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ASTRO'S 61ST ANNUAL MEETING

September 15-18, 2019

McCormick Place | Chicago, Illinois

Representation Trends of Underrepresented Minority Physicians in the US Radiation Oncology Workforce

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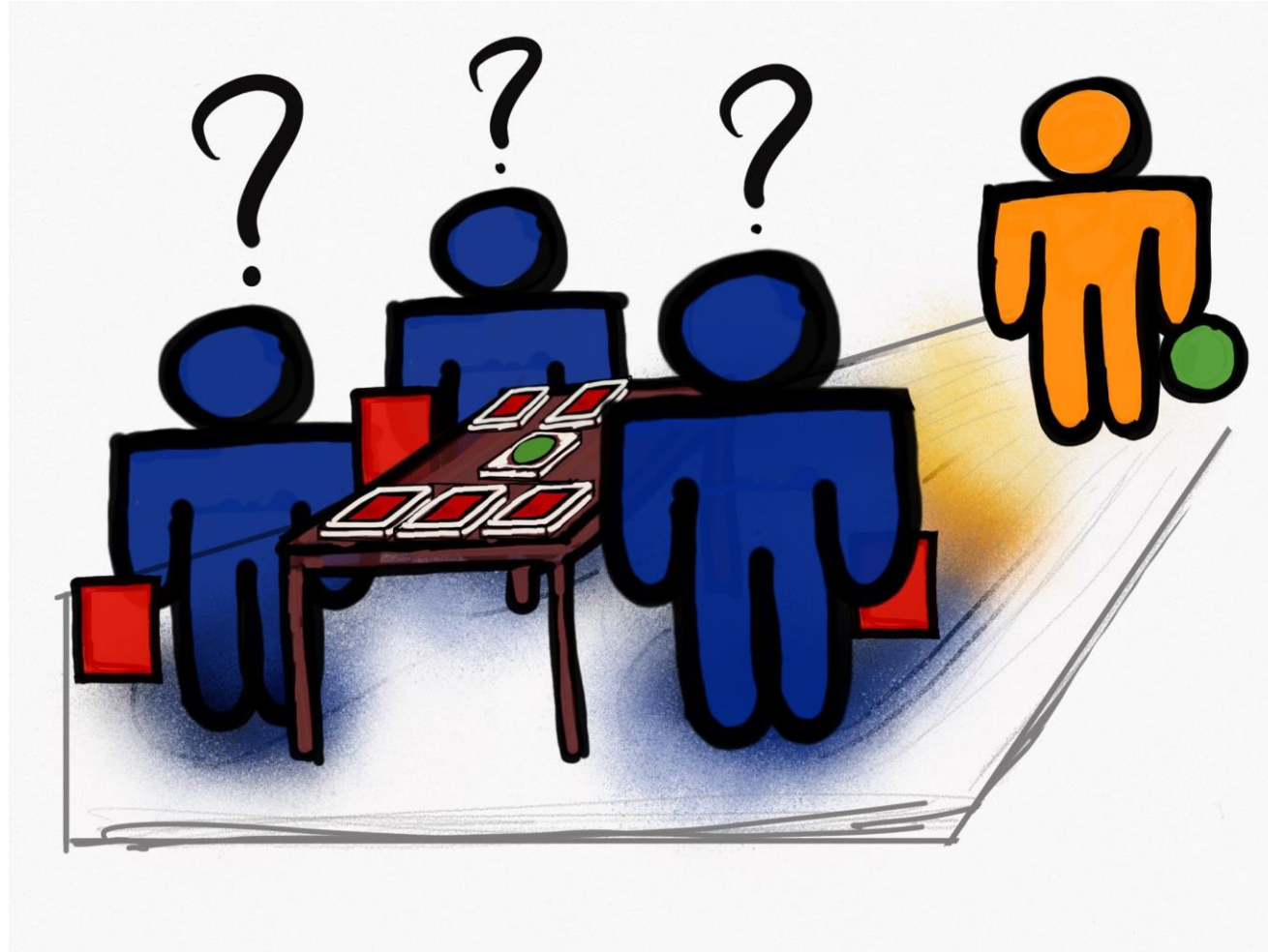
Background

Physicians from historically underrepresented minority groups in medicine (URM) remain disproportionately underrepresented in certain specialties, yet comprehensive assessments in Radiation Oncology are lacking.

Objective

- To report the current and historical representation trends for historically underrepresented minority groups in medicine (URM) in the United States radiation oncology physician workforce

The missing piece...



Methods

- Publicly available data from the American Medical Association (AMA), American Association of Medical Colleges (AAMC), and Accreditation Council for Graduate Medical Education (ACGME) were assessed for significant differences in 2016 amongst URM US and Radiation Oncology faculty, residents, ERAS applicants, and US medical school graduates (MSG); and 2013 practicing physicians (most recent year).
 - Adjusting for multiple comparisons (Bonferroni correction), $P < 0.001$ was considered statistically significant.
- Historical changes were assessed descriptively for US and Radiation Oncology residents and faculty from 1995-2016.

Results

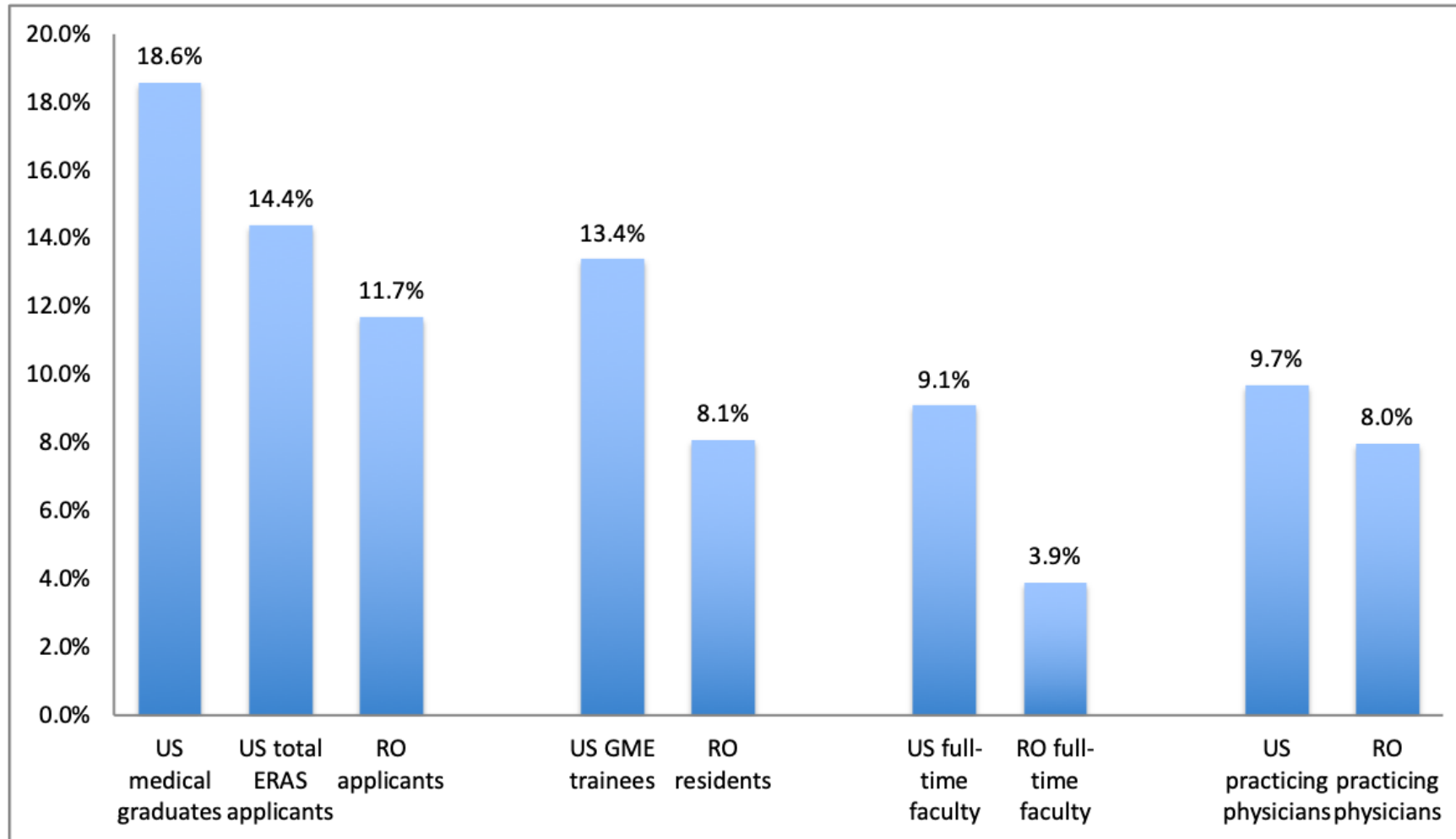


Figure 1. Current URM Representation in the US Physician Workforce and Radiation Oncology

Results (cont'd)

- URM Radiation Oncology **residents** showed significantly:
 - less representation compared to US ERAS applicants ($P < 0.0001$) and US medical school graduates ($P < 0.0001$)
 - no difference with Radiation Oncology ERAS applicants ($P = 0.0668$) and Radiation Oncology practicing physicians ($P = 1.0000$)
 - greater representation than Radiation Oncology faculty ($P < 0.0001$)

Results (Faculty)

- URM Radiation Oncology **faculty** were mostly junior rank: 67% (46/69)

Rank	N	%
Full	13	18.8
Associate	9	13.0
Assistant	37	53.6
Instructor	9	13.0
Other	1	1.4
Total	69	

Results (Residents)

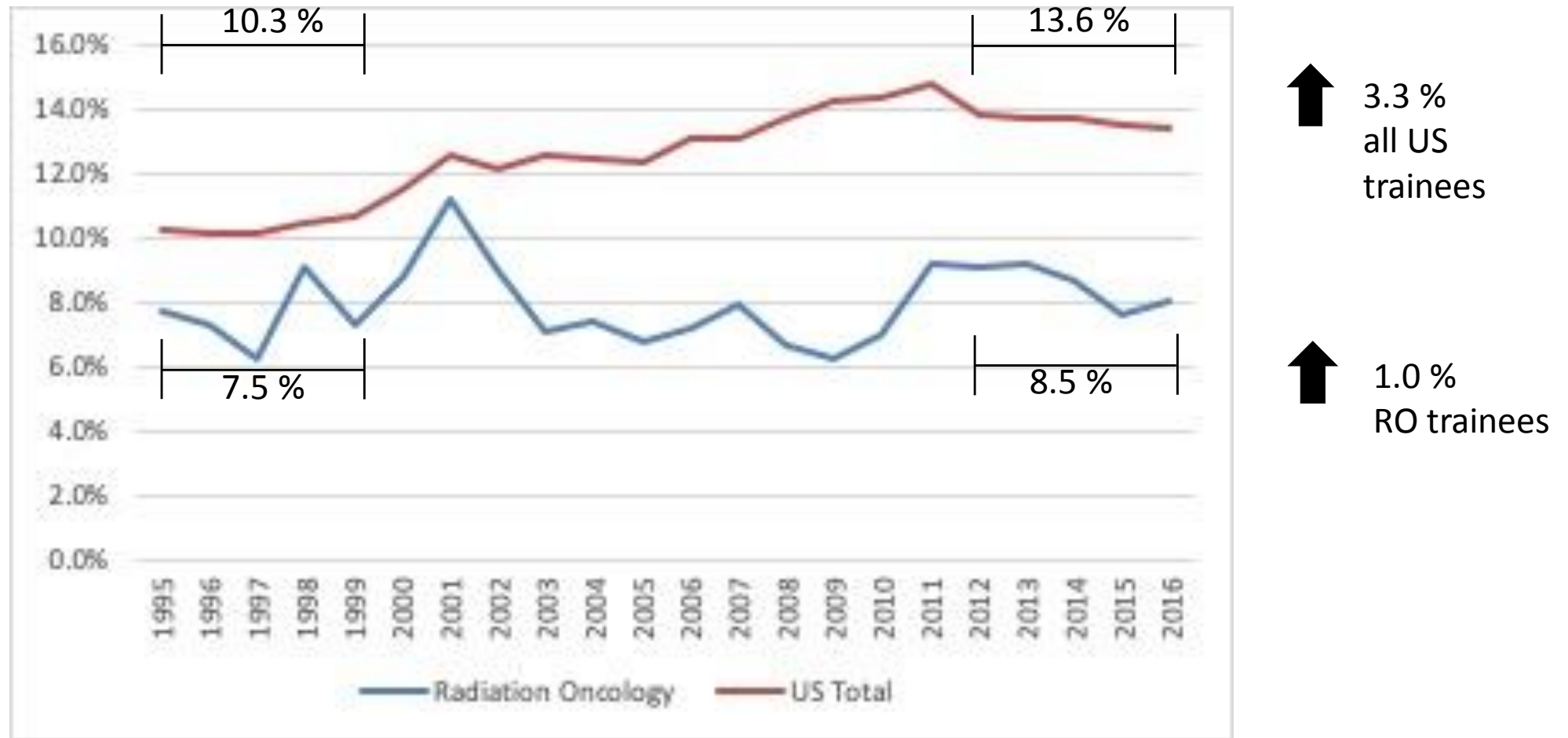


Figure 2. Historically URM GME and URM RO representation trends from 1995-2016

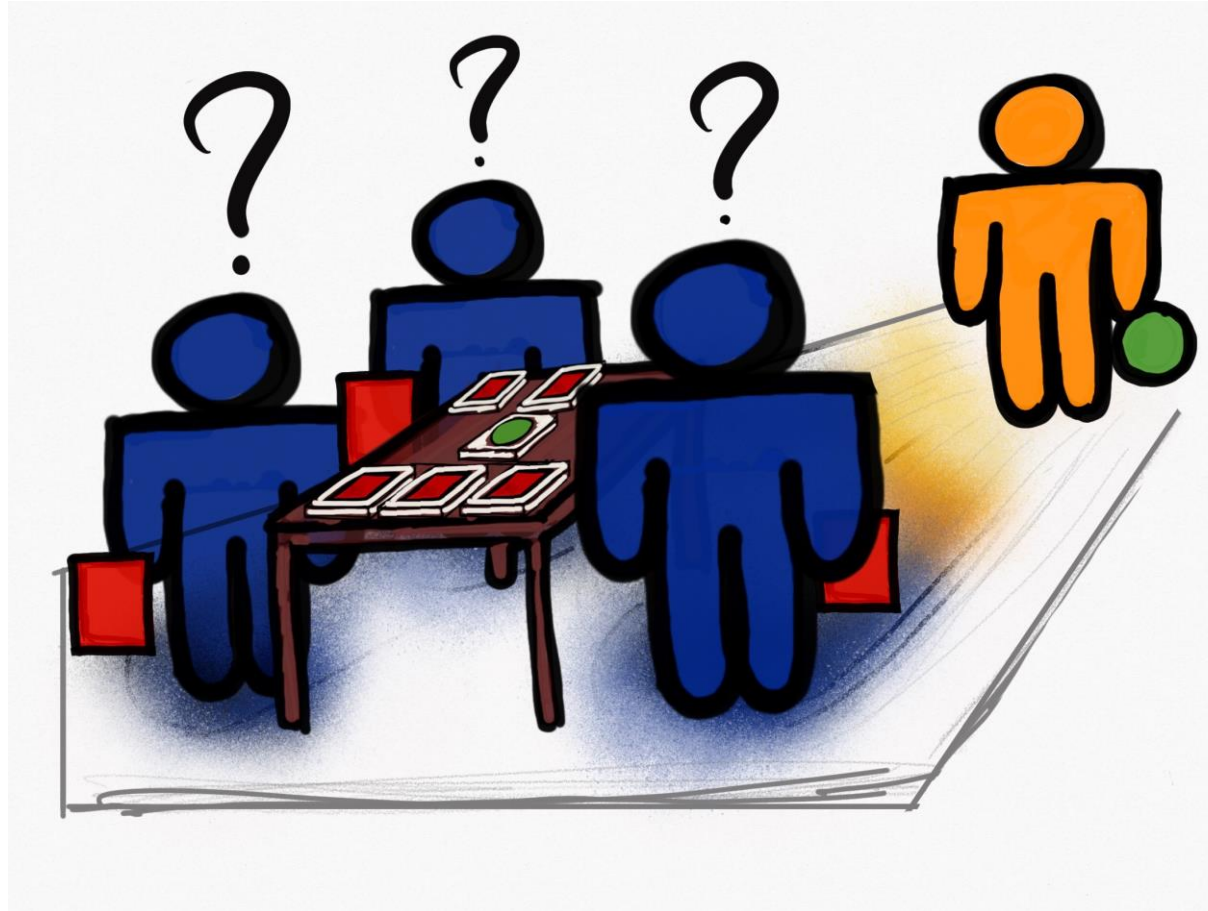
Results (cont'd)

- The number of URM RO residents peaked at 63 in 2013 (9.2%; 63/686) but most recently was only 58 (2016), **despite** a 1.42 fold increase in the overall number of RO residents during that time period.
- URM RO faculty representation averaged 3.9% from 1995- 1999 and 3.8% from 2012- 2016 for an absolute **decrease** of 0.1%.
- URM RO faculty peaked at 76 in 2010 (5.3%; 76/1436) but most recently was only 69 (3.9%; 69/1769) in 2016 despite a 1.23 fold increase in the overall number of RO faculty positions during that time period.

Conclusions

- URM physicians remain disproportionately underrepresented in Radiation Oncology despite their increases in the US workforce.
- URM representation as Radiation Oncology faculty showed the greatest relative disparity with rank distribution suggesting attrition.
- Peak URM Radiation Oncology resident representation occurred nearly a decade ago, and many programs do not have a single URM resident.
- Further efforts to understand barriers to Radiation Oncology exposure and career selection and advancement are needed to ensure diversification.

The missing piece...



Thank You

- Dr. Curtiland Deville Jr. MD- Principal Investigator
- Dr. Charles R. Thomas Jr. MD
- Dr. Christina Chapman MD, MS
- Howard University College of Medicine- Faculty Mentor Advisor- Dr. Bonnie Davis MD

Results

	URM%	URM number	Total number	P value
US medical graduates	18.6%	3,574	19,259	P<0.0001
US total ERAS applicants	14.4%	6,383	44,346	P<0.0001
US GME trainees	13.4%	16,626	124,096	P=0.0002
US practicing physicians	9.7%	101,061	1,045,910	NT
US full-time faculty	9.1%	15,883	173,743	NT
RO applicants	11.7%	50	429	P=0.0668
RO residents	8.1%	58	720	
RO practicing physicians	8.0%	419	5,210	P=1.0000
RO full-time faculty	3.9%	69	1,769	P<0.0001