

# Assessing the Evolving Definition of Underrepresented Minority and Its Application in Academic Medicine

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## Abstract

### Purpose

To assess how U.S. academic health centers (AHCs) define the term underrepresented minority (URM) and apply it to their diversity programs, following the 2003 revision of the Association of American Medical Colleges' (AAMC's) definition of URM.

### Method

In 2010, the authors developed and deployed a cross-sectional survey of diversity leaders at 106 AHCs. The survey included questions about the diversity leader and institution's diversity program; institution's URM definition; application of that definition; and the diversity leader's perceptions of the representation

and institutional contribution of various ethnic/racial groups. The authors used descriptive statistics to analyze the results.

### Results

Of the 106 diversity leaders invited, 89 (84.0%) responded and 78 (73.6%) provided a working definition of URM. Most programs (40/78; 51%) used the 2003 AAMC definition of URM, which includes racial/ethnic groups that are underrepresented in medicine relative to local and national demographics. Only 14.1% (11/78) used the pre-2003 AAMC definition, which included only African Americans, Mexican Americans, Native Americans, and mainland Puerto Ricans. Approximately one-third (23/78; 29.5%)

also considered other diversity factors, such as socioeconomic status, sexual orientation, and disability, in defining URM. Fifty-eight respondents (74.4%) confirmed that their diversity programs targeted specific groups.

### Conclusions

The definition of URM used by diversity programs at U.S. AHCs varied widely. Although some classified URMs by racial/ethnic categories, the majority defined URM more broadly to encompass other demographic and personal characteristics. This shift should prepare academic medicine to eliminate health disparities and meet the health needs of an increasingly diverse population.

**D**iversifying the health care workforce is commonly identified as a key strategy to facilitate access to quality health care for all.<sup>1-3</sup> Medical schools strive to recruit, retain, and develop a diverse student body that enriches the learning environment and is prepared to meet the

public's health needs.<sup>4</sup> There is substantial evidence from higher education<sup>5-11</sup> and academic medicine<sup>12-16</sup> that a diverse educational environment adds value to the community.

Several studies have examined the influence of diversity on medical education from the student perspective. Diverse learning environments are correlated with students' increased comfort with diversity and are also correlated with an enhanced sense of value both in its contribution to their educational experience and in the delivery of and access to care.<sup>12-16</sup> Within the classroom, students perceive that increased racial and ethnic diversity acts as a catalyst for in-depth discussions from alternative perspectives, elicits a broader range of examples, and improves understanding of medical conditions and treatments.<sup>16</sup> In a study that evaluated the influence of diverse faculty and patients, students' attitudes toward affirmative action were predicted by the number of diverse faculty, the percentage of minority patients, and the frequency of informal interactions with diverse peers and voluntary cultural activities.<sup>13</sup>

This evidence of the influence of diverse learning environments on students' perceptions of different populations highlights the critical importance of including diversity in the training of future physicians. To take advantage of what diversity contributes to the development and implementation of policies that advance institutional missions, academic health centers (AHCs) should have a clear definition of diversity.<sup>4</sup>

In the United States, the definition of diversity in higher education has reflected the evolving sociopolitical and demographic landscape. Historically, definitions of diversity primarily have focused on race and ethnicity. In 1997, through Office of Management and Budget (OMB) Directive 15, the federal government made substantial changes to the racial and ethnic data that they collected.<sup>17</sup> With the goal of acknowledging the growing multiracial, multiethnic U.S. population, this new classification system separated Hispanic origin from race, allowing respondents to self-identify with as many categories as were applicable. The 2000 Census reflected these changes, painting a different picture

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of the U.S. population, especially among racial and ethnic minorities. Furthermore, the OMB directive specified that all federal agencies had to comply with the new standard by 2003.

Recognizing these changes, in March 2003, the Association of American Medical Colleges (AAMC) Executive Committee (equivalent to a board of directors) adopted a new and expanded definition of underrepresented minority (URM).<sup>18</sup> The previous definition of URM included four specific racial and ethnic groups—African Americans, Mexican Americans, Native Americans, and mainland Puerto Ricans—whereas the new definition included any racial and ethnic populations underrepresented in the medical profession relative to their numbers in the general population. The Executive Committee also emphasized the importance of considering local demographics when defining underrepresentation. This recommendation allowed for greater flexibility targeting ethnic populations that may have been previously excluded from some diversity initiatives, such as Hmong, Cambodians, and Laotians living in California and in the upper Midwest. In addition, the new recommendations included other Latino ethnic groups, beyond Mexican Americans and mainland Puerto Ricans, that were underrepresented in the United States.

Defining URM and diversity in medical schools became even more important in 2008 when the Liaison Committee on Medical Education revised and strengthened key accreditation standards to focus on diversity and inclusion.<sup>19</sup> The first standard, MS-8, requires each medical school to develop programs or partnerships aimed at broadening diversity in medical school admissions. The second standard, IS-16, looks more generally at institutional factors and the alignment of policies and practices within the mission and vision to achieve appropriate diversity among the students, faculty, staff, and other members of the academic community. Thus, clarifying both the definitions of URM and diversity and the evaluation process for diversity programs became integral to the accreditation process.

The AAMC has largely depended on individual institutions to adopt their

2003 definition of URM, and institutions in turn have interpreted the updated definition in a number of different ways. In this study, we surveyed diversity leaders at U.S. AHCs to assess how their institutions defined URM. We hypothesized that the release of the updated AAMC guidelines would lead to greater variation in URM definitions between institutions. Because growth in the Latino population accounted for more than half the total U.S. population growth in the last decade,<sup>20</sup> we also surveyed diversity leaders about their perceptions of Latino representation in the medical profession.

## Method

### Study participants

Using the AAMC's Directory of Diversity Affairs Officers, we obtained contact information for leaders of diversity programs (deans; associate or assistant deans; directors of diversity, minority, or multicultural affairs programs) in U.S. MD-degree-granting institutions (excluding the four MD-degree-granting medical schools in Puerto Rico). Of the 127 institutions in existence in 2010, we identified leaders from 106 institutions for inclusion in our study. We were unable to identify diversity programs or leaders from the remaining 21 institutions; therefore, we did not include them in our study. From 5 institutions, more than one individual responded to our request. In those cases, we included the individual with the highest-ranking position in his or her institution. In addition, respondents from 11 institutions did not answer the majority of the questions on our survey, so we excluded them from our analysis because of incomplete data.<sup>21</sup>

Participation was anonymous, voluntary, and independent of any formal institution evaluation or accreditation. We did not offer diversity leaders incentives to participate. The Johns Hopkins Medicine institutional review board (IRB) considered our study exempt from ethical review (IRB protocol NA\_00033321, Definition of Underrepresented Minority in Academia).

### Survey content

We developed a 26-item survey with questions about each institution's diversity characteristics, leadership,

definition of URM and its application, and targeted populations. We selected items for inclusion based on a review of the literature and consultations with experts in the field. The majority of the questions were multiple-choice, with the opportunity to add text for "other" options.

We divided the survey into five sections: personal and professional characteristics of the diversity leader (seven items); characteristics of the diversity program (eight items); the institution's URM definition (two items); application of that URM definition (five items); and the diversity leader's perceptions of the representation and institutional contribution of members from various ethnic/racial groups (four items). The first section on the personal and professional characteristics of the diversity leader included questions about gender, self-identified race and ethnicity, title, years of experience, and time devoted to diversity initiatives. The second section on the characteristics of the diversity program included questions about date of establishment, funding sources, annual budget, salary support for key staff, and institutional support. The third section on the institution's URM definition included questions about the existence of an established institutional definition of URM and asked leaders to choose the statement, from eight choices, that most accurately described their diversity program's working definition of URM. The fourth section on the application of that URM definition included questions about the scope of diversity programs, the eligibility of racial and ethnic minority groups to participate in diversity initiatives, and the process for identifying URMs. To assess which groups were eligible to participate in recruitment and retention programs for minority faculty, we asked respondents to select target beneficiaries from the following list: African Americans, blacks (regardless of nationality); Native Americans/Alaska Natives, Asians/Pacific Islanders; Mexican Americans, Puerto Ricans, Hispanics or Latinos (regardless of nationality); Canadians (included as control); individuals with disabilities; women; lesbians, gays, bisexual or transgendered individuals; and individuals from low socioeconomic status (regardless of race or ethnicity). In the final section of the survey, we showed participants 2000 Census and AAMC data

on the representation of ethnic/racial groups in the U.S. population and in academic medicine. Subsequent questions explored the respondents' perceptions of the representation and institutional contribution of members from these various ethnic/racial groups.

### Survey administration

We pilot tested the survey with the Johns Hopkins Medicine Diversity Council and with selected diversity leaders from the AAMC to assess its face validity. In February 2010, we e-mailed the final survey to the diversity leaders whom we identified. We encouraged participation via phone calls and subsequent e-mails.

### Data analysis

We reviewed the survey responses to examine the frequency of distributions, identify outliers, and assess nonnormality or other data irregularities. We used descriptive statistics (frequency distributions) to summarize the responses to questions focusing on the definition of URM. We calculated odds ratios and used Fisher exact test to compare respondents' perceptions of African American versus Latino representation.

## Results

### Personal and professional characteristics of respondents

Of the 106 leaders whom we invited to participate, 89 (84.0%) responded and 78 (73.6%) qualified for inclusion in our study (as described earlier). Of the 78 respondents who qualified, 53 (67.9%) were deans, associate deans, or assistant deans of diversity programs, 12 (15.4%) were directors of diversity programs, and 13 (16.7%) had other titles, such as chief diversity officer, vice chair of diversity, or associate or assistant vice chancellor for diversity affairs. The majority of respondents were from racial and ethnic minority groups (54/78 [69.2%] African American; 10/78 [12.8%] Latino; and 2/78 [2.6%] Asian), and 53 (67.9%) were women.

### Characteristics of diversity programs

The majority of respondents reported responsibility for diversity programs that targeted both faculty and medical

Table 1

### Definition of Underrepresented Minority (URM) at 78 U.S. Academic Health Centers (AHCs), According to Diversity Leaders at Those Institutions, 2010

Definition	No. (% of 78)
Racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population (Association of American Medical Colleges' current definition)	24 (30.8)
Racial and ethnic populations that are underrepresented at the AHC relative to their numbers in the local community or state	16 (20.5)
Individuals whose personal characteristics, such as race, ethnicity, socioeconomic status, sexuality, health condition, or disability, are underrepresented in the medical profession relative to their numbers in the general population	13 (16.7)
Only African Americans, Mexican Americans, Native Americans, and mainland Puerto Ricans (pre-2003 Association of American Medical Colleges' definition)	11 (14.1)
Individuals whose personal characteristics, such as race, ethnicity, socioeconomic status, health condition, or disability, place them at risk for conscious or subconscious bias or discrimination	6 (7.7)
Individuals from disadvantaged socioeconomic backgrounds regardless of race, gender, or ethnicity	4 (5.1)
Any individual who self-identifies as underrepresented in medicine	0 (0.0)
No working definition of URM	4 (5.1)

trainees (48/78; 61.5%). Others, however, reported programs that targeted only medical trainees (25/78; 32.1%) or only faculty (5/78; 6.4%). Most programs (58/78; 74.4%) included initiatives in at least one of the following areas: outreach to minorities in the community, recruitment or retention of minority faculty, cultural competency training, networking opportunities for minority faculty, education of leadership on conscious and unconscious bias, and professional development.

### Definition of URM

Institutions' definitions of URM reflected a wide range of inclusiveness (see Table 1). A few programs (11/78; 14.1%) adopted the AAMC's original definition of URM, which included only African Americans, Native Americans, Mexican Americans, and mainland Puerto Ricans.<sup>18</sup> In the most inclusive definitions, supported by nearly a third (23/78; 29.5%) of our respondents' institutions, race and ethnicity were only two of the many factors considered in classifying URMs. In addition to socioeconomic status, sexual orientation, and disability, some institutions took into account other characteristics underrepresented in their local context, such as rural origin, first-generation college graduate, and religion. Approximately half of the institutions (40/78; 51.3%) used an interpretation of the current

AAMC definition, which takes into consideration ethnic and racial representation as they relate to national or local demographics. Five percent (4/78) reported that their institution did not have a working definition of URM.

### Application of the definition of URM

The majority (60/78; 76.9%) of institutions had an established definition of URM. Most respondents from such institutions (48/60; 80.0%) reported that their institution suggested using the established URM definition to guide diversity activities, whereas 20.0% (12/60) reported that their institution mandated using the established definition (see Table 2). Among institutions with an established definition of URM, 41.7% (25/60) restricted eligibility for salary support or internal grants for URMs to individuals who met the institutional definition of URM. Approximately one-third (19/60; 31.7%) of institutions used their definition of URM to determine the eligibility of URM trainees for funded mentoring opportunities, such as summer research programs or visiting clerkships. Institutions primarily used self-report to identify URMs who were eligible for the aforementioned benefits (60/78; 76.9%).

Some respondents explained that both participation in and access to diversity initiatives at their institution were not

Table 2

**Application of the Definition of Underrepresented Minority (URM) at 78 U.S. Academic Health Centers (AHCs), According to Diversity Leaders at Those Institutions, 2010**

Application	No. (%)
<b>Formal URM definition in place, no. (% of 78)</b>	60 (76.9)
<b>Manner in which AHC implemented URM definition, no. (% of 60)</b>	
Mandated	12 (20.0)
Suggested	48 (80.0)
<b>Programs restricted to URM faculty/students who meet AHC's definition of URM, no. (% of 60)</b>	
Salary support or internal grant eligibility for URM faculty	25 (41.7)
Funded mentoring opportunities for URM students	19 (31.7)
<b>Method used to identify URM faculty who are eligible to participate in diversity programs, no. (% of 78)</b>	
Self-identification	60 (76.9)
Don't know	18 (23.1)

limited to URMs. Here are a few examples from respondents' free-text responses:

California (Proposition 209) prohibits programs designed for only specific racial groups. Thus all our "diversity" programs are open to all faculty and students, with priority given to candidates who add to diversity (broadly defined).

Programs include all faculty whose genuine research and teaching interests include areas such as health disparities and vulnerable populations.

We do not provide preferential and additional funding to faculty simply because of URM status.

One-fourth (20/78; 25.6%) of respondents did not specify the target population of the diversity programs at their institution. The vast majority of the remaining 58 institutions, for which respondents reported that diversity programs targeted specific populations, gave priority to African Americans (56/58; 96.6%), Native Americans/Alaskans (55/58; 94.8%), and Latinos (52/58; 89.7%). Over half also targeted Asians and Pacific Islanders (33/58; 56.9%). Other populations that received special attention included individuals underrepresented because of socioeconomic status, gender, or other factors (see Table 3). Approximately three-quarters of diversity programs targeted women (43/58; 74.1%), less than half targeted gay, lesbian, and transgendered individuals (24/58; 41.4%), and approximately one-third were committed to supporting the needs of individuals with disabilities (17/58;

29.3%). All programs at institutions with an established definition of URM served racial or ethnic minorities, but some restricted access to U.S. citizens (10/58; 17.2%).

**Respondents' perceptions of the representation of ethnic/racial groups in medicine**

When respondents reviewed the table with national demographic statistics based on the 2000 Census estimates, then rated the representation of these same ethnic/racial groups in medicine, 35 (53.8%) considered African Americans to be "extremely underrepresented" (see Table 4). Only Native Americans/Alaskans ( $P < .05$ ) were viewed to be "extremely underrepresented" to a greater extent than African Americans in medicine.

**Respondents' perceptions of Latino representation in medicine**

Among the 1,614 leadership positions reported by respondents, only 32 deans, associate deans, department chairs, or division chiefs were identified as Latino. Respondents, however, attested to the contributions of Latino faculty to various activities, such as providing clinical services to Spanish-speaking Latinos, mentoring Latino students and trainees, conducting research in health disparities affecting Latinos, and recruiting Latino trainees and faculty. Almost half of respondents (32/78; 41.0%) classified the contributions of Latino faculty in these roles as essential.

**Discussion**

To our knowledge, our work represents the first comprehensive study to assess how AHCs currently define URM. We found that URM definitions were generally inclusive of a range of diverse groups. This "diversification" of diversity programs promotes a health care workforce that reflects the heterogeneity of the U.S. population, not only with regard to race and ethnicity but also with regard to other defining characteristics, such as socioeconomic status, gender, age, sexual orientation, disability, and nationality, to name a few. This shift is vital to the elimination of health care disparities that are disproportionately experienced by communities in poverty, racial and ethnic minorities, and gay, lesbian, and transsexual communities.<sup>1,22</sup> Although flexibility in defining URM is important in adapting programs to meet local demands, aggregating subgroups for reporting is necessary to make meaningful comparisons between institutions and to track progress over time. For example, institutions may choose to classify Latinos as URMs on the basis of country of origin or other characteristics, but aggregate reports of Hispanic ethnicity still must be calculated for consistent comparisons between institutions.

A common concern in expanding the definition of URM is that efforts to improve representation of historically

Table 3  
**Target Population for Diversity Programs at 58 U.S. Academic Health Centers, According to Diversity Leaders at Those Institutions, 2010**

Target population	No. (% of 58)
African Americans	56 (96.6)
Blacks (regardless of nationality)	53 (91.4)
Native Americans/Alaskans	55 (94.8)
Asians/Pacific Islanders	33 (56.9)
Mexican Americans	51 (87.9)
Puerto Ricans	49 (84.5)
Hispanics or Latinos (regardless of nationality)	52 (89.7)
Women	43 (74.1)
Individuals from a low socioeconomic status	31 (53.4)
Lesbian, gay, bisexual, or transgendered individuals	24 (41.4)
Individuals with disabilities	17 (29.3)

Table 4

**Diversity Leaders' Perceptions Regarding the Representation of Ethnic/Racial Groups at 65 U.S. Academic Health Centers, 2010**

Ethnic/racial group	Overrepresented, no. (% of 65)	Appropriately represented, no. (% of 65)	Underrepresented, no. (% of 65)	Extremely underrepresented, no. (% of 65)	Odds ratio (95% confidence interval)*
African American	0 (0.0)	1 (1.5)	29 (44.6)	35 (53.8)	Reference
White	34 (52.3)	30 (46.2)	1 (1.5)	0 (0.0)	0.0
Asian	38 (58.5)	17 (26.2)	8 (12.3)	2 (3.1)	0.0 (0.0–0.1)
Native American/Alaskan	1 (1.5)	1 (1.5)	16 (24.6)	47 (72.3)	2.2 (1.1–4.6)
All Latino	0 (0.0)	2 (3.1)	35 (53.8)	28 (43.1)	0.6 (0.3–1.3)
Mexican American	0 (0.0)	1 (1.5)	25 (38.5)	39 (60.0)	1.3 (0.6–2.6)
Puerto Rican	0 (0.0)	0 (0.0)	34 (52.3)	31 (47.7)	0.8 (0.4–1.6)
Cuban	1 (1.5)	2 (3.1)	38 (58.5)	24 (36.9)	0.5 (0.2–1.0)
Other Hispanic	0 (0.0)	3 (4.6)	42 (64.6)	20 (30.8)	0.4 (0.2–0.8)

\*Odds of the ethnic/racial group being considered extremely underrepresented compared with African Americans.

underrepresented minorities, such as African Americans, may be negatively affected. Diversity efforts may appear overly successful if outcomes measures include not only traditional ethnic/racial categories but also minorities by gender, socioeconomic status, and other demographic and personal characteristics. Therefore, data should remain stratified so that specific underrepresented groups can be monitored individually. For example, the AAMC provides data on Latinos by country of origin, allowing for comparisons between various Latino subgroups.<sup>23</sup> As data collection instruments adapt to better reflect the mixed ethnic/racial heritage of many Americans, comparisons of outcomes may become more complex, requiring more time and skill to interpret the meaning of the data collected.<sup>24</sup>

Higher education researchers have defined several approaches for developing inclusive environments that benefit from diversity—compositional diversity (numerical and proportional representation of students, faculty, and administrators), diversity of interactions (interactions with people different from us), and institutional diversity-related initiatives (diversity-related activities, events, courses, workshops).<sup>9</sup> For program planning and implementation, institutions may be challenged by trying to balance the inclusiveness of diverse groups as well as these different approaches. In an era of limited resources, diversity programs must adequately meet the needs of a heterogeneous base while maintaining high-quality programs for traditionally

underrepresented trainees and faculty. From 2008 to 2011, national data show that the percentage of African American, American Indian and Alaska Native, and Latino matriculants to MD-degree-granting institutions has not changed, remaining stagnant at about 14%, despite the growth in medical school class size.<sup>25</sup> Similar trends have been noted in the percentage of African American and Latino faculty, despite the fact that these groups now account for 30% of the general population.<sup>26</sup>

As a result, programs targeting racial and ethnic minorities will need to grow, and new initiatives will need to be developed targeting other diverse groups. Because more than one URM characteristic often applies to an individual, efforts to improve opportunities for one URM group often indirectly benefit other groups. Within academic medicine, interactions with diverse faculty, patients, and peers, as well as cross-cultural exchanges through clinical work and voluntary activities, contribute to positive educational outcomes and attitudes about diversity.<sup>13</sup> Institutional climates, for example, that support diversity correlate with higher ratings of cultural competence among medical students.

In our study, we found that less than 20% of diversity programs restricted participation to U.S. citizens only. Although controversial, inclusion of non-U.S. citizens in diversity programs at U.S. medical schools may also prove to be an effective way to enhance diversity. International medical graduates (IMGs) make up about one-fourth of

the U.S. physician workforce and are more likely to work in underserved areas and provide primary care than U.S. medical graduates.<sup>27</sup> In academic medicine, approximately one-fifth of clinical and basic research faculty are IMGs.<sup>28</sup> Although IMGs also contribute to diverse academic experiences, their impact on black and Latino representation is not fully understood. Almost half of IMGs in U.S. residency programs are Asian; only 4.5% are black, and 7.5% are Latino.<sup>28</sup> This gap further highlights the importance of collecting and disaggregating data to understand how diversity is defined and measured at AHCs.

Our study has several limitations. First, despite a high response rate, we did not include 49 institutions in our analysis because we could not identify a diversity leader, because the diversity leader we did identify did not respond to our survey, or because his or her survey responses were mostly incomplete. Second, approximately one-fourth of respondents elected to not answer questions about the target beneficiaries of their institution's diversity programs or their personal perceptions of Latino representation in and contribution to the field of medicine. Given their positions, we expected respondents to know the target population for the programs that they led. Their opting out of responding to sensitive questions may be interpreted in multiple ways that are beyond the scope of our research. Finally, our study was descriptive, and the sample size precluded more rigorous analysis.

## Conclusions

The expansion of the definition of URM reported by respondents to our study signals a significant change in the overall mission of diversity programs. The history of racial discrimination in the United States, particularly against African Americans, played a defining role in shaping diversity programs in medicine and beyond. Some may argue that we should not implement efforts to widen the scope of diversity programs until historically underrepresented minorities are adequately represented in academic medicine. However, we believe that forgoing broader inclusion efforts to promote diversity is fundamentally contradictory to the mission of such programs and an unappealing option for solving the current problem of health disparities. In fact, widely diversifying medicine to create a quorum of individuals with different points of view and life experiences may be just what we need to enrich the academic medicine environment for all. Most important, this approach should best prepare academic medicine to meet the health needs of an increasingly diverse U.S. population.

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