Improving Communication in Current Systems of Care

Chapter 4

Effective provider-patient communication is critical to the overall functioning of our health care system. Yet, few providers are taught how to communicate effectively with their patients. The previous chapter outlined successful strategies to make it easier for people to understand oral, written, and visual health information. Health care providers who employ these strategies will be more successful in communicating complex health information to their patients. These clear communication strategies are important for all health care practitioners, including physicians, nurses, physician assistants, pharmacists, allied health professionals, and health educators. Using clear communication strategies is important whether the health care professional is working with individual patients or involved in population-based health education efforts. Furthermore, everyone —not just those with low health literacy—benefits from the use of these evidence-based clear communication strategies.

Despite the emerging evidence about effective provider-patient communication strategies, health care providers do not universally use these methods. Many health care providers have little, if any, familiarity with the issue of low health literacy or communication strategies that have been shown to increase comprehension of health information. More outreach and education is needed to ensure health care professionals understand this issue and learn the skills needed to successfully communicate health information to their patients.

Many practitioners are unfamiliar with the concept of low health literacy.

Office-Based Practitioners

Most Americans use office-based providers as their usual source of care. More than four-fifths (84%) of people with a usual source of care use an office-based provider as their usual source.[1] However, many practitioners are unfamiliar with the concept of low health literacy.[2] For example, when internal medicine residents were provided case studies suggesting low literacy, less than one quarter of the residents identified low literacy as a potential contributing cause of admission, even when provided clinical clues.[3]

Our understanding of the relationship between low health literacy and health outcomes is relatively new. Thus, providers who completed their training years ago will have had very limited exposure, if any, to this issue. In addition, many recent graduates are limited in their understanding of health literacy and its effect on health. For example, one study that assessed the health literacy knowledge of graduating nursing students found less than half correctly identified the age group with the highest risk of low health literacy, and only 15% correctly identified health literacy—not socioeconomic status—as the more important predictor of health status.[4] Although they may be aware of the issue, recent graduates may lack the skills to assess literacy levels. In another study, approximately 30% of family medicine residents expressed reluctance in assessing literacy in adults out of fear of offending patients, which lends support to advocating a universal approach. Residents actually were more comfortable discussing illicit drug use than literacy levels.[5] Although there have been numerous calls for increased training and awareness of health literacy among health professionals,[6,7] few examples of health literacy curricula have been developed.[8]

Even those health care professionals who have some understanding of the problem are unable to accurately identify their own patients with low health literacy skills. One study found residents overestimated the literacy skills of patients; more than one third of the patients who the residents perceived to have no literacy problem had low scores on a literacy assessment.[9] Underestimating the prevalence of low health literacy in a patient population may lead some health care practitioners to believe they do not need to worry about the problem or learn new communication skills. Thus, it is important to educate *all* health care providers about this problem. Health care providers need to understand how many people in North Carolina have low health literacy and how low health literacy affects patient knowledge, adherence to treatment recommendations, and overall health status.

Recent changes in professional certification standards, as well as the increased emphasis on measures of quality and outcomes, may help provide incentives for practitioners and health care organizations to implement more effective communication strategies.

Recent changes in professional certification standards, as well as the increased emphasis on measures of quality and outcomes, may help provide incentives for practitioners and health care organizations to implement more effective communication strategies. Some specialty boards, including family medicine, internal medicine, and pediatrics, require that physicians periodically demonstrate continued competence in order to maintain their board certification. Physicians must demonstrate competence in provider-patient communication as part of the maintenance of certification (MOC) requirements.[a] In addition, the Accreditation Council for Graduate Medical Education has made interpersonal and communication skills one of the six competencies for residents.[b,10]

The Joint Commission, which is the predominant standards-setting and accrediting body for health care organizations, recently issued a call to action to improve health communication, especially for people with low health literacy.[11] The Joint Commission recognized providers put patients at risk when they communicate using medical jargon and unclear language. According to the Joint Commission:

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[a] Internists can complete their MOC requirements by completing the Patient and Physician Peer Assessment Module, which provides performance data obtained from surveys of patients and physician peers regarding humanism, communication, interpersonal skills, and clinical practice.[44] After reflecting on the data, internists have to submit a quality improvement plan. The American Board of Internal Medicine also offers communication modules that use revised physician-level Consumer Assessment of Health Plans Study surveys, which collect patient experiences about practice systems and physician and staff communications. Family physicians must complete a Performance in Practice Module to fulfill their MOC.[45] Beginning in 2007, physicians can satisfy this requirement by completing a Methods in Medicine Module. This module focuses on fundamental skills such as information management and patient communication and includes quality improvement concepts and activities. As part of the program for MOC in pediatrics, physicians must show evidence of satisfactory performance in practice.[46] Beginning in 2008 or 2009, patients will complete surveys that solicit information about their pediatricians' interpersonal and communications skills and professionalism. The surveys are meant to provide meaningful feedback to pediatricians and to give them an opportunity to reflect on their patients' perceptions of their skills.

[b] To demonstrate competency in this area, residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates. Residents are expected to (1) create and sustain a therapeutic and ethically sound relationship with patients, (2) use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills, and (3) work effectively with others as a member or leader of a health care team or other professional group.

> Health literacy issues which go unrecognized and unaddressed undermine the ability of health care organizations to comply with accreditation standards and safety goals meant to protect the safety of patients. The safety of patients cannot be assured without mitigating the negative effects of low health literacy.[11]

The panel of experts appointed by the Joint Commission to examine the problem of health literacy made the following recommendations: make effective communications a priority in protecting the safety of patients; address patient communications needs across the spectrum of care; and pursue public policy changes that promote better communications between health care practitioners and patients. In addition, several of the Joint Commission's National Patient Safety Goals, which are requirements for accreditation, specifically address provider-patient communication issues. The Joint Commission also has launched the Speak Up initiative, a national campaign to urge patients to take a role in preventing health care errors by becoming active, involved, and informed participants on the health care team.

Many payers also are moving towards reimbursement systems that reward quality. The goal of many of these "pay-for-performance" systems is to focus on health outcomes, not merely process measures. If a provider has poor communication skills, his or her patients may have worse quality outcomes, which may reflect poorly on the provider. To the extent quality measures are sensitive to the effectiveness of provider-patient communication, providers have an incentive to use more effective communication strategies.

Health literacy training should be incorporated into undergraduate, graduate, and continuing education curricula for all health professionals.

There are several opportunities to educate providers about these issues. The Task Force recommended a multi-faceted approach that exposes providers to the issue at several points throughout their training and careers. This long-term educational approach will serve to reinforce the key elements of low health literacy, motivate providers to increase their focus on the issue, and expose health care professionals to best practices that can increase their communication with all North Carolinians, regardless of health literacy status.

Recommendation 4.1

a) **Institutions and organizations that train health professionals should incorporate health literacy training into their undergraduate, graduate, and continuing education curricula. Health literacy training should be integrated into existing provider-patient communication classes, condition-specific educational curricula, interpreter or cultural sensitivity courses, clinical rotations, and ongoing continuing education courses. The curricula should provide information about the number of people with low health literacy and how low health literacy affects patient understanding, adherence to medical instructions, and health outcomes. Trainings should emphasize communication skills that enhance consumer understanding of health care information. In addition, training should give providers an opportunity to test and model new communication skills.**

i) Medical and other health professions schools should incorporate health literacy information into their undergraduate and graduate curricula, clinical rotations, and residency programs.

ii) North Carolina community colleges should incorporate health literacy information into their allied health, interpreter training, practice management, and other health-related curricula.

iii) The North Carolina Area Health Education Centers (AHEC) program should incorporate health literacy information into their continuing education courses, residency programs, and clinical training in community settings.

iv) Professional associations should include information on health literacy in their annual meetings and continuing education curricula.

b) AHEC, Carolinas Center for Medical Excellence, Community Care of North Carolina, Division of Public Health, North Carolina Center for Hospital Quality and Patient Safety, North Carolina Community Practitioner Program, safety net organizations, and health professional associations should work collaboratively to help practices and health care professionals effectively implement successful health literacy strategies into their practices.

Although there is a growing body of literature about effective communication and disease management strategies for people with low health literacy, there are many barriers to integrating these strategies into practice. One of the greatest barriers is the considerable time cost of researching best practices and translating them into daily behaviors. Efforts are needed to make it easier for providers to incorporate effective communication strategies and self-care models into their practices. The Health Literacy Center of Excellence outlined in Chapter 3 would help disseminate best practices to North Carolina providers. A Center specifically charged with evaluating and disseminating best practices in health literacy will enhance the ability of North Carolina providers to increase their portfolio of skills and will give providers materials to increase the quality of provider-patient communication.

Pharmacies

As noted in Chapter 2, medication errors are among the most common medical mistakes that occur in America.[12] The health care delivery system has moved toward increased use of pharmaceuticals. On an average week, roughly 80% of adults take at least one medication and about a third take at least five.[13] With such prevalent use of medications, it is not surprising that high rates of medication errors occur. Medication errors take many different forms, including prescription, dispensing, and patient errors. Research has found patients with lower literacy have poorer understanding of drug labels. Furthermore, even patients who can correctly explain dosage often struggle to demonstrate how to take medication correctly.[14,15]

Drug labels are a primary source of drug information for consumers. However, the content on many of these labels is prone to misinterpretation. For example, “Take two tablets twice a day” is an ambiguous directive. While the provider is trying to get the patient to take two tablets in the morning and another two in the evening, some people could misinterpret the instructions to mean take one pill at two different times during the day.

Patients with low literacy are three times more likely to incorrectly interpret warning labels on prescription drug packages.[14] Only 8% of patients with low literacy understood the label "for external use only," compared to 82% of people with higher literacy levels. Similarly, only 35% of patients with low literacy levels understood a warning label that stated to swallow whole, compared to 78% of those with higher literacy levels. Consumers also may get consumer medication information (CMI) in the form of package inserts or medication guides, but this information is typically more dense and hard to read. One study found CMI for asthma inhalers was typically not written at a level that would be understandable to a broad audience. For example, the average grade level was 8.2 and the average text size was 9.2. This format is problematic because half of adults read at or below the eighth grade reading level[16] and consumers prefer reading information in a large font size.[17] Instructions for use did not always follow the generally accepted step-by-step directions. In some inserts, the instructions were out-of-order or incomplete (such as failure to direct the patient to hold her breath after operating the inhaler).[18]

Patients with low literacy are three times more likely to incorrectly interpret warning labels on prescription drug packages.

The content of drug container labels is regulated by the North Carolina Board of Pharmacy.[19] The content of other prescription drug information (package insert and medication guides) is regulated by the Food and Drug Administration, and data management companies develop CMI without regulation. Thus, the state has the most direct influence over the content of drug container labels. The North Carolina Board of Pharmacy has a great opportunity to improve the content of drug labels to increase patient understanding.

Currently, research is being conducted to identify key elements of a drug label that will enhance patient understanding. Shrank and his colleagues have conducted a literature review to identify label formats that improve readability and understanding. Research shows patients prefer:[20,21]

- specific directions that avoid vague terminology;
- a list of the benefits of the medication (ie, what the medication is for);
- a list of warnings and possible side effects;
- suggested responses to side effects (eg, when to call a doctor or stop taking the medication);
- how long to take the medication; and
- large font size.

Although there are a few examples of improved drug labels,[c] the common labeling practice often does not coincide with patient preferences or best practices. Using

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[c] Target's ClearRx product places a different color band for each member of the family on pill bottles, prints the instructions in larger and clearer font, and includes a slot for placing consumer medication information so the patient can easily refer to more documentation. The radical redesign of the prescription bottle has received attention in popular media.[47]

data from 85 container labels collected at community pharmacies across the country, researchers found the most visible elements on labels were typically related to the pharmacy, not the medication itself. For example, the average font size of the pharmacy name was 13.2, whereas the average font size on warning stickers was less than half that size at 6.5. Instead of highlighting specific directions or warnings, labels often highlight the pharmacy logo or prescription number. The pharmacy logo was the most common element displayed in color; the prescription number was the most common element displayed in boldface or highlighted. Less than 30% of labels contained a description of the pill. In short, medication labels are generally not patient-centered.

To improve understanding and compliance, prescription information must be accurate and the amount of information must be limited. Consumers will be able to understand prescription information materials more readily if the information is standardized and tested to ensure comprehension.

Prescription bottle labeling should be improved to ensure understanding and medication compliance.

Recommendation 4.2

The North Carolina Board of Pharmacy should develop requirements for oral and written consumer medication information and standard prescription bottle labeling that incorporate evidence-based guidelines or best practices for effective communication of prescription information to consumers. The North Carolina Board of Pharmacy should consult with stakeholders, consumers, and content experts in developing these materials.

Another strategy to increase patient understanding and compliance is to increase the time patients receive in face-to-face consultations. Written materials should be complemented by verbal instruction from practitioners and time for patients' questions. Although patients often receive some counseling when prescriptions are written, instructions on how to take medications or possible adverse side effects may be forgotten once the patient leaves the health care professional's office. Thus, it is important for the pharmacist to offer counseling when the patient is picking up his or her medications. Furthermore, pharmacists may have a better understanding of other drugs a patient is taking. In contrast, an individual physician or practitioner may only know what medications he or she prescribed. As a result, pharmacists may have more complete information to identify potential drug-drug interactions or counter indications.

Pharmacists in every state are required by law to offer patients counseling about their medications.[22] In North Carolina, the pharmacy regulations require pharmacists to offer patient counseling:[d]

> "Patient counseling" shall mean the effective communication of information... to the patient or representative...to improve therapeutic outcomes by maximizing proper use of prescription medications, devices, and medical equipment....
>
> An offer to counsel shall be made on new or transfer prescriptions at the time the prescription is dispensed or delivered to the patient or representative. The

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[d] 21 NCAC §46.2504(a)(b).

> offer shall be made orally and in person when delivery occurs at the pharmacy. When delivery occurs outside of the pharmacy, whether by mail, vehicular delivery or other means, the offer shall be made either orally and in person, or by telephone from the pharmacist to the patient. If delivery occurs outside of the pharmacy, the pharmacist shall provide the patient with access to a telephone service that is toll-free for long-distance calls....An offer to counsel shall be communicated in a positive manner to encourage acceptance.

Despite state regulations that require pharmacists to offer counseling to patients, there are many barriers which reduce the likelihood counseling will occur. Pharmacists are overwhelmed with the increased numbers of prescriptions that need to be filled. From 1991 to 2000, dispensed prescriptions per North Carolina pharmacist increased 56%.[23] In addition, pharmacists have had poor training in counseling techniques.[22] Pharmacists may be further discouraged because they generally are not reimbursed for the time they spend providing counseling.

Despite these barriers to effective pharmacy counseling, there have been some model pharmacy counseling programs that have been shown to increase patient understanding and adherence to prescription drug therapy. For example, the Asheville Project has demonstrated the cost-savings of effective medication therapy management.[24,25] The primary component of the Asheville Project was an enhanced clinical role for community pharmacists. Pharmacists increased their clinical contacts with patients to help them set goals and monitor their health. The project demonstrated both short and long term cost savings for patients with diabetes. Similarly, a study conducted at the University of North Carolina at Chapel Hill found a pharmacist intervention improved adherence to cardiovascular medications of patients with low literacy who had heart failure.[26] The intervention involved pharmacists providing medication management for nine months. Ensuring patients with chronic disease remain compliant with their medication regimens is a challenge, especially among patients with low health literacy. One study found weak evidence that among patients with cardiovascular disease, those with low literacy were less likely to adhere to their medication regimens.[27] Another found lower adherence for patients with low literacy among patients with HIV/AIDS.[28]

With the increased prevalence of chronic conditions in the population and the growing reliance on medications to manage chronic conditions, it is imperative that the state develop new strategies to ensure patients understand how to appropriately take their medicines.

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In order to enhance the ability of pharmacists to provide effective communication to patients, the Task Force recommends:

Recommendation 4.3

a) North Carolina foundations should fund demonstration projects to test new models of care that enhance the role of pharmacists as medication counselors to ensure patients understand how to appropriately take their medicine. New models should be evaluated to determine whether they enhance patient understanding of medication, improve medication adherence, and improve health outcomes.

b) If successful, public and private insurers and payers should modify reimbursement policies to support the long-term viability of these successful models of care.

Public Programs that Work with Individual Patients

North Carolina, like many states, offers a variety of public programs that address the health care needs of individual patients. Most of these programs are administered through the North Carolina Department of Health and Human Services (NC DHHS) and local public agencies. Although the Task Force did not have enough time to study the literacy efforts of every public program, the Task Force did consider the programs offered by four of the NC DHHS divisions, including Community Care of North Carolina, Division of Public Health, Division of Mental Health, Developmental Disabilities and Substance Abuse Services, and Division of Aging and Adult Services.

- *Community Care of North Carolina (CCNC)* is a statewide Medicaid program that provides services to Medicaid beneficiaries through community-based networks of practices.[e] The goal of CCNC is to improve care and reduce variability across practices through better management of beneficiaries with chronic or high cost medical conditions. Each of the Medicaid beneficiaries enrolled in CCNC has a "medical home" in a primary care practice. Primary care providers, along with case managers, help Medicaid beneficiaries manage their health problems. Currently, CCNC provides disease management education and self-management skills to people with asthma, diabetes, and congestive heart failure. In addition, several of the individual networks have launched other disease management initiatives, including management of chronic obstructive pulmonary disease, mental health problems, obesity, and sickle cell. The activities of each of the 14 networks are directed by local physicians in the community, increasing local provider "buy-in" into the activities and priorities of the network. Since CCNC is a statewide program, it is an effective vehicle for reaching most of the 1.3 million North Carolinians on Medicaid.

  Patient education materials are produced at both state and regional levels. The CCNC program office has produced specialized tools that are available throughout the state. For example, CCNC program office staff have worked with other organizations to produce heart failure management notebooks, educational materials on appropriate use of the emergency department, and asthma self-assessment tools. These materials have been tested for appropriate literacy levels and reviewed by CCNC participants prior to use. Most of the other patient education materials are designed and distributed at the network level. Local network staff design these materials with the goal of being understandable to people with lower health literacy. However, the materials do not always meet the criteria

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[e] CCNC currently provides services to Medicaid recipients through 14 different regional networks. Each network is comprised of primary care providers, hospitals, health departments, social services agencies, and other safety net organizations.

listed in Recommendation 4.4 and are not always reviewed by consumers and families prior to use. All CCNC materials are produced in English and Spanish; some materials exist in other languages (such as Vietnamese or Hmong) depending on local populations. Furthermore, there is no central "clearinghouse" of regionally produced CCNC materials, so multiple networks may develop materials without knowing other networks are working on something similar.

- *The Division of Public Health (DPH)* is charged with ensuring the health of *populations*, rather than the health of *individuals*. In addition to broad-based health promotion and disease prevention efforts, DPH and local health departments provide certain clinical services, including but not limited to oral health screenings for children, family planning and maternity care, well-child services and adolescent health, nutrition services (including Women, Infants, and Children), communicable diseases and sexually transmitted disease control, and screening and referrals for certain chronic health conditions. State and local health departments often employ trained health educators to provide population-based health education, although these health educators may not have been trained in effective ways to communicate with people with lower health literacy. DPH makes a concerted effort to ensure the materials produced are written at between a sixth and eighth grade reading level. Some, but not all, of DPH materials are reviewed by community and consumer representatives. Currently, however the Division does not have uniform guidelines to ensure the materials produced are appropriate for people with lower health literacy. (See Recommendation 4.4.)

  In addition to written community education materials, DPH is increasing its use of social marketing to help the general public understand important health information and engage more actively in their own care. The promotional piece of one such campaign included an award-winning[29] public service announcement ("Lost in Translation"), which depicted a patient who was overwhelmed by the information provided by the health care provider. The message had two aims: to increase patient awareness of cardiac risk factors and to improve provider-patient communication. Specifically, the campaign underscored the need for patients to ask questions when they do not understand what the provider is telling them.

- *The Division of Mental Health, Developmental Disabilities and Substance Abuse Services (MHDDSAS)* is responsible for providing or arranging for services for North Carolinians with, or at risk of, mental illness, developmental disabilities, and/or substance abuse problems and their families.[30] MHDDSAS provides written materials, targeted at sixth to eighth grade reading levels. Materials are designed to improve the exchange of information between the service provider and consumer and to more actively engage the consumer in his or her own care.

  The Division does not directly assess literacy levels of consumers. However, MHDDSAS has consumer and family advisory groups review information, provide feedback, and help develop documents. With some services, the Division uses trained peers to convey health care information to consumers.

Trained peers may help make the information more understandable because they are less likely to use professional or medical jargon.

Many consumers in the MHDDSAS system have a difficult time understanding the importance of their medications or other health care needs. Thus, MHDDSAS uses written materials as a mechanism to engage consumers in further discussion, rather than as the primary means of information delivery. As with CCNC and public health programs, MHDDSAS tries to engage consumers so they become more actively involved in their own care.

- *The Division of Aging and Adult Services (DAAS)* and local agencies provide a wide range of health, social services, educational, housing, nutrition, transportation, recreational, and other services to older adults and adults with disabilities. DAAS typically works through local organizations, such as Area Agencies on Aging, Senior Centers, or Departments of Social Services to provide services. Most of the materials DAAS disseminates are produced by other organizations, including but not limited to Alzheimer's Association, American Diabetes Association, and the Centers for Medicare and Medicaid Services. Materials are available on the DAAS website and are distributed through health fairs, senior centers, and other venues. Despite the high percentage of older adults with lower health literacy skills, program specialists at DAAS have not been trained in communication strategies or how to produce materials that are appropriate for people with lower health literacy.

The public organizations outlined here face different challenges in developing materials that are accessible to persons of all literacy levels. Although most of the Divisions conduct some evaluation of the grade level of the written material they provide to the public, communication would be improved by developing a formal, Department-wide standard process for ensuring material is accessible to all North Carolinians. Chapter 3 included the best practices to use in developing written and visual information to ensure health information is understandable to a wide audience. Information should be targeted to the appropriate reading level of the audience, with lots of white space and visuals. The information conveyed should be linguistically and culturally appropriate and involve the reader in their own health care. Ideally, information should be reviewed by consumers and families prior to use, although this review process should not be used to inappropriately delay the development of new consumer education materials.

Barriers to care exist beyond just readability. In addition to addressing patients' clinical needs, understandable consumer education materials also are needed to empower consumers to access needed services. NC DHHS agencies should review other forms and consumer information materials, such as applications, handbooks, and appeal forms, to ensure these materials are understandable.

Based on these guidelines for communicating more effectively through written documents, the NC IOM Health Literacy Task Force made the following recommendations:

Recommendation 4.4

a) The North Carolina Department of Health and Human Services (NC DHHS) should develop standardized criteria to guide the development of all written consumer information materials used by state and locally funded programs. The criteria should be based on adult education principles aimed at ensuring the readability of written materials for people with lower literacy levels. To the extent possible, written materials should:

  i) be written at an appropriate level for the targeted audience;

  ii) be easy to read with a lot of white space;

  iii) include visual materials that motivate the reader or explain the text;

  iv) be linguistically and culturally appropriate;

  v) engage and inspire the reader towards targeted health behaviors; and

  vi) be reviewed by consumers and families prior to use.

b) NC DHHS also should incorporate best practices for website development that include, but are not limited to, the factors listed above.

c) NC DHHS should review other visual or audio patient or community education materials to ensure the materials are linguistically and culturally appropriate and should incorporate best practices for communication in these media. To the extent possible, materials should be reviewed by consumers and families prior to use.

d) NC DHHS should refine the existing review process in each division to ensure materials are understandable for the targeted audience prior to use.

e) NC DHHS and all appropriate divisions and agencies should review their paperwork and procedures to ensure materials and signage do not discourage individuals with low health literacy from obtaining needed assistance.

The North Carolina Department of Health and Human Services should ensure all their materials are understandable for the targeted audience.

Generally, written materials aimed for the general public should be targeted at no greater than a sixth grade reading level. However, a sixth grade reading level may be too high for some target populations (eg, low literate populations or non-native speakers). Thus, materials should be appropriate for the intended audience.

Trained health educators or other staff who understand effective communication strategies for people with low health literacy are needed in state agencies, as well as in local agencies or regional networks. These staff can help educate health care professionals (both public and private), as well as other staff, about effective communication strategies and can help agencies design written and other materials that are understandable to the target audience.

Recommendation 4.5

The North Carolina Department of Health and Human Services (NC DHHS) should ensure there are trained and competent staff in each division who can disseminate health literacy skills and strategies more broadly to health care professionals and others who work with people with low health literacy:

a) Community Care of North Carolina (CCNC) should ensure there is at least one case manager (eg, nurse, social worker, or health educator) in each CCNC network that is competent to teach health literacy skills and strategies and is responsible for disseminating this information to other health professionals and care coordinators in his or her network.

b) The Division of Public Health should ensure there is at least one health educator in each health department who is competent to teach health literacy skills and strategies and is responsible for disseminating this information to other health department staff and local providers of care.

c) The Division of Mental Health, Developmental Disabilities and Substance Abuse Services (MHDDSAS) and local management entities should ensure there is at least one health educator at the state and local management entities who is competent to teach health literacy skills and strategies and is responsible for disseminating this information to providers of MHDDSAS services.

d) The Division of Aging should ensure there is at least one health educator at the state level who is competent to teach health literacy skills and strategies and is responsible for disseminating this information to Area Agencies on Aging, senior centers, and other organizations serving older adults.

e) Other NC DHHS divisions and agencies that work with health care professionals should ensure there is at least one trained and competent staff person who can disseminate health literacy skills and strategies to other staff and to providers of care at the state and local communities.

The North Carolina Department of Health and Human Services should ensure there are trained and competent staff in each division who can disseminate health literacy skills and strategies more broadly to health care professionals and others who work with people with low health literacy.

Written Materials by Private Providers and Health Insurers

In general, health care documents tend to be difficult to read due to their length, complexity, and technical nature.[31] Several studies have examined the readability of medical consent forms. A study of 60 medical consent forms found the average readability of the forms was only slightly lower than readability scores for scientific medical journals and 61% of the forms required college-level reading ability.[32] Another study found the mean reading level of 88 medical consent forms was 13.4 years of schooling.[33] Other types of health information prepared by insurers and health systems, such as insurance forms and explanation of benefits, may be even more difficult to read due to their content and length. The North Carolina insurance laws require materials be produced at no higher than a twelfth grade reading level. N.C. Gen. Stat. §§ 58-38-1, -25, 58-66-1, -25, (1979). However, the state allows insurers to exclude medical terminology in their assessment of reading levels. N.C. Gen. Stat. §§ 58-38-30 (1979), 58-66-30 (1995). Because of this exclusion, insurance materials are often difficult to understand.

Patients receive health information from other sources as well. Consumer medication information typically is included in a pharmacy's computer system, and therefore the pharmacy has no ability to control its content and format. Likewise, office-based providers may have the capacity to generate consumer information from their electronic health record system. In most cases, these information sheets are included as part of the software and cannot be easily edited by the provider. Thus, providers are limited in their ability to modify materials to make them more understandable, even if they are aware of and concerned about the ability of their patients with low health literacy to understand these materials. Thus, all providers of health-related information, including health-related businesses and electronic health record and software vendors, need to ensure their health-related information is understandable to a broad-group of health care consumers and the information meets the standards for effective communications described in Chapter 3.

All providers of health-related information need to ensure their health-related information is understandable to a broad-group of health care consumers.

Recommendation 4.6

In order to ensure written health care materials are understandable to people with low literacy levels:

a) Public and private insurers and payers, health care systems, health care providers, academic institutions and researchers, and other health-related businesses should develop criteria to guide the development of all written consumer information materials. The criteria should be based on adult education principles aimed at ensuring the readability of written materials for people with low literacy levels. To the extent possible, materials should:

  i) be written at an appropriate level for the targeted audience;

  ii) be easy to read with a lot of white space;

  iii) include visual materials that motivate the reader or explain the text;

  iv) be linguistically and culturally appropriate;

  v) engage and inspire the reader towards targeted health behaviors; and

  vi) be reviewed by consumers, families, and other members of the target population prior to use.

b) Public and private insurers and payers, health care systems, health care providers, academic institutions and researchers, and other health-related businesses should incorporate best practices for website development that include, but are not limited to, the factors listed above.

c) Public and private insurers and payers, health care systems, health care providers, academic institutions and researchers, and other

health-related businesses should establish a review process to ensure all materials are reviewed for understandability prior to use.

c) **Public and private insurers and payers, health care systems, and health care providers should review other visual or audio patient or community education materials to ensure the materials are linguistically and culturally appropriate and should incorporate best practices for communication in these media. Materials should be reviewed by consumers and families prior to use.**

d) **The Department of Insurance should seek changes in existing insurance laws, N.C. Gen. Stat. §§ 58-38-1 *et seq.*, 58-66-1 et seq., to ensure the readability of written insurance materials for people with low literacy levels using the criteria listed in (a) above.**

e) **North Carolina foundations and other health care funders should give priority to organizational grantees that produce health materials for use by consumers that meet the criteria listed in (a) above.**

Disease management programs help people manage their chronic health conditions. These programs have great potential as a way to improve health and reduce health care costs.

Health education materials that meet the criteria for clear communication should be made available to providers throughout the state. As noted in Recommendation 3.1, the Health Literacy Center for Excellence should collect and disseminate these materials and make the materials available through the AHEC digital library and NC Health Info.

Disease Management Programs Offered by Public and Private Insurers

Nationally, 56% of workers covered by employer-sponsored health insurance are enrolled in a plan that offers one or more disease management programs (typically diabetes, asthma, hypertension, high cholesterol).[34] One of the reasons for rising health care costs is the increasing number of people with chronic health conditions.[35] Disease management programs aim to increase a person's ability to manage his or her own chronic illness through better knowledge and awareness of his or her condition and strategies to keep the disease "under control." These strategies may focus on overall health (such as exercise and diet) or be prescriptive (such as how many diuretics a patient with heart failure should take to manage fluid retention). Helping individuals successfully manage their chronic health conditions has great potential as a mechanism for improving health and reducing health care costs.

Many of the state's insurers and payers offer disease management programs. As noted previously, CCNC has built a statewide system of care that focuses on care of Medicaid recipients with chronic illnesses. Yet studies show people with chronic illnesses who have low literacy have less knowledge about their disease[36] and are less likely to comply with their treatment protocols.[7] However, as noted in Chapter 3, disease management programs combined with education materials targeted at people with low health literacy have been shown to improve patient outcomes. These combined strategies improve patient outcomes for all patients but appear to have greater benefits for those with lower literacy.

Some health care institutions or community groups have developed other models to enhance health promotion, disease prevention, and chronic care management among populations with low health literacy. Some models involve lay health educators who are trusted members of the community who can translate complex medical information into information that is understandable to the target audience. Other models include group training sessions so that individuals can learn from the questions other people with similar health problems ask. (See Chapter 3 for a list of best practices and promising models.) While several models have been identified as "promising," there has not been sufficient research to determine whether these models help improve health outcomes. More research is needed to identify the best practices in improving health knowledge and health outcomes of people with low health literacy.

Recommendation 4.7

The North Carolina Department of Health and Human Services, Community Care of North Carolina, Division of Public Health, public and private insurers and payers should:

a) incorporate health literacy strategies in their disease management and case management initiatives so that people with all levels of health literacy can benefit and become active managers of their own health conditions;

b) use and reimburse case managers, health educators, community health workers, and lay health workers who have been trained in health literacy strategies to help educate people about their health problems and how to manage their conditions; and

c) explore the appropriate use of CDs, videos, and other non-print information as a means of better educating people with low health literacy.

Public and private insurers and payers should incorporate health literacy strategies in their disease management and case management initiatives so that people with all levels of health literacy can benefit and become active managers of their own health conditions.

The current design of our health care reimbursement system is a considerable barrier to the successful development and widespread adoption of new models of care for patients with low health literacy. Payers are reluctant to reimburse services that have not been proven to increase health care quality and reduce costs, and providers are reluctant to incur costs of new delivery models unless they receive revenue sufficient to cover those costs. Thus, new models of care will not be developed and adopted without an identifiable effort and financial commitment on the part of payers to reimburse these health care services that increase patient understanding.

Recommendation 4.8

a) The Division of Medical Assistance should pilot new reimbursement systems to encourage individual and group education sessions that teach patient self-management using appropriate health literacy techniques. In developing this pilot project, the Division should explore tying reimbursement to health care professionals, case managers, health educators, lay health advisors, or other trained health communicators who have received health literacy training.

b) Public and private insurers and payers should consider reimbursing for existing CPT codes or other payment methodologies that pay for individual or group education self-management sessions by health

professionals, care coordinators, health educators, and lay health providers who have received health literacy training.[f]

One way to improve provider-patient communication is to increase providers' revenues based on effective patient communication. Another way to improve provider-patient communication is to focus on reducing providers' costs due to poor communication. For example, there is evidence primary care physicians who were sued for malpractice had poorer communication skills than primary care physicians who were not sued.[37] For example, physicians who were not sued were more likely to verify a patient's understanding during the visit and encourage him or her to talk. Because effective communication is associated with a lower risk of a malpractice claim, malpractice carriers may wish to incentivize providers to improve their communication skills. These incentives could be operationalized in a variety of manners, such as a reduction in premiums for providers who use effective health literacy strategies to ensure consumers understand their health information or integrating health literacy information into risk management education.

Effective communication is associated with a lower risk of a malpractice claim.

Recommendation 4.9

Malpractice carriers should incorporate health literacy education and effective provider-patient communication skills into their risk management training and should develop systems to reward more effective provider-patient communication.

North Carolina foundations can foster new, promising practices that increase patient understanding and health outcomes. These new practices should be evaluated, and if effective, supported financially.

Recommendation 4.10

a) **North Carolina foundations should fund demonstration projects using promising new models of care in both inpatient and outpatient settings that increase the effectiveness of communication provided to patients with low health literacy. New models should be evaluated to determine if they improve health outcomes.**

b) **Public and private insurers and payers should modify reimbursement policies to support the long-term viability of successful models.**

Population-Based Programs

All consumers should be encouraged to take an active interest in their own care. Yet too often patients are intimidated when they interact with health care professionals. They may be afraid or ashamed to admit they do not understand what their provider

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[f] Coding changes made in 2006 are available at http://www.apta.org/AM/Template.cfm?Section=Coding&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=27186. The new codes regarding education and training for patient self-management (98960, 98961, and 98962) may be an appropriate way to pay for individual or group education self-management sessions. These codes were developed to report educational and training services prescribed by a physician and provided by a qualified, nonphysician health care professional using a standardized curriculum to an individual or a group of patients for treatment of established illnesses or to delay comorbidity. These codes are intended to facilitate the reporting of educational and training services designed to teach patients effective self management of their illnesses.

is telling them.[38,39] Other consumers, especially newer immigrants, may not understand how to access health services, and they may experience language and cultural barriers when seeking care.[40] Still others mistrust information provided by traditional health care providers.[41-43] Therefore, it is important to use multiple strategies to educate consumers about their health. Some of these strategies involve using lay health advisors or other community leaders to provide health education materials in a manner that is understandable to the target population. Health information also can be disseminated through group educational settings (when appropriate) or through other community forums (such as churches, health fairs, etc.). One of the goals of these initiatives should be to encourage consumers to more actively engage in dialogue with their health care providers.

Recommendation 4.11

In addition to disease management, the North Carolina Department of Health and Human Services, health care systems and providers, and insurers should explore other ways of educating patients. For example, these organizations and providers should consider:

a) **expanding the use of trained lay health advisors, case managers, and patient navigators to disseminate health information and to prepare patients and their families for provider-patient interactions;**

b) **using group education settings when appropriate;**

c) **disseminating materials through other forums, such as religious institutions, community fairs, senior games, barber shops, or beauty salons; and**

d) **identifying and implementing outreach efforts to encourage consumers to more actively engage in dialogue with their health care providers.**

It is important to use multiple strategies to educate consumers about their health.

The strategies outlined above focus on how providers and health educators can provide more understandable information to consumers. However, effective communication requires both parties be actively engaged. Unfortunately, many patients feel uncomfortable asserting themselves during discussions with health care providers, or they may be too embarrassed to ask their providers to repeat or clarify what they were told. Consumers need to understand the importance of asking their providers to repeat or clarify information if they do not understand what their providers told them. DPH should expand its broad-based social marketing campaign highlighting the need for consumers to ask questions when they do not understand health information. This social marketing campaign should be disseminated through multiple channels, including but not limited to: the media, religious institutions, community fairs, billboards, barber shops, beauty salons, and senior games. In addition to providing broad public education, the social marketing campaign should provide consumers with the skills and strategies needed to more actively engage in the health system and in self-care. The campaign should be continuously evaluated to ensure its effectiveness in reaching target populations and building consumer skills. Increasing consumer engagement can help mitigate the adverse health impact of low health literacy by ensuring consumers obtain the information needed to manage their health needs.

Recommendation 4.12

The North Carolina General Assembly should provide funding for the Division of Public Health to undertake a broad-based social marketing campaign to activate consumers to engage in dialogue with their health care providers to help mitigate the effects of low health literacy. The Division of Public Health should work with the faith community, safety net providers, and other community leaders and organizations to disseminate this information and to engage these groups as partners in other support activities.

Ultimately, we need to address the problems of low health literacy on multiple levels. Providers should learn skills to more effectively communicate health information and consumers need to learn the importance of asking questions if they do not understand what they are being told. However, the supreme goal should be to improve everyone's underlying literacy levels. To do this requires collaboration with adult literacy experts. Chapter 5 discusses how health professionals can work collaboratively with adult literacy experts to improve the health literacy of North Carolinians.

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