BUILDING THE FOUNDATION TO DISCUSS RACE & HEALTH DISPARITIES IN EMS

SYLVIA OWUSU-ANSAH MD, MPH, FAAP ASSOCIATE VICE CHAIR OF DIVERSITY EQUITY AND INCLUSION AND EMS MEDICAL DIRECTOR UPMC CHILDREN’S HOSPITAL OF PITTSBURGH

RICKQUEL TRIPP MD, MPH VICE CHAIR OF DIVERSITY OF GME EMS MEDICAL DIRECTOR CLINICAL ASSISTANT PROFESSOR
OBJECTIVES

- Definitions of systemic racism and other associated terminology
- Reviewing the birth of EMS from Freedom House and it's demise due to racism
- Identifying ways bias has affected care in EMS & Health Disparities
- Learning about our own implicit bias and how to start the conversation with others
Actively Participate & Stay Engaged: Share your story & state your opinion. All questions are valid—risk and grow!

Speak Your Truth: Value everyone’s thoughts & initially assume good intentions. It’s important that everyone is free to speak openly & disagree respectfully.

Be Honest & Authentic

Allow for mistakes/Faux pas: There will be concerns of saying something wrong. Consider these learning opportunities.

Actively Listen for Understanding: Listen and try to understand where another person is coming from as best as you can.

Honor Confidentiality: What is shared here, stays here [Vegas Rules]

Expect and Accept Non-closure: Race conversations are challenging and ongoing. Accept that much of this is about changing yourself, not others.

Responsibility to Each Other and to the Process: Everyone should follow the ground rules and propose news ones to create a safe environment for sharing.
BLACKS IN THE BIRTH OF EMS
Beginning in 1967 Freedom House was a trailblazer of prehospital emergency care in America that inspired our current EMS system.

Began with 25 paramedics that were unemployed black men recruited from Hill District who attending 32-week intensive training program at UPMC Presbyterian Hospital

First Emergency Medical Training program in the US

First developed vans with life-saving equipment

Delivered better emergency medical care to the community

Unfortunately, mayor took operating control in 1975 seized assets, unjustly fired many, and set up unreasonable policies to force others out in order to create predominantly white City of Pittsburgh EMS.
Toni McIntosh of Pittsburgh, Pa., became the first Black woman to become a career (full-time) firefighter in 1976.
DEFINITIONS ARE NEEDED

Huh?

??

What

ENRO

REVIEW OF DEFINITIONS
RACE IN AMERICA
Racism

- **Systemic Level**
  - Immigration policies
  - Incarceration policies
  - Predatory banking

- **Community Level**
  - Differential resource allocation
  - Racially or class segregated schools

- **Institutional Level**
  - Hiring and promotion practices
  - Under- or over-valuation of contributions

- **Interpersonal Level**
  - Overt discrimination
  - Implicit bias

- **Intrapersonal Level**
  - Internalized racism
  - Stereotype threat
  - Embodying inequities

https://www.nap.edu/read/24624/chapter/5#106
Lifetime risk of being killed by police

96 deaths per 100,000

BLACK
MEN AND BOYS

39 deaths per 100,000

WHITE
MEN AND BOYS

GRAPHIC: VANESSA DENNIS  SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMIES OF SCIENCES
Percentage of fatal police shootings compared to percentage of population by ethnicity

- **White**
  - Population: 60.4%
  - Killed in police shootings: 36.8%

- **African-American**
  - Population: 13.4%
  - Killed in police shootings: 23.4%

- **Hispanic**
  - Population: 18.3%
  - Killed in police shootings: 15.7%

Note: 1,004 fatal shootings in 2019, 39 in 'other' ethnic groups, 202 'unknown' ethnicity

Source: US census bureau and Statista.com 2019
LET'S TALK ABOUT RACE

- Race as a social construct (NOT BIOLOGICAL)
  - The is no biological context to support one race is less than another
  - Used as a tool for oppression and violence since slavery in 1600s in the U.S.
  - Jim Crow laws legalized racial segregation between 1877 and 1964 which denied Black people the right to vote, obtain an education, hold jobs, own property, and other opportunities.

- Race continues to perpetuate:
  - Housing discrimination
  - Health and education inequities
  - Unjust legal and court system practices
  - Unfair policing practices
  - Banking/ loan debt
- **Restrictive Covenants**
  - When blacks were all but barred from entering white neighborhoods, if not by restrictive racial covenants (which forbid property sales to African Americans and other minorities) then by violence and intimidation.

- **Redlining**
  - The practice of denying key services (like home loans and insurance) or increasing their costs for residents in a defined geographical area. In theory, this could be used against anyone. In reality, it was almost exclusively a tool to force blacks (and other minorities) into particular geographic areas.

Source: [https://www.thedailybeast.com/how-we-built-the-ghettos](https://www.thedailybeast.com/how-we-built-the-ghettos)
EXPLICIT BIAS

Conscious beliefs towards specific populations: may influence actions towards these groups

- Race/ ethnic underserved
- Immigrants/ Non-English speakers
- Low socioeconomic status
- Low health-literacy individuals
- Sexual orientation (LGBTQI+)
- Gender Identity (transgender, non-binary)
- Children

- Women
- Elderly
- Mentally ill
- Overweight
- Disabled
- Substance Abuse
- Mental illness

Related to implicit bias: not mutually exclusive and may reinforce each other
IMPLICIT BIAS

- Unconscious: product of our environment and exposure to specific ideas
- Often run counter to our stated beliefs
- Automatic associations that begin at an early age based upon our background and are reinforced over time by personal experiences or what “respected” figure tells us

- WE ALL HAVE BIASES
  - Knowing our biases allows us to counter and mitigate effects of our thoughts on our actions
THE SCIENCE BEHIND UNCONSCIOUS BIAS

Our Brain
It is theorized that our senses can be presented with upward of 11 million pieces of stimuli/information at any given moment; but we can only process about 40 pieces of that information.

• Fast Brain – Unconscious Automatic Retrieval of information
• Slow Brain – Conscious Problem-Solving

Mental Shortcuts
Unconscious biases or preferences help our brains navigate the large amount of stimuli/information we encounter
They are preferences and can be favorable or unfavorable
These biases are based on many different characteristics and can be contrary to individual beliefs or values

Humaneness
We ALL have Unconscious Biases
They influence our judgments, decision-making and interactions
They can greatly impact delivering culturally competent patient care
MICROAGGRESSIONS

“…the everyday verbal, nonverbal, and environmental slights, snubs, or insults, whether intentional or unintentional, which communicate hostile, derogatory, or negative messages to target persons based solely upon their marginalized group membership.“

D. Wing Sue
TYPES OF MICROAGGRESSION

Micro-invalidation
- Unconscious & without intention of harm
- Often have positive intent (intended as a compliment)
- Communications that exclude, negate or nullify the psychological thoughts, feelings or experiential reality of a person

Micro-insult
- Subtle and often unconscious
- Not intended to harm
- Communications that convey rudeness, insensitivity and demean a person's identity

Micro-assault
- Explicit and conscious; **intent is to harm**
- Characterized by being most similar to “old fashioned racism” towards an individual
- Typically expressed privately, but may be displayed publicly when there is a loss of control, or in a “safe” environment

EXAMPLES OF MICROAGGRESSIONS

**Micro-invalidation**
- Latinx student complimented by paramedic for speaking perfect English, followed by the question “Where are you from?”
- Reality: student is native English speaker and born in the US

**Micro-insult**
- Asking a paramedic to remove Hijab before her shift
- Reality: Rude/ disrespectful to resident’s religion and culture

**Micro-assault**
- Automatically grabbing your bag when you walk by a Black man
- Reality: Racist ideal that all Black men are threatening & steal

Per Robin DiAngelo, white fragility is 'a state in which even a minimum amount of racial stress becomes intolerable [for white people], triggering a range of defensive moves. These moves include the outward display of emotions such as anger, fear, and guilt, and behaviors such as argumentation, silence, and leaving the stress-inducing situation. These behaviors, in turn, function to reinstate white racial equilibrium’

Francis E. Kendall, author of Diversity in the Classroom and Understanding White Privilege: Creating Pathways to Authentic Relationships Across Race, “having greater access to power and resources than people of color [in the same situation] do.”
<table>
<thead>
<tr>
<th>Cause of Racial Stress</th>
<th>Effect on Aspect of White Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggesting that a White person’s viewpoint comes from a racialized frame of reference</td>
<td>Challenge to objectivity</td>
</tr>
<tr>
<td>People of color talking directly about their own racial perspectives</td>
<td>Challenge to White taboos on talking openly about race</td>
</tr>
<tr>
<td>People of color choosing not to protect the racial feelings of white people in regards to race</td>
<td>Challenge to White racial expectations and need/entitlement to racial comfort</td>
</tr>
<tr>
<td>People of color not being willing to tell their stories or answer questions about their racial experiences</td>
<td>Challenge to the expectation that people of color will serve White people</td>
</tr>
<tr>
<td>A fellow White person not providing agreement with one’s racial perspective</td>
<td>Challenge to White solidarity</td>
</tr>
<tr>
<td>Receiving feedback that one’s behavior had a racist impact</td>
<td>Challenge to White racial innocence</td>
</tr>
<tr>
<td>Suggesting that group membership is significant</td>
<td>Challenge to individualism</td>
</tr>
<tr>
<td>An acknowledgment that access is unequal between racial groups</td>
<td>Challenge to meritocracy</td>
</tr>
<tr>
<td>Being presented with a person of color in a position of leadership</td>
<td>Challenge to White authority</td>
</tr>
<tr>
<td>Being presented with information about other racial groups through, for example, movies in which people of color drive the action but are not in stereotypical roles, or multicultural education</td>
<td>Challenge to White centrality</td>
</tr>
</tbody>
</table>
BLACKS IN EMS WORKFORCE TODAY
The proportion of newly certified EMS professionals identifying as black remained near 5% among EMTs and 3% among paramedics.

URM faculty in EMS fellowships 12% compared to 19.7% in EM residencies.

Compared to the U.S. population in 2017, women and racial/ethnic minorities remained underrepresented among newly certified EMS professionals, and these representation differences varied across geographic regions.

In the Northeast for example there were 93% fewer newly certified EMTs who identified as black compared to the U.S. population (4% vs. 11%) and the difference was 138% for new paramedics (4% vs. 11%).
STILL ON FIRST
Beginning in 1967 Freedom House was a trailblazer of prehospital emergency care in America that inspired our current EMS system. It began with 25 paramedics that were unemployed black men recruited from Hill District who attended a 32-week intensive training program at UPMC Presbyterian Hospital. It was the first Emergency Medical Training program in the US and the first developed vans with life-saving equipment. Freedom House delivered better emergency medical care to the community. Unfortunately, the mayor took operating control in 1975, fired all current staff, and changed the name to City of Pittsburgh EMS.

**CAREER PATHWAY PROGRAMS:**

**INTEGRATION IN EMS TODAY**

- Minnesota- EMS Academy and Freedom House Ambulance Service, which trains low-income youth and helps them enter the EMS workforce lead by David Page.
BLACK FIRE BRIGADE- CHICAGO
HEALTH DISPARITIES & SOCIAL DETERMINANTS OF HEALTH
Racial differences in health outcomes and disparities in treatment do not inherently stem from race but from the social determinants of health and the policies that create and affect them.

- Living conditions
- Access to food
- Access to equal pay
- Employment

Social determinants of health are the conditions in which people are born, grow, live, work, and age.

- Lack of workforce diversity is a potential contributor to disparities
- Multiple studies have shown providers are implicitly biased, impacting clinical decision making
- A recent study found 50% of surveyed medical students and residents held false beliefs about the biological differences between black and white patients, which influenced their pain ratings of and treatment plans for black patients.
Social and Economic Factors Drive Health Outcomes

<table>
<thead>
<tr>
<th>Economic Stability</th>
<th>Neighborhood and Physical Environment</th>
<th>Education</th>
<th>Food</th>
<th>Community and Social Context</th>
<th>Health Care System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Housing</td>
<td>Literacy</td>
<td>Food security</td>
<td>Social integration</td>
<td>Health coverage</td>
</tr>
<tr>
<td>Income</td>
<td>Transportation</td>
<td>Language</td>
<td>Access to healthy options</td>
<td>Support systems</td>
<td>Provider availability</td>
</tr>
<tr>
<td>Expenses</td>
<td>Safety</td>
<td>Early childhood education</td>
<td></td>
<td>Community engagement</td>
<td>Provider linguistic and cultural competency</td>
</tr>
<tr>
<td>Debt</td>
<td>Parks</td>
<td>Vocational training</td>
<td></td>
<td>Stress</td>
<td>Quality of care</td>
</tr>
<tr>
<td>Medical bills</td>
<td>Playgrounds</td>
<td>Higher education</td>
<td></td>
<td>Exposure to violence/trauma</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>Walkability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zip code / geography</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Health Outcomes: Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations
What Goes Into Your Health?

Socioeconomic Factors
- Education
- Job Status
- Family/Social Support
- Income
- Community Safety

Physical Environment

Health Behaviors
- Tobacco Use
- Diet & Exercise
- Alcohol Use
- Sexual Activity

Health Care
- Access to Care
- Quality of Care

Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)
Racial Disparities in Mental Health Treatment

31% of white children with mental health problems receive mental health services.

Only 13% of children from diverse racial and ethnic backgrounds with mental health problems receive mental health services.

Rate of Asthma-Related ER Visits and Deaths Compared with Caucasians

<table>
<thead>
<tr>
<th></th>
<th>ER Visits</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American children</td>
<td>4.5X HIGHER</td>
<td>7X HIGHER</td>
</tr>
<tr>
<td>African-American adults</td>
<td>2.8X HIGHER</td>
<td>3X HIGHER</td>
</tr>
<tr>
<td>Hispanic children</td>
<td>2.1X HIGHER</td>
<td>2X HIGHER</td>
</tr>
</tbody>
</table>

Source: National Center for Children in Poverty
EXAMPLES OF RACIAL/ETHNIC HEALTH DISPARITIES

- Black people have > 2-fold increased risk of stroke and a higher risk of heart disease mortality compared with White people
- When presenting for acute myocardial infarction (AMI), Black patients are disproportionately transferred to lower-quality hospitals and endure longer wait times before triage.
- Black and Latinx Americans are less likely to undergo CABG
- Black patients have higher prevalence of obesity, diabetes, hypertension, and chronic kidney disease than White patients
- Communities with high proportions of Black and Latinx residents were 4x as likely to have a shortage of physicians, regardless of community income
- Physicians treating black patients report greater difficulties in obtaining subspecialists, diagnostic imaging, and nonemergency hospital admission
RACIAL/ETHNIC
HEALTH
DISPARITIES
WITH COVID-19

- Pre-existing racial and health inequalities already present in US society are being exacerbated by the pandemic
- Black and Latinx population:
  - Greater disease burden
  - Higher poverty rates
  - Limited health care access
  - Higher rates of jobs in service industries where they are less able to work from home with a subsequent increased exposure risk
  - Spread of the virus in cities with larger Black populations
- Deaths due to COVID-19 are disproportionately higher among African Americans compared with the population overall across the country
  - 2.6 times higher cases and 2.1 times higher death
- American Indian/Alaskan Native have 2.8 times higher cases and 1.8 times higher deaths
## COVID-19 Cases, Hospitalization, and Death by Race/Ethnicity

### Factors That Increase Community Spread and Individual Risk

<table>
<thead>
<tr>
<th>Factors</th>
<th>Rate Ratios Compared to White, Non-Hispanic Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaska Native, Non-Hispanic persons</td>
<td>CASES: 2.8x higher</td>
</tr>
<tr>
<td></td>
<td>HOSPITALIZATION: 5.3x higher</td>
</tr>
<tr>
<td></td>
<td>DEATH: 1.4x higher</td>
</tr>
<tr>
<td>Asian, Non-Hispanic persons</td>
<td>CASES: 1.1x higher</td>
</tr>
<tr>
<td></td>
<td>HOSPITALIZATION: 1.3x higher</td>
</tr>
<tr>
<td></td>
<td>DEATH: No Increase</td>
</tr>
<tr>
<td>Black or African American, Non-Hispanic persons</td>
<td>CASES: 2.6x higher</td>
</tr>
<tr>
<td></td>
<td>HOSPITALIZATION: 4.7x higher</td>
</tr>
<tr>
<td></td>
<td>DEATH: 2.1x higher</td>
</tr>
<tr>
<td>Hispanic or Latino persons</td>
<td>CASES: 2.8x higher</td>
</tr>
<tr>
<td></td>
<td>HOSPITALIZATION: 4.6x higher</td>
</tr>
<tr>
<td></td>
<td>DEATH: 1.1x higher</td>
</tr>
</tbody>
</table>

Race and ethnicity are risk markers for other underlying conditions that impact health — including socioeconomic status, access to health care, and increased exposure to the virus due to occupation (e.g., frontline, essential, and critical infrastructure workers).
<table>
<thead>
<tr>
<th>Rate ratios compared to White, Non-Hispanic persons</th>
<th>American Indian or Alaska Native, Non-Hispanic persons</th>
<th>Asian, Non-Hispanic persons</th>
<th>Black or African American, Non-Hispanic persons</th>
<th>Hispanic or Latino persons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cases</strong>(^1)</td>
<td>1.9x</td>
<td>0.7x</td>
<td>1.1x</td>
<td>1.3x</td>
</tr>
<tr>
<td><strong>Hospitalization</strong>(^2)</td>
<td>3.7x</td>
<td>1.1x</td>
<td>2.9x</td>
<td>3.2x</td>
</tr>
<tr>
<td><strong>Death</strong>(^3)</td>
<td>2.4x</td>
<td>1.0x</td>
<td>1.9x</td>
<td>2.3x</td>
</tr>
</tbody>
</table>

Race and ethnicity are risk markers for other underlying conditions that affect health, including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., among frontline, essential, and critical infrastructure workers.
Vaccination rates in the US
People with at least one dose administered

- Percentage of vaccinations
- Percentage of population

- White
- Black
- Hispanic

Source: CDC, US Census Bureau
Racial disparities in EMS
Are we providing the same high-quality EMS treatments to all of our patients?
Dec 19, 2019

Is There Systemic Racism in EMS?
By Joshua Ellis, MD | on June 24, 2020

Racial Disparity at Play Even in EMS Transport
Sorelle, Ruth MPH
doi: 10.1097/01.EEM.0000657628.53877.e2

Where an ambulance takes a patient may depend more on race and ethnicity than the national guidelines that require transport to the nearest suitable hospital

Prehospital Pain Management: Disparity By Age and Race
Hilary A. Hewes, Mengtao Dai, N. Clay Mann, Tanya Baca & Peter Taillac

Racial/Ethnic Disparities in Pain Treatment Evidence From Oregon Emergency Medical Services Agencies
Jamie Kennel, MAS, Elizabeth Withers, MS, Nate Parsons, MS, and Hyeyoung Woo, PhD
HEALTH DISPARITIES IN EMS

- 2013 study by Young et al. examined the administration of pain medication in association with the patient’s pain scale
- Investigated the use of morphine in adult blunt trauma patients in Contra Costa County, CA
- Results showed Black patients were 50% as likely to receive morphine compared to White patients when a pain score was documented
- Black patients were only 15% as likely as White patients to receive morphine when a pain score was not documented
HEALTH DISPARITIES IN EMS

- Study by Hewes et al. In 2018 investigated patient’s race as a risk factor in medication-based treatment of pain in select traumatic injuries (i.e. fracture, burns, and penetrating trauma) in both adults and children.

- Used a large national dataset of standardized EMS medical records from the National Emergency Medical Services Information System (NEMSIS).

- Results all adult (defined as ≥ 15 years of age) Black patients received pain medications significantly less often than White patients after controlling for pain as a documented symptom.

- URM children (defined as < 15 years of age) were also found to receive pain medications significantly less often:
  - 10.9% of Black children receiving pain medications compared to 25% of White children.
Study by Kennel explored racial treatment disparities in EMS pain management

Quantitative analysis of 104,210 medical charts from 63 EMS agencies in Oregon from 2015 through 2017

- receipt of pain medication (outcome), patient race (predictor), and numerous control variables including EMS provider impression, pain severity, and socioeconomic status (SES) covariates

- African American patients were 40% less likely and Asian patients were 36% less likely to receive any pain medication compared to White patients

- African Americans with private insurance experienced an even larger disparity compared to White patients with private insurance
ANTI-RACISM CLASSES AND EDUCATION
COMMUNITY INVOLVEMENT AND HEALTH DISPARITY PATIENT CENTERED CARE

STAY TUNED FOR UPCOMING CONFERENCE IN JAN
# Approaches to Mitigating Implicit Bias

<table>
<thead>
<tr>
<th>Approach</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Identity Formation/ Build Commonality</td>
<td>• Don’t stop the conversation until you find some common ground i.e. interests/ activities&lt;br&gt;• Shared common identity between YOU &amp; the person</td>
</tr>
<tr>
<td>Perspective taking</td>
<td>• Empathy actively reduces unconscious bias.&lt;br&gt;• Try picturing yourself in the other person’s shoes.</td>
</tr>
<tr>
<td>Consider the opposite</td>
<td>• When you have information that leads you to one conclusion, force yourself to consider data supporting the opposite before making a final decision.</td>
</tr>
<tr>
<td>Counter Stereotypical Exemplars</td>
<td>• Instead of focusing on biases against a particular group, look for qualities among people in that group that you admire.</td>
</tr>
</tbody>
</table>
**RECEIVING FEEDBACK: HOW TO RESPOND WHEN YOU ARE "CALLED OUT"**

<table>
<thead>
<tr>
<th>My Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I recognize that I have work to do.</td>
</tr>
<tr>
<td>I’m going to take some time to reflect on this.</td>
</tr>
<tr>
<td>I appreciate the labor that you’ve put in to tell me.</td>
</tr>
<tr>
<td>I apologize, I’m going to do better.</td>
</tr>
<tr>
<td>How can I make this right?</td>
</tr>
<tr>
<td>What I’m gathering is (insert what you learned).</td>
</tr>
<tr>
<td>Thank you.</td>
</tr>
<tr>
<td>I believe you.</td>
</tr>
</tbody>
</table>

https://everydayfeminism.com/2017/05/allies-say-this-instead-defensive/
<table>
<thead>
<tr>
<th>STATEMENTS TO REBUKE HATE…</th>
</tr>
</thead>
<tbody>
<tr>
<td>“That’s not okay with me”</td>
</tr>
<tr>
<td>“What you just said is harmful”</td>
</tr>
<tr>
<td>“We don’t say things like that here”</td>
</tr>
<tr>
<td>“I’m not comfortable with that”</td>
</tr>
<tr>
<td>“I find that offensive”</td>
</tr>
<tr>
<td>“That’s not funny”</td>
</tr>
<tr>
<td>“Hold on, I need to process what you just said”</td>
</tr>
<tr>
<td>“Help me understand your thinking”</td>
</tr>
<tr>
<td>“I didn’t realize you think that”</td>
</tr>
</tbody>
</table>
WILL YOU…?

01
Become an advocate for balanced conversations

02
Rebuke HATE, professionally and personally

03
Invite more conversations to help the people around you expand
NATIONAL ASSOCIATION OF EMS PHYSICIANS
DIVERSITY, EQUITY, AND INCLUSION COMMITTEE

CHAIR & VICE CHAIR
REFERENCES

- https://www.history.com/topics/black-history/slavery
- https://www.history.com/tag/riots
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2565489/