

# IMPLICIT BIAS & SOCIAL CATEGORIZATION IN MEDICINE

MWAETC – ECHO  
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# DISCLOSURES

No conflicts of interest or relationships to disclose.

# RECAP – LAST WEEK

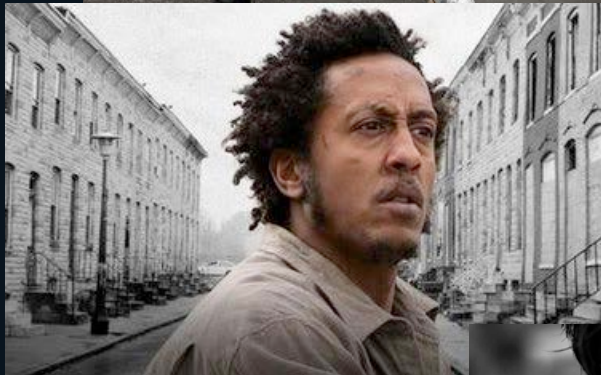
- Mental exercises – psychology basics
- Implicit bias definition
- Implications of implicit bias in the medical field
- Recommended taking an IAT (Implicit Association Test)

# TODAY

- Bias leads us to think of our patients in falsely simplistic terms
- A bit about “race” in medicine
- How to combat the negative effects of bias

**BIAS LEADS TO OVER-SIMPLIFICATION**

# STEREOTYPES OF "DRUG USER"



# BIAS LEADS TO OVER-SIMPLIFICATION

PATIENT



IMPLICIT  
BIAS

CATEGORIZATION OF  
PATIENT

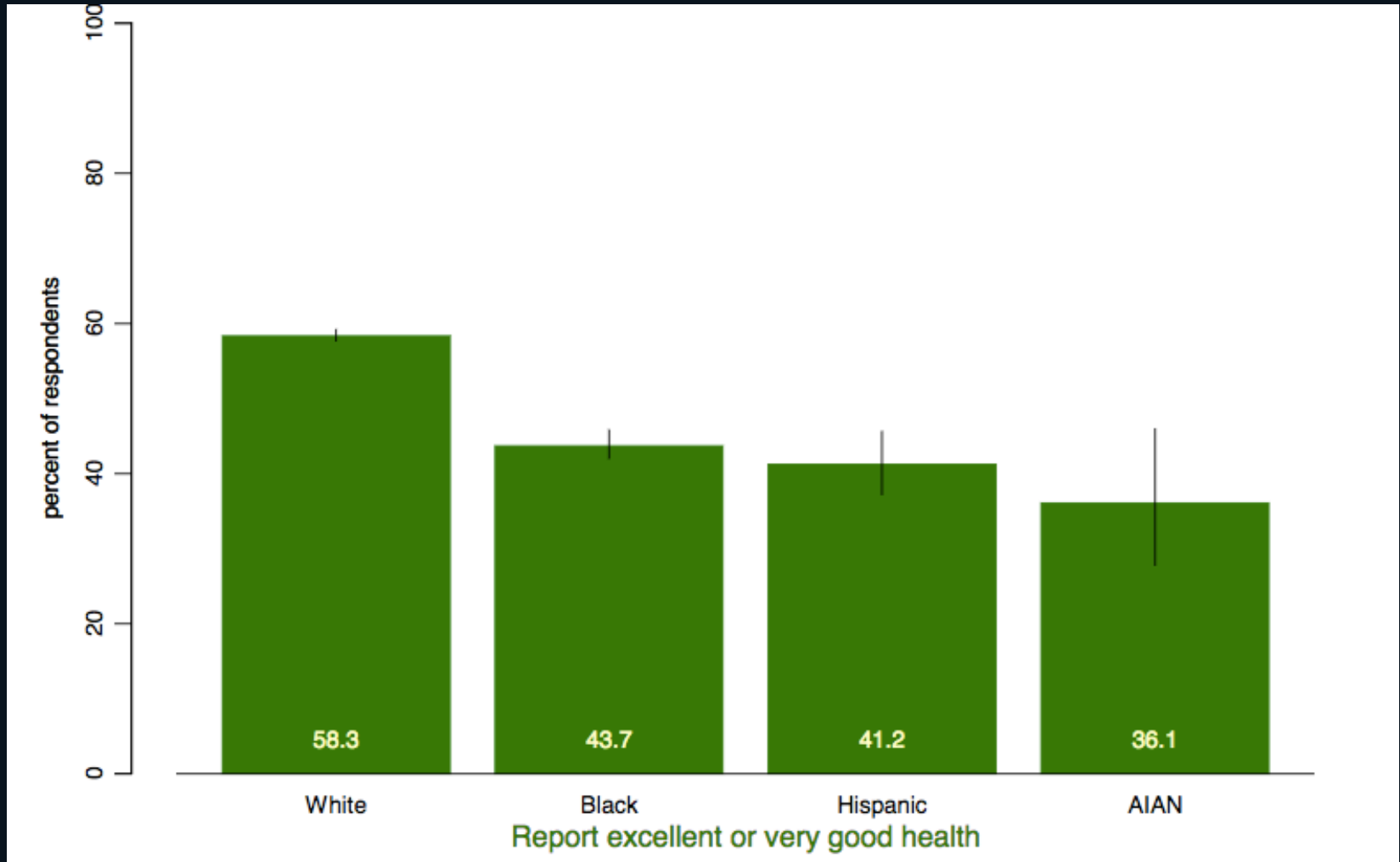


ACTION



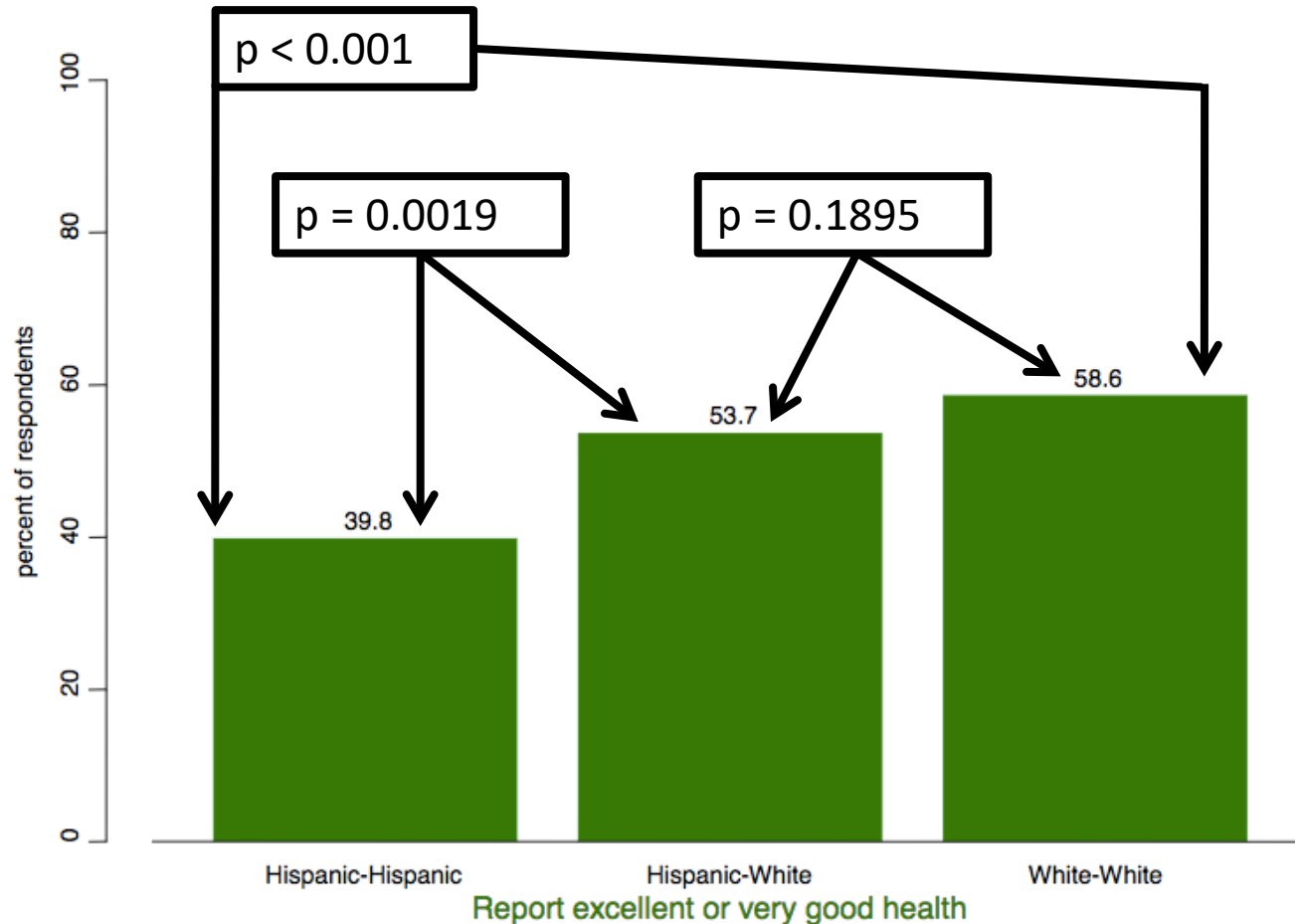
- Successful lawyer
- Well-educated
- Articulate
- Impeccably dressed

# General Health Status by Self-identified Race

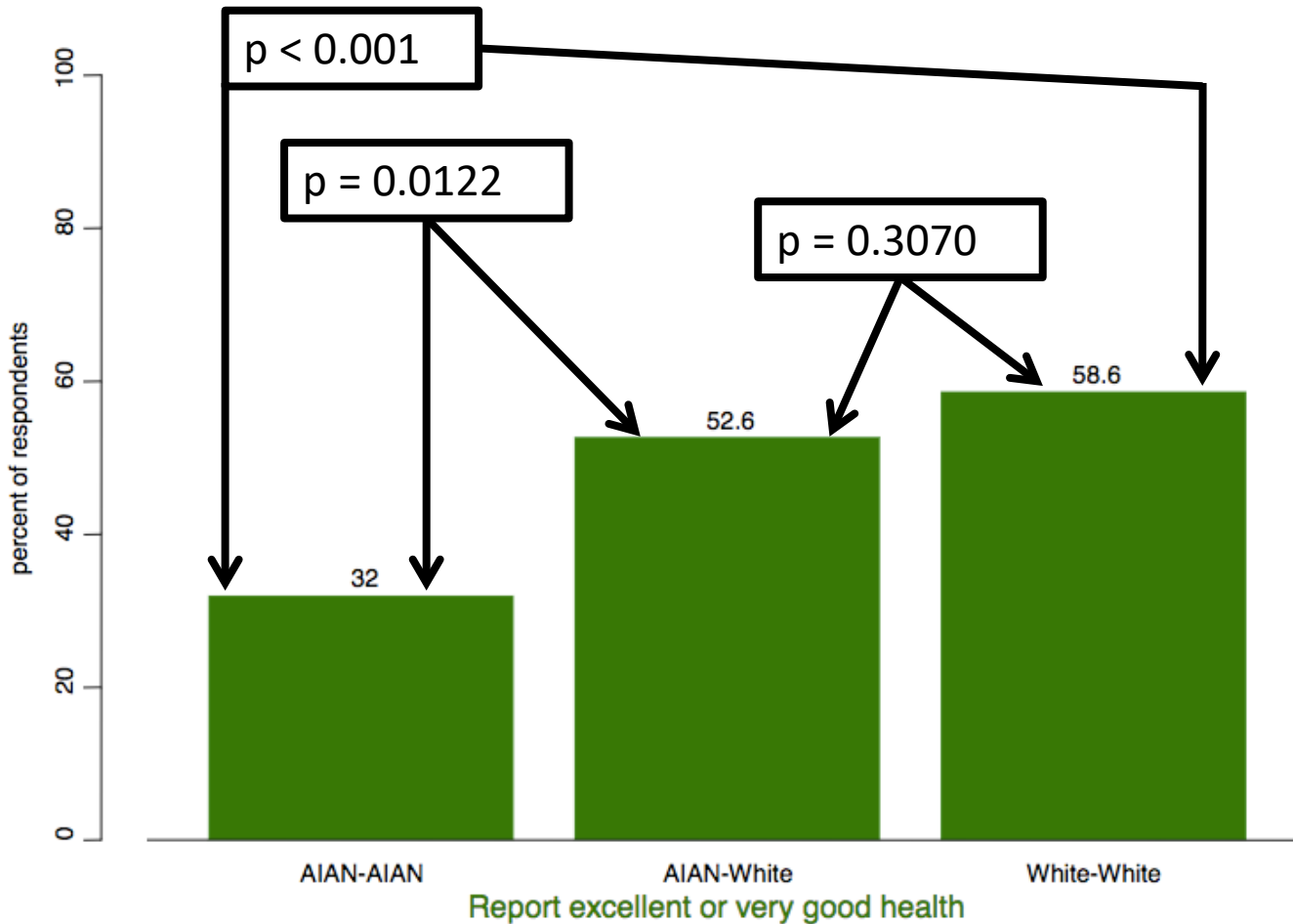




# General Health Status by Self-identified and Socially-defined Race



# General Health Status by Self-identified and Socially-defined Race



# RACE IN MEDICAL RESEARCH

- ~80% published medical research uses race
  - Genetics, infant mortality, health services, etc.
  - Rarely defined
- Proxy for environmental, behavioral and genetic factors
  - Can obscure the true cause of unequal health outcomes
  - Reinforces subconscious assumption that racial difference is genetic

Am J Phys Antropol. 2009;139:47.

Am J Med Genet A. 2007;143a:961.

Fam Med. 1998;30:224.

Nurs Res. 2001;50:305.

Am J Epidemiol. 2004;159:661.

Epidemiol Rev. 2000;22:187.

# BIAS – WHAT CAN WE DO ABOUT IT?



# BIAS – WHAT CAN WE DO ABOUT IT?

- Increasing MDs' awareness of susceptibility to bias works!
  - Back to the thrombolysis study...
- Focus on objective information specific to an individual
- Take the perspective of the other
- Diversify the work force!
- Fatigue & lack of time → more biased behavior

# BIAS – WHAT CAN WE DO ABOUT IT?

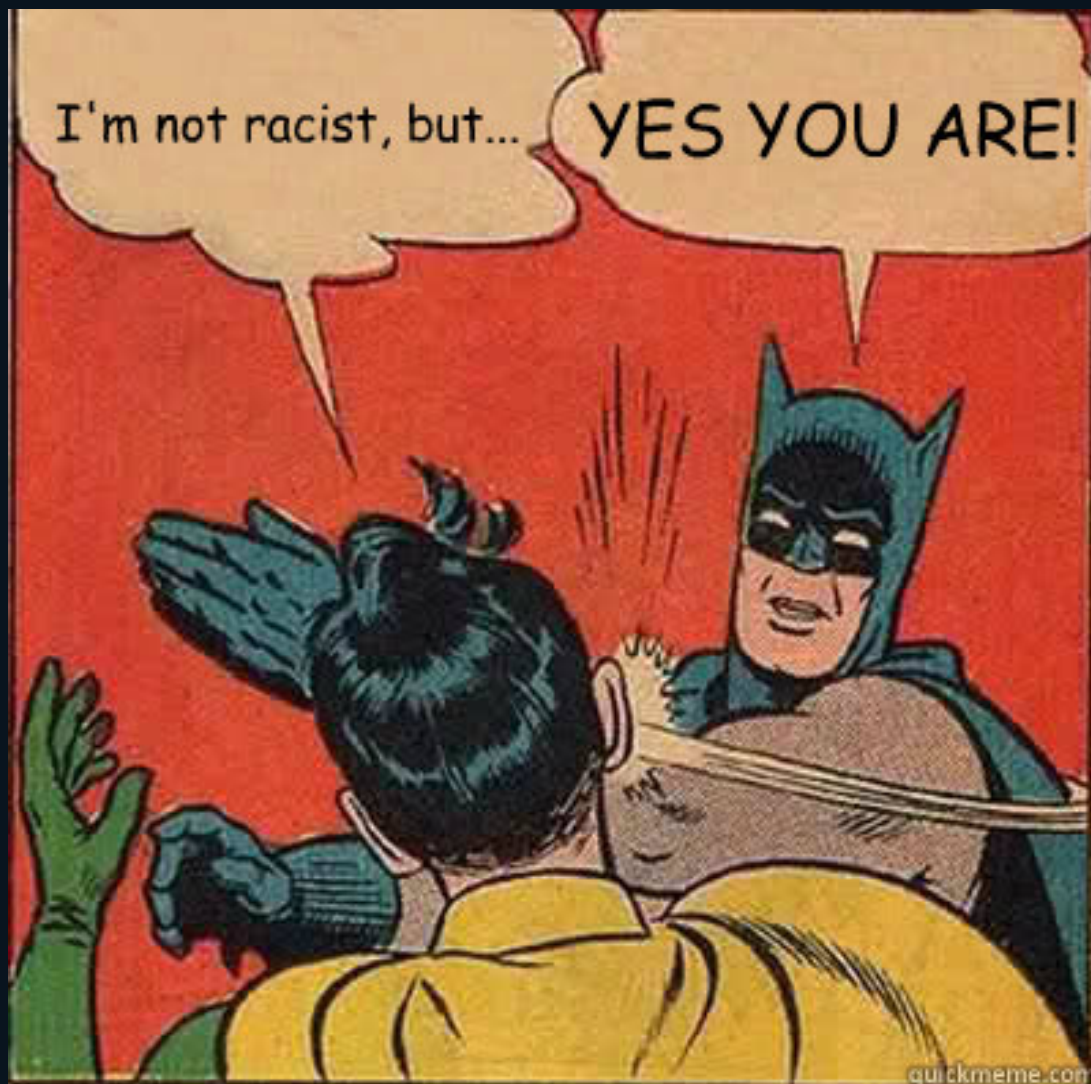
- Practice bias mindfulness

# BIAS – WHAT CAN WE DO ABOUT IT?

- Racial bias is contagious
  - Subtle expressions (including non-verbal) lead observers to form more negative impressions, adopt stronger stereotypes, and demonstrate greater bias
  - Good news – the reverse is true too
- This happens in medicine
  - Among 3500 students at 49 medical schools:
  - Hearing negative comments from attendings and residents about AA patients = significant predictor of increased implicit race bias

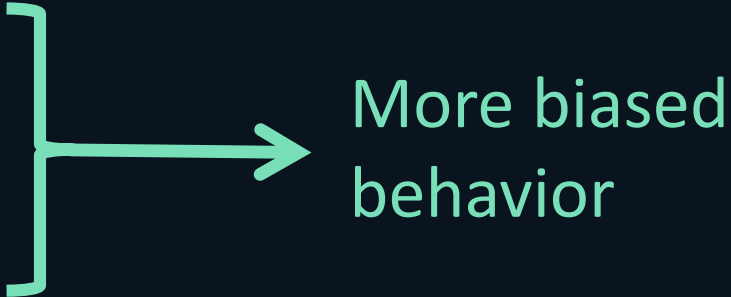
I'm not racist, but...

**YES YOU ARE!**





# BIAS BEWARE!

- Implicit bias is the downside of our evolutionary ability to utilize cognitive shortcuts
  - Implicit biases often directly oppose one's explicitly held values
  - Unawareness of bias
  - Fatigue
  - Time pressure
  - Practice bias mindfulness regularly
  - The behaviors you model translate into subconscious bias for learners
- 
- More biased behavior

# REFERENCES

- Banaji MR, Greenwald AG. Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology*. 1995;68:181-198.
- Borkhoff CM, Hawker GA, Kreder HJ, Glazier RH, Mahomed NN, Wright JG. The effect of patients' sex on physicians' recommendations for total knee arthroplasty. *Canadian Medical Association Journal*. 2008 Mar 11;178(6):681-7.
- Chapman EN, Kaatz A, Carnes M. Physicians and implicit bias: how doctors may unwittingly perpetuate health care disparities. *Journal of general internal medicine*. 2013 Nov 1;28(11):1504-10.
- Chapman KR, Tashkin DP, Pye DJ. Gender bias in the diagnosis of COPD. *Chest Journal*. 2001 Jun 1;119(6):1691-5.
- Collins PH. Intersectionality's definitional dilemmas. *Annual Review of Sociology*. 2015 Aug;41:1-20.
- Cooper LA, Roter DL, Carson KA, Beach MC, Sabin JA, Greenwald AG, Inui TS. The associations of clinicians' implicit attitudes about race with medical visit communication and patient ratings of interpersonal care. *American Journal of Public Health*. 2012 May 102(5):979-987.
- Goyal MK, Kuppermann N, Cleary SD, Teach SJ, Chamberlain JM. Racial disparities in pain management of children with appendicitis in emergency departments. *JAMA pediatrics*. 2015 Nov 1;169(11):996-1002.
- Green AR, Carney DR, Pallin DJ, Ngo LH, Raymond KL, Iezzoni LI, Banaji MR. Implicit bias among physicians and its prediction of thrombolysis decisions for black and white patients. *Journal of general internal medicine*. 2007 Sep 1;22(9):1231-8.
- Greenwald AG, Nosek BA, Banaji MR. Understanding and using the implicit association test: I. An improved scoring algorithm. *Journal of personality and social psychology*. 2003 Aug;85(2):197.

# REFERENCES

- Greenwald AG, Nosek BA. Health of the Implicit Association Test at age 3. *Zeitschrift für Experimentelle Psychologie*. 2001 Jan 1;48(2):85-93.
- Johnson RL, Roter D, Powe NR, et al. Patient race/ethnicity and quality of patient-physician communication during medical visits. *Am J Public Health*. 2004 Dec; 94(12):2084–90.
- Jones CP. *Social determinants of equity and social determinants of health*. Atlanta: Centers for Disease Control and Prevention. 2009.
- Jones CP, Truman BI, Elam-Evans LD, et al. Using “socially assigned race” to prove *white* advantages in health status. *Ethnicity & Disease*. 2008;18:496-504.
- Sabin JA, Greenwald AG. The influence of implicit bias on treatment recommendations for 4 common pediatric conditions: pain, urinary tract infection, attention deficit hyperactivity disorder, and asthma. *American journal of public health*. 2012 May;102(5):988-95.
- Schulman KA, Berlin JA, Harless W, Kerner JF, Sistrunk S, Gersh BJ, Dube R, Taleghani CK, Burke JE, Williams S, Eisenberg JM. The effect of race and sex on physicians' recommendations for cardiac catheterization. *New England Journal of Medicine*. 1999 Feb 25;340(8):618-26.