The DRIVE Initiative:

Diversity, Representation, and Inclusion for Value in Education

Addressing Bias in the Curriculum

University of Massachusetts Medical School

UMASS

UMassMemorial Health Care

DRIVE

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Disclosure:

Our intent is to promote inclusive learning while avoiding bias.

If you identify opportunities for addressing bias or improving representation in the course content or instructional delivery, please contact me directly or you can share feedback with the DRIVE Committee: DRIVE@umassmed.edu

Learning objectives

By the end of this session, learners will be able to

- **Describe** the UMMS DRIVE Initiative
- Recognize **four categories for improvement** of diversity, representation and inclusion in our teaching as outlined in the DRIVE Appraisal tool
- **Apply** the DRIVE Curriculum **Appraisal Tool** to your own teaching materials

The goals of DRIVE

- To promote a rep **resentative and bias - free** curriculum across our learning environments
- To enhance the accuracy, representation, **and inclusion** of diverse populations in all our educational activities

IMPACT 2025 Education

Nurturing a diverse and inclusive learning environment:

“Providing curricula and learning environments that effectively address bias”

Ethnicity

Mental Health

Disability

Sexual Orientation

Immigration Status

Sex and Gender

We all have bias, and bias has many dimensions

Poverty

National Origin

Substance Use

Weight

For the purpose of **DRIVE** we define bias as disproportionate weight in favor of or against one thing, person, or group compared with another, usually in a way considered to be unfair.

Race

Age

Our learning environment reflects our biases

Blindspot: Hidden Biases of Good People
by Mahzarin R. Banaji & Anthony G. Greenwald
(http://blindspot.fas.harvard.edu)

Implicit Association Test (IAT)
Take the IAT test:
https://implicit.harvard.edu/implicit

We can improve the quality of our educational programs by sensitizing ourselves to bias in the curricula

Studies demonstrate bias in medical education

A Common Purpose: Reducing Bias in the Curriculum

To the Editor: In 2016, two of us (L.J.B. and C.I.T.), both persons of color and both first-year medical students at the time, wrote a letter to our administrative leaders at Columbia University College of Physicians and Surgeons. We expressed concern that our texts described normal gums as "bright and pink" and that one criterion to determine a newborn's health is its "pink" appearance. By these measures, persons of color might be categorized as abnormal and unhealthy. We were not suggesting that faculty were doing purposeful harm; in the same letter, we expressed a deep regard for our teachers.

Academic Medicine 92: 274 (2017)

Race/Ethnicity in Medical Education: An Analysis of a Question Bank for Step 1 of the United States Medical Licensing Examination

Kelsey Ripp & Lundy Braun Teaching and Learning in Medicine, 29:2, 115-122,(2017)

Equitable Imagery in the Preclinical Medical School Curriculum: Findings From One Medical School

Glenna C. Martin, MD, MPH, Julianne Kirgis, PhD, Eric Sid, MHA, and Janice A. Sabin, PhD, MSW Acad Med. 2016;91:1002–1006.

The Hidden Curriculum in Multicultural Medical Education: The Role of Case Examples

Sandra Turbes, MD, Erin Krebs, MD, and Sara Axtell, PhD

Acad. Med. 2002;77:209–216.

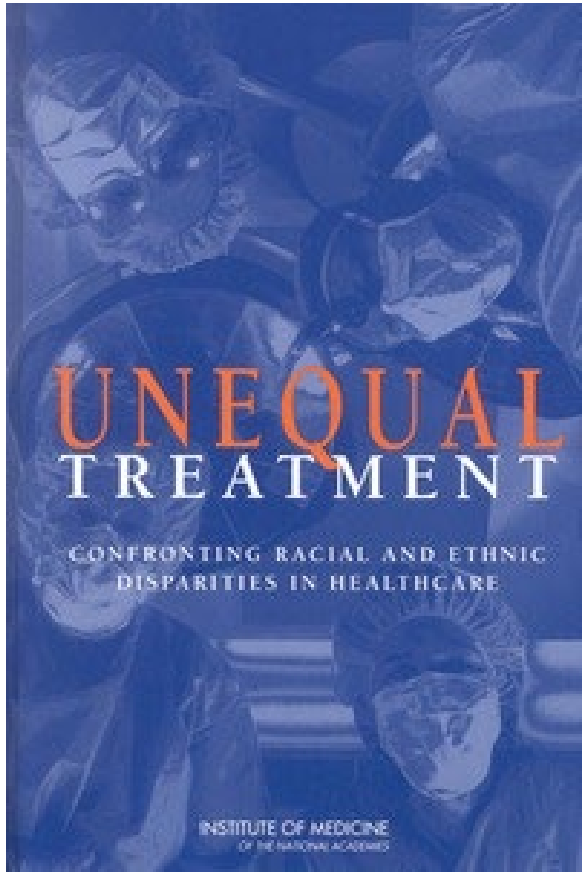
Gender bias in medical textbooks: examples from coronary heart disease, depression, alcohol abuse and pharmacology

Anja F Dijkstra,[1] Petra Verdonk[1,2] & Antoine L M Lagro-Janssen[1]

Medical Education 2008: 42: 1021–1028

Other schools are undertaking similar efforts to address bias (Brown, Columbia, Mt Sinai, Rochester, SUNY Upstate, U Washington)

Bias in our curricula may build or perpetuate bias and disparities in healthcare.



People of color are less likely than whites to receive needed services, including:

- cancer, cardiovascular disease, HIV/AIDS, diabetes, mental illness
- clinically necessary procedures and routine treatments for common health problems

"Bias, stereotyping, prejudice, and clinical uncertainty on the part of healthcare providers may contribute to racial and ethnic disparities in healthcare."

(Finding 4-1, p 178)

Our students report **bias** and **marginalization** in their learning environments

- Students have identified a lack of diverse and appropriate representation in curricula across schools
- An analysis of SOM curricular materials revealed bias

GSN learners

"limited exposure to people of color"

"would like diverse range of identities"

"limited exposure to patients of color, LGBTQIA, other abled, from different religions, mental health concerns"

"more opportunity to engage in language concordance"

"ethnocultural-centrism"

"case studies tend to represent white, heterosexual, cisgender"

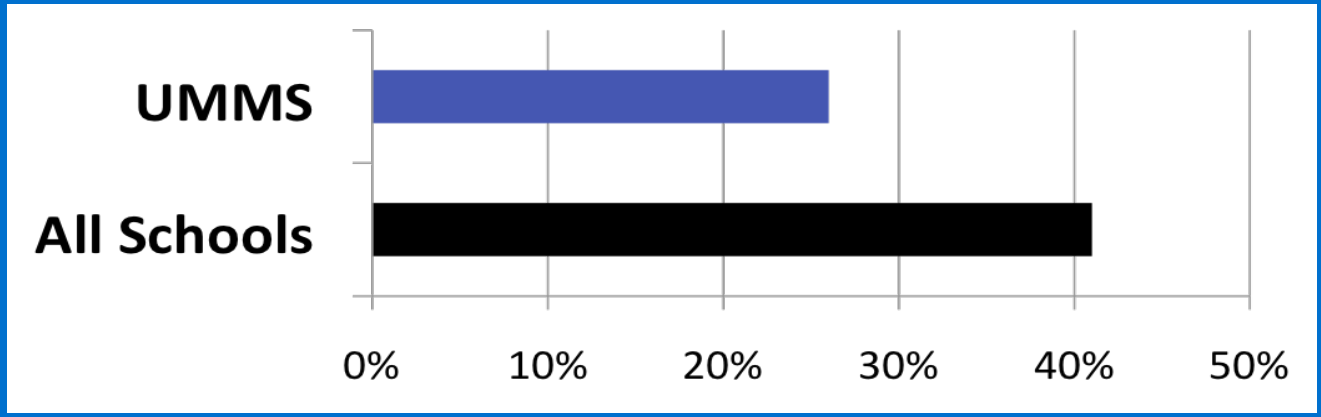
"inappropriate identifiers (Oriental and not Asian)"

''lack of skin color representation"

Our students report **bias** and **marginalization** in their learning environments

Results from the AAMC 2018 graduate questionnaire show room for improvement:

Faculty ALWAYS demonstrate respect for diversity



The **DRIVE** Initiative will help faculty, students, and staff in the effort to *identify and remove bias while increasing representation*

Providing ***tools*** and ***information*** to increase awareness of and sensitivity to bias in educational activities and materials

Offering ***resources*** and ***education*** for faculty to help align teaching materials and the learning environment with our values of diversity and inclusion

Engaging faculty and learners in the ***assessment*** of teaching and education to promote bias-free and representative educational experiences for all

The DRIVE Appraisal Tool

- Developed by a committee of faculty, staff and students from GME, GSBS, GSN, SOM building on materials from peer institutions (Brown, SUNY, Univ of Rochester, Columbia)
- Designed for self -assessment, systematic application, to support curriculum enhancement and learning
- DRIVE team contributors since 2018 include:

Daryl Bosco, Carla Carten, Yasmin Carter, Suzanne Cashman, Monika Chitra, Debbie DeMarco, Symren Dhaliwal, Katrina Durham, Reid Evans, Melissa Fischer, Kaitlyn Fishman, Supreetha Gabbala, Robert Gakwaya, Heather -Lyn Haley, Amanda Hazeltine, Jessica Kilham, Rob Milner, Pranoti Mandrekar, Everlyne Njoroge, Stefania Peralta, Ken Peterson, Deborah Plummer, Rose Schutzberg, Ciarra Smith, Tanisha Stowers, Luanne Thorndyke, Jules Trobaugh, Amanda Whitehouse

The DRIVE Appraisal Tool

- Column of characteristics
- Organized into 4 sections
  - Language and Terminology
  - Research and References
  - Images and Media
  - Case Studies
- 11 primary and subsequent probing questions
- Online extended version includes examples of best practice, guided exercises, and links to resources for deeper exploration and growth

The DRIVE Appraisal Tool will prompt you to:

- Use inclusive and person -first language
- Recognize racial groups as primarily non - biological constructs
- Incorporate diverse subjects and avoids stereotypes in case studies and research talks

The DRIVE Appraisal Tool will prompt you to:

- Integrate diverse graphics, images, videos and examples of usual and disease states
- Discuss the relationship between racial categorization, research practices, data collection and communication

…and address existing bias

DRIVE

Worksheet for Curriculum Appraisal

For the purpose of **DRIVE** we define **bias** as disproportionate weight in favor of or against one thing, person, or group compared with another, usually in a way considered to be unfair.

DRIVE Best Practice:

Ask yourself: Do I create a learning environment that welcomes feedback related to diversity, inclusion and representation? We recommend you share the following message in your course website, slide or statement at the start of each session:

'My intent is to promote an inviting and inclusive learning environm
while avoiding bias. I welcome feedback.'

This tool is applicable across educational settings including: large or small group, lab presentations, discussions. Probing questions and examples are designed to be applied research and clinical settings.

If you've reviewed your materials considering a question and are satisfied with what y ex the box. If there is room for improvement, circle that section to aid you in returning t

Section 1: Language and terminology

☐ **Q1: Do I use people-first language and terminology in my written materials and discussions?**

Preferred language puts people before their conditions. Example: Person with schizophrenia, rather than schizophrenic; person using a wheelchair, person living with MS

- Am I careful not to use labels or acronyms that could be stereotyping or derogatory?
- When discussing patient populations, do I refrain from referring to the group without disease as normal or healthy?
- Am I careful not to assume someone is "suffering from" a condition they are living with?

Preferred language would compare people with diabetes to people without diabetes, rather than comparing people with diabetes to "healthy people," and refer to subjects enrolled in research as 'cases' and "controls."

☐ **Q2: Do I use appropriate and inclusive language and terminology?**

- Am I careful not to make assumptions about an individual's family composition, lifestyle, sexual orientation, gender, ethnicity, age or other characteristics?

Preferred language might discuss parents (or the grown-ups at home) rather than mothers and fathers, and partners instead of husbands and wives.

- Am I conscious of both my written and spoken language?

☐ **Q3: Do I appreciate and acknowledge, as appropriate, that learners may have a personal experience with the content I am presenting?**

- In discussing conditions commonly associated with stigma (alcohol or substance misuse) or incurable conditions (ALS), do I appreciate and acknowledge, as appropriate, that the discussion or terminology may be upsetting or offensive? This may be especially important in relation to traumatic events.

Preferred approach: "As we discuss this topic I recognize that some of you may have had personal experiences that impact your comfort, response, and discussions with classmates and others. Please know that there are supports available."

☐ **Q4: Am I respectful of other professions and disciplines?**

- Do my cases, protocols or vignettes demonstrate an interprofessional approach that values input from various disciplines?

V030220

Language and terminology

Age
Appearance
Diet
Gender identity
Height
Housing status
Immigration status
Mental health
National origin
Poverty
Primary language
Race
Religious identification
Sexual orientation
Socioeconomic status
Substance use
Weight

Research and references

Images and media

Case studies

Section 2: Research and References

- ☐ **Q5: Is the literature, research or study I am citing up to date with respect to terminology, classifications, or sampling bias?**
  - If there is no recent or updated research that is unbiased, am I including discussion in my teaching explaining this and why?
  - Is the study population diverse? How is diversity defined? If not, does it provide reasoning for a lack of diversity?
- ☐ **Q6: Does the study methodology distinguish between biology and sociology in defining populations and interpreting results?**
  - Can I explain why race/gender/other characteristics are the relevant variables in study outcomes (rather than socioeconomic)? If not, how do I acknowledge this and any related limitations to applicability of the work?
  - Am I able to describe the role of genetics versus socioeconomic factors?

Section 3: Images & Media

- ☐ **Q7: Do the images or media in my materials represent a range of characteristics?**
  - Does the condition that I am discussing present differently in patients with different characteristics such as skin tones and hair? If so, have I illustrated that adequately?
  - How do I ensure that tables, graphs or other images do not reinforce unintended bias?
- ☐ **Q8: Could the images or media that I am using be perceived as promoting a stereotype?**
  - Are the images I use reinforcing a social stigma associated with the pathology presented in the discussion?
  - If a known social stigma is associated with the pathology being researched, e.g., HIV and drug use, is this acknowledged and discussed as a way of addressing the stereotype?

Section 4: Case Studies

- ☐ **Q9: If my cases include a specific demographic or characteristic, is it appropriate to the learning objectives? Do I present data and structure discussions to include why that characteristic is relevant to the case?**
  - Have I consulted appropriate advisory groups in the institution, patient population or the community to enhance accuracy and authenticity?
  - Is this an opportunity to discuss how the healthcare system historically reinforces disparities?
- ☐ **Q10: Do I include relative impact of cultural or socioeconomic factors (social determinants of health) on case pathology?**
  - If so, am I including reflection/discussion of the impact and weight of cultural or socioeconomic factors in the pathology?
  - Do I cite data to demonstrate scientific process, and allow students to examine further?
- ☐ **Q11: Do the totality of cases I use include examples of clinical presentations that do not stereotype specific groups?**
  - Have I incorporated diversity of characteristics (see column to right) across the totality of the cases I use in my teaching/session to enhance instruction?
  - Can the connection between the typical presentation, the pathology, and the represented patient be explained with unbiased scientific evidence?

DRIVE Best Practice:
What if I don't know the relevance or impact of the demographic or characteristic?
This is an opportunity to highlight some of the uncertainty involved in research and healthcare and to suggest avenues for further study.

Age
Appearance
Diet
Disability
Education level
Ethnicity
Gender
Immigration status
Mental health
National origin
Poverty
Primary language
Race
Religious identification
Sexual orientation
Socioeconomic status
Substance use
Weight

Resources are available online

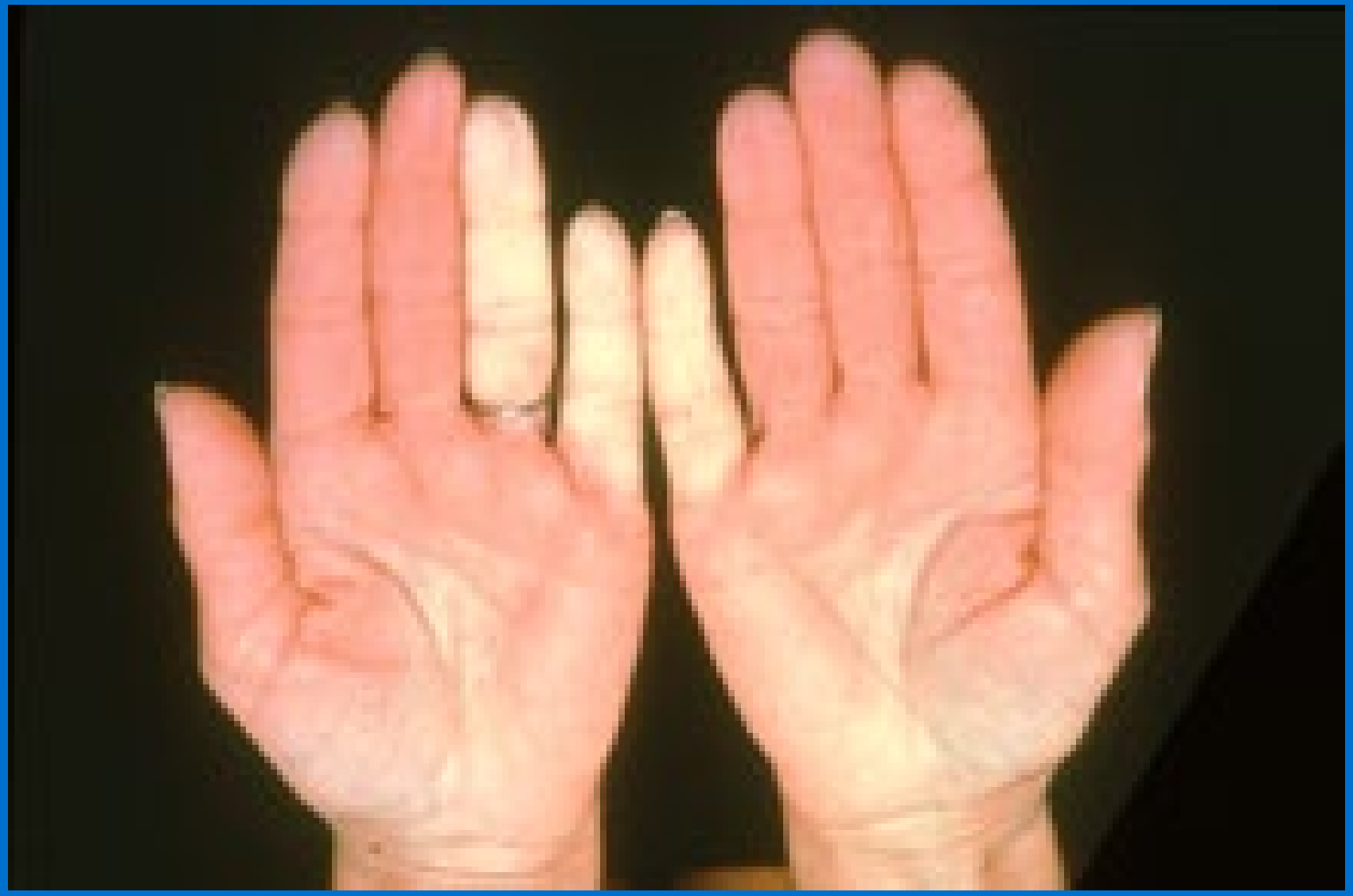
Consider this **DRIVE Appraisal Tool** question while viewing the following images used in teaching:

Question 7: Do the images or media in my materials represent a range of characteristics?

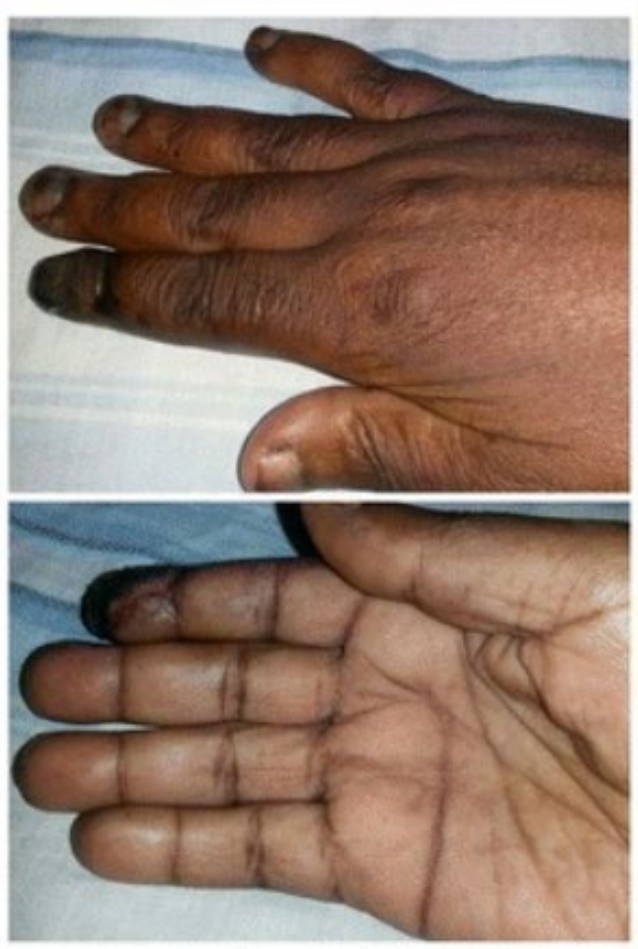
Probing questions:

- Does the condition that you are discussing present differently in patients with different characteristics such as skin tones or hair? If so, have you illustrated that adequately?
- Might tables, graphs or other images reinforce unintended bias?

Question 7: Do the images or media in my materials represent a range of characteristics?



Disease in this patient with dark skin was not diagnosed until she suffered necrosis of her digits



Consider the message delivered by this image . . .

Supporting the Next Generation as the Physician Shortage Becomes Reality

As the physician shortage looms, we must do everything we can to prepare medical students and residents for the future of practice.

Tuesday, April 24, 2018 | by Darrell G. Kirch, MD, AAMC President and CEO

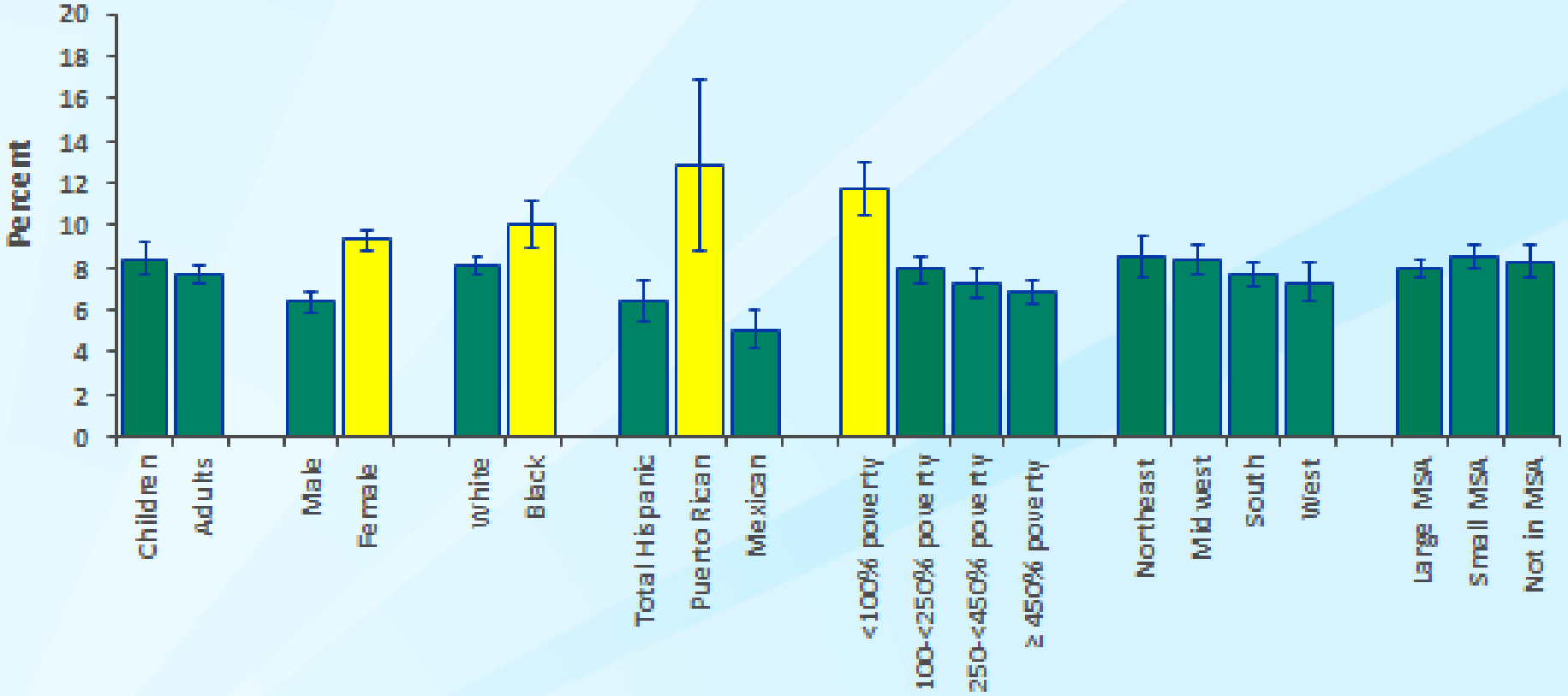
Apply this **DRIVE Appraisal** question to the following slide related to asthma

Question 9: If my cases include a specific demographic or characteristic, is it appropriate to the learning objectives? Do I present data and structure discussions to include why that characteristic is relevant to the case?

Probing questions:

- Can I explain the clinical relevance of race, gender or any other demographics used in the case including data?
- Have I consulted appropriate advisory groups to enhance accuracy and authenticity?
- Is this an opportunity to discuss how the healthcare system historically enforces disparities?

Current Asthma Prevalence by Age Group, Sex, Race and Ethnicity, Poverty Status, Geographic Region, and Place of Residence: United States, 2017



Females, blacks, and Puerto Ricans are more likely to have asthma.

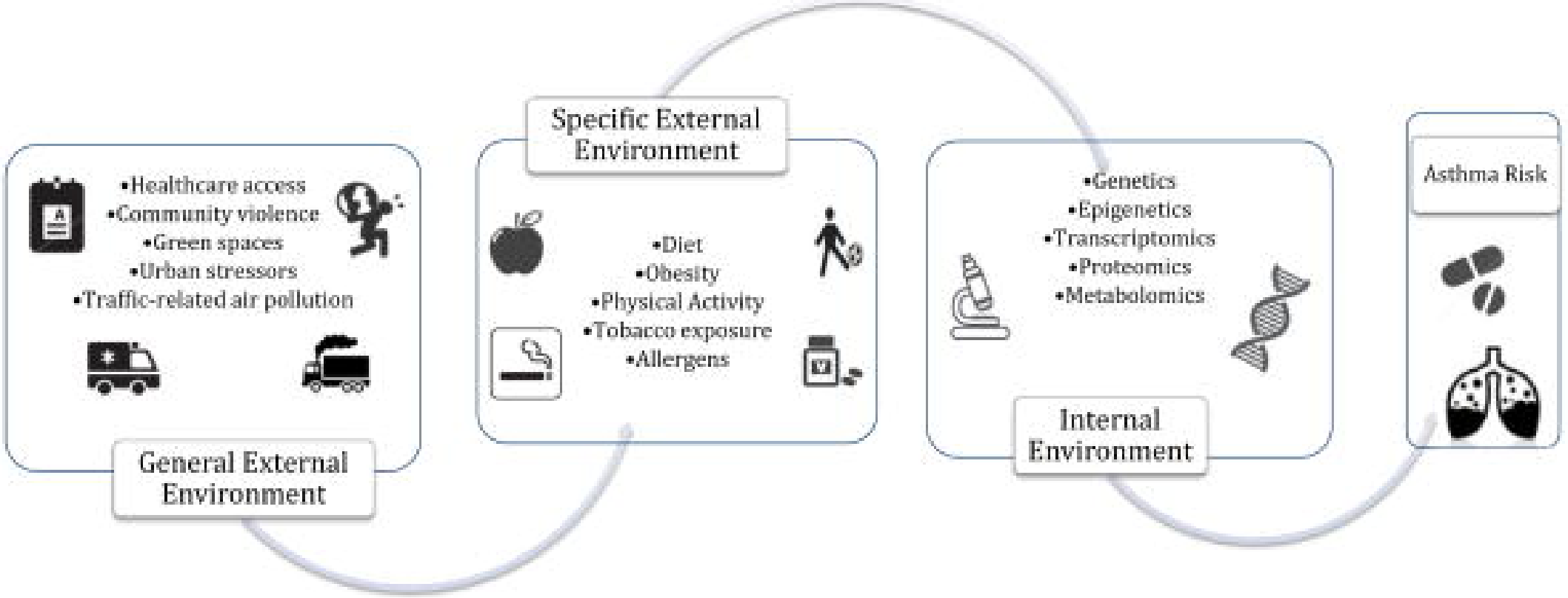
People with lower annual household income were more likely to have asthma.

Asthma did not differ by age group, region, or Metropolitan Statistical Area (MSA).

How might this teaching point be strengthened?

Asthma Prevalence and Health Care Resource Utilization Estimates, United States, 2001-2017; linked at https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm

What explains the variation in asthma prevalence?



Szentpetery SE, Forno E, Canino G, Celedón JC. Asthma in Puerto Ricans: Lessons from a high -risk population. J Allergy Clin Immunol. 2016 Dec;138(6):1556-1558.doi : 10.1016/j.jaci.2016.08.047. Epub 2016 Oct 15. PMID: 27751794; PMCID: PMC5189666.

Assessment can promote learning

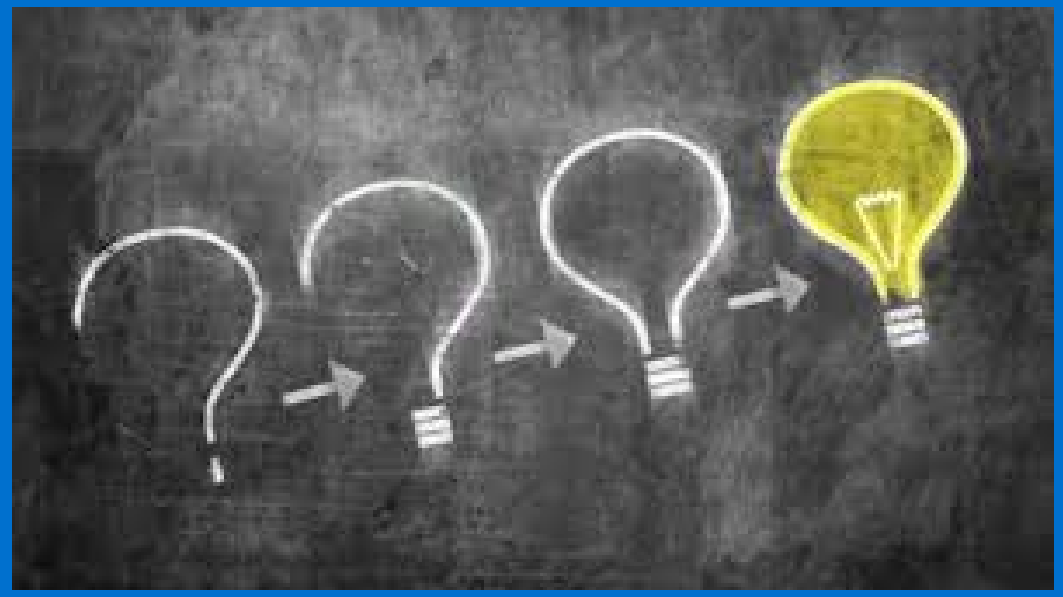
How might this question be adjusted to reinforce learning regarding SDOH and the impact of characteristics discussed in the presentation on asthma?

- Which age, sex, and/or racial groups see disparities in asthma prevalence rates, as well as hospitalizations and deaths?

Knowledge vs comprehension and application

What if I/we don't know the relevance or impact of the demographic or characteristics?

This is an opportunity to highlight some of the uncertainty involved in research and healthcare, and opportunities for further study



“Long-standing systemic health and social inequities have put some members of racial and ethnic minority groups at increased risk of getting COVID-19 or experiencing severe illness, regardless of age”

Credit: Boston Globe

https://www.chttps://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html

Testimonial from a course leader who participated in a DRIVE workshop days before course start

> “I did go through my materials, and I found a couple of really discrete examples that needed to be changed.... [the workshop and tool were] impactful.”

Testimonial from a course leader who participated in a DRIVE workshop days before course start

> “I had a really egregious example... I teach about Rickettsial diseases, and there's a known association, a risk factor for dark skin and poor outcomes, and I would show that on my slides along with all the other risk factors for poor outcomes without really discussing it.”

Testimonial from a course leader who participated in a DRIVE workshop days before course start

"After the DRIVE seminar, I went back and looked at the epidemiology, and it was really interesting. It was, dark skin is a risk factor because one of the first signs of disease can be a rash. The risk for poor outcomes is elevated for those with dark skin because it's harder to see the rash, delaying diagnosis and proper treatment. Once you account for the time of diagnosis it is not a risk factor anymore."

Small Group Activity

- Break out into small groups
- Consider the following question
  - *Do I create a learning environment that welcomes feedback relative to diversity, inclusion and representation?*
- Work within your groups to review and apply an assigned section of the audit tool.
- Consider reactions, thoughts and recommendations.

DRIVE
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DISCUSSION

TAKEAWAYS

FINAL QUESTIONS

How can you get involved with DRIVE ?

Let us know if you have feedback, ideas, resources or questions about the DRIVE Initiative – or to JOIN US!

Use our **lib guide link** or

email : DRIVE@umassmed.edu

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