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Addressing Racial Disparities in Health Care:

A Targeted Action Plan for Academic Medical Centers

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Foreword

Despite the excellence of medical education at our nation's medical schools, health and health care disparities persist among populations in the United States, including racial and ethnic minorities; people living in rural communities; the poor; and lesbians, gays, transgender people, among others. These disparities are well documented in the literature (*Unequal Treatment*, 2003), and their causes are myriad. In 2007, the AAMC (Association of American Medical Colleges) launched a strategic thinking and positioning initiative that included among its goals and objectives that staff consider how the Association could assume a leadership role in addressing health care disparities. This report, *Addressing Racial Disparities in Health Care: A Targeted Action Plan for Academic Medical Centers*, is an important advance in our work on that objective.

Since the late 1960's the AAMC has committed leadership and resources to supporting diversity at our nation's medical schools and teaching hospitals. Our commitment to equal access to the profession for qualified and talented students from all backgrounds is grounded in five principles

- Achieving justice and equity,
- Ensuring access to health care,
- Providing culturally competent care,
- Setting an appropriately comprehensive research agenda, and
- Securing the talent needed to lead the health care enterprise through the 21st century.

These principles resonate in our efforts to address health care disparities by supporting innovative and sustainable efforts at our constituents' institutions to ensure all patients can equitably access the highest quality care.

We are deeply grateful for the work of Thomas Sequist, MD, MPH on this report. We believe his research, and that of future authors in this series, will inform the academic medicine community about the potential for medical schools, teaching hospitals, and academic medical centers to address health care disparities in meaningful ways. The recommendations within this report should prompt faculty and leaders to consider simple innovations that can improve the health of those in their communities and the nation.

For more information on this publication and the AAMC's leadership in addressing health care disparities, contact Diversity Policy and Programs, AAMC, 202-828-0570.

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Executive Summary

Well-documented differences in access and quality of health care based on race and ethnicity—called health care disparities—exist across many health care settings and health conditions in the United States. This report focuses on how academic health centers in the United States should commit to the goal of eliminating racial disparities in health care as part of their mission to preparing future generations of physicians to provide the highest quality care for the U.S. population.

The author has conducted a broad literature search on disparities related to race and ethnicity, although health care disparities based on many patient sociodemographic characteristics have been well documented. Medline search terms included "health care disparities," "racial disparities," "quality improvement," and "cultural competency," and additional references were identified using snowball sampling.

A Targeted Action Plan for Academic Health Centers
Disparities based on location of care, often termed between-provider disparities, are the result of differences in care patterns across providers (hospitals, health plans, or physicians). Disparities related to individual care patterns among patients treated by the same provider (hospitals, health plans, or physicians) are called within-provider disparities.

Targeting Between-Provider Disparities in Care
Academic medical centers can play an important role in addressing disparities in care attributable to location of care. These activities can take the form of addressing the lack of clinical resources in minority communities, particularly clinician shortages; addressing the need for further knowledge regarding segregation of care and its contribution to health care disparities; and building partnerships with minority communities to increase knowledge regarding local mediators of disparities and develop sustainable solutions. The author's review of the literature resulted in three recommendations for action to address between-provider disparities in care:

- **Recommendation 1: Increase the Racial and Ethnic Diversity of the U.S. Physician Workforce**
  Strong evidence supports the premise that increasing the racial and ethnic diversity of the physician workforce will increase the physician workforce in minority communities. In addition, a diverse medical student body enhances medical education for all students. Academic medical centers can expand their commitment to recruitment and enrichment programs to support the development of a diverse physician workforce.

- **Recommendation 2: Increase Medical Trainees' Exposure to Underserved Settings**
  Data support that training experience influences medical students' specialty choices and practice setting. The supply of qualified physicians in underserved communities can be increased by exposing medical students and residents to these settings during their training.

- **Recommendation 3: Increase Knowledge Regarding Segregation of Care and Disparities**
  More information is needed regarding the underlying mediators of location-based factors affecting health care disparities, as well as the development of programs to address such mediators. Academic health centers can play an important role in promoting research to further understand the characteristics of institutions that serve predominantly minority communities. This research should focus on why there is variation in quality across institutions, and why minority-serving providers may underperform relative to other providers.

Targeting Within-Provider Disparities in Care
Within-provider disparities in care represent perhaps a more troubling issue to health care providers, as it focuses attention on the provision of unequal care within the local environment. Academic medical centers can address these locally mediated disparities by increasing physician awareness of racial disparities in health care, providing tools to improve the quality of clinical interactions and delivery of care for minority groups, and supporting research to develop new strategies to address health care disparities. The author's review of the literature resulted in three recommendations for action to address between-provider disparities in care:

- **Recommendation 4: Increase Physicians' Awareness**
  A key finding is that a majority of physicians do not recognize the importance of patient's race or ethnicity in the delivery of effective health care, particularly among patients they personally treat. Improving physicians' awareness of racial disparities in health care and providing tools to address these disparities can take several forms, including enrolling a diverse student body, exposing students to a diverse training setting, and providing educational curricula.
- **Recommendation 5: Improve the Quality of Clinical Interactions**
  The literature suggests that improving the quality of clinical interactions can be achieved through diversity building, which will result in an increase in race-concordant patient—physician interactions, and skill-building efforts, such as increased exposure to working in diverse settings and cultural competence training.
- **Recommendation 6: Increase Knowledge Regarding Improving Clinical Interactions**
  Academic medical centers should play a lead role in evaluating the utility of programs designed to improve the quality of clinical interactions and health care delivery for racial and ethnic minority patients.

Importance of Leadership
Leadership in the field of health care disparities is necessary to address both between-provider and within-provider differences. Academic medical centers are well poised to demonstrate leadership in this field based on their combined role in training of future physicians, provision of clinical care, and conduct of necessary research.

- **Recommendation 7: Lead in the Effort to Eliminate Disparities**
  As opinion leaders, increasing the importance of their commitment to addressing health care disparities cannot be overstated. They can lead by example through the recruitment and enrollment of diverse students, residents, and faculty. Academic medical centers can also lead collaborations to address health care disparities between all members of the health care system, including patients, community organizations, health plans, physician groups, employers/purchasers, and funding agencies.

Addressing Racial Disparities in Health Care: A Targeted Action Plan for Academic Medical Centers

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AAMC

Differences in access and quality of health care based on race and ethnicity are well documented. These differences in care—called health care disparities—exist across many health care settings and health conditions in the United States. Prior research has linked disparities in health care to broad social issues including poverty and lack of adequate health insurance, as well as to features of the U.S. health care system itself. This report focuses on how academic health centers (i.e., medical schools, teaching hospitals and health systems, etc.) in the United States can address the role of the health care delivery system as a contributor *and solution* to racial disparities in health care.

Academic medical centers should commit to the goal of eliminating racial disparities in health care by virtue of their mission to prepare future generations of physicians to provide the highest quality care possible to the U.S. population. This mission cannot be realized without addressing the inequities within our medical system. As influential opinion leaders, academic medical centers have an important role in directing policy discussions surrounding research, education, and health care delivery focused on minority populations.

Methodology

The data, conclusions, and recommendations in this report are based on a broad search of the medical literature related to health care disparities. Although health care disparities based on many patient sociodemographics have been well documented, including gender, income, and sexual orientation, this literature review and report focus on disparities related to race and ethnicity. The sources include publications of the Association of American Medical Colleges and the Institute of Medicine, as well as Medline searches using the terms "health care disparities," "racial disparities," "quality improvement," and "cultural competency," with subsequent identification of additional references using the snowball sampling method.

Racial Disparities – Health Status and Health Care Delivery

Racial differences in health status in the United States have persisted over the last 50 years. For example, in 1950, there was a nine-year difference in life expectancy between whites (69.1 years) and blacks (60.8 years). While this gap has narrowed over time, there was still a five-year difference in 2005 (78.3 years for whites versus 73.2 years for blacks).[1] American Indians/Alaska Natives experience a similar disparity in life expectancy, with a five-year difference reported in 2001 (76.9 years for whites versus 72.3 years for American Indians).[2] Race-based differences in health status begin early in life, with higher infant mortality rates among blacks (13.3 per 1,000 live births) and American Indians (8.1 per 1,000 live births) compared with whites (5.7 per 1,000 live births).

It is important to understand that these dramatic differences in health status occur within a broader social context that involves race-based differences in income, employment, education, and access to health insurance.[3] One-third of American Indian/ Alaska Natives and Hispanics lack health insurance, compared with 17% of whites,[1,4] severely limiting access to the health care system. It is clear that effectively addressing disparities in overall health will involve the implementation of broad-based programs to overcome these barriers faced by racial and ethnic minority populations in all aspects of their life, both internal and external to the health care system.[3,5]

There is a substantial literature documenting racial disparities in health care delivery. Before reviewing this literature, it is important to distinguish racial *disparities* in health care from racial *differences* in health care.[6] Some racial differences in care may be appropriate, particularly those that reflect differences in patient preferences or clinical appropriateness. Racial disparities in health care are, therefore, best defined as any differences by patients' race not related to patient preferences or clinical appropriateness (see Figure 1).[7] These latter factors such as preferences and clinical indications do not often predominate, and racial disparities remain pervasive after accounting for such effects.[8-10]

The importance of racial disparities in health care is based on their contributions to differences in patients' experiences of care,[11] disease management and subsequent complications,[12] and mortality.[13] The literature demonstrates that racial disparities in health care are observed across all settings, including emergency departments, hospitals, health plans, and community-based clinics.[7] These disparities involve a range of conditions including the use of renal transplantation[10] and coronary revascularization,[14] the management of pain syndromes,[15] and primary care-based measures of preventive health and chronic disease.[16] Members of the public are aware of these inappropriate differences in health care, and members of racial and ethnic minority groups often evaluate their health care more negatively than do whites, express distrust of the system, and feel that their race plays an important role in their not receiving the highest quality care possible.[17-19]

Identifying Mediators of Racial Disparities in Health Care

Emphasis has often been placed on elements of the local health care environment that might contribute to racial disparities in health care, in particular clinicians' treatment patterns. However, an increasing body of evidence suggests an additional mechanism is contributing to health care disparities – the geographically and racially segregated provision of health care – and that such segregation leads to inequitable care due to differential access to resources and wide variation in quality of care. A more refined model of racial disparities in care would therefore characterize those disparities related to location of care ("where you go") versus those related to individual care patterns ("who you are"). Because disparities based on location of care are the result of differences in care patterns across providers (hospitals, health plans, or physicians), they are often described as "between-provider" disparities. In contrast, disparities related to individual care patterns occur among patients treated by the same provider (hospitals, health plans, or physicians), and thus are often called "within-provider" disparities (see Figure 2).

Between-Provider Disparities

The importance of between-provider disparities is based on two central concepts. First, care for minority patients tends to be clustered among a relatively small proportion of hospitals, health plans, and clinicians across the country. Second, the quality of care is relatively lower within these institutions that disproportionately serve minority communities. These two factors combine to produce disparities in quality of care, based solely on where minority patients seek out and receive health care, despite the fact that minority and white patients may receive equal care within a particular hospital or clinic.

This hypothesis is supported by a growing literature. In the Medicare program, just 22 percent of primary care physicians account for 80 percent of office visits for black patients; highlighting just how segregated care for minority patients currently is within the U.S. health care system.[20] Physicians caring for black and Hispanic patients are more likely than are other physicians to report difficulties providing high quality care, perhaps due to language or cultural barriers, or to difficulties in accessing subspecialty care, diagnostic imaging, and hospital admission.[21,22]

In addition to physicians' reports, there is substantial data regarding actual clinical care patterns among providers caring for minority patients. There are significant racial disparities in ambulatory quality of care among health plans participating in the Medicare managed care program.[16] However, health plans with the highest proportionate enrollment of black patients were generally the lowest performing for measures such as breast cancer screening, a phenomenon that could ultimately explain a large proportion of observed racial disparities in this measure of quality. An analysis of Medicare beneficiaries also found that up to 80 percent of nationwide racial disparities in knee arthroplasty could be explained by regional variation in care (e.g., although white and black patients underwent knee arthroplasty at nearly equivalent rates within a given hospital region, black patients were more likely to receive care in hospital regions where knee arthroplasty was less frequently used).[22]

Many subsequent analyses have followed these earlier studies, all documenting that geographic variation in care can explain racial disparities,[23-30] including those for ambulatory quality of care,[24,31] patient's experiences of care,[32] acute myocardial infarction care,[25-28] surgical care,[30] cancer care,[29] end of life care,[33] and nursing home care.[34] Based on these data, there have been increasing calls to focus quality improvement programs on those elements of the health care system that predominantly serve minority communities as an important strategy to eliminate disparities.[35,36]

Within-Provider Disparities

Despite the growing evidence base regarding the importance of location of care, there is strong evidence to support the fact that racial disparities in quality of care persist among patients receiving care from the same provider (hospital, health plan, or physician). While all of the previously cited studies document the important role of location of care, none of these analyses were able to account completely for all disparities based on location of care; and some analyses have demonstrated little effect of variation. For example, while care for minorities is remarkably concentrated among a small number of U.S. hospitals, the effect of hospital-to-hospital variation as an explanatory factor for racial differences in quality is marginal.[37,38] Similarly, racial differences in patients' reports of care experiences with health plans are largely due to differences among patients covered by the same health plan as opposed to variation among plans.[39] At the level of individual physicians, variation in quality of care between physicians explains only a small amount of existing racial disparities in diabetes care; instead, most disparities are attributable to differences in care among patients from different racial backgrounds being treated by the same physician.[40]

These within-provider disparities in care may be related to a complex interaction of physician- and patient-based factors. The role of individual physicians and their decision-making processes has received a great deal of attention in models of health care disparities. Physicians may harbor subconscious biases or stereotypes that may unintentionally affect their treatment recommendations for minority patients. These biases may play a more prominent role under the high-pressure, time-constrained environments created by our health care system. In addition, physicians may fail to recognize the cultural context in which health care encounters take place and, therefore, attempt to apply a "one size fits all" strategy to their patient panels. Such care, while equal on its face, ultimately produces unequal care as it fails to meet the needs of the individual patient.

There is ample evidence of racial disparities in physician treatment recommendations. Among patients with end-stage renal disease, physicians are less likely to refer black patients for renal transplantation compared with white patients, even after accounting for racial differences in clinical appropriateness and patient preference.[8,10] Similarly, differences in the use of coronary revascularization among patients of difference races are not explained by racial variations in clinical appropriateness,[9] raising the possibility of a racial disparity arising from inherent bias in physicians' referral patterns. Indeed, there is evidence from standardized patients that patients' race and gender may influence physicians' decisions to refer for evaluation of potential coronary artery disease.[42] In the emergency department setting, there are race-based differences in the prescribing of pain medications when indicated.[43] Finally, in the primary care setting, there are race-based differences in the prescribing of effective medications for diabetes management.[40,44]

In addition to disparities in treatment patterns that may be attributable to individual physician's decisions, there is a substantial body of evidence highlighting racial disparities in the quality of clinical interactions with physicians. These disparities are important independent outcomes because they reflect the physicians' abilities (or inabilities) to communicate effectively and foster trust, core elements of the patient–doctor relationship that is at the heart of medical training and health care delivery. Unfortunately, racial and ethnic minority patients are more likely to report experiences of discrimination and ultimately a lack of trust in physicians and the health care system.[11,45,46] Similarly, minority patients are more likely to report decreased satisfaction with health services, which is mediated by the quality of their interactions with health care providers.[47]

These differences in patients' experiences with their physicians and the health care system can have important implications regarding health care outcomes. Improving patients' experiences of care is linked to important measures of health care including treatment adherence and health status.[48] Therefore, addressing these inappropriate race-based differences in clinical experiences with physicians may represent an important strategy to reduce health care disparities.[49]

A Targeted Action Plan for Academic Health Centers

Although the eradication of health care disparities will require relentless attention to a complex set of social, economic, and race-based issues in our country, the above discussion highlights a simple, but promising strategy for academic health centers seeking to implement efforts to reduce racial and ethnic disparities in health care. Figure 3 illustrates this strategy, which emphasizes the importance of academic health centers exploring and implementing solutions according to whether they are focused on addressing health care disparities driven by location of care (between-provider disparities) versus those disparities being driven at the level of individual patient care patterns (within-provider disparities).

Targeting Between-Provider Disparities in Care
Academic medical centers can play an important role in addressing disparities in care attributable to location of care. These activities can take the form of 1) addressing the lack of clinical resources in minority communities, particularly clinician shortages, 2) addressing the need for further knowledge regarding segregation of care and its contribution to health care disparities, and 3) building partnerships with minority communities to increase knowledge regarding local mediators of disparities and develop sustainable solutions.

The importance of increasing the availability of clinicians in minority communities is highlighted by prior studies demonstrating a striking lack of physicians in settings where minority patients receive care.[20,21,50] In some more rural and isolated clinical settings such as the Indian Health Service, which provides care for the majority of the American Indian/Alaska Native population, the physician vacancy rate approaches nearly 20 percent.[51] Primary care physicians practicing in underserved settings report that the complexity of conditions they are expected to manage without specialist consultation is often greater than they are comfortable with.[21] As a result of such resource shortages, minority populations ultimately experience decreased access to health care,[52] and these resulting delays in care can have an important impact on health outcomes.[53,54]

Two lines of evidence highlight potential mechanisms through which academic medical centers can address the lack of physician supply in minority communities. First, programs to increase the racial diversity of the physician workforce can produce an increased supply of physicians in rural and underserved settings. Second, exposure to underserved settings as an integral part of undergraduate and graduate medical training can lead to increased service in these communities in the future.

Recommendation 1: Increase the racial and ethnic diversity of the U.S. physician workforce. There is a strong evidence base that increasing the racial and ethnic diversity among the students pursuing careers in medicine will contribute to an increase in the physician workforce in racial and ethnic minority communities. Both medical students and resident physicians from underrepresented minority groups report plans to work in underserved settings more frequently than white trainees.[55,56] These survey-based findings are further substantiated by actual clinical practice patterns. Communities with a high proportion of both black and Hispanic residents in California are four times as likely to report a physician shortage, and black and Hispanic physicians are much more likely to establish their practice in these communities.[50] Among Medicare beneficiaries, nearly one-quarter of visits by black patients were with black physicians, while less than 1 percent of visits by white patients were with black physicians,[20] highlighting the increased role of black physicians in caring for minority patients. Multiple other studies have found that racial and ethnic minority physicians care for a disproportionately large number of minority patients.[57,58]

There are additional tangible benefits to increasing the racial and ethnic diversity of medical student populations. Medical students value diversity in their class as an important component of their education.[59] In addition, increased diversity of medical student classes is associated with white medical students being more likely to report they are prepared to care for minority populations and to endorse equitable care.[55]

Based on this evidence, academic medical centers should redouble their efforts to increase the racial diversity of the physician workforce. These efforts will ensure the delivery of care where it otherwise might not exist in minority communities, or might exist at a much lower level. There were certainly gains in the racial diversity of the physician workforce as a result of targeted efforts in the past (see Figure 4).[60,61] However, the composition of the physician workforce still fails to reflect the composition of the general population. In 2004, blacks, Hispanics, and Native Americans comprised 26 percent of the U.S. population, however students from these groups represented only 16.4 percent of U.S. medical school graduates in 2008,[62] 7.3 percent of medical school faculty in 2007,[63] and roughly 6.4 percent of U.S. physicians in 2004.[64] In July 2009, the Liaison Committee on Medical Education (LCME) institutional standard on diversity (IS-16) and revised standard on "pipeline" programs (MS-8) went into effect for accreditation of medical education programs.[65] These standards, and the growing evidence that the benefits of diversity in medical education accrue broadly to all, should move academic medical centers to increase their commitment to fostering the development of a racially diverse physician workforce that can meet the needs of the entire U.S. population.

In particular, pipeline or 'enrichment' programs serve a vital role in exposing minority students to careers they might not have otherwise considered. Even among those qualified to

enter medical school, many minority students may not pursue careers in medicine due to a combination of barriers including a lack of experience, self-confidence, and mentoring.[66] Enrichment programs address these barriers to career advancement by providing minority students with the confidence, skill set, and mentoring needed to navigate the complex process of pursuing a career in medicine.[66-68]

Academic medical centers should continue to take an active role in developing these programs, encouraging their development via interested faculty members, and providing sustained financial support to ensure their long-term viability. Promising enrichment programs should receive internal funding that is incorporated into the institutional budget, relieving the year-to-year urgency to receive external funding that can hinder long term program development. In addition, leadership of such programs by dedicated faculty should be rewarded and recognized as legitimate contributions to promotion and tenure evaluations.

Enhancing medical school recruiting and admissions processes is also a critical component of increasing the racial diversity of the physician workforce. Typical recruitment strategies may target large cities and universities, however many talented underrepresented minority students may be left out of such recruitment strategies. Many Native-American medical students report not having participated in enrichment programs,[69] potentially due to a deficiency in recruitment strategies.

The successful tailoring of admissions processes is best accomplished by encouraging a diversity of viewpoints in what constitutes a promising applicant. Less than 10 percent of medical school admissions committees are composed of physicians from underrepresented minority groups.[70] A critical component of increasing diversity among students admitted to medical schools is increasing efforts to ensure an adequate diversity of the faculty (and others) involved in selecting medical students for admission. This should represent but one component of an overall program that seeks to ensure that the qualifications of all student candidates are viewed in a non-biased manner that takes into account their personal achievements and struggles, even if these achievements are non-traditional compared with other applicants.

Recommendation 2: Increase medical trainees' exposure to underserved settings. The supply of qualified physicians in underserved communities can be increased by exposing medical students and residents to these settings during their training. Minority medical students more frequently choose careers that serve minority patients than do their majority counterparts, and students with either a rural or inner city background are also more likely to chose such careers, regardless of their race or ethnicity.[57] This suggests that exposure to such environments can foster a commitment to serving these communities. An important question is whether medical schools can offer sufficient exposure to foster such commitment. There are some data to support that training experiences play an important role in the choice of practice specialty and setting by trainees.[71-73] For example, medical students exposed to at least one clerkship in a rural community are more likely than are those who did not receive exposure to pursue a career as a family physician (20 percent versus 9 percent).[72] It is possible to develop curricula designed specifically to expose students early on to practice settings in community health centers and other underserved settings,[74] which may foster a commitment to future work in those environments.

Despite many innovative examples, such as the PRIME tracks at the medical schools in the University of California system and the University of Minnesota Medical School's Duluth Campus focus on rural medicine, academic medical centers, including undergraduate and graduate medical training, may not be focusing trainees optimally on working in diverse communities.[75] As a result, many resident physicians report being unprepared to provide care to diverse populations,[76] likely leading many to avoid such careers. Importantly, trainees exposed to underserved communities feel more prepared to confront some of the unique clinical and social issues more prevalent in such settings.[56]

In summary, these data support the notion that all medical students and residents would benefit from increased exposure to diverse patient populations and practice settings. Such exposure may influence career decisions in a manner that could increase the supply of qualified physicians caring for minority communities in urban and rural settings. Academic medical centers should seek to provide such exposure, either locally through required elective courses when diverse practice settings are available, or through the provision of externships that expose trainees to practice settings not readily available at the local institution. These activities will ultimately help

physicians not only provide more culturally appropriate and effective care to minority patients, but also fill some of the gaps in physician availability in these communities.

Recommendation 3: Increase knowledge regarding segregation of care and disparities. This report has highlighted the significant literature regarding segregation and location of care as an important mediator of racial disparities in health care. It is clear that these between-provider disparities play an important role, but more information is needed regarding the underlying mediators of such location-based effects, as well as the development of programs to address such mediators.

Academic health centers can promote research to further understand the characteristics of institutions that serve predominantly minority communities. This research should focus on why there is variation in quality across institutions, and why minority-serving providers tend to underperform relative to other providers. These variations may relate to internal forces such as the institutional culture, health information systems, or staffing, or to external forces such as funding levels. A more detailed understanding of mediators is a prerequisite to the development of interventions to address between-provider disparities. Such solutions may entail large-scale policy programs to increase funding for minority-serving institutions, or they may be directed toward programs that seek to reorganize the care processes internally within an institution to allow it to better serve its patient population.

Academic medical centers are well positioned to be thought leaders in this area as they are highly represented among hospitals that care for a large volume of minority patients.[37] This provides the opportunity for academic health centers to conduct research on this topic within their own institution and across similar institutions, as well as the ability to form partnerships with community-based health care providers and community residents. Such partnerships can provide direct insights into why institutions caring for predominantly minority communities struggle to provide high quality care, and assist in the development of action-oriented programs. Potential targets for such activities can range from developing training programs for providers that are serving minority communities to the creation of educational and disease self-management programs for community residents. Academic health centers should also engage members of the community to better understand the barriers they face within the health care system and how procedures and policies within this system may place minority patients at a disadvantage.

Such efforts will be most successful when the community is engaged as an equal in the partnership, and the specific needs of the minority community are placed forefront on the agenda.[77-83] These activities can be carried out as a research partnership with appropriate education and involvement of the community members,[84,85] or may be taken on as a service and delivery role of the academic medical center. While community partnerships have typically focused on public health programs, there is increasing experience with community partnerships focused on health care delivery and quality improvement, with some important lessons learned including the role of joint leadership between academic centers and the community, clear goals and rules, regular communication between all members of the project team to support transparency, clear financial support for community partners, and respect for community timelines and values.[85]

Developing relationships to foster long term research and service agendas will require the leadership of academic medical centers to support their faculty who pursue such goals. This may include the incorporation and development of 'seed funding' programs that facilitate the early development of such initiatives before external funding can be gained. In addition, involvement in such activities needs to be appropriately recognized in the promotion and tenure evaluation process.

Targeting Within-Provider Disparities in Care

Although any disparity in care is regrettable, within-provider disparities arguably represent a more troubling issue because these disparities indicate the provision of unequal care within the local environment. Academic medical centers can address within-provider disparities by 1) increasing physicians' awareness of racial disparities in health care, 2) providing tools to improve the quality of clinical interactions and delivery of care for minority groups, and 3) supporting research to develop new strategies to address health care disparities.

Recommendation 4: Increasing physicians' awareness. The successful implementation of programs to improve health care delivery, whether targeting racial disparities or any other topic, is heavily dependent on physicians' engagement. Unfortunately, a majority of physicians do not recognize the importance of patients' race and/or ethnicity in the delivery of effective health care, particularly among patients they personally treat (see Figure 5).[86-88] This is a key finding related to addressing health care disparities, as physicians are unlikely to change practice behaviors or implement new programs if

their perception is that the care they provide is equal. Even if the organizational leadership is committed to addressing health care disparities, it will be hard to effect change without the engagement of the 'on the ground' clinicians.

Improving physicians' awareness of racial disparities in health care and providing tools to address these disparities can take several forms, but fostering awareness needs to begin early in the medical education process. Enrolling a diverse student body and exposing students to diverse training settings is an effective method of raising physicians' awareness and increasing comfort with delivering health care in cross-cultural settings. As reviewed earlier, physicians exposed to more diverse educational settings are likely to become more aware of the role of race and ethnicity in health care delivery.[55]

Educational curricula can also be implemented to increase medical students', residents', and faculty's awareness of racial disparities in health care delivery. These educational programs should highlight the extensive literature surrounding disparities and offer a forum for trainees to explore their own experiences and reactions to these data. There have been recommendations regarding the development of such curricula,[89] with a popular model including the breakdown of the vast literature on disparities into studies that document disparities, studies that describe the mediators of disparities (patient, physician, and health system factors), and studies that describe interventions to address disparities. Many excellent resources now exist to summarize the literature and can be used as resources for trainees. These include, but are not limited to, the Institute of Medicine report, *Unequal Treatment*,[7] and the *National Healthcare Disparities Report* produced by the Agency for Healthcare Research and Quality on an annual basis.[90] This latter report summarizes racial and ethnic disparities for a group of 45 core measures across the inpatient and outpatient health care settings.

Recommendation 5: Improve the quality of clinical interactions. Improving the quality of clinical interactions can take the form of 1) diversity building efforts, and 2) skill-building efforts. Increasing the diversity of the physician workforce may result in improved quality of clinical interactions with minority patients via increasing the number of race-concordant patient—physician encounters. Currently only 23 percent of blacks and 21 percent of Hispanic patients report receiving care from a physician of the same racial or ethnic background, compared with 88 percent of whites. Studies indicate, however, such concordance can produce clinical interactions that are more participatory and result in improved ratings of physicians by minority patients.[91-93] Such concordance may even result in increased receipt of needed medical care.[92,94] However, these findings have not always been consistent, as the importance of racial concordance varies according to racial/ethnic groups.[95] In addition, some studies have shown limited effects on utilization as, for example, with disparities in the use of effective procedures such as cardiac catheterization for acute myocardial infarction not related to patient—physician racial concordance.[96]

Academic medical centers can take an active approach to improving clinical interactions beyond efforts to increase physician workforce diversity through the implementation of programs focused on these issues, often termed 'skill-building activities.'[89] One method of building clinical interaction skills is to increase medical students' and residents' exposure to working in diverse settings during training. As described earlier, physicians report being more prepared to delivery culturally appropriate care following such exposure,[56] most likely because they have learned techniques and strategies for delivering more effective care from both their mentors and their patients.

Cultural competency training has assumed a prominent role as a method of accomplishing this goal as well, and such training has been implemented in a variety of health care settings.[97] Such training programs seek to help physicians understand the role of a patient's culture, belief systems, and language in their health care interactions and how these dimensions may ultimately influence health behaviors.[98] Ultimately, the goal of cultural competency training is to provide physicians with the knowledge and skills to address these issues in partnership with patients of diverse backgrounds to improve health outcomes.[99] These programs can take the form of online tutorials and readings, or they can be more resource intensive with the use of interactive lectures and role playing with standardized patients.

The LCME requires cultural competency training be incorporated into undergraduate medical education.[65] However, national data indicates that few schools are addressing this topic in a robust manner,[75,100] and there is considerable variability in what constitutes such education.[101] Teaching on this topic rarely extends into the clinical years of instruction, often remaining in the preclinical years, where it may be difficult for students to apply principles to practice. It is important for

academic medical centers to incorporate skill-building training into all aspects of education, paying particular attention to ensure that it is not marginalized or treated as a topic 'of secondary importance to science.' Indeed, skills developed from cultural competency training can be evaluated in a rigorous manner through the use of the use of tools that incorporate standardized patients or other instruments.[102-104]

Recommendation 6: Increase knowledge regarding improving clinical interactions. Academic medical centers should play a lead role in evaluating the utility of programs designed to improve the quality of clinical interactions and health care delivery for minority patients. Educational programs focused on care for minority populations should not be held to a higher standard than are other educational initiatives in medical school and residency training. The true value in conducting robust evaluation strategies for these initiatives is not to determine whether such programs are needed. The preponderance of literature on health care disparities should obviate the need to validate repeatedly that training the physician workforce to consider patients' cultural background and beliefs is an important goal of medical education. Such training is inherent to delivering effective, patient-centered care in the same way that learning to perform an accurate physical exam is a fundamental skill. Rather, the goal of evaluating educational initiatives that improve clinical interactions should be to further our understanding of how these programs fit into an overall program to address health care disparities.

In order to assess whether cultural competency training represents a successful strategy to address health care disparities, it is first important to define the goals of such training (see Figure 6). Ideally, cultural competency training will improve the quality of physicians' clinical interactions with patients, including improved communication and reduced bias in treatment decisions. These outcomes may be defined as the final endpoints of training or as necessary intermediate improvements along the path to achieving the ultimate goal of reducing disparities in clinical treatment and outcomes.

The majority of evaluations of cultural competency training have focused on improvements in patients' experiences of care and physicians' knowledge regarding racial disparities and culturally appropriate interactions.[105] Methodological concerns have been raised regarding such evaluations,[106] including the use of instruments without sufficient validation,[107] as well as the wide range of what constitutes such training.[108] There is a limited literature describing the impact of such programs on clinical treatment patterns and disparities in clinical outcomes. It may be that such intermediate outcomes will not reliably produce reductions in health care disparities due to external forces that impeded the achievement of equitable health care (see Figure 6).[109] However, understanding such barriers will aid in the development of future strategies to address health care disparities.[110,111]

Beyond the use of cultural competency training, newer interventions to address health care disparities need to be tested. These can include the involvement of community representatives, case managers, or allied health professionals such as nutritionists or pharmacists as well as the use of policy changes including those focused on performance measurement, public reporting, and payment incentives.[5,111-116] Academic medical centers should support the needs and interests of faculty interested in pursuing such evaluations, which can often present unique challenges such as commitments to developing relationships with community physicians and their patients, as well as funding shortages.

The Importance of Leadership

Leadership in the field of health care disparities is essential to address both between-provider and within-provider differences. Academic medical centers, the loci for leadership on health care innovation, should demonstrate leadership in this field based on their combined role in training of future physicians, provision of clinical care, and conduct of necessary research.

Recommendation 7: Lead in the effort to eliminate disparities. Academic medical centers serve as and are regarded as essential opinion leaders in the health care system, which increases the importance of their commitment to addressing health care disparities.[117] This leadership should start with leading by example through the recruitment and enrollment of diverse medical students and residents, and extending through the development of a diverse faculty. Faculty diversity is an important component of diversity building strategies, and it also increases the potential for engagement in research directed towards understanding the best methods of eliminating health care disparities. Unfortunately, minority faculty face significant challenges to success in the academic environment,[118] including lower rates of promotion compared with white faculty.[119] Addressing these institutional disparities should remain a high priority for the leadership of academic medical centers.

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Academic medical centers can also lead collaborations to address health care disparities between all members of the health care system, including patients, community organizations, health plans, physician groups, employers/purchasers, and funding agencies. The problem of health care disparities is clearly multi-factorial, and academic medical centers are well positioned to initiate discussions among multiple stakeholders with the goal of advancing our knowledge regarding health care disparities. Such collaborative efforts are essential as it is unlikely that an intervention involving only one component of the health care system will prove the most effective strategy.

Conclusion

Racial disparities in health care are unfortunately a pervasive and persistent problem in the United States. These disparities are likely related to a combination of factors involving physicians, patients, and features of the health care system. Academic medical centers will play an important role as the field of health care disparities increasingly moves from a descriptive phase into the development of programs to eliminate disparities. The research and recommendations in this report are a foundation on which the medical education community can formulate and implement its leadership role in addressing the complex and sometimes confounding health care issues that continue to disproportionally affect so many in our nation. Success must begin with our leading the efforts to build a physician workforce that is equipped to meet the needs of our diverse society, as well as continuing to advance our knowledge regarding strategies to ensure that all patients receive equal care.

Figure 1
Racial disparities in health care are classified as any differences that remain after accounting for patient preferences and clinical indications. These disparities can be further grouped according to their existence within provider groups or between provider groups. This model has been adapted from the Institute of Medicine.[8]

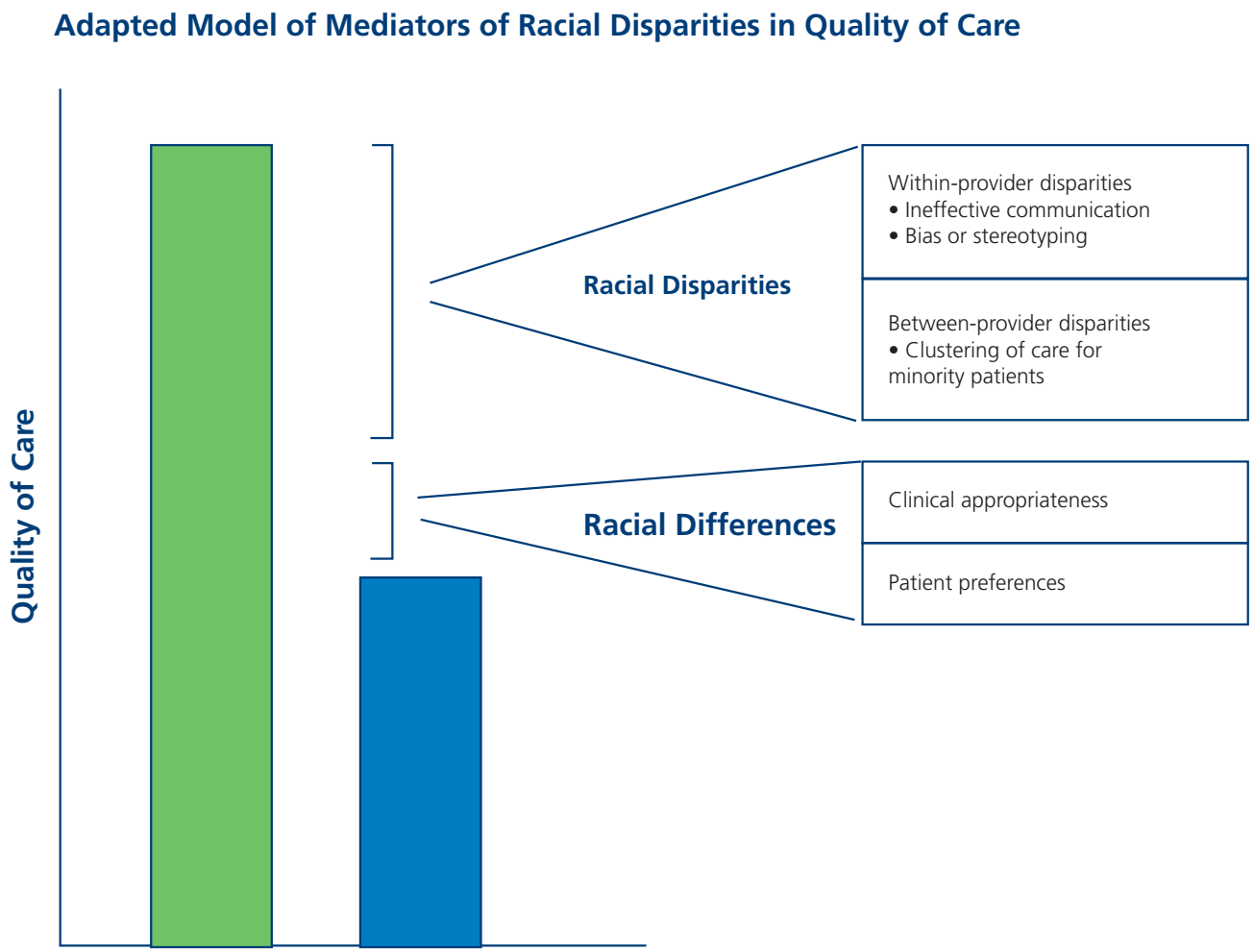


Figure 2
Between-provider disparities are the result of black patients' receiving care predominantly at institutions that provide generally lower quality of care (Providers C and D) compared with institutions where white patients predominantly receive care (Providers A and B). Within each of these providers (A, B, C, D), there is no racial difference in the type of care delivered. Within-provider disparities are the result of black patients' receiving lower quality of care than do whites within the same institution (Providers E and F).

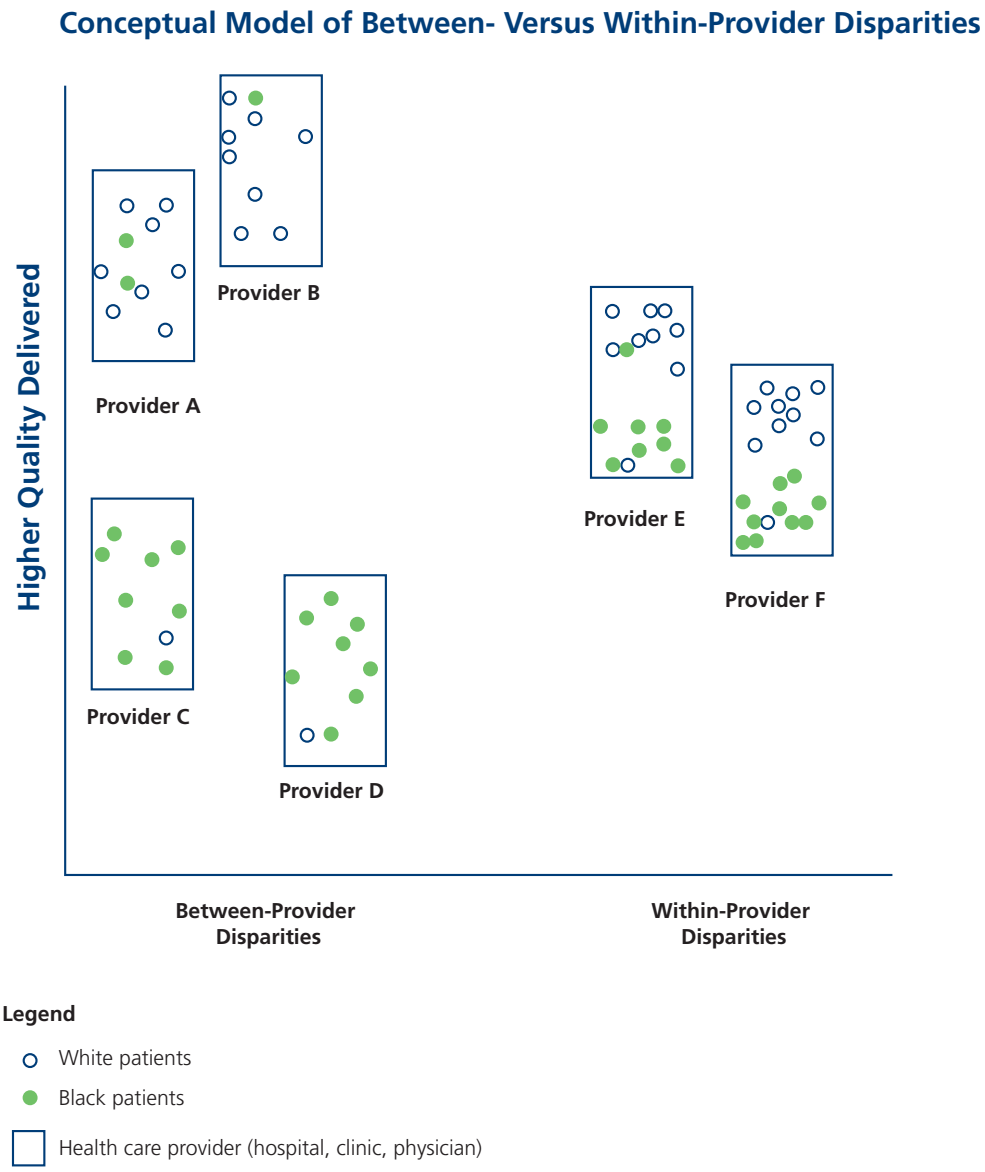


Figure 3
Academic medical centers can target their activities to address health care disparities in a strategic manner by considering whether their interventions will influence between-provider or within-provider disparities.

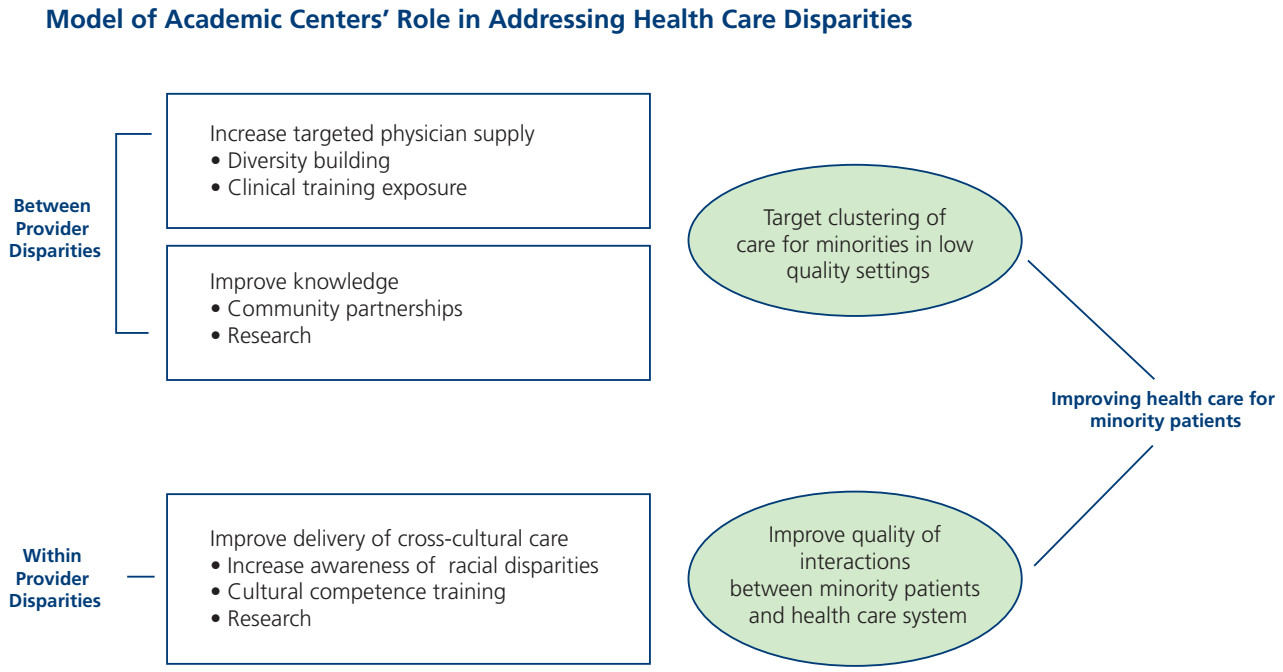
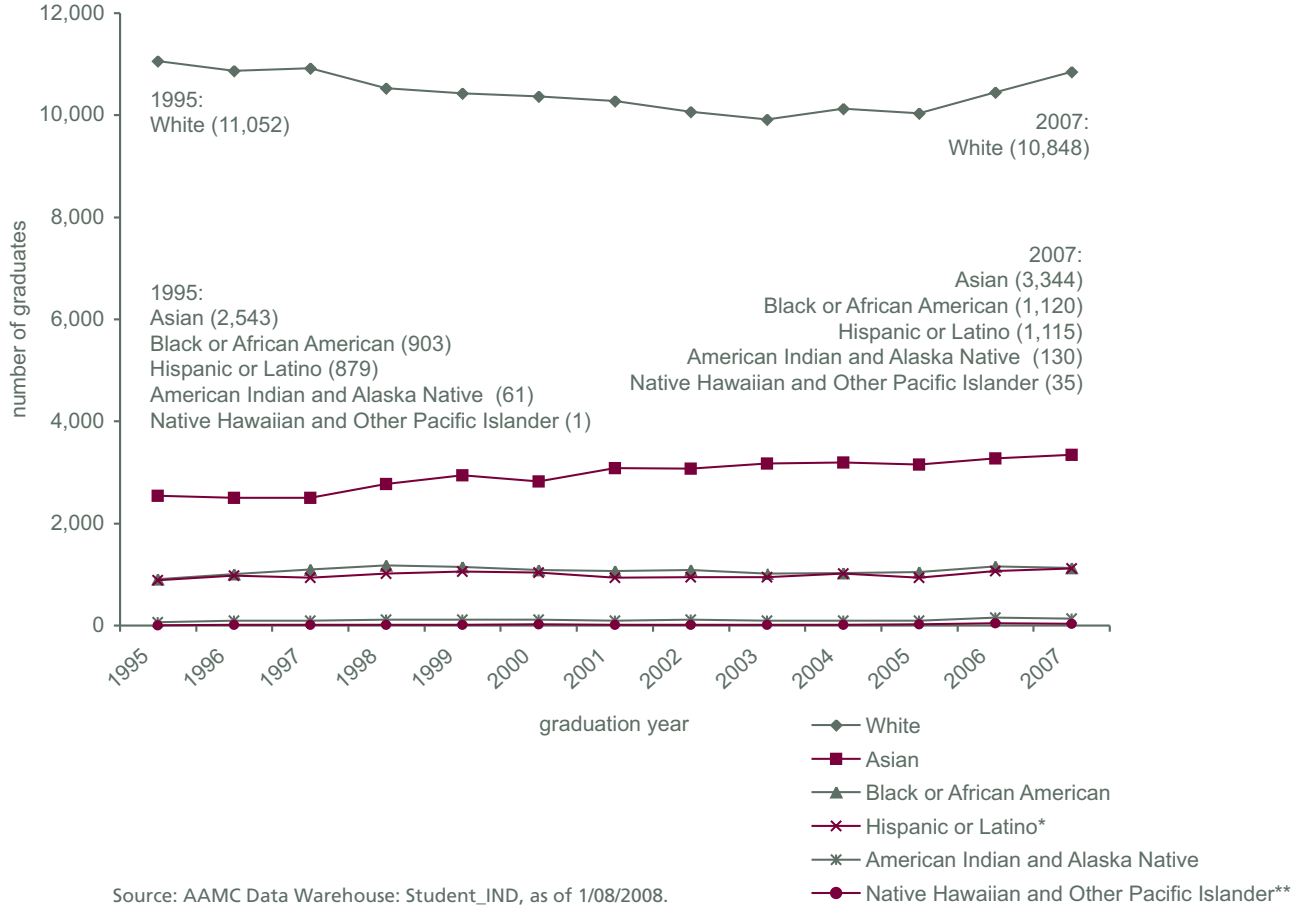


Figure 4
The number of underrepresented minority students in U.S. medical schools has increased, but their presence falls short of reflecting their representation in the general population.



Source: AAMC Data Warehouse: Student_IND, as of 1/08/2008.

Figure 5
Physicians demonstrate low awareness of the importance of patient race/ethnicity in receipt of health care. Primary care physicians were responding to questions regarding diabetes care,[89] while cardiologists and cardiovascular surgeons were queried regarding cardiovascular care.[86,87]

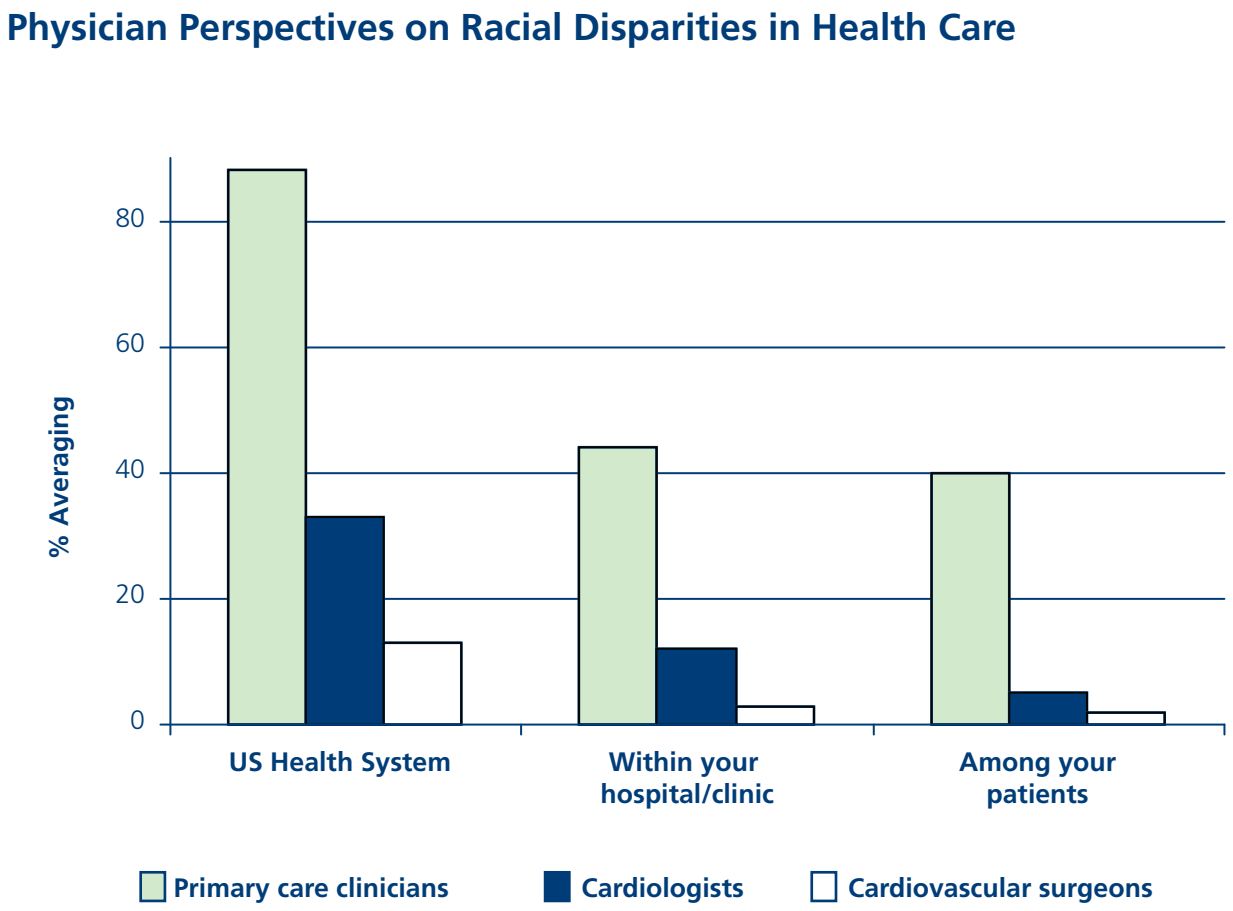
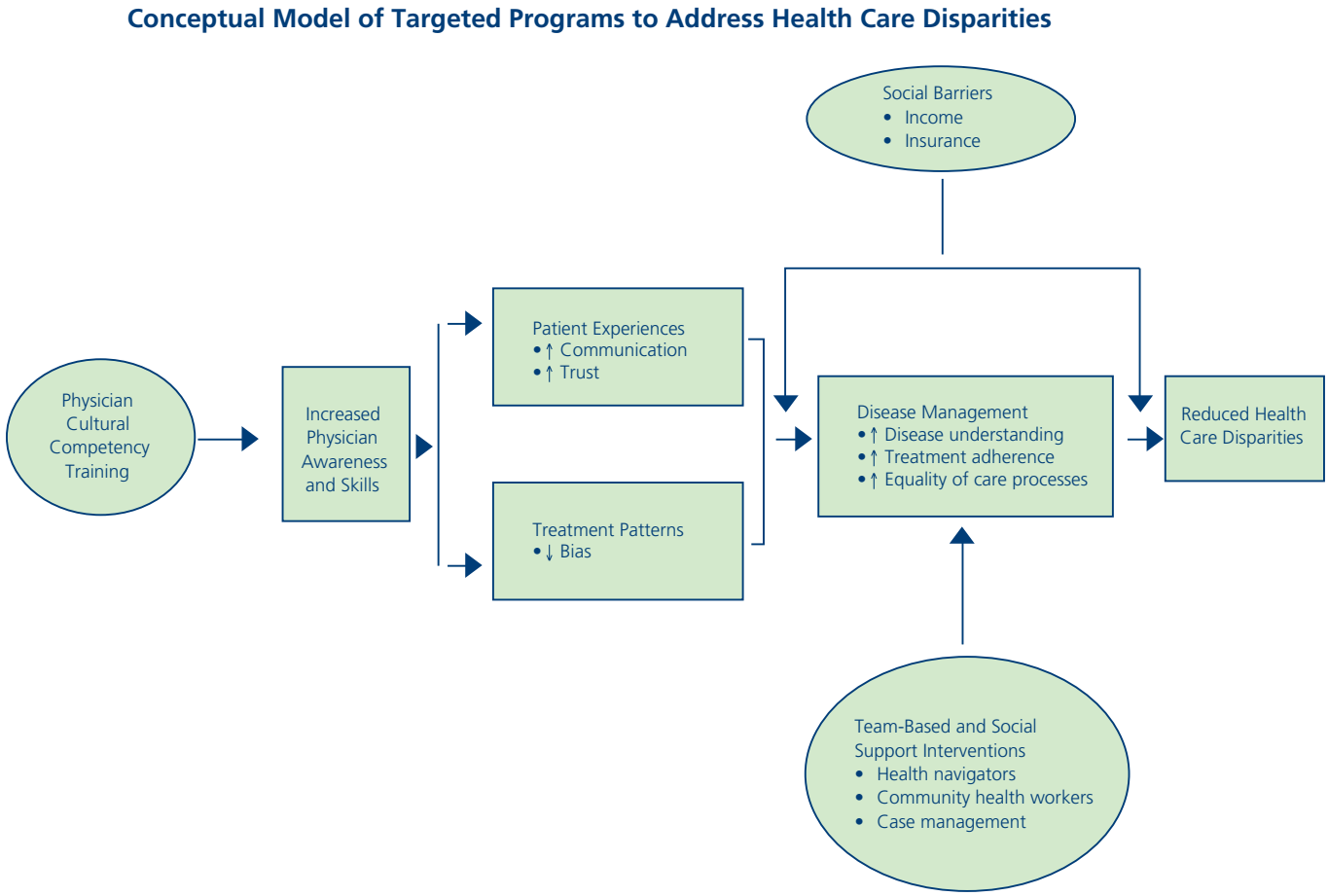


Figure 6
Cultural competency training and other efforts that target clinical interactions likely influence multiple aspects of patient care, and the effects on health care disparities may be limited by external factors.



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