Diversity and Inclusion Training in Pediatric Departments

Fernando S. Mendoza, MD, MPH, Leslie R. Walker, MD, Barbara J. Stoll, MD, Elena Fuentes-Afflick, MD, MPH,
Joseph W. St Geme, III, MD, Tina L. Cheng, MD, MPH, Javier A. Gonzalez del Rey, MD, MEd, Christopher E. Harris, MD,
Mary E. Rimsza, MD, Jie Li, PhD, Theodore C. Sectish, MD

BACKGROUND AND OBJECTIVE: The diversifying US population of children necessitates assessing the diversity of the pediatric academic workforce and its level of cultural competency training. Such data are essential for workforce and educational policies.

METHODS: An 8-question survey was sent to 131 US pediatric chairs to assess plans for diversity, targeted groups, departmental diversity, diversity measures, perceived success in diversity, and presence and type of cultural competency training.

RESULTS: In all, 49.6% of chairs responded, and three-quarters of them reported having a plan for diversity, which targeted racial; ethnic; gender; lesbian, gay, bisexual, and transgender; disabled; and social class groups. Of the residents, 75% were women, as compared with 54% of faculty and 26% of chairs. Racial and ethnic diversity was limited among trainees, faculty, and leaders; <10% of each group was African American, Hispanic, or Native American. Asian Americans were more common among trainees (15%–33%) but were less common in faculty and leadership positions (0%–14%). Lesbian, gay, bisexual, and transgender physicians were represented in some groups. Measures of diversity included the number of trainees and faculty, promotion success, climate assessments, and exit interviews. Overall, 69% of chairs reported being successful in diversity efforts. A total of 90% reported cultural competency training for trainees, and 74% reported training for faculty and staff. Training in cultural competency included linguistic training, primarily in Spanish.

CONCLUSIONS: Pipeline issues for minorities are ongoing challenges. Pediatric leadership needs more representation of racial and ethnic minorities, women, and LGBT. Suggestions for workforce and educational policies are made.

WHAT’S KNOWN ON THIS SUBJECT: The diversifying US population has led to the examination of workforce diversity and training. National data on diversity, inclusion, and cultural competency training have been previously collected but have been assessed only at the macro level of medicine.

WHAT THIS STUDY ADDS: This study assesses workforce diversity, inclusion, and cultural competency training in departments of pediatrics across the country and provides the first assessment of departmental efforts to improve diversity and inclusion and provide cultural competency training to trainees and faculty.
In 2010, 50.4% of infants (<1 year old) in the United States were minorities.\(^2\) Currently, 1 in 4 US children live in an immigrant family. Among Asian American and Latino children, groups that account for 75% of the growth of the US child population over the past 2 decades, these rates are significantly higher; 83% and 60%, respectively.\(^2\) The continued demographic shift toward greater racial and ethnic diversity in the United States, particularly among children, has prompted pediatric leaders to examine the child health workforce and its ability to meet the health care needs of a diversifying population of children. This process involves all segments of the pediatric workforce: clinical, research, and educational. The fact that these groups are all represented in academic departments of pediatrics underscores the importance of academic pediatrics in meeting this challenge. Two related but distinct pediatric workforce characteristics have taken center stage in addressing the increasingly diverse population of children: workforce diversity, particularly with respect to underrepresented minorities (URMs), and training in culturally competent care. These are the same areas that were identified by the Institute of Medicine in 2002 as essential in addressing racial and ethnic health disparities.\(^3\) Therefore, by exploring how to address the health care needs of diverse children, the entire field of pediatrics has the opportunity to lead the health workforce in response to the growing diversity of our country and address health care disparities.

Although the American Academy of Pediatrics monitors the diversity of its members (fellows), it does not routinely collect data about the academic pediatric workforce. The Association of American Medical Colleges (AAMC) assesses the diversity of medical students, residents, and faculty in US medical schools. However, the diversity of pediatric departments, including their leaders, and departmental activities to improve diversity have not been reported. Similarly, although there have been assessments of cultural competency training at the medical school level, less is known about cultural competency training in pediatrics. Therefore, to address these workforce issues, the Federation of Pediatric Organizations established the Diversity and Inclusion Working Group (FOPO-DIWG) to determine the state of diversity in the pediatric workforce and its level of cultural competency training. As part of that assessment, the FOPO-DIWG surveyed academic pediatric departments with respect to diversity and leadership (inclusion) and examined cultural competency training in pediatric programs. We report the findings of this national survey.

**METHODS**

The FOPO-DIWG was composed of representatives from the American Academy of Pediatrics, the Academic Pediatric Association, the American Pediatric Society, the Association of Pediatric Program Directors, the Association of Medical School Pediatric Department Chairs, and the Society for Pediatric Research. In collaboration with staff from the AAMC (M. Nivet and L.C. Page), the FOPO-DIWG reviewed the literature to assess the current data on diversity in departments of pediatrics and the presence of cultural competency programs for residents, fellows, and faculty. We did not identify any references specifically assessing diversity and inclusion among pediatric departments, and there were limited data on cultural competency training in pediatric programs. Therefore, the FOPO-DIWG developed an online survey to evaluate the diversity plans, definitions, numbers, inclusion, and cultural competency training in departments of pediatrics across the United States (Supplemental Appendix). Three department chairs (B.J.S., J.W.S., and H.M. O’Brodovich) helped evaluate the face validity of the questionnaire by assessing its clarity and overall format. Although the questionnaire had face validity, it was not validated against actual departmental data or tested for reliability. A list of all chairs of pediatrics was obtained from the Association of Medical School Pediatric Department Chairs. We used Qualtrics, an online survey program, to contact all 131 US department chairs from June to November 2013. If the chair did not respond to the initial e-mail, 2 additional e-mail attempts and personal outreach were done to encourage participation in the survey. The study protocol and survey questions were reviewed and approved by the Stanford University School of Medicine Institutional Review Board. The survey data were evaluated through descriptive and bivariate analyses. Survey responses varied in completeness, and we report the samples sizes for each response.

**RESULTS**

Half of all department chairs (49.6%) responded to the survey. The chairs represented departments that were widely distributed across the United States, and no single region of the country was disproportionately represented. However, department chairs of private medical schools were significantly more likely to respond to the survey than chairs of public medical schools.

Three-fourths of chairs who responded to the survey reported that their department used either their school of medicine’s diversity plan or a departmental diversity plan and had implemented the plan. There was no difference in the presence or absence of a diversity plan according to geographic region or public or private status.
Department chairs reported that they included multiple groups in their diversity efforts, including racial and ethnic, sexual and gender identity, physical disability, and socioeconomic status groups. Table 1 shows the percentage of departments that identified a specific group for diversity activities. These figures represent diversity efforts for all categories, from residents to pediatric leaders. Overall, pediatric departments included a wide range of groups in their diversity efforts. Women were included in departmental diversity activities; women are well represented among residents (75%) but are less well represented in the pipeline to department chairs (26.2%) (Table 2). The chairs reported low racial and ethnic diversity among all groups (Table 3). Our survey did not assess how chairs obtained the data they reported, but the proportions of Latinos and African Americans (2% to 9%) were low compared with the general population. In contrast, compared with the general population, Asian Americans were well represented among trainees (15% of residents and 33% of fellows) but less well represented among faculty members and departmental leaders. Finally, the chairs reported representation of LGBT individuals in most categories, with 5% of residency directors reported as LGBT.

Most chairs assessed their success in diversity efforts by monitoring the number of diverse individuals in the department (88%). Approximately half of chairs also reported that they evaluated their success by the departmental climate in support of diversity and the promotion of diverse faculty (Table 4). However, only one-third of chairs conducted exit interviews with faculty and trainees of diverse backgrounds. Sixty-nine percent of chairs reported high scores for their diversity efforts, scoring 4 to 6 on a scale of 1 to 6. There was no significant difference in the chairs’ ratings of success by the presence or absence of a diversity plan, geographic regional, or public versus private status.

Lastly, the survey assessed departmental efforts in cultural competency training for residents, faculty, and staff. Nearly all chairs (90%) reported that trainees underwent cultural competency training, but only three-quarters reported that faculty and staff undergo such training (Table 5). The training includes online teaching, case-based instruction, and traditional lectures (Table 6). Of note, half of the chairs reported that they provide linguistic training for trainees, primarily for learning Spanish.

**DISCUSSION**

This national survey of pediatric department chairs is the first to report data on the diversity of the academic pediatric workforce, departmental diversity plans, and measures to assess diversity and inclusion, and it adds to the information on departments’ training efforts in cultural competency. The majority of chairs reported that they are following a plan for diversity, either their school’s or their own. However, one-quarter of chairs reported that they had no plan or reported that they are not following their school’s plan. One half of all chairs did not respond to our invitation to participate in the survey; it is possible that chairs who responded are more likely to engage in diversity efforts. In future studies it would be useful to elucidate chairs’ decision-making process with respect to diversity. However, even among the survey respondents who reported that they follow a diversity plan, the low numbers of underrepresented trainees, faculty, and leaders demonstrate that the goal of a racially and ethnically diverse workforce remains out of reach. Similarly, the low number of women in leadership positions indicates that we have not achieved a gender-inclusive workforce. Nonetheless, nearly 70% of department chairs reported high scores in their sense of success in their diversity efforts. The actual numbers of diverse trainees and faculty imply that gender, LGBT, and racial and ethnic diversity, particularly at leadership levels, warrant greater attention.

The discrepancy between the chairs’ perceived success and the low numbers of URMs might be explained by the way diversity is measured, the relative importance of diversity efforts, or its conceptualization. Although we did not assess the means by which departments collect data on diversity, we did assess how chairs measure success in diversity, which includes counting diverse individuals, assessing departmental climate, monitoring the promotion of diverse individuals, and conducting exit interviews. Our data do not permit an analysis of the priority chairs assign to diversity efforts or the ways they determine success, but they appear to have adopted a broad conceptualization of diversity, including other groups besides URMs. The adoption of a broader lens for diversity efforts may increase the sense of success when chairs are...
faced with low and unchanging numbers of URM trainees and faculty. Our survey data demonstrate that the proportion of women along the pipeline from resident to chair decreases significantly at every level. Given the fact that women represented one-third of medical students in 1983 and that medical schools became gender-balanced in 2003, one would expect a higher proportion of female chairs than that reported in our survey or noted nationally. Unquestionably, we need to facilitate the development of academic women leaders. Domini et al have identified mentoring, creating career flexibility for family needs, and addressing academic leaders’ implicit or unconscious bias as key strategies to accomplish this goal. The presence of unconscious bias is also supported by the findings of Moss-Racusin et al, on gender bias in science, and a literature review by the AAMC on unconscious bias. Clearly, the high proportion of women in pediatrics necessitates that departments provide support for pursuing academic and leadership careers. Moreover, department chairs need to educate the pipeline gatekeepers (program directors, division chiefs, and senior faculty) about the issue of explicit and unconscious bias and the need to create supportive academic pathways for all.

A decade ago, the Institute of Medicine recommended increasing the racial and ethnic diversity of the health workforce. Achieving greater racial and ethnic diversity in pediatrics will take robust efforts to develop a stronger pipeline, particularly for URM students. At present, the Liaison Committee on Medical Education (LCME) requires each school of medicine to have a diversity plan for accreditation. Therefore, the execution of their school’s diversity plan by all departments of pediatrics seems necessary to meet the LCME requirements and prepare for future workforce needs. Yet this requirement must be accompanied by an understanding of the function of diversity for it to be sustainable. In Nivet’s hierarchical paradigm of diversity in medicine, the Diversity Operating Systems (DOS 1.0) focuses on equity for URMs in the health professions through processes that decrease barriers and facilitate entry into the health professions. DOS 2.0 is centered on the idea that diversity among trainees and faculty has intrinsic value and enhances the educational experience of all involved, both minority and nonminority. DOS 3.0 defines diversity as a way to increase the quality and excellence of health care for diverse populations by using the assets and perspectives that diverse individuals bring to the health care system. Clearly, all 3 DOS levels are connected and needed. Moving in this direction, the AAMC has encouraged its member schools to define diversity broadly to enhance all their missions, emphasizing the need for racial and ethnic diversity. Our survey data demonstrate that departments are defining diversity in a broad manner, including gender, race, ethnicity, sexual orientation, disability, and social class, but unfortunately they fall short in actual racial and ethnic diversity.

Realistically, the pipeline for racial and ethnic diversity in pediatrics starts in medical schools. Unfortunately, according to AAMC data on US medical school graduates, from 2002 to 2012 there was no change in the proportion of graduates who were African American or Native American (7% and 0.8%, respectively), and the proportion of Latinos rose slightly, from 6% to

<table>
<thead>
<tr>
<th>Group (N)</th>
<th>Residents (3832)</th>
<th>Clinical Fellows (2286)</th>
<th>Research Fellows (945)</th>
<th>Faculty (11 168)</th>
<th>Residency Directors (118)</th>
<th>Division Chiefs (837)</th>
<th>Vice Chairs (197)</th>
<th>Chairs (65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American, %</td>
<td>6.6</td>
<td>4.7</td>
<td>2</td>
<td>4.2</td>
<td>2.5</td>
<td>2.3</td>
<td>1.0</td>
<td>4.6</td>
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<tr>
<td>Native American or Alaska Native, %</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>0.2</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Asian American, %</td>
<td>14.9</td>
<td>19.7</td>
<td>32.7</td>
<td>14.4</td>
<td>4.2</td>
<td>7.8</td>
<td>4.6</td>
<td>0</td>
</tr>
<tr>
<td>Latino, %</td>
<td>5.1</td>
<td>5.6</td>
<td>3.7</td>
<td>4.4</td>
<td>2.5</td>
<td>3.6</td>
<td>1</td>
<td>9.2</td>
</tr>
<tr>
<td>Hawaiian or Pacific Islander, %</td>
<td>0.4</td>
<td>1.4</td>
<td>0.4</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White non-Hispanic, %</td>
<td>70</td>
<td>56.8</td>
<td>42.5</td>
<td>73.2</td>
<td>79.7</td>
<td>80.3</td>
<td>87.8</td>
<td>86.2</td>
</tr>
<tr>
<td>LGBT, %</td>
<td>0.8</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
<td>5.1</td>
<td>1.0</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Physically disabled, %</td>
<td>0.4</td>
<td>0</td>
<td>0.1</td>
<td>0.2</td>
<td>0</td>
<td>0.4</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>Unknown, %</td>
<td>1.5</td>
<td>11.2</td>
<td>18.2</td>
<td>2.7</td>
<td>0</td>
<td>4.4</td>
<td>1.5</td>
<td>0</td>
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schools over the past decades, and Exit interviews conducted with faculty who leave the institution. Faculty members showed similar percentages of URMs among pediatric residents and fellows, academic department leaders reported high numbers of Asian residents, fellows, and faculty but disproportionally lower numbers among leaders. If the key to increasing racial and ethnic diversity in pediatrics is to improve the pipeline at all levels, particularly at its entry point, medical school, we need to seek innovative ways to accomplish this goal.

A review of the literature on URM pipeline programs for medical schools suggests that outcomes are mostly successful but primarily short term (getting students into medical school), and they need to perform more long-term assessments, such as retention and career success. For residents and fellows, academic pipeline programs for URM residents and fellows are very limited, but 2 innovative programs from the Academic Pediatric Association, the Century Scholars Program (directed at minority residents interested in academics) and the Research in Academic Pediatrics Initiative on Diversity (supporting minority fellows and junior faculty), have reported success (L. Pachter, DO and G. Flores, MD, personal communications, September 10, 2014 and September 23, 2014). Both programs focus on mentorship, role modeling, and facilitating academic networking. However, on the other end of the spectrum, a recent review of minority faculty development programs found that they have limited impact on the numbers and success of minority faculty. Overall, the pipeline programs need to continue but must also develop strong, evidence-based foundations. The US Census Bureau estimates that 44.5% of all children will be minorities by 2020. Moreover, by 2050, 1 in 3 children will live in an immigrant family, and the proportion of Latino children in the United States will equal the proportion of non-Hispanic white children at 36%. Consequently, pediatric departments need to respond to the cultural and linguistic needs of their patients by educating all trainees and faculty, independent of their racial or ethnic backgrounds, in providing culturally effective care. Such training would be expected to reduce unconscious bias by educating people about other cultures. It is impressive that almost 90% of chairs reported that they have cultural competency training for residents and also engage fellows and faculty in this training. The breadth of activities in this area demonstrates the various ways educators are attempting to address cultural competency training. Of interest, almost half of all chairs who participated in the survey reported efforts to increase linguistic competency among residents, particularly in Spanish. Although teaching adequate language skills during residency is difficult and may make physicians overconfident in their linguistic competency, at a minimum this finding demonstrates that departments place a value on improved linguistic competency. Even though cultural competency training still needs a stronger evidence-based foundation, it will be the cornerstone of improved care for culturally and linguistically diverse populations.

Our study has limitations. Half of the chairs did not participate, and although we did not have a geographic bias in our sample, more private medical schools responded. This difference may have led to oversampling of departments with greater flexibility in the area of diversity. Although our questionnaire had face validity, we were unable to substantiate the accuracy of chairs’ responses. Likewise, there may be social desirability biases, which may partially explain the chairs’ high rating of their success in diversity efforts.

CONCLUSIONS

Our survey of department chairs in pediatrics demonstrates that although most departments have made intentional efforts to improve diversity and inclusion, all departments should continue to strive to improve racial and ethnic diversity and to increase leadership

### TABLE 4 Types of Measures Used to Assess Success of Diversity Efforts in Academic Pediatric Departments (n = 65)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Number of Departments</th>
</tr>
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<tbody>
<tr>
<td>Numbers of individuals in diversity categories</td>
<td>57</td>
</tr>
<tr>
<td>Faculty members’ assessments of the climate of inclusion in your department</td>
<td>38</td>
</tr>
<tr>
<td>Assessments of promotion success among faculty by diversity categories</td>
<td>35</td>
</tr>
<tr>
<td>Exit interviews conducted with faculty who leave the institution</td>
<td>21</td>
</tr>
</tbody>
</table>

### TABLE 5 Cultural Competency Training Requirements in Departments of Pediatrics

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes, 1 Time</th>
<th>Yes, &gt;1 Time</th>
<th>No</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>18</td>
<td>38</td>
<td>6</td>
<td>63</td>
</tr>
<tr>
<td>Clinical fellows</td>
<td>14</td>
<td>26</td>
<td>7</td>
<td>58</td>
</tr>
<tr>
<td>Faculty</td>
<td>19</td>
<td>27</td>
<td>16</td>
<td>62</td>
</tr>
<tr>
<td>Staff</td>
<td>14</td>
<td>24</td>
<td>22</td>
<td>60</td>
</tr>
</tbody>
</table>
opportunities for women, LGBT people, and ethnic minorities.

We conclude with the following suggestions for the pediatric community:

For departments:

1. Department chairs and other department leaders should foster and support diversity, inclusion, and culturally competency in all aspects of the academic mission: clinical care, education, and research.

2. Departments of pediatrics should adopt a diversity plan that is consistent with their school’s plan and should develop metrics that can be applied to an annual dashboard assessment for all departmental leaders.

3. Department chairs and their leadership teams should undergo training to elucidate and address the influence of unconscious bias and actively work with diverse department members to create supportive academic environments. In addition, all faculty members should receive cultural competency training to support their education, clinical care, and research activities.

4. Departments of pediatrics should provide leadership training opportunities that focus on minorities, women, and LGBT individuals to enhance their careers and prepare them for leadership positions in pediatrics. For example, programs such as the Executive Leadership in Academic Medicine and AAMC faculty development programs are available to promote faculty leadership for minorities, women, and LGBT individuals.

For the Accreditation Council for Graduate Medical Education:

5. The Accreditation Council for Graduate Medical Education Pediatric Residency Review Committee should develop an evidence-based cultural competency curriculum and require that all pediatric training programs use the curriculum.

For pediatric organizations:

6. All pediatric organizations and societies should publicly commit to the development and execution of a plan to increase diversity in their organizations.

7. Over the next 5 years, the leaders of all national pediatric organizations should establish explicit and ambitious targets to increase diversity among members and leaders.

8. Pediatric organizations and societies should partner with the AAMC to increase the number of URMs who pursue a career in medicine and actively encourage careers in pediatrics. These efforts should include encouraging minority children and youth to pursue careers in health and science.

9. The FOPO should establish a standing committee to coordinate activities between its members and advocate for greater diversity and inclusion in pediatrics.

We believe that these actions will strengthen the nation’s pediatric workforce and address the health care needs of a growing diverse population of American children.

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REFERENCES

1. US Census Bureau. Most children younger than age 1 are minorities, Census Bureau reports, May 17, 2012. Available at: https://www.census.gov/newsroom/


6. Dominici F, Fried LP, Zeger SL. So few women leaders: it’s no longer a pipeline problem, so what are the root causes? Academe. 2009;95(4).


9. Liaison Committee on Medical Education. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree. Washington, DC: LCME; 2013.


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