

Fostering Diversity and Inclusion: A Summary of the 2017 Intersociety Summer Conference

Jonathan B. Kruskal, MD, PhD^a, Amy K. Patel, MD^a, Deborah Levine, MD^a, Cheri L. Canon, MD^b, Katarzyna J. Macura, MD^c, Brenda J. Allen, PhD^d, Carolyn Meltzer, MD^e

Abstract

The 39th radiology Intersociety Committee reviewed the current state of diversity among trainees and in our workplaces and addressed future strategies for fostering diversity through inclusion. The assembled participants addressed the imperatives and drivers for diversity and developed a road map to foster diversity. Themes included the need to be proactive in increasing awareness of our own biases and their potential impact on workplace decisions, overcoming blind spots, and being culturally sensitive. The need to identify and eliminate barriers to diversity was discussed at both the organizational and practice level and included efforts to break down structural and clinical barriers, such as training in multicultural awareness. Additional strategies that were addressed included building inclusive work environments; facilitating debate, conversations, and community building; and pipelining medical students through mentoring pathways. The conference ended with a call to action to develop toolkits with effective resources to support the necessary diversity and inclusion initiatives we must all undertake.

Key Words: Intersociety Committee, ACR, radiology, diversity, inclusion, implicit bias

J Am Coll Radiol 2018;■:■-■. Copyright © 2018 American College of Radiology

INTRODUCTION

It is well recognized that to provide service excellence for diverse customers, one needs as diverse a workforce as possible [1]. The mismatch between the demographics of our radiology providers in the reading rooms, procedure suites, and clinics and our patients in the waiting rooms will only increase unless we take active steps to be more inclusive, to understand and diminish implicit biases, to communicate about our social identities [2,3], and to

put formal processes in place to foster diversity. Until inclusive behaviors and diversity find themselves in the value statements and core missions of practices, this gap will not be narrowed. Achieving diversity will not occur spontaneously; it requires a sustained, managed, and thoughtful effort to meet the moral imperative of achieving equity [4].

To further explore ways to deliver ever improving care to our patients, the 2017 Annual ACR Intersociety Summer Conference held in Annapolis, Maryland, explored the current state of diversity in our profession. Although the subject of diversity is not new to us [5-8], the data show little if any progress toward improving diversity in our field [6]. Diversity embraces a broad range of categories, encompassing ethnicity, ability status, age, gender, sexual orientation, race, background, and geography, all of which contribute to the broader tapestry from which a diverse workforce can be created.

Consequently, the goals of this meeting were to better understand the imperative of diversity and to seek effective ways of fostering diversity and inclusion in our workforce.

^aDepartment of Radiology, Beth Israel Deaconess Medical Center, Boston, Massachusetts.

^bDepartment of Radiology, University of Alabama at Birmingham, Birmingham, Alabama.

^cDepartment of Radiology, Johns Hopkins Hospital, Baltimore, Maryland.

^dOffice of Diversity and Inclusion, University of Colorado at Denver, Denver, Colorado.

^eDepartment of Radiology, Emory University Hospital, Atlanta, Georgia. Corresponding author and reprints: Jonathan B. Kruskal, MD, PhD, Department of Radiology, Beth Israel Deaconess Medical Center, Rosenberg 302, One Deaconess Road, Boston, MA 02215; e-mail: jkruskal@bidmc.harvard.edu.

The authors have no conflicts of interest related to the material discussed in this article.

THE IMPERATIVE OF DIVERSITY—WHY IS A DIVERSE WORKFORCE IMPORTANT?

Diversity encompasses not only differences in demographics, backgrounds, personal identities, and intellectual approaches, it also embraces the removal of barriers and the creation of space that allows individuals to fully engage in the life of an organization. Diversity and inclusion have long been recognized as important strategic tools that enable institutions and organizations to excel through enriched collaborations, as well as innovation and growth [5]. It is projected that by 2055, there will be no majority race or ethnicity in the United States [9]. To fully understand our challenges and opportunities, a better understanding of the terms is necessary. Table 1 is a proposed lexicon of terms when discussing the numerous layers encompassing diversity [10].

The imperative for diversity can best be understood and justified from different perspectives.

The Business Case

Beyond ensuring fairness from a social justice perspective, diversity matters because it promotes greater creativity and innovation, more dialogue and discussion, novel questions and solutions, and improved decision making. In the business world, these are essential requirements for success and even survival. According to a Forbes study of 321 executives in companies that grossed \$500 million or more annually, one key finding was “Diversity is a key driver of innovation and is a critical component of being successful on a global scale” [11]. Teams comprised of diverse opinions, viewpoints, perspectives, ideas, and backgrounds tend to outperform homogeneous groups on problem-solving tasks. Prodiversity work environments have significant impactful effects on key business indicators, including sales and staff retention. Over a 10-year period, data from shares of companies who score 100% on the corporate equality index (a national benchmarking tool on corporate policies and practices pertinent to lesbian, gay, bisexual, transgender, and queer [LGBTQ] employees) show that they strongly outperform the S&P 500 index. Companies that are more diverse and inclusive are better able to anticipate customer needs and access a broader customer base.

It is also recognized that LGBTQ-inclusive companies attract top talent [12]; 72% of allies prefer to work for inclusive companies because these companies provide a positive environment for all employees to reach their full potential. The millennial generation wants to work for diverse and inclusive companies at a significantly higher rate than employed Generation Xers and baby

boomers. From an employee retention and loyalty perspective, 84% of LGBTQ employees at supportive companies say they are proud to work for their employer. Individuals working in open, diverse, inclusive environments are more likely to speak up with suggestions to improve performance. LGBTQ inclusion is associated with higher levels of innovation and more effective collaboration and teamwork.

The Social Justice and Moral Case

Social justice is a broad term that includes any action intended to create genuine equality, fairness, and respect among people. Creating a physician workforce that matches the changing US population is likely to address inequalities in health and health care [13].

The Clinical Care Case

We know that patients are more likely to seek care from physicians who share similar demographic characteristics [14] and that minority physicians are more likely to understand health care disparities that impact care and outcomes of minority patients. Research demonstrates that diversity leads to better scientific outcomes stemming from more diverse patient demographics. This translates to better problem solving [15]. Moreover, racial and ethnic minority patients receive better interpersonal care from practitioners of their own race or ethnicity [16,17]. Conversely, there is a negative economic impact of health care disparities. Health disparities cost the nation over \$300 billion per year through excess medial expenditures [18].

The Workforce Talent Case

Radiology as a field needs creativity and innovation, particularly at a time when we are experiencing challenges (such as decreasing reimbursement, high productivity expectations, inefficient workflows, stress in the workplace, and burnout) as well as opportunities (such as artificial intelligence and machine learning; advances in molecular medicine; National Institutes of Health initiatives in cancer, brain science, and personalized medicine; new education paradigms, etc). As a field, if we do not become attractive to a broader range of talent, we are less likely to achieve our full potential. Furthermore, other fields of medicine and biomedical research that traditionally lack in diversity have made greater strides in proactively correcting their deficiencies than radiology—good examples include medical physics, orthopedics, and surgery.

Table 1. A Lexicon of Diversity

| Term | Definition |
|------------------------|--|
| Ableism | Discrimination against persons with mental or physical disabilities |
| Allies | People who support, empower, or stand up for other people or groups of people |
| Anti-oppression | Recognizing and deconstructing the systemic, institutional, and personal forms of disempowerment used by certain groups over others; actively challenging the different forms of oppression |
| Bullying | Threatening, intimidating, and exclusionary behavior against an individual |
| Colorblind | Personal, group, or institutional policies and practices that do not consider race or ethnicity as a determining factor |
| Cultural competence | Knowledge, awareness, and interpersonal skills that allow individuals to increase their understanding, sensitivity, appreciation, and responsiveness to cultural differences and the interactions resulting from them |
| Culture | A social system of meaning and custom that is developed by a group of people to assure its adaptation and survival |
| Diversity [37] | Described in many ways, including individual traits, group, and social differences; from a workplace perspective, described as “a mixed workforce that provides a wide range of abilities, experience, knowledge and strengths due to heterogeneity in age, background, ethnicity, language, physical abilities, political and religious beliefs, sex and other attributes” [37] |
| Emotional intelligence | Characterized by possessing high self- and social awareness, self-management, and self-regulation skills; also includes motivation, empathy, and effective relationship management and social skills |

(continued)

Table 1. Continued

| Term | Definition |
|-------------------|--|
| Equity [38] | Describes fair and just treatment of all members of a work community through the creation of opportunities that address historic and current disadvantages for underrepresented populations [38] |
| Inclusion | The active and intentional operationalization of diversity and equity within every facet of an organization or practice |
| LGBTQ | Acronym for lesbian, gay, bisexual, transgender, and queer |
| Micro-aggressions | Casual and often brief statements, actions, or incidents that can be regarded as indirect, subtle, or unintentional discrimination against members of a minority or marginalized group |
| Privilege | Power and advantages benefitting a group stemming from the historical oppression and exploitation of other groups |
| Social justice | A vision of society in which the distribution of resources is equitable and all members are physically and psychologically safe and secure |
| Tolerance | Acceptance and open-mindedness to different practices, attitudes, and cultures |
| Unconscious bias | Also known as implicit bias, stereotypes that people formulate about other people or groups outside of their own conscious awareness |

THE CURRENT STATE OF DIVERSITY IN RADIOLOGY

Achieving a diverse workforce is an active process that takes time, careful planning, active inclusion efforts, and an understanding of the negative consequences of implicit biases.

Racial Diversity

Minorities remain disproportionately underrepresented in radiology compared with other specialties. In fact, underrepresented minorities comprised 15.3% of medical graduates in 2012 and 8.3% of diagnostic radiology residents. This leads to a lack of “downstream representation as residents, fellows, faculty, and practicing physicians” [5-7].

Unfortunately, this begins at the medical school level. For example, the number of black males entering medical school has actually decreased in recent years and is even less than those entering medical school in the 1970s, with some even calling this an “American crisis” and “call to arms.” In 2014, only 515 black men entered medical school, less than the 541 who entered in 1978. Moreover, they are the only minority group to demonstrate medical school matriculation regression even when compared with black female medical students [19-21].

Gender Diversity

According to data released by the AMA in 2018 [22], 46% to 47% of medical students are women, and only 27% of individuals entering radiology residency are women. According to the 2017 ACR Commission on Human Resources Workforce Survey, younger women (less than age 45) comprise 32% of the radiology workforce, which is an improvement over prior years. Although promising, women continue to lag in representation as chairs and vice chairs at academic institutions and presidents of private practice groups.

For other minority or nondominant communities including our LGBTQ colleagues, there is a paucity of data yet it is known that such groups “face unique barriers to entry and advancement” [5-7].

MOVING OUR FIELD FORWARD—A ROAD MAP TO FOSTER DIVERSITY

When analyzing examples of effective inclusion practices that have resulted in more diverse workforces, several lessons can be shared, including that effort must be sustained and focused at the organizational, practice, practice leadership, and personal levels. Promoting diversity and inclusion requires a constant, thoughtful, and sustained effort and needs to be resourced continuously (Table 2).

There are many examples of local successes at the practice, hospital, organizational, and medical school levels from which we can learn, and sharing these lessons is important as we strive to bring about more global change. Many of these changes have occurred and been sustained because of an effective champion or group of committed individuals who share a common desire to implement change. However, these individuals must be empowered to enact change and sustain diversity efforts.

Increasingly, organizations are including trainees and younger members in operations committees to foster their engagement and retention. Our younger generation is far more attuned to the imperatives and realities of

Table 2. Steps for promoting diversity and inclusion

| Steps |
|---|
| Start on a personal level—identify your unconscious biases [29]. |
| Begin locally and then expand more broadly. |
| Provide training in cultural sensitivity and recognizing and responding to unconscious bias. |
| Ensure that diversity is on your mission and value statements and is included in your annual goals. |
| Implement formal processes to hire, retain, mentor, and promote members of nondominant groups, ensuring equity in salary and promotions. |
| Be inclusive of patients—embrace patient perspectives and include patients in committees, panels, and projects. |
| Foster respect and acceptable behavior in the workplace with effective codes of conduct. |
| Consider appointing a Chief Diversity Officer or diversity champion along with a team to implement, manage, and sustain necessary changes [39]. |
| Constantly seek feedback about effectiveness and improvement opportunities. |
| Share positive and negative results to aid other programs and practices. |

diversity [23] and is more likely to help drive the cultural shift that is needed; a survey by Weber Shandwick and the Institute for Public Relations [24] demonstrated that millennials—relative to Generation Xers and baby boomers—are more comfortable talking about issues of diversity and inclusion, more likely to report discrimination and bias in their workplace, and place greater value on a diverse and inclusive workplace as an important job selection criterion.

Leaders must seek out diversity, must actively create inclusion, and should drive accountability [25]. Bourke and Dillon have described six signature traits of inclusive leaders [26]. These traits include possessing a commitment to enhancing inclusion and diversity, as well as possessing the courage to speak up and to challenge the status quo, being aware of bias and its detrimental effects, being curious and open minded, having a desire to learn from others, having tolerance and humility, and recognizing that different ideas and experiences enable growth. An inclusive leader possesses cultural intelligence characterized by openness and inquisitiveness and fosters collaboration by recognizing that a diverse thinking team is greater than the sum of its parts.

As a leader, it is critical to reframe diversity as a core competence for achieving institutional and practice effectiveness, excellence, and viability [27]. This requires making diversity a departmental and even an institutional

priority, fostering a workplace environment where a variety of different voices are encouraged and heard, and leveraging the many benefits of a diverse workforce to address issues relating to access, outcomes, and disparities in society.

Academic practices have the opportunity to appoint vice chairs of diversity to signal that a group prioritizes this portfolio in the same way as quality, research, and education. Such a position can help establish and support faculty networks and affinity groups, promote awareness of the impact of implicit bias on workplace decisions, and ensure that equity advisory groups exist for search committees.

To foster respect and acceptable behavior in the workplace, effective codes of conduct should be developed and deployed and should include a description of how people will be held accountable for their behaviors. Policies should foster and support a diverse workforce, including equitable salary structures, vacation time, and opportunities for career advancement. The recruitment process is an ideal opportunity for putting policies in place that will lead to a diverse pool of candidates being evaluated in line with an organization's mission. An organization can send a simple message of support for all workers by establishing systems that support work-life engagement and flexibility.

Be Proactive in Eliminating Bias

As important as it is that we understand what bias is and its many manifestations, we must also recognize and accept that we all have biases. When we are aware of our biases, we are more likely to be vigilant when it comes to our decision-making and thought processes. Ross has suggested approaches to help eliminate biases [28] including learning to confront your own biases, overcoming your personal blind spots, and being culturally responsive. By consciously putting safeguards in place, people are encouraged to be more conscious of their decision-making processes. By reorganizing structures, processes, and systems, bias can be minimized through behavioral modification and by creating consistency [28].

Put formal processes in place to even the search and recruitment field. Standardize questions during the interview process to reduce bias that might occur in free-form interviews. Analysis of metrics across the recruiting, hiring, and retention process may allow recognition of areas of weakness where breakdowns are occurring.

One way to confront bias is to be aware of our own biases. We suggest that you take the implicit association test, a series of online tests (developed by Tony

Greenwald, Mahzarin Banaji, and Brian Nosek in 1998) aimed at illuminating personal unconscious biases toward a variety of characteristics [29]. We must find ways not to perpetuate inequities. Explore your own awkwardness and discomfort, engage with people you consider “others,” and expose yourself to positive role models in that group. Learn to overcome blind spots, those cognitive biases that unintentionally impact and limit our recognition of biases when judging or interacting with others. Blind spots are influenced by one's experience, personality, and values [30].

Be culturally responsive. Completing cultural competency training does not infer that one is culturally responsive. We serve a wide range of diverse, marginalized, and even vulnerable populations, and a basic understanding of what our patients value, expect, and prefer only partly helps us to optimize the care that we deliver. The platinum rule states that we should “treat others in the way they want to be treated,” and this can be best achieved with a more comprehensive understanding of the many different characteristics, complexities, and constructs of each of our patients.

Identify and Eliminate Barriers to Diversity

Sociocultural barriers exist in many forms and at many levels. These include the traditional barriers referred to as sticky floors and glass ceilings, as well as so-called leaky pipes. From a health care perspective, Betancourt et al identified three major levels at which barriers exist that contribute to racial and ethnic disparities: organizational and leadership, structural, and clinical [31]. Effective organizational leaders should focus on advocacy and creating awareness—diversity metrics should be visibly displayed, and marketing media and branding should support diversity initiatives. Diversity goals should be included in the educational, research, clinical, and staff wellness missions, and ideally in every facet of an organization's work.

Structural barriers exist due to differences in language, access, local service availability, lack of a diverse workforce, and lack of effective policies that promote and foster diversity [31]. To overcome this, initiatives must be carried out that encompass quality and equitable health care within the health care delivery system. This leads to patient satisfaction, adherence, and more favorable health outcomes.

Clinical barriers are overcome with increasing multicultural awareness, teaching workers how to refine the social history, fixing barriers to compliance,

understanding and minimizing existing disparities, and focusing both on health care workers and support staff, as well as patients [31]. For patients from different ethnic, socioeconomic, cultural, language, and religious backgrounds, consider how important understandable language is in signage, registration materials, reports, and verbal and written instructions.

Build an Inclusive Work Environment

Opportunities abound for creating inclusive work environments. The challenges are managing people and their conduct, processes of accountability, and differing expectations; embracing different viewpoints; and mandating an environment of respect. Diversity adds to this complexity by having to take into account generational, cultural, religious, and different viewpoints. Smith has defined four domains of diversity to address key dimensions to enable an operational approach that is inclusive and differentiated. These domains are institutional viability and vitality, education and scholarship, intergroup relations, and access for underrepresented individuals [32]. Diversity should be an institutional and practice priority supported by a culture of transparency and an environment where it is safe to speak up.

Develop an Inclusive Awareness. Use inclusive language, avoid heteronormative assumptions, use images that reflect the diversity of your staff, and ensure that social events are safe and open environments for all colleagues and partners. To create an LGBTQ-inclusive environment, make it an organizational priority. Ensure that policies and practices are aligned with this priority including antidiscrimination and family leave policies, gender transition plans, and health insurance that provides coverage for transgender health needs. Show visible support by creating networking opportunities, ensure visibility of policies, and create safe spaces.

Be an Ally. Support and advocate for inclusive policies, engage colleagues, offer to serve as a mentor, educate yourself, know the difference between sympathy and empathy, attend networking events, join employee resource groups, and go to inclusive events such as a local Pride event. Gender equity can be facilitated by having clear guidelines for family medical leave and by having lactation rooms.

In all efforts to foster diversity, it is important to note that one should not neglect the overrepresented groups, embracing the concept of “empathy all around.” Our talented and diverse family equates to our excellence.

Facilitate Debate, Conversation, and Community Building

Facilitating debate and conversation cultivates curiosity and allows people to receive or provide feedback [28]. Listen, observe, and learn from different viewpoints. Create opportunities for interaction, dialogue, and reflection. How we approach and talk about these issues leads to how we frame them to make improvements. Promote awareness of the issues through channels such as social media where discussions are already taking place.

Create communities locally at the practice level, as well as within regional and national organizations. Perhaps we should consider a national radiology diversity council with representatives from our different societies and organizations. The ACR’s Commission for Women and Diversity or an organization such as Association of University Radiologists could take the lead in hosting such multi-society forums. This concept can capitalize on the ACR Commission’s Diversity Forums that have been conducted since 2015 to discuss strategies for developing a broad grassroots support and effective participation in cooperative efforts toward increasing diversity of radiology professionals at all levels of training, practice, and leadership. National organizations should foster and support networking and mentoring activities and should facilitate spreading the successful lessons from smaller groups within the organization.

Develop and Utilize Toolkits

Many organizations are developing resources to foster diversity in the workplace. To date, the focus has been on educational initiatives with emphasis on change management, unconscious bias, and cultural competency. However, these tools will not work if people are not ready to use them. One recommendation of the intersociety conference was to establish a Diversity Practices Inventory (Table 3) that can be used as a repository to not only identify and reference sources of diversity initiatives, but also illustrate effective processes and success stories.

Not all diversity efforts succeed—the positive effects of diversity training rarely last beyond a day or two, and studies have suggested that these activities can activate bias [33]. This is in part because the justification for training is often based on the legal necessity rather than any moral or economic imperative. Mandating ineffective training or employing dated methodologies will also backfire. Successful efforts have resulted from engaging managers in solving diversity problems rather than enforcing rules and policies, exposing leaders and

Table 3. Suggestions for an online diversity practices inventory

| Suggestions |
|--|
| Links to unconscious bias tests [28] |
| Best practice for admissions and search committees to ensure holistic consideration of candidates, including behavioral interview questions |
| Central database of best practices and success stories (as well as failure stories) |
| Materials relating to leadership development and career advancement (include diversity and inclusion in the curricula of the RLI and ARLM) |
| Effective mentoring processes |
| Policies relating to recruiting and onboarding, maternity leave, and family medical leave |
| Examples of diversity incorporated into vision, value, and mission statements |
| Examples of branding organizational support of diversity including “safe zone” signs, materials in newsletters, marketing materials, and on websites |

ARLM = Academy of Radiology Leadership and Management;
RLI = Radiology Leadership Institute

all decision makers to people from different backgrounds and groups, and encouraging social accountability for change [33]. Effective mentoring programs work, as do establishing affinity groups and minimizing control tactics. Effective programs spark engagement and increase contact among different groups.

Pipelines and Pathways to Foster and Sustain Diversity

To attract, retain, and advance a diverse group of physicians into our field, attention needs to be directed at many levels. Efforts to attract a diverse pool of excellent candidates should begin early in medical school. There are innovative and effective medical student outreach efforts currently in place, including hosting diversity days for students interviewing for residencies and national societies actively seeking medical students.

Nth Dimensions is a pipeline program established by orthopedic surgeons in 2004 that works in concert with academic institutions, surgeons in the community, and the industry itself to foster the recruitment of women and underrepresented minorities to address and eliminate the shortage of minority specialty physicians and health care inequities in communities. The ACR is now one of the program’s sponsors and funds the Pipeline Initiative for Enrichment of Radiology program. The longitudinal mentoring includes early exposure of medical students to the specialty with a hands-on approach, clinical and

research experience during a summer internship, and continuing professional development [34].

In a broader sense, medical students enjoy patient interaction subspecialties such as interventional radiology and breast imaging, so enhancing medical student exposure to these areas of radiology is critical. It is well cited in the literature that one of the reasons women are not entering radiology is the misconception of a paucity of patient interaction [35]. Medical students may find reading room exposure less appealing, so we need to take an active interest in engaging them in patient-centered activities. Allowing students to participate in clinics where they can review imaging studies with patients will make them feel a part of the radiology team and learn to appreciate radiology as a subspecialty.

Engaging our trainees is necessary for ensuring a pipeline of talented future radiologists and maintaining our age-diverse workforce. We should include trainees and young radiologists in practice committees, practice-building projects, and operations committees. We should include in radiology curricula education in practice leadership and management, economics, operations, human resources, and staff wellness.

For young radiologists entering the workforce, the older concept of onboarding has been replaced by more effective engagement, assimilation, integration, and career advancement programs to foster retention and work and career satisfaction [36]. Such efforts require thoughtful planning, mentoring, and oversight and are becoming essential to retain top workers. Assigned mentors are especially important. A concerted effort should be made to implement mentoring in private practice as well as academia. We must ensure equity for all in the promotions process, faculty development processes, research and education support, time and clinical assignments, vacation and salary, assignment of nonclinical administrative responsibilities, administrative support, and personal wellness.

Challenges and Other Considerations

Effecting meaningful change that results in legitimate inclusion demands a percentage of every responsible leader’s time on an ongoing basis. Are we ready to employ diversity dashboards and annual diversity reports? Are we ready to participate in a scorecard of hiring, retention, and the promotions process? These are but a few of the challenging questions we will need to face as we embark on this journey. Another challenge is keeping the focus on our patients and ensuring access to equitable health care. Ultimately, a diverse, cohesive, and connected workforce translates to improved patient care and

outcomes, and we need to tirelessly strive to ensure that this occurs. We cannot afford to be exclusive—the house of radiology should be all of our homes.

In summary, we know that diversity and inclusion practices are important strategic tools that enable practices and institutions to excel through enrichment. Despite this, progress toward achieving a more diverse and equitable workforce has been slow at best. The Intersociety Conference discussed these challenges and identified a series of action items to foster our ongoing journey toward a more diverse and inclusionary workforce. Our tradition and ongoing pursuit of providing exemplary patient-centered care will be enhanced if we can shift the diversity dial to provide our imaging health care providers with more welcoming and inclusive work environments that in turn will benefit the diverse patient populations we treat.

TAKE-HOME POINTS

- Achieving diversity will not occur spontaneously; it requires a sustained, managed, and thoughtful effort to meet the moral imperative of achieving equity.
- Underrepresented minorities remain disproportionately underrepresented in radiology compared with other specialties.
- Achieving a diverse workforce is an active process that takes time, careful planning, active inclusion efforts, and an understanding of the negative consequences of implicit biases.
- Diversity can best be understood and approached from a business, organizational, social justice, clinical care, and workforce talent perspective.
- To foster diversity, a practice road map should include being proactive in eliminating bias, identifying and eliminating barriers to diversity, and building an inclusive work environment.
- Pipelining efforts to attract a diverse pool of excellent candidates should begin early in medical school.

REFERENCES

1. Nivet M. Diversity 3.0: a necessary systems upgrade. *Acad Med* 2011;86:1487-9.
2. Allen BJ. *Differences matter. Communicating social identity.* Long Grove, IL: Waveland Press, Inc; 2011.
3. Allen BJ, Garg K. Diversity matters in academic radiology: acknowledging and addressing unconscious bias. *J Am Coll Radiol* 2016;13:1426-32.
4. Hammond RA. The moral imperatives for diversity. *Clin Orthop Relat Res* 1999;362:102-6.
5. Lightfoote J, Fielding J, Deville C, et al. Improving diversity, inclusion, and representation in radiology and radiation oncology part 1: why these matter. *J Am Coll Radiol* 2014;11:673-80.
6. Lightfoote JB, Deville C, Ma LD, et al. Diversity, inclusion, and representation: it is time to act. *J Am Coll Radiol* 2016;13:1421-5.
7. Lightfoote JB, Fielding JR, Deville C, et al. Counterpoint: diversity and inclusion: works in progress. *J Am Coll Radiol* 2015;12:975-7.
8. Lightfoote JB, Fielding JR, Deville C, et al. Improving diversity, inclusion, and representation in radiology and radiation oncology part 2: challenges and recommendations. *J Am Coll Radiol* 2014;11:764-70.
9. Available at: <http://www.pewresearch.org/fact-tank/2016/03/31/10-demographic-trends-that-are-shaping-the-u-s-and-the-world/>. Accessed January 5, 2018.
10. Available at: <http://institutionaldiversityblog.com/glossary/>. Accessed January 5, 2018.
11. Available at: https://www.forbes.com/forbesinsights/innovation_diversity/index.html. Accessed January 5, 2018.
12. Hewlett SA, Yoshino K. LGBT-inclusive companies are better at 3 big things. *Harvard Business Review* 2016;94:28.
13. Marrast LM, Zallman L, Woolhandler S, Bor DH, McCormick D. Minority physicians' role in the care of underserved patients: diversifying the physician workforce may be key in addressing health disparities. *JAMA Intern Med* 2014;174:289-91.
14. Street RL, O'Malley KJ, Cooper LA, Haidet P. Understanding concordance in patient-physician relationships: personal and ethnic dimensions of shared identity. *Ann Fam Med* 2007;6:198-205.
15. Hong L, Page SE. groups of diverse problem solvers can outperform groups of high-ability problem solvers. *Proc Natl Acad Sci U S A* 2004;101:16385-9.
16. Chen MS. Cancer health disparities among Asian Americans. What we know and what we need to know. *Cancer* 2005;104:2895-902.
17. Garcia RS. The misuse of race in medical diagnosis. *Chron High Edu* 2003. Available at: <https://www.chronicle.com/article/The-Misuse-of-Race-in-Medical/12109>. Accessed January 5, 2018.
18. LaVeist TA, Gaskin D, Richard P. Estimating the economic burden of racial health inequalities in the United States. *Int J Health Serv* 2011;41:231-8.
19. Laurencin MD, PhD, Murray M. An American crisis: the lack of black men in medicine. National Academy of Medicine 2017. NAM Perspectives. Discussion Paper. Available at: <https://nam.edu/wp-content/uploads/2017/06/An-American-Crisis-The-Lack-of-Black-Men-in-Medicine.pdf>. Accessed January 5, 2018.
20. AAMC. Altering the course: black males in medicine. 2015. Available at: <https://members.aamc.org/eweb/upload/Altering%20the%20Course%20-%20Black%20Males%20in%20Medicine%20AAMC.pdf>. Accessed January 5, 2018.
21. Laurencin C, Murray M. An American crisis: the lack of black men in medicine. *Journal of Racial and Ethnic Health Disparities* 2017;4:317-21.
22. Women in Radiology update. Available at: <https://www.aamc.org/data/facts/enrollmentgraduate/158808/total-enrollment-by-medical-school-by-sex.html>. Accessed February 9, 2018.
23. Lee FH, Worrell JA. Cultural competency in diagnostic imaging. *Acad Radiol* 2005;12:232-6.
24. Available at: <http://www.instituteforpr.org/millennialswork-perspectives-diversity-inclusion/>. Accessed January 8, 2018.
25. Available at: <http://www.aperianglobal.com/leaders-diversity-inclusion-5-lessons-top-global-companies/>. Accessed January 5, 2018.
26. Bourke J, Dillon B. The six signature traits of inclusive leadership. Deloitte University Press. April 2016. Available at: <https://dupress.deloitte.com/dup-us-en/topics/talent/six-signature-traits-of-inclusive-leadership.html>. Accessed on January 5, 2018.
27. Smith D. *Diversity's promise for higher education. Making it work.* Baltimore, MD: The Johns Hopkins University Press; 2009.
28. Ross HJ. Three ways to make less biased decisions. *Harvard Business Review Digital Articles* 4/16/2015,2-5.
29. Implicit Association Test. Available at: <https://implicit.harvard.edu/implicit/takeatest.html>. Accessed January 5, 2018.

30. Available at: <https://www.consultingsociety.com/mindful-leadership-overcoming-leadership-blind-spots>. Accessed January 5, 2018.
31. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong O. Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep* 2003;118:293-302.
32. Smith D. Building institutional capacity for diversity and inclusion in academic medicine. *Acad Med* 2012;87:1511-5.
33. Dobbin F, Kalev A. Why diversity programs fail and what works better. *Harv Bus Rev* 2016;94:52-60.
34. Available at: <http://www.nthdimensions.org/our-story/>. Accessed January 5, 2018.
35. Fielding JR, Major NM, Mullan BF, et al. Choosing a specialty in medicine: female medical students and radiology. *AJR Am J Roentgenol* 2007;188:897-900.
36. Byford M, Watkins MD, Triantogiannis L. Onboarding isn't enough. *Harv Bus Rev* 2017;95:78-86.
37. Available at: <http://www.businessdictionary.com/definition/diversity.html>. Accessed January 5, 2018.
38. Available at: <http://institutionaldiversityblog.com/glossary/equity/>. Accessed January 5, 2018.
39. Available at: <https://members.aamc.org/eweb/upload/The%20Role%20of%20the%20Chief%20Diversity%20Officer%20in%20Academic%20Health%20Centers.pdf>. Accessed January 5, 2018.