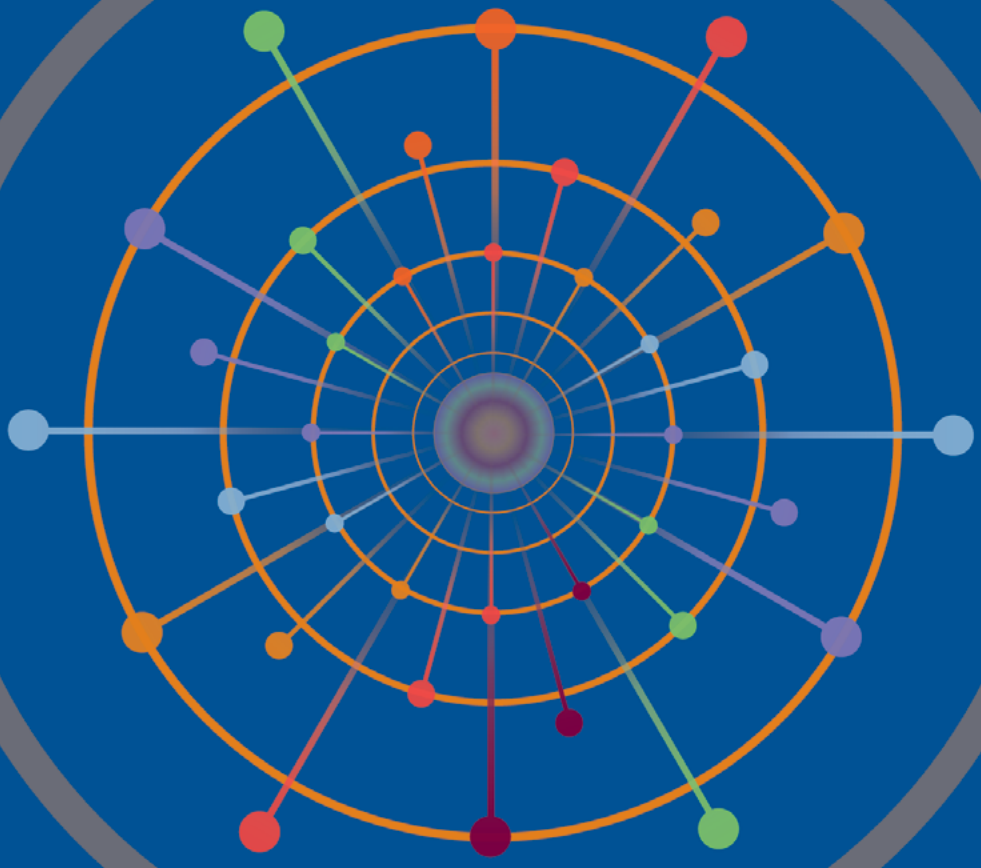
AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Assessing Change: Evaluating Cultural Competence Education and Training

March 2015



Association of
American Medical Colleges

Assessing Change: Evaluating Cultural Competence Education and Training

Association of American Medial Colleges. (2015). Assessing Change: Evaluating Cultural Competence Education and Training. Washington, D.C. Retrieved from https://www.aamc.org/initiatives/diversity/425472/assessingchange.html

This is a publication of the Association of American Medical Colleges. The AAMC serves and leads the academic medicine community to improve the health of all. www.aamc.org

Table of Contents

Acknowledgments

The AAMC extends gratitude to the following individuals who served on the Expert Panel and prepared content for this publication.

Clarence Henry Braddock, III, M.D., M.P.H., MACP
Professor of Medicine, Vice Dean for Education
University of California, Los Angeles, David Geffen School of Medicine

Sonia J. Crandall, Ph.D., M.S.
Professor, Department of Physician Assistant Studies
Director, Scholarship & Research, Physician Assistant Studies Department,
Wake Forest School of Medicine and Wake Forest Baptist Medical Center

Larry D. Gruppen, Ph.D.
Professor of Medical Education
University of Michigan Medical School

Ana E. Núñez, M.D.
Associate Professor of Medicine Director, Women's Health Education program
Drexel University College of Medicine

Eboni G. Price-Haywood, M.D., M.P.H., FACP
Associate Professor of Medicine - Ochsner Clinical School, University of Queensland
Director, Center for Applied Health Services Research - Ochsner Health System

AAMC Staff
Norma Poll-Hunter, Ph.D., Senior Director, Human Capital Initiatives
Lutheria Peters, M.P.H., Senior Research and Evaluation Analyst
Marc A. Nivet, Ed.D., M.B.A., Chief Diversity Officer

We also appreciate the support of AAMC colleagues who contributed to content development and review—Anne Berlin, M.A., Hugo Dubon, R.N., Ann Steinecke, Ph.D., Alexis Ruffin, M.A., and Diversity Policy and Programs intern, Joana Barros-Magalhaes.

We also want to acknowledge the design team—Douglas Ortiz, Christina Scott, Joanna Ouellette and administrative support from Charrisse Wilson and Patricia Pascoe.

Executive Summary

The intent of this guide is to advance evaluation and research efforts by providing resources for educators and researchers engaged in understanding the outcomes and impact of cultural competence education and training. Based on findings from an extensive literature review and a panel of experts in medical education and cultural competence, the need to strengthen existing efforts in evaluating culturally responsive education and training was identified. While other areas in medical education and training deserve similar emphasis, continued health care inequities underscore the importance of advancing this area of work.

The guide features the following resources for educators and researchers:

- An overview of studies, which includes surveys and assessments of knowledge, skills, and attitudes related to cultural competence, developed into an inventory to provide easy access to existing tools
- Tools for assessing survey characteristics to determine quality and psychometric properties of existing surveys
- Sample evaluation frameworks to bring together curriculum and evaluation planning

Introduction

A key strategy to reduce health care disparities and promote health equity is to integrate education and training that prepares future physicians to provide culturally responsive care. These instructional efforts are underway, and medical schools can benefit from leveraging the work of colleagues published in the literature. In particular, studies that have evaluated learning outcomes can be useful.

To facilitate identification of curricular strategies and evaluation tools for reuse or enhancement, the AAMC (Association of American Medical Colleges) commissioned an expert panel to review cultural competence studies that measured learner changes in attitudes, knowledge, and skills. The panel and AAMC staff reviewed more than 100 studies published between 1995 and 2013. Some studies attempted to establish instructional effectiveness by implementing existing scales, surveys, and exams to measure learning—others developed new instruments. The panel identified deficits in the published literature and strategies to support future work in this area. Based on these findings, this guide is designed to help members find and leverage prior studies that may provide the "best match" for an institution's cultural competence education evaluation needs:

Tool 1: An inventory of the research studies that assesses the outcomes of cultural competence education and training and that describes educational goals, activities, learner groups, and surveys

Tool 2: A checklist of survey characteristics and psychometric properties to help select "best match" options for survey and assessment tools

Tool 3: Sample evaluation frameworks that may be adopted for curriculum development and evaluation

Existing AAMC tools and reports, such as the Tool for Assessing Cultural Competence Training (2005) and the *Cultural Competence Education for Students in Medicine and Public Health* report (2012), provide a framework for understanding essential competencies and specific knowledge, skills, and attitudes that may guide cultural competence curriculum development. However, few resources exist that bring together research that shows what works, with what populations, and how it is measured. This guide aims to provide a set of resources based on the existing research literature to advance the development, planning, and evaluation of education and training to provide culturally responsive health care.

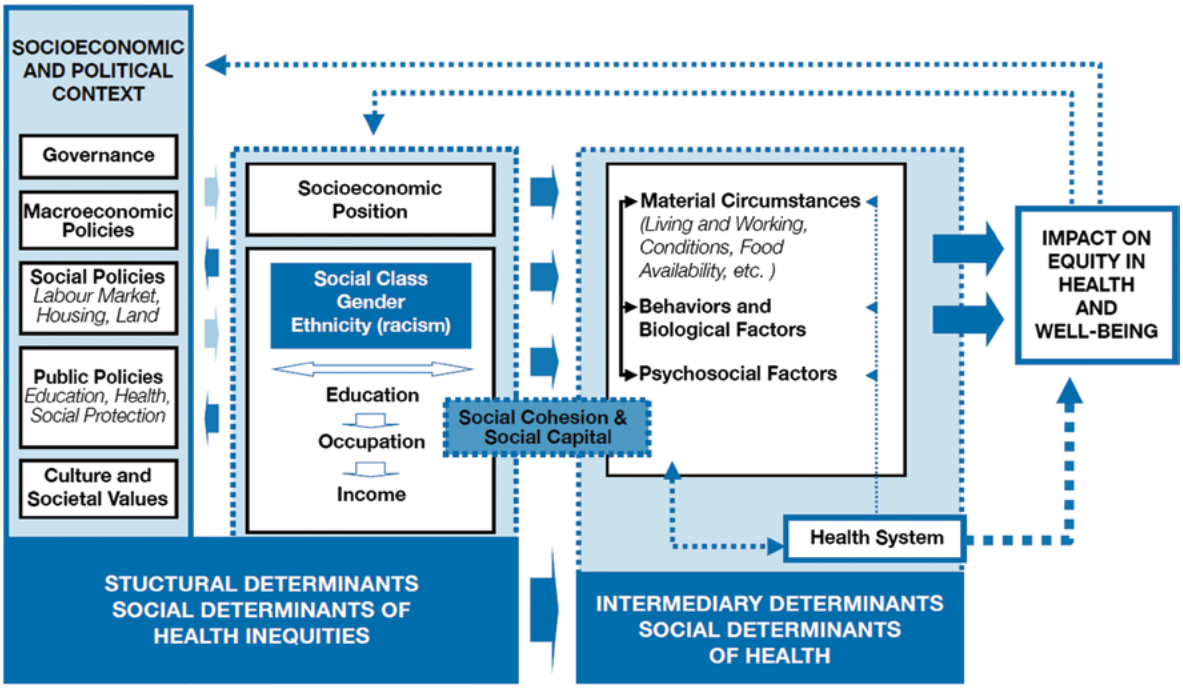
Assessing Change: Evaluating Cultural Competence Education and Training

U.S. population projections have anticipated significant demographic shifts in the ratio of racial and ethnic minority populations relative to the majority by 2050 (Passel and Cohn, 2008). Since the 2000 U.S. Census, there has been a significant increase in the percentage of individuals identifying as either Hispanic or Asian. More recent projections estimate the majority-minority flip probably will occur earlier than anticipated, in 2042 (U.S. Census, 2008). Juxtaposed with these population changes, there are persistent health care disparities for racial and ethnic minority populations and populations living in poverty. These changes may only exacerbate challenges currently encountered by health care systems struggling to meet current demands for health care services and respond to increased access to care with the implementation of the Affordable Care Act (Andrulis, Duchon, Purtle, and Siddiqui, 2010).

Though health care quality is improving across all groups, the number of access measures that are worsening exceed those that were improving, according to reports by the Agency for Health Research and Quality in 2012. Health care disparities are not limited to race, ethnicity, or socioeconomic status; barriers to and even denial of care are frequent issues for transgender and gender-nonconforming individuals. In a National Healthcare Disparities Report (NHDR), individuals "seeking health care were denied equal treatment in doctor's offices and hospitals (24 percent), in emergency rooms (13 percent), and in mental health clinics (11 percent)" (NHDR, 2013).

A variety of factors form a complex web of interactions that impact equity in health and health care (see Figure 1). Research shows that a significant contributor to health disparities is health care provider behaviors, in particular, lack of familiarity with and discriminatory attitudes toward individuals of different backgrounds (Van Ryn and Fu, 2003; Kumas-Tan, et al., 2007). In this broader schematic, culture, or more specifically, cultural competence, is one crucial component of a multilayered network that can improve health care for all (Nagata, et al., 2013).

Figure 1. Commission on Social Determinants of Health Conceptual Framework
(Solar & Irwin, 2010 [17])



To promote the discourse on quality health care, the Institute of Medicine issued the reports, *Crossing the Quality Chasm* and *Unequal Treatment*, proposing cultural competence training as part of the strategy to reduce health care disparities. States have passed legislation mandating physicians to participate in continuing education in cultural competence as part of licensure (U.S. Department of Health and Human Services, 2013). The Joint Commission accreditation requires hospitals to address effective communication, cultural competence, and patient-centered care. Within medical education, both the Liaison Committee on Medical Education and the Accreditation Council for Graduate Medical Education require education and training focused on cultural competence. In 2013, the federal government enhanced the national standards on Culturally and Linguistically Appropriate Services (CLAS) to guide health care organizations' efforts to make culturally and linguistically appropriate care more accessible (Alvarez, Gracia, Koh, 2014).

While the nomenclature related to training physicians to provide culturally responsive care is an area of healthy academic debate, no one will argue against the ultimate goal of training as a way of obtaining quality health care for all (Betancourt, 2006). The debate often is fueled by the need to move away from the static definition of competence. The term "cultural competence" denotes a circumscribed knowledge set that focuses on the culture of the patient, which may

lead to stereotyping. Scholars have proposed alternative conceptualizations and naming conventions that reflect a lifelong learning process that facilitates culturally appropriate care (Núñez, 2000; Kumagai and Lypson, 2009). Despite concerns with using cultural competence to define this area of work, it continues to be a commonly used category for education and training within medical education, the health professions, and government.

In spite of differences, the underlying idea involves a change of behavior, skills, and attitudes that promote culturally responsive care. (For the purposes of this document, "cultural competence" and "culturally responsive" will be used interchangeably.)

Outcomes and Impact

The social, health, and business benefits that a health care organization can reap from being culturally responsive also makes cultural competence a favorable and advantageous practice (American Hospital Association, 2013) (see Figure 2).

While several mandates supporting cultural competence education and training exist, the research on the effects of cultural competence education and training on patient outcomes still is evolving. Systematic reviews of educational interventions for physicians, nurses, and other health professionals found that overall cultural competence had a positive influence on provider knowledge, skills, and attitudes, but more rigorous research is necessary (Beach, Price, Gary, et al., 2005; Lie, Lee-Rey, Gomez, Bereknyei, et al., 2010). In a study of physicians' cultural competence attitudes and behaviors, Paez, Allen, Beach, Carson, Cooper (2009), found that physicians who reported more motivation to learn about cultures within their practice and society had patients who were more satisfied with the medical visit, perceived physicians as more facilitative, and reported seeking and sharing

Figure 2. Benefits of Becoming a Culturally Competent Health Care Organization

Social Benefits	Health Benefits	Business Benefits
▪ Increases mutual respect and understanding between patient and organization ▪ Increases trust ▪ Promotes inclusion of all community members ▪ Increases community participation and involvement in health issues ▪ Assists patients and families in their care ▪ Promotes patient and family responsibilities for health	▪ Improves patient data collection ▪ Increases preventive care by patients ▪ Reduces care disparities in the patient population ▪ Increases cost savings from a reduction in medical errors, number of treatments, and legal costs ▪ Reduces the number of missed medical visits ▪ Promotes patient and family responsibilities for health	▪ Incorporates different perspectives, ideas, and strategies into the decision-making process ▪ Decreases barriers that slow progress ▪ Moves toward meeting legal and regulatory guidelines ▪ Improves efficiency of care services ▪ Increases the market share of the organization ▪ Promotes patient and family responsibilities for health

(Source: American Hospital Association, 2013)

more information. Patient satisfaction also was related to physicians who reported more frequent culturally competent behaviors, even after controlling for physician gender and racial differences.

However, another study on the impact of physicians and other health professionals' cultural competence training on diabetes care reported that the training increased clinician awareness of racial disparities, but did not improve clinical outcomes (Sequist, Fitzmaurice, Marshall, et al., 2010). There are a limited number of studies evaluating the impact of education and training on patient outcomes. For the few studies that exist, various factors including, but not limited to, intervention intensity, survey instrument reliability and validity, and lack of comparison groups, contribute to the mixed findings on the impact of cultural competence education and training (Gozu, Beach, Price, et al., 2007; Lie, Lee-Rey, Gomez, et al., 2010). However, this is not unique to cultural competence education and training. Often what is standard practice in medical education has not been validated to demonstrate a significant relationship to improved health outcomes (Reed, et al., 2005; Windish, Reed, Boonyasai, et al., 2009). Research shows that cultural competence education and training enhances knowledge, communication skills, and awareness of biases and health disparities among trainees and health professionals (Crandall, et al., 2003; Crosson, et al., 2004; Ho, et al., 2008; Sequist, et al., 2010). From the student perspective, cultural competence is valued and identified as an area that deserves more emphasis in medical education (Hung, et al., 2007).

Within the context of this evolving scholarship in cultural competence education, medical educators face multiple expectations in addressing the requirement of teaching cultural competence at their schools, including identifying gaps in cultural competence education, designing and evaluating curricula, and assessing students' progress toward program objectives. However, medical educators' content expertise, experience with cultural competency training, evaluation, and institutional responsibilities often vary.

Based on the review of the published literature, the panel identified four key areas to help advance the planning and implementation of research and evaluation of culturally responsive education and training in medical education. Each of these areas—the need for research rigor; selection of measurable curriculum goals; alignment of curriculum development, evaluation, and assessment; and applying methodological rigor—are described as recommendations, with suggestions for existing or new tools from the literature to support this work.

Strategies to Advance Research and Evaluation of Culturally Responsive Education and Training

Recommendation 1. Apply the Highest Possible Scientific Rigor

Similar to any curricular intervention, the type of activities and level of evaluation evidence on cultural competence education and training often are dependent upon institutional resources. Comprehensive reviews of cultural competence education show that the majority of learning occurs as electives, short-term educational interventions, and the content is not well-integrated into the curriculum (Beach, Price, Gary, et al., 2005; Lie, Lee-Rey, Gomez, Bereknyei, et al., 2010). Consequently, faculty members attempting to evaluate the quality and outcomes of educational interventions may face significant challenges.

Rigorous studies (e.g., randomized trials) often are not feasible, longitudinal studies are expensive, and the lack of yearlong interventions likely is a result of difficulties with implementation and cost. As a result of these challenges, lower levels of evidence abound in the literature evaluating cultural competence education and training. In particular, the literature reflects difficulties in measuring learner outcomes and learning objectives with varied formats (the larger the intervention, the harder it is to control for intervening variables and to isolate impact factors). Overall, research shows that lack of replication is a key issue in this area of work.

Based on a comprehensive literature review, the panel initiated the development of the Cultural Competence Education and Training Assessment Inventory (CCETAI) in an effort to facilitate replication of cultural competence studies. The inventory is designed to allow for comparisons of the studies by curricular goals as categorized by the Tool for Assessing Cultural Competence Training (TACCT), educational interventions and activities, learner group, and assessment or survey type. Details about the literature review process are in Appendix 1.

There were several key findings based on the studies selected in the CCETAI:

- The majority of educational and training intervention(s) addressed multiple goals. The most common educational goals, as categorized by TACCT, involved cross-cultural communication skills, community strategies, self-reflection/culture of medicine, and use of interpreters. The least commonly addressed educational goals were bias, stereotyping, and health disparities.
- Most of the literature describes educational and training interventions involving medical students, although interventions did target residents and physicians in conjunction with other health professionals. Few studies identified faculty development.
- The educational activities varied significantly. The majority of educational activities involved didactic/lecture-based learning, followed by community medicine/service learning, use of Objective Structured Clinical Examinations (OSCE), international immersion experiences, role playing, and cross-cultural precepting.
- The intensity of the interventions often was brief and included workshops, presentations, embedded course modules, or multisession activities lasting no

more than one week. The next largest group of studies included one to three yearlong courses in the medical school curriculum. The remainder of studies included interventions lasting one to nine weeks in length.

Fortier and Bishop (2003) also identified additional challenges because of the limited availability of uniform racial, ethnic, and language data; small sample sizes to test the efficacy of interventions, and difficulty accessing previous research attributed to journals' hesitancy to accept manuscripts focused on culturally responsive interventions. Funding for such studies also was cited as a potential obstacle.

Recommendation 2: Select Specific Measurable Instructional Goals

It is critical to understand the underlying constructs in cultural competence that guide curriculum and evaluation development. Kumas-Tan, Beagan, Loppie, et al. (2007) found in their review of measures of cultural competence that there were at least six assumptions embedded in these instruments including, but not limited to, assuming that the respondent/practitioner is white and that the patients are racial and ethnic minorities.

Though various conceptualizations have been proposed, and deciding which one is the "best" may vary based on context, ultimately, cultural competence education can be examined within three categories that align with the knowledge, skills, and attitudes:

- ***Cultural competence as knowledge***—the goal is to acquire knowledge of the lived history, sociocultural experience, and culturally specific habits, beliefs, and practices that constitute culture. For example, see University of Washington Medical Center's tip sheets for clinicians, *Culture Clues*™ (2007). http://depts.washington.edu/pfes/CultureClues.htm

- ***Cultural competence as interactional skills***—the goal is to apply a framework to every interaction, so one can have a patient-centered interaction with every patient regardless of cultural background. For example, see Explanatory Model (Kleinman, 1988), a tool to guide inquiry into a patient's health beliefs, and Cross-Cultural Efficacy (Núñez, 2000).

- ***Cultural competency as attitudinal stance***—the goal is to raise awareness of personal biases and engage in self-reflection to manage or mitigate those biases. Related concepts have included cultural humility and reflective practice. (Tervalon, et al., 1998). It further engages the idea of empathy and patient- and relationship-centered approaches, as well as self-reflection to acknowledge and address power imbalances between the practitioner and the patient (Kumagai, 2008; Tervalon, et al.,1998; DasGupta, et al., 2006).

Existing AAMC resources like the *Cultural Competence Education for Students in Medicine and Public Health* (2012) and TACCT (2005) identify specific competencies and knowledge, skills, and abilities at a more granular level, which may be appropriate for establishing learning and evaluation goals, respectively. A

more recent publication, *Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who Are LGBT, Gender Nonconforming, or Born with DSD: A Resource for Medical Educators* (AAMC, 2014) identifies competencies to guide care for LGBT, gender nonconforming, and DSD patients.

Recommendation 3: Align Curriculum Development, Evaluation, and Assessment

Before delving into curriculum evaluation, Kern et al. (2009) emphasize the complexity of curriculum development and the various assumptions that should be considered during its development and evaluation:

1) Educational programs have implied or articulated aims and goals.
2) Academic medicine faculty are obligated to respond to the needs of learners, patients, and society.
3) Academic medicine faculty are accountable for the outcomes of their interventions.
4) Curriculum development is a logical and systematic process.

During the process of curriculum design, planning for the curriculum evaluation is vital to assessing the quality of the curricular intervention and the achievement of learning goals. While the evaluation process is resource-intensive, there are a variety of methodological approaches to consider—both quantitative and qualitative. This is also the time to consider partnering with colleagues with expertise in educational or social science research.

To facilitate the evaluation planning, Kirkpatrick (1994) provides a useful framework to assess training effectiveness. Taking into consideration the types of learning activities and the developmental stage of the learner, there are various approaches to assessing the impact of the curricular interventions. According to his model, learning outcomes can be evaluated at four levels:

- **Level 1:** Reactions to curricular interventions/instruction
- **Level 2:** Learning (mastery) of facts, concepts
- **Level 3:** Transfer of learning to new situations
- **Level 4:** Results as demonstrated by effects on the learner's behavior and the environment

Each successive level requires more resources and more extensive evaluation methods. Ideally, all four levels should be assessed to evaluate short-term, intermediate, and long-term outcomes of curricular interventions. For a fuller description of the Kirkpatrick Evaluation Model, see Appendix 3.

Curricular Resources

A challenge with replication is the ability to access curricular content that already exists. MedEdPORTAL® is a free online repository of curricular resources for educators including cultural competence and related areas.

MedEdPORTAL Publications maintains a rigorous peer review process that is based on standards utilized in the scholarly publishing community. Modules submitted to Publications are considered "stand-alone" and complete, have been classroom tested, and are ready for implementation by other users at their own institutions. Visit **https://www.mededportal.org/**.

Other frameworks account for the larger context in which the instructional intervention exists. Adopting the curricular evaluation model by Coles and Grant (1985), Murray-Garcia and Garcia (2008) underscore the importance of understanding the influence of the institutional environment on multicultural curriculum goals. The Coles and Grant model proposed the consideration of the "curriculum that exists on paper, the curriculum in action, and the curriculum as learners experience it." A myriad of factors may support or undermine overall curriculum goals. For example, there may be curricular goals written but never implemented because of limited resources, absence of an implementation advocate, or faculty speak or behave in manners contrary to the tenets of a multicultural curriculum (curriculum in action).

Kern et al. (2009) assert that a curriculum must be dynamic and continuously developing to be successful. Curriculum changes are facilitated by individual, departmental, and/or intuitional responsiveness to evaluation results and feedback, changes in the knowledge base and content that must be mastered, changes in targeted learners, and changes in institutional and societal values and needs.

There are important considerations when selecting an evaluative tool, including understanding the constructs being measured—does it match your goals or definition of cultural competence? Is it a valid and reliable measure of the construct?

Lipsett and Kern (2009) assert that the best approaches in designing curriculum evaluations are said to be methodical in order to ask the right questions and ensure that specified needs are met. Appendix 3 outlines three approaches that may be used to inform curriculum planning and evaluation: 10-Task Approach, Kirkpatrick Four Levels, and Culturally Responsive Evaluation.

Recommendation 4: Apply Methodological Rigor to Demonstrate Curricular Effectiveness

The CCETAI illustrates that a variety of instruments have been used to assess curricular outcomes. However, searching for the most appropriate survey can become a daunting task. This is complicated by the lack of psychometric data available for the existing surveys and assessments (Price, Beach, Gary, et al., 2005; Gozu, Beach, Price, et al., 2007). Without extensive knowledge about assessment and evaluation, it can be confusing to figure out which is the best instrument to measure learner outcomes. There are important considerations when selecting an evaluative tool, including understanding the constructs being measured—does it match your goals or definition of cultural competence? Is it a valid and reliable measure of the construct?

Much detail is required for a full explanation of the research techniques and instruments used in any study of cultural competence education outcomes. Researchers will benefit from paying particular attention to reliability and validity of the instruments for their evaluative efforts. Educators seeking instruments for use in their evaluative efforts and educational researchers interested in validating their existing tools may benefit from a quick inventory of what to look for in psychometrically sound measures. To support the development of studies with stronger methodological designs, the Cultural Competence Assessment Tool

Checklist (see Appendix 2) was designed to gather key information from published assessment tools and methods for measuring aspects of cultural competence. The checklist enumerates psychometric and other methodological factors to consider when selecting an existing assessment tool as part of your curricular evaluation.

More recent self-assessment instruments offer promise in light of the reported preliminary psychometric data—Tucker Culturally Sensitive Health Care Inventory (T-CSHCI) Provider Form (Mirsu-Paun, Tucker, Herman, Hernandez, 2010) and the Cultural Competence Health Practitioner Assessment (CCHPA-67) (Harris-Haywood, Goode, Yong Gao, et al., 2012). These are good examples of measures that have evidence demonstrating that they are measuring the stated constructs.

Next Steps

Culturally responsive health care is a key strategy to reduce health care disparities and promote health equity. Education and training are important, but only represent one element of the complex web of factors that advance quality health care. An integrated systems approach that involves the trainee or the health professional and patients is necessary. Research shows that hospitals that adapt a systems approach to cultural competence have better scores for doctor communication, hospital ratings, and hospital recommendations (Weech-Maldonado, Elliott, Pradhan, Schiller, et al., 2012). A robust, psychometrically sound cultural competence educational program with integrated, complex patient care delivery has the potential to improve all facets of health care.

The evolving scholarship in cultural competence education and training demonstrates the influence on enhancing knowledge, skills, and self-awareness among medical school students, residents, and practicing health care professionals. Replication of studies, integration of cultural competence along the medical education continuum, and faculty development present opportunities to strengthen the scholarship in this vital area and subsequent improvements in quality practice.

Appendix 1. Cultural Competence Education and Training Assessment Inventory

Introduction to the Cultural Competence Education and Training Assessment Inventory (CCETAI)

The AAMC convened an expert panel to reexamine the research in cultural competence training with a focus on assessment. AAMC staff with expertise in medical education, research and evaluation, and cultural competence conducted a literature review of peer-reviewed research studies evaluating the impact of cultural competence education and training across the medical education continuum. The literature review included searching PubMed, ERIC, and Medline for research studies on the assessment of cultural competence curricula in medical education published from 1998 to 2013. The search terms were "cultural competence and assessment," "curriculum assessment and culture," "multicultural education and assessment," "culture and medical education," "cultural proficiency and evaluation," and "cross-cultural education and assessment." In addition, AAMC staff scanned the bibliographies of all retrieved peer-reviewed publications for potential additions to the literature search.

AAMC staff reviewed 100 articles to determine whether each research study met the project's broad definition of cultural competence education and training (e.g., yearlong courses, modules, immersion programs, etc.) with information about evaluation or assessment of the curricular goals. Literature that did not describe research, lacked curricular assessment, or was conducted outside the United States was excluded. Articles that included other health professions, but not medical students, residents, or physicians also were excluded. Thirty-four articles were included for extensive review by the Expert Panel and were used as the basis for their work. The panel's final selection resulted in the inclusion of 29 peer-reviewed published articles, and additional AAMC staff research to include more recent studies resulted in 35 studies that met the criteria and are presented as the Cultural Competence Education and Training Assessment Inventory (CCETAI).

The CCETAI organizes the studies by author and allows for comparisons of the studies by curricular goals as categorized by the Tool for Assessing Cultural Competence Training (TACCT), the educational interventions and activities, the learner group, and the assessment strategies described in the literature. The CCETAI also is available as an Excel spreadsheet at https://www.aamc.org/initiatives/diversity/425472/assessingchange.html to allow for sorting by each of the categories.

Author(s)	Educational Goal	Educational Activity	Learner Group(s)	Outcome Assessment
Aeder, et al. (2007)	• Community Strategies • Cross-Cultural Communication Skills	Culture OSCE with multiple teaching stations preceded by a two-hour workshop on the impact of culture on clinical encounters	Residents	Faculty observers and standardized patients rate residents using a scale[2] of communication and culture-specific skills
Carter, et al. (2006)	• Cross-Cultural Communication Skills • Bias/Stereotyping • Self-Reflection, Culture of Medicine	Small-group interactive workshop using lecture, self-assessments, and role plays	3rd year medical students	Cultural Attitudes and Beliefs Scale (CABS)[2] assessing cultural beliefs related to medical treatment, self-awareness of cultural bias, and self-rated cultural competence
Crandall, et al. (2003)	• Community Strategies • Cross-Cultural Communication Skills • Use of Interpreters • Self-Reflection, Culture of Medicine	Yearlong cultural competence course based on Howell and Bennett's theories of levels of communication competence and stages of intercultural sensitivity using lectures, videos, simulation, online problem-based learning, and community-based service learning	2nd year medical students	Multicultural Assessment Questionnaire (MAQ) (Culhane-Pera, Reif, Egli, et al.,1997) assessing knowledge, skills, and attitudes related to Stage 4 of Bennett's model of intercultural sensitivity
Crosson, et al. (2004)	• Community Strategies • Cross-Cultural Communication Skills • Use of Interpreters	Two introductory clinical medicine courses modified to integrate a focus on the provision of culturally competent care using problem-based learning, videos, and preceptorship	1st year medical students	Health Beliefs Attitudes Survey (HBAS) (Dobbie, et al., 2002) to assess attitudes about how cultural competency relates to health care quality
Culhane-Pera, et al. (1997)	• Community Strategies • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine	Three-year cultural competence curriculum, including didactics, clinical teaching methods, and community medicine projects	Family practice residents	Faculty review of videotaped patient encounters; Self-assessment questionnaires[2] and faculty rating scales based on Bennett's model of intercultural sensitivity
DasGupta, et al. (2006)	• Community Strategies • Self-Reflection, Culture of Medicine	13 monthly sessions of guided discussion with community health workers at a family clinic, based on literature readings	2nd year pediatric residents and community health workers	Focus group with questions[2] about cultural diversity, physician's point of view, and communication skills

1 The revised Tool for Assessing Cultural Competence Training (TACCT), Lie, Boker, Crandall, et al., 2008, was used to categorize the educational goal(s) of each study.

2 Survey or assessment tool developed for the study by the author(s)

Author(s)	Educational Goal	Educational Activity	Learner Group(s)	Outcome Assessment
Ferguson, et al. (2003)	• Community Strategies • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine	Faculty development program consisting of four modules focused on cultural needs assessment, cultural issues, community resources using lectures, role plays, and videos	Clinical faculty, community preceptors	Questionnaire assessing intention to change teaching behaviors[2]
Godkin, et al. (2001)	• Community Strategies • Cross-Cultural Communication Skills	Elective global multiculturalism track, which includes a yearlong assignment to work with a minority family, language immersion, and community service	Preclinical medical students (years 1 to 2)	Two subscales (individual provider competency) of the Cultural Competence Self-Assessment Questionnaire (Mason, 1995) and another survey[2] assessing sensitivity to cultural issues, understanding the role of culture in health care, awareness of personal value system, and understanding and ability to provide culturally competent care
Godkin, et al. (2003)	• Community Strategies • Cross-Cultural Communication Skills	International travel component of an elective global multiculturalism track	Preclinical and clinical year medical students	Questionnaire assessing attributes related to caring for the underserved in four domains[2]
Godkin, et al. (2006)	• Health Disparities • Community Strategies • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine	Longitudinal curriculum "Pathway to Serving Multicultural and Underserved Populations," which expands the global multiculturalism track to include additional domestic immersion with indigent patients	Medical students	Medical Students' Attitudes Toward the Underserved (Crandall, Volk, and Cacy, 1997)
Griswold, et al. (2006)	• Community Strategies • Cross-Cultural Communication Skills • Use of Interpreters	Elective program to train medical students in cultural competence with newly arrived refugee patients using lectures, assessment, and preceptors	Medical students	Domains of the Cultural Competence Self-Assessment Questionnaire (Mason, 1995) focused on psychosocial issues affecting refugees, knowledge of cultural issues, and communication skills

1 The revised Tool for Assessing Cultural Competence Training (TACCT), Lie, Boker, Crandall, et al., 2008, was used to categorize the educational goal(s) of each study.
2 Survey or assessment tool developed for the study by the author(s)

Author(s)	Educational Goal	Educational Activity	Learner Group(s)	Outcome Assessment
Haq, et al. (2000)	• Community Strategies • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine	International Health Fellowship Program comprising a two-week intensive prep course and a global public and community health field experience	Medical students	Self-assessment questionnaire focused on international health[2]
Harris, et al. (2008)	• Cross-Cultural Communication Skills • Bias/Stereotyping • Self-Reflection, Culture of Medicine	Nine-week curriculum on culturally sensitive mental health care, with lecture, experiential small group discussions, and clinical applications	Psychiatry residents	Boston Survey of Culturally Competent Residency Training Practices in Psychiatry (Weiss, et al. and Minsky, 1996)
Hershberger, et al. (2008)	• Health Disparities • Bias/Stereotyping • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine	Process-oriented cultural proficiency curriculum of four two-hour sessions—lectures, discussion groups, role playing, and use of students' patient cases	Family medicine residents	American Academy of Family Physicians' test of cultural competence knowledge (AAFP, 2006); Promoting Cultural and Linguistic Competency Checklist (Goode, 2000); Medical Interviewing Skills Competency Evaluation (MISCE) (Spruill, 2002); and a survey[2] capturing patient assessment of residents' communication skills
Ho, et al. (2008)	• Cross-Cultural Communication Skills	OSCE with objective to explore the sociocultural factors affecting a patient's non-adherence to a chronic disease management plan	Residents	Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals-Revised (IAPCC-R) (Campinha-Bacote, 1998), the California Brief Multicultural Competence Scale (CBMCS) (Gamst, et al., 2004), and a survey[2] to measure residents' preparedness to deliver cross-cultural care

1 The revised Tool for Assessing Cultural Competence Training (TACCT), Lie, Boker, Crandall, et al., 2008, was used to categorize the educational goal(s) of each study.
2 Survey or assessment tool developed for the study by the author(s)

Author(s)	Educational Goal	Educational Activity	Learner Group(s)	Outcome Assessment
Jarris, et al. (2012)	• Health Disparities • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine • Bias/Stereotyping	Lectures, small group discussions, and service learning	1st year medical students	Provider's Guide to Quality and Culture (Like, 2009) and Self-Assessment Checklist for Personnel Providing Primary Health Care Service (Goode, 2009)
Khanna, et al. (2009)	• Health Disparities • Cross-Cultural Communication Skills • Self-Reflection, Culture of Medicine	Cultural competency workshop	Physicians, nurses, and health care administrators	Questionnaire[2] to capture self-reported gains in cross-cultural knowledge and skills
Krajewski, et al. (2008)	• Community Strategies • Cross-Cultural Communication Skills	Two brief lectures on cultural competence, including tips for continuing skill acquisition	Surgical residents	Healthcare Cultural Competency Test (Goode, 2004); Cultural Skills Acquisition & Clinical Scenarios Evaluation[2]
Kutob, et al. (2009)	• Health Disparities • Community Strategies • Cross-Cultural Communication Skills	Internet-based module on delivering culturally effective care for type 2 diabetes	Family medicine residents	Self-assessment questionnaire[2] rating improvements in communication skills, culture-specific knowledge, and empowering patient self-care
Lim, et al. (2008)	• Health Disparities • Use of Interpreters	Presentation focused on the effect of culture and language proficiency on health, including an introduction to interpreter services, incorporated into a first-year course on the doctor-patient relationship	1st year medical students	Questionnaire[2] measuring attitudes and knowledge immediately before and after the presentation
Marion, et al. (2008)	• Cross-Cultural Communication Skills • Use of Interpreters	Yearlong curriculum to foster effective communication with LEP Latino patients, including medical Spanish courses and training on working with interpreters	Physician assistant students	Common Ground Assessment Instrument (CGAI) (Lang, et al., 2004); Standardized Patient Assessment evaluated using the Effective Use of Interpreters checklist[2]
Mao, et al. (2007)	• Community Strategies	Four-week elective on acupuncture and traditional Chinese medicine in Beijing	1st year medical (allopathic and osteopathic) students	Focus group interviews assessing impact of experience on understanding the role of culture in medicine

1 The revised Tool for Assessing Cultural Competence Training (TACCT), Lie, Boker, Crandall, et al., 2008, was used to categorize the educational goal(s) of each study.
2 Survey or assessment tool developed for the study by the author(s)

Author(s)	Educational Goal	Educational Activity	Learner Group(s)	Outcome Assessment
Miller, et al. (2007)	• Cross-Cultural Communication Skills	Cultural competence OSCE station, added to an existing series of six OSCEs testing history-taking skills	2nd year medical students	Semi-structured interviews focused on the OSCE and the learning experience
Musolino, et al. (2009)	• Cross-Cultural Communication Skills • Health Disparities • Self-Reflection, Culture of Medicine	Four modules with lectures, cases, and interactive small group exercises	2nd year medical students, nursing, physical therapy, occupational therapy, and pharmacy	Inventory for Assessing the Process of Cultural Competence-Revised (IAPCC-R) (Campinha-Bacote, 2003)
Paul, et al. (2008)	• Community Strategies • Cross-Cultural Communication Skills • Use of Interpreters	Culturally effective health care (CEHC) six-week curriculum—lectures, role playing, use of students' patient cases—for students performing clerkships at a community-based hospital serving predominantly Muslim patients	3rd year pediatric clerkship	Knowledge Written Test & Self-Reporting Survey[2] (assessing attitude toward content, perceived knowledge, skills, and observed modeling of faculty), along with skill checklists for three OSCE stations (gender/modesty, language/communication, folk illness)
Robins, et al. (1998)	• Self-Reflection, Culture of Medicine	Development of a psychometric instrument to assess students' comfort with sociocultural issues	1st – 4th year medical students	Cultural Attitudes Survey for Medical Students[2] assessing examining patients, intercultural interaction, discussing race/ethnicity, interacting with GLBT patients, interacting with institutional reps, learning about alternative medicine, and identifying skin conditions on diverse patients
Robins, et al. (2001)	• Cross-Cultural Communication Skills	Health beliefs communication station of an OSCE	4th year medical students	Standardized patient interview assessment survey[2] assessing disease beliefs and management, cultural concerns, and rapport-building
Rosen, et al. (2004)	• Cross-Cultural Communication Skills • Use of Interpreters	Cross-cultural teaching OSCE (tOSCE) with multiple stations preceded by one-day workshop on culturally competent medical interviewing	3rd year medical students	Survey[2] assessing attitudes, knowledge, and perceived skills in cross-cultural communication through health-belief assessment, sexual history-taking, approach to treatment, breaking bad news, communication with patients' family members, biopsychosocial issues, and working with an interpreter

1 The revised Tool for Assessing Cultural Competence Training (TACCT), Lie, Boker, Crandall, et al., 2008, was used to categorize the educational goal(s) of each study.
2 Survey or assessment tool developed for the study by the author(s)

Author(s)	Educational Goal	Educational Activity	Learner Group(s)	Outcome Assessment
Sequist, et al. (2010)	• Health Disparities • Community Strategies • Self-Reflection, Culture of Medicine	Two-day training on delivering culturally competent care to black patients with diabetes; monthly receipt of written educational materials and race-stratified patient performance reports on key diabetes health indicators	Physicians, nurse practitioners, and physician assistants	Survey[2] rating clinicians' self-reported awareness of the presence of racial disparities in the quality of diabetes care across the health system, within their clinic, and among their own patients; rates of achieving clinical control targets among black patients at 12 months
Tang, et al. (2002)	• Health Disparities • Community Strategies • Cross-Cultural Communication Skills	Mandatory sociocultural medicine program, which combines didactics on cultural issues in patient care with case-based small group discussion. One component of a longitudinal curriculum to build cultural competence progressively through medical school. Accompanied by ongoing faculty development	2nd year medical students	Sociocultural Attitudes in Medicine Inventory (SAMI) survey[2] assessing exposure to sociocultural issues, perception of the impact of sociocultural factors, and perceptions of their influence in physician/patient/health issues
Thom, et al. (2006)	• Health Disparities • Community Strategies • Cross-Cultural Communication Skills • Use of Interpreters	Cultural competency training comprised of three 1.5 hour workshops using lectures, group discussions, role playing, and exercises	Physicians and other health care providers	Patient Reported Physician Cultural Competency (PRPCC) Scale (Thom & Tirado, 2006); patient satisfaction using the GHAA's Consumer Satisfaction Survey (Davies & Ware, 1991); and trust subscale of the Primary Care Assessment Survey (Safran, Kosinski, et al., 1998)
Wu, et al. (2006)	• Cross-Cultural Communication Skills • Use of Interpreters	Cultural education program for LEP patients and non-Spanish speaking residents using interpreters who provide didactic and individual feedback sessions	Pediatrics residents	Parent satisfaction measured using a patient satisfaction scale validated in Spanish (Mazor, Hampers, Chande, et al., 2002)
Zabar, et al. (2006)	• Cross-Cultural Communication Skills • Use of Interpreters	OSCE focused on managing linguistic and cultural barriers and using an interpreter	Residents	Faculty Rating Scale focused on rapport building, patient education, knowledge base, and overall performance; standardized interpreter and patient overall satisfaction; and resident overall self-assessment
Zúñiga, et al. (2006)	• Community Strategies • Self-Reflection, Culture of Medicine	Block rotation on culturally competent care that involves clinician and community mentorship	Pediatrics residents	Resident Community Knowledge and Assessment Survey (RCKAS); Resident Knowledge, Attitudes, and Practices Survey: Culture and Medicine; Rotation Exit Survey focused on self-reflection on community experiences and their application; and Community Agency survey to rate resident performance[2]

1 The revised Tool for Assessing Cultural Competence Training (TACCT), Lie, Boker, Crandall, et al., 2008, was used to categorize the educational goal(s) of each study.

2 Survey or assessment tool developed for the study by the author(s)

Appendix 2. Cultural Competence Assessment Tool Checklist

The Cultural Competence Assessment Tool Checklist is designed to gather key information from published assessment tools and methods for measuring aspects of cultural competence.

Few, if any, published reports on a tool or method for assessing cultural competence contain all the information needed to answer all the items on this checklist. In situations when the necessary information is lacking, report it as "not reported." In other cases, the information may be present but is reported in a way that does not allow a ready or clear response to a checklist item. In such cases, report this as "unclear." You may want to consider contacting the authors of the study or assessment tool to see if additional psychometric data are available.

It is important to consider how you are defining cultural competence or related constructs and how that aligns with how it is defined and measured by the assessment or survey.

The following clarifies the nature and purpose of the items on the checklist and provides guidance on completing each one.

Instrument Sample Characteristics: As part of the instrument development process, an instrument is tested on a particular group or a sample of the general population. Information about the sample characteristics helps to determine the instruments' applicability to your target group and how it may influence the interpretation of scores.

Sample size: Indicate the number of individuals included in the published data. For example, in a published study that reported "The questionnaire was given to 134 third-year medical students. Completed questionnaires were received from 86 students," the sample size would be recorded as "86."

Source of respondents: Describe where the participants were recruited (e.g., medical school, health system, state, community, etc.).

Demographics: Describe the population characteristics as it relates to age, sex, race and ethnicity, and socioeconomic status.

Educational characteristics: Include level of literacy, education level, training, profession, presence or absence of a specific educational intervention.

Health characteristics: Record any characteristics of the sample that reflect health status (e.g., community-dwelling, individuals with diabetes).

Instrument Characteristics: This section contains characteristics of the tool or assessment procedure.

Format of the tool/method: Numerous assessment methods may be represented in the literature and can include questionnaires, standardized patients, observer

ratings, self-reported attitudes, chart audits, reflective essays, etc. Generally, the authors of the report will describe the format, usually in the Methods section.

Number of items: Identify the number of questions/items for the overall tool/method. (The number of items often influences the reliability of the instrument.)

Subscales: If there are subscales within the overall tool/method, include the number of subscales, the number of items in each subscale, and any associated scale labels or names. If available, report on how the subscales were defined. This can include statistical techniques such as factor analysis or multidimensional scaling, or nonstatistical methods such as theory-defined scales or dimensions identified by focus groups.

Response format: Describe how responses are measured, such as the Likert scale, dichotomous (true/false), bipolar, open-ended, etc. Include labels or anchors used in rating scales.

Scoring algorithms: Report how the raw data are converted to scores. Often, these methods are simple summations of individual item responses or an average over a set of items. Sometimes, specific items receive greater weighting in these sums or averages. If there are subscales, report whether the scoring of these is similar to or different from the overall instrument.

Psychometric Properties: There are a variety of procedures or statistics used to determine how well an instrument measures a construct and how reliably it measures the subject matter rather than the measurement error. These characteristics are critical information for a user to have when making a decision about using an assessment tool/method. Unfortunately, many published reports lack this information, so be prepared to record "not reported."

Reliability value(s): Report any quantifications of reliability, whether for the tool/method overall or for subscales.

> ***How measured:*** Most often, these will be measures of internal consistency (e.g., coefficient alpha), test-retest, alternate forms, and split-half forms of reliability, or inter-rater agreement (e.g., Cohen's kappa), or intra-rater consistency. These should be described in the Methods section.

Types of validity evidence: This section is likely to be challenging for many reviewers/coders. In keeping a modern conceptualization of validity, as reflected in the AERA/APA/NCME Standards for Educational and Psychological Testing,[1] this framework emphasized that validity is a characteristic of the *decisions* that are made based on the scores derived from an assessment. It is *not* a characteristic of the assessment tool/method. Therefore, the best we can do to answer the validity question is to assemble evidence for users to help them decide whether a given assessment is appropriate for their purposes. (For a fuller, but still accessible treatment of this validity framework, see Downing SM. Validity: on the meaningful interpretation of assessment data. *Medical Education*. 2003;37:830-7).

– Content: This type of validity evidence focuses on how well the content of that assessment maps onto the content of the target outcome, skill, or knowledge base. Traditionally, this often was described as "face validity," that is, "it looks like" the target domain. Content evidence might be provided by an expert panel that generated questions or defined the case used in a standardized patient station.

– Process: This type of validity evidence focuses on the actions or cognitive process the respondent engages in during the assessment. The extent that the assessment activities are similar to those used in the "real world," the better the "process" evidence for validity. For example, a paper-and-pencil assessment of communication skills with a diverse patient population would have lower process evidence for validity than would a standardized patient interaction.

– Scoring: Evidence for validity from the scoring of the assessment is likely to be rare in published descriptions of assessment tools. This type of evidence focuses on the extent to which the scoring of an assessment reflects what we believe to be the nature of the underlying construct (cultural competence). For example, a scoring process for a standardized patient station on an Objective Structured Clinical Examination (OSCE), which combined checklist items on history-taking, physical examination, and communication skills into one overall score for the station, would have lower "scoring" evidence for validity than would a process that calculated separate scores for each of these three dimensions.

– Concurrent, Predictive, or Construct Validity—Relation to External Variables: Some of the most valuable evidence for validity comes from how the scores on the target assessment relate to other variables. One example of such evidence would be the finding that scores on a given assessment of cultural competence were higher for learners who had experienced an intervention intended to increase cultural competence in comparison with a control group. Correlations of an assessment with other measures of cultural competence also provide evidence of validity that falls into this category.

– Consequential: This type of evidence focuses on the consequences of the decisions made in using this assessment. For example, using a given cultural competence assessment to identify learners who need remediation in this domain would generate "consequential" evidence for validity to the extent that the learners identified benefit from additional training. If they do not, this type of validity evidence would be negative.

Summary of validity evidence: Provide a narrative summary of any evidence for validity that the authors provide. Be aware that this often is neglected and frequently will be "not reported."

Administration: This is the practical information users need to know to determine whether an assessment would be feasible in their context.

Time requirements: How long does the assessment take? Does it appear burdensome?

Administration format: Describe method of delivery—computer-based, paper and pencil, administered in groups or individually, self-administered or supervised.

Other administration considerations: Describe the need for clerical or technical assistance, or special resources (e.g., standardized patients, trained observers, proctors, etc.).

1 AERA/APA/NCME. Standards for educational and psychological testing. Washington, DC: American Educational Research Association; 1999.

Cultural Competence Assessment Tool Checklist

Instrument Sample Characteristics

Sample size _____

Source of respondents _____

Demographics _____

Educational characteristics _____

Health characteristics _____

Instrument Characteristics

Format of tool/method _____

Number of items or observations _____

Response format _____

Subscales _____

Scoring algorithms _____

Psychometric Properties

Reliability value(s) _____

How measured _____

Type of validity evidence

— Content

— Process

— Scoring

— Relation to external variables

— Consequential

Summary of validity evidence _____

Administration

Time requirements _____

Administration format _____

Other administration considerations _____

Appendix 3. Curriculum Development and Three Evaluation Approaches

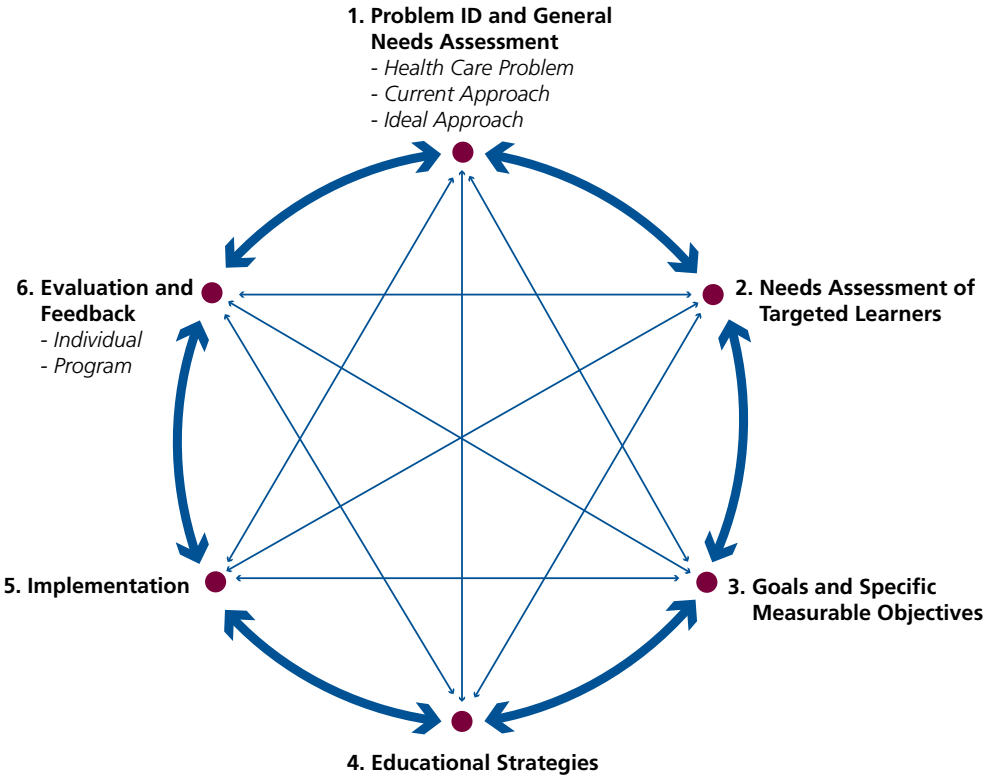
Curriculum Development

Kern et al. (2009) describe a comprehensive six-step approach for curriculum development that starts with problem identification (step one) and cycles around to evaluation and feedback (step six). The six-step approach involves the following steps that address: 1) Problem identification 2) Targeted needs assessment 3) Goals and objective formation 4) Educational strategies 5) Implementation 6) Evaluation and feedback (see "The Six-Step Approach" box and Figure 3).

The Six-Step Approach
(Lipsett and Kern, 2009)

1. *Problem identification*—a general needs assessment of a health care problem, and a recognition of current and ideal approaches to address them
2. *Targeted needs assessment* of learners and the learning environment
3. *Goals and objective formation* that specify broad goals and specific measurable objectives
4. *Educational strategies* that integrate relevant content and methods
5. *Implementation* that includes obtaining political support, securing resources, addressing barriers, introducing and administering the curriculum
6. *Evaluation and feedback* about individual learners and the program

Figure 3: A Six-Step Approach to Curriculum Development
(Lipsett and Kern, 2009)



Curriculum Evaluation

The process of curriculum development can be enhanced or transformed through dynamic evaluation frameworks. Lipsett and Kern (2009) define curriculum evaluation and feedback as the process of identifying, clarifying, and applying criteria to determine the merit or worth of what is being evaluated. The scholars explain that evaluation is distinguished from assessment whereby the former evaluates programs and the latter assesses the individual learner. They define feedback as providing information about an individual's or the curriculum's performance to learners, faculty, and other stakeholders.

The 10-Task Approach for Curriculum Evaluation

Kern et al. (2009) outline a 10-task approach for curriculum evaluation: 1) Identify users 2) Identify uses [generic and specific uses] 3) Identify resources 4) Identify evaluation questions 5) Choose evaluation designs 6) Choose measurement methods and construct instruments 7) Address ethical concerns such as confidentiality, access, and consent 8) Collect data 9) Analyze data 10) Report results. These steps, Kern et al. (2009) assert, should be integrated throughout the curriculum planning and development processes.

Two additional approaches for curriculum evaluation include The Kirkpatrick Four Levels and Culturally Responsive Evaluation.

The Kirkpatrick Four Levels

The Kirkpatrick Four Levels approach (1994) is guided by five foundational principles that are considered prior to applying the four levels:

1. ***The end is the beginning:*** The curriculum evaluation team assesses the business need or opportunities for improvement that will be addressed by the curriculum or the course.

2. ***Return on expectations (ROE)*** *is the ultimate indicator of value:* Planning for learning and reinforcement efforts should be based on a solid needs assessment.

3. ***Business or external (broadly defined) partnership is necessary to bring about positive ROE:*** Kirkpatrick notes that rarely can a curriculum be implemented in isolation, thus formal commitments with business or external partners should be forged.

4. ***Value must be created before it can be demonstrated:*** A recent study by Almeida showed that providing excellent training does not lead to significant transfer of learning to behavior. Rather, expected behavior change is facilitated by opportunities for deliberate and consistent reinforcement.

5. ***A compelling chain of evidence demonstrates your bottom line value:*** The Kirkpatrick Four Levels informs leaders by generating data about "consumptive costs" of activities in levels one and two and data about value added or benefits in levels three and four.

Aims of Curriculum Evaluation

Having identified one approach to curriculum development, the next step for the purpose of this document is to look closely at evaluating the curricula. Lipsett and Kern (2009) explain the aims of curriculum evaluation and feedback are to:

1. Provide evidence that guides individuals and the curriculum in cycles of "ongoing improvement"
2. Gather and maintain support for a curriculum
3. Assess student achievement
4. Satisfy external requirements
5. Document the accomplishments of curriculum developers
6. Serve as a basis for presentations and publications

Subsequently, applying the four levels involves looking first at the expected results or level four, a starting point that may be counterintuitive (see Table 1).

Table 1: The Four Levels (Kirkpatrick, 1994)

Level 4: Results	To what degree targeted outcomes occur as a result of the learning event(s) and subsequent reinforcement
Level 3: Behavior	To what degree participants apply what they learned during training when they are back on the job
Level 2: Learning	To what degree participants acquire the intended knowledge, skills, and attitudes based on their participation in the learning event
Level 1: Reaction	To what degree participants react favorably to the learning event

Culturally Responsive Evaluation

Definition

The culturally responsive evaluation approach targets understanding of the effect of culture and environment on the evaluators and individuals operating within a programmatic environment. The effects of culture on environment are considered for its direct and indirect impact on the evaluators, evaluand, and target populations through stakeholder engagement, cooperation, collaboration, and provision of data that are transformative, instructive, and/or reaffirming of current practices (Frierson, Hood, Hughes, and Thomas, 2010). This approach aims to ensure that culture is a brick that contributes to the telling of a complete evaluation story. Frierson, et al., (2010) explain that recognizing dimensions of culture in evaluating programs allows evaluators to pose the right questions, collect data that reflects diverse people and places, elicit authentic and valid conclusions, and provide reports in relevant formats that are useful to stakeholders.

This approach aims to ensure that culture is a brick that contributes to the telling of a complete evaluation story (Frierson, Hood, Hughes, and Thomas, 2010).

Assumptions

Various assumptions accompany the culturally responsive evaluation approach and are important for understanding how it can be applied most effectively. Hopson and Kirkhart (2013) explain that the approach works well when it is understood by evaluators and the evaluand that social location and lived experiences of the evaluator matter and their role effects social change and justice. Hopson and Kirkhart explain that the approach embraces multiple cultural perspectives and places culture at the center of the evaluation process. In addition, Hopson and Kirkhart (2013) assume that culturally and ethnically diverse communities, as well as marginalized groups, have contributions to make in evaluation. Frierson et al. (2010) explain that this is an important point because there is a tendency for evaluators to solely attribute identified problems to the individuals or communities who are the targets of a program. Hopson and Kirkhart (2013) add that all

evaluative procedures, processes, epistemologies, and findings are affected by culture, which, he says, is relevant to all evaluation frameworks. Ultimately, to achieve validity, cultural competence is required because without it validity is threatened.

Steps in the Approach

The intersection of culture and evaluation practice is one of the key principles outlined in the American Evaluation Association's (AEA) Guiding Principles for Evaluators and the AEA's Public Statement on Cultural Competence in Evaluation (AEA, 2004 and AEA, 2011). These principles and guidelines also may be used and adopted by faculty and researchers (AEA, 2011). The steps in the evaluation process are outlined by Frierson, et al. (2010), and further explained by Hopson and Kirkhart (2013).

Steps for Conducting Culturally Responsive Evaluation: Frierson, et al. (2010), and further explained by Hopson and Kirkhart (2013).

1. Preparing for the evaluation
2. Engaging stakeholders
3. Identifying the purposes and intents of the evaluation
4. Framing the right questions
5. Designing the evaluation
6. Selecting and adapting instrumentation
7. Collecting the data
8. Analyzing the data
9. Disseminating and using the results

References

Aeder, L., Altshuler, L., Kachur, E., Barrett, S., Hilfer, A., Koepfer, S., Schaeffer, H., Shelov. S.P. (2007). The 'Culture OSCE' – Introducing a Formative Assessment Program into a Postgraduate Program. *Education for Health*, 1-11.

Agency for Healthcare Research and Quality. (2013). 2012 National healthcare disparities report. Retrieved from http://www.ahrq.gov/research/findings/nhqrdr/nhdr12/index.html.

Alvarez, M.E., Gracia, J.N., Koh, H.K. (2014). Culturally and linguistically appropriate services – advancing health with CLAS. *The New England Journal of Medicine*, 371:198-201.

American Evaluation Association. (2011). Public statement on cultural competence in evaluation. Retrieved from file:///C:/Users/ppascoe/Downloads/aea.cultural.competence.statement.pdf.

American Evaluation Association. (2004). Guiding principles for evaluators. Retrieved from file:///C:/Users/ppascoe/Downloads/AEA%20Guiding%20Principles.pdf.

American Hospital Association and Institute for Diversity in Health Management. (2013). Diversity and Disparities: A Benchmark Study of U.S. Hospitals.Chicago: IL. Accessed at www.hpoe.org.

Andrulis, D.P., Duchon, L., Purtle, J. P., & Siddiqui, N. J. (2010). Patient protection and affordable care act on 2010: advancing health equality for racially and ethnically diverse populations. *Joint Center for Political and Economic Studies*. Retrieved from: http://jointcenter.org/sites/default/files/Patient%20Protection%20and%20Affordable%20Care%20Act.pdf

Association of American Medical Colleges. (2014). *Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who Are LGBT, Gender Nonconforming, or Born with DSD: A Resource for Medical Educators*. Washington, D.C. Retrieved from http://www.aamc.org/lgbtdsd.

Association of American Medical Colleges. (2005). *Tool for assessing cultural competence training.* Retrieved from https://www.aamc.org/download/54344/data/

Beach, M., Price, E., Gary, T., Robinson, K., Gozu, A., Palacio, A., & Cooper, L. (2005). Cultural Competence: A systematic review of health care provider educational interventions. *Medical Care*, 43(4), 356–373.

Betancourt, J. (2006). Cultural competence and medical education: Many names, many perspectives, one goal. *Academic Medicine*, 81(6), 499–502.

Carter, M., Lewis, E., Sbrocco, T., Tanenbaum, T., Oswld, J., Sykora, W., Williams, P., Hill, L., (2006) Cultural Competency Training for Third Year Clerkship Students: Effects of an Interactive Workshop on Student Attitudes. *Journal of the National Medical Association,* 98(11): 1772–1778.

Coles, C.R., & Grant, J.G. (1985). Curriculum evaluation in medical and health-care education. *Medical Education,* 19(5), 405–22.

Crandall, S., George, G., Marion, G., Davis, S. (2003). Applying theory to the design of cultural competency training for medical students: A case study. *Academic Medicine,* 78(6), 588–593.

Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: The National Academies Press, 2001.

Crosson, J., Deng, W., Brazeau, C., Boyd, L., & Soto-Greene, M. (2004). Evaluating the effect of cultural competency training on medical student attitudes. *Family Medicine,* 36(3): 199–203.

Culhane-Pera, K., Reif, C., Egil, E., Baker, N., Kassekert, R. (1997) A Curriculum for Multicultural Education in Family Medicine. *Family Medicine,* 29(10): 719–723.

DasGupta, S., Meyer, D., Breckheimer, A., & Giollen, S. (2006). Teaching cultural competency through narrative medicine: Intersections of classroom and community. *Teaching and Learning in Medicine,* 18(1), 14–17.

Expert Panel on Cultural Competence Education for Students in Medicine and Public Health (2012). Cultural competence education for students in medicine and public health: Report of an expert panel. Washington, D.C.: Association of American Medical Colleges and Association of Schools of Public Health.

Ferguson, W., Keller, D., Haley, H., Quirk, M. (2003) Developing Culturally Competent Community Faculty: A Model Program. *Academic Medicine,* 78(12): 1221–1228.

Fortier, J.P., Bishop, D. (2003). Setting the agenda for research on cultural competence in health care: Final report. Edited by C. Brach. Rockville, MD: U.S. Department of Health and Human Services Office of Minority Health and Agency for Healthcare Research Quality.

Frierson, H.T. Hood, S., Hughes, G. B. and Thomas, V. G. (2010). A guide to conducting culturally responsive evaluation. In Fretchling, J. The 2010 user friendly handbook for project evaluation, 75–95.

Godkin, M., Savageau, J. (2001). The Effect of a Global Multiculturalism Track on Cultural Competence of Preclinical Medical Students. *Family Medicine,* 33(3): 178–186.

Godkin, M., Savageau, J. (2003) The Effect of Medical Students' International Experiences on Attitudes Toward Serving Underserved Multicultural Populations. *Family Medicine,* 35(4): 273–278.

Godkin, M., Savageau, J, Fletcher K. (2006) Effect of a Global Longitudinal Pathway on Medical Students' Attitudes Toward Medically Indigent. *Teaching and Learning in Medicine,* 18(3): 226–232.

Gozu, A., Beach, M.C., Price, E.G., Gary, T.L., Robinson, K., Palacio, A., et al. (2007). Self-administered instruments to measure cultural competence of health professionals: A systematic review. *Teaching and Learning in Medicine*, 19(2), 180–190.

Griswold, K., Kernan, J., Servoss, T., Saad, F., Wagner, C., Zayas, L. (2006) Refugees and Medical Student Training: Results of a Programme in Primary Care. *Medical Education*, 40: 697–703.

Haq, C., Rothenberg, D., Gjerde, C., Bobula, J., Wilson, C., Bickley, L., Cardelle, A., Joseph, A. (2000) New World Views: Preparing Physicians in Training for Global Health Work. *Family Medicine,* 32(8):566–572.

Harris-Haywood, S., Goode, T., Gao, Y., Smith, K., Bronheim, S., Flocke, S.A., et al. (2012). Psychometric evaluation of a cultural competency assessment instrument for health professionals. *Med Care,* 52(2), e7-e15.

Harris, T.L., McQuery, J., Raab, B., Elmore, S. (2008) Multicultural Psychiatric Education: Using the DSM-IV-TR Outline for Cultural Formulation to Improve Resident Cultural Competence. *Academic Psychiatry,* 32(4): 306–312.

Health Research & Educational Trust. (2013). *Becoming a culturally competent health care organization.* Retrieved from http://www.hpoe.org/resources/hpoehretaha-guides/1395.

Hershberger, P.J., Righter, E.L., Zryd, T.W., Little, D.R., Whitecar, P.S. (2008) Implementation of a process-oriented cultural proficiency curriculum. *Journal of Health Care for the Poor and Underserved,* 19: 478–483.

Ho, M., Lee, K., & Green, A. (2008). Can cultural competency self-assessment predict OSCE performance? *Medical Education,* 42(5), 525.

Hood, S., Hopson, R., Frierson, H. (Eds.). (2002). The role of culture and cultural context: A mandate for inclusion, the discovery of truth, and understanding in evaluative theory and practice. Information Age Publishing Inc.: Greenwich, CT.

Hopson and Kirkhart (2013). *Strengthening evaluation through cultural relevance and cultural competence.* Presentation at the CDC/AEA Summer Institute.

Hung, R., McClendon, J., Henderson, A., Evans, Y., Colquitt, R., & Saha, S. (2007). Student perspectives on diversity and the cultural climate at a U.S. medical school. *Academic Medicine,* 82(2), 184–192.

Jarris, Y.S., Bartleman, A., Hall, E.C., Lopez, L. (2012). A preclinical medical student curriculum to introduce health disparities and cultivate culturally responsive care. *Journal of the National Medical Association,* 104(9-10).

Kern, D.E., Thomas, P.A., and Hughes, M.T. (Eds.). (2009). *Curriculum development for medical education: a six-step approach.* John Hopkins University Press.

Khanna, S.K., Cheyney, M., Engle, M. (2009). Cultural competency in health care: Evaluating the outcomes of a cultural competency training among health care professionals. *Journal of the National Medical Association*, 101(9): 886–892.

Kirkpatrick, D.L. (1994). *Evaluating training programs: The four levels. 1st ed.* San Franscisco: Berrett-Koehler.

Kleinman, A. (1988). *Rethinking psychiatry: From cultural category to personal experience.* New York: Free Press.

Krajewski, A., Rader, C., Voytovich, A., Longo, W.E., Kozol, R., Chandawarkar, R.Y. (2008). Improving Surgical Residents' Performance on Written Assessments of Cultural Competency. *Journal of Surgical Education,* 65(4): 263–269.

Kosoko-Lasaki, O., Sonnino, R. E., & Voytko, M. (2006). Mentoring for women and underrepresented minority faculty and students: Experience at two institutions of higher education. *Journal of the National Medical Association,* 98: 1449–1459.

Kumagai, A. (2008). A conceptual framework for the use of illness narratives in medicine. *Academic Medicine,* 83(7), 653–658.

Kumas-Tan, Z., Beagan, B., Loppie, C., MacLeod, A., & Frank, B. (2007). Measures of cultural competence: Examining hidden assumptions. *Academic Medicine,* 82(6), 548–557.

Kumgai, A., & Lypson, M. (2009). Beyond cultural competence: Critical consciousness, social justice, and multicultural education. *Academic Medicine,* 84(6), 782–787.

Kutob, R.M., Senf, J.H., Harris, J.M. (2009) Teaching culturally effective diabetes care: Results of a randomized controlled trial. *Family Medicine,* 41(3): 167–174.

Lie, D., Lee-Rey, E., Gomez, A., Bereknyei, S., & Braddock III, C. (2010). Does cultural competency training of health professionals improve patient outcomes? A systematic review and proposed algorithm for future research. *Journal of General Internal Medicine,* 26(3), 317–325.

Lim, R.F., Wegelin, J., Hua, L.L., Kramer, E.J., Servis, M.E. (2008). Evaluating a Lecture on Cultural Competence in the Medical School Preclinical Curriculum. Academic Psychiatry, 32(4): 327–331.

Lipsett, P., & Kern, D.E. (2009). Step 6: Evaluation and Feedback. Curriculum Development in Medical Education: A Stepwise Approach. Baltimore: JHU Press.

Mao, J., Wax, J., Barg, F., Margo, K., Walrath, D. (2007). A Gain in Cultural Competence through an International Acupuncture Elective. *Family Medicine,* 39(1): 16–18.

Marion, G.S., Hildebrandt, C.A., Davis, S.W., Marin, A.J., Crandall, S.J. (2008). Working effectively with interpreters: A model curriculum for physician assistant students. *Medical Teacher,* 30: 612–617.

Mark, M. M., Rog, D. J., Thomas, V., Frierson, H., Hood, S., Hughes, G., and Johnson, E. (2010). *The 2010 user-friendly handbook for project evaluation.* National Science Foundation: Arlington, VA.

Miller, E., Green, A.R. (2007). Student reflections on learning cross-cultural skills through a 'cultural competence' OSCE. *Medical Teacher,* 29(4): e76–e84.

Mirsu-Paun, A., Tucker, C.M., Herman, K.C., & Hernandez, C.A. (2010). Validation of a provider self-report inventory for measuring patient-centered cultural sensitivity in health care using a sample of medical students. *Journal of Community Health,* 35, 198–207. doi: 10.1007/s10900-009-9212-2.

Murray-Garcia, J., & Garcia, J. (2008). The institutional context of multicultural education: What is your institutional curriculum? *Academic Medicine,* 83(7), 646–652.

Musolino, G.M., Babitz, M., Brukhalter, S.T., Thompson, C., Harris, R., Ward, R.S., Chase-Cantarini, S. (2009). Mutual respect in healthcare: Assessing cultural competence for the university of Utah interdisciplinary health sciences. *Journal of Allied Health,* 38(2): e-54e62.

Nagata, J., Hernández-Ramos, I., Kurup, A., Albrecht, D., Vivas-Torrealba, C., & Franco-Paredes, C. (2013). Social determinants of health and seasonal influenza vaccination in adults ≥65 years: a systematic review of qualitative and quantitative data. BMC *Public Health*, 388 (13), 1-25.

Núñez, A. (2000). Transforming cultural competence into cross-cultural efficacy in women's health education. *Academic Medicine,* 75(11), 1071–1079.

Paez, K., Allen, J., Beach, M., Carson, K., & Cooper, L. (2009). Physician cultural competence and patient ratings of the patient-physician relationship. *Journal of General Internal Medicine,* 24(4), 495–498.

Passel, J., & Cohn, D. (2008). U.S. population projections: 2005-2050. *Pew Research Center.*

Paul, C.R., Devries, J., Fliegel, J., Van Cleave, J., Kish, J. (2008). Evaluation of a Culturally Effective Health Care Curriculum Integrated into a Core Pediatric Clerkship. *Ambulatory Pediatrics*, 8(3): 195–199.

Price, E., Beach, M., Gary, T., Robinson, K., Gozu, A., Palacio, A., & Cooper, L. (2005). A systematic review of the methodological rigor of studies evaluating cultural competence training of health professionals. *Academic Medicine,* 80(6), 578–586.

Price, E.G., Gozu, A., Kern, D.E., Power, N.R., Wand, G.S., Golden, S., et al. (2005). *The role of cultural diversity climate in recruitment, promotion, and retention of faculty in academic medicine. Journal of General Internal Medicine,* 20: 565–571.

Reed, D., Price, E., Windish, D., Wright, S., Gozu, A., Hsu, E., & Bass, E. (2005). Challenges in systematic reviews of educational intervention studies. *Annals of Internal Medicine,* 142(12), 1080–1089.

Ring, J. M., Nyquist J. G., and Mitchell, S. (2008). Curriculum for culturally responsive health care: The step-by-step guide for cultural competence training. Rockcliffe Publishing: New York.

Robins, L., Alexander, G., Wolf, F., Fantone, J., Davis, W. (1998). Development and Evaluation of an Instrument to Assess Medical Students' Cultural Attitudes. *Journal of American Medical Women's Association,* 53(3): 124–127.

Robins, L., White, C., Alexander, G., Gruppen, L., Grum, C. (2001). Assessing Medical Students' Awareness of and Sensitivity to Diverse Health Beliefs Using a Standardized Patient Station. *Academic Medicine,* 76(1): 76–80.

Rosen, J., Spatz, E., Gaaserud, A., Abramovitch, H., Weinreb, B., Wenger, N., Margolis, C. (2004). A New Approach to Developing Cross-Cultural Communication Skills. *Medical Teacher,* 26(2).

Sequist, T., Fitzmaurice, G., Marshall, R., Shaykevich, S., Marston, A., Safran, D., & Ayanian, J. (2010). Cultural competency training and performance reports to improve diabetes care for black patients. *Annals of Internal Medicine,* 152(1), 40–46.

Smedley, B., Stith, A., & Nelson, A. (2003). *Unequal treatment confronting racial and ethnic disparities in health care.* Washington, D.C.: National Academies Press. Social determinants of health and seasonal influenza vaccination in adults ≥65 years: A systematic review of qualitative and quantitative data. *BMC Public Health,* 388(13), 1–25.

Solar, O., & Irwin, A. (2010). A conceptual framework for action on the social determinants of health. *World Health Organizations.*

Solar, O., & Irwin, A. (2006). Social determinants, political contexts and civil society action: A historical perspective on the commission on social determinants of health. *Health Promotion Journal of Australia,* 17(3), 180–5.

Tang, T., Fantone, J., Bozynski, M., Adams, B. (2002). Implementation and Evaluation of an Undergraduate Sociocultural Medicine Program. *Academic Medicine*, 77(6): 578–585.

Tervalon, M., & Murray-Garcia, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved,* 9(2), 117–125.

Thom, D., Tirado, M., Woon, T., McBride, M. (2006). Development and Evaluation of a Cultural Competency Training Curriculum. *Medical Education*, 6 (38).

U.S. Department of Health and Human Services, Office of Minority Health. (2013). *National standards for culturally and linguistically appropriate services in health and health care: A blueprint for advancing and sustaining class policy and practice.* Retrieved from https://www.thinkculturalhealth.hhs.gov/pdfs/EnhancedCLASStandardsBlueprint.pdf.

U.S. Department of Health and Human Services, Office of Minority Health. (n.d.). *Think Cultural Health—CLAS Legislation Map.* Retrieved from https://cccm.thinkculturalhealth.hhs.gov/Content/LegislatingCLAS.asp.

University of Washington Medical Center (2007). *Culture Clues™.* Retrieved from http://depts.washington.edu/pfes/CultureClues.htm.

U.S. Census Bureau. (2008). *An older and more diverse nation by midcentury.* Retrieved from http://www.census.gov/newsroom/releases/archives/population/cb08-123.html.

Van Ryn, M., & Fu, S. (2003). Paved with good intentions: Do public health and human service providers contribute to racial/ethnic disparities in health? *American Journal of Public Health,* 93(2), 248–255.

Weech-Maldonado, R., Elliott, M.N., Pradhan, R., Schiller, C., Dreachslin, J., and Hays, R.D. (2012). Moving towards culturally competent health systems: Organizational and market factors. *Social Science and Medicine,* 75(5), 815–22.

Windish, D.M., Reed, D.A., Boonyasai, R.T., Chakraborti, C., & Bass, E.B. (2009). Methodological rigor of quality improvement curricula for physician trainees: A systematic review and recommendations for change. *Academic Medicine,* 84(12), 1677–92.

Wu, A., Leventha, J., Ortiz, J., Gonzalez, E., Forsyth, B. (2006). The Interpreter as Cultural Educator of Residents. Archives of *Pediatrics & Adolescent Medicine*, 160: 1145–1150.

Zabar, S., Hanley, K., Kachur, E., Stevens, D., Schwartz, M.D., Pearlman, E., Adams, J., Felix, K., Lipkin, M. Jr., Kalet, A. (2006). 'OH! She Doesn't Speak English!' Assessing Resident Competence in Managing Linguistic and Cultural Barriers. *General Internal Medicine*, 21: 510–513.

Zúñiga, M.L., Sidelinger, D.E., Blaschke, G.S., Silva, F.A., Broyles, S.L., Nader, P.R., Reznik, V. (2006). Evaluation of Residency Training in the Delivery of Culturally effective care. *Medical Education*, 40: 1192–1200.

2012 National Healthcare Disparities Report. June 2013. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/research/findings/nhqrdr/nhdr12/index.html

Association of
American Medical Colleges
655 K Street, N.W., Suite 100, Washington, D.C. 20001-2399
T 202 828 0400 **F** 202 828 1125
www.aamc.org