# Health Literacy: Improving Healthcare Quality and Access

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Joel E. Davidson, MA, MPA; and Robert J. Alpino, MIA

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Health Literacy

Joel E. Davidson, MA, MPA; and Robert J. Alpino, MIA

The theme of this issue of the Journal of the National AHEC Organization is AHECs and Health Literacy: Improving Healthcare Quality and Access. The AHEC mission is “to enhance access to quality health care,” so the health literacy theme is directly relevant to the work that each of us in AHEC undertakes every day.

The Institute of Medicine (IOM) defines health literacy as: “The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” The IOM, in its comprehensive 2004 study and compilation of the literature, reported that nearly half of all adults in the United States—about 90 million people—have trouble understanding what they are told by their doctors or other health professionals or how to obtain and utilize information about their health.

Health literacy is a vital contributor to achieving quality health care and subsequent positive health outcomes. Numerous studies have found that individuals with low health literacy are much less able to undertake behaviors that would result in receiving quality healthcare services and achieving positive health outcomes. More specifically they:

- Do not seek preventive care
- Are less likely to follow prescribed treatments
- Are at increased risk of hospitalization and stay in the hospital longer
- Have fewer self-management skills and are, thus, less able to manage chronic health conditions
- Make more medication errors

As for successfully achieving access to healthcare services, individuals with low health literacy levels lack sufficient skills to successfully navigate or negotiate the increasingly complicated healthcare system. How can individuals be expected to manage their health care if they are unable to fully participate in the arcane world of assessment, diagnosis, treatment planning, medication management, informed consent, discharge instructions, and prevention and health promotion? Even the most highly literate members of our society have difficulty navigating the healthcare delivery system, let alone those supported by the healthcare safety net.

The two lead articles in this issue suggest ways in which AHECs can help the nation face its health literacy challenges. Dr. Cynthia Baur of the Centers for Disease Control and Prevention (CDC) discusses how the unique attributes of AHECs make them well-positioned to tackle the nation’s health literacy problem by undertaking activities related to the forthcoming National Action Plan to Improve Health Literacy to be issued by the U.S. Department of Health and Human Services. Several AHEC programs are already well on their way in their health literacy efforts. In the second lead article, Dr. Sandy Cornett and her colleagues discuss how the Ohio State University AHEC Program developed its Clear Health Communication Program and incorporated these concepts into existing health science curricula and into a distance education program for practicing professionals.

The articles in this issue highlight numerous ways in which AHECs are tackling the pervasive problem of health literacy and are making a difference. Several AHECs are approaching the issue by providing practicing health providers and health professions students information on the health literacy challenge. Other AHECs are providing direct services to community members to educate them about how to better take control of their personal health care and how to navigate the healthcare system. Others are weaving health literacy themes into health promotion materials geared for non-English speaking audiences. We know that you will find these examples to be both inspiring and useful as you create or reinvigorate your own health literacy programs.

To assist you further in this regard, the centerpiece of this issue constitutes a Health Literacy Toolkit with a multitude of health literacy resources identified and classified for your use and information. In an effort to make the Journal quasi-interactive, a link to the NAO Web page has been provided in the centerfold so that you will be able to hotlink from the NAO Web page to the resources identified, thereby sparing you the need to type in the various URLs provided.

At the back of this issue you’ll find a two-page summary of the CORE annual report data. The full report is available for purchase from NAO.

You will also notice that we have changed the name of this publication from The National AHEC Bulletin to the Journal of the National AHEC Organization. We’ve done this to reflect the evolution of the publication—from its conception to its current form—to what we hope to become, which is a peer-reviewed publication. We couldn’t have done this without the tremendous support we have received from our readers and contributors and the articles that you’ve submitted over many years.

Finally, as this issue was going to print, we learned the sad news about the untimely passing of our Connecticut AHEC colleague, former NAO President and good friend to the National AHEC Bulletin, Charles Gardiner Huntington III, PA, MPH. We have included a tribute to Charles in this issue.
Anyone who had the privilege of working with Charles “Charlie” Huntington knows what a tragedy his sudden death means to colleagues, students, and family members. Charles, former NAO president and board member, died unexpectedly on December 27, 2009 after returning from a family vacation in Prague. His death has robbed the world of an extraordinary human being, academician, and advocate for the underserved.

Born into a “health care family,” Charles grew up in Rye, NY, just north of New York City. Tall, smart and athletic, he gravitated to both academics and sports in high school and college, and captained his high school football, basketball and track teams. After completing his undergraduate degree at Williams College, he eventually graduated from Wake Forest College Physician Assistant’s program, and following his passion, joined a practice serving the underserved in rural Hermon, NY, on the Canadian border. For 10 years, Charles did house calls, office visits, and general advocacy for patients and physician assistants. In 1977, he was elected president of the New York State Academy of Physician Assistants and later became the president of the American Academy of Physician Assistants in 1983. In 1986 Charles left for Washington, D.C. to complete a Master’s degree in public health at George Washington University, and later finished all his course work for a Doctorate in Public Health at the University of Michigan. In 1996 he came to the University of Connecticut School of Medicine as an assistant professor and the Associate Director of the Connecticut Area Health Education Center (AHEC) Program.

As the Associate Director, Charles worked closely with colleagues both in and outside of the state to address health disparities, promote workforce development, and create pipeline programs. He held leadership positions within the University of Connecticut, the Connecticut Center for Public Health and Health Policy, and the Connecticut Public Health Association. His passion and commitment drove Charlie to leadership in AHEC. Kathy Vasquez, Director, Ohio Statewide AHEC Program, credits Charlie as being responsible for moving the NAO to more professional advocacy for the organization. “I worked with Charlie for a few years on the NAO Public Policy Committee, and having not had much experience at all in that area, did a lot of watching and listening. Charlie was mentoring, whether he was aware of it or not.” John Blossom, MD, Project Director, California AHEC Program, remembers Charlie as “being a fine role model encouraging participation, offering wise suggestions, and dealing with the more trivial arguments that seemed to occur. His experience working with the American Academy of Family Physicians (AAFP) contributed to Charlie’s wise perspectives.” Others have echoed this sentiment, noting that Charlie was a tremendous asset for NAO in designing and implementing an AHEC advocacy message and tactics which became the foundation for NAO’s work with Dale Dirks at the Health and Medicine Counsel of Washington. Charles and Dale worked together for about two decades on legislative and policy issues of importance to the NAO and the AAFP. Dale remembers Charlie as being highly focused and dedicated to his work, “… yet I admired his ability to balance his professional effort with dedication to his great family.”

Dr. Tom Bacon, Program Director, North Carolina AHEC, recalls Charlie as “an insightful and inspiring leader of the AHEC movement nationally. In the early years of NAO he and a few other key people nurtured the new organization and gave it some of the structure that serves it so well today. He was always so professional in everything he did it helped to give legitimacy to our work and to our relationships with other national organizations. If he was speaking for us, we knew we would be heard.”

Steve Shelton, Program Director, East Texas AHEC, commented that Charlie’s physical presence, style and charisma made it easy for him to serve as a spokesman. “His words carried an important and compelling message, delivered with fluency, poise and dignity.” Bruce Gould, MD, Director of the Connecticut AHEC Program and long-time colleague, described Charlie as a “complex human being, at times tough to figure out. Just whether to call him Charles or Charlie at a particular moment in time was a Gordian knot. He looked ‘patrician,’ like the CEO of a Fortune 500 company, always dressed impeccably in his monogrammed shirts, matching tie, and collar stays … yet he was in all ways a ‘man of the people’ with a deep-seated and passionate commitment to social justice and equality.”

Charles “Charlie” G. Huntington touched a countless number of individuals throughout his life in very positive ways. He will be sorely missed by the NAO community and the greater AHEC family-at-large. Connecticut AHEC has established a memorial fund in Charlie’s memory through the University of Connecticut School of Medicine. Checks should be made out to: University of Connecticut Health Center Charles Huntington Memorial Fund and sent to: Connecticut AHEC, University of Connecticut Health Center, 263 Farmington Ave., MC2928, Farmington, CT 06030-2928.
AHEC’s Vital Contribution to the National Agenda for Health Literacy

Cynthia Baur, PhD

Background

We are surrounded by jargon, confusing and unfamiliar situations, and complex decisions on a daily basis. Educators, mortgage brokers, auto repair shops—they all seem to have their own language and their own world view to which they expect us to adapt. Didn’t understand what the head of instruction at your child’s school meant when she said, “Oh, you’re asking about leveling?” Too bad, it’s your responsibility to say, “I’m sorry, I don’t understand what that means. Where are you placing my child?” How about those home loan documents? Not so easy to know what you’re committing yourself to, and thousands and thousands of dollars are at stake. The mechanic tells you the whatsis has to be replaced with the thingamabobber. Don’t know what that is, either. And it’s going to cost $1,000. Again, too bad, your fault. Look at the owner’s manual. Sound familiar?

So, why care about health literacy? The fact that the health field is filled with technical terms, difficult forms, and complex calculations is hardly new or unique. Yes, some of the consequences can be very severe if we or someone we’re depending on gets it wrong. But severe consequences aren’t unique, either. And not everything about health is difficult to understand. There are some topics, such as the dangers of tobacco and the need to eat more fruits and vegetables or wear a seatbelt, which have been clearly explained.

We know limited health literacy has many types of costs—financial, social and human. Many people are anxious to pinpoint a single cost number to cite. The thinking goes, if we just could tell policymakers the extra financial costs of limited health literacy to individuals or hospitals and clinics or Medicare and other health plans, then they’d pay attention. Estimates of the financial costs associated with persons of limited health literacy have been in the billions and trillions of dollars (Vernon, Trujillo, Rosenbaum & DeBuono, 2007). There are many assumptions, however, in the models for financial costs, and the cost numbers are projections based on these assumptions, not actual cost calculations. Limited health literacy is a complex phenomenon. We need sound models that reflect this complexity to measure additional costs and the cost savings if we make needed changes.

The National Action Plan to Improve Health Literacy

The yet-to-be-released draft National Action Plan to Improve Health Literacy, sponsored by the U.S. Department of Health and Human Services (HHS) Health Literacy Workgroup, answers the question: Why be concerned about health literacy? When national population data show that 9 out of 10 English-speaking adults would have trouble doing calculations using a health insurance table, then it’s time to pay attention (Kutner, Greenberg, Jin, & Paulsen 2006). The National Action Plan makes the case for health literacy as a major public health issue and suggests goals and high-priority strategies for organizations, professionals, communities, and individuals. The plan is based on the Healthy People 2010 health literacy objectives; an earlier action plan from 2003 in “Communicating Health: Priorities and Strategies for Progress;” the Surgeon General’s Workshop on Improving Health Literacy in 2006; and a series of town hall and stakeholder meetings from 2007-2009.

Offering a vision, seven overarching goals (please refer to the text box on the next page), and multiple strategies, the Plan provides a framework for public and private sector organizations, communities, and individuals to think about and identify how they can contribute to health literacy improvement. Consistent with the Institute of Medicine (IOM) report on health literacy, the plan asserts that a health-literate society is possible if we all work together in a linked and mutually reinforcing way (Institute of Medicine Committee on Health Literacy, 2004). High-priority strategies by sector and profession outline how progress can occur.

One of the challenges of drafting a plan is the complexity of the health literacy concept itself. Just as we sometimes struggle with medical jargon, it can be a struggle to find the words to explain health literacy issues fully. Health literacy sits at the intersection of multiple social systems and factors: public health, health care, education, the economy, and communication in all its forms—mass, organizational, cultural and interpersonal. Deciding which factors to highlight and how to describe them individually and in relation to each other in a coherent and accurate way is not an easy task. In other words, what we lack is a grammar and a vocabulary for health literacy as a social priority and an area of investigation and practice.

In a modest way, the draft Action Plan is a first step toward building the framework for thinking and talking about health literacy. As organizations and professional
groups review the Plan's goals and strategies, they will, in their own circumstances, begin to try out a grammar and vocabulary. As they connect with other groups, both similar to and different than themselves, they can propose, test and refine these ways of thinking and talking about health literacy.

The draft Action Plan hopes to motivate organizations, professional groups, communities, and individuals to take positive action steps to improve health literacy. The expected results of striving for the goals and implementing the strategies in this Plan are more usable health information; more cost-effective, equitable, safer and higher-quality healthcare services; and, eventually, improved health outcomes. Organizations and professional groups can adapt the strategies to their situation and decide on specific actions they will take. The Plan can be used by professionals and by public and private sector organizations; communities; and policymakers. They are the ones who can develop plans, identify and adapt strategies, take actions, and evaluate progress toward a health-literate society. It also includes action steps for individuals and families to take on their own or in collaboration with groups in their communities. Every organization and professional group involved in the development and dissemination of health information and services should have specific goals, objectives, strategies, policies, guidelines, and metrics to ensure their actions contribute to health literacy improvement. Some groups may have a bigger role than others, but all will have a contribution to make.

Numerous professional organizations, including the American Medical Association, the American College of Physicians, the American Dental Association, and the Association of Clinicians for the Underserved are central actors in the health literacy Action Plan. They have called for training the healthcare team in health literacy skills, both in the clinical setting as well as in public health work. These organizations recognize the importance of ensuring all healthcare workers have the skills in clear communication to connect effectively with patients and families. The Health Resources and Services Administration has made improving clinical communication skills a priority and provides free health literacy training with continuing education credits (see the article by Kwon et al. in this issue) at www.hrsa.gov/healthliteracy/training.htm. The associations and organizations listed above also know that the entire practice environment must be re-oriented to be patient-centered to eliminate the barriers of shame, confusion and misunderstanding that too often are part of the healthcare experience. The counterpart in public health services is to be truly public-centric. The public health community must ensure that health information and recommendations are clear and actionable, and information-related barriers that limit the use of health services are removed.

The seven proposed goals of the draft of the National Action Plan to Improve Health Literacy are the following:

1. Develop and disseminate health and safety information that is accurate, accessible and actionable.
2. Promote changes in the healthcare system that improve health information, communication, informed decision-making, and access to health services.
3. Incorporate accurate, standards-based, and developmentally appropriate health and science information and curricula in early childhood through university-level education.
4. Support and expand local efforts to provide adult education, English language instruction, and culturally and linguistically appropriate health information services in the community.
5. Build partnerships, develop guidance, and change policies.
6. Increase basic research and the development, implementation and evaluation of practices and interventions to improve health literacy.
7. Increase the dissemination and use of evidence-based health literacy practices and interventions.

The Role of AHECs in Creating a Health-Literate Society

AHECs have a critical role in accomplishing the Plan's goals to achieve a health literate society. AHECs can support health literacy training of the healthcare team, a key strategy in the Action Plan. They also can work with local healthcare organizations to assess their mix of health
AHEC's Vital Contribution to the National Agenda for Health Literacy

information and services from a health literacy improvement perspective and identify and remove barriers.

AHECs also can help identify the best ways to meet the health literacy challenges facing specific communities and groups of individuals. The Action Plan calls for individuals, families and communities to demand clear communication from health professionals and organizations. AHECs can help organize these groups and help advocate for clear communication from hospitals, clinics, public health officers, and other information and service providers. Individuals from all segments of the community can be recruited by AHECs to provide feedback on draft messages and materials and offer suggestions on the best ways to ensure reach into communities, especially those communities in which English is not the first language. In addition, AHECs can help build local partnerships and coalitions with health literacy improvement as a focus as well as interject health literacy efforts into existing partnerships and coalitions. Every existing effort focused on a specific health topic or affected population group would benefit from a hard look at how health literacy is influencing effectiveness and health outcomes.

The Next Steps
Creating a health-literate society is a daunting challenge. Health literacy improvement isn't yet as easy, cheap or fun as our social marketing colleagues would like it to be. However, we could make it so. Once AHECs set their sights on the really big goal of a health-literate society (and many of them already have, as noted in this edition of Journal of the National AHEC Organization), they can take steps of all sizes toward achieving it, and can certainly make it easier, cheaper, and more fun to take the steps. The National Action Plan is a great first step. Organizations, such as AHECs, can take the next steps by adopting goals from the Plan and taking specific actions. The U.S. healthcare system has accepted the barriers, misunderstandings, and human consequences of the current system for too long. The National Action Plan to Improve Health Literacy calls us to work together in a linked and mutually reinforcing way to change the ways we communicate about health. Now, let’s get going!

REFERENCES


Educating Health Professionals about Health Literacy

Sandy Cornett, PhD, RN; Terry Bahn, EdD; and Angela Street-Underwood, MSA

The Clear Health Communications Program (CHCP) at the Area Health Education Center at The Ohio State University (OSU AHEC) was developed in response to the challenge of an emerging area of need in health care—health literacy. Through the CHCP, a series of asynchronous health literacy professional development materials are now available to health care providers and public health professionals via the World Wide Web.

Background

One of the Healthy People 2010 objectives is to “improve the health literacy of persons with inadequate or marginal literacy skills.” (United States Department of Health and Human Services, 2000). In October 2000, during National Health Literacy Month, the OSU hosted a health literacy seminar for leaders from state government, legislative bodies, academic programs, health-related associations, and relevant businesses and industries. The primary goal of the seminar was to heighten awareness and to generate support for health literacy concerns in Ohio.

Based on the success of the seminar, Sue Stableford, Director of the Health Literacy Institute at the University of New England, was brought to campus in April 2001 (see companion article on p. 7) to provide an overview of health literacy to the OSU health sciences colleges and schools, the OSU Medical Center, leadership from the seven Ohio AHEC regions, representatives from geriatrics/gerontology, and a statewide Health Science Library Consortium. Participants were surveyed to determine perceived needs in the areas of training and research in health literacy.

With this momentum, the Ohio Health Literacy Initiative (OHLI) was created in September 2001 to serve as the hub of health literacy activities within the Ohio AHEC system and to provide the administrative and educational leadership for coordinating the OHLI. The impact of low health literacy on health disparities and access to health care, both core AHEC mission areas, stimulated the need to further investigate strategies to meet the challenges of low health literacy. It was learned that one out of five American adults reads at the 5th-grade level or below, that the average American reads at the 8th- to 9th-grade level, yet most healthcare materials are written above the 10th-grade level (Doak, et. al., 1996).

Studies demonstrated to us that literacy skills are a stronger predictor of an individual’s health status than age, income, employment status, education level, or racial/ethnic group (Weiss, 2003). Individuals often need help understanding healthcare information, and, regardless of reading level, patients prefer medical information that is easy to read and understand. The emphasis in the literature on readability, which broadened over the early part of the new decade, influenced the OSU AHEC in 2007 to change its name to the Clear Health Communication Program (CHCP). The new title underscores the need for both clarity of message from the healthcare professional and improved understanding by patients.

Researchers have long understood that high-quality patient-provider communication is a key determinant of a patient’s health (Schillinger, Bindman, et. al., 2004; Schillinger, Piette, et. al., 2004). Moreover, low health literacy is an enormous cost burden on the American healthcare system; annual health care costs for individuals with low literacy skills are four times higher than those with higher literacy skills (Weiss, 1999). Patients with low health literacy and chronic diseases, such as diabetes, have less knowledge of their disease, its treatment, and fewer correct self-management skills than health-literate patients (Williams, et. al., 1998). The focus on educating health professionals in clear health communication is vital to eliminating health disparities in Ohio communities.

Expanding on its original goals, the mission of the CHCP is to: (1) develop a statewide collaborative approach to educate health professions students and practitioners about health literacy; (2) develop research in health literacy; and (3) establish health literacy consultative services to healthcare organizations.

The CHCP vision is consistent with the Ohio and national AHEC goal of “connecting professionals to communities and communities to better health.” This approach to educating health professionals about health literacy will help close the gap in patient-provider communication. In part, this will be accomplished through a distance education program and in demonstrating how health literacy can be integrated into health sciences curricula.
The Maine Grandmothers of AHEC Health Literacy Efforts

Sue Stableford, MPH, MSB

In the late 1980s, I was a Maine AHEC Health Educator not in search of a mission, because I thought I had one. I roamed our large state, bringing enlightenment about patient education and new materials to our rural physician preceptors and medical students. The physicians were glad to get new resources, but over and over again I heard the same refrain: “Our patients need information, but they can’t read these long, complex materials.”

So, I promised to find easier-to-read materials and send them along. I contacted colleagues in the state health department, voluntary health organizations, and federal health agencies—and came up empty handed. Plain-language health materials didn’t exist in 1989 with a few rare exceptions, although everyone I contacted said they wanted them.

When I reported the problem as unsolvable to the AHEC Director, Dr. Shirley Weaver, she decided it was an opportunity. We would start solving it. I was flabbergasted and flummoxed. What could our small AHEC do with limited resources and an insignificant rural population?

Serendipity came to the rescue. I had discovered the one relevant book on the topic, Teaching Patients With Low Literacy Skills, and kept it close at hand. A colleague mentioned that the late Dr. Jane Root, one of the authors, lived in Maine—which I doubted very much. But, I found her name in the phone book and dialed the number. When a cheerful voice answered, all I could stammer was: “Is this the real Jane Root?”

Yes, it was—and the rest, as they say, is history. Thanks to the encouragement and grant writing skills of Shirley Weaver and the generous spirit of Jane Root, who signed up for a fifth career, we launched the Maine AHEC Health Literacy Center. We formed a coalition of Maine health organizations who wanted to develop reader-friendly materials for their constituents, and Jane taught them how to do it. Local success led us to find out if others around the country might want the same training. So, we offered the first national Health Literacy Summer Institute. The response was overwhelming.

Keep in mind that data from the first national literacy survey was yet to come. In 1993 when it was released, it became clear why so many adults had difficulty with health information written at high school and college reading levels. Almost half of American adults had limited literacy skills. This, we thought, would create a seismic change in how public health and medical organizations communicated with the public. But, it didn’t. The Maine AHEC was a voice in the wilderness for many more years before health literacy and plain language were recognized as critical issues in health communication and health outcomes.

Now many AHECs as well as national policy bodies, public health agencies, voluntary health organizations, healthcare delivery systems, health professional groups, and others advocate for user-friendly information, whether in print, on the Web, or in other media. Tackling health literacy is recognized as critical in addressing other high-priority health issues, including chronic disease prevention and management, disaster preparedness, disparities reduction, improving the safety and quality of care, and reducing costs.

So, let us honor Shirley Weaver and Jane Root as the grandmothers of the AHEC contributions in this field and the forebears of many current practitioners and researchers. Their early energy and efforts, along with others who followed their lead, have brought us to a tipping point in which health literacy and plain language are acknowledged as critical to the health agenda and the health of all.
students in the health professions have had health literacy training in the past seven years through workshops or classes conducted by the Director of the OSU AHEC Clear Health Communication Program. Scheduling limitations for on-site training, however, have precluded us from accepting all the requests and thus from reaching an even larger audience. Addressing this need, a series of web-based, interactive health literacy modules was developed, with approvals for continuing education credits from several health professions secured or pending as of this writing. The challenge was to design the modules with "hands-on" learning elements. Interactivity in the computer-based content was essential to keep interest high and give the learner opportunities to apply the information.

Module Design
Each module has a “Home Page,” which provides a brief introduction to the content to gain the learner's interest. This is followed by “Learning Objectives” and a “Background” section, which frame the content presented in the “Lessons” that follow, much like a lecture in the traditional classroom. Several interactive exercises employing multi-media are presented to engage the learners in health literacy assessment strategies and to provide a "hands-on" learning experience. Learners progress through the “Lessons” at their own pace with the ability to exit the module at any time and return later to the same location. Additionally, each Lesson requires the participant to correctly answer a “How Are You Doing?” question before gaining access to the next Lesson. Learners complete a 12-item “Post Test” to demonstrate mastery of the content. Once the “Post Test” is completed satisfactorily, participants complete a module evaluation and print a Certificate of Completion.

Outcomes
While the distance education materials have just been available since April 2009, a number of health sciences faculty and healthcare professionals have completed and provided feedback concerning one or more modules. As of this writing, 59 individuals completed an online assessment of their reactions to the overview module, “Health Literacy: It’s Time to Take it Seriously.” Fifty-three provided feedback specifically about the online method of content delivery, indicating that they either agreed or strongly agreed with the question, “Was the module format easy to understand and navigate?” To the question “Will the knowledge you gained from this module help you serve others more effectively?,” 58 agreed or strongly agreed.

Respondents were asked to cite one thing they planned to do differently at work as a result of completing this module. Forty offered comments in response to this item, and the open-ended responses were grouped into themes. One repeated theme, increased sensitivity to the issue of low literacy in working directly with patients, was cited by thirteen respondents. Typical of comments in this group was this comment: “[I will] Ask patients to explain their ‘home program’ to me before they leave so that I am sure they understand how to perform the exercises correctly.” Another group of module completers (11) commented about revising existing materials or writing new patient education materials to make them more understandable to patients. One commented, “I will revise our written hand-outs for patients into plain language.” Another wrote, “[I will] review written material given to patients and ensure understanding.” Health sciences educators having completed this module planned to incorporate health literacy into their curricula. One educator wrote that she would “explore developing health literacy curriculum at my College.”

Table 1. Learning Objectives Can be Incorporated Into a Teaching Plan

<table>
<thead>
<tr>
<th>Objective</th>
<th>Content</th>
<th>Learning Activity</th>
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<tbody>
<tr>
<td>Describe the health literacy problem in the U.S. and the mismatch between public reading levels and most health materials.</td>
<td>A. Definition of general literacy and health literacy B. 2003 National Assessment of Adult Literacy (NAAL) study results for general and health literacy C. Populations at risk D. Reasons for low literacy E. Reading levels of most health materials</td>
<td>DVD of vignettes of persons with low health literacy with discussion of coping strategies they use. Identify barriers to access, diagnosis, treatment, and self-care.</td>
</tr>
<tr>
<td>Assess a patient’s ability to read, understand and act on health information.</td>
<td>A. Characteristics and behaviors of poor readers B. Observations to make C. Questions for assessing low health literacy—social history, medication review D. Screening tools—Newest Vital Sign (NVS), Single Item Literacy Screener (SILS), Listening Test</td>
<td>Administer the NVS and make observations of patients at a clinic; Simulated experience of a poor reader; Develop a list of questions for a listening test.</td>
</tr>
</tbody>
</table>
Educating Health Professionals about Health Literacy

The “Data for the Aging” module was similarly well received as 37 of 44 responders found the online format to be easy to understand and navigate, and 42 would utilize the knowledge from the module to better serve others. Techniques in working with elderly patients, such as “chunking” content, use of redundancy, cueing, and simply spending more time with the patients, were offered as things that would be done differently as a result of completing the module.

As an extension of the workshops the CHCP continues to offer, the distance education program targets practicing healthcare providers and other professional groups. For meeting the learning needs of the next generation of nurses, physicians, and pharmacists, among others, however, we have also developed methods for incorporating health literacy into undergraduate, graduate, and professional curricula. In this next section some classroom teaching strategies are outlined.

Integrating Health Literacy into the Health Science Curriculum

Because low health literacy is a major public health issue, it is imperative that health professionals-in-training be educated on the burdens that low health literacy place on individuals, the healthcare system, and society as a whole. Important, too, is that they are equipped to take leadership roles to make a difference.

Most current health science curricula include the patient education process but do not specifically address low health literacy. When students are asked “what is health literacy and low health literacy?,” their answers usually revolve around a person’s inability to read. But as we have come to know, it is about much more than reading. Health literacy concepts can easily be integrated into a patient communication and education curriculum. The table on pg. 8 outlines how two learning objectives can be incorporated into a teaching plan to integrate health literacy concepts and content, along with experiential activities, into the curriculum.

Summary

As a component in the National AHEC goal of “Connecting Communities to Better Health,” nearly a half-million healthcare professionals received over a million contact hours of continuing education in 2007-2008 (NAO Web site). The OSU AHEC, a part of the Ohio Statewide AHEC program, is proud that the Clear Health Communication Program has contributed to this important educational mission. With the completion of the online, interactive content, the CHCP is able to reach well beyond the Ohio state border to offer training to physicians, nurses, and other practitioners across the nation and the world. As this article has demonstrated, repertoire has expanded from on-site workshops at agencies and health care organizations, to lectures tailored to various health professions trainees at OSU and other institutions, to using the Internet as a vehicle for broad dissemination of health literacy content. In addition, a multiplier effect is expected from work with health sciences faculty throughout the country to integrate health literacy into health professions education programs.

Reducing low health literacy is one answer to the rising costs of healthcare in the U.S., and AHECs across the country can utilize their community linkages to engage in this important issue. Toward this end, OSU AHEC stands ready to work with other AHECs, healthcare organizations, and health professions schools to raise awareness and to design health literacy interventions.

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Health Literacy Initiatives

An AHEC Collaborative Health Literacy Resource Center: Health Literacy Missouri

Amy Quick, BS; and Jon Stemmle, MA

Every health literacy group around the country has the same basic goals: improve the health literacy levels in their area and educate the public. While the goals may be the same, the path to get there can be radically different.

In Missouri, the effort began with funding from the Missouri Foundation for Health (MFH), which wanted to address low health literacy in Missouri, especially among vulnerable, at-risk populations. The result was Health Literacy Missouri (HLM), a team effort among:

- The Southwest Missouri Area Health Education Center (SWMO AHEC) Resource Center at Missouri State University in Springfield;
- The Center for Health Policy Resource Center at the University of Missouri-Columbia;
- The St. Louis Collaborative Resource Center based at the Health Communication Research Laboratory at Washington University in St. Louis;
- Missouri Foundation for Health (MFH) in St. Louis

HLM has quickly become the comprehensive health literacy resource center for the state of Missouri. HLM's goal is to address the health literacy needs of consumers and professionals throughout the state, and it has conducted surveys to assess those needs. HLM wishes to identify resources and programs that can improve the health literacy of all Missourians.

With the SWMO AHEC at the forefront, the Missouri AHECs have become essential to the HLM effort because of their ability to work at the grass-roots level. The AHECs are working on projects involving everything from health literacy curricula for the health professions schools and training for practicing professionals to training and service-learning opportunities for health professions students in the AHEC statewide pipeline and providing education to the various HLM committee members.

One recent example of this work was a collaborative effort between the AHECs and members of the University of Missouri Center for Health Policy. The project brought together curriculum directors and other key personnel from health profession schools across the state to discuss health literacy curricula. These wide-ranging discussions were done in regional meetings around the state. Each meeting was an open forum designed to assess what was being taught and what needs existed for new or enhanced information. AHECs will continue to be involved in the additional meetings that are planned to sustain the flow of information as areas are identified for health literacy curriculum implementation.

Based on what was gleaned from these meetings, physical therapy students at Southwest Baptist University in Bolivar will receive health literacy training that will be implemented into their community course work. Students will complete 20 hours of community-based service learning projects that cover a wide range of topics, all of which will follow health literacy guidelines.

The AHECs have also been instrumental in the HLM work involving effective training for practicing health providers. Beginning with physicians, clinical simulations have been developed and are being piloted with providers in both rural and urban practices. These simulations are done using a standardized patient with limited literacy skills. In particular, the AHECs have led the effort in identifying and recruiting provider-preceptors to participate in the training.

Keeping with the education theme, the SWMO AHEC has developed a series of training modules for pre-health and health professions students focused on health literacy awareness, and on incorporating health literacy into all service-learning projects completed by the students. Students across the state complete the six hours of training and a minimum of a 20-hour service-learning project. These service-learning projects are focused on educating communities, focusing particularly on those with limited health literacy skills. This winter, two SWMO AHEC undergraduate students will be working with Habitat for Humanity families. A survey of need will determine the topic; the students will then develop a plain-language education program that they will deliver to those families.
An AHEC Collaborative Health Literacy Resource Center: Health Literacy Missouri

One of these training workshops was held during the summer of 2009 in Springfield, MO, involving 30 students from around the state. While the workshops are all based on health literacy awareness, there are different aspects that are addressed. This summer's workshop was created by HLM's Stuart Slavin, MD, who is also on the faculty at the St. Louis University School of Medicine, to provide students with tips on how to communicate effectively with patients and conduct themselves in a professional manner in a doctor-patient setting, while still being genuine and personable.

To institute all of these training and educational efforts, HLM needed to scour the landscape to find what materials were available and what needed to be created. In order to capture, store and summarize these materials, the HLM group has created a resource inventory of health literacy materials. Members from the Missouri Area Health Education Center Digital Library project were instrumental in this work, helping to identify health literacy curricula, articles, publications, and other available resources. These items, which will be available to the public through www.healthliteracymissouri.org, are being evaluated so that users can identify reliable resources.

In the new year, the Missouri AHECs will continue to provide quality health literacy education to Missourians and are expanding their capacity to do more. Without these wide-ranging, statewide efforts, a successful fight against low health literacy would be a nearly impossible goal to reach. Missourians, like people throughout the rest of the nation, struggle every day with issues involved with health literacy, from reading a prescription label to understanding health insurance. Through the work of HLM and the Missouri AHECs, these and other problems caused by low health literacy may someday be a thing of the past.

Which of the following is the strongest predictor of an individual’s health status?

A. Age  
B. Income  
C. Literacy Skills  
D. Employment Status  
E. Education Level  
F. Racial or Ethnic Group

Answer: Literacy Skills

According to the 2003 National Assessment for Adult Literacy, 36% of the U.S. population has poor health literacy skills. These individuals cannot:

- Use a graph to determine a healthy weight range,
- Use a chart to find the age range for a child’s vaccination, or
- Read a label to identify substances that interact with over-the-counter medications.
The HRSA Online UHC Training Course: Making a Difference in Patient-Provider Communication Across the Country

Linda Kwon, MPH; Tanya Grandison, MPH; Michele Smith, MPH; and Lt. Erica Wilson, MSN/ED, RN, CNOR

Over the years, effective health communication between patient and provider often has been hampered by language barriers, patients’ low health literacy, and the lack of cultural diversity among providers. Research tells us that when efforts to minimize these barriers are unified in a single communication approach, overall communication about health improves. As a result, training that emphasizes the value and importance of a unified health communication approach benefits clinicians and healthcare staff alike.

The Unified Health Communication (UHC) Training Course

To improve communication between patients and healthcare providers, the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), has developed an interactive Web-based tool, “Unified Health Communication: Addressing Health Literacy, Cultural Competency, and Limited English Proficiency” (see figure). HRSA developed the tool to help carry out its mission to provide “national leadership, program resources, and services needed to improve access to culturally competent, quality health care” (Health Resources and Services Administration, n.d.).

HRSA’s free, online tool can be used in Area Health Education Center (AHEC) programs, clinics, and health centers across the nation as a practical way to help healthcare providers and health educators:

- Improve the way they communicate with patients;
- Increase their awareness and knowledge of health literacy, cultural competency, and low English proficiency; and
- Implement patient-centered communication practices.

Highlights of the UHC

The UHC was launched in 2007 and, since then, more than 4,000 people have completed the course. This course is designed to train a diverse audience—basically anyone who interacts with a patient. Many health professionals have taken the course—including doctors, nurses, health educators, pharmacists, and even students—to enhance their educational experiences in their respective health fields.

The course includes five self-paced modules:

- Module 1—Provides an introduction to health communication;
- Modules 2–4—Address health literacy, cultural competency and limited English proficiency; and
- Module 5—Enables users to apply what they have learned in the previous modules in a capstone activity.

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Tanya Grandison, MPH, works as a Public Health Analyst at the Office of Regional Operations, HRSA.

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The HRSA Online Unified Health Communication Training Course: Making a Difference in Patient-Provider Communication Across the Country

Self-paced instruction allows users to complete one or more modules at a time. The total time required to complete the course is approximately five hours.

The training uses video vignettes that relate examples to real-life situations, making them easy to understand. It also provides “how-to” sections that align with the everyday work of healthcare providers and health educators. As a bonus, those who complete the training are eligible to receive up to five free continuing education credits from a number of accrediting bodies including the American Association for Health Education and the American Pharmacists Association.

Natural Partners
Connecting the resources of academic medicine to local communities is one way AHEC programs improve health in local communities. AHEC programs operate in almost every state; they receive federal funds through HRSA’s Bureau of Health Professions (National AHEC Organization, n.d.).

Other partners who would benefit from this training would be clinicians in HRSA’s National Health Service Corps (NHSC). The NHSC, through scholarship and loan repayment programs, expands access to health services by placing healthcare professionals in underserved urban, rural, and frontier areas. The NHSC has worked with AHEC programs for more than 30 years to increase underserved Americans’ access to quality healthcare services, limit disparities in health status among U.S. population groups, and improve the representation of minority and disadvantaged professionals in the healthcare workforce (National Health Service Corps, n.d.).

NHSC clinicians, AHEC members, students, and community healthcare groups have taken the UHC training course and found it helpful in increasing awareness about health literacy, cultural competency, and limited English proficiency. AHEC members who took the course appreciated the clearly outlined objectives for the training, and said they liked its structure, graphics and interactive nature. A representative from the Nevada AHEC commented that, “The course was extremely well laid out and very informative. We especially liked how interactive and well illustrated it was. The objectives of the course were clearly outlined at the beginning of each section, and numerous examples, videos and scenarios were provided all along.” To access the UHC course and get more information, visit http://www.hrsa.gov/healthliteracy.

Conclusion
By using the Unified Health Communication approach, AHEC and other HRSA partners can train health professionals to communicate better with patients. Providers are free to use course material to create easy-to-read books, pamphlets, and other literature to help patients gain better understanding of diagnoses, procedures, and options for their care. In addition, healthcare teams can use the tool to train family members, interpreters, and community health workers to assist patients in making better informed decisions.

The opportunities to foster clear health communication through the use of HRSA’s UHC tool are many, and the partnerships that emerge from collaboration to improve patient care are invaluable.

If you use the UHC tool in your setting, please send feedback about the tool to healthliteracy@hrsa.gov.

REFERENCES
"Literacy is not a luxury, it is a right and a responsibility. If our world is to meet the challenges of the 21st century we must harness the energy and creativity of all our citizens." Former President Bill Clinton on International Literacy Day, September 1994

Take a moment to think about the following question: on a scale of 1 to 5, how would you rate your tendency to have preconceived judgments concerning the ability of limited-English-proficient (LEP) people to obtain, process, and understand health information? Would you rate them rather low?

The fact remains, according to Pfizer studies, LEPs are generally looked upon as:

- people who are poor, immigrants or minorities;
- people with low IQs;
- people who have trouble reading; and
- people with low education levels

Certainly, these statements are false. What if you were an educated, monolingual, American citizen on a trip to Japan? You feel a sudden pain in your chest and immediately go to the emergency room. Your only way of communicating with the medical staff is through gestures and sign language. There is unfortunately no Japanese-English interpreter available, and your only hope of being understood lies in the limited ability of the medical assistant on duty to utter a few words of English.

Does your inability to communicate with your Japanese healthcare provider make you any less educated or smart? Does it mean you are illiterate? It certainly doesn't. However, it does mean that your inability to communicate is putting you at a greater risk for poor outcomes. Individuals whose care is inhibited as the result of communication barriers, such as language or cultural differences, may indeed be at risk for poor quality of care.

A 2001 Robert Wood Johnson Foundation survey found that 94% of providers cited communication as a top priority in delivering quality care. More than 70% reported that language barriers compromise the patient’s understanding of treatment and the disease, increase the risk of complications, and make it harder for patients to explain their symptoms. Spanish-speaking individuals, for example, who comprise almost half of the immigrant population in the U.S., are more likely to omit medication, miss office appointments, and visit the emergency room for care when their care is provided by language-discrepant physicians.

The benefits of addressing low health literacy through coping with language and cultural barriers lie in that we end up having a patient-centered perspective on health care, inevitably having a positive impact on the healthcare system in the U.S. How? By achieving an increase in the use of preventive health services and a decrease in the use of emergency rooms; and by building a strong patient-provider relationship founded on trust, satisfaction, and adherence to recommended treatments.

How Do Northern Virginia AHEC’s Programs and Services Address Health Literacy?

In 1996, by provider request, Northern Virginia AHEC (NV AHEC) started training medical and community interpreters in more than 40 languages and offering cultural competence workshops to providers. Over the last 13 years, NV AHEC has served more than 15,000 members of the community and professionally trained more than 1,200 interpreters. These continue to be the voice of thousands of LEP patients whose immediate needs, concerns, and cultural beliefs could otherwise be left in silence, because of their limited ability to communicate.

But while interpreter access plays a vital role in addressing healthcare disparities, there continues to be a crucial need for provider education about the impact of culture and language disparities. Through such education, providers can develop their sensitivity to the daily issues faced by patients whose health behavior often times is dictated by their cultural backgrounds. Health professionals should be willing to meet multicultural patients half-way by introducing American culture to patients and accepting aspects of their patients’ cultures. A culturally and linguistically competent provider empowers LEP patients to speak openly without the fear of being judged or misunderstood.

Based on this growing need for provider education, NV AHEC collaborated with private and governmental agencies in 2007 to develop a series that addresses low health literacy in the U.S., especially as it relates to language and culture barriers. This five-part webinar series focuses on educating healthcare professionals on how to effectively communicate with LEP patients. It was successfully
I Hear You Speaking, But I Don't Understand What You're Saying

pilot-tested with more than 250 participants from various healthcare institutions, including practitioners, nurses, healthcare managers, and insurance agents.

One of the first issues NV AHEC tackles through its webinars is how hospitals and other healthcare facilities can implement an LEP plan, which would not only help them identify LEP patients from the moment they walk through the door, but would also be adaptable enough that it can be updated according to their changing needs.

The webinars include numerous examples and how-to tips that can be used and implemented in the workplace, such as: integrating various healing systems into treatment plans when possible; conducting a culturally neutral interview; using the teach-back/show-me techniques; asking open-ended questions; giving patients easy-to-read handouts written in plain language; using “I Speak Cards” to identify LEP patients; and having vital documents translated into various languages.

Also in 2007, NV AHEC received funds to conduct focus groups that targeted four large cultural groups in Virginia: Spanish, Vietnamese, Arabic, and Russian. The focus groups asked questions such as: What is health in your culture?, What is sickness or being ill?, and What kind of health insurance do you have in your country?

As a result of these sessions, NV AHEC put together a series of books on navigating the U.S. healthcare system for immigrants, migrants and refugees. The books were translated into four languages. They aim to give immigrants and LEPs resources on how to access healthcare services in the U.S., and to educate providers on cultural competency issues as they relate to each of these four cultures.

Moving forward, NV AHEC is planning to hold workshops for a number of providers throughout the state to train them on how to use these books to better serve and understand their clients. By this, NV AHEC also hopes to reduce healthcare disparities among immigrant populations within Virginia (and, eventually elsewhere) by providing meaningful language access in the healthcare environment.

Show your pride while supporting NAO

Don’t Forget—NAO has several products available for sale, including:

- NAO Brochure
- NAO Annual Report
- Parkinson’s Guide
- NAO Pins
Introducing Health Topics in Adult Literacy Classes: “Mario Decides To Quit”  

Andrée Aubrey, MSW, LCSW

The challenge of providing timely and accessible health information to vulnerable populations has been well documented, as has the relationship between poor health literacy skills and health status. Health literacy is more than understanding basic medical terminology or even accepting the Western medical model of disease. “Health literacy emerges when the expectations, preferences, culture, and skills of individuals seeking health information and services meet the expectations, preferences, culture, and skills of those providing information and services” (Nielsen, Bohlman, et. al., 2004).

Health literacy is an area of shared interest for the Florida State University (FSU) AHEC Program Director, Andrée Aubrey, and the Director of Rural Health Research and Policy, Gail Bellamy, at the College of Medicine. Together they have mentored medical students while developing tobacco cessation materials for populations with low health literacy skills (Aubrey, 2009). Recently they developed a health literacy project with Dr. Lauren Porter, a graduate of the FSU Master of Public Health (MPH) program and Evaluation Coordinator for the Florida (FL) Department of Health, to address the challenges of providing integrated chronic disease and tobacco cessation information to Hispanic males in rural Florida.

Hispanic males are underutilizing both the FL Quit-line and community cessation classes. Because of this, it was decided that a foto-novela (picture story) for use in adult literacy classes targeting Hispanic migrant/seasonal workers would best reach this population of smokers with information about tobacco cessation. By introducing health content in basic literacy classes, adult learners would master important health-related information in a safe, supportive environment. One of the primary goals was to make the story fun and interesting to read so participants would want to take the foto-novela home to share with family and friends. The choice of migrant workers as a focus led to the involvement of another long-time partner with the AHEC Program, the Panhandle Area Education Consortium (PAEC). The PAEC recruited an FSU MPH student, Javier Vazquez, and he began attending many literacy classes sponsored by PAEC. Mr. Vazquez drafted the story line for “Mario Decides to Quit” using constructs from the Health Belief Model (HBM) (Rosenstock, 1974). The HBM is made up of the following six constructs that predict and motivate an individual’s behavior: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Becker, et. al., 1974). Throughout the story, the main character of the foto-novela, Mario, experiences each of these psychological constructs as he contemplates quitting smoking.

The story and graphics were culturally appropriate for the targeted audience since they represent characters and settings that are consistent with the experience of migrant and seasonal farm workers in Florida. Because our target audience was Hispanic migrant and seasonal farm workers participating in adult literacy programs, the learners would be novices with the English language. Therefore, care was taken to create a short and easy-to-read story. The readability level was a Flesch-Kincaid Grade Level 3.2.

In keeping with a culturally competent story, the foto-novela’s focus is on the Environmental Tobacco Smoke (ETS) health effects on Mario’s pregnant wife and unborn baby. Mario’s motivation to quit smoking results from his increased understanding of the harm he is causing not just to himself, but also to his family. This story line was chosen because it supports the concept of familism, which values the family over the individual (Aubrey, 2009). Concern for family as a motivator to change health behaviors is consistent with the culture of the intended audience. The goal of the story is to inform readers that second-hand smoke is dangerous to others and could have tremendous negative effects on children.

The story and illustrations were field tested with the PAEC literacy class instructor and students and revisions were made based on their feedback, which included requests for additional information about health effects, the avoidance of a simplified “happy ending,” and the addition of a final illustration with the main character and his wife smiling, to bring the story to a conclusion.
Introducing Health Topics in Adult Literacy Classes: “Mario Decides To Quit”

Twelve health-related words were included as vocabulary words and underlined throughout the story to assist participants in literacy classes. These vocabulary words are defined with their Spanish translation. Also, a complete Spanish translation of the story line is included on every page to improve comprehension of the health information and to allow for sharing the story with family and friends who may not be able to read.

Furthermore, the foto-novela is written as a play so learners may act out the different roles of the characters and practice reading out loud as the other class participants listen. The numerous illustrations help tell the story and are included for those learners who may learn best by looking at the pictures.

To help literacy instructors who may not be comfortable in leading class discussions about health content, an instructor’s manual was developed which supports the use of “Mario Decides to Quit” as a complete “lesson plan.”

Supplemental activities such as crossword puzzles, word searches, and word matching activities were included as resources for the instructor to engage participants whose learning may be enhanced by using the words in an activity. These supplemental activities provide another opportunity to reinforce the health concepts being presented in addition to learning the new vocabulary words.

A discussion on quitting outline is included in the instructor’s manual, along with basic information about asthma. The discussion activity provided time for students to share their personal experiences, including the deaths and disability caused by tobacco use in family and friends.

Resources, such as the telephone number to the FL QuitLine, were also included for those who wanted to quit or wanted this information to share with loved ones.

At the conclusion of the field testing, students asked if they could take extra copies home to share with family members. Overall, this module proved to be an easy-to-use health information tool, as well as a literacy tool that could be successful in other literacy classes. The next phase of the project will be to evaluate outcomes and the diffusion of the information in the community.

When the use of traditional methods to present health information to vulnerable populations presents a challenge, educators are forced to be more creative and open to employing different approaches. By using a non-traditional approach, the foto-novela targets high-risk Hispanic males with tobacco cessation education while making an accessible health education resource available to all literacy classes. Please visit the FSU AHEC Web page at http://med.fsu.edu/HealthAffairs/ahec/ to access “Mario Decides to Quit” and the instructor’s manual. The STOP Smoking for Good self-help cessation brochure written for people with low health literacy skills may be downloaded also. The materials are copyright free.

REFERENCES


Health outcomes are directly impacted by a person’s ability to understand health issues and treatment recommendations and instructions. Therefore, it is critical that health professionals start to incorporate health literacy into practice. In order to begin this integration, they first will need to educate themselves and their staff. AHECs can play an important role by educating health clinicians in this vital area by offering health literacy continuing education, as well as by providing similar health literacy materials similar to those discussed in this article as examples.

In the fall of 2007, the Northwest Area Health Education Center of North Carolina (Northwest AHEC) received a three-year grant from the Bureau of Health Professions, Health Resources and Services Administration, Department of Health and Human Services, and the North Carolina Geriatric Education Center. The grant focused on coordinating regional community-based interdisciplinary geriatrics education and health literacy.

Continuing education is an integral component of the AHEC mission, whereas health literacy was an area that had not been fully explored. To increase our staff members’ knowledge about health literacy, several participated in the Center for Aging & Health/Carolina Geriatric Education Center training on Faculty Development in Health Literacy and Aging and other staff members attended a health literacy workshop held at one of the other eight regional AHECs in North Carolina. The goals of these training sessions were to:

• Communicate the impact of low health literacy on patient/client outcomes;
• Demonstrate clarity, simplicity and cultural relevance in health communications with patients and/or clients;
• Guide students and other learners in communicating health information clearly when providing care; and
• Identify health system barriers that add to the risk of negative outcomes and apply corrective actions to prevent, detect and/or correct them.

As a result of participating in these training events and gathering ideas from staff meetings, AHEC representatives developed three guides to assist health professionals and patients with health literacy.

The Health Notes Booklet is a 38-page portable record of health information for patients. Patients or family members/friends are able to write down important health information such as emergency numbers; contact information for the primary care physician; health history; lab tests and past surgeries and procedures; list of prescriptions, supplements and home remedies; and information about advance directives. In addition, throughout the booklet are health tips and information about avoiding infection and preventing errors in the hospital, controlling diabetes and heart disease, managing medications, and the description of a living will, health care power of attorney, and MOST (Medical Orders for Scope of Treatment) forms.

Many seniors have inadequate or marginal literacy skills and are unable to understand basic health information. This booklet was developed to ease communication between seniors and physicians. Many seniors may not be able to write in the book themselves, but with the help of family and friends, their information can be listed in this portable record. Although the booklet was developed for seniors, people of all ages have taken advantage of this resource.

There were a few challenges in developing the Health Notes Booklet. The idea was to offer a guide that was small enough to fit in a pocket or purse, as anything bigger would be cumbersome to carry. But the major challenge was to make the guide and its print big enough to allow seniors to easily write in and read. In addition, keeping the amount of pages to a minimum was a challenge. A health history for some could contain a lot of information. The goal was to have seniors list the most important information that their physician, nurse or pharmacist would need to know.

In addition to the Health Notes Booklet, a two-sided laminated card was developed for patients. The Good Questions for Good Health When Visiting the Doctor, Nurse or Pharmacist, A Patient’s Guide for Better Health card focuses on the Partnership for Clear Health Communication AskMe 3™ campaign at the National Patient Safety Foundation. The 3 Questions to Ask Your Doctor, Nurse or Pharmacist are:

1. What is my main problem?
2. What do I need to do?
3. Why is it important for me to do this?

(continued on p. 23)
Below is a collection of health literacy resources by category. It is in no way comprehensive, but highlights key reports, resources and tools to help one learn more about this field of Health Literacy. Information was collected by Michele Erikson of Wisconsin Literacy, Inc. and Dr. Paul Smith, Health Literacy Committee Chair of Wisconsin Literacy’s Board of Directors. An online version of this toolkit is available at www.nationalahec.org/Publications to aid you in getting to the web pages listed below.

### General Resources

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**AHRQ Health Literacy Consumer Assessment of Health Plans Study (CAHPS)**

- **URL**: www.ahrq.gov/content/products/HL/PROD_HL_Intro.asp
- The primary goal of the CAHPS item set for addressing health literacy is to measure, from the patients’ perspective, how well health information is communicated to them by health care professionals.

- **URL**: www.cahps.ahrq.gov/CAHPSkit/files/1311_About_Health_Lit.pdf
- American Medical Association has developed a CAHPS summary document with recommendations for solutions to address problems assessed by the health literacy CAHPS.

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<td>Advance Directives</td>
<td><a href="http://www.iha4health.org/index.cfm/CFID/26550072/CFTOKEN/4968653/MenuItemID/266.htm">www.iha4health.org/index.cfm/CFID/26550072/CFTOKEN/4968653/MenuItemID/266.htm</a></td>
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- An advance directive form from California is written at the 5th grade level and is available in English, Spanish, Chinese, and Vietnamese.

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### Pharmacy-Related Tools

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- This pharmacy health literacy tool was released by AHRQ in October 2007. It is a step-by-step guide on how to capture perspectives of objective auditors, pharmacy staff, and patients. It is designed to form a complete assessment with recommendations for evaluating the results and developing an action plan.

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<td>Strategies to Improve Communication Between Pharmacy Staff and Patients</td>
<td><a href="http://www.ahrq.gov/qual/pharmlit/pharmttrain.htm">www.ahrq.gov/qual/pharmlit/pharmttrain.htm</a></td>
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- A training program released by AHRQ in October 2007 for pharmacists and pharmacy staff about low health literacy and implications of this problem for the delivery of healthcare services. The program also explains techniques that pharmacy staff members can use to improve communication with patients who may have limited health literacy skills.

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<td>How to Create a Pill Card</td>
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- A tool for creating a pill card to assist patients in correctly taking medications. Released by AHRQ in February 2008. Download a Microsoft Word file to create the pill card with colored pill pictures and other pictures to improve understanding of instructions.

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- Recently released health literacy tools
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<td><strong>Physician Continuing Medical Education (CMEl</strong>&lt;br&gt;www.ama-assn.org/ama/pub/education-careers/continuing-medical-education.shtml</td>
<td>This concise and easy to use 61-page guide developed in 1994 by the National Cancer Institute and NIH outlines a process for developing materials with, and for, people with limited-literacy skills. The guide contains five sections: defining the target audience, conducting audience research, concept development, content and visuals development, and pre-testing and revising materials.</td>
</tr>
<tr>
<td><strong>The New York-New Jersey Public Health Training Center (NNJ PHTC) Course: “Communicate to Make a Difference”</strong>&lt;br&gt;www.nynej-phtc.org/phLit/Home/phlit-default.cfm</td>
<td>This 30-page guide was developed with attention to the needs of seniors and offers clear guidelines for creating forms in plain language. The guide also includes a Plain Language Forms Tool Kit. Appendices include a short glossary of plain words, Canadian Public Health Association, 1998. Cost was: $10 Canadian, but unable to confirm.</td>
</tr>
<tr>
<td><strong>Workshop: “Health Literacy for Healthcare Providers—Tools for Effective Communication”</strong>&lt;br&gt;Wisconsin Literacy (608) 257-1655 Designed by Wisconsin Literacy in three modules to be presented in four hours to healthcare providers. Module 1 includes information on literacy, health literacy, clues and signs of low-level literacy and resources for addressing it. Module 2 includes information for improving oral communication including the use of medical jargon, the “teach back” technique and Ask Mr. 3. Module 3 includes information about improving written communication and a review of readability tools. Each module can be done as an individual workshop or as a complete set. Each module is designed to be highly participatory with a lot of hands-on practice.</td>
<td><strong>Developing Easy-to-Read Health Education Materials</strong>&lt;br&gt;www.breasthealthblog.org/Education_Program/health_literacy/KJFM_literacy%20Slides.pdf</td>
</tr>
<tr>
<td><strong>Free Health Literacy Courses: Great River Partners for Health-E People</strong>&lt;br&gt;www.literacycoalition.org/healthliteracy.html One for patients and one for providers. The project also uses DVD and MP3 players and iPods for patient education.</td>
<td><strong>Glossary of Medical Terms</strong>&lt;br&gt;<a href="http://kidshealth.org/kid/word/index.html">http://kidshealth.org/kid/word/index.html</a></td>
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<tr>
<td><strong>Health Research for Action</strong></td>
<td><strong>Plain Language Materials</strong>&lt;br&gt;www.plainlanguage.gov/</td>
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<tr>
<td>healthresearchforaction.org/downloads/rp_glossary_common_words2.pdf</td>
<td><strong>Plain Language Initiative</strong>&lt;br&gt;excuse.od.nih.gov/plainlang/guidelines/index.html</td>
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<tr>
<td>These lists of common “big” words and managed care jargon include suggestions for simpler language. They were created by a group at University of California Berkeley School of Public Health.</td>
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**Reading Grade-Level Measurement Tools**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Website</th>
<th>Description</th>
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<tbody>
<tr>
<td>SMOG (Simple Measure of Gobbledygook)</td>
<td><a href="http://www.harrymclaughlin.com/SMOG.htm">www.harrymclaughlin.com/SMOG.htm</a></td>
<td>Copy and paste text or entire document (up to 2000 words) into this program, which then calculates reading level.</td>
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<tr>
<td>Reading Grade Calculator</td>
<td><a href="http://www.wordscount.info/hw/smog.jsp">www.wordscount.info/hw/smog.jsp</a></td>
<td></td>
</tr>
<tr>
<td>OKAPI</td>
<td><a href="http://www.interventioncentral.org/htmdocs/tools/okapi/okapi.php">www.interventioncentral.org/htmdocs/tools/okapi/okapi.php</a></td>
<td>This is a very valuable online text assessment tool for writing/editing text for low-literate adults. Paste in up to 200 words and it will analyze reading level and highlight words that are not found in the Dale Familiar Word List. You can tag “big” words so they are not counted as “big.” Uses the Spache or Dale-Chall Readability Formula. Dale-Chall is for text at 4th-grade level and higher; Spache for 3rd grade or less.</td>
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**Health Literacy Curricula for Adult Learners**

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<thead>
<tr>
<th>Curriculum</th>
<th>Website</th>
<th>Description</th>
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<tbody>
<tr>
<td>“Staying Healthy—An English Learner’s Guide to Health Care and Healthy Living”</td>
<td><a href="http://www.floridaliteracy.org/literacy_resources__teacher_tutor__health_literacy.html">www.floridaliteracy.org/literacy_resources__teacher_tutor__health_literacy.html</a></td>
<td>A publication of the Florida Literacy Coalition Inc.</td>
</tr>
<tr>
<td>Expecting the Best</td>
<td><a href="http://www.expectingthebest.org/">www.expectingthebest.org/</a></td>
<td>A health and wellness curriculum for English as a Second Language (ESL) students designed to improve health literacy, functional literacy, and enhance English communication skills.</td>
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**Learn More**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Literacy and Health Outcomes</td>
<td><a href="http://www.ahrq.gov/clinic/epcsums/litsum.htm">www.ahrq.gov/clinic/epcsums/litsum.htm</a></td>
<td>A 2004 comprehensive report on literacy and health by the federal Agency for Healthcare Research and Quality.</td>
</tr>
<tr>
<td>Health Literacy: A Prescription to End Confusion</td>
<td><a href="http://www.nap.edu/catalog/10883.html">www.nap.edu/catalog/10883.html</a></td>
<td>The Institute of Medicine’s 2004 report</td>
</tr>
<tr>
<td>MedlinePlus by the National Library of Medicine</td>
<td><a href="http://www.nlm.nih.gov/medlineplus/easytoread/all_easytoread.html">www.nlm.nih.gov/medlineplus/easytoread/all_easytoread.html</a></td>
<td>A collection of health information intended for consumers, it includes many easy-to-read health materials listed by topic alphabetically and by topic area.</td>
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<td></td>
<td><a href="http://www.nlm.nih.gov/medlineplus/tutorial.html">www.nlm.nih.gov/medlineplus/tutorial.html</a></td>
<td>Interactive Video Tutorials</td>
</tr>
<tr>
<td>Refugee Health Information Network</td>
<td><a href="http://www.rhin.org">www.rhin.org</a></td>
<td>Health information in many languages for patients and providers.</td>
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The card stresses that the three questions need to be asked when visiting the doctor, nurse or pharmacist, when preparing for medical tests or procedures, and when picking up medicine.

The reverse side of the card gives tips to manage one’s health, such as bringing a family member or friend to a doctor visit; asking your doctor to explain a word, idea or direction if you don’t understand; and asking questions about cost and insurance coverage. The information listed on the card is brief and written in language that is understandable.

The third document was created for health professionals. Health Literacy & Your Patient (see the image below) is a two-sided guide that calls attention to the major problems and effects of low health literacy and explains what professionals can do to help patients understand basic health information. Helpful tips on this card encourage professionals to use plain and simple language, define technical terms, ask open-ended questions, and check for understanding by asking the patient to restate the information in his or her own words.

A letter and copies of the materials were sent to organizations in the Northwest AHEC region in the summer of 2008 and 2009. Organizations were appreciative and eager to receive the information. The majority of the guides that have been distributed since the summer of 2008 resulted from referrals and from word of mouth. All of the materials provide information on how to order additional copies. Health professionals and/or organizations can request copies, which are mailed free of charge, as the grant also covers postal expenses. In addition, Northwest AHEC staff members have been encouraged to distribute the Health Literacy & Your Patient guide to all health professionals they encounter (i.e., placed in continuing education handout packets, at meetings, etc.).

Low health literacy is associated with poor communication between patients and health care providers and health outcomes, including:
- Increased hospitalization rates,
- Less frequent screening for diseases such as cancer, and
- Disproportionately high rates of disease and mortality.
- More than 90 million Americans cannot adequately understand basic health information.
- Low literacy costs the healthcare system over $73 billion a year in misdirected or misunderstood health care services.
- Low literacy affects any population regardless of age, race, education or income.

Health Literacy is defined in Healthy People 2010 as: The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

The "Health Literacy & Your Patient" laminated card was developed by the Northwest AHEC to highlight major health problems and to aid health professionals in bettering medical communication with patients.
Low health literacy has been a challenge ever since hospitals, clinics, and other complex delivery systems started replacing house calls by family doctors. Only recently has health literacy been defined by the Institute of Medicine as “the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions” (Institute of Medicine, 2004). Healthcare professionals have begun to understand its implications for patient care, treatment outcomes, and cost.

Great Rivers Partners for Health-e People (GRPHP) was formed in 2006 to raise awareness of health literacy in the tri-state area around La Crosse, Wisconsin (See map on p. 25.) Primary funding for the GRPHP project was a subcontract award from the National Library of Medicine. It funded publicity and promotional efforts, health literacy awareness education for consumers, and a qualitative research component. In addition to Southwest Wisconsin AHEC (SWAHEC) funding, monetary support was provided by the Gundersen Lutheran Medical Foundation, Franciscan Skemp Foundation, and Gundersen Lutheran Health System. GRPHP’s steering committee includes three health sciences librarians and a nurse educator from Gundersen Lutheran Health System and Franciscan Skemp/Mayo Health System (both in La Crosse) and an assistant clinical professor from the University of Wisconsin-La Crosse (UW-L). Because they worked with different audiences on a daily basis—healthcare consumers, professionals, and students—team members knew they had to reach all populations to be effective and successful. They designed programs to fit the focal points and knowledge base of each audience.

For example, healthcare providers and students in healthcare professions would need to understand the importance of using “plain language” when speaking with patients. In contrast, consumer health literacy programs needed to emphasize asking simple questions about personal health concerns. Consumer messages were delivered in the context of patient self-advocacy.

The GRPHP team knew it was important to reach healthcare professionals in the field, but they also believed it was crucial to foster a plain-language communication mindset among future healthcare professionals. For this reason, health literacy awareness training for students, developed by Joan Temple, MEd, OTR, UW-L assistant clinical professor, is a central feature of the project.

Temple uses her health literacy curriculum extensively with students in occupational therapy, radiation technology, physical therapy, nursing, a nationally ranked physician assistant program, and other health-related disciplines. After university chancellor Joe Gow, PhD, role-played as a student in a healthy literacy awareness session, he was so impressed that he asked Temple to adapt her curriculum for a general health course offered to all UW-L students. To date, nearly 600 students have undergone health literacy awareness training from either the healthcare professional or healthcare consumer point of view. Student feedback has been overwhelmingly positive. One pharmacy tech student said, “I found myself using some of the strategies the next day at work and found the responses from the patients to be much more positive than they had been previously.”

The steering committee determined the best way to reach practicing healthcare professionals would be with an online course, “Health Literacy Awareness: Plain Language for Your Patients.” Course creation was made possible in part by support from SWAHEC. When the La Crosse Area Community Literacy Coalition agreed to host the course on its public Web site, content became available at no cost to anyone with Internet access. (Now hosted on the La Crosse Medical Health Science Consortium Web site, the online course is available at http://home.lmhsconsortium.org/.)

To empower consumers to become active partners in their own care, GRPHP created a second online program, Health-e People Ask.
Planting Seeds of Awareness... A Collaborative Effort

Questions is hosted on the same public Web site as the course for professionals. The consumer version encourages use of the AskMe3™ program developed by the Partnership for Clear Health Communication at the National Patient Safety Foundation. AskMe3™ promotes patient involvement and healthy self-management. Since not all residents of this rural area are computer literate, GRPHP also offers instructor-led programs at senior centers, churches, assisted living facilities, health fairs, and other local venues. A print version of “Health-e People Ask Questions” has also been created.

Further collaboration was demonstrated by GRPHP involvement in a second higher education program. After SWAHEC awarded a grant to Northwest Wisconsin Regional Literacy (NWRL), Margarete Cook, BA, NWRL consultant, worked with faculty at Western Technical College in La Crosse to introduce health literacy into their Health Promotion course for student nurses. Students were required to take the course, “Health Literacy Awareness: Plain Language for Your Patients” and answer three questions to demonstrate understanding of health literacy concepts. A perceived need for instructor-led staff development for practicing nurses resulted in a course titled “Health Literacy for Nurses: Tools for Effective Communication.” Cook teaches the course, which offers contact hours through Franciscan Skemp and also requires the viewing of “Plain Language for Your Patients.” More than 60 registered nurses attended the course when it was offered in La Crosse and Eau Claire, Wisconsin.

“Health Literacy Awareness: Plain Language for Your Patients” is required education by both Gundersen Lutheran Health System and Franciscan Skemp/Mayo Health System for all staff involved in direct patient care.

Thanks to the GRPHP partnership with Franciscan Skemp/Mayo Health System, health literacy awareness training has been delivered to Mayo Clinic locations in Rochester, Minnesota; Jacksonville, Florida; and Scottsdale, Arizona. Alan Fleischmann, MD, vice president of patient-physician relations of Franciscan Skemp/Mayo Health System, provides a communication workshop that includes health literacy awareness for Mayo Health System physicians. Thus far, more than 330 Mayo Health System physicians have had this training.

Health sciences librarians in the Mayo Health System have also received awareness training. Elly Lensch, MLS, Health Science Librarian for the Franciscan Skemp/Mayo Health System, presented to the library staff at the All Sites meeting of the Mayo Clinic Libraries. This meeting encompassed all Mayo Library sites (Rochester, Mankato, Jacksonville, Scottsdale, Eau Claire, and La Crosse).

Librarians and library staff learned about health literacy awareness and how to use the courses with healthcare professionals and consumers. Health literacy will be a priority for librarians interacting with patients at the Mayo Clinic in Rochester.

Health literacy awareness education at Gundersen Lutheran Health System is strategically aligned with major initiatives, including patient- and family-centered care, patient safety, informed consent, patient education, and physician-patient communication. To date, over 1,000 physicians, nurses, and other patient care staff have learned and are incorporating health literacy techniques into their interactions with patients and families. Another 1,000 providers of direct patient care will take the course in 2010. Also, all health sciences librarians at Gundersen Lutheran have completed continuing education in health literacy. Using health literacy techniques is considered to be of the utmost importance for all librarians assisting patients in the health resource libraries.

Public and academic librarians have also collaborated with the GRPHP in the health literacy awareness campaign. Recognizing that, for many people, the local library is a convenient and accessible information source, GRPHP sought public library involvement in health literacy promotion. Western Wisconsin's Winding Rivers Library System (WRLS) and the GRPHP collaborated on a Library Services and Technology Act (LSTA) grant funded by the U.S. Institute of Museum & Library Services. The LSTA grant offered health literacy awareness training provided by the GRPHP to area public librarians. The same grant paid to add consumer health resource materials to the collections of participating public libraries. More than 30 WRLS public librarians attended health literacy awareness training. A smaller group of academic librarians at UW-L were also trained. Medical librarians from across the Midwest have taken part in continuing education or presentations offered by GRPHP. Through the above efforts,
Planting Seeds of Awareness… A Collaborative Effort

more than 200 librarians have been educated about health literacy as a result of the GRPHP collaboration.

There are two other important GRPHP collaborations. Great Rivers 2-1-1 agreed to be the primary phone contact for organizations and/or individuals seeking information on health literacy. Gundersen Lutheran Health System and the University of Wisconsin School of Nursing partnered to provide the continuing education on health literacy via distance learning. Education presented by Kaye Crampton, MALS, was attended by 45 RNs from a dozen locations. A recorded version of the one-hour session was also made available on the School of Nursing Web site.

Franciscan Skemp/Mayo Health System and Gundersen Lutheran Health System health insurance plans have promoted health literacy to their members. GRPHP provided staff development to both health plans. Health plan newsletter articles have encouraged patient empowerment by promoting use of AskMe3™ questions and supporting patients’ efforts to make the most of their healthcare visits. Both health plans mail their newsletters to over 30,000 members.

The reactions of those healthcare professionals who have received the GRPHP training have been very positive. Following are survey responses from those who have taken the course.

• “I truly hope this was being shown to all physicians, as I think it is most helpful for them to stop using the medical jargon with patients and start using more easily understood words…for everyone to understand what they are talking about. I know it was extremely helpful to me.” – A family practice physician
• “Many of the strategies…are already utilized by myself and our team; however, they were great reminders and the percentage of people that struggle was incredibly forceful. We had a lengthy discussion following completion and I also discussed information with my husband later that evening. He works in a social service role as well.” – A social worker
• “I thought this was a useful and insightful training. I think patients can get lost in the amount of information that’s provided to them and speaking plainly helps them understand more without using so much medical jargon.” – An RN
• “After completing the course, my department revised the follow-up letters that we send to our post-procedure patients. The letters were re-written employing plain language techniques.” – A gastroenterologist

The healthcare professionals’ reaction to the health literacy education is best expressed by Gundersen Lutheran Health System surgeon and medical vice president, Marilu Bintz, MD. After completing the course, Dr. Bintz commented, “I was really impressed with the course—I have been telling my department chairs about it because I must admit that it made me change the way I talk with patients…and that’s pretty hard to do with an old woman like me!”

Since 2007, the GRPHP collaboration has reached more than 3,600 healthcare professionals and students, librarians, and consumers. A second SWAHEC grant has been awarded for 2009-2010, which will focus on underserved populations—to raise their awareness in the use of effective health literacy techniques to better understand and manage their healthcare. With the support, funding, and facilitation/brokering of SWAHEC, six individuals, passionate about health literacy, have demonstrated that the value of collaboration far exceeds that of competition.

AUTHORS’ NOTES

This project has been funded by the National Library of Medicine under Contract No. NO1-LM-6-3503 with the University of Illinois at Chicago, Library of the Health Sciences. Additional funds were provided by Southwest Wisconsin Area Health Education Center, Franciscan Skemp Foundation, Gundersen Lutheran Medical Foundation, Inc., and Gundersen Lutheran Health System.

Great Rivers Partners for Health-e People Steering Committee: Melinda Orebaugh, MLS, Director, Gundersen Lutheran Health System Library & Health Information Services; Doris Doherty, BSN, RN, MA, Emeritus, Quality Improvement Educator, Franciscan Skemp/Mayo Health System; Joan Temple, MEd, OTR, Assistant Clinical Professor, University of Wisconsin-La Crosse; Elly Lensch, MLS, Health Sciences Librarian, Franciscan Skemp/Mayo Health System; and Kaye Crampton, MALS, Consumer Health Librarian, Gundersen Lutheran Health System.
REFERENCES


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**It's estimated that $106–$236 billion is lost every year on healthcare costs due to patients' low literacy skills. Why?** Because:

- **Individuals with low levels of health literacy are less likely to pursue preventive care such as immunizations, diagnostic tests, mammograms, and other cancer screenings.**

- **They have difficulty following a doctor's orders, adhering to medication schedules, filling out registration and insurance forms, and understanding how to navigate the healthcare system effectively.**
Inadequate healthcare literacy is a common issue, but incorporating the practices of high reliability organizations (HRO) can mitigate impact. Combining “hardwired” safety tools, such as standardized processes and scripted communications, with Area Health Education Center (AHEC) network outreach, can have a significant and positive impact on rural health literacy and quality of care.

AHECs are perfect platforms with which to launch hardwired communication tools into the education of future caregivers and to inculcate these processes into the rural environment. Introducing the concept and benefits early in caregivers’ education is essential to fostering understanding, and AHEC-sponsored, local training could facilitate the development of local or regional “standard” processes. In turn, the presence of easy-to-use, standard processes would become an incentive to caregiver recruitment and retention. Overall, this effort would significantly improve health literacy in a targeted manner (i.e., focusing on local or regional diversity and educational needs while providing new, as well as experienced, caregivers immediately accessible tools to create better understanding).

**Background**

To begin with, an HRO works in a complex, high risk, and high-cost-of-failure industry, such as nuclear power and aviation, but has relatively few errors, thus is highly reliable. There are common factors that enable HROs to maintain low error rates, with a primary one being adherence to mandatory, standardized protocols and processes. Hardwiring these processes into everyday practice makes it easy to do the right thing and difficult to make an error. Increasingly, healthcare organizations are recognizing and implementing hardwired safety tools to reduce error rates and impact their patients’ health status.

According to the American Medical Association, health literacy skills are the strongest predictor of an individual’s health status, so there is clearly a need to address diversity and literacy variability in every intervention. As a result, a significant number of initiatives, such as interpreter services and graphic displays of medications, strive to provide the patient with tools to better understand their individual health status and treatment plans.

To ensure the best possible provider-patient interaction, physicians and staff need tools as well. So it’s time to “hardwire” healthcare literacy into the communication processes between our caregivers and patients. Hardwired, in this case, means permanently embedding process tools into everyday practice, making communication flow easier, while at the same time, making it difficult to overlook critical steps. The tools that will have the most immediate benefit for rural caregivers are standardized processes and scripted communications.

**Standardized Processes**

One of the most useful tools in any HRO is a written, standardized process. Great examples of this are aviation’s checklists and healthcare’s SBAR (Situation, Background, Assessment, Recommendation) handoff. Many hospitals have developed standardized SBAR handoffs to reduce errors and enhance communication. Hospitals hardwiring these processes into place have seen dramatic results, including reductions in adverse event rates from 89.9 to 39.96 per 1,000 patient days and reductions in adverse drug events from 29.97 to 17.64 per 1,000 patient days (Denham, 2008).

Using standardized processes to improve health literacy will have a profound effect in the rural environment. Specifically, developing tools that delineate critical elements in the patient communication process will provide the best environment to ensure caregivers provide understandable and complete information. Checklists are good tools to accomplish this and can be customized to local/regional demographic patient needs. For example, rural areas with heavy coal-mining populations can build specific checklist items to ensure pneumoconiosis factors are considered and discussed at each step in the care and education of the patient.

**Scripted Communications**

Scripting involves pre-formatting communications to ensure complete, understandable information is communicated. One of the greatest benefits of scripting is that it allows individuals to focus externally on the information and receiver, versus focusing internally on organizing thoughts into a cohesive message. Another benefit is that scripting ensures information is given in a specific sequence and in language that enhances understanding.

Healthcare literacy benefits are:

- Use of simple words/non-medical terms
- Built-in pauses to give information in small chunks
Hardwiring Health Literacy: Tools for Caregivers

- Built-in reminders to request “teach back”
- Built-in prompts to elicit patient concerns

Localized Impact
Well-designed process tools are important and will assist caregivers in communicating effectively and providing the best opportunity for patients to make informed decisions about their healthcare needs. To provide the most impact on health literacy, standardized processes that incorporate scripting are the best choice. While standardized tools may be viewed as inflexible, in reality, they are easily customized to achieve desired effects. To build on the previous example, the coal mining area checklist would be scripted to refer to pneumoconiosis as “black lung disease,” thus hardwiring regionally understandable terminology into caregiver communications and assisting patient comprehension. Once developed, customized scripts can be shared and refined by AHECs with demographically similar populations.

Conclusion
AHECs are optimally positioned to educate and promote the use of regionally developed communication tools, thus impacting current and future health literacy. This includes educating student populations, providing tools to current rural practices, and utilizing the network to disseminate tools. In addition, providing ready-made tools and education on their use could have a positive impact on an individual caregiver’s decision to enter or remain in rural healthcare practice.

The direct benefits could be:
- Targeted educational materials for recruiting and high school programs
- Decreased time to proficiency for new caregivers
- Increased rural caregiver satisfaction/retention

Incorporating the tools and practices of HROs will afford the AHEC network and rural caregivers the ability to positively impact health literacy and the overall quality of care.

REFERENCES

Adults with low health literacy have:
- Increased rates of advanced diseases,
- Increased rates of preventable diseases, and
- An increased mortality rate
To adequately manage or improve the health of their patients, health providers must themselves be knowledgeable about health literacy (HL); understanding what HL is; what HL issues are endemic in their patient population; how those issues positively and/or negatively impact the health of their patients; and how to identify, address, and resolve those issues in individual patients. At the same time, providers for special populations have an urgent—sometimes unmet—need for tailored, focused Continuing Education (CE). The East Texas AHEC and the East Texas Geriatric Education Center (ETGEC) have collaborated to implement a successful distance CE program for healthcare professionals serving a special population with very particular HL needs and issues—the geriatric population.

ETGEC, a program of the Sealy Center on Aging at the University of Texas Medical Branch at Galveston (UTMB), is a Bureau of Health Professions Title VII Health Professions Training Program, providing CE in geriatrics to health professionals and health professions students at UTMB. The topics address healthcare issues and health literacy needs of older populations in medically underserved areas, including older minorities, elderly in rural communities, and institutionalized/incarcerated elderly.

ETGEC Project Director, Anthony DiNuzzo, PhD, invited East Texas AHEC to develop and implement a distance education collaborative, to provide ETGEC CE to geriatric providers in underserved/rural regions of East Texas, at local sites. AHEC/ETGEC Program Coordinators at the East Texas AHEC Program Office, Brazos AHEC, Coastal AHEC, Pecan Valley AHEC, and Piney Woods AHEC collaborated with their host and affiliate institutions to secure local remote sites to host the broadcasts. The series of five three-hour broadcasts, entitled “Topics in Geriatric Health Literacy: An Active Learning Series I” (2009 ETGEC GHL Series), was presented to geriatric providers in sessions at UTMB, and simultaneously broadcast live to the AHEC remote sites by the UTMB Information Systems Network, via full two-way interactive H.323 videoconferencing. Physicians, nurses, social workers, counselors, rehabilitation providers, health educators, and health professions students from 20 counties attended ETGEC broadcasts at Baylor University, Waco; Lamar University, Beaumont; Stephen F. Austin State University, Nacogdoches; and University of Houston Victoria, Victoria.

Broadcast topics were varied, including Introduction to Health Literacy, Assessing Geriatric Patient Health Literacy, Effects and Barriers Associated with Cultural Diversity, Need for Effective Patient Communication, Improving Practitioner-Patient Communication, Spirituality as a Part of GHL, and Breaking Bad News. The UTMB Standardized Patient Program (SPP) presented health scenarios which demonstrated geriatric patient issues such as limited hearing, limited sight, limited mobility, various stages of senility/dementia, non-compliance, denial, paranoia, illiteracy, polypharmacy, language barriers, cultural barriers, religious barriers, and others.

Upon the series conclusion, 15 hours of certified CE training on medical topics and related GHL had been broadcast, with 238 provider and 11 pre-professional student program completers in Family Medicine, Internal Medicine, Other Allopathic Medicine, Psychology, Physician Assistant, Nurse Practitioner, Registered Nurse, Social Work, Health Education, and Rehabilitation Sciences. The ETGEC + East Texas AHEC Health Professions Distance Learning Collaborative proved to be an effective tool to reach healthcare providers in rural/underserved areas. Betty Byer, RN, one of the participants, noted, “The GEC teleconferencing series was terrific! It was very informative and the technology used to link so many sites together was impressive. … It was nice to have the topic of health literacy in the geriatric population covered here locally … I appreciate all that the (Piney Woods) AHEC does for its healthcare professionals…”

Dr. DiNuzzo, on planning for “Topics in Geriatric Health Literacy: An Active Learning Series II,” stated, “Our 2010 broadcasts will include more in-depth study of issues assessed as most relevant, best attended, and/or most requested: ethics, culture and inherent barriers to care, overarching low literacy, needs of geriatric sub-populations, and patient navigation. We will focus on presenting practical applications that directly apply to real patient care—since our target audience is primarily clinical, our focus is to ensure that the information we present is clinically relevant, with clear application to practice. We will guide participant providers to incorporate GHL content.
into practice through interactive demonstration and role-play through increased utilization of SPP. Our East Texas AHEC partners will continue to be an integral component in planning, marketing and implementation, as they ensure the successful continuation of our broadcast series for rural providers.” And, it is a valuable relationship for East Texas AHEC as well. According to Steve Shelton, Assistant Vice President, University of Texas Medical Branch at Galveston, and Executive Director, East Texas AHEC, “The partnership of GEC and AHEC has become a very successful synergy of experience and expertise. Professionals and communities alike have gained new knowledge and insights from the programming delivered by the partnership. Equipped with current information, those serving the older members of our communities are making a real difference in quality of life.”

Patients with low health literacy skills often report:

- Deep sense of shame, reinforced by hospital staff
- Difficulty reading signs and locating places
- Challenges filling out forms
- A higher frequency of medication errors
Successful Collaborating: Ideas and Outcomes

Ann Rathbun, PhD; and Ellen Peterson, BSN, RN

Introduction

While budgets in all kinds of organizations are especially tight right now, one thing does not change: faculty members working in universities (academia) and AHEC organizations that can help each other succeed in providing high-quality programming aimed at improving patients’ experiences with health care. The goal of this article is to describe a successful collaborative venture that focused on health literacy.

Successful Health Literacy Program Collaboration

Over the course of a year and a half (April 2006-October 2007), the Ohio University AHEC collaborated with faculty and staff members whose expertise included Appalachian culture, literacy, organizational communication, and health literacy. The AHEC offered three day-long (seven-hour) workshops at three regional campuses in the Ohio University AHEC service region. The partners were able to educate more than 400 healthcare practitioners about topics related to health literacy. Demographic information revealed that most of the participants were nursing students (n=296). Nursing faculty members and community health professionals made up the balance of the participants. AHEC staff arranged continuing education credit offerings for nurses, dieters, counselors, social workers, and certified health education specialists. Although planners received a small amount of grant funding, workshop participants paid a nominal fee of $10 each to help defray indirect costs associated with the workshop.

Each workshop addressed four topics, and each presenter made some link to health literacy in their presentation. The topics included: 1) the impact of culture on health and health literacy; 2) the role of communication in the patient/provider relationship; 3) the impact of learning disabilities on literacy and health literacy; and 4) introductory information related to health literacy. Health literacy was the focus of the workshops and accounted for one-half of the seven-hour workshop.

Individuals with specific expertise presented the topical portion of the workshop. The topic of culture was presented by Sharon Denham, DSN, RN, a researcher whose academic focus is Appalachian culture, health, and health literacy. Three people were involved in the communication presentation. Each presenter had a unique background in health and/or organizational communication. Sharon Reynolds, MEd, director of the Adult Basic Literacy Education (ABLE) Resource Center at Ohio University, presented a portion of the program on learning disabilities. The health literacy portion of the workshops were presented by Ann Rathbun, PhD, a researcher and health educator who had previously worked with more than five practitioner groups to increase their awareness and skill in the area of health literacy.

At the close of the workshops, program evaluations from participants indicated that the health literacy portion, in particular, met its objectives at an overall rate of 88% (Table 1).

<table>
<thead>
<tr>
<th>Table 1. Program Evaluations</th>
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</thead>
<tbody>
<tr>
<td>Please rate your ability to achieve the objectives of the program</td>
</tr>
<tr>
<td>Utilize two different readability tests.</td>
</tr>
<tr>
<td>Identify three tools for creating easier-to-read documents.</td>
</tr>
<tr>
<td>Identify two different tools for assessing patients’ health literacy.</td>
</tr>
<tr>
<td>Identify three sources for accessing the most up-to-date information regarding health literacy.</td>
</tr>
<tr>
<td>Define health literacy and choose the definition of health literacy that best fits your practice setting.</td>
</tr>
<tr>
<td>State the link between literacy and health literacy.</td>
</tr>
</tbody>
</table>

In further evaluation of the workshop, participants responded to the question, “What are three new strategies you think you might apply in your work?” Responses included:

- Simplify information and written communications;
- Use resources like AskMe3™ and the American Medical Association (AMA) DVD on helping patients understand;
Successful Collaborating: Ideas and Outcomes

- Assess patients’ literacy level as part of patient assessment;
- Make sure to include family members;
- Listen to patients more…talk less;
- Use everyday language when talking to patients.

Other qualitative data collected (in an open-response section) featured remarks from participants reporting satisfaction in each of four areas: workshop organization; the high value the workshop provided in terms of skill development; the level of awareness the program brought to participants regarding cultural considerations and health literacy; and the fact that participants reported the program changed the way they might think about health literacy and practice.

Overall, the collaborative effort that brought together university faculty and staff, AHEC staff, and practitioners was successful on many fronts. First, the collaborative effort made it feasible to reach across disciplines to emphasize the point that health literacy is a “multidisciplinary” issue. Second, the effort was valuable in terms of building skill for nursing students and other healthcare practitioners in Southeastern Ohio. The program evaluation spoke to the tangible skills practitioners took away from the workshops. Finally, the workshops made it possible for AHEC programmers to accomplish their mission “to enhance access to quality health care…through community and academic educational partnerships” (National AHEC Organization Web site, 2009).

REFERENCES

53% of U.S. adults are challenged by health literacy. They have difficulty:

- Comparing multiple pieces of information within health documents, or
- Solving the more complex arithmetic operations often required in health-related situations.
Maryland AHEC Program Promotes Literacy with Mini-Med School
Donna L. Wilson, MA; and Susan K. Stewart, BS

Mini-Med School (MMS) is a public education program designed to help members of the community improve their health literacy, thereby improving their health and well-being. In addition to providing the public with important health information, the goal of MMS is to raise the public’s awareness of biomedical research and the importance of enrolling in clinical trials. The MMS concept was created in 1988 under the leadership of Dr. J. John Cohen at the Colorado University School of Medicine. More than 20 years later, Mini-Med School is offered by more than 70 medical schools, universities, research institutions, and hospitals across the nation.

In Maryland, successful Mini-Med Schools have been held in Baltimore and surrounding counties through the University of Maryland School of Medicine (UMSOM) since 2001, on the Lower Eastern Shore through the University of Maryland Eastern Shore since 2004, in Western Maryland through the Western Maryland Area Health Education Center (AHEC) since 2005, and, beginning in 2009 on the Middle Eastern Shore through the Eastern Shore AHEC. In 2008, more than 700 participants attended Mini-Med Schools throughout Maryland.

The AHEC Mini-Med School is based on the model set forth by the UMSOM Mini-Med School. Classes are held one evening each week for four weeks. Students hear lectures by noted healthcare professionals on a variety of health issues. Topics are initially identified through community surveys, then through participant feedback. Speakers include local healthcare professionals and physicians generally from the University of Maryland School of Medicine. Students have the opportunity to ask questions and share comments, which allows for open discussion. To assess their knowledge on a given topic, students complete a pre-test before and a post-test after each session. The tests are then graded to determine an average pre- and post-test score and to gauge the participation. Students are encouraged to attend each week and those who attend 75% of the classes are recognized at a graduation ceremony after the final class. Graduates receive a diploma and T-shirt for their participation. Evaluations completed by students after each class have been very positive.

The MMS in Western Maryland reaches out to the residents of Allegany County and the surrounding area. Topics are based on the health status of the community and the identified interests of the participants. Topics have included skin care, diabetes management, bioterrorism preparedness, healthy aging, plastic surgery, pain management and addiction to medications, alternative medicine, arthritis, substance abuse, anxiety and depression, hypertension, heart health, cancer in Western Maryland, transplant surgery, joint replacements, obesity, methicillin-resistant *Staphylococcus aureus* (MRSA), effective doctor/patient communication, hypertension and stroke, smoking cessation for people with mental illness, diseases of the eye, women’s oncology issues, lung and bronchus cancer, reconstructive surgery post-cancer treatment, and others. Since 2005, more than 700 participants have attended the Western Maryland MMS, with more than 500 graduates participating in at least three of the four sessions. In Western Maryland, most participants have attended more than one MMS, and 20 individuals have graduated from all five MMS programs. Feedback from participants attests to the value that they place on the annual MMS, ranging from how much they enjoy the topics and speakers to how much the program has helped them learn about their own health and the resources available in the community, the region and the nation. Pre- and post-
Maryland AHEC Program Promotes Literacy with Mini-Med School

tests indicate that more than 90% of participants increased their knowledge on the topics covered and the resources available. Participants particularly enjoy the question/answer segment and staying afterward to speak one-on-one with the physicians who present the material.

Since so much of what an AHEC does is out of the general public’s eye, a secondary benefit of MMS is that it gives a different level of visibility to Western Maryland AHEC programs and services. Of particular note is that the Western Maryland MMS led to a partnership with a Federally Qualified Health Center (FQHC) whereby MMS served for 3 years as the venue for educating the public on mental health concerns of importance identified by the FQHC.

The Eastern Shore AHEC’s first Mini-Med School for the middle Eastern shore community was held in March 2009. Eighty people from seven surrounding counties attended at least one session and 46 graduated. Nearly 60% of those attending were 50 or older; 38% had a high school diploma, and 62% had higher education degrees. Participants heard lectures on cancer, clinical trials, pain management, addictions, diabetes, obesity, and health and wellness. Individuals especially liked the relaxed atmosphere and direct conversations with renowned healthcare professionals. When asked why they were interested in attending MMS, most stated they wanted to increase their knowledge. Interestingly, many healthcare professionals also attended MMS in order to help them better serve their patients. Test scores indicated an improvement in the participants’ health knowledge each week, ranging from 8% to 36.5%. When asked on the evaluations: “Has Mini-Med School increased your health knowledge on a scale of 0 (not at all) to 4 (a lot+)?,” 77% to 91% responded “quite a bit” and “a lot.” When asked on the evaluations “What lifestyle changes will you make as a result of attending Mini-Med School?,” most participants noted they would eat healthier and exercise more. Other attendees commented: “I will ask questions of my doctor,” “I know what to ask the doctor now,” and “I’m empowered to be proactive with my health.” To encourage participants to take an active role in their health care, they each received a publication of the National Institute on Aging, Talking with Your Doctor: A Guide for Older People. The speakers also stressed the importance of a good patient/doctor relationship and open communication.

The Maryland AHEC Mini-Med Schools are free to the public with funding from the University of Maryland School of Medicine. Partnerships with the University of Maryland Statewide Health Network and local organizations substantially contributed to the program’s success. Since its inception in Maryland, Mini-Med School has improved the health literacy of more than 3,100 members of the community. Those who attended the Mini-Med Schools now have some basic knowledge to help them make healthy choices, identify risk factors, share information with their healthcare providers, and seek healthcare services when necessary.

Figure 2. Participants at the 5th Annual Western Maryland Mini-Med School earlier this year.
2009 Annual NAO Report Summary/ CORE Data

Prepared by Indiana AHEC Program, Indiana University

The NAO Editorial Board, the NAO Communications Committee, and the NAO CORE Committee have collaborated to bring you this summary of CORE data, which is usually reserved for the Annual Report. This year, the committees decided that it would be beneficial to NAO and its members to include this statistical information in the Journal of the National AHEC Organization (formerly The National AHEC Bulletin). Hard copies of the full Annual Report will also be available for purchase separately by visiting www.NationalAHEC.org

Health Professionals in Continuing Education by Discipline

Total Contact Hours . . . . . . 1,272,647
Total Participants . . . . . . . . 438,223

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>26.7%</td>
</tr>
<tr>
<td>Nurses (RN, LPN/LVN)</td>
<td>19.5%</td>
</tr>
<tr>
<td>EMT/EMS/Other Emergency Response Personnel</td>
<td>1.1%</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>1.3%</td>
</tr>
<tr>
<td>Health Administrators</td>
<td>1.7%</td>
</tr>
<tr>
<td>Dentists</td>
<td>1.1%</td>
</tr>
<tr>
<td>Dental Hygienists</td>
<td>1.4%</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>3.2%</td>
</tr>
<tr>
<td>Community Health Workers</td>
<td>3.8%</td>
</tr>
<tr>
<td>Advanced Practice/Nurses/Physician Assistants</td>
<td>4.3%</td>
</tr>
<tr>
<td>Mental Health Professionals</td>
<td>8.7%</td>
</tr>
<tr>
<td>Allied Health Professionals</td>
<td>8.5%</td>
</tr>
<tr>
<td>Other</td>
<td>17.5%</td>
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Students Introduced to Health Careers
(<20 hour programs)

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<tr>
<th>Grades</th>
<th>Total Students</th>
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</thead>
<tbody>
<tr>
<td>K-8</td>
<td>224,637</td>
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<tr>
<td>9-12</td>
<td>206,371</td>
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<tr>
<td>College</td>
<td>25,917</td>
</tr>
<tr>
<td>Total</td>
<td>456,925</td>
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Students in Enrichment Programs
(>=20 hour programs)

<table>
<thead>
<tr>
<th>Grades</th>
<th>Total Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-8</td>
<td>5,510</td>
</tr>
<tr>
<td>9-12</td>
<td>21,555</td>
</tr>
<tr>
<td>College</td>
<td>5,817</td>
</tr>
<tr>
<td>Total</td>
<td>32,882</td>
</tr>
</tbody>
</table>

Data Sources: FY 2009 HRSA Bureau of Health Professions Report Tables and NAO Committee on Research and Evaluation (CORE) Critical Data Tables from Reporting AHEC Programs.
2009 Annual NAO Report Summary/CORE Data

Community-Based Training Sites*

17,388 Sites

- Rural AHEC Sites 19.4%
- Designated Underserved Areas 81.2%
- AHEC Urban Community-Based Training Site 12.2%
- Other Sites 7.2%

*Sites meeting more than one designation were counted more than once.

Health Professions Students Trained at Community-Based Sites

47,734 Students

- Physicians 42.5%
- Nurses (RN, LPN/LVN) 19.7%
- Allied Health 12.9%
- Other Health Professions Students 8.1%
- Advanced Practice Nurses/Physician Assistants 9.5%

Health Professions Students Trained at Underserved Clinical Locations

49,196 Students**

- Health Professions Shortage Area (HPSA) ......................... 12,943
- AHEC Urban Community-Based Training Sites .................... 9,162
- AHEC Rural Community-Based Training Sites .................... 6,678
- Community Health Center ............................................. 4,381
- Other Community-Based Safety Net Sites ......................... 3,006
- Ambulatory Practice Sites Designated by State Governor .... 2,865
- Other Site ................................................................. 2,733
- Rural Health Clinics ..................................................... 1,544
- National Health Service Corp (NHSC) Sites ......................... 1,483
- Federally Qualified Health Centers (FQHC) ......................... 1,474
- Health Department ..................................................... 1,381
- Health Care for the Homeless ....................................... .650
- Indian Health Service (HIS) or Tribal Health Sites ............. .522
- Migrant Health Center ................................................ .357
- Public Housing Primary Care Grantees ......................... .17

**Students trained in more than one location were counted more than once.
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Journal of the National AHEC Organization

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- Cavity Free at Three is a Colorado based educational program aimed at preventing oral disease in young children. We aim to engage physicians, dentists, nurses, dental hygienists, public health practitioners and early childhood educators in the prevention and early detection of oral disease in pregnant women and children.

- Dental decay is the most chronic childhood disease, yet it is preventable. Oral health is an integral part of overall health

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- We offer comprehensive training opportunities to address the prevention of oral health disparities of children under the age of three.

For additional information on our program visit our website at: www.cavityfreethree.org.

To see how you can become involved contact: Cavity Free at Three Program
Karen Savoie
Director of Education
karen.savoie@sunyorange.edu
303-724-4750

Susan Evans
Program Director
susan.evans@sunyorange.edu
303-724-5191

To order toothbrush and fluoride varnish kits, contact: Lonnie L. Schwind
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Phone (303)830-6885 x212
AHEC Moving Forward: On the Path to Health Careers

The *Journal of the National AHEC Organization* is soliciting articles on new and exciting AHEC initiatives that address developing our future health workforce and AHEC’s role in providing health careers support in underserved communities. This issue will highlight those creative and unique programs and activities that promote health careers and create pathways to successful completion. Your article may address any aspect of this focus area: health careers recruitment, student training, second career options, educational services for practitioners, or enhancing local health services. In addition, articles on individual success stories and describing new evidence-based strategies utilized in your programs are welcome. Articles should address:

- Innovative education and training strategies you have used to develop the health workforce in your region, such as distance learning opportunities, learning collaboratives, or train-the-trainer programs.
- Partnerships you have created to strengthen the health or healthcare services of your communities, including with local businesses and schools, state, county, and local departments of health or labor, and professional societies.
- Evaluation methods and tracking systems you have developed to better determine your successes and define your outcomes.
- Poignant stories you can tell about an individual’s pathway to a health career and making a difference in underserved areas.
- Innovative problem-solving processes you have employed for improvement.
- How you are promoting the AHEC mission to increase access to quality health care.

Please describe your AHEC’s role and its decision-making process as the program was developed. What local issue are you targeting? What criteria were used to determine collaborators? What challenges were surmounted? How are you evaluating the program’s effectiveness? What outcomes have been obtained?


And include the *Journal Submission Coversheet*: http://www.nationalahec.org/Publications/documents/BulletinSubmissionCoverSheet.doc

First Draft Submission Due: June 30, 2010

Please submit drafts, photos, and accompanying materials to: editor@nationalahec.org.

For questions or more information please contact:

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The National AHEC Organization Mission
NAO is the national organization that supports and advances the AHEC network in improving the health of individuals and communities by transforming health care through education.

The AHEC Mission
To enhance access to quality health care, particularly primary and preventive care, by improving the supply and distribution of healthcare professionals through community/academic educational partnerships.

www.NationalAHEC.org

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