ACCP WHITE PAPER

Cultural Competency in Health Care and
Its Implications for Pharmacy
Part 2: Emphasis on Pharmacy Systems and Practice

American College of Clinical Pharmacy
Mary Beth O'Connell, Pharm.D., FCCP, Nathaniel M. Rickles, Pharm.D., Ph.D.,
Jeri J. Sias, Pharm.D., and Eli J. Korner, Pharm.D., M.P.H.

As the United States becomes more diverse, a patient's cultural influences on health outcomes and health care decision-making and delivery need to be considered. Cultural influences affect a patient's decision to use medications and concomitant alternative therapies. The following seven components have been identified to improve culturally competent care in a variety of practice sites. The first component to developing culturally competent practices involves the analysis of self and system attitudes and practices toward various cultures. In the second component, health care providers should increase their knowledge about the cultures they serve through different patient assessment techniques, readings, and community activities. The third component involves improving cross-cultural communication by being aware of differences in social norms, assessing health literacy, using interpreters, knowing another language, and using bilingual patient education materials. In the fourth component, pharmaceutical care plans should accommodate cultural preferences such as the use of herbs, spiritual healers, and additional family decision-makers. Therapeutic plans should be negotiated between patient and provider to optimize outcomes. The fifth component discusses health care provider and system involvement in the community through health fairs, ethnic festival participation, and communication with cultural decision-makers to help provide culturally competent care by fostering communication ties. In the sixth component, knowing and following regulations such as the federal Culturally and Linguistically Appropriate Services (CLAS) and the Joint Commission standards for organizational cultural competency can help enhance care for patients from various cultures. In the last component, quality assurance assessments of procedures to improve care for various diverse cultures should be conducted, with findings (in terms of strengths and areas of improvements) shared with other providers and systems. Pharmacists and pharmacy technicians in a variety of systems and practices can improve care to patients with differing cultures by using these seven components to enhance culturally competent care.
Key Words: pharmacy, pharmacists, pharmacy technician, culture, cultural competency, cultural diversity, health care systems, ethnicity, minority.
(Pharmacotherapy 2009;29(2):14e–34e)

Working toward cultural competency is an opportunity to optimize patient-centered care in pharmacy practice. By providing culturally competent patient care, pharmacists and pharmacy technicians surpass being just sensitive and open-minded. Practice sites

become based in communities and reflect their unique health needs and resources.

Several negative consequences can result from a pharmacy practice that does not work toward cultural competency.[1] First, services to patients from diverse cultures can be compromised if the pharmacist fails to recognize differences in perceptions of illness and causes of disease between the patient's belief and the Western biomedical model. Second, if communication skills are not adjusted to accommodate patients from different cultures, misunderstandings about drug therapy can develop. Such misunderstandings can lead to medication errors, inappropriate medication use, and poor clinical outcomes. Third, if a pharmacist is insufficiently aware of the effects of race on drug metabolism, response, and sensitivity, inappropriate drug therapy and other negative clinical outcomes can result. The ultimate goal for all health care practitioners and systems should be 100% access with no health disparities, a health care goal established during the 1990s.

This article is the second in a series on cultural competency and pharmacy. The first article defined culture, discussed health disparities, presented models for individual and organizational cultural competency, and provided valuable resources for information related to these topics.[2] In the present article, a published approach to developing cultural competency[1] will be applied to pharmacy practice, with the ultimate goal of reducing health disparities and improving interactions between the patient and pharmacist or pharmacy technician. The five components of developing cultural competency in this published approach are to (1) understand individual and organizational views of different cultures, (2) acquire background knowledge about the different groups of people at one's practice site, (3) develop effective cultural

communication skills, (4) tailor treatment recommendations to what is known about an individual's culture, and (5) develop strong ties with the community. Two additional components reflecting recent advances in this area have been added to this approach: (6) know and appreciate national and professional priorities for the caring of culturally diverse populations and (7) evaluate progress toward cultural competency.

The article has been organized according to these seven components to develop cultural competency in pharmacy practice (Figure 1).[1] The number associated with the components does not imply its level of importance or that a previously described component must occur before a subsequent component. Rather, aspects of each component can be fulfilled simultaneously. The first two components focus on individual and organizational-level changes— ways in which practitioners can improve their awareness and knowledge of how they and their practice sites are similar to and different from other cultures. Moving to the interpersonal level, the third and fourth components discuss aspects of cultural competency that pharmacists and pharmacy technicians can incorporate to improve their cross-cultural communication skills and drug therapy management of culturally diverse populations. On a more global level, the fifth and sixth components describe community-level approaches in making health care practices more culturally sensitive and fulfilling legal requirements. The seventh and final component involves pharmacists, pharmacy technicians, and their practice sites, evaluating their progress toward cultural competency and its impact on patient outcomes. This last component is an ongoing process, the ultimate goal of which is that pharmacists, pharmacy technicians, and pharmacy systems will meet the drug therapy needs of their culturally diverse patients.

Component 1: Assessing Individual and Organizational Cultural Attitudes and Knowledge

The first component in developing multicultural competency in pharmacy practice is to understand one's views of the world, how these views have been developed by one's family and culture, and how such views have shaped one's view of self and others. Such self-examination primes an individual to appreciate and accept how people from different cultures

may develop different belief systems and practices. Tools have been developed to help one reflect on one's own culture(s), values, and beliefs and to understand how ethnocentrism may exist and be overcome (Table 1).[3–9] Another part of this introspective process could include pharmacists' and pharmacy technicians' evaluations of their own systems, staff, and practice settings. For example, pharmacists could evaluate the diversity of their staff and the patients served or what language needs and health disparities exist in their communities. Several other comprehensive tools are available to help practitioners assess the need for greater cultural competency throughout various aspects of their work sites (Table 1).[10–12] These tools assess areas such as organizational values, planning and evaluation, communication, staff development, organizational infrastructure, and services/interventions. The U.S. Department of Health and Human Services through the Health Resources and Services Administration (HRSA) has also developed indicators to evaluate

organizational cultural competence.[13] These indicators are divided into structure, process, and output. Many of these assessment tools continue to be refined and evaluated.

A pharmacist's assessment of cultural competency at the workplace would not be complete if it did not assess cultural diversity among the staff. Some data support improved patient satisfaction, outcomes, and health care use when similar minority providers are available.[14] To increase staff diversity and allow patients of various cultures to choose practitioners of similar cultures or culturally competent providers, the goal is to make one's workforce more similar to the cultures receiving care. Currently, the demographics of the U.S. pharmacy workforce do not match the changing demographics of the U.S. patient population (presented in Part 1 of this series). In the U.S. 2000 Census, 31% of the respondents were from minority groups.[15] However, in the same year, the pharmacist workforce had only 17% minority practitioners (83.2% Caucasian, 3.8% Hispanic,
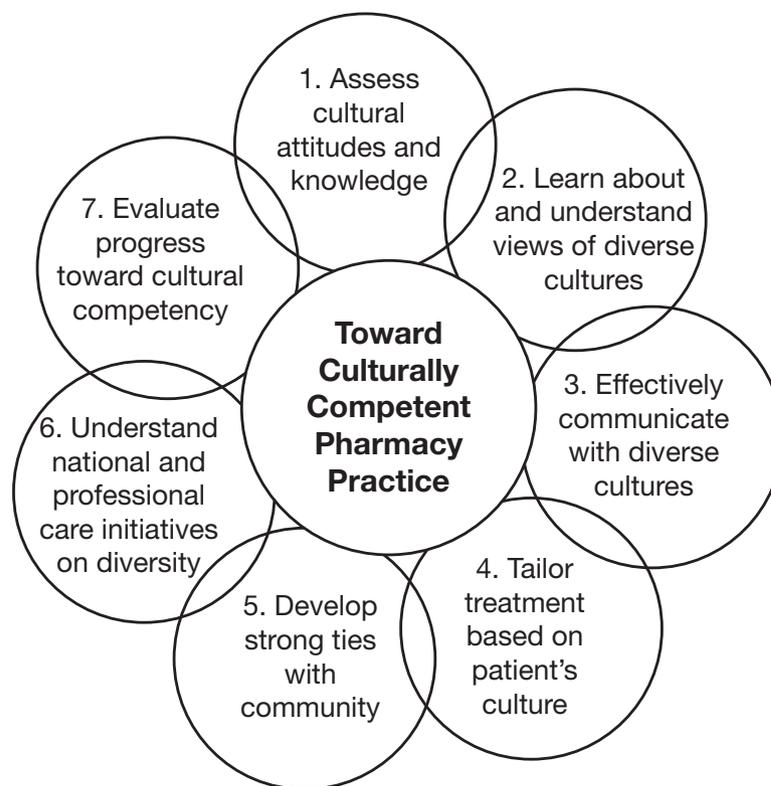
Figure 1. Seven components toward culturally competent pharmacy practice.
Adapted from Brown CM, Nichols-English G. Dealing with patient diversity in pharmacy practice. Drug Top 1999;17:61–70.

Table 1. Examples of Individual and Organizational Assessment Tools

Perspective	Tool, Reference, and Description
Self-evaluation	
13 questions	Lists 13 questions to self-evaluate understanding of culture and influences on health beliefs and decisions.[3, 4]
Provider self-assessment	
37 items	Promoting Cultural and Linguistic Competency Self-Assessment Checklist for Personnel Providing Primary Health Care Services.[5] Practitioners rank themselves using 37 items as "frequently, occasionally, or rarely/never." The broad categories are physical environment, materials, and resources; communication styles; and values and attitudes.
6 subscales, 20 questions	Cultural Competence Health Practitioner Assessment.[6] The subscales evaluate value and belief systems, cultural aspects of epidemiology, clinical decision-making, life cycle events, cross-cultural communication, and empowerment/health management.
50 items	Cultural Competence Assessment.[7, 8] Two items are for cultural diversity experience. One subscale has 11 items for cultural awareness (knowledge) and sensitivity (attitude). Fourteen items exist for cultural competence behavior assessment and 13 questions for the social desirability scale. The other items gather demographic data. This instrument has demonstrated good reliability and validity.
3 sections	Cultural Competence Checklist.[9] This self-assessment has three sections: personal reflection, policies and procedures, and service delivery. The individual is asked to rate each item. Although there are no correct answers, low rated items become potential areas for improvement.
Organizational self-assessment	
8 steps	A Guide to Planning and Implementing Cultural Competence Organizational Self-Assessment.[10] This tool has eight steps to guide practitioners through an assessment of their site's cultural proficiency and facilitate the incorporation of culturally sensitive practices.
7 domains	Cultural Competency Assessment Tool.[11] The domains are organizational/foundation statements and documents; program polices and procedures; program practices; personnel policies and practices; skills and training; organizational composition and climate; and community consultation and communication. Within each domain, different items are to be evaluated on a scale of 1–5 on meeting requirements. A manual is provided as well as definitions and resources.
6 modular topics	Cultural Competency Organizational Self-Assessment Question Bank.[12] This tool has multiple questions within six areas (client and community input; diverse and culturally competent staff; evaluation and data management; language and interpreter services; organizational policies and procedures; and client and provider relations), thus allowing an organization to individualize the assessment to its needs. A manual exists to help explain the findings.
Organizational indicators	
7 domains	Indicators of Cultural Competence in Health Care Delivery Organizations: An Organizational Cultural Competence Assessment Profile.[13] Structure, process, and output indicators have been established for each focus area within each of seven domains. The seven domains are (1) organizational values, (2) governance, (3) planning and monitoring/evaluation, (4) communication, (5) staff development, (6) organizational infrastructure, and (7) services/interventions.

3.4% Black/African American, and 13.5% other).[16] Similar results were determined from the 2000 National Pharmacist Workforce Survey of health-system pharmacists (83% Caucasian, 11% Asian American or Pacific Islander, 2.8% Black/African American, 1.7% Latino/Latina/Hispanic, 0.4% Native American, and 1.1% other).[14] Unfortunately, more recent

data do not show that the minority pharmacist workforce is expanding (88% Caucasian, 7% Asian, 2% Black/African American, and 3% other).[17] Similar challenges exist for other health care professions. In 1998, 90% of nurses were Caucasian, 4.2% were Black/African American, 3.4% were Asian/Pacific Islander, 1.6% were Hispanic, and 0.5% were Native American or Alaska Native.[18] Minority staff members, because of their shared cultural beliefs and common language, can improve communication, create a more welcoming environment, and structure health systems to better reflect the needs of minority communities.[19] Part 3 of this series will present ways in which education will create more diversity in the pharmacy workforce.

Component 2: Learning About and Understanding the Views of Other Cultures

A second component of developing cultural competency in pharmacy practice is acquiring background knowledge about the different groups of people the pharmacy serves. The diversity of any pharmacy community can be found through the U.S. Bureau of the Census ('get a fact sheet for your community' at *factfinder.census.gov*).[20] Knowing the major cultural groups can help focus limited resources on achieving improvements in pharmacy services. Cultural knowledge can be obtained by asking members of these groups about their beliefs and practices (e.g., through focus groups, surveys, individual interviews) and by obtaining written information from libraries, Internet sites, textbooks, and culture-specific organizations. The goal of this second step is to gain an understanding of how the patient's makeup of many cultures, some of which dominate over health and change depending on the health issues, is similar to and different from one's own cultures and the dominant U.S. culture. Toward this goal, clinicians can systematically assess patients' specific cultural beliefs about their illnesses and treatments.[21, 22] To more fully assess how a patient's cultural background might influence a therapeutic plan, a pharmacist must first actively explore, and elicit feedback about, the patient's health beliefs regarding how the illness is labeled, the cause and duration of the illness, the severity of the illness, views toward treatments, and any fears associated with the illness and treatment. One of these tools, The Patient Explanatory Model, provides the following eight key questions to assess a patient's

health beliefs and explanation of illness[21, 23]:

1. What do you call the problem?
2. What do you think has caused the problem?
3. Why do you think it started when it did?
4. What do you think the sickness does? How does it work?
5. How severe is the sickness? Will it have a short or long course?
6. What kind of treatment do you think you should receive? What are the most important results you hope to receive from this treatment?
7. What are the chief problems the sickness has caused?
8. What do you fear most about the sickness?

Pharmacists need to recognize that several factors in the patient's social context might affect responses to these questions about health perceptions.[24] For example, pharmacists might consider:

- what factors shape the patient's cultural beliefs about health and illness (e.g., family, religion, race/ethnicity, age),
- where the patient was born and how long she/he has been in the United States (can reflect the level of acculturation),
- who makes the health-related decisions in the family,
- whether any gender issues or power relationships affect the patient's relationships with the family and health care team,
- how communication techniques need to be adjusted to gather complete and reliable data, and
- whether any customs about the body should be considered with regard to touching and space.

Pharmacists should be aware that although patients can have similar racial and ethnic backgrounds, the level of acculturation might affect patient acceptance of health care practices in the United States.[25] For example, patients who are recent immigrants or live in communities with a similar heritage might not navigate as well through the U.S. health care system and might require more time to build trust. Probing of health beliefs, cultural issues, and concerns should be supportive and not judgmental. Such supportiveness is an important ingredient in gaining the patient's trust.

Trust is a major issue when providing care to minority cultures. Past social injustices make some minority groups start with mistrust versus

other cases in which mistrust results from past personal experiences. An example of a survey tool developed to evaluate a patient's level of mistrust is the Medical Mistrust Index.[26] In certain practice settings, evaluating trust and identifying problems with mistrust might be the starting point to developing a culturally competent practice.

In addition to gaining a patient's trust, pharmacists should engage in active listening. Such active listening is critical to an assessment of another culture's beliefs, practices, and values. One model suggests this kind of listening represents the first step of a technique called LEARN that was developed to improve multicultural health care.[27]

Listen to the patient/family about their understanding of the health situation.
Explain to the patient/family your perception.
Acknowledge patient/family concerns.
Recommend a therapy option.
Negotiate a treatment plan.

Such listening (representing the "L" in LEARN) involves the pharmacist and pharmacy technician reflecting empathically on what the patient has said and periodically confirming what the pharmacist or pharmacy technician thinks the patient was saying. The second and third steps of the LEARN technique indicate that the pharmacist or pharmacy technician might explain (representing the "E") how she/he perceives the problem and acknowledges (representing the "A") and discusses any differences in views between the patient, pharmacist, pharmacy technician, and dominant U.S. culture.

Component 3: Effectively Communicating with Diverse Populations

The development of effective communication methods represents a third important component in working toward cultural competency in pharmacy practice. Communication includes both language (e.g., primary language) and understanding (e.g., health literacy). Pharmacists and pharmacy technicians can improve communication with culturally diverse populations through many channels such as improvements in their own communication skills, evaluation of the patient's health literacy and the suitability of educational materials, use of interpreters, and use of bilingual or non-English materials. A survey of Atlanta

metropolitan community pharmacies in 2002 reported that about half of the pharmacies had a Spanish-speaking employee, and half could generate Spanish computer prescription labels.[28] Some of these pharmacies had computer-generated drug information leaflets (45%) and new patient forms in Spanish (28%). However, only 23% had a Spanish language telephone help line. Even with these resources, these pharmacists rated their patient counseling interactions with Spanish speaking patients as ineffective in 25% of cases. Thus, more training and resources are required to improve patient communication, especially for patients with English as their second language. Examples of skill development and resources are presented below and in the tables.

Personal Communication Skills

Communication Skills

Pharmacists and pharmacy technicians can evaluate the effectiveness of their usual verbal and nonverbal communication skills, learn other languages, and adjust their skills to incorporate culturally specific communication needs. Pharmacists and pharmacy technicians need to learn how to appropriately communicate information in a clear and accurate manner to minimize misunderstandings when there are language barriers. The first attempt to communicate with patients should be made verbally or through a trained interpreter. Regardless of the culture or language skills, communication should consist of short phrases or sentences, nonmedical jargon, and a quiet and private counseling area. Periodic peer evaluation can help improve basic communication skills. Pharmacists and pharmacy technicians can help reduce language barriers by making efforts to learn key terms and phrases used by members of the culture. Investing in conversational beginning language classes will give staff insight into a language. In addition, staff might benefit from obtaining and using Spanish pharmacy/medical terminology books to learn some of the technical language. For example, the American Pharmacists Association publishes a quick reference book, *Essential Spanish for Pharmacists,* to assist in providing care to Spanish-speaking patients.[29] Another book to learn medical Spanish is *Medical Spanish for Health Care Professionals.*[30] A Web site for this book includes English to Spanish or Spanish to English flashcards for medical terminology

(www.alliedhealth.jbpub.com/scott/medicalspanish.cfm). The American College of Clinical Pharmacy publishes a book on Spanish translations of medication information for Spanish-speaking children.[31] Pharmacists might learn creative ways to communicate drug information such as drawing symbols, using nonverbal expressions, and developing written drug information materials in different languages. Written communication by itself is often considered a backup measure when no other resources are available. A combination of oral and written communication is generally preferred.[32]

Standard communication techniques might need to be individualized to patients' specific cultural practices. By learning which verbal and nonverbal communication patterns are valued and not valued, pharmacists and pharmacy technicians can adjust their approaches accordingly to facilitate better patient communication. For example, many Hispanic cultures value verbal expressiveness, whereas some Asian cultures value more emotional restraint. Pharmacists might also want to incorporate the words, attitudes, and images that patients from different cultures use when they communicate about health topics. Such incorporation of the patient's language can promote the dialogue between pharmacists and patients.

Culture influences every aspect of communication, such as formal greeting, eye contact, distance between individuals (proxemics), questioning, negotiating, touch, and respect. Many African Americans, especially the seniors, like to be addressed as Ms., Mrs., or Mr. versus their first names. Transgendered persons prefer the pronoun and name of their self-identified gender, which might be different from their driver's license or health insurance card name. Several Asian, Arab, and Native American cultures consider eye contact rude or against their religious practices. Latinos may be more comfortable with minimal personal space between communicators, whereas whites may prefer more distance. Some Native Americans and Asians will not ask for clarification of information not understood. Most ethnic groups generally will not disagree with a treatment decision, whereas whites will discuss options and/or disagree. Certain black communities often communicate by touching (e.g., hugs), and many Hispanics seek displays of personal and genuine caring. In contrast, some Muslims and Arabs avoid physical contact such as handshakes, especially with members of the opposite gender. Muslim patients may prefer education and care from same-gender practitioners. Some Asian Americans are more respectful of people who are older than themselves. Most cultures respect and value health care providers, which is another reason they might not question or negotiate treatment decisions. Pharmacists, pharmacy technicians, and interpreters need to be aware of how their gender, age, and professional status influence these different communication patterns with various cultures.

The above examples provide generalizations of cultural practices and communication preferences. Generalizations can help pharmacy personnel understand cultural variability, but individual beliefs and preferences must still be ascertained. Cultural groups are sometimes characterized as homogeneous groups; however, each person within a culture is complex and multifactorial because of his/her acceptance or rejection of cultural beliefs and subcultural influences. For example, blacks can represent African, Asian, or South American ancestry, each with different cultural beliefs. The dominant cultural characteristics are also influenced by subcultural beliefs such as gender, age, or illness. Culturally aware pharmacists and pharmacy technicians will strive to improve patient communication and outcomes by incorporating these issues while probing for differences so that overgeneralization and use of stereotypes are avoided.

Health Literacy

Literacy Levels

To provide optimal pharmacy communication with any patient, it is important to assess the patient's ability to meaningfully use the health information provided. Health literacy can be defined as "an individual's ability to read, understand, and use health care information to make effective health care decisions and follow instructions for treatment."[33] To fully understand health literacy, literacy in general (reading, understanding, and using general information to maximally function in society) needs to be understood. This information comes predominantly from the two National Adult Literacy Surveys (NALS) conducted in 1992 and 2003. The NALS involved a stratified random sample of about 26,000 adults who were interviewed for background information and

asked to complete a variety of literacy tasks. Five levels of difficulty, ranked according to the individual's ability to use and understand text and numbers, were identified and associated with the degree to which the lack of skills affects an individual's ability to function in the community. Individuals are considered at a given NALS level based on the observation that they are unable to perform the tasks at the next highest level.

At the lowest level of literacy, NALS level 1, individuals can only perform basic tasks such as signing their name or finding a piece of information from a sports article. Such individuals are considered "functionally illiterate." According to NALS findings, more than one-fifth of those sampled have only level 1 skills.[34] Individuals at NALS level 2 have somewhat higher literacy skills, as noted by their ability to enter background information on a social security application, find an intersection on a street map, and/or locate two pieces of information in a sports article. Individuals at NALS level 2 are noted to be "marginally literate" and represent about 27% of the sample. Thus, about one-half of the sample is either functionally illiterate or marginally literate. Level 3 individuals are able to write a brief letter explaining an error on a credit card bill, enter information in an automobile maintenance record, and/or identify information from a bar graph. Individuals at NALS level 4 are able to explain the difference between two types of employee benefits and/or compare two metaphors used in a poem. Individuals at NALS levels 3 and 4 are considered "functionally literate." At level 5, individuals are noted to have a high level of literacy because they are able to perform complex tasks such as writing lengthy documents and extracting information from tables and graphs.

Most individuals with low general literacy also have low health literacy. Thus, individuals at NALS levels 1 and 2 will typically have the most difficulty understanding health information. Risk factors for general illiteracy are assumed to be similar for health illiteracy: older age, low income, unemployment, less than a high school education, member of a minority ethnic group, recent immigration to the United States, little understanding of the English language, and born in the United States but with English as a second language.[34] The increasing complexity of medical and medication regimens has also increased a patient's risk of limited health literacy. In a 2001 study, numerous words that clinicians use regularly in daily discourse were not understood by patients with low health literacy.[35] Health illiteracy has no income or educational boundaries; individuals at high incomes and/or with high educational levels can have significant health illiteracy. For example, a nuclear physicist might not understand medical terminology or directions for immunotherapy and complex chemotherapy regimens.

Limited health literacy can have a negative impact on patient outcomes and health care costs. Research has shown that illiteracy is a strong predictor of health status.[36, 37] Poor literacy is likely to lead to poor health knowledge, inadequate self-management, and less healthy behaviors.[36–40] Low health literacy was estimated to cost the health care system $50–$73 billion per year from expenditures related to medication errors, excess hospitalizations, longer hospital stays, increased emergency department visits, and greater illness severity.[41] In addition, illiteracy has a silent cost to individuals because it contributes to feelings of stigma and shame.[42]

Assessment Tools

Several informal and formal methods are available to help clinicians optimally assess patient reading and comprehension of health information. An individual's literacy abilities cannot be ascertained from his/her appearance. Informal methods or clues that a patient might have limited literacy include those related to a patient's difficulty in following through on tasks such as inaccurately completing registration forms; missing appointments, follow-up tests, or referrals; and not adhering to medication regimens.[33] Poor literacy might be noted by how patients respond to questions regarding their knowledge of their medication regimens. Patient difficulty in reading information can be informally assessed by statements such as "I forgot my glasses. I'll read this when I get home" or "Can you read this to me?"[33] Other informal methods of assessing literacy can involve eliciting patient response to "How happy are you with the way you read?" or asking patients to bring in their medications and requesting that they identify their medications, their purposes, and how they are to be taken.

Formal methods of literacy assessment differ in length, cost, administration time, and focus. Many of these assessments are often used in research. Formal assessments of literacy

generally begin with statements such as: "We want to make our instructions easy to understand. It would be helpful if you could read some words to see if we are on the right track. It will only take a few minutes. Will you help me?"[43] These formal assessments focus on the reading and comprehension of information (Table 2).[43–51]

To assess reading skills, two common tests used are the Wide Range Achievement Test (WRAT) and the Rapid Estimate of Adult Literacy in Medicine (REALM).[44, 45] With the

Table 2. Assessment of Patient Reading and Comprehension of Health Information

Patient Skill	Test and Reference	Description	Scoring Procedures
Reading of information	Wide Range Achievement Test (WRAT)[44]	Patient reads aloud a list of words that become progressively more difficult. Health professional marks on separate page all mispronounced words until 10 consecutive words are mispronounced (in some cases, the test is stopped after five consecutive mispronounced words). Spanish version available.	Number of words pronounced correctly during the test provides grade level of reading.
	Rapid Estimate of Adult Literacy Medicine (REALM)[45]	Patients read list of 66 words that increase in complexity (i.e., number of syllables and pronunciation difficulty) and stop when they cannot read any further. Spanish version available. This test has more health-related words, requires less time, and is simpler to score than the WRAT.	Raw score: total number of words pronounced correctly and converted to four grade-level ranges (grades 0–3, grades 4–6, grades 7–8, grades ≥ 9).
	Slosson Oral Reading Test (SORT)[46] Peabody Individual Achievement Test—Revised (PIAT-R)[47]	These reading tests involve more procedural steps and time, are specific to age, and are less feasible in busy health care environments.	Depends on test.
Comprehension of information	Test of Functional Health Literacy in Adults (TOFHLA)[48]	Patients are given medical information/instructions, and then patients are asked questions to assess understanding of that information or instruction. Shortened version available.[51]	Scores categorize patients into low, marginal, or adequate health literacy.
	Cloze Test[49]	Test used for patients with a sixth-grade or higher education level. Patient reads passage where every fifth word is deleted and fills in the blanks with the exact replacements. Ability to fill in missing words indicates how much knowledge was obtained from the context surrounding the blanks and how well the context was used to obtain additional information.	Percent score: number of exact word replacements/total number of blanks. 60%–100%: passage understood. 40%–59%: material could be used but might require additional materials. < 40%: material was not understood.
	Listening tests[43]	Evaluator reads the patient a short passage of no more than 3 minutes at a fifth-grade reading level or lower. Evaluator verbally asks patient no more than10 questions about important points.	Percent score: Number correct responses/Number of questions. 60%–100%: passage understood. 40%–59%: material could be used but might require additional materials. < 40%: material was not understood.
	Newest Vital Sign (NVS)[50]	Patient is given an ice cream nutrition label and verbally asked six questions about her/his understanding of numeric and other information on the label.	Each correct answer to the six questions is given 1 point (maximum score of 6 points).

WRAT, patients may feel bad or resentful as they approach mispronouncing 10 words. So, an alternative stop criterion of five mispronounced words has been suggested. This alternative stop criterion is associated with some loss in precision when translating the score to a grade level for reading. This loss in precision can be reduced if patients are asked to read further and identify any additional words they can pronounce. These additional words can be added to the patient's score. The REALM scores correlate well with the WRAT reading scores.[43] However, the REALM score is less precise than the WRAT score because REALM scores correspond to a range of grade levels, whereas the WRAT score corresponds to a specific grade level. Neither the WRAT nor the REALM assesses comprehension of health information. Other reading tests are less feasible in a busy health care environment.[46, 47]

An ability to read information does not necessarily mean an ability to comprehend that information. Many factors affect ability to comprehend health information such as ability to maintain attention to the material and remember information. In general, patient comprehension can be facilitated by matching the logic,

language, and experience associated with the instruction with the patient's logic, language, and experience.[43] To improve attention to material, information should be presented in an environment with few distractions and in a simple and clear manner to avoid information overload and confusion. Many guidelines are available to improve the simplicity and clarity of materials.[33, 52] For example, common guidelines recommend keeping the writing of materials at or below the sixth-grade level, using one- or two-syllable words, writing in short paragraphs, using bullets, providing a good amount of empty space on the page, and using headings and subheadings to separate blocks of texts. Four tests are helpful in assessing patient comprehension of health information: the Test of Functional Health Literacy in Adults (TOFHLA), the Cloze Test, listening tests, and the Newest Vital Sign (see Table 2).[43, 48–50] When patients are below a sixth-grade reading level, listening tests are an option to assess comprehension.[43]

To improve the retention of information in short-term memory, it is helpful to present similar pieces of information together and break down categories of information into smaller

Table 3. Assessment of Health Information Materials for Reading and Comprehension

Assessment	Test and Reference	Description	Scoring Procedures
Readability of materials	Statistical Measurement of Gobbledygook (SMOG)[53]	Test has two steps. *First*: counting 10 sentences at the beginning, middle, and end of sample text of greater than 30 sentences total. *Second*: counting all words with three or more syllables in each set of sentences	Evaluator adds all words from both steps and uses a conversion table to identify grade level.
	The Fry Method[54]	Three 100-word passages are selected from the material. The number of sentences in each of the 100 words is counted, and then the the total number of syllables in each 100-word passage is counted.	Average number of sentences and syllables is computed by dividing total number of sentences and syllables in the three-paragraph samples by 3. A Fry graph is used to further determine grade level based on the average number of sentences and syllables score.
	Flesch-Kincaid Readability Score[33]	A tool widely accessible and available through grammar check in Microsoft Word	A grade-equivalent reading level based on word length and sentence length is determined.
Readability of overall appropriateness	Suitability Assessment of Materials (SAM)[43]	The SAM scores multiple aspects of how information is presented including content, literacy demand (vocabulary, reading-grade level, use of active voice, and context), graphics, layout and typography, and cultural appropriateness.	Percent score falls into three categories: superior, adequate, and not suitable.

pieces. To improve the retention of information in long-term memory, it is helpful for the individual to repeat and review what was said and to provide a context for information through examples, analogies, mnemonics, and multiple media. Another important strategy to improve the retention of information is to ask patients to tell you in their own words what they learned and what problems they might have or expect to have in adhering to instructions.

Several measures can be used to assess the suitability of patient health information materials (Table 3).[33, 43, 53, 54] Several readability formulas exist for printed prose but not for tables, charts, or word lists. Tests are typically based on word difficulty and sentence length. In general, greater difficulty is associated with multisyllabic words and longer sentences. Formulas yield a grade-level rating for reading materials and the basis for text changes to improve the readability for patients. Three common formulas to assess the readability of printed material are the SMOG (Statistical Measurement of Gobbledygook) Formula, the Fry Method, and the Flesch-Kincaid Readability Score.[33, 53, 54] Readability is one way of assessing the suitability of printed information. Many other factors also might affect whether the given content is appropriate for patients. To address some of these other aspects, the Suitability Assessment of Materials (SAM) was developed and validated across multiple providers in various cultures.[43] The SAM has been successfully applied to multiple sources of instructions including print, video, and audiotape.

Implementation

Patient literacy assessment and tailored health information to best meet the needs of various patient populations help health care organizations meet the Joint Commission accreditation standards for patient education. Some of the measures are quicker than others and, therefore, can be routinely incorporated into patient settings. Trained staff members need to be identified to assess health literacy and develop informational materials suitable for patients at low levels of health literacy. Such improvements in health literacy will require additional costs in the short term but should yield improved patient decision-making, greater quality of care, and subsequent reductions in long-term costs.

Interpreters

In addition to improving individual communication skills, pharmacists can improve cross-cultural communication through interpreters and other linguistic services. Health care providers and systems should use interpreters to increase the effectiveness of services, comply with laws, and decrease malpractice. Title VI of the Civil Rights Act of 1964[55] and its relevant amendments, as well as the national standards on Culturally and Linguistically Appropriate Services (CLAS) (Table 4),[56, 57] require agencies (e.g., pharmacies) that receive federal funding (e.g., Medicare/Medicaid) to provide language appropriate materials and services to patients with limited English proficiency.[56–59] Furthermore, the Joint Commission standards require effective communication for all patients, with recent revisions added in 2007.[60] Some pharmacy chains have 24/7 telephone access to interpreters for various languages. In addition, some pharmacy computer systems can write prescription labels in several foreign languages, including those with different alphabet characters (e.g., Chinese, Arabic).

Health systems should also seriously consider employing trained medical interpreters because they can decrease the risk of malpractice. In one study, the use of untrained "ad hoc" Spanish-language interpreters resulted in more errors with a potential clinical consequence than hospital interpreters (77% vs. 33%, respectively).[61] Interpreters need to be sufficiently trained to obtain relevant and critical information, pass along sensitive information, and translate all aspects of patient and provider communication.[62] Pharmacists can refer to the CLAS standards for serving patients from diverse cultures (Table 4).[56, 57] Because of demand, many programs to educate and train medical interpreters and to set standards are being created. In fact, certification processes are under development, with a Spanish-English certification undergoing a pilot evaluation.[63] The National Council on Interpreting in Health Care has developed a national code of ethics.[64] Topics covered in the national standards of practice for interpreters in health care topics (i.e., accuracy, confidentiality, impartiality, respect, cultural awareness, role boundaries, professionalism, professional development, and advocacy) can be helpful to pharmacies, pharmacists, and pharmacy

Table 4. Culturally and Linguistically Appropriate Service (CLAS) Standards[56, 57]

Standard	Description
Standard 1[a]	Health care organizations should ensure that patients/consumers receive from all staff members effective, understandable, and respectful care that is provided in a manner compatible with their cultural health beliefs and practices and preferred language.
Standard 2[a]	Health care organizations should implement strategies to recruit, retain, and promote at all levels of the organization a diverse staff and leadership that are representative of the demographic characteristics of the service area.
Standard 3[a]	Health care organizations should ensure that staff at all levels and across all disciplines receive ongoing education and training in culturally and linguistically appropriate service delivery.
Standard 4[b]	Health care organizations must offer and provide language assistance services, including bilingual staff and interpreter services, at no cost to each patient/consumer with limited English proficiency at all points of contact, in a timely manner during all hours of operation.
Standard 5[b]	Health care organizations must provide to patients/consumers in their preferred language both verbal offers and written notices informing them of their right to receive language assistance services.
Standard 6[b]	Health care organizations must ensure the competence of language assistance provided to limited English-proficient patients/consumers by interpreters and bilingual staff. Family and friends should not be used to provide interpretation services (except on request by the patient/consumer).
Standard 7[b]	Health care organizations must make available easily understood patient-related materials and post signage in the languages of the commonly encountered groups and/or groups represented in the service area.
Standard 8[a]	Health care organizations should develop, implement, and promote a written strategic plan that outlines clear goals, policies, operational plans, and management accountability/oversight mechanisms to provide culturally and linguistically appropriate services.
Standard 9[a]	Health care organizations should conduct initial and ongoing organizational self-assessments of CLAS-related activities and are encouraged to integrate cultural and linguistic competence-related measures into their internal audits, performance improvement programs, patient satisfaction assessments, and outcomes-based evaluations.
Standard 10[a]	Health care organizations should ensure that data on the individual patient's/consumer's race, ethnicity, and spoken and written language are collected in health records, integrated into the organization's management information systems, and periodically updated.
Standard 11[a]	Health care organizations should maintain a current demographic, cultural, and epidemiologic profile of the community as well as a needs assessment to accurately plan for and implement services that respond to the cultural and linguistic characteristics of the service area.
Standard 12[a]	Health care organizations should develop participatory, collaborative partnerships with communities and use a variety of formal and informal mechanisms to facilitate community and patient/consumer involvement in designing and implementing CLAS-related activities.
Standard 13[a]	Health care organizations should ensure that conflict and grievance resolution processes are culturally and linguistically sensitive and capable of identifying, preventing, and resolving cross-cultural conflicts or complaints by patients/consumers.
Standard 14[c]	Health care organizations are encouraged to regularly make available to the public information about their progress and successful innovations in implementing the CLAS standards and to provide public notice in their communities about the availability of this information.

[a]Recommended for adoption as mandates by federal, state, and national accrediting agencies (standards 1, 2, 3, 8, 9, 10, 11, 12, and 13).
[b]Mandates by current federal requirements for all recipients of federal funds.
[c]Recommended for voluntary incorporation by health care organizations.

technicians who provide interpreter services themselves or are developing such services for pharmaceutical care.[65] This organization also has a helpful document on how to hire an interpreter.[66]

Pharmacists need to understand how best to work with interpreters and give the patient the feeling that she/he is still the focus of the communication process.[62] It is important to avoid the violation of any cultural norms between the interpreter and the patient. For example, the communication of certain sensitive issues to a male interpreter could make a female patient feel uncomfortable and complicate open communication from the patient to the pharmacist. In addition to gender issues, a pharmacist could investigate if any cultural issues related to age, social characteristics, and family ties exist that might affect the patient's receptiveness to a given interpreter's medication communication. The pharmacist could ascertain if a different interpreter would make the patient more comfortable. Family members, friends, and nonprofessional staff (e.g., dietary staff member, pharmacy clerk) should not be interpreters unless no other options exist. Children should not be used as interpreters. Children can be traumatized if the information is medically

sensitive (e.g., sexually transmitted diseases) or frightening (e.g., terminal cancer) or if it disrupts family dynamics (e.g., trust, punishment, unrealistic expectations).[67]

Errors can occur even when using interpreters and result in medication-related problems. In one study to evaluate interpreters, the information provided about the dose, frequency, and duration of antibiotics was not always correct.[61] For example, interpreters suggested that the patient apply hydrocortisone to the entire body when it should be applied only to the face. In another situation, the interpreter instructed patients to put eardrops in both ears when the physician's instructions were to instill drops in the affected ear only. Computer translations into different languages need to be used cautiously because they can also involve mistranslations. To implement these improvements in communication services, the pharmacy profession needs to devote resources to research, training, and bi- or multilingual personnel.

Bilingual and Non-English Materials

A recent result of greater efforts for cultural competency and care of non–English-speaking patients is the increase in non-English materials. Materials prepared in both English and the patient's language will help patients understand health information and pharmacists and pharmacy technicians can simultaneously follow the material in their language. In addition, health care providers can evaluate the non-English material better when both languages are represented. Although generally good, non-English materials from pharmaceutical companies need to be screened for bias. For some practitioners, acceptable bias is unbiased content with the pharmaceutical company's logo or the company's trade name products. After an ethical analysis, the pharmacist needs to determine if the benefit outweighs the risk from any perceived/potential bias. To find non-English materials, Web searches can be made for specific governmental agencies, disease-specific organizations, and pharmaceutical companies. Some of the materials can be found by typing the desired information and the desired language into a computer search engine. The source of these materials and the content should be evaluated for reliability and accuracy. Examples of various sources of such materials are listed in Table 5.

Component 4: Developing Culturally Responsive Drug Therapy Management

A fourth component needed in developing cultural competency is learning how to tailor treatment recommendations based on the patients' cultures, any treatment concerns or issues they have, and how they feel about the treatment. Resources for finding information about various cultures are listed in Table 6.[68–72] Making these tailored recommendations represents the "R" in the LEARN technique.[27] Some examples will be presented that offer further illustration of how pharmacists can provide culturally responsive medication therapy management. One example involves patients who express their desire to take herbal treatments in combination with their prescription medications. Pharmacists can relay acceptance of this practice and concern about the safety of the herbal treatments and medications. Pharmacists might investigate the presence of drug interactions and other precautions when the herbals are taken with the medications. These pharmacists could then provide recommendations on whether such combinations are safe. Furthermore, the pharmacist can discuss the importance of all providers knowing this information for decision-making and documentation in pharmacy profiles and medical charts. A second example involves the use of family and other social support mechanisms when making treatment recommendations to patients whose cultures place high importance on such social support systems. Education about oral contraceptives might be given both to the female Arab patient and her husband. The Jewish sons and daughters of a man with terminal cancer might make all the decisions for the father, often with the father never knowing his diagnosis. Family members can also be quite helpful in reducing treatment nonadherence. Asking patients if they want family involvement will assist in appropriately engaging family members in the patient's care. A third example entails how pharmacists might incorporate patient beliefs about illnesses and treatments when discussing treatment recommendations. A specific example describes a Hispanic American who is nonadherent with his drug therapy because he feels the medication is a sign of weakness and conflicts with his sense of "machismo" or masculinity. The pharmacist might suggest to this patient that taking the medication regularly is a sign of strength that he

is controlling his illness. Pharmacists who know that the patient is a devout Christian, Muslim, or Jew might recommend consulting a religious person for prayer help and advice. A fourth example includes product selection. A Hindu, Muslim, and Jew might prefer a tablet instead of a capsule or a nonalcohol-containing fluid medication because pork products and alcohol are prohibited except in necessity. In a final example, pharmacists might recommend dosage or medication changes when adverse effects or a lack of efficacy is associated with racial differences in drug metabolism, response, or sensitivity.[73–75]

To design culturally responsive drug therapy, pharmacists must involve patients in treatment decisions and give patients an opportunity to provide feedback about these recommendations. Several models exist that pharmacists can use. Both the patient's culture and the provider's culture must be considered to find "Resources," "Individual" identity and acculturation, "Skills" available for adaptation to the disease, and "Knowledge" about the culture (RISK model).[62, 76] A negotiated agreement (represents the "N" in the LEARN model) between patient and health professionals about the treatment plan is key to the patient's acceptance of the recommendations. Using the LEARN and RISK models can result in a negotiated plan that produces positive patient outcomes and satisfaction. Additional questioning about acceptance of the plan might be required with cultures such as Native Americans that avoid confrontation and argument with health care providers.

A third model is similar to LEARN and RISK. The BELIEF model stands for "Beliefs" about health discussed, "Explanation" of health condition, "Learn" about the other's view, "Impact" of illness on daily life, "Empathy" for the situation expressed, and "Feelings" about the illness.[77] This model emphasizes more of the emotional components that could be integrated into the LEARN and RISK approaches.

A fourth model, ETHNIC, also contains many elements of the other models but has more questions related specifically to ethnic factors such as family and healers.[62] In the "Explanation" component, cause of the illness, family/friend input related to the illness, and media-obtained information about the illness are ascertained. In the "Treatment" section, home remedies, diet, healthy behaviors, and desired treatment are discovered. The use of alternative/folk healers and friends and

nonmedical advice givers is queried during the "Healer" component. The N in this model is for "Negotiate," similar to the other models, to develop a mutually acceptable plan, but it also includes the patient's expected results and hopes. The I is for the final "Intervention." In this model, C refers to "Collaboration" and uses the patient, family member, other healers, and other members of the health team, which makes it an accepting and inclusive conclusion that acknowledges and uses cultural resources.

A fifth model is RESPECT.[62] In this model, the acronym represents Rapport, Empathy, Support, Partnership, Explanations, Cultural Competence, and Trust. Regardless of which model a pharmacist or pharmacy technician uses, a framework will help ensure that cultural issues are recognized and incorporated into care plans and communication.

Component 5: Developing Linkages in the Community

The fifth component of developing cultural competency in pharmacy practice is to develop strong ties in the community. These ties can be formed through volunteer work in the community and alliances with members of the community such as religious leaders, traditional healers, ethnic organizations, and other residents. Such alliances can provide valuable information about specific perspectives, issues, and needs of the community while establishing trust from members of the community. Often, these groups have solutions to problems that go beyond what is known by the health care provider or system. For example, in a predominantly two-parent working community, additional nighttime hours might be required. Health care topics and services can be incorporated into festivals and religious seminars. Health fairs can be introduced at race/ethnic organizations or religious meetings. Literature can be developed with pictures of leaders representing the culture and community. Cultural artwork can be donated to the pharmacy, creating an inclusive environment. Traditional healers or clergy can be especially helpful in assisting pharmacists with ways of tailoring treatment plans to accommodate a patient's belief system or helping the patient accept Western medical care. Pharmacists should also inform local health agencies, charities, clinics, and hospitals about the resources at the pharmacy such as bilingual staff, non-English materials, delivery service,

Table 5. Examples and Types of Bilingual and Non-English Patient Education Materials

Type of Material	Bilingual[a]	Languages	Provider[b]
General health			
Poison information	Yes	Spanish, Somali, Hmong	Minnesota Poison Information Center www.mn.poison.org/index.asp?pageID=94
Medication use	Yes	Cambodian, Chinese, Hmong, Korean, Japanese, Laotian, Polish, Samoan, Spanish, Tagalong, Thai	National Association of Chain Drug Stores U.S. Food and Drug Administration Office of Women's Health www.fda.gov/womens/taketimetocare/mymeds.html
Disease-specific			
Alzheimer's disease	Yes	Korean, Chinese, Spanish	Alzheimer's Disease Association www.alz.org
Diabetes	Most	Variable depending on piece	National Institutes of Health and National Diabetes Education Program ndep.nih.gov/campaigns/tools.htm
HIV and hepatitis C	Yes	Afrikaans, Akan, Amharic, Arabic, Bosnian, Burmese, Chinese, Croatian, Greek, Indonesian, Italian, Khmer, Korean, Macedonian, Portuguese, Serbian, Shona, Somali, Spanish, Tagalong, Thai, Turkish, Vietnamese	Australian National Council on AIDS, Hepatitis C, and Related Diseases www.multiculturalhivhepc.net.au
Procedure-specific			
DXA	Yes	Arabic, Cantonese, Chinese, French, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Vietnamese	Merck & Co. www.fosamax.com/alendronate_sodium/fosamax/hcp/patient_resources/bmd_Testing/index.jsp?WT.svl=2
Assessment tools			
Montreal Cognitive Assessment	Yes	Arabic, Cantonese, Chinese, Czech, Dutch, French, German, Greek, Hebrew, Italian, Korean, Portuguese, Spanish, Thai	www.mocatest.org
Drug-specific			
Fosamax	Yes	Depends on the piece; Arabic, Cantonese, Chinese, French, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Vietnamese	Merck & Co. www.fosamax.com/alendronate_sodium/fosamax/hcp/patient_education/index.jsp?WT.svl=2
Vaccinations	Yes	36 languages, varies per vaccination	Centers for Disease Control and Prevention Immunization Action Coalition www.immunize.org/catg.d/noneng.htm
Specific languages			
Arabic	Most		Urban Health Partners/Wayne State University/www.lib.wayne.edu/shiffman/urbanhealth/AZ list.htm
Asian	Most	Cambodian/Khmer, Chinese, Hmong, Korean, Lao, Thai, Vietnamese	spiral.tufts.edu/language.html
Spanish	Yes		MEDLINE Plus in Spanish www.medlineplus.gov/esp
	Yes		National Alliance for Hispanic Health www.hispanichealth.org/factsheets
Multiple languages	Variable	Arabic, Cambodian, Chinese, French, German, Hmong, Korean, Laotian, Russian, Somali, Spanish, Thai, Vietnamese; multiple languages	National Network of Libraries of Medicine www.nnlm.gov/outreach/consumer/multi.html
		10 plus Asian languages	Asian American Health asianamericanhealth.nlm.nih.gov/sitemap.html

[a]The piece has English and the other language on the same version or as separate documents.
[b]Accessed February 15, 2008.
DXA = dual-energy absorptiometry; HIV = human immunodeficiency virus.

Table 5. (continued)

Comments
General medication use information questions to ask about medications, checklist for over-the-counter medications, medication list, allergies
Patient education and assessment (activities of daily living, mini-mental status examination, etc.) information; also 24/7 hotline with a 140-language capability (800) 272-3900
Also has information and pictures on correct condom use. Australian site
Both the test and training manual are available in these languages.
Information on osteoporosis, package insert, dosing information
Vaccine information sheets (VIS), general vaccination information
Search by topic or alphabet, wide variety of topics
Lots of topics, links to other resources
Information on health topics, drugs, supplements; can toggle to English version
Fact sheets on many diseases with links to other sites for information; can toggle between English and Spanish
Many links to other sites; search by multiple or single language; not all links work

health fairs, and additional patient care services (e.g., diabetes and lipid assessments, flu shots). Pharmacists can provide useful information to diverse patients about broader medical care issues such as how services are delivered in the U.S. health care system, how to pay for medications, where to get free immunizations, and where to find GLBT (gay, lesbian, bisexual, transgender) friendly providers. Using an Internet search engine, the local businesses and organizations near the pharmacy can be identified and potentially become partners for health and pharmacy initiatives.[20] These businesses can provide funding, additional means for patient contact, and opportunities for advertisements of special pharmacy programs. Knowing the legislators for your pharmacy community can also help with resolving health disparities and providing public health initiatives for the area's diverse populations.

Component 6: Understanding National and Professional Initiatives Regarding Cultural Competency

Awareness of national and professional initiatives toward cultural competency represents the sixth component of developing cultural competency in pharmacy practice. Without this awareness, the pharmacy profession could overlook important population-level needs, concerns, and guidelines. Pharmacists should be aware of several national initiatives that affect minority health care. First, the current *Healthy People 2010* has standards related to minority health care.[78] Ten indicators of health status are applicable to all Americans: physical activity, obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury/violence, environmental quality, access to health care, and immunization. Furthermore, *Healthy People 2010* advocates increasing the number of health departments that have culturally and linguistically competent community programs, patients stating satisfactory provider-patient communication, and patients satisfied with their patient education from their health care organizations.[79] Specific avenues for pharmacists to help achieve *Healthy People 2010* goals have been delineated in another American College of Clinical Pharmacy white paper.[80] Most likely, cultural and health disparity issues will also be in the *Healthy People 2020* document currently being developed.

A second national initiative, developed by the

Table 6. Examples of Information Resources of Race, Ethnicity, Religions, and GLBT[a] Health and Statistics Information

Cultures[b]	Organizations	Web Sites[c]
Race/ethnic groups		
18 ethnic groups	Ethnomed, University of Washington and Harborview Medical Center	ethnomed.org/ethnomed/index.html
Asian American/Pacific Islander	Asian American Health	asianamericanhealth.nlm.nih.gov/
	Asian and Pacific Islander American Health Forum	apiahf.org/resources/index.htm
	U.S. Census site	www.census.gov/pubinfo/www/ NEWapiML1.html
		www.census.gov/pubinfo/www/ NEWnativehawML1.html
Arab American	Arab population, 2000	census.gov/prod/2003pubs/ c2kbr-23.pdf
	Arab American and health care article	case.edu/med/epidbio/mphp439/ Arab-Americans.htm
Black/African American[69, 70]	African American Health Network	aahn.com
	African American Health	nlm.nih.gov/medlineplus/ africanhealth.html
	U.S. Census site	www.census.gov/pubinfo/www/ NEWafamML1.html
Hispanic/Latino/Latina[32]	National Alliance for Hispanic Health	hispanichealth.org/ cdc.gov/omhd/Populations/HL/HL.htm
	Hispanic American Health	nlm.nih.gov/medlineplus/ hispanicamericanhealth.html
	U.S. Census site	www.census.gov/pubinfo/www/ NEWhispML1.html
Native American/Alaska Native[71]	American Indian Health (NLM)	americanindianhealth.nlm.nih.gov
	Census 2000 phc-t-18: tribes in United States	census.gov/population/cen2000/ phs-t18/tab001.pdf
	Indian Health Service	www.ihs.gov
	U.S. Census site	www.census.gov/pubinfo/www/ NEWamindML1.html
Refugees	U.S. Committee for Refugees and Immigrants	www.refugees.org
Religious groups		
Buddhism		healthsystem.virginia.edu/internet/ chaplaincy/buddhism.cfm
Catholicism[72]	U.S. Conference of Catholic Bishops	www.nccbuscc.org
Hinduism		healthsystem.virginia.edu/internet/ chaplaincy/hindu.cfm
Islam		healthsystem.virginia.edu/internet/ chaplaincy/muslim.cfm
Judaism	Dr. Falk Schlesinger Institute for Medical-Halachic Research	medethics.org.il/siteEng/index.asp
		healthsystem.virginia.edu/internet/ chaplaincy/jewish.cfm
GLBT		www.metrokc.gov/health/glbt
		www.glma.org
Statistics		
	Health, U.S., 2007 with chartbook on trends in the health of America	cdc.gov/nchs/data/hus/hus07.pdf
	National vital statistics	cdc.gov/nchs/products/pubs/pubd/ nvsr/nvsr.htm
	American Factfinder, U.S. Census	factfinder.census.gov
	National Center on Minority Health & Health Disparities	ncmhd.nih.gov
	Henry J. Kaiser Family Foundation, Key Facts: Race, Ethnicity, and Medical Care 2007	kff.org/minorityhealth/upload/6069-02.pdf
	National Healthcare Disparities Reports	qualitytools.ahrq.gov

[a]Gay, lesbian, bisexual, and transgendered individuals.
[b]Information about these and other groups can also be found in reference 68.
[c]Accessed February 15, 2008.

U.S. Department of Health and Human Services, identifies guidelines to health care systems and practitioners on providing CLAS (Table 4).[56, 57] The CLAS standards are divided into three areas: culturally competent care, language access services, and organizational supports for cultural competence. Language access services are linked to Title VI of the Civil Rights Act of 1964.[55, 58, 59] This act indicates that patients should receive services in their language if the services are provided by organizations receiving federal funds (e.g., Medicare), serving patient populations with limited English proficiency, and meeting other specific criteria.

As discussed earlier, the HRSA also provides indicators for cultural competence in an organization. The HRSA suggests that organizations evaluate seven domains: organizational values, governance, planning and monitoring/evaluation, communication, staff development, organizational infrastructure, and services/interventions.[13] The Joint Commission produces nationally recognized standards that address cultural competency.[60] The Joint Commission standards recommend that organizations have services focusing on patient medication safety, drug-food interaction screenings, and involvement of the family in the care decisions. At each visit, patients should be assessed for barriers to care, including language, education level, religion, mental health limitations, and physical limitations. Such guidelines facilitate cultural competency by encouraging practitioners to consider a patient's beliefs, practices, and values when negotiating treatment plans with the patient and his/her family. These negotiated treatment plans are often safer because they have been assessed for any drug-food interactions and other culturally specific habits that might interfere with drug therapy. In addition, the plans are more likely to be accepted by patients because they have received approval from other family members.

Pharmacists also should be aware of their profession's values and ethics toward the delivery of culturally responsive care. Several principles from the Pharmacy Code of Ethics support concepts related to cultural competency.[81] According to this Code of Ethics, pharmacists are to promote self-determination and allow patients to participate in their health care decisions, acknowledge and respect different beliefs and values of other health care practitioners, provide communication patients can understand, respect the dignity of each patient (and her/his cultural

differences), avoid discriminatory practices, and ensure justice in the allocation of health care resources. The pharmacist who respects the dignity of each patient also respects each patient's cultural differences.

Component 7: Evaluating Progress Toward Cultural Competency

The development of culturally competent pharmacy practices would not be complete unless it involved a final step in which the pharmacy evaluated its progress toward cultural competency (becoming culturally proficient). A pharmacy practice that tries to incorporate the previous six components of becoming culturally competent into its pharmacy practices is likely to reduce patient misunderstandings and improve collaborations between pharmacists, pharmacy technicians, patients, patient families, and members of the community. Furthermore, pharmacists and pharmacy technicians who increase their understanding, sensitivity, and ability to work with patients of different cultures can more effectively provide tailored and consistent pharmaceutical care. Improved patient satisfaction is as important as improved patient outcomes. According to the HRSA, practices that are successful at becoming more culturally competent are those that[82]:

- Define culture broadly
- Value clients' cultural beliefs
- Recognize complexity in language interpretation
- Facilitate learning between providers and communities
- Involve the communities in defining and addressing service needs
- Collaborate with other agencies
- Professionalize staff hiring and training
- Institutionalize cultural competence

In addition to these indicators, culturally responsive pharmaceutical care should ultimately lead to better economic, clinical, and humanistic outcomes for diverse patient populations. Quality-of-life and satisfaction measurements are commonly used to assess outcomes. Culture is intertwined with quality of life and satisfaction. Thus, one assessment tool for all cultures is insufficient in a culturally competent practice. Three approaches, each with different assumptions, can be used to develop equivalent assessment tools.[83] One perspective suggests that each culture is unique, and thus, each culture

needs its own tools. Another perspective says that only minor differences exist between cultures and that, with linguistic attention, tools can be translated for use in another culture. A culture-sensitive perspective states that certain aspects of quality of life are similar across cultures. Thus, these aspects of quality of life should be included in the tools only after they have been assessed to have the same meaning among different cultures. If a quality-of-life aspect is different between cultures, it should not be used in this last type of assessment.

As experience grows and research explores the learning and implementing of cultural competency in education and practice, newer models, better educational curriculums, and improved patient skills will be developed and/or updated. For example, a transnational competence framework has been proposed to expand on the cultural competence model. The framework emphasizes that good care requires more than cultural generalizations and must include other aspects such as socioeconomics, politics, reasons for U.S. immigration, advocacy, and health disparity elimination.[84] The five domains of this framework are analytic skills, emotional skills, creativity, communication, and function, which provide an expanded patient-provider relationship and inquiry to gather necessary information and beliefs to further develop better care plans and improve adherence. Another proposed model is the ACCULTURE model for pharmacy starting with policy that branches to funding of services; scholarships, grants, and incentives; and practitioner licensing.[85] The intermediate results in this model are improved access, language proficiency, and effective communication that ultimately results in improved quality of care and quality of life for diverse populations.

Conclusion

Cultural competency requires change at individual, interpersonal, practice site, and organizational levels. Cultural competency is an evolving and dynamic process that takes time, patience, and perseverance. Seven components for developing cultural competency have been presented. Before understanding other cultures, the first component requires one to understand oneself and the cultural attitudes of one's practice site. After acquiring knowledge about the cultures within one's practice and staff, oral communication skills can be improved, written

bilingual materials can be created, and health literacy can be assessed to improve patient outcomes and adherence with medications. Interpreters can be helpful and, in certain situations, might be required. To be culturally appropriate, pharmaceutical care plans will need to take into account factors such as herbal practices, spiritual healers, family decision-makers, and pharmacogenomics. Getting involved with cultural leaders, clergy, and organizations will help create ties, enhance cultural understanding, identify health problems, and improve trust. Governmental and professional organizations are trying to eliminate health disparities and improve health care outcomes for all individuals through policy, programs, and resources. The last component suggests that continuous quality improvement programs should be designed to determine how culturally competent a practitioner or practice is and identify successes and areas for improvement. As the United States becomes more diverse, adoption of these seven components will lead to greater cultural competence and most likely improve patient satisfaction and outcomes, especially for patients from differing cultures. Research is required to determine the economic, clinical, and humanistic outcomes of adopting culturally competent practices.

References

1. **Brown CM, Nichols-English G**. Dealing with patient diversity in pharmacy practice. Drug Top 1999;17:61–70.
2. **O'Connell MB, Korner EJ, Rickles NM, Sias JJ**. Cultural competence in health care and its implications for pharmacy. Part 1. Overview of key concepts in multicultural health care. Pharmacotherapy 2007;27:1062–79.
3. **Zweber A**. Cultural competence in pharmacy practice. Am J Pharm Educ 2002;66:172–6.
4. **Spector RE**. Cultural Diversity in Health and Illness. Upper Saddle River, NJ: Pearson Prentice Hall, 2004.
5. **Goode TD**. Promoting cultural and linguistic competency. Self-assessment checklist for personnel providing primary health care services. 2004. Available from www11.georgetown.edu/ research/gucchd/nccc/documents/checklist%20PHC.pdf. Accessed February 7, 2008.
6. **National Center for Cultural Competence**. Welcome to the

cultural competence health practitioner assessment. Available from www4.georgetown.edu/uis/keybridge/keyform/form.cfm?formID=277. Accessed March 13, 2008.

7. **Doorenbos AZ, Schim SM, Benkert R, Borse NN**. Psychometric evaluation of the cultural competence assessment instrument among health care providers. Nurs Res 2005;54:324–31.

8. **Schim SM, Doorenbos AZ, Miller J, Benkert R**. Development of a cultural competence assessment instrument. J Nurs Meas 2003;11:29–40.

9. **American Speech-Language Hearing Association**. Cultural competence checklist. Available from www.asha.org/about/leadership-projects/multicultural/self.htm. Accessed March 13, 2008.

10. **Goode TD, Jones W, Mason J**. A guide to planning and implementing cultural competence organizational self-assessment. 2002. Available from www11.georgetown.edu/research/gucchd/nccc/documents/ncccorgselfassess.pdf. Accessed February 7, 2008.

11. **Vancouver Ethnocultural Advisory Committee of the Ministry for Children and Families**. Cultural competency assessment tool. Available from www.mcf.gov.bc.ca/publications/cultural_competency/assessment_tool/tool_index.htm. Accessed February 7, 2008.

12. **AIDs Education and Training Centers Organizational Self-Assessment subset**. Cultural competency organizational self-assessment (OSA) question bank. 2006. Available from www.hrsa.gov/culturalcompetence. Accessed March 13, 2008.

13. **The Lewin Group Inc.** for the Health Resources and Services Administration. Indicators of cultural competence in health care delivery organizations: an organizational cultural competence assessment profile. 2002. Available from www.hrsa.gov/culturalcompetence/indicators/. Accessed February 7, 2008.

14. **ASHP Ad Hoc Committee on Ethnic Diversity and Cultural Competence**. Report of the ASHP Ad Hoc Committee on ethnic diversity and cultural competence. Am J Health Syst Pharm 2005;62:1924–30.

15. **U.S. Census Bureau**. U.S. interim projections by age, sex, race, and Hispanic origin. 2004. Available from census.gov/ipc/www/usinterimproj/natprojtab01a.pdf. Accessed March 13, 2008.

16. **U.S. Bureau of Labor Statistics and Bureau of the Census**. 1997–2000 current population survey data-pharmacists. 2001. Available from aacp.org/docs/MainNaviagation/ForDeans/4108_CPSPharmtrends.doc. Accessed February 7, 2008.

17. **Midwest Pharmacy Workforce Research Consortium**. Final report of the national sample survey of the pharmacist workforce to determine contemporary demographic and practice characteristics. 2005. Available from www.aacp.org/Docs/MainNavigation/Resources/7295_final-fullworkforcereport.pdf. Accessed March 13, 2008.

18. **Wells MI**. Beyond cultural competence: a model for individual and institutional cultural development. J Community Health Nurs 2000;17:189–99.

19. **Cohen MZ, Palos G**. Culturally competent care. Semin Oncol Nurs 2001;17:153–8.

20. **Sias JJ**. Designing pharmacy services for local cultures. J Am Pharm Assoc 2005;45:422–4.

21. **Kleinman A, Eisenberg L, Good B**. Culture, illness, and care: clinical lessons from anthropologic and cross-cultural research. Ann Intern Med 1978;88:251–8.

22. **Seidl HM, Ball JW, Dains JE, Benedict GW**. Cultural awareness. In: Seidl HM, Ball JW, Dains JE, Benedict GW, eds. Mosby's Guide to Physical Examination, 4th ed. St. Louis: Mosby, 1999:34–56.

23. **Fadiman A**. The Spirit Catches You and You Fall Down. A Hmong Child, Her American Doctors, and the Collision of Two Cultures. New York: Farrar, Straus, and Giroux, 1997.

24. **Carrillo JE, Green AR, Betancourt JR**. Cross-cultural primary care: a patient-based approach. Ann Intern Med 1999;130:829–34.

25. **Berry JW**. Immigration, acculturation, and adaptation. Appl Psychol 1997;46:5–68.

26. **Boulware LE, Cooper LA, Ratner LE, LaVeist TA, Powe NR**. Race and trust in the health care system. Public Health Rep 2003;118:358–65.

27. **Berlin EA, Fowkes WC Jr**. A teaching framework for cross-cultural health care. Application in family practice. West J Med 1983;139:934–8.

28. **Muzyk AJ, Muzyk TL, Barnett CW**. Counseling Spanish-speaking patients: Atlanta pharmacists' cultural sensitivity, use of language-assistance services, and attitudes. J Am Pharm Assoc 2004;44:366–74.

29. **Kisch GR**. Essential Spanish for Pharmacists. Washington, DC: American Pharmacists Association, 1999.

30. **Scott RW**. Medical Spanish for Health Care Professionals. Boston: Jones and Bartlett, 2008.

31. **Buck ML, Hendrick AE**. Pediatric Medication Education Text, 4th ed. Texto Educativo de Medicamentos Pediatricos, Tercera Edición. Kansas City, MO: American College of Clinical Pharmacy, 2004.

32. **National Alliance for Hispanic Health**. Delivering Health Care to Hispanics: A Manual for Providers. Washington, DC: Estrella Press, 2004.

33. **Weiss BD**. Health Literacy: A Manual for Clinicians. Chicago, IL: AMA Foundation, 2003.

34. **Kirsch I, Jungeblut A, Jenkins L, Kolstad A**. Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey. Washington, DC: U.S. Government Printing Office, 1993.

35. **Davis TC, Dolan NC, Ferreira MR, Tomori C, Green KW, Sipler AM, et al**. The role of inadequate health literacy skills in colorectal cancer screening. Cancer Invest 2001;19:193–200.

36. **Williams MV, Baker DW, Honig EG, Lee TM, Nowlan A**. Inadequate literacy is a barrier to asthma knowledge and self-care. Chest 1998;114:1008–15.

37. **Williams MV, Baker DW, Parker RM, Nurss JR**. Relationship of functional health literacy to patients' knowledge of their chronic disease. A study of patients with hypertension and diabetes. Arch Intern Med 1998;158:166–72.

38. **Arnold CL, Davis TC, Berkel HJ, Jackson RH, Nandy I, London S**. Smoking status, reading level, and knowledge of tobacco effects among low-income pregnant women. Prev Med 2001;32:313–20.

39. **Schillinger D, Grumbach K, Piette J, Wang F, Osmond D, Daher C, et al**. Association of health literacy with diabetes outcomes. JAMA 2002;288:475–82.

40. **Baker DW, Gazmararian JA, Williams MV, et al**. Functional health literacy and the risk of hospital admission among Medicare managed care enrollees. Am J Public Health 2002;92:1278–83.

41. **Friedland RB**. Understanding Health Literacy: New Estimates of the Costs of Inadequate Health Literacy. Washington, DC: National Academy on an Aging Society, 1998.

42. **Parikh NS, Parker RM, Nurss JR, Baker DW, Williams MV**. Shame and health literacy: the unspoken connection. Patient Educ Couns 1996;27:33–9.

43. **Doak CC, Doak LG, Root JH**. Teaching Patients with Low Literacy Skills. Philadelphia: JB Lippincott, 1996.

44. **Wilkinson GS, Robertson GJ**. Wide Range Achievement Test (WRAT 4). 2006. Available from www3.parinc.com/products/products.aspx?Productid=WRAT4. Accessed February 18, 2008.

45. **Murphy PW, Davis TC**. Rapid estimate of adult literacy in medicine (REALM): a quick reading test for patients. J Read 1993;37:124–30.

46. **Slosson RL**. Slosson Oral Reading Test (SORT) Revised. East Aurora, NY: Slosson Education Publications, 1990.

47. **Benes K**. Review of Peabody individual achievement test-revised. In: Kramer JJ, Conoley JC, eds. Eleventh Mental Measurements Yearbook. Lincoln, NE: Buros Institute of Mental Measurement, 1990:649–54.

48. **Nurss JR, Parker RM, Williams MV, Baker DW**. Test of Functional Health Literacy in Adults. Atlanta, GA: Emory

University, 1995.

49. **Taylor W**. Cloze procedure: a new tool for measuring readability. Journalism Q 1953;30:415–33.

50. **Weiss BD, Mays MZ, Martz W, et al**. Quick assessment of literacy in primary care: the newest vital sign. Ann Fam Med 2005;3:514–22.

51. **Baker DW, Williams MV, Parker RM, Gazmararian JA, Nurss J**. Development of a brief test to measure functional health literacy. Patient Educ Couns 1999;38:33–42.

52. **Osborne H**. Health Literacy from A to Z: Practical Ways to Communicate Your Health Message. Sudbury, MA: Jones and Barlett, 2005.

53. **McLaughlin G**. SMOG grading: a new readability formula. J Read 1969;12:639–46.

54. **Fry E**. Fry's readability graph: clarifications, validity, and extensions to level 17. J Read 1977;20:242–52.

55. **U.S. Department of Justice**. Title VI of the Civil Rights Act of 1964. 1964. Available from usdoj.gov/crt/cor/cord/titlevi.htm. Accessed March 3, 2008.

56. **Office of Minority Health**. About the Center for Linguistic and Cultural Competence in Health Care (including national standards), Available from www.omhrc.gov/templates/browse.aspx?lvl=2&lvlid=16. Accessed March 13, 2008.

57. **IQ Solutions**. National Standards for Culturally and Linguistically Appropriate Services in Health Care. Executive Summary, Washington, DC: U.S. Department of Health and Human Services, Office of Minority Health, 2001. Available from www.omhrc.gov/assets/pdf/checked/executive.pdf. Accessed March 13, 2008.

58. **Goode TD, Sockalingam S, Brown M, Jones W**. Policy Brief 2: Linguistic Competence in Primary Health Care Delivery Systems: Implications for Policy Makers, vol. 2008. Washington, DC: National Center for Cultural Competence, Georgetown University Center for Child and Human Development, 2003.

59. **Tervalon M**. Components of culture in health for medical students' education. Acad Med 2003;78:570–6.

60. **Joint Commission on Accreditation of Healthcare Organizations**. The Joint Commission 2007 requirements related to the provision of culturally and linguistically appropriate health care. 2007. Available from jointcommission.org/NR/rdonlyres/1401C2EF-62FO-4715-B28A-7CE7FOF20E2D/O/hlc_jc_std.pdf. Accessed March 3, 2008.

61. **Flores G, Laws MB, Mayo SJ, et al**. Errors in medical interpretation and their potential clinical consequences in pediatric encounters. Pediatrics 2003;111:6–14.

62. **Georgetown University Center for Child and Human Development National Center for Cultural Competence**. Process of inquiry-communicating in a multicultural environment. Available from www.nccccurricula.info/communication/index.html. Accessed March 30, 2008.

63. **National Council on Interpreting in Health Care**. Final report on the pilot of a certification process for Spanish-English interpreters in health care. 2003. Available from mmia.org/uploads/pages/118.pdf. Accessed March 3, 2008.

64. **National Council on Interpreting in Health Care**. A national code of ethics for interpreters in health care. 2004. Available from data.memberclicks.com/site/ncihc/NCIHC%20National%20Code%20of%20ethics.pdf. Accessed March 3, 2008.

65. **National Council on Interpreting in Health Care**. National standards of practice for interpreters in health care. 2005. Available from datamemberclicks.com/site/ncihc/NCIHC%20National%20Standards%20of%20Practice.pdf. Accessed March 3, 2008.

66. **National Council on Interpreting in Health Care**. Guide to initial assessment of interpreter qualifications, 2001. Available from data.memberclicks.com/site/ncihc/NCIHC%20Working%20Paper%20-%20Guide%20to%20Initial%20Assessment%20of%20Interpreter%20Qualifications.doc. Accessed March 3, 2008.

67. **Sleath B, Brooks AM, Ginsburg DB, Wick JY**. Health communications for culturally diverse patients. CE Monograph Series for Pharmacists, vol. 3. Washington, DC: American Pharmaceutical Association, 2002:1–18.

68. **Halbur KV, Halbur DA**. Essentials of Cultural Competence in Pharmacy Practice. Washington DC: American Pharmacists Association, 2008.

69. **Johnson KS, Elbert-Avila KI, Tulsky JA**. The influence of spiritual beliefs and practices on the treatment preferences of African Americans: a review of the literature. J Am Geriatr Soc 2005;53:711–9.

70. **Levin J, Chatters LM, Taylor RJ**. Religion, health and medicine in African Americans: implications for physicians. J Natl Med Assoc 2005;97:237–49.

71. **Struthers R, Eschiti VS, Patchell B**. Traditional indigenous healing. Part I. Complement. Ther Nurs Midwifery 2004;10:141–9.

72. **John Paul II**. Man and Woman He Created Them: A Theology of the Body. Redwood City, CA: Pauline Books & Media, 2006.

73. **Lin KM, Smith MW, Ortiz V**. Culture and psychopharmacology. Psychiatry Clin North Am 2001;24:523–38.

74. **Taniguchi G, Vera C, Blair M, Espejo P, Roe K**. Multicultural approach to providing services. Consult Pharm 1999;14:1281–2, 4–6.

75. **Kudzma EC**. Cultural competence: cardiovascular medications. Prog Cardiovasc Nurs 2001;16:152–60, 69.

76. **Kagawa-Singer M, Kassim-Lakha S**. A strategy to reduce cross-cultural miscommunication and increase the likelihood of improving health outcomes. Acad Med 2003;78:577–87.

77. **Dobbie AE, Medrano M, Tysinger J, Olney C**. The BELIEF instrument: a preclinical teaching tool to elicit patients' health beliefs. Fam Med 2003;35:316–9.

78. **Office of Disease Prevention and Health Promotion**. Healthy People 2010. Available from www.health.gov/healthypeople. Accessed March 3, 2008.

79. **Anderson LM, Scrimshaw SC, Fullilove MT, Fielding JE, Normand J**. Culturally competent healthcare systems: a systematic review. Am J Prev Med 2003;24:68–79.

80. **Calis KA, Hutchison LC, Elliott ME, Ives TJ, Zillich AJ, Poirier T, et al**. Healthy People 2010: challenges, opportunities, and a call to action for America's pharmacists. Pharmacotherapy 2004;24:1241–94.

81. **American Pharmacists Association**. Code of ethics for pharmacists. 1994. Available from http://www.aphanet.org/AM/Template.cfm?Section=Search&template=/CM/HTMLDisplay.cfm&ContentID=2903. Accessed February 7, 2008.

82. **U.S. Department of Health and Human Services**. HRSA care action: mitigating health disparities through cultural competence. 2002. Available from hab.hrsa.gov/publications/august2002.htm. Accessed March 13, 2008.

83. **Schmidt S, Bullinger M**. Current issues in cross-cultural quality of life instrument development. Arch Phys Med Rehabil 2003;84:S29–34.

84. **Koehn PH, Swick HM**. Medical education for a changing world: moving beyond cultural competence into transnational competence. Acad Med 2006;81:548–56.

85. **Quist RM, Law AV**. Cultural competency: agenda for cultural competency using literature and evidence. Res Soc Adm Pharm 2006;2:420–38.