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Underrepresented Minority Composition of Invited Panelists at the 2021 ASTRO Annual Meeting

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Abstract

Purpose: The American Society for Radiation Oncology (ASTRO) Annual Meeting is one of the primary venues for radiation oncologists to present new research, network, and share innovations. In this brief report, we describe the racial representation of invited physician speakers at the Annual Meeting relative to the specialty.

Methods and Materials: The program list of all invited educational sessions and panel speakers in the ASTRO annual meetings from 2021 was accessed via the ASTRO website. Race was determined by a combination of facial recognition and Internet investigation. Speakers and panels were divided by race and specialty. Underrepresented in medicine (URiM) was defined as Black race and/or Hispanic ethnicity.

Results: We identified 182 cumulative speaking panels at the 2021 ASTRO annual meeting and 960 individuals who filled these panels. The majority of speakers were of White race (57%), followed by Asian race (34.2%). URiM speakers made up approximately 8.6% of speakers and were mostly congregated in diversity, equity, and inclusion in health care (DEI) panels. A total of 15.6% of panels were White-only, and 14.8% of panels had at least 1 URiM member. URiM race speakers were mostly congregated in DEI panels, comprising 44.9% of DEI speaker positions and 4.1% of non-DEI speaker positions; this difference reached statistical significance ($P < .0001$).

Conclusions: The proportion of underrepresented minorities receiving panel invitations at ASTRO remains minimal and is virtually nonexistent outside of DEI-related panels. Targeted efforts to increase URiM representation will be needed to make tangible progress on this issue, just as they have yielded progress on increasing gender diversity in panel invitations.

Introduction

Studies have shown that there are many challenges associated with treating cancer patients from low-resource settings, including but not limited to gaining access to patients in their natural habitat, increasing ways to monitor toxicities, and improving radiation schedules.[1] Increasing the diversity of academic medical faculty is a crucial part of addressing health disparities. In radiation oncology (RO), the American Society for Radiation Oncology (ASTRO)

Annual Meeting is one of the primary venues for radiation oncologists and their adjuncts to present new research, network, and share innovations.

In 2019, a study by Rahimy et al[2] found that women constituted a minority (27%) of invited speakers to ASTRO, and given that greater female representation correlated with panel success, efforts to diversify these panels required serious attention. Recently Mattes et al[3] found that there is a more diverse medical student body in ASTRO with respect to race, gender, and osteopathic training. Through a comprehensive analysis of the Association of American Medical Colleges' full-time faculty data, Kamran et al[4] found that among all US medical faculty, although female representation has increased rapidly, the proportion of underrepresented in medicine (URiM) clinical faculty, full professors, department chairs, and medical school deans has not improved over 4 decades; it has largely remained the same or become worse. The authors noted an "alarming decrease" in the representation of Black men at all levels of medicine from medical school up to faculty level while there has been a steady increase in Hispanic faculty, particularly women. This is consistent with a recent nationwide analysis of RO faculty at National Cancer Institute Comprehensive Cancer Centers, which revealed that the proportion of URiM faculty has not changed in more than 20 years.[5]

Historically, racial diversity in RO has been poor.[6] Increasing retention of a diverse group of individuals in RO is multifactorial. Because panel invitations at national meetings play a large role in recipient visibility, prominence, national reputation, and academic promotion, examination of the demographics of invited panelists provides a foray into the trajectory of diversity, equity, and inclusion at the most elite levels of RO. Typically, these invitations have been disproportionately given to White men; it has not been uncommon for panels at national meetings to be comprised exclusively of White men, which has led to these panels being colloquially known as "wanels."

It is highly likely that increasing the racial diversity of panelists at ASTRO would contribute to improving longitudinal engagement of students and junior faculty and, as a result, provide increasingly concordant oncologic care for patients, particularly those from low-resource settings. This study is the first to depict the racial representation of invited physician speakers at the Annual Meeting and elucidates other speaker characteristics.

Methods and Materials

Data collection

The program list of all invited educational sessions and panel speakers in the ASTRO annual meetings from 2021 was accessed via the ASTRO website.[7] Each profile for the speakers often included a picture from which the participant's race and gender was deduced. Those whose pictures were not available on the ASTRO website were researched and obtained from public sources, including corporate and institutional websites, by searching the speaker's name; these techniques are consistent with previous work demonstrating that Internet-derived assessment of race and ethnicity is comparable to that self-described via survey data.[8] Those whose race was not discernible through institutional or professional profiles were marked as unknown. For simplicity, those of the Asian race were not distinguished or separated by ethnicity, and minorities were included if they were of Hispanic or Black/African American descent, which are categorized as URiM.

Panel variables including panel composition

"Single disciplinary" refers to a panel made up of only practicing RO physicians either based in the United States or based abroad; "intradisciplinary" refers to speakers within different domains of RO, that is, a panel of physicists and physicians all specializing in RO; and "multidisciplinary" refers to the inclusion of those outside RO, such as physicians practicing medical oncology or surgery, or researchers, or patients; RO residents whose specialties have not been formalized were counted as RO physicians as of the 2021 ASTRO meeting.

"White panel" refers to a panel made up of only White participants; "Asian panel" refers to a panel made up of only Asian participants; "Majority panel" refers to a panel made up of only participants from a non-URiM race; "Minority only" refers to a panel made up of only URiM participants; "Mixed panels" refer to a panel that includes at least 1 speaker from a URiM race. Panel topics were obtained from the ASTRO website and roughly via track as either "Diversity, Equity and Inclusion in Healthcare" or "Non-Diversity, Equity and Inclusion in Healthcare," that is, DEI or non-DEI. The DEI track was defined as speakers listed in DEI, International, and/or Job Finding/Mentorship sessions. Everyone who presented multiple times in a panel was accounted for only once, while the same individual in multiple panels was counted separately.

Data analysis

Statistical significance was assigned at $P < .05$ using the Fisher exact test (GraphPad Software, San Diego, CA). Baseline characteristics were summarized in a table and with pie charts.

Results

We identified 182 cumulative speaking panels at the 2021 ASTRO annual meeting and 960 individuals who

Table 1   Demographics of panel speakers at the 2021 ASTRO Annual Meeting

Characteristic	No. (%)
Individual speaker race	
White	547 (56.98)
Asian	328 (34.17)
Hispanic	41 (4.27)
Black	42 (4.38)
Unknown	2 (0.21)
Panel race	
Majority (White + Asian)	110 (60.40)
White	27 (14.84)
Asian	14 (7.69)
Mixed (at least 1 URiM)	28 (15.38)
URiM (Hispanic + Black/African American only)	3 (1.65)
Discipline	
Single	70 (38.46)
Intra	19 (10.44)
Multi	93 (51.10)
Sex	
Male	554 (57.71)
Female	406 (42.29)
Race of panels with a single speaker	
Majority (White + Asian)	2 (1.10)
White	9 (4.95)
Asian	9 (4.95)
Mixed (at least 1 URiM)	2 (1.10)
URiM (Hispanic + Black/African American only)	3 (1.65)

Abbreviations: ASTRO = American Society for Radiation Oncology; URiM = underrepresented in medicine.

filled these panels (Table 1). Of the 960 speaker positions, 260 (27.1%) were filled by 115 individuals who had multiple roles in panels. Throughout the conference, 125 (13%) were repeat speakers, meaning the individual spoke on more than 1 panel. The majority of panels, 51.1%, were multidisciplinary, while 38.5% were radiation oncologists (single discipline), and 10.5% were intradisciplinary. The majority of speakers were of White race (57%), followed by Asian race (34.2%) (Fig. 1). Hispanic and Black speakers made up approximately 8.6% of speakers and their representation was equally divided into 4.3% and 4.4%, respectively; 0.2% of speakers could not have their race determined due to lack of data.

Majority-only panels accounted for the majority of panels, 60.4%. White-only panels and Mixed panels accounted for 15.4% respectively, and Asian-only and URiM-only panels accounted for 7.7% and 1.6% of panels, respectively (Fig. 2). In addition, 13.7% panels had only 1 speaker. Of all URiM individuals, 16 (19.3%) were in more than 1 panel. URiM race speakers (n = 83) were mostly congregated in DEI panels, comprising 44.9% of DEI speaker positions (48/107) and 4.1% (35/853) of non-DEI speaker positions; this difference reached statistical significance ($P < .0001$).

Discussion

Our study shows that upon review of the most recent ASTRO annual meeting, there is a marked underrepresentation of URiM invited speakers, with only 14.8% of panels composed of even 1 URiM speaker, compared with 15.6% of panels being White-only. One might postulate that this could be due to a historical predominance of White and Asian individuals in the earlier period of development of the RO specialty and that the dearth of URiM radiation oncologists has remained fixed over decades.

Compared with 2016,[2] strides have been made to address the underrepresentation of women in RO with the percentage of women speakers having increased from
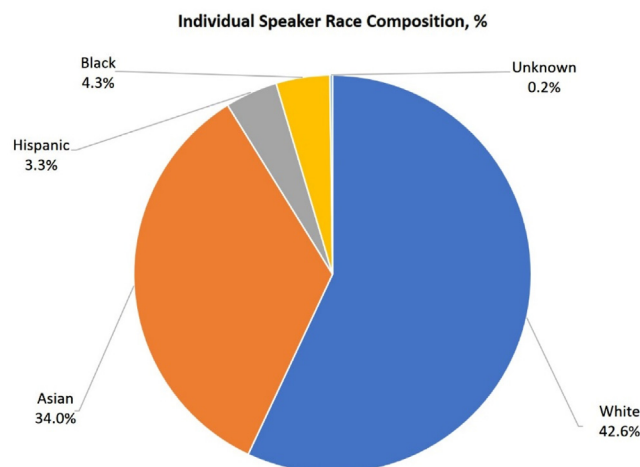

Figure 1   Race composition of individual speakers at the 2021 American Society for Radiation Oncology annual meeting.
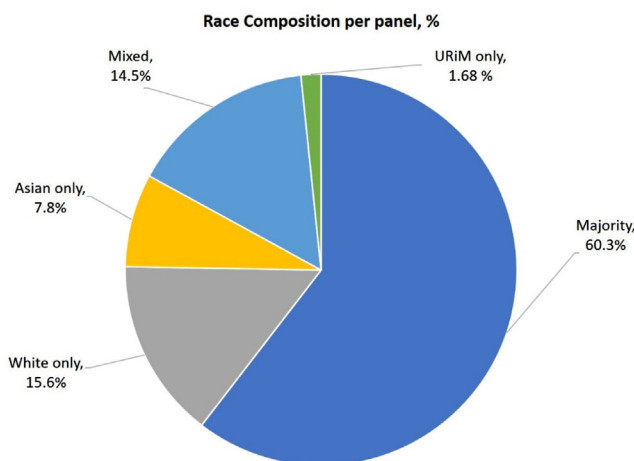
Race Composition per panel, %

Figure 2   Race composition of panels at the 2021 American Society for Radiation Oncology annual meeting.

27% to 42% at the 2022 meeting. This provides hope that similarly targeted interventions to address URiM panel representation can have a measure of success.

Stereotypically, URiM speakers are disproportionately represented in the DEI panels and are underrepresented in non-DEI panels, to such a degree in this analysis that the findings reached statistical significance. Although URiM presence on DEI panels is important, it is equally important to recognize that URiM radiation oncologists play a pivotal role in patient care and development of the field separate from DEI efforts; such roles should be accounted for by appropriate panel invitation and representation.

A limitation of this analysis is that the perceived race of an individual was determined from public sources rather than from self-report, which has its inherent fallacies. However, this study also accounts for the importance of perceived race, which can play an exaggerated role (more so than reported race) in how individuals are treated in certain circumstances. In their discussion of the connection of observed racial disparities to mechanisms of systemic racism in quantitative population health research, Lett et al[9] noted that though self-reported race encapsulates the internalized component of systematic racism and assigned (societally perceived) race is more directly related to the interpersonal component, "neither of these are more or less correct."

Given potential bias against public source-derived definitions of race, it is important to reiterate that recent work demonstrating Internet-derived assessment of race and ethnicity to be comparable to that self-described via survey data, particularly for URiMs.[5,8,10] In particular, in a study of the RO workforce conducted by ASTRO in 2017 which relied on self-report via survey, the proportion of URiM in RO was revealed to be 5%.[10] A subsequent 2019 study, which used facial recognition via the Internet and public sources, revealed the proportion of URiM in RO to be 5% as well.[5] Therefore, there is no evidence that facial recognition is inferior to self-reporting in the categorization of the RO workforce.

Conclusion

The proportion of underrepresented minorities receiving panel invitations at ASTRO remains minimal and is virtually nonexistent outside of DEI-related panels. Targeted efforts to increase URiM representation will be needed to make tangible progress on this issue, just as they have yielded progress on increasing gender diversity in panel invitations. The demographic landscape of invited panelists at a major RO meeting provides key information regarding the overall lack of diversity, equity, and inclusion of RO and the potential barriers of such on the ability of our field to represent the diversity of the patients we serve.

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