ABSTRACT This article explores health disparities and the effects of race and ethnicity on health care quality. It emphasizes the importance of cross-cultural training and two areas that can make a difference in delivering health care services to minorities: 1) establishing national guidelines and standards for culturally competent care; and 2) improving the healthcare educational pipeline and incorporating cultural proficiency curriculum into all medical training. Information from this article was presented during Plenary Session 1 of the Fifth Annual Primary Care and Prevention Conference, September 21, 2005. (*Ethn Dis.* 2006;16[suppl 3]:S3-14–S3-20)

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INTRODUCTION: THE NEW AMERICAN PUBLIC

The minority population in America is growing rapidly, but too few health professionals-including medical educators-are responding quickly enough to provide equal treatment for all racial and ethnic groups. According to the 2003 Unequal Treatment report by the Institute of Medicine (IOM), racial and ethnic minorities tend to receive lower quality health care than non-minorities, even when access-related factors such as patients' insurance status and income are controlled.1 Other factors that influence equitable health care are racial and ethnic bias and the interaction between patients and their health care providers.^{1,2,3,4} To address these factors, the IOM recommends that training programs incorporate curricula that will help healthcare providers gain the skills necessary to successfully navigate crosscultural interactions.

As evidenced by US Census Bureau data, a shift is taking place in the composition of the United States population-a shift away from immigrants of European origin and toward newcomers from Latin America and Asia. The US Census Bureau projects that nearly half of the US population in the year 2050 will be minorities. The greatest increases will be among Hispanics and Asians/Pacific Islanders. By the year 2050, 80 million people in the United States will be from immigrant groups that arrived after 1994; and they will make up 25% of the US population. The largest growth in the African-American population is occurring in the Southeast, while the greatest increase in Hispanics can be found on the West Coast and in the Southwest.⁵ These changing demographics pose a serious concern. The populations growing most rapidly currently experience poorer health status. Our nation's future health depends substantially on our ability to improve the health of racial and ethnic minorities.⁶

STATUS OF HEALTH DISPARITIES IN THE UNITED STATES

Multiple factors influence an individual's health status. They can be divided into three tiers: individual factors, health care delivery factors, and health care access factors.⁷

Factors at the individual level include: socioeconomic status; poverty; environmental conditions; education level; employment; and lifestyle choices. Simultaneously, multiple factors affecting healthcare delivery are appropriateness of care; insurance; cultural competency; patient-provider communication; ethnic/racial predilection of diseases; provider bias; patient preferences; and patients' adherence to a treatment plan. Finally, finances, availability of providers, proximity of providers and transportation, the patient's "medical home", language barriers, patients' cultural preferences, healthcare workforce diversity, legal barriers, health literacy, and distrust play a role in healthcare access.^{1,8,9,10}

To address these disparities, the two overriding goals of the nation's health plan, *Healthy People 2010*, are to: 1) increase the quality and years of healthy life and 2) eliminate health disparities. Past the midway point between the conclusion of the *Healthy People 2000* campaign and the year 2010, evaluation of the nation's progress toward the *Healthy People 2010* goals and objectives has begun. Almost without exception, minority Americans still fare worse than



Cubans, Japanese and Chinese have already met the goal. (Figure 3).¹⁹

In addition, for low birth-weight babies (less than 2,500 grams) and very low birth weight (less than 1,500 grams), the rates for African-American babies are more than twice the rates for White babies.¹⁹

ians. While Filipinos, Whites and Mexicans are very near the 2010 goal,

Racial disparity also exists in preterm (less than 37 weeks of gestation) and very pre-term (less than 32 weeks) births. The rate of African-American pre-term births is 17.7%, compared with 11% for Whites and for very preterm births, the 4% rate for African Americans is almost three times the rate for Whites (1.6%).¹⁹

Possible Causes of Racial and Ethnic Disparities in Birth Outcomes

Investigators have discovered numerous potential causes for the disproportionate rates of poor birth outcomes among minorities and especially African Americans. Key findings are summarized below.

- Race has no clear biologic or genetic basis. Genetic diversity appears to be a continuum, with no clear breaks delineating racial groups.
- Many birth outcomes have no clear genetic basis. Mexican Americans born in Mexico have a 3.9% incidence of low birth weight babies per 1,000 live births, but Mexican Americans born in the United States have an even greater occurrence (5.5%).²¹
- There is a strong association between low birth weight and country of nativity. Among all races, the incidence of low birth weight is greater for those born in the United States (7.3% per 1,000 live births) than for foreign-born infants (5.3%). The same holds true for African Americans (14.2% for U.S.-born African Americans and 9.2% for foreignborn African Americans).²² Additionally, maternal nativity is also significant. The relationship between

Fig 1. Infant mortality rates, per 1,000 live births. 2004

White Americans. This is evident in a wide variety of areas, with infant mortality and oral health among the most striking examples of the disparities in health and health care experienced by minorities.

For example:

- African Americans exceed Whites in age-adjusted mortality rates.¹¹
- The death rate from HIV/AIDS is much greater among Blacks. The rate per 100,000 people is 16 for Whites, 115 for Blacks, and 56 for Hispanics.^{12,13}
- Fewer Blacks and Hispanics than Whites receive vaccination for influenza and pneumococcus. For those aged >65 years, vaccination rates for non-Hispanic Whites are 69% and 64.8%, (for influenza and pneumococcus respectively), greater than those for non-Hispanic Blacks (50.6% and 44.5%, respectively) and Hispanics (54.8% and 44.4%, respectively).¹⁴
- The cancer death rate is higher for Blacks, who have a 30% higher death rate from all cancers combined than Whites.¹⁵

- Deaths from cardiovascular diseases are greater among Blacks than Whites, with rates for Black males at 490 per 100,000 compared to 372 per 100,000 for White males.^{16,17}
- The diabetes-related death rate is more than twice as high among Blacks as it is among Whites (29% vs 12%, respectively).¹⁸

Infant Deaths and Low Birth Weights

The infant mortality rate among African Americans is 14.7 per 1,000, which is more than double the rate among Whites (6.3 per 1,000) (Figure 1).¹⁹ The infant mortality among African Americans is comparable to those of Bosnia, Bulgaria or the Ukraine, while the rates among Whites are more similar to those in Australia and Ireland.¹⁹ While Whites are nearing the *Healthy People 2010* goal of 4.5 infant deaths per 1,000, the African-American infant mortality must be reduced at a rapid pace to reach the same goal. (Figure 2).¹⁹

The infant mortality rate among African Americans is followed by Native Americans, Puerto Ricans, and Hawai-



Fig 2. Infant mortality for African Americans and Whites, US 1980-2000

maternal birthplace and infant birth weight varies by ethnicity.^{23,24,25}

The relationship between cigarette smoking behavior and infant mortality appears contradictory. African-American women (9.7%) smoke less than White women (14.3%),²⁶ but African Americans have higher infant mortality (14.7%) than Whites (6%). The infant mortality rate among African-American women who do not smoke cigarettes is 12.8 for every 1,000 live births while the



Fig 3. Racial and ethnic disparities for infant mortality - per 1,000 live births

rate is 9.4 for White women who smoke. 26

- Proportions of women seeking prenatal care are similar across all racial and ethnic groups with 85% of Whites, 84% of Asians/Pacific Islanders, 74% of Hispanics, 74% of African Americans, and 70% of Native Americans receiving prenatal care in the first trimester.²²
- Education does not seem to narrow the gaps in infant health outcomes between races/ethnicities. African-American women with >16 years of schooling had higher infant mortality rates than Whites with <9 years of schooling.²²
- In one study, researchers found that the presence of CRH (corticotrophin releasing hormone associated with stress management) is higher in African-American women than in White women at all stages of pregnancy. Stress caused by factors such as money, work, health, abuse, safety and racism can result in pre-term births and intrauterine growth re-

tardation, which are linked to low birth weight and infant mortali-ty.^{27,28}

• Low birth weight and very low birth weight increase as Black women age, but the same is not true for White women. Also, as African-American women in the lowest socioeconomic strata age, they are more likely to have low birth weight babies. The likelihood of having low birth weight babies is about the same for African-American women of both average and high socioeconomic status. African-American women are more likely than White women to smoke cigarettes as they grow older (ages 25 and 30).²⁹

Oral Health Disparities

The disparities in health care are most evident in dentistry as research has demonstrated.

• More than one-third of the US population (100 million people) has

Table 1.	Standards f	for the	delivery	of cultural	y competent care
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Focus	Standard of Care			
Communication methods	Identify the patient's preferred method of communication. Make arrangements for an interpreter if needed.			
Language barriers	Identify potential verbal and nonverbal language barriers. List possible compensations.			
Cultural identification	Identify the patient's culture. Contact your organization's culturally specific support team (CSST) for assistance.			
Comprehension	Double check: Do the patient and/or the family understand the situation?			
Beliefs	Identify religious/spiritual beliefs. Make appropriate support contacts.			
Trust	Double check: Do the patient and/or the family trust the caregiver? Remember to watch for both verbal and non-verbal cues. If trust is not evident, seek advice from the CSST.			
Recovery	Double check: Do the patient and/or the family have misconceptions or realistic views about the caregivers, treatment, or recovery process? Make necessary adjustments.			
Diet	Address culture-specific dietary considerations.			
Assessments	Conduct assessments with cultural sensitivity in mind. Watch for inaccuracies.			

no access to community water fluoridation. $^{\rm 30}$

- More than 108 million children and adults lack dental insurance, a figure that is 2.5 times those who lack medical insurance.³⁰
- 25% of poor children do not see a dentist before entering kindergarten.³⁰
- African Americans make up 2.2% of all US dentists; Hispanic Americans, 2.8%; and Native Americans, 0.2%.³⁰

Unfortunately, this situation in dentistry is unlikely to improve in the near future. In 2002–2003, only 5.1% of students at 56 dental schools in the United States were African American and only 6.0% were Hispanic/Latino.³¹ Additionally, in some areas, increased access to dental care has been shown to reduce disparities in oral health. However, there are many other factors impacting the existence of these differences.³²

Health Disparity in the Immigrant Population

Immigrant populations continue to expand throughout the United States but are primarily concentrated in specific regions such as south Florida, Texas, and California. For these immigrant groups, 10 common problems affecting health are: domestic violence; unemployment and lack of insurance; language barriers; fear; lead poisoning; HIV/AIDS; tuberculosis; late-diagnosed breast and cervical cancer; untreated diabetes and cardiovascular disease; and lack of immunization.^{33,34}

Immigrants are at increased risk for other health problems such as chronic Hepatitis B and rubella (German measles), as well as intestinal parasites, malaria, typhoid fever, malnutrition (iron, folate and B12 deficiencies), asthma, dental disease, and mental health problems.³⁵ A study of immigrant children in San Francisco showed that 77% of them needed emergency dental care.³⁶

Several barriers prevent immigrants from getting optimal care. Interpreters may not be readily available to improve communications between the limited English proficiency (LEP) patient and the provider.^{37,38} Undocumented status may also prevent immigrants from seeking timely, appropriate health care.^{39,40}

Although Title VI of the Civil Rights Act of 1964 requires the provision of interpreters at no cost to patients, there is currently no Federal funding mechanism to facilitate the provision of these services.⁴¹ Additionally, laws such as the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (popularly known as "welfare reform"), have limited public benefits even to legal immigrant adults and have encouraged states to deny services to undocumented persons.^{34,42}

Two Solutions for Improving Minority Health

Establishing National Guidelines and Standards for Culturally Competent Care

Cultural differences between providers and patients have an effect on the provider-patient relationship. How patients feel about the quality of that relationship is directly linked to patient satisfaction, adherence, and subsequent health outcomes.⁴³ Certain approaches to culturally effective health care delivery should be standard practice, and national guidelines should be established to incorporate the major areas of focus illustrated in Table 1.

Improving the Healthcare Educational Pipeline and Incorporating Cultural Proficiency Curriculum into all Medical Training

With the current numbers of minorities in the medical school pipeline and a minority population that is expected to grow rapidly in the next 50 years, the demand by far exceeds the manpower available to provide culturally concordant healthcare services. Blacks are under-represented in many health professions, particularly in the areas of dentistry (only 3% black), dental hygiene (2%), occupational therapy (3%), speech therapy (4%), and pharmacy (3%). As seen in Table 2, the

Table 2.	Distribution	of selected	healthcare	professions	by race/ethnicity
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	Non-Hispanic White	Non-Hispanic Black	Am Indian Asian Pacific Islander
Clinical laboratory technologists & techni-			
cians	67%	18%	1% / 7%
Dentists	86%	3%	0% / 9%
Dental hygienist	96%	2%	0% / 0%
Dietitians	71%	19%	0% / 5%
Health records technologists & technicians	73%	18%	0% / 7%
Occupational therapists	88%	3%	0% / 1%
Radiology technicians	80%	11%	0% / 1%
Registered nurses	87%	5%	0% / 4%
Respiratory therapists	80%	12%	0% / 3%
Social workers	66%	23%	1% / 2%
Speech therapists	94%	4%	0% / 0%
Pharmacists	79%	3%	0% / 14%
TOTAL RESIDENT US POPULATION	71%	12%	1% / 4%

overall percentages in selected health professions are 71% White and 12% Black. 44

Healthcare employment opportunities will continue to increase in this decade. For example, the need for personal and home care aides will increase 62.5% between 2000 and 2010. Similar increases are projected for medical assistants (57%), home health aides (47.3%), pharmacy technicians (36.4%), dental assistants (37.2%), and registered nurses (25.6%).45 To meet this need, the United States is importing physicians from countries around the world. However, only a small percentage are from Spanishspeaking nations, while Spanish speakers are the fastest growing segment of the United States population. The two countries with the most medical graduates in the United States are India and the Philippines.46

While the need for more minorities in the health profession is great, specific training in cultural competence for all health care trainees is lacking. According to recent studies, only 9% of the nation's medical schools offer a course to address cultural competency, and fewer than half of the schools offer coursework in health disparities.^{47,48} Cultural competency and health disparities training should be an integral part of all health professions training.^{49,50,51}

Core components of a cross-cultural curriculum should include: strategies for eliminating stereotyping and bias; perception of health and illnesses; communication and language; knowledge of health disparities; understanding the role of culture in health care; and cultural competency training. The recently released Multicultural Medicine and Health Disparities, is a text designed to provide some of these components and to assist healthcare students and practitioners in delivering skilled, appropriate care to all patients, regardless of ethnicity, country of origin, cultural history, or access to services. It contains practical advice and case histories to improve minority health through improved understanding of these populations' special healthcare needs.52

Tips for Healthcare Professionals Serving Minority Populations

A variety of models for teaching cultural competency exist that can be applied to everyday practice. For example, Berlin and Fowkes' LEARN model of cultural competency suggests these steps for patient care:⁵³

Listening to the patient's perspective.

Explaining and sharing your perspective.

- Acknowledging differences and similarities between the two perspectives.
- Recommending a treatment plan.

Negotiating a mutually agreed-upon treatment plan.

To assess readiness to serve culturally diverse populations, healthcare professionals can answer the questions in the following checklist:

- Do you speak a language other than English?
- Do you work with staff members who speak a language other than English?
- Do you offer health materials and/or appointment materials in other languages?
- Do you have a list of community resources that serve a variety of ethnic groups?
- Do you ask patients about their use of alternative health practices?
- Does your routine history-taking address cultural lifestyle issues such as dietary practices, health beliefs, home remedies, medicines, or other treatments?
- Have you attended a cultural diversity seminar/workshop in the past year?
- Do you have medically trained interpreters available for LEP patients?
- Do you know key words and phrases in the languages of your patients? (Good morning!/How are you?/ Thank you!)

RESOURCES FOR DELIVERING CULTURALLY APPROPRIATE CARE TO MINORITY POPULATIONS

• The Bureau of Primary Health Care of the U.S. Department of Health and Human Services' (DHHS) Stan-

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dards for Culturally and Linguistically Appropriate Health Care Services (CLAS);⁵⁴

- Cultural brokers bicultural or bilingual individuals who can assist in the delivery of culturally appropriate care;
- Mental Health for Immigrant Program (MHIP);
- National Center for Cultural Competency (NCCC).

Inequalities in health and health care pose a significant threat to the wellbeing of minorities in our nation. Although disparities are affected by a myriad of factors and the scope of the problem is enormous, there is a significant role for individual health care professionals to play in ensuring good health for all.

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