Inequities in the Field of Pathology Among Black/African Americans in Massachusetts

Dimaysone Wanteu, Karisha Wallace, Lyssa Cunha, Netty Bazile
Goals

Shining a light on the disparities in Pathology that results from *underrepresentation* in the workplace, lack of adequate *education* and the *inconspicuousness* of the profession.
Background Information
Diversity and Racial Biases in Pathology
Contributing Factors
Potential Solutions
What is Pathology?

- Autopsies
- Biopsies
- Diagnoses
THE ROLE OF A PATHOLOGIST

The bridge between a patient and their care
Can give or withhold access to services
“...when diversity and cultural competence is lacking, clinical competence is inevitably lacking”

– Dr. Nichols
Distribution of Pathology Residents by Race from 1995–2017

Source: Johns Hopkins University School of Medicine
### Diversity Distribution of Race in MA as Compared to the U.S.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>U.S. Total Pathology, 2022</th>
<th>Massachusetts Pathology, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Physicians: 21,215</td>
<td>Total Physicians: 1,012</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Asian</td>
<td>20.5%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Hispanic, Latino, or of Spanish Origin*</td>
<td>6.1%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Multiracial (non-Hispanic)</td>
<td>1.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Unknown</td>
<td>8.9%</td>
<td>6.2%</td>
</tr>
<tr>
<td>White</td>
<td>58.3%</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

*Source: Association of American Medical Colleges*
## Implementation of Racial Biases into the Field of Pathology In Massachusetts

<table>
<thead>
<tr>
<th>Race-based diagnostic bias</th>
<th>Presentation of links between racial groups and particular diseases</th>
<th>Priming students to view sickle cell disease as affecting only Black people, rather than as common in populations at risk for malaria(^{17,18})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathologizing race</td>
<td>The tendency to link minorities with increased disease burden</td>
<td>In a slide showing the incidence of 13 types of brain tumors in Black patients and White patients, using the title “Incidence rates are higher among Blacks than among Whites,” even though 10 of the tumors occurred more frequently in White patients</td>
</tr>
<tr>
<td>Race-based clinical guidelines</td>
<td>Teaching of guidelines that endorse the use of racial categories in the diagnosis and treatment of diseases</td>
<td>Teaching students to use different first-line antihypertensive drugs in Black patients than in White patients, without any exposure to literature that questions these practices and misleading</td>
</tr>
</tbody>
</table>

Source: New England Journal of Medicine
Racial Biases Among Medical Students

- Larger Brain
- Better Hearing
- More efficient respiratory system

- Less sensitive nerve endings
- Thicker Skin
- Better at detecting movement

Source: Oxford Academic
Flawed Autopsies and Wrongful Convictions

They make him out to be a monster, and he’s not.

I’m a Black mother. He just knew, off rip — ‘she killed her baby’.

Source: New York Times

Source: MCIR
Homocide vs Accident

Determined manner of Death that is Unnatural for Adults

Source: American Academy of Forensic Sciences
“With the sort of work that I have done, I might have gone farther and reached a higher plane had it not been for the colour of my skin.”

—Dr. Solomon Fuller

Source: William L. Barrett
Achievement Gap

27% of black pathologists are tenured

51% of white pathologists are tenured

Source: National Institutes of Health
There are days when the isolation has broken me down. When the microaggressions and words of bias have made me cry. Days when I felt like I chose the wrong profession.”

-Dr. Nichols

Marilouise Elizabeth Nichols, MD
2/3 of pathologists say that unconscious bias is the most significant problem in their field.
Misconceptions of the field

Med school students are being driven away from the field because of the following thoughts:

“They are not real physicians”

“They’re not as important”

“They don’t care for patients”

Source: Med School Insiders
How can we address this problem?
Potential Solutions

Mass Brigham’s Approach

Artificial intelligence
Diagnostic Implementation
- Cell analysis models show stark differences in evaluating POC
- Models perform more accurately in white people because of lack of diversity in research

Source: Mass General Brigham

Johns Hopkins’ Approach

Pipeline Program
High School to Residency
- Exposure of university/medicine to black high school students
- Increase from one to 18 black pathology residents in six years

Source: Johns Hopkins Medicine
Thank You!
Do you have any questions?
Citations


Clinical pathologist salary (June 2024). Zippia. (2024, April 25).


Citations


