Integrating the 3Ds—Social Determinants, Health Disparities, and Health-Care Workforce Diversity

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ABSTRACT

The established relationships among social determinants of health (SDH), health disparities, and race/ethnicity highlight the need for health-care professionals to adequately address SDH in their encounters with patients. The ethnic demographic transition slated to occur during the next several decades in the United States will have numerous effects on the health-care sector, particularly as it pertains to the need for a more diverse and culturally aware workforce. In recent years, a substantial body of literature has developed, exploring the extent to which diversity in the health-care workforce may be used as a tool to eliminate racial/ethnic disparities in health and health care in the U.S. We explore existing literature on this topic, propose a conceptual framework, and identify next steps in health-care policy for reducing and eliminating health disparities by addressing SDH and diversification of the health-care workforce.

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The profound effects social determinants have on health have received wide acceptance in recent years. Such venerable organizations as the World Health Organization (WHO) and the Centers for Disease Control and Prevention have published work on the topic.\textsuperscript{1–3} Racism, environment, and socioeconomic status (SES) are just a few determinants that continuously have been found to be related to each other, as well as correlated to health. For example, racial/ethnic minority groups encounter disproportionately poorer environmental conditions, segregation, discrimination, and physician bias in medical treatment compared with white people.\textsuperscript{4} These interactions lead to racial/ethnic minority groups experiencing substandard access to health care and poor health outcomes compared with their white counterparts. Those in minority groups are also more likely to be in lower SES groups, making them vulnerable to the effects of multiple social determinants of health (SDH).\textsuperscript{5}

At the midpoint of the 20th century, U.S.-born white people comprised about 90% of the U.S. population.\textsuperscript{6} By the year 2010, the percentage of white Americans declined to about 64%.\textsuperscript{7} The U.S. Census Bureau projects that, by the middle of the 21st century, ethnic groups now referred to as minority groups will be a numerical majority of the nation.\textsuperscript{8} The ethnic demographic transition will likely have numerous consequences for the health-care sector, including an increase in the demand for minority health-care workers. Other social and economic trends threaten the likelihood that the supply of minority health-care providers will meet the demand unless we successfully intervene. According to the Association of American Medical Colleges, black people, Hispanic people, and American Indian/Alaska Natives represented only 12% of the total physician workforce in 2010, while their share of the general population is about 30%.\textsuperscript{9} In 2010, non-Hispanic white people comprised 83% of licensed registered nurses, with black and Hispanic/Latino people accounting for a combined 9% of licensed registered nurses.\textsuperscript{10}

In addition to the small proportion of minority physicians and nurses, additional shortcomings in workforce diversity exist across the country. Faculty shortages have been reported at nursing schools during the past several years. U.S. nursing schools turned away 75,587 qualified applicants from baccalaureate and graduate nursing programs in 2011 due to an insufficient number of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints. The U.S. nursing shortage is expected to intensify as baby boomers age, resulting in increasing demand for health-care services.\textsuperscript{11}

**SDH, HEALTH DISPARITIES, AND WORKFORCE DIVERSITY: THE 3Ds**

The research literature yields evidence of integration among the 3Ds—SDH, health disparities, and workforce diversity. A 2002 article by Cohen and colleagues introduced the notion that greater diversity in the workforce can advance cultural competency by allowing individuals from varied racial/ethnic backgrounds to interact with each other. By helping to establish a firm understanding of how and why culturally determined factors affect illness, medical adherence, and response to treatment, diversity can, in turn, translate to improved health for patients.\textsuperscript{12} A second article uncovered that the lack of a diverse workforce has the potential to foster linguistic and cultural barriers, bias, and clinical uncertainty—leading to barriers in access to high-quality care for socially vulnerable populations.\textsuperscript{13} This integration is depicted in the conceptual framework outlined in Figure 1. This framework is based on the growing field of investigation that has unveiled the potential of a diverse workforce to improve access, increase patient satisfaction, and ensure culturally competent care by adequately addressing social determinants that impact health during medical interactions with patients.\textsuperscript{14} While we recognize that workforce diversity will not fully solve the problem of disparities, it is clear that a diverse health-care workforce can mitigate the negative effects of social determinants on health. By expanding the universe of health-care professionals from different parts of the country and world who speak varied languages and can relate to patients across cultural, economic, and political lines, we will better understand and address social issues related to access to care, including cultural practices, language barriers, and stigma. Health-care providers will be able to provide more appropriate prevention and treatment recommendations, even if they are unable to directly address determinants such as environment, racism, and SES.\textsuperscript{12}

The term “health disparities” has generally been used to reference health or health-care differences among racial/ethnic groups. The term also refers to differences in morbidity, mortality, and access to health care among population groups defined by factors such as SES, gender, residence, and especially race/ethnicity.\textsuperscript{15} Research has revealed that correlations between health disparities and race/ethnicity are in part fueled by SDH experienced by these populations.\textsuperscript{16,17} According to WHO, “social determinants” refer to the conditions in which people are born, grow, live, work, and age.\textsuperscript{18} Social determinants influence an individual’s social and economic opportunities. These determinants are often dictated by the distribution of money, power,
and resources across a multitude of levels, and directly impact health-care access and outcomes.

WHO’s Social Determinants of Health Conceptual Framework depicts the relationship among socioeconomic and political context, social position, conditions of daily life, the health-care system, and health and well-being. We suggest that the place for health-care professionals to take action is in the SDH health and well-being pathway, by impacting the composition of the health-care system. By increasing the diversity of the health-care workforce, research supports our belief that barriers to access to care for many individuals can be eliminated, and, more appropriately, quality health care can be provided. We depict this assertion in a new conceptual model presented in Figure 2.

**WORKFORCE DIVERSITY AND HEALTH DISPARITIES**

In recent years, a substantial body of literature has explored the extent to which diversity in the composition of the health-care workforce may be used as a tool to enhance interactions and, therefore, reduce disparities in health and health care in the United States. For example, in 2004, the Sullivan Commission on Diversity in the HealthCare Workforce—composed of a highly diverse and experienced body of commissioners—issued 37 landmark recommendations, broadly supported by stakeholders to address the crisis of a lack of diversity in the health-care workforce in the U.S. After a comprehensive review of studies, reports, testimonies, and other information-gathering sessions, the commissioners presented evidence that eliminating racial/ethnic inequalities in health and health care could be achieved by increasing the diversity of the health-care workforce.19

Studies have shown that racial/ethnic minority patients are more likely to report lower quality in their overall interaction with their providers because of reduced consulting time, diminished trust, less respect by providers, and poorer communication compared with their white counterparts.20 Provider-patient

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**Figure 1. Social determinants of health conceptual framework**

![Diagram](http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf) (cited 2013 May 1).

communication has been linked to patient satisfaction, adherence to medical instructions, and health outcomes.\textsuperscript{21} Moreover, researchers suggest that poorer health outcomes may result when socio-cultural differences between patients and providers are not reconciled in the clinic encounter.\textsuperscript{22} There is also significant evidence connecting patient-physician race concordance with patient office visit experience and health. A study by Cooper and colleagues found that race-concordant visits were longer and had higher ratings of patient positive effect compared with race-discordant visits. Patients were also more satisfied and rated physicians as more participatory in their encounters.\textsuperscript{23} Another study found that patients who were race concordant with physicians reported greater satisfaction with their providers.\textsuperscript{24}

We suggest that there are six public health benefits associated with increased racial/ethnic diversity in the health workforce. A more racially/ethnically diverse workforce would: (1) improve overall quality of care through higher levels of patient satisfaction and trust; (2) enhance the level of cultural competency in health care by improving patient-provider relationships (which is associated with better patient-provider communication, greater trust due to race and language concordance, and the overall influence minority providers exert on their white colleagues and health-care organizations to provide culturally sensitive and appropriate care for minority patients); (3) expand minority patients’ access to and utilization of health services and, consequently, improve their health outcomes; (4) increase access to care for geographically underserved minority and white communities, as minority physicians are more likely to locate in underserved communities; (5) improve health and health-care research by enhancing the breadth and scope of research with a broader range of racial/ethnic perspectives and by encouraging greater inclusion of racial/ethnic minority patients/subjects in biomedical and clinical trials research; and (6) yield other societal benefits, including minority providers operating their own practices. Economically, this increasing diversity will be beneficial to communities not only in the form of new job opportunities, but also through improved health access and reduced morbidity and mortality. A 2009 report found the cost of health disparities, including those related to access, to be more than $1.2 trillion. By intervening in the SDH health pathway, diverse providers have the potential to reduce health-care disparities and decrease this economic burden.\textsuperscript{25} In addition, health providers’ civic involvement will improve the quality of life of their neighbors and residents of the communities they serve through their political, social, and service activities.

LESSONS LEARNED AND NEXT STEPS

Because racial/ethnic groups are expected to comprise a majority of the U.S. population by the middle of this century, an important strategy in the next several years will be expanding the minority health-care workforce in an effort to better address racial/ethnic disparities in health and health care.\textsuperscript{26} Diversification of the health-care workforce must be considered, not only in terms of race/ethnicity, but also from a social, economic, and cultural perspective. Considering other forms of diversity will help to address the needs of all populations whose health is impacted by social, environmental, and economic determinants.

One of the most recent policy actions in addressing diversity in the health-care workforce comes from the Patient Protection and Affordable Care Act of 2010 (hereafter, ACA).\textsuperscript{27} There are numerous provisions in the ACA that promote the elimination of health disparities through impacting the SDH health disparities pathway. Organizations should be sure to take advantage of these new opportunities in an effort to reduce health disparities through increased workforce diversity. These provisions include:

1. Improving the collection and reporting of data by race/ethnicity and language;

2. Strengthening workforce diversity by:
   a. Increasing diversity among primary care providers, nurses, long-term care providers, dentists, and mental health providers;
   b. Providing grants and assistance to health-care professionals at institutions with a history of serving diverse populations, including historically black colleges and universities;
   c. Supporting the use of cultural and linguistically appropriate services and information; and

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**Figure 2. Conceptual framework integrating social determinants of health, health disparities, and workforce diversity**

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Social determinants

Workforce diversity

Health disparities
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Public Health Reports / 2014 Supplement 2 / Volume 129
d. Providing more than $85 million to train low-income individuals as community-based health-care professionals;
3. Enforcing cultural competence education and organizational support, including:
   a. Development and evaluation of a cultural competency model,
   b. Dissemination of cultural competency curricula through online clearinghouses,
   c. Cultural competency training for home care aides, and
d. Loan repayment preference for experience in cultural competency;
4. Elevating or establishing offices of minority health in various agencies within the U.S. Department of Health and Human Services;
5. Encouraging research in health disparities and the development of strategies to reduce them, particularly prevention; and
6. Addressing health disparities in health insurance reform.26,27

The ACA contains several additional workforce provisions for nurses, including the provision of loan forgiveness and grant opportunities for nursing students and faculty, as well as for practicing nurses. The law also provides support for nursing demonstration projects and increased funding for nurse-managed health clinics.27,28 Other programs exist nationally to promote the diversification of the health-care workforce, particularly for physicians and nurses. The Foreign-Educated Physician to Nursing Program, started by Florida International University, trains non-U.S. physicians to become nurses, reducing the nursing shortages in many hospitals and clinics that need the most help.29

While these providers are unable to practice in the U.S., their ability to interact and communicate with diverse patients makes these providers a useful addition to the medical system.

In addition, a redesign of primary care delivery is underway to improve quality of care and reduce costs and waste through new models such as accountable care organizations and patient-centered medical homes, supported by the U.S. Department of Health and Human Services and the Agency for Healthcare Research and Quality. These models have the potential to encourage care delivery through integrated and coordinated teams that emphasize patient-centeredness and cultural competency in the delivery of care. In addition, the Johns Hopkins Bloomberg School of Public Health (JHSPH) is active on this front. The Culture-Quality-Collaborative is a network of leading health-care organizations that have come together to share ideas, experiences, and solutions to problems that arise as a result of cross-cultural interactions within health-care settings.30 Clearview Organizational Assessments-360 is a multidimensional online tool developed by JHSPH researchers to assess the cultural competency of a health-care organization, rather than a single health-care provider, by evaluating how well the institution manages issues related to the diversity of its workforce and its patients.31

Optimally, all health-care delivery should follow the 3D framework—through the promotion of workforce diversity in an effort to address SDH and eliminate racial/ethnic and socioeconomic disparities in health care across America. Health-care researchers, professionals, and policy makers must work collaboratively in attempting to address social determinants in medical encounters in an effort to improve the health of individuals during the course of their lives.

REFERENCES