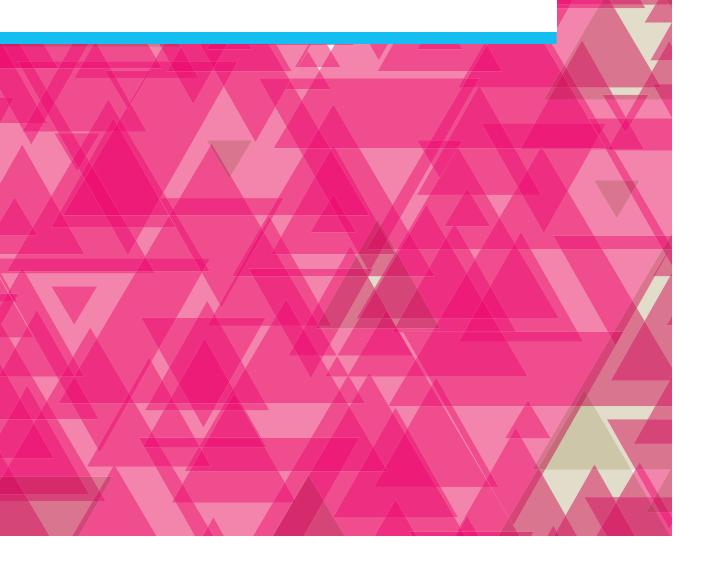
# **POLICYLAB**

RESEARCH AT A GLANCE | SPRING 2017
A SYNOPSIS OF EMERGING POLICYLAB RESEARCH

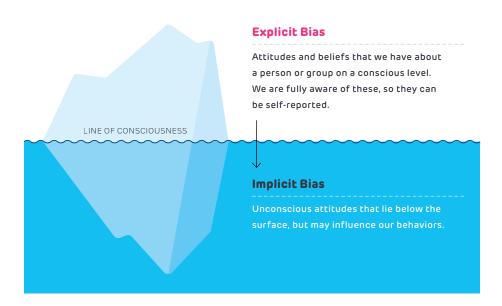
# EXAMINING PHYSICIAN IMPLICIT RACIAL BIAS AGAINST CHILDREN





# WHAT IS THE PROBLEM:

Implicit bias refers to unconscious attitudes that lie below the surface, but may influence our behaviors.



In the clinical setting, implicit racial bias may impact:

- Patient-provider communication
- Disparities in treatment
- Patient-family satisfaction with medical encounter
- Adherence to treatment recommendation

Although it is widely understood that most physicians, similar to the general population, have implicit racial biases against black adults, no one has studied physician implicit racial bias towards black children. Investigating implicit bias against black children will help advance our understanding of factors that may contribute to child health inequities.

# WHAT WE ASKED:

Do physicians working in a pediatric emergency department (ED) have less implicit racial bias against black children than they have against black adults?

Is there a difference in implicit racial bias based on the physician's own personal characteristics such as their race, gender, medical specialty or year of training?

# WHAT WE DID:

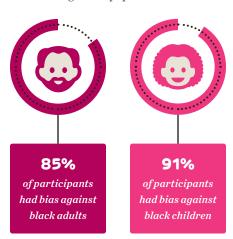
We administered both Child and Adult Race Implicit Association Tests (IATs) to 91 resident physicians in a large pediatric ED in western Pennsylvania. The Race IAT is a tool that requires the user to rapidly sort pictures of black and white faces with categories of pleasant or unpleasant words (i.e. wonderful or happy versus evil or horrible). Based on the responses and decision-making time, the test determines if the user has an automatic preference towards one race or another.

### CHILD RACE IMPLICIT ASSOCIATION TESTS (IATS)

Black	
White	<b>3 3 3 3 3 3 3</b>
Good	Joy   Love   Wonderful   Pleasure   Laughter   Happy
Bad	Terrible   Horrible   Evil   Awful   Agony   Hurt

### WHAT WE FOUND:

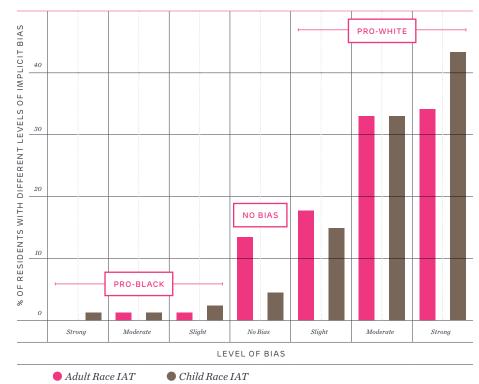
Most resident physicians in our study had pro-white/anti-black bias on both the Adult Race IAT and Child Race IAT, which reflects other research on implicit bias on the general population.



**Neither Adult Race or Child Race IAT scores varied** by resident personal characteristics. Pediatric residents in our study had similar implicit biases as resident physicians from other specialties (i.e. emergency medicine residents, family medicine residents).

Physicians in our study had similar scores on the Adult and Child Race IAT, indicating comparable levels of bias against black adults and black children.

# PERCENTAGE OF RESIDENTS WITH DIFFERENT LEVELS OF IMPLICIT BIAS TOWARDS ADULTS AND CHILDREN



# **WHAT IT MEANS:**

Our findings suggest that, similar to adult patients, children may be vulnerable to implicit racial bias from their health care providers. As part of a continued effort to achieve child health equity, physicians should become aware of their implicit racial biases through tools such as the IAT.

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Future research should investigate how implicit racial bias against children impacts disparities in pediatric health care. Effective strategies are also needed to help reduce physician bias and its impact on the clinical encounter.

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### STUDY METHODS

We used computer-based instruments to investigate the implicit racial bias of resident physicians working in a large urban pediatric emergency department (ED) in western Pennsylvania. This ED handles over 70,000 annual visits, of which 61.5% involve patients who are non-Hispanic white, 33.5% non-Hispanic black, 0.9% Asian and 0.6% Hispanic.

Residents completed electronic instruments assessing demographic characteristics and implicit racial bias using both the Adult and Child Race IATs. Residents self-reported their race, ethnicity, age, gender, specialty and training year.

We used linear models to analyze Adult Race, Child Race and Difference IAT Scores (calculated by subtracting Adult IAT scores from Child IAT scores). We also examined the association of demographic characteristics—such as race/ethnicity, age, gender, specialty and training year—with Adult, Child and Difference IAT scores using separate linear models.

### **BIBLIOGRAPHY**

Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *J Pers Soc Psychol*, 97(1), 17–41. doi:10.1037/a0015575

Johnson, T. J., Hickey, R. W., Switzer, G. E., Miller, E., Winger, D. G., Nguyen, M., Saladino, R. A., Hausmann, L. R. (2016). The Impact of Cognitive Stressors in the Emergency Department on Physician Implicit Racial Bias. *Acad Emerg Med*, 23(3), 297–305. doi:10.1111/acem.12901

Lane KA, B. M., Nosek, BA, et al. (2007). *Implicit Measures of Attitudes* (S. N. Wittenbrink B Ed.). New York, NY: Guilford Press.

Project Implicit. Race IAT. Project Implicit. https://implicit. harvard.edu/implicit/index.jsp. Published 2011.

Sabin, J. A., Rivara, F. P., & Greenwald, A. G. (2008). Physician implicit attitudes and stereotypes about race and quality of medical care. *Med Care*, 46(7), 678–685. doi:10.1097/MLR.0b013e3181653d58

### **RELATED POLICYLAB WORK**

Johnson, T. J., Hickey, R. W., Switzer, G. E., Miller, E., Winger, D. G., Nguyen, M., Saladino, R. A., Hausmann, L. R. (2016). The Impact of Cognitive Stressors in the Emergency Department on Physician Implicit Racial Bias. *Acad Emerg Med*, 23(3), 297–305. doi:10.1111/acem.12901

### **PUBLICATION**

Johnson, T. J., Winger, D. G., Hickey, R. W., Switzer, G. E., Miller, E., Nguyen, M. B., Saladino, R. A., Hausmann, L. R. (2016). Comparison of Physician Implicit Racial Bias Toward Adults Versus Children. *Acad Pediatr*. doi:10.1016/j.acap.2016.08.010



The mission of PolicyLab at Children's Hospital of Philadelphia (CHOP) is to achieve optimal child health and well-being by informing program and policy changes through interdisciplinary research. PolicyLab is a Center of Emphasis within the Children's Hospital of Philadelphia Research Institute, one of the largest pediatric research institutes in the country.

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