

## The Diversity Research Forum

### *Exploring Diversity in the Physician Workforce: Benefits, Challenges, and Future Directions*

Convened by the  
Division of Diversity Policy and Programs  
at the  
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2006 Diversity Research Forum: *Exploring Diversity in the Physician Workforce: Benefits, Challenges, and Future Directions*

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## Executive Summary

The growth in health care disparities coupled with projections from the Association of American Medical Colleges (AAMC) of an emerging physician shortage presents challenges to both medical educators and the health care community at large. Key strategies for expanding access to care for underserved populations and persons from minority groups include increasing the number of individuals from these populations who work in the medical field and ensuring that all physicians are skilled in the delivery of culturally competent care. Studies have documented the role of diversity in increasing access for underserved populations and improving patients' satisfaction with care, among a host of other benefits.<sup>1-4</sup>

To examine the current state of research on diversity in the physician workforce and identify the challenges of conducting such research, the AAMC's Division of Diversity Policy and Programs (DDPP) convened a panel of researchers and funders to present findings on the impact of diversity in medicine and to discuss the implications of public policy on the ability of these efforts to both proceed and create change. Dr. Somnath Saha, associate professor of medicine, public health and preventive medicine, and medical informatics and clinical epidemiology at the Portland VA Medical Center and Oregon Health and Science University (OHSU), presented the results of a literature review he conducted to

determine whether current research supports the argument that greater diversity in the health professions leads to improvements in public health. Saha, along with former OHSU colleague Dr. Scott Shipman, found data that show minority doctors are more likely to serve minority and underserved patient populations and that patient–doctor race concordance improves communication and patient satisfaction with care.

Dr. Lisa Cooper, associate professor of medicine, epidemiology, and health behavior and society at the Johns Hopkins University School of Medicine and Bloomberg School of Public Health, presented data from her studies on the effects of patient–doctor racial and ethnic concordance. In a 2003 study, Dr. Cooper found that racial and ethnic concordance was associated with longer physician visits and higher ratings of patients' positive affect than was race discordance. She and her colleagues also found that patients' ratings of care were better in race-concordant visits, but that the ratings were not attributed to communication differences between race-concordant and race-discordant visits. They determined that further study was needed to examine other factors, such as patient and physician attitudes, that might explain why patients in race-concordant visits rated their care as better.

Dr. Kevin Grumbach, professor and chair of family and community medicine and director of the Center for California

<sup>1</sup> Komaromy, M., Grumbach, K., Drake, M., et al. (1996). The role of black and Hispanic physicians in providing health care for underserved populations. *New England Journal of Medicine*, 334(2):1305-10

<sup>2</sup> Tarn, D.M., Meredith, L.S., Singer-Kagawa, M., et al. (2005). Trust in one's physician: The role of ethnic match, autonomy, acculturation, and religiosity among Japanese and Japanese Americans. *Annals of Family Medicine*, 3(4):339-47

<sup>3</sup> Bach, P.B., Pham, H.H., Schrag, D., Tate, R.C., Hargaves, J.L. (2004) Primary care physicians who treat blacks and whites. *New England Journal of Medicine*, 351(6):575-84

<sup>4</sup> Cooper, L.A., Roter, D.L., Johnson, R.L., Ford, D.E., Steinwachs, D.M., Powe, N.R. (2003) Patient-centered communication, ratings of care and concordance of patient and physician race. *Annals of Internal Medicine*, 139(11):907-15

Health Workforce Studies at the University of California, San Francisco, outlined the current policy environment and its impact on diversity research in the health professions. Dr. Grumbach noted a decrease in federal support for programs promoting diversity in the physician workforce and an expansion of state-level efforts to end affirmative-action programs, both of which raise questions about the best use of research data on diversity. Finally, Ignatius Bau, J.D., director of Culturally Competent Health Services at the California Endowment, talked about the current legal environment as it applies to diversity programs and opportunities for building a better business case in favor of a more diverse physician workforce.

Several key themes emerged from the discussion:

**Diversity improves interactions with health care systems for patients from minority groups.** Evidence demonstrates that physicians from communities of color are more likely to serve underserved, disadvantaged, and racial and ethnic communities. Research also suggests that patients from minority groups prefer the care they receive from physicians of the same racial and ethnic backgrounds.

**Concordance matters.** Evidence shows that racial and ethnic concordance between doctors and patients is associated with patient satisfaction with care, higher patient ratings of physicians, and a higher likelihood that patients will recommend a doctor to others, regardless of factors such as length of visits, the friendliness and enthusiasm expressed during the patient–doctor interaction, and the patient-centered interviewing style of the doctor.

**Studies on the effects of physician diversity are hard to randomize.**

Although randomized, controlled trials are the “gold standard” for clinical interventions, social intervention research does not necessarily lend itself to these approaches. The use of both quantitative and qualitative methods is important for collecting data on patients’ attitudes and perspectives about their interactions with physicians. Those who conduct research on the impact of physician diversity find that the most useful data are culled from studies focusing on the outcomes of existing patient–doctor relationships rather than those forged specifically for the purposes of research.

**Evidence is one factor that can help change policy.** Findings that demonstrate the positive impact of diversity in the physician workforce can aid efforts by medical school programs to recruit and retain students from underrepresented minority populations. However, data alone are not sufficient. The educational-benefits rationale for race-conscious admissions policies is the only one to date that has been accepted by the Supreme Court. Further, the Court ruled in *University of California Regents v. Bakke* (1978) that serving the underserved is not an acceptable argument for maintaining affirmative-action programs. This decision has held in all subsequent Court decisions. The packaging and marketing of diversity research findings is important for maximizing their impact on education policy.

There is a stronger business case to be made for diversity. Several areas exist in which current research could be used to make the case that diversity represents a business opportunity for health plans. Given the growth in minority populations in the United States and the

increasing purchasing power they represent, achieving greater diversity within physician networks can be seen as a way for health plans to attract “customers” from these communities and demonstrate to accrediting institutions that they have the capacity to provide care that meets patients’ needs. Further, through patient-directed care approaches, individuals from minority groups could be mobilized to demand greater physician diversity. Quality of care can be linked to diversity, especially given that data showing racial and ethnic concordance improves communication between physicians and patients, a crucial element in reducing medical errors.

## Speakers' Biographical Sketches

**Ignatius Bau, J.D.**, is director of Culturally Competent Health Systems for the California Endowment. In this role, Bau oversees funding for programs that increase the cultural and linguistic capacity of health care systems and providers to promote equitable access to high quality health services for all populations. He is responsible for program planning, grant making, and budgeting for the foundation's cultural competence and workforce diversity programs. Prior to his current position, he was a program officer with the foundation, developing strategies in collaboration with national, state, and local partners to address cultural competency in health care and promote workforce diversity.

Bau was previously employed at the San Francisco-based Asian and Pacific Islander American Health Forum (APIAHF), where he held positions as director of HIV programs, director of policy, and ultimately as deputy director for policy and programs. While at APIAHF, he played a key role in developing the White House Initiative on Asian Americans and Pacific Islanders and wrote, *A People Looking Forward: Action for Access and Partnerships in the 21st Century*, the first report from the President's Advisory Commission on Asian Americans and Pacific Islanders. He has published numerous articles in legal, health, and public policy journals.

A resident of San Francisco, Bau is a graduate of the University of California, Berkeley, where he earned a B.A. in political science. He later earned his J.D. from the Boalt Hall Law School at Berkeley.

**Laura Castillo-Page, Ph.D.**, is director of research in the Division of Diversity Policy and Programs (DDPP) of the Association of American Medical Colleges (AAMC). Dr. Castillo-Page leads the division's efforts to document the positive effects of diversity in medical education programs. She is also responsible for managing the development of the division's data publications and works with other DDPP staff to enhance and expand faculty professional development programs. Previously, Dr. Castillo-Page worked as a research scientist at the American Institutes for Research (AIR), where she examined and analyzed education practice and policy, and served as co-director of AIR's Bill and Melinda Gates Foundation Early College High School Initiative evaluation. After receiving her B.A. from Fordham University, Dr. Castillo-Page attended the University of Albany, SUNY, where she earned an M.A. in political science, as well as both an M.S. and a Ph.D. in educational administration and policy studies.

**Lisa A. Cooper, M.D., M.P.H.**, is associate professor of medicine, epidemiology, and health behavior and society at the Johns Hopkins University School of Medicine and Bloomberg School of Public Health. She is a board-certified general internist, health services and outcomes researcher, medical educator, and a member of the Johns Hopkins Hospital medical staff. She received her undergraduate degree from Emory University, her medical degree from the University of North Carolina at Chapel Hill School of Medicine, and her master of public health degree from the Johns Hopkins Bloomberg School of Public Health.

Dr. Cooper's research focuses on patient-centered strategies for improving outcomes and overcoming racial and ethnic disparities in health care. She has conducted several studies to explore and better define barriers (e.g., patient attitudes, beliefs, preferences) to equitable care across racial and ethnic groups, and mechanisms for disparities in health status and health care (e.g., patient–doctor communication, race/ethnic discordance between patients and physicians, physicians' cultural competence). She is currently implementing and evaluating the impact of interventions that target physicians and patients to improve the quality of communication, treatment, and outcomes for cardiovascular disease and depression in primary care settings.

**Kevin Grumbach, M.D.**, is professor and chair of the Department of Family and Community Medicine at the University of California, San Francisco School of Medicine (UCSF) and chief of family and community medicine at San Francisco General Hospital. He is director of the UCSF Center for California Health Workforce Studies. His research on topics such as primary care physician supply and access to care, racial and ethnic diversity in the medical profession, and the impact of managed care on physicians has been published in major medical journals such as the *New England Journal of Medicine* and the *Journal of the American Medical Association (JAMA)* and cited widely in both health policy forums and the general media. With Tom Bodenheimer, he co-wrote the book, *Understanding Health Policy - A Clinical Approach*, published by Appleton-Lange. Portions of the book have been excerpted in serial form by *JAMA*, and it has become a bestseller on health policy. He has been honored with

the Generalist Physician Faculty Scholar Award from the Robert Wood Johnson Foundation, the Health Resources and Services Administration Award for Health Workforce Research on Diversity, and in 1997 was elected to the Institute of Medicine, National Academy of Sciences.

Dr. Grumbach also is co-chair of the UCSF University–Community Partnership Council, and is a founding member of the California Physicians' Alliance, the California chapter of Physicians for a National Health Program.

**Somnath Saha, M.D., M.P.H.**, attended medical school and trained in internal medicine at the University of California, San Francisco School of Medicine. He completed his fellowship training in the Robert Wood Johnson Clinical Scholars Program at the University of Washington School of Medicine in Seattle. He currently works as a general internist at the Portland VA Medical Center and is associate professor of medicine and public health and preventive medicine at Oregon Health and Science University.

Dr. Saha's primary research interests are in understanding the causes of racial, ethnic, and socioeconomic disparities in health care. He is supported by the Department of Veterans Affairs and by the Robert Wood Johnson Foundation to study how race and ethnicity influence the patient–doctor relationship and other aspects of health care access and quality.

**Charles Terrell, Ed.D.**, is vice president of the Division of Diversity Policy and Programs (DDPP) at the Association of American Medical Colleges (AAMC). Dr. Terrell is a nationally recognized expert on issues of diversity in higher education and academic medicine, minority access to higher education programs, and

student financial assistance. His career has been characterized by a strong commitment to achieving health care and education access for all, especially those from disadvantaged and underserved populations. His career in medical education began at Boston University's (BU's) School of Medicine, where he worked in the Office of Minority Affairs and served as director of the Office of Residency Planning and Practice Management. He held several positions at BU Medical Center, including director of student financial management, assistant dean for student affairs, and associate dean for student affairs. He holds a B.A. in American history from Colby College, an M.A. in African-American studies from BU, and an Ed.D. in higher education from Nova Southeastern University.

## The Evidence Base for Diversity in the Health Professions

Dr. Saha observed that although persons from minority groups continue to be underrepresented in the health professions, federal programs promoting their entry into the health care workforce are being defunded. The survival of these programs, said Saha, will increasingly depend on the ability of researchers to present evidence of their value to systems of care. “If the evidence shows that health professions diversity impacts the public’s health in a positive way, it can serve as a platform for making the argument that we should be supporting it,” he said.

Saha then presented the results of a literature review on racial and ethnic diversity in the health professions, which he conducted in collaboration with Scott Shipman, M.D., M.P.H., formerly of Oregon Health and Science University.<sup>5</sup> The project was funded by the Health Resources and Services Administration (HRSA) and examined diversity within several health professions, such as medicine, nursing, and dentistry. The two researchers drew their data from several sources, including MEDLINE, HealthSTAR, the CINAHL® database, and PsycINFO.

Saha stated that diversity in the health professions does not have a direct impact on patients’ health outcomes, as do surgery and medication, for example. Similarly, no evidence shows that teaching medical students about human anatomy has a direct effect on health outcomes. The curricular justification for teaching

anatomy is the chain of evidence indicating the importance for medical students to know the human body. Using the chain-of-evidence argument, Saha and Shipman built a conceptual framework for examining why health professions diversity is important.

The framework focuses on four hypotheses:

- A more diverse workforce will result in service patterns that ensure care to a broader array of individuals;
- Diversity offers greater opportunities for race and language concordance between providers and patients;
- Diversity may create a greater level of trust in providers among patients from minority groups, which could result in greater health service utilization; and
- Diverse leadership in the workforce will result in greater advocacy on behalf of the underserved and persons from minority communities.

To test their first hypothesis, Saha and Shipman looked at 17 original studies, all of which supported the notion that a more diverse workforce would improve care for underserved and minority populations. Thirteen studies found that minority physicians were more likely than were whites to serve individuals from their own racial backgrounds. Twelve studies found that minority physicians and dentists—particularly those from underserved patient populations—were more likely than were their nonminority colleagues to provide care to underserved populations, including the poor, uninsured, and underinsured.

One particular study in the *American Journal of Public Health* looked at a survey of general practitioners who had been out

*There [is] strong evidence that minority physicians are more likely to care for underserved and poor populations....*

Somnath Saha, M.D., M.P.H.  
Portland VA Medical Center

<sup>5</sup> Saha, S., Shipman, S. (2006). *The Rationale for Diversity in the Health Professions: A Review of the Evidence*. Rockville, MD: Health Resources and Services Administration

of medical school for 10 years.<sup>6</sup> The study found that African-American and Latino physicians served disproportionately more Medicaid and poor patients than did their white or Asian counterparts. The study also found that participation in National Health Service Corps (NHSC) loan-forgiveness programs—the principal federal incentive program for placing health professionals in underserved areas—increased the likelihood that physicians from all racial and ethnic backgrounds would serve Medicaid and poor patients. However, white physicians who had participated in the NHSC were still less likely to serve Medicaid and poor patients than were their African-American and Latino counterparts who had not participated in the NHSC. This finding suggests that physicians from underrepresented minority communities serve the underserved to a greater extent than do white health professionals who have received the financial incentives to do so.

Other studies compared being from underrepresented minority groups with factors such as parental income, parental education, and an expressed interest in serving the underserved—factors that might serve as admissions criteria for health professional schools—as predictors of the likelihood that a medical student would serve underserved populations. They found that being from an underrepresented minority group was a stronger predictor of serving the underserved than was any other factor.

To test the second hypothesis, Saha and Shipman looked at 36 studies on the impact of patient–provider racial and

ethnic concordance. Most studies were conducted with physicians, a number with mental health providers, and some with substance abuse counselors and medical students.

In general, research findings showed that racial and ethnic concordance improved the use of health care services and patients' views on the quality of those services for racial and ethnic minorities. However, the data did not convincingly show that concordance had a positive effect on health outcomes.

Saha then presented results of a 1999 study he and colleagues conducted on patients from race-concordant and discordant patient–doctor pairs.<sup>7</sup> The study examined data from the 1994 Commonwealth Fund Minority Health Survey on 2,201 white, African-American, and Latino respondents who reported having regular physicians. Among African-American respondents, those with African-American doctors were twice as likely to report that their doctor was excellent than were those who had doctors from other racial groups. Similarly, African-American patients with same-race doctors had 1.7 times the odds of receiving preventive care and 2.9 times the odds of reporting no unmet health needs. Although Latino patients with Latino doctors did not necessarily rate the quality of their care as higher, they reported greater satisfaction with their overall health care when being treated by Latino physicians. For whites, there were no discernible differences between their reported experiences with white, Latino, or African-American doctors.

### Challenges to Diversity Research (Saha, 2006)

- Funding
- Difficulty enlisting participation of minority health professionals and students
  - Small numbers
  - Heavy workload
- Need for cross-institutional collaboration and standardization of data collection
- Lack of data on race/ethnicity of health professionals
  - Nonexistent or proprietary
- Lack of other necessary data in existing databases
  - Appropriate outcome measures
- Need for data linkages
  - Often requires support of multiple parties
  - Human subjects regulation and HIPAA obstacles

Saha referenced a study by Dr. Cooper that examined why race concordance affects patients' attitudes about care.<sup>8</sup> Cooper audiotaped patient visits with primary care physicians in the Washington, DC–Baltimore area. She found that aspects of communication in these visits were better when there was race concordance between patients and their physicians. She also found that patients were more satisfied with their visits with race-concordant doctors. However, the higher levels of satisfaction did not appear to be driven solely by better communication, suggesting that other factors were at play in the dynamic between race-concordant patient–doctor pairs.

<sup>6</sup> Xu, G. Fields, L.K., Veloski, J.J., Barzansky, B., & Martini, C.J. (1997). The relationship between the race/ethnicity of generalist physicians and their care for underserved populations. *American Journal of Public Health, 87*: 817-822

<sup>7</sup> Saha, S., Komaromy, M., Koepsell, T.D., Bindman, A.B. (1999) Patient-physician racial concordance and the perceived quality and use of health care. *Archives of Internal Medicine, 159*: 2192-2199

<sup>8</sup> Cooper, L.A., Roter, D.L., Johnson, R.L., Ford, D.E., Steinwachs, D.M., Powe, N.R. (2003). Patient-centered communication, ratings of care and concordance of patient and physician race. *Annals of Internal Medicine, 139*(11):907-915

Saha concludes that concordance matters, but that it is not necessarily what happens during an office visit that determines patients' satisfaction. "I think it's clear that cultural competence training, while necessary, will not serve as a simple substitute for racial and ethnic concordance," said Saha. "There is something else at work with regard to how race affects patient–doctor interactions that cannot be erased by training someone to be sensitive to cultural differences and customs."

Saha explained that language concordance has been associated with both better retention in mental health services and higher ratings of communication quality and comprehension for Latino and Asian patients. However, the literature does not clarify whether the effects are primarily due to language concordance or to language-plus-cultural concordance.

Saha and Shipman found two studies to test their third hypothesis that a more diverse health care environment will engender more trust among minority patients. One study involved focus groups with African-American pastors who said that fear of hospice care among African-Americans was partly due to lack of diversity among health care workers.<sup>9</sup> A second study found that participation by African-American women in clinical trials might be influenced by the race of the researchers.<sup>10</sup>

Saha said that he and Shipman did not find data to support their fourth hypothesis that a more diverse health care workforce will create greater advocacy for the underserved.

In summary, Saha said there was strong evidence that minority physicians are more likely to care for underserved and poor populations, and mixed evidence indicating patients from minority groups, especially African Americans, receive better care from race-concordant physicians. There was limited but positive evidence to suggest that language concordance was associated with higher health care quality among racial and ethnic minorities. There was limited evidence to suggest that racial and ethnic concordance increases patient trust in health care services. Finally, there was no evidence to indicate that greater diversity in the health professions translates into greater advocacy for underserved and minority populations.

Saha believes that existing evidence is unlikely to persuade skeptics or opponents of race-conscious policies. He noted that while diversity advocates recognize the benefits of having more health care professionals from minority communities, "not everyone shares that position."

Saha advocated strengthening the evidentiary link between diversity and quality of care and outcomes, including reducing disparities. He suggested that future research could examine the

- Effect of race and language concordance on technical measures of health care quality, such as colorectal cancer screenings or flu shots, that may matter more to health professionals and policymakers than patient satisfaction;
- Differences between language concordance and language-plus-cultural

concordance on quality of care for patients with limited English proficiency;

- Effect of diversity on patients' trust; and
- Research interests of minority versus nonminority scientists.

"I think it is important that we don't hold race concordance to a higher standard than other interventions we support," said Saha. He added, "It is really important to think about how race concordance operates." To illustrate his point, he explained that African Americans and Latinos are less likely than are whites to get flu shots. Because not all patients understand the benefits of flu shots and some believe they actually cause the flu, a trusted physician may be able to convey the benefits of the shots in a way that would result in more patients receiving them. Thus, flu shots would serve as an appropriate measure of quality to examine in a study of race concordance. Other services, where the patient–doctor relationship probably has little impact (e.g., routine blood tests) are not likely to be affected by race concordance.

Saha mentioned that there is limited evidence, most notably from Whitla,<sup>11</sup> suggesting that medical students believe diversity enhances the learning environment and that students from minority groups exhibit less bias than do whites. He suggested that current data could inform future research directions, and that studies could look at whether diversity increases the commitment to serve the underserved, improves interpersonal skills, or reduces student bias and stereotyping.

<sup>9</sup> Reese, D.J., Ahern, R.E., Nair, S., O'Faire, J.D., Warren, C. (1999). Hospice access and use by African Americans: Addressing cultural and institutional barriers through participatory action research. *Social Work*, 44(6):549-59

<sup>10</sup> Mouton, C.P., Harris, S., Rovi, S., Solorzano, P., Johnson, M.S. (1997). Barriers to black women's participation in cancer clinical trials. *Journal of the National Medical Association*, 89(11):721-7

<sup>11</sup> Whitla, D.K., Orfield, G., Silen, W., Teperow, C., Howard, C., Reede, J. (2003). Educational benefits of diversity in medical school: A survey of students." *Academic Medicine*, 78(5):460-466



## Linking Physician–Patient Racial/Ethnic Concordance to Health Care Quality and Patient Outcomes

Dr. Cooper talked about three dimensions of health care quality.

- **Structural.** This dimension includes the characteristics of health care settings, such as race concordance of health care providers, staff expertise, access, and organization and coordination of care.
- **Process.** This dimension considers interpersonal and technical aspects of care, as well as appropriateness of care. Technical aspects of care look at, for example, whether a patient was provided a certain treatment as needed. Interpersonal care refers to communication between providers and patients.
- **Outcomes.** This dimension considers the effect of care on the health and well being of patients and looks at patients' ratings of care, equity of services, complications from care, and death rates, among other measures.

There is increasing evidence that patients from racial and ethnic backgrounds report poorer interpersonal care, but that race concordance may, in fact, matter.

Dr. Cooper noted that few studies on health care disparities link the structural, process, and outcomes dimensions of care. There are many studies on the technical aspects of care, which reveal that ethnic minorities tend to receive fewer preventive services, diagnostic and therapeutic tests and procedures, and appropriate medications.

Relatively few studies have examined the interpersonal aspects of care, but those that have indicate that ethnic and racial minorities tend to rate interpersonal care from physicians more negatively than do whites. More recent studies in this area have focused on the role of racial and ethnic concordance between physicians and patients.

Cooper defined concordance as a structural dimension of health care quality that reflects shared identities between patients and health professionals. She explained that concordance is an important research topic because most minority patients see physicians who differ from them on a number of key cultural issues. She described “visible” indications of concordance as being race, ethnicity, gender, age, language, and social class. “Invisible” aspects of concordance include beliefs, values, preferences, role orientations, and implicit attitudes.

Cooper et al. published a study in *JAMA* in 1999 that examined the effects of race concordance on patients' ratings of their physicians' decision-making styles.<sup>12</sup> She and her colleagues collected a patient sample from practices affiliated with a large health maintenance organization in the Washington, DC, metropolitan area. The researchers hypothesized that race and gender concordance between physicians and patients would result in greater partnerships in decision making. The research method involved a cross-sectional telephone survey with 1,816 adult patients from 32 primary care practices that included a total of 65 physicians. The patient sample was 784 whites, 814 African Americans, and 218 Hispanics and Asian Americans. Patients were asked to rate their doctors' participatory decision-making style by answering three questions:

*There is increasing evidence that patients from racial and ethnic backgrounds report poorer interpersonal care, but that race concordance may, in fact, matter.*

Lisa Cooper, M.D., M.P.H.  
Johns Hopkins University School of Medicine

<sup>12</sup> Cooper-Patrick, L., Gallo, J.J., Gonzales, J.J., Vu, H.T., Nelson, C., Powe, N.R., Ford, D.E. (1999). Race, gender, and partnership in the patient-physician relationship. *Journal of the American Medical Association*, 282:583-589

- 1) If treatment choices are available, how often would this doctor ask you to help make the decision?
- 2) How often does this doctor make an effort to give you some control over treatment?
- 3) How often does this doctor ask you to take some of the responsibility for your treatment?

Cooper and colleagues found that patients who were in race-concordant relationships with their physicians rated their participatory decision-making style as 61.1 on a 100-point scale, whereas those in race-discordant relationships rated their doctors' styles as 58.5. The results were similar among patients of African-American, white, and Asian physicians. The sample of Latino physicians was too small to draw any definitive conclusions. While the numerical difference between the responses of those in race-concordant versus race-discordant relationships was only two to three percentage points, Cooper explained that, based on previous work, the difference represented a ten percent likelihood that a patient would change his or her physician over a one-year period.

Cooper stated that a growing body of literature links good communication to better health outcomes, including better patient recall of information, better adherence to medications, higher patient satisfaction, and a range of positive clinical outcomes.

For this reason, she and her colleagues wanted to examine further what was happening in the physician visit that

may have contributed to the difference in responses between the race-concordant and race-discordant groups.

Cooper and her colleagues designed a study that used audiotaped interactions between physicians and patients to examine communication styles.<sup>13</sup> To recruit their sample, researchers targeted several practices in the Baltimore–Washington, DC, area with diverse patient panels and a combination of both white and African-American physicians. The sample included 15 urban primary care practices that served both fee-for-service and managed care patients. The study's physician participants were 13 whites and 18 African Americans. The patient participants were 110 whites and 142 African Americans; the number of patients from other racial and ethnic groups was too limited to include in the study.

The average age of the patient participants was 50, and most had completed high school. More than half were women. African-American patients were more likely to be in race-discordant relationships with their doctors than were whites. Those in race-discordant relationships were less likely to be well known by their doctors than were those in race-concordant relationships.

The mean age of the physician participants was 41, and the mean number of years in practice was nine. Doctors in race-discordant relationships tended to be in practice slightly fewer years.

Research assistants recruited patients from physicians' waiting rooms with a goal of enrolling five to ten patients per

### EXAMPLES FROM ROTER INTERACTION ANALYSIS SYSTEM COMMUNICATION CATEGORIES

#### Biomedical Talk

"Your blood pressure is 100 over 70."  
"I was in the hospital last year for ulcers."

#### Psychosocial Talk

"You really need to get out and meet more people."  
"I guess every marriage has its ups and downs."

#### Emotional Talk

"This must be very hard for you."  
"I hope you are feeling better soon."

#### Partnership-Building

"Do you follow me?"  
"How does that sound to you?"

doctor. Specially trained coders listened to the audiotapes and assigned each statement made by either a physician or patient to a specific category designated by the Roter Interaction Analysis System (RIAS). The RIAS has been well validated as a research instrument in studies on patient–doctor communication. The system groups communication behaviors into one of three overarching categories: Content, Affect, or Process. Within those categories are additional categories that break down the communication behavior even further.

For example, content talk would include all communication on biomedical and psychosocial topics such as asking questions, counseling, and giving information. Affect talk would include any emotional talk, negative or positive, such as statements of approval, empathy, concern, worry, and humor. The process category applies to the flow of a visit

<sup>13</sup> Cooper, L.A., Roter, D.L., Johnson, R.L., Ford, D.E., Steinwachs, D.M., Powe, N.R. (2003). Patient-centered communication, ratings of care and concordance of patient and physician race. *Annals of Internal Medicine*, 139(11):907-915

and includes activities such as providing patients with directions and instructions (Example: Now I am going to look at your lungs) and statements related to relationship-building, such as encouraging patients to talk more and asking their opinions. The researchers were especially interested in the process category because patients in race-discordant relationships with doctors often report they do not feel that they are invited to participate in making treatment decisions.

The coders also were asked to rate the overall emotional tone of the visit for both patients and physicians. Patients were rated on how assertive they were during the visit, how interested they were in what the physician was saying, and how responsive and friendly they were to the physician. Physicians were rated on their assertiveness, interest, responsiveness, and empathy; their scores were reduced if they sounded hurried during the visit.

Finally, an overall composite score for a patient-centered visit was created by adding all psychosocial and emotional statements made during a visit and dividing that number by the total number of biomedical statements made during the visit, by both doctor and patient. The results showed that, on average, visits between patients and doctors in race-concordant relationships were two minutes longer. Similarly, race-concordant visits were characterized by slower speech by doctors and patients, higher scores on the patient affect, and higher scores on the physician affect (although statistical significance was not achieved).

Results also showed that patients in race-concordant relationships rated their physicians higher than did those in race-discordant relationships, independent of what type of communication they had experienced. Race concordance was associated with higher ratings of physicians by patients (with regard to satisfaction and participatory decision making), and was a stronger predictor of patients' likelihood to recommend their doctors to others, regardless of factors such as the length of the visits, the friendliness or enthusiasm expressed during the visits, or the patient-centered interviewing style of the doctors. Cooper said the results suggest there are other things—attitudes, expectations, trust, biases—that have not been measured but may have a significant impact on patient–doctor relationships. In the absence of such data, Cooper suggests that diversifying the physician workforce is currently the best strategy for improving the health care experiences of minority patients.

#### **Challenges Associated With Researching Social and Behavioral Interventions**

Cooper described some of the challenges in conducting studies on racial and ethnic concordance as it affects health outcomes and quality of care. Physician recruitment can be difficult, she said, for several reasons:

- 1) Diverse practices are hard to identify;
- 2) Physicians often have concerns about research interfering with delivery of care to patients;
- 3) Establishing trust with physician practices is essential and takes time; and

- 4) Researchers have to spend more time developing relationships with and convincing potential physician participants of the value of participating in such studies.

Cooper added that staff training and supervision needs are intensive because interviewers have to follow specific protocols for study results to be relevant.

In addition, data collection and analysis require interdisciplinary collaboration because these studies examine factors beyond the medical scope, such as psychosocial issues, ethical issues, and others.

To illustrate these challenges, Cooper discussed two intervention studies she is currently involved in that will examine communication skills and cultural competency training among physicians. The Patient–Physician Partnership to Improve High Blood Pressure Adherence is a randomized, controlled trial of 42 primary care doctors and 279 ethnic minorities and poor patients with high blood pressure receiving treatment in urban community clinics in East and West Baltimore. The study is being conducted with support from the National Heart, Lung, and Blood Institute. Patients are both African American and white. The two interventions in the study are 1) a communication skills training for physicians and 2) patient activation by a community health worker.

The main outcomes for the project are patients' treatment adherence and blood pressure control. In speaking about the difficulty of implementing the study, Cooper explained that it took one year to recruit physicians to participate. Her team initially contacted 133 physicians,

received 110 responses, and heard nothing from 23 physicians who were contacted several times. Fifty-three physicians agreed to participate, and 51 were randomized into the study. In the end, another nine physicians dropped out of the study by the time patients were enrolled.

The average age of physicians participating in the study is 41; a high percentage are women; they are diverse in race and ethnicity; and a quarter had been trained at international medical schools. Cooper said the study presents an opportunity to look at racial and ethnic concordance and cultural issues affecting quality and outcomes of care.

The Bridge Study, a depression intervention for African Americans, has enrolled 26 primary care doctors from Maryland and Delaware and 133 African-American patients with depression. Outcome measurements will include depression remission and rates of guideline-adherent care for depression.

Cooper explained that researchers had initially sought to recruit an ethnically diverse physician sample. They contacted 108 doctors, 36 of whom agreed to participate. Of those, 32 doctors were randomized and, ultimately, 23 participated in the study. Cooper noted that many physicians refused to participate for a variety of reasons, including time pressures and concerns about being audiotaped with patients. Of the physicians enrolled, 67 percent are women and a significant number are minorities.

In concluding, Cooper talked about the important role of social and behavioral intervention research in strengthening the evidence base for diversity in the health care workforce. Despite the challenges, she said this type of research yields valuable findings that can be used to inform policy decisions affecting staffing, cultural competency training, and insurance coverage for racial and ethnic minorities and the poor.

## Evidence-Based, or Evidence-Debased, Policy? Translating Research into Policy Change in Health Professions Diversity

Dr. Grumbach identified the role of research as defining the problem, identifying solutions, and evaluating the value of interventions. The strength of diversity research has been to define the problem—whether it be the lack of diversity in the workforce or persistent disparities in health care—and show how diversity can help the health care system respond better to the needs of the underserved and minority communities. Research also has documented the positive effect diversity has on physician interpersonal skills, shown where the future workforce will come from, and identified how diverse learning environments provide educational benefits to students. Research has been limited on measuring the effect of a diverse workforce on patient outcomes.

Grumbach talked about the difficulty of performing intervention research on complex, social situations. Pointing to Dr. Cooper's efforts to enroll physicians in her research studies, Grumbach said that while there is pressure to conduct controlled studies on social interventions, they are hard to standardize. "I went into this work several years ago thinking we needed to get hard-nosed on research, and I have been significantly enlightened to see how difficult it is," said Grumbach.

"Evidence-based medicine is not evidence-based policy," he added, "and in medicine,

you have randomized, controlled trials where you judge clinical practice. That standard is hard to apply to social interventions, which is why social science research is so important in this regard."

The risk of negative study results is real, said Grumbach. For example, funding for such research could be threatened in instances where outcomes are different than what was hoped for or expected.

To answer the question "Does research evidence matter anyway," Grumbach examined the political context in which diversity programs have evolved. He noted a big upsurge in medical school diversity in the 1960s, related largely to the Civil Rights Movement. Enrollment reached a plateau in late 1970s, in part due to the *University of California Regents v. Bakke* decision, and then picked up in 1990 in part due to AAMC's leadership and commitment. In the mid-1990s, there was downturn in minority enrollment in medical schools when Proposition 9 was passed in California and the *Hopwood v. Texas* decision was handed down.

Grumbach noted that research findings did not influence the "upswings" and "downswings" of minority medical school enrollment. The Civil Rights Movement was not driven by research, he said, rather it was initiated by a shift in public attitudes about segregation that provided the environment for change. He said a similar thing happened at AAMC in the 1980s, when organizational leaders thought it was important for medical schools to diversify their student bodies. At the time, he observed, the evidence supporting diversity in medicine was limited primarily to a study by Keith et al.<sup>14</sup> that showed minority physicians were more likely to serve minority patients.

A number of studies by Cantor<sup>15</sup>, Xu<sup>16</sup>, and others that came out in the mid-1990s added to the evidence regarding patient populations served by minority

*The message, communication strategy, and political context in which research is being conducted, as well as how the evidence is being used, are...important factors.*

Kevin Grumbach, M.D.  
University of California, San Francisco  
School of Medicine

<sup>14</sup> Keith, S.N., Bell, R.M., Swanson, A.G., Williams, A.P. (1985). Effective of affirmative action in medical schools: A study of the class of 1975. *The New England Journal of Medicine*, 313:1519–1525

<sup>15</sup> Cantor, J.C., Miles, E.L., Barker, D.C. (1996). Physician service to the underserved: Implications for affirmative action in medical education. *Inquiry*, 33:167–180

<sup>16</sup> Xu, G., Fields, S.K., Laine, C., Veloski, J.J., Barzansky, B., Martini, C.J. (1997). The relationship between the race/ethnicity of generalist physicians and their care for underserved populations. *American Journal of Public Health*, 87(5): 817–822

**Conceptual Framework for Health Professions Diversity Research, Advocacy, and Investment**

Targeted Populations/Organizations	Goal of Change
URM Students and the Educational Pipeline	Increased Motivation, Preparation and Support for Health Professions Training
Health Professions Schools	Increased Responsiveness to Diversity as an institutional Priority
General Public, Opinion Leaders, and Policymaker	Increased Awareness of and Sensitization to the Case for Diversity

physicians. Then Proposition 209 passed in California despite a solid and growing evidence base detailing the educational benefits of diversity.

To illustrate the relationship between the effect of research and the political context for work on diversity, Grumbach relayed his experience working with HRSA on a study that reviewed pipeline programs in California.<sup>17</sup> “I thought it was fairly safe subject matter,” said Grumbach, “because I thought even opponents of affirmative action would agree with the idea of increasing academic support for, and competitiveness of, minorities to better prepare them for careers in the health professions.” He said the original report contained a brief discussion on the use of race and ethnicity as factors in admissions decisions, which pointed out that without selective admissions, “you emptied out a considerable portion of the enrollment in medical schools and law schools.” After some review and feedback, Grumbach said, HRSA approved a revised draft and it went to the office of the Health and Human Services’ secretary for final review and approval for publication. The secretary’s office was very critical of the report and instructed HRSA not to publish it as an official government report.

Because Grumbach and his colleagues had intellectual property rights over the

report, they were able to publish it with financial support from The California Endowment. “It was a sobering experience about the environment in which science is governed by politics,” said Grumbach. He mentioned that the Bush Administration subsequently enacted substantial reductions to workforce diversity programs. The Health Careers Opportunity Program (HCOP) and the Centers of Excellence (COE) program, both cornerstones of HRSA’s workforce diversity efforts, were significantly scaled back in their funding and scope in fiscal year 2006.

Grumbach highlighted the way in which research findings are interpreted and communicated in a political context. The Office of Management and Budget (OMB), housed within the executive branch of the federal government, conducts evaluations of federal programs to assess their effectiveness. The agency reports its findings on the Web site <[www.expectmore.gov](http://www.expectmore.gov)>. The OMB evaluated all Title VII health professions programs, including HCOP and COE, and determined that the two programs were underperforming with respect to their goals. In its assessment, Grumbach said, OMB cited data from a research study on Title VII grant programs for primary care training conducted by Fryer et al.<sup>18</sup> that seemed to support OMB’s position that the programs were ineffec-

tive. However, he said, in reading the original study it becomes clear that Fryer actually concluded that the programs were meeting their legislative intent.

In comparison, he presented results of an OMB assessment of a federally funded, youth anti-drug media campaign. Based on an independent evaluation, OMB determined that the campaign had not met its goal of changing youth behavior related to drug use. However, rather than declare the program ineffective, OMB in this instance planned to seek alternative evaluation strategies that would demonstrate the campaign’s effectiveness.

Grumbach says these examples underscore the difficult political environment in which diversity researchers are working. However, he emphasized the value of good data and said that when strategically deployed, evidence can have an impact. He highlighted the effectiveness of efforts by Gurin and others to use their research to inform the Supreme Court’s ruling in *Grutter v. Bollinger*.

Grumbach stressed that although evidence is important, it is not sufficient for creating policy change. The message, communication strategy, and political context in which research is being conducted, as well as how the evidence is used, are also important factors. It is critical to tailor the delivery of information based on the audience, he said, be it a medical school dean, the electorate, or policymakers.

In concluding, he urged a synergistic, coordinated effort across the health professions and among those invested in a more diverse health care workforce to package diversity research in a manner that achieves the greatest impact in the policy arena.

<sup>17</sup> Grumbach, K., Coffman, J., Rosenoff, E., Muñoz, C., Gandara, P., Sepulveda, E. (2003). *Strategies for improving the diversity of the health professions*. Woodland Hills, CA: The California Endowment

<sup>18</sup> Fryer, G.E., Koehn, N.N., Phillips, R.L., Green, L.A. (2002). The association of Title IV funding to departments of family medicine with choice of physician specialty and practice location. *Family Medicine Journal*, 34(6):429-435

## The Legal and Business Perspectives on Health Professions Diversity

Mr. Bau outlined several goals for his presentation:

- Frame the legal and political context in which diversity research is being conducted and demonstrate how vital these research efforts are; and
- Share his own observations on the ways in which medical schools can help support and champion research on physician diversity.

Mr. Bau stated that since the *University of California Regents v. Bakke* decision, the Supreme Court has ruled in favor of race-conscious admissions policies based on the rationale that they accrue educational benefits to students. Despite the “brilliant” amicus briefs submitted on behalf of the University of Michigan in the *Grutter v. Bollinger* case, said Bau, the evidence base to support a compelling state interest in affirmative-action programs is still “very thin.”

Given the current composition of the Supreme Court, Bau asserted the importance of considering whether the arguments used previously in support of race-conscious policies will continue to elicit favorable decisions.

In *Grutter v. Bollinger*, said Bau, “Justice O’Connor laid out several other conditions that are required before you get to the analysis of whether race-conscious

admissions can be used.” He added that there are thin data available to prove that admissions decisions based on factors such as socioeconomic status and life experiences would be any less effective in achieving diversity than are those made using the racial and ethnic background of school applicants.

For example, Bau said that current research also does not answer the question of what constitutes a “critical mass.” Further, O’Connor envisioned that “someday” race-conscious admissions policies would no longer be necessary, leaving the definition of a timetable both undetermined and a topic of disagreement between opponents and proponents of race-conscious policies. “What remains unclear is how we’ll know when we’ve gotten there, and there is very little evaluation of this,” said Bau.

On his second point, Bau noted that in the *University of California Regents v. Bakke*, the Supreme Court held that serving the underserved was not a sufficient rationale for diversity in higher education and did not constitute a compelling state interest for the use of race-conscious policies. This argument has remained unchanged in subsequent Court decisions. He said current data are, therefore, being used to support a rationale for diversity that, to date, has not proven persuasive to the Court. At the same time, he acknowledged the importance of continuing to build an evidence base for diversity with the idea that at the right time and in the right court, rationale will prove effective.

Bau said that in *Grutter v. Bollinger*, the U.S. military and Fortune 500 companies were among those who submitted the most influential amicus

*Foundations alone cannot support research on diversity in the health profession because it is difficult and expensive....medical schools could provide strong support for this work in conjunction with their missions as educators.*

Ignatius Bau, J.D.  
California Endowment

briefs in support of race-conscious admissions policies. In his opinion, these present an opportunity to focus more on the business case for diversity in the health professions as a way to ensure and expand support for these efforts. He outlined some possible strategies for asserting the business case for diversity more forcefully.

**Accreditation.** The National Committee for Quality Assurance asks health plans to demonstrate their physician networks match and effectively serve their patient populations, and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is now requiring the collection of data on patients' language and communication needs. Requiring data on doctor–patient concordance may soon follow. The case could be made that concordance in this sense is an accreditation issue, and an indicator of a health plan's ability to provide high-quality care.

**Market Considerations.** Since health plans and providers focus on earnings, it could be suggested to them that the nation's growing minority populations represent a market opportunity in health care. Along these lines, it could be argued that health plans with racially and ethnically diverse physicians in their networks will be better able to attract and retain this growing customer segment. This position could be supported by research findings, such as those produced by Dr. Cooper, demonstrating that racial and ethnic concordance increases care satisfaction among persons from minority groups.

**Mobilizing Minority Communities.** While consumer-directed care is an emerging force in health care, little

attention has been focused on the needs of minority patients and health care consumers. Insurance companies will increasingly use patient satisfaction ratings of physicians to determine reimbursement policies. Mobilizing minority populations around this issue to ask for greater racial and ethnic concordance among available providers could be an effective long-term, “demand-side” strategy to increase physician diversity.

**Improving Quality of Care.** The Institute of Medicine (IOM) has outlined six domains of quality care, one of which is patient safety. JCAHO has documented that the root cause of medical errors is miscommunication between physicians and patients. Racial and ethnic concordance leads to higher patient satisfaction among minority patients, and promotes language access by limited-English-proficient patients—both factors that contribute to effective physician–patient communication. Other domains, such as patient-centered and equitable care, can also be addressed using IOM's quality indicators. The IOM domains provide a framework for thinking about the role of diversity in improving the quality of care for patients from minority groups.

In concluding, Bau stressed that foundations alone cannot support research on diversity in the health professions because it is difficult and expensive. The other major funding source is the federal government, but the limitations there have been well articulated. Bau suggested that medical schools could provide strong support for this work in conjunction with their missions as educators. He asked them to think about how questions of “critical

mass” and diversity have an impact on their admissions policies, faculty recruitment, curricula evaluations, and other issues that help them assess the quality and competitiveness of their medical education programs.

He urged medical schools to provide grants for these efforts and funding to faculty interested in studying these research topics. As quality becomes more important, explained Bau, medical schools associated with hospitals and clinics can push for more diversity, both in the research and practice realms, as an issue related to quality improvement and quality of care.

In addition, he said, many medical schools have a strong community service mission, and there may be ways to form partnerships with organizations that can help mobilize patients to push for greater diversity in the health care workforce.

## Facilitated Discussion

A question-and-answer session followed the panel presentations and was facilitated by Dr. Grumbach. One participant asked about the level of diversity in medicine compared with other professional fields as a way of gauging progress. Grumbach stated that the nursing and pharmacy fields are more diverse than is the medical field, for example, whereas the dentistry and veterinary fields are less so.

The increasing diversity among the nation's undergraduate students was posited as a way to promote greater diversity in graduate programs, although it was acknowledged that the cost of attending colleges and universities is becoming prohibitive to those from low socioeconomic status backgrounds. Bau talked about the potential of post-baccalaureate programs to boost the number of racial and ethnic minority students who go on to graduate study in the health professions, but added that making the pipeline more effective is a longer-term challenge.

It was also noted that experimental studies on concordance are difficult to conduct because some patients have strong preferences for providers of the same race and ethnicity, making it difficult for researchers to establish control groups. Dr. Cooper said she studies independent outcomes of race concordance due to the higher likelihood of being able to measure them.

The information from this session and the discussion period that followed has formed the basis for additional work by the Division of Diversity Policy and Programs. The next Diversity Research Forum will be conducted in conjunction with the AAMC's 2007 Annual Meeting in Washington, DC.



# Appendix I

## Selected Bibliography

- Bach, P.B., Pham, H.H., Schrag, D., Tate, R.C., Hargaves, J.L. (2004). Primary care physicians who treat blacks and whites. *New England Journal of Medicine*, 351:575–584
- Cantor, J.C., Miles, E.L., Barker, D.C. (1996). Physician service to the underserved: Implications for affirmative action in medical education. *Inquiry*, 33:167–180
- Cooper, L.A., Roter, D.L., Johnson, R.L., Ford, D.E., Steinwachs, D.M., Powe, N.R. (2003). Patient-centered communication, ratings of care and concordance of patient and physician race. *Annals of Internal Medicine*, 139:907–915
- Cooper-Patrick, L., Gallo, J.J., Gonzales, J.J., Vu, H.T., Nelson, C., Powe, N.R., Ford, D.E. (1999). Race, gender, and partnership in the patient-physician relationship. *Journal of the American Medical Association*, 282:583–589
- Fryer, G.E., Koehn, N.N., Phillips, R.L., Green, L.A. (2002). The association of Title IV funding to departments of family medicine with choice of physician specialty and practice location. *Family Medicine Journal*, 34:429–435
- Grumbach, K., Coffman, J., Rosenoff, E., Muñoz, C., Gandara, P., Sepulveda, E. (2003). *Strategies for Improving the Diversity of the Health Professions*. Woodland Hills, CA: The California Endowment
- Grumbach K., Vranizan K., Bindman A.B. (1997). Physician supply and access to care in urban communities. *Health Affairs*, 16(1):71-86
- Keith, S.N., Bell, R.M., Swanson, A.G., Williams, A.P. (1985). Effective of affirmative action in medical schools: A study of the class of 1975. *New England Journal of Medicine*, 313:1519–1525
- Komaromy, M., Grumbach, K., Drake, M., et al. (1996). The role of black and Hispanic physicians in providing health care for underserved populations. *New England Journal of Medicine*, 334:1305–1310
- Laveist, T.A., Nuru-Jeter, A. (2002). Is doctor-patient concordance associated with greater satisfaction with care? *Journal of Health and Social Behavior*, 43:296-306
- Lin, X., Guan, J. (2002). Patient satisfaction and referral intention: Effect of patient-physician match on ethnic origin and cultural similarity. *Health Marketing Quarterly*, 20:49-68
- Malat, J. (2001). Social distance and patients' rating of healthcare providers. *Journal of Health and Social Behavior*, 42(4):360-372
- Mouton, C.P., Harris, S., Rovi, S., Solorzano, P., Johnson, M.S. (1997). Barriers to black women's participation in cancer clinical trials. *Journal of the National Medical Association*, 89:721–727

- Reese, D.J., Ahern, R.E., Nair, S., O’Faire, J.D., Warren, C. (1999). Hospice access and use by African Americans: Addressing cultural and institutional barriers through participatory action research. *Social Work*, 44:549–559
- Saha, S., Komaromy, M., Koepsell, T.D., Bindman, A.B. (1999) Patient-physician racial concordance and the perceived quality and use of health care. *Archives of Internal Medicine*, 159:2192–2199
- Saha, S., Taggard, S.H., Komaromy, M., Bindman, A.B. (2000). Do patients choose physicians of their own race? *Health Affairs*, 19(4):76-83
- Saha, S., Shipman, S. (2006). *Diversity in the Health Professions: A Review of the Evidence*. Rockville, MD: Health Resources and Services Administration
- Stinson M.H., Thurston N.K. (2002). Racial matching among African-American and Hispanic physicians and patients. *Journal of Human Resources*, 37:410-428
- Tarn, D.M., Meredith, L.S., Singer-Kagawa, M., et al. (2005). Trust in one’s physician: The role of ethnic match, autonomy, acculturation, and religiosity among Japanese and Japanese Americans. *Annals of Family Medicine*, 3:339–347
- Whitla, D.K., Orfield, G., Silen, W. Teperow, C., Howard, C., Reede, J. (2003). Educational benefits of diversity in medical school: A survey of students. *Academic Medicine*, 78:460–466
- Xu, G. Fields, L.K., Veloski, J.J., Barzansky, B., Martini, C.J. (1997). The relationship between the race/ethnicity of generalist physicians and their care for underserved populations. *American Journal of Public Health*, 87:817–822

## Appendix II

### List of Funding Resources for Diversity Research

#### Foundations and Professional Associations

Aetna Foundation  
[www.aetna.com/foundation/grant\\_programs.htm#diversity](http://www.aetna.com/foundation/grant_programs.htm#diversity)

Bill and Melinda Gates Foundation  
[www.gatesfoundation.org/default.htm](http://www.gatesfoundation.org/default.htm)

California Endowment  
[www.calendow.org/program\\_areas/index.stm](http://www.calendow.org/program_areas/index.stm)

Josiah Macy, Jr. Foundation  
[www.josiahmacyfoundation.org](http://www.josiahmacyfoundation.org)

National Board of Medical Examiners  
(Edward J. Stemmler, M.D., Medical Education Research Fund)  
[www.nbme.org/research/stemmler/index.html](http://www.nbme.org/research/stemmler/index.html)

Pew Charitable Trusts  
[www.pewtrusts.com/ideas/area\\_index.cfm?area=2](http://www.pewtrusts.com/ideas/area_index.cfm?area=2)

Robert Wood Johnson Foundation  
[www.rwjf.org/portfolios/index.jsp](http://www.rwjf.org/portfolios/index.jsp)

W.K. Kellogg Foundation  
[www.wkkf.org](http://www.wkkf.org)

The Kaiser Family Foundation  
[www.kff.org](http://www.kff.org)

#### Federal Agencies

Agency for Health Care Research and Quality  
[www.ahrq.gov](http://www.ahrq.gov)

Centers for Disease Control and Prevention  
[www.cdc.gov](http://www.cdc.gov)

Health Resources and Services Administration  
(Bureau of Health Professions)  
[www.bhpr.hrsa.gov](http://www.bhpr.hrsa.gov)

National Center on Minority Health and Health Disparities,  
National Institutes of Health  
<http://ncmhd.nih.gov/>

## Appendix III

### Potential Venues for Publishing Research on Diversity

*Academic Medicine*

[www.academicmedicine.org/](http://www.academicmedicine.org/)

*American Educational Research Journal*

[www.jstor.org/journals/00028312.html](http://www.jstor.org/journals/00028312.html)

*Anthropology and Education*

[www.aaanet.org/cae/AEQ.html](http://www.aaanet.org/cae/AEQ.html)

*Chronicle of Higher Education*

[www.chronicle.com](http://www.chronicle.com)

Diversity Web (A site of the Association of American Colleges and Universities)

[www.diversityweb.org](http://www.diversityweb.org)

*Educational Evaluation and Policy Analysis*

[www.jstor.org/journals/01623737.html](http://www.jstor.org/journals/01623737.html)

*Harvard Educational Review*

[www.gse.harvard.edu/~hepg/her.html](http://www.gse.harvard.edu/~hepg/her.html)

*Health Affairs*

[www.healthaffairs.org](http://www.healthaffairs.org)

*Journal of College Student Development*

[www.jcsdonline.org/](http://www.jcsdonline.org/)

*Research in Higher Education*

[www.airweb.org/page.asp?page=89](http://www.airweb.org/page.asp?page=89)

*The Journal of the American Medical Association*

[www.jama.ama-assn.org](http://www.jama.ama-assn.org)

# Appendix IV

## Agenda

### AAMC Annual Meeting, 2006 Diversity Research Forum

#### *Exploring Diversity in the Physician Workforce: Benefits, Challenges, and Future Directions*

#### Agenda

Tuesday, October 31, 2006

10:00 a.m. – 12:00 p.m.

#### Welcome and Introductions

**Charles Terrell, Ed.D.**

Vice President

Division of Diversity Policy and Programs  
Association of American Medical Colleges

**Laura Castillo-Page, Ph.D.**

Director of Research

Division of Diversity Policy and Programs  
Association of American Medical Colleges

#### Panelist Presentations:

The Rationale for Diversity  
in the Health Professions:  
A Review of the Evidence

**Somnath Saha, M.D., M.P.H.**

Associate Professor of Medicine, Public Health, and  
Preventive Medicine, and Medical Informatics and  
Clinical Epidemiology  
Portland VA Medical Center and Oregon Health and  
Science University

Linking Patient–Physician  
Racial/Ethnic Concordance to  
Healthcare Quality and Patient  
Outcomes

**Lisa A. Cooper, M.D., M.P.H.**

Associate Professor of Medicine, Epidemiology, and  
Health Behavior and Society  
Johns Hopkins University School of Medicine and  
Bloomberg School of Public Health

Evidence-Based, or Evidence-  
Debased, Policy? Translating  
Research Into Policy Change in  
Health Professions Diversity  
Facilitated Discussion

**Kevin Grumbach, M.D.**

Professor and Chair of Family and  
Community Medicine  
Director of Center for California Health  
Workforce Studies  
University of California, San Francisco  
School of Medicine

The Legal and Business  
Perspectives on Health  
Professions Diversity

**Ignatius Bau, J.D.**

Director of Culturally Competent Health Systems  
The California Endowment

#### Facilitated Discussion

**Kevin Grumbach, M.D.**

# Appendix V

## Session Description

### AAMC Annual Meeting, 2006 Diversity Research Forum

#### *Exploring Diversity in the Physician Workforce: Benefits, Challenges, and Future Directions*

#### Session Description

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The goal of this year's Diversity Research Forum is to provide an overview of research on physician diversity and to underscore the role diversity plays in the physician workforce. Research studies, methodological issues, and policy implications will be discussed.

The growth of health care disparities and the AAMC-projected physician shortage present a concern for the medical education community. Increasing diversity in medical schools and in the physician workforce, along with ensuring all physicians are adequately trained in cultural competence, are key factors for addressing the health care disparities facing this nation. Numerous studies have shown that physician diversity contributes to increased access to health care services for the underserved, satisfaction in patient care, and expanded options for patient care.<sup>1-11</sup>

Research shows that diversity in the physician workforce makes access to health care services more readily available for patients of low socioeconomic status, patients with Medicaid, and those who are uninsured.<sup>1,2</sup> For example, racial and ethnic minority and female physicians are more likely to treat the underserved.<sup>1,2,3</sup> Also, racial and ethnic minority physicians tend to locate their practices in communities that have a higher proportion of racial and ethnic minorities, and disproportionately affected by health disparities.

Other benefits derived from diversity have been related to patient choice and satisfaction with the medical encounter. For all racial and ethnic minority groups, when patients have the option, they are more likely to choose a physician of their own racial and ethnic background.<sup>4-8</sup> When there is this match between the patient's and physician's racial and ethnic backgrounds, studies show that patients reported higher ratings of positive affect,<sup>9</sup> characterized encounters with higher levels of trust,<sup>5</sup> and respect,<sup>11</sup> and patients were more likely to recommend their physicians to others.<sup>10</sup> Process-oriented studies have also demonstrated that race-concordant visits were longer, by about 2.2 minutes.<sup>9</sup>

To address these issues, researchers will offer brief presentations that explore the following questions, among others:

- What does the research tell us about the derived benefits of diversity in the physician workforce? What research is still needed?
- What are the challenges to conducting research in this area? What innovative data collection methodologies have been used?
- How do we link diversity in the physician workforce to the reduction of health care disparities?
- What role does research and evidence play in policymaking on physician diversity?

### Session Description References

1. Komaromy M., Grumbach K., Drake M., et al. (1996). The role of black and Hispanic physicians in providing health care for underserved populations. *New England Journal of Medicine*, 334(2):1305-1310
2. Grumbach K., Vranizan K., Bindman A.B. (1997). Physician supply and access to care in urban communities. *Health Affairs*, 16(1):71-86
3. Stinson M.H., Thurston N.K. (2002). Racial matching among African-American and Hispanic physicians and patients. *Journal of Human Resources*, 37(2):410-428
4. Cooper-Patrick L., Gallo J.J., Gonzales J.J., Vu, H.T., Nelson, C., Powe, N.R., Ford, D.E. (1999). Race, gender and partnership in the patient-physician relationship. *Journal of the American Medical Association*, 282(6):583-589
5. Tarn, D.M., Meredith, L.S., Singer-Kagawa, M., et al. (2005). Trust in one's physician: The role of ethnic match, autonomy, acculturation, and religiosity among Japanese and Japanese Americans. *Annals of Family Medicine*, 3(4):339-347
6. Laveist, T.A., Nuru-Jeter, A. (2002). Is doctor-patient concordance associated with greater satisfaction with care? *Journal of Health and Social Behavior*, 43(3):296-306
7. Saha, S., Taggard, S.H., Komaromy, M., Bindman, A.B. (2000). Do patients choose physicians of their own race? *Health Affairs*, 19(4):76-83
8. Bach, P.B., Pham, H.H., Schrag, D., Tate, R.C., Hargaves, J.L. (2004). Primary care physicians who treat blacks and whites. *New England Journal of Medicine*, 351(6):575-584
9. Cooper, L.A., Roter, D.L., Johnson, R.L., Ford, D.E., Steinwachs, D.M., Powe, N.R. (2003). Patient-centered communication, ratings of care and concordance of patient and physician race. *Annals of Internal Medicine*, 139(11):907-915
10. Lin, X., Guan, J. (2002). Patient satisfaction and referral intention: Effect of patient-physician match on ethnic origin and cultural similarity. *Health Marketing Quarterly*, 20(2):49-68
11. Malat, J. (2001). Social distance and patients' rating of healthcare providers. *Journal of Health and Social Behavior*, 42(4):360-372





