs to consider the science of implementation when designing activities. CME should not only introduce solutions to healthcare problems but also offer actual tactics and tools that better enable healthcare practitioners to adopt the solutions in practice.

For CME programs in health-literacy management to effectively result in practice change, they need to go beyond identifying practice gaps and teaching the skills to fill those gaps. We need to incorporate mechanisms that promote the integration of health-literacy management tools into everyday practice. We need to focus on the science of implementation in order to identify those methods that encourage learners to adopt strategies for health-literacy management post-activity.

Developing tools to help practitioners implement health-literacy management techniques post-activity is one way to directly encourage enhanced physician-patient relationships and communication and to improve patient care. As recommended in ACCME's Criterion 17, the inclusion of non-education strategies—e.g., toolkits and personalized posters—serves to reinforce lessons learned. These strategies help physicians reflect on their physician-patient communications—even while actively meeting with a patient—by reminding them to use various tools to address health-literacy deficits. In our experience, such interventions are particularly appropriate for meeting health-literacy educational objectives.

Education in health-literacy management focuses on teaching communication methods that help identify and manage health-literacy gaps. For example, as highlighted in AHRQ's Health Literacy Toolkit, CME can teach physicians to employ the "teach back" method, in which the physician asks the patient to repeat treatment plans to make sure the patient understands. Likewise, CME can encourage the "brown bag medication review," where physicians ask patients with low health literacy to bring their medications to the next appointment so they can review how well the patient is adhering to the treatment plan.²¹

If physicians have a poster on their wall or even just a "cheat sheet" in their portfolio outlining these useful communication tools, they will be reminded to ask the right questions to manage health literacy, even in the middle of a patient visit.

According to feedback from the Treatment Minutes program, participants use the poster and/or the health-literacy toolkit to encourage in-practice reflection on lessons learned and to help inspire better management of health literacy. Other non-educational interventions that could be particularly useful in health-literacy CME are patient education booklets written at a primary-grade reading level and designed for patients with low health literacy; email reminders of the communication tools to be employed; and patient videos that advocate for more understandable advice without medical jargon on issues such as medication doses, long-term treatment plans, and insurance options. By helping learners recall and put into action the communication techniques they have learned, these educational tools directly contribute to the National Healthcare Strategy priority of effective communication and coordination of care.

Power of Partnerships

The high level of public interest in health literacy offers a great opportunity for private-public collaboration in CME. Treatment Minutes would not have been as successful without help from a wide variety of alliances between Med Learning Group, other private companies, and public organizations. First, our partnerships led to educational content that we could trust to be up-to-date and efficacious. Our faculty— the chairwoman of IOM's Health Literacy Committee Dr. Ruth Parker; AHRQ researcher Cindy Brach; and head of Northwestern University's Health Literacy and Learning Program Dr. Michael Wolf—provided valuable, expert perspectives on the educational content. Specialty associations that we asked to review our materials also provided a beneficial validation of the program's utility. Additionally, our partnership with Comcast Productions helped create a high-definition video that users enjoy watching on their own computer monitor.

We are also incredibly grateful to the governmental and educational institutions that promoted our CME activity to attract participants. As previously mentioned, the Columbia University School of Nursing showed immediate interest in the activity, which was subsequently shared throughout their community. In addition, we had strong viewership from staff at Johns Hopkins University of Science, Ethics, and Behavior, who recommended the course to the Johns Hopkins School of Medicine and shared the links to our website. The Ohio State Centers for Disease Control and Prevention (CDC) also posted the activity on its website, and Med Learning Group is in the process of contacting other state CDC officials to also pass it along. Due to our faculty and their positions, we were in a unique situation to have the program offered throughout the AHRQ and IOM memberships/communities. This program was also posted through the University of Miami Health Resources and Services Administration (HRSA)-funded site to 46 other HRSA-recognized educational centers.

Treatment Minutes reached more healthcare practitioners with stronger content than would have been possible without the support of these organizations. Collaborating with organizations that have spent years championing the cause of health-literacy management provides remarkable insights that can be used to design effective health-literacy CME programs that motivate learners to change their practice post-activity. Cultivating such partnerships also helps align CME programs with the National Quality Strategy, which highlights the importance of "public and private collaborations within the healthcare community with the goal of reducing preventable harm."²² As the National Plan for Health Literacy states, "no single group or organization can address health-literacy issues on its own. Initiatives from all sectors must be linked and mutually supportive to achieve measurable improvements in health literacy across all socioeconomic levels."²³ Public organizations such as HRSA and CDC who have a growing number of health-literacy courses available would make great partners for CME providers and supporters who want to begin incorporating learning objectives related to health literacy into their activities.

Support for Health Literacy

We have been fortunate to see support from commercial organizations that recognize the importance of health literacy. For example, with internal strategic discussions and constrained funding resources, Eli Lilly and Company, through Lilly's Grant Office, determined that health literacy was a critical educational gap as healthcare in the United States evolves and supported our Treatment Minutes program. In addition, commercial supporters have begun recognizing the importance of health literacy within their organization. Eli Lilly and Company has begun to identify and examine communication issues during patient experiences throughout the drug development process. Efforts have been made to "unpack" the origins of communication barriers, beginning at the stage of writing risk-management profiles, consenting patients for clinical trials, developing patient Instructions for Use, patient education materials, and language for Frequently Asked Questions given to patients at the Lilly call center. Training and evidence-based resources are helping employees learn to assess and improve their own communications and materials for patients. Pharmaceutical companies are also beginning to participate in national health-literacy initiatives such as the IOM Roundtable on Health Literacy, which brings together leaders from academia, industry, government, foundations, and associations, and representatives of patient interest groups that have a role in improving health literacy. The mission of the IOM roundtable is to engage each sector in actively participating in developing policies, sharing knowledge, and building the skills necessary to create a health-literate society by providing a forum for discussion and exchange of knowledge and expertise.

It is also important to note that health-literacy information and patient communication can and, in our opinion, should be involved in all CME programming. Regardless of the disease state or educational content that the program is covering, the end user of this information is always the patient. With that in mind, it is critical that CME providers always make an effort to understand the patient perspective and address these issues and barriers in our education. The goal is greater patient adherence and compliance, which will assist in optimizing patient care.

CONCLUSION

Poor health literacy is indeed an epidemic in the United States, and it demands our collective attention. The US government, in partnership with private and non-governmental organizations, has made significant efforts to draw attention to our low health-literacy rates and to improve the ability of adults to absorb public health information, access care, and understand professional medical advice. Managing health literacy is essential to achieving the objectives of the National Quality Strategy. We will not be able to provide high-quality, patient-centered care or reduce the exorbitant costs of unnecessary emergency room visits without improving health literacy and health-literacy management.

To succeed, all members of the healthcare team need to know how to recognize patients with low health literacy and to manage their communication and coordination of care accordingly. We at Med Learning Group consider it our responsibility as a CME provider to both conduct health literacy-focused CME programs and include health-literacy management and improved clinician-patient communication as learning objectives across all of our activities. Teaching about diagnosis techniques, treatment options, and clinical trials is much more effective if paired with education on how to encourage adherence among patients with low health literacy.

From our experience, CME programs on health literacy can result in very significant practice changes and improved clinician-patient communication. Partnering with private companies, public organizations, and specialty associations that have produced ground-breaking research in the management of health literacy leads to highly effective content and significantly extends the reach of our CME programs. In addition, the inclusion of non-educational interventions such as posters and toolkits with communication tips in our CME activities encourages recall and therefore better management of health literacy in practice.

As a CME community, we must collectively continue to address this important issue across our CME platforms and in turn contribute to the fundamental objectives of the National Quality Strategy. As a community, we will reach a common goal if we forge partnerships with CME companies, commercial supporters, the US government, private companies, non-governmental organizations, patient advocacy groups, and public organizations to work toward this important goal.

A DIVISION OF ULTIMATE MEDICAL ACADEMY

References

1. L. Neilsen-Bohlman, A.M. Panzer, and D.A. Kindig. Health literacy: A Prescription to End Confusion. *National Academies Press*. Washington, DC, 2010. p. 1.

2. Ibid., p. 5.

- 3. H. K. Koh, D. M. Berwick, C.M. Clancy, et al. New federal policy initiatives to boost health literacy can help the nation move beyond the cycle of costly "crisis care." *Health Aff.* 2012;31:434-443. Available at http://content.healthaffairs.org/content/31/2/434. full?ijkey=HfkOgU2splhhQ&keytype=ref&siteid=healthaff
- 4. The Department of Health and Human Services (HHS). 2012 Annual Progress Report to Congress: National Strategy for Quality Improvement in Health Care. U.S. Government Printing Office. Washington DC, 2012. p. 6.
- 5. The Department of Health and Human Services. *America's Health Literacy: Why We Need Accessible Health Information* (Undated). Available at www.health.gov/communication/literacy/issuebrief/.
- 6. R. Mahadevan. *Health Literacy Fact Sheets*. Center for Healthcare Strategies, Inc., 2013. Available at www.chcs.org/resource/ health-literacy-fact-sheets/.
- 7. S. A. Somers and R. Mahadevan. *Health Literacy Implications of the Affordable Care Act*. Center for Healthcare Strategies, Inc., 2010. p.5. Available at www.iom.edu/~/media/Files/Activity%20Files/PublicHealth/HealthLiteracy/Commissioned-Papers/Health%20 Literacy%20Implications%20of%20Health%20Care%20Reform.pdf
- 8. Koh H K et al, 434-443.

9. National Center for Education Statistics. National Assessment of Adult Literacy (NAAL). Available at http://nces.ed.gov/naal/.

- 10. R. Parker, C. Brach, and M. Wolf. Bringing Outcomes into Focus: Recognizing and Managing Low Health Literacy in Primary Care. Med Learning Group. Available at www.medlearninggroup.com/cme-programming/bringing-outcomes-into-focus-recognizing-and-managing-low-health-literacy-in-primary-care/
- 11. Neilsen-Bohlman et al, pp. 9-10.
- 12. Health Literacy. NIH Clear Communication, 2014. Available at www.nih.gov/clearcommunciation/healthliteracy.htm
- 13. Koh H K et al.
- 14. Somers and Mahadevan, p. 4.
- 15. Mahadevan R, pp. 11-12.
- U.S. Department of Health and Human Services (HHS). National Action Plan to Improve Health Literacy. Washington, 2010. pp. 25-26.

17. Ibid., p.26.

18. Nielsen-Bohlman et al. p. 20.

- 19. U.S. Senate. *Patient Protection and Affordable Care Act*, HR 3590. Government Printing Office, 2010. Sec. 5301. Available at www.govtrack.us/congress/bills/111/hr3590/text.
- 20. D. H. Peters, T. Adam, O. Alonge, I. A. Agyepong, and N. Tran. Implementation research: what it is and how to do it. BMJ. 2013;347:f6753. Available at: www.bmj.com/content/347/bmj.f6753

21. D.A. DeWalt, L.F. Callahan, V.H. Hawk, et al. Health Literacy Universal Precautions Toolkit. Tool 8. Prepared by North Carolina Network Consortium, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill, for the Agency for Healthcare Research and Quality, April 2010. Available at www.nchealthliteracy.org/toolkit/ tool8.pdf

22. HHS, Annual progress report, p. 1.

23. HHS, National action plan, p. 6.

