

The criminal legal system & population health inequality

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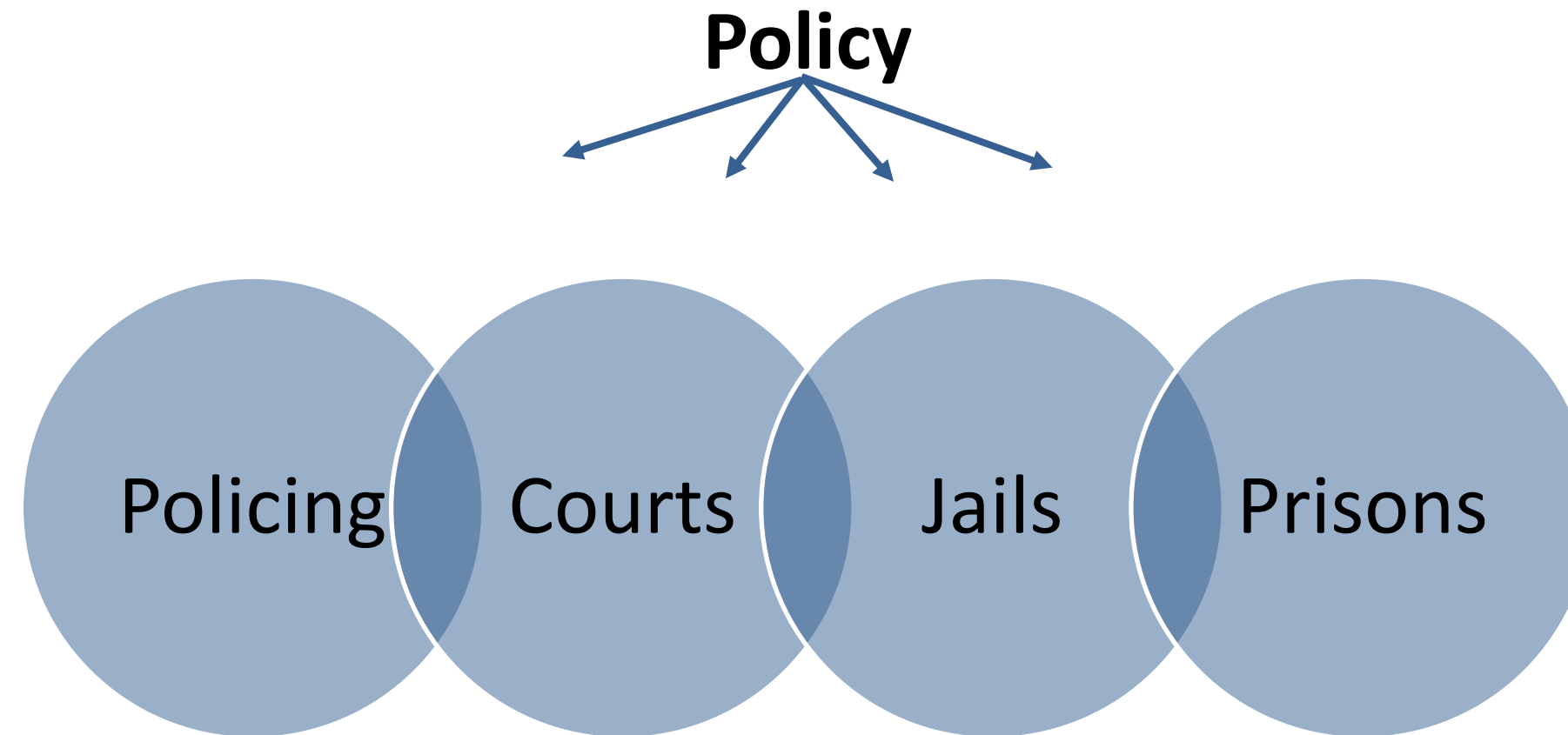
CUNY Stone Center on Socio-Economic Inequality
Inequality By The Numbers 2022 Workshop

Agenda

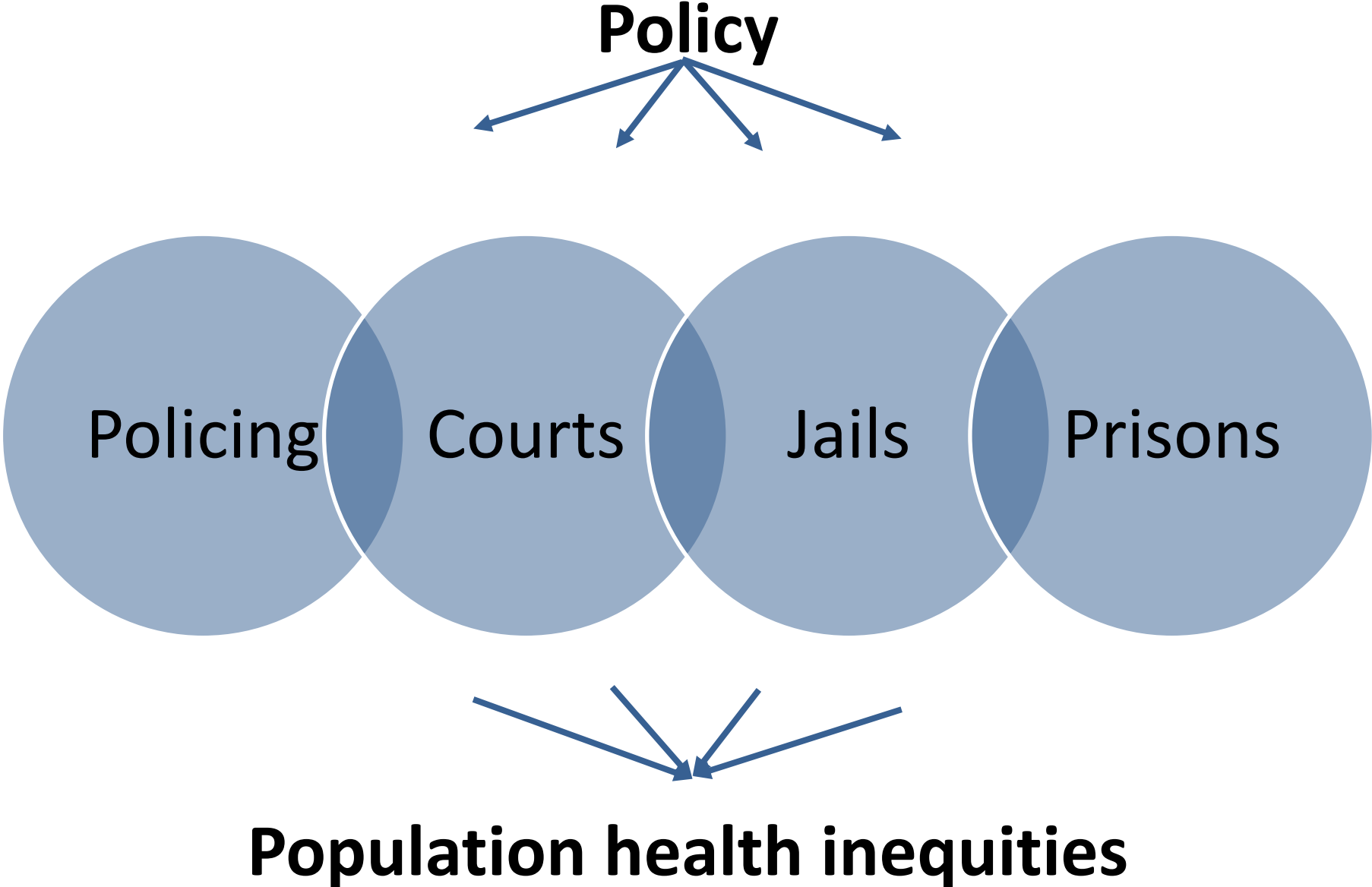
- Brief introduction: what is the criminal legal system?
- Understanding the criminal legal system as a multilevel exposure
- Research example: fatal police violence & community health

What is the criminal legal system?

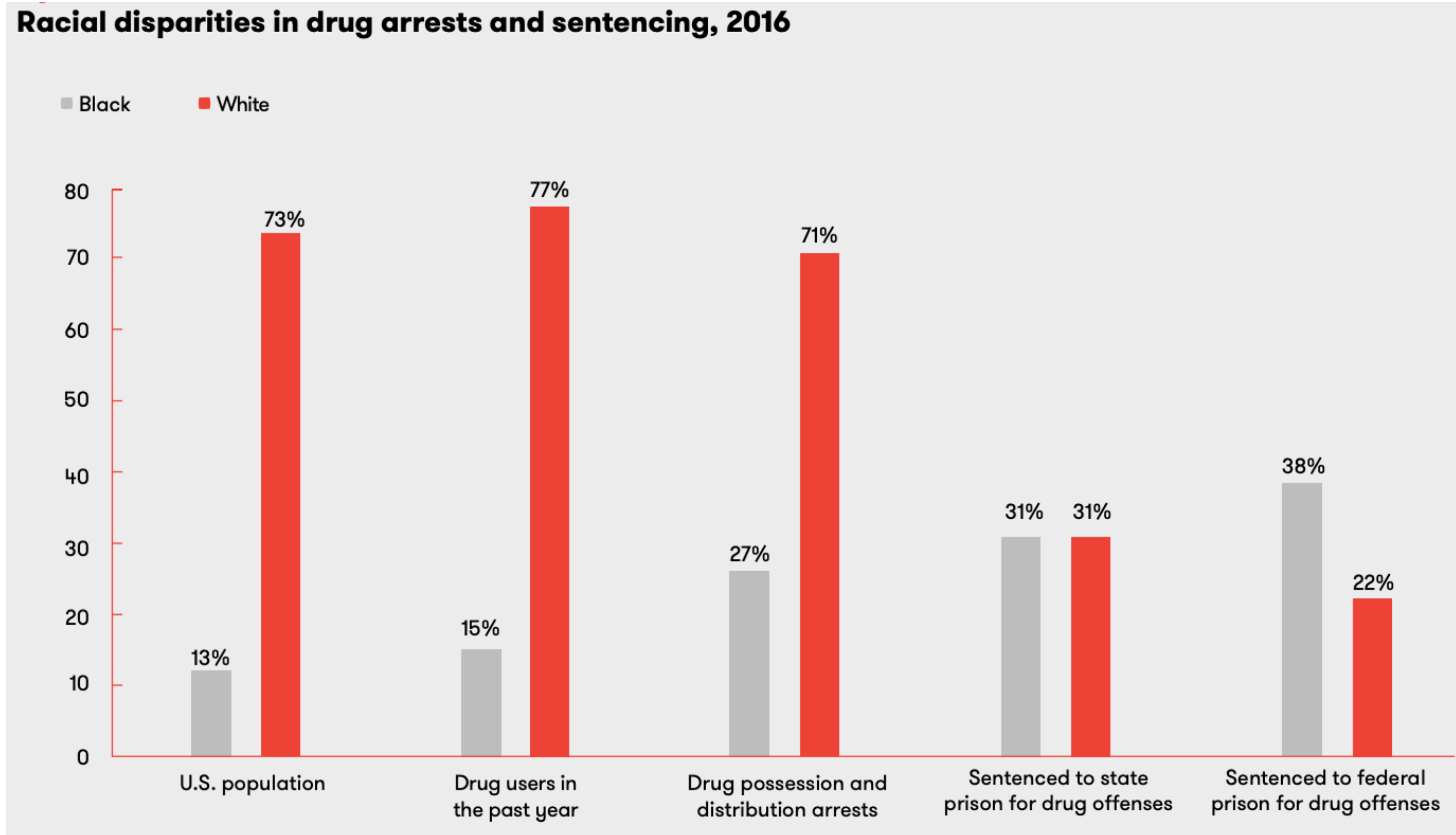
The institutions of law enforcement and punishment, & the policies that govern them



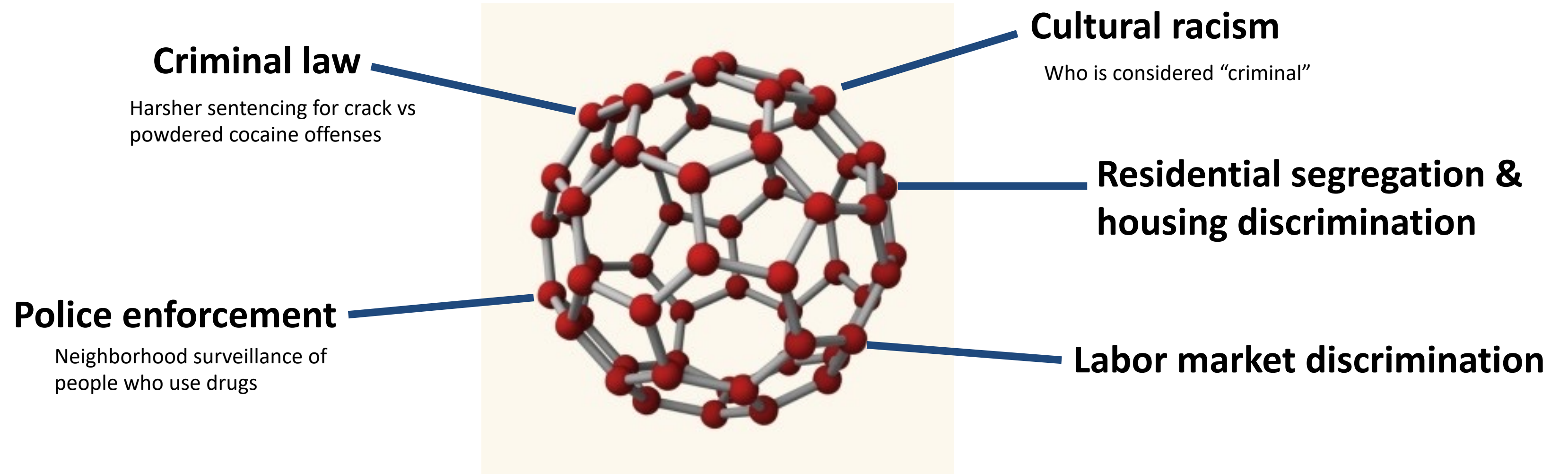
Implications for population health equity



Racial inequities in the criminal legal system



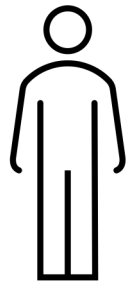
Structural racism & the criminal legal system



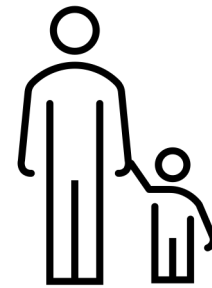
Bailey et al. 2017
Gee & Hicken, 2021

Intersections with gender & other forms of marginalization

Multilevel criminal legal system exposure



**Individual
exposure**



**Family
exposure**

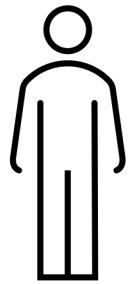


**Community
exposure**

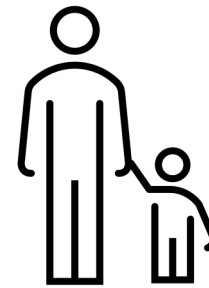
1/5 Black men with lower levels of education are incarcerated by their early 30s Pettit & Western, 2004

Racial inequities in the mental & physical health harms of solitary confinement

Multilevel criminal legal system exposure



**Individual
exposure**



**Family
exposure**



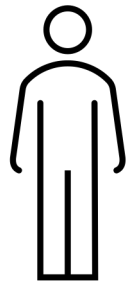
**Community
exposure**

>80% Black & Native Americans report
an immediate or extended family
member with a history of incarceration

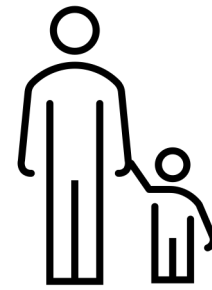
Enns et al, 2019

Adolescent mental health & development

Multilevel criminal legal system exposure



**Individual
exposure**



**Family
exposure**



**Community
exposure**

4x rate of incarceration in Black neighborhoods in MA compared to White neighborhoods Simes, 2021

Research example:
Fatal police violence

Agenda

- Brief introduction: what is the criminal legal system?
- Understanding the criminal legal system as a multilevel exposure
- **Research on fatal police violence & community health**

Police violence: an undercounted health outcome

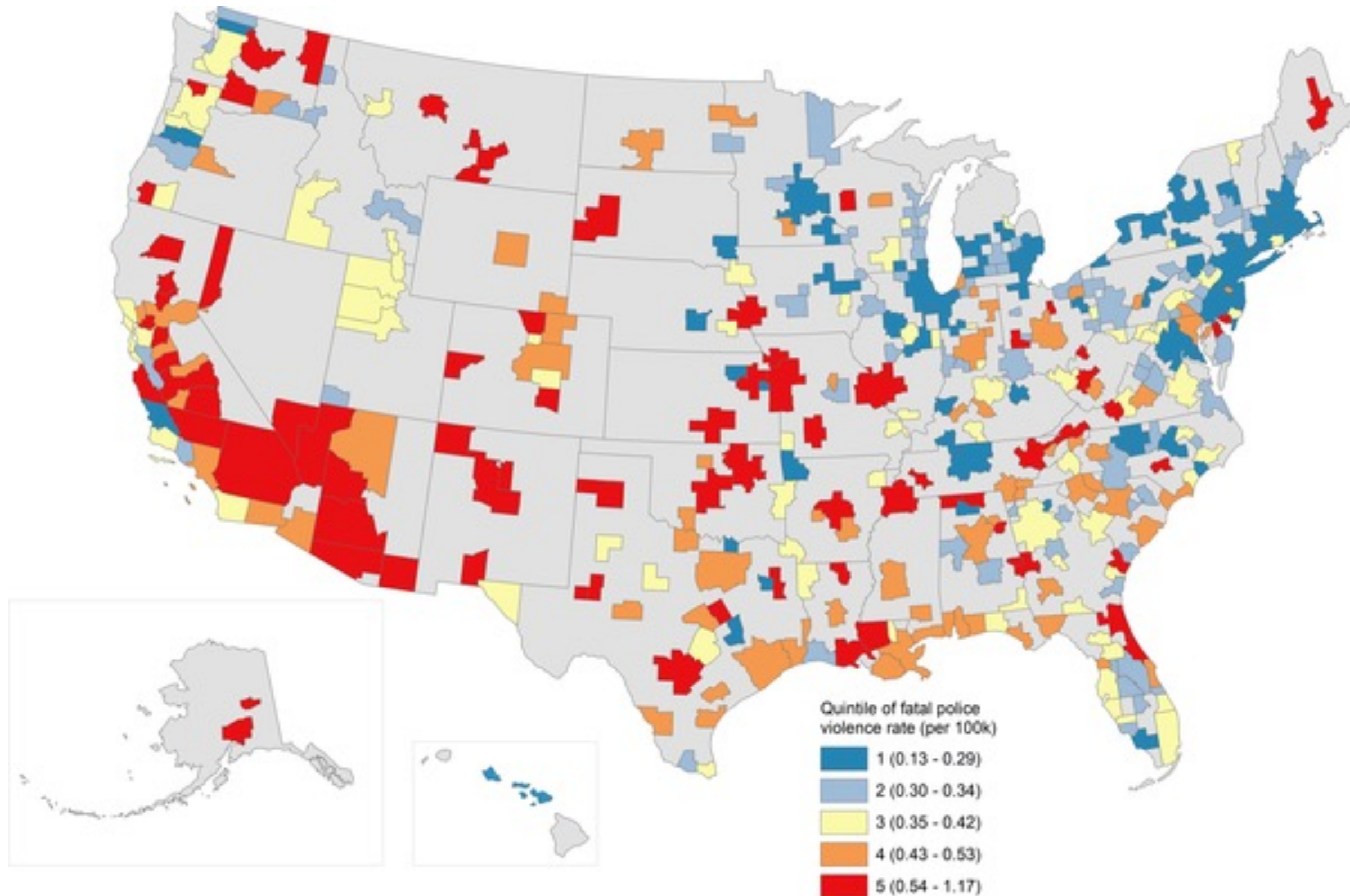
- ◆ Recent activist movements have brought renewed attention to police violence as a public health crisis
- ◆ Vital statistics are a core function of public health, however these data undercount incidence of deaths involving law enforcement
- ◆ Citizen science initiatives improved epidemiologic study of police violence
 - ◇ Fatal Encounters: database using public records & media reports in real time since 2013

Understanding where police violence occurs

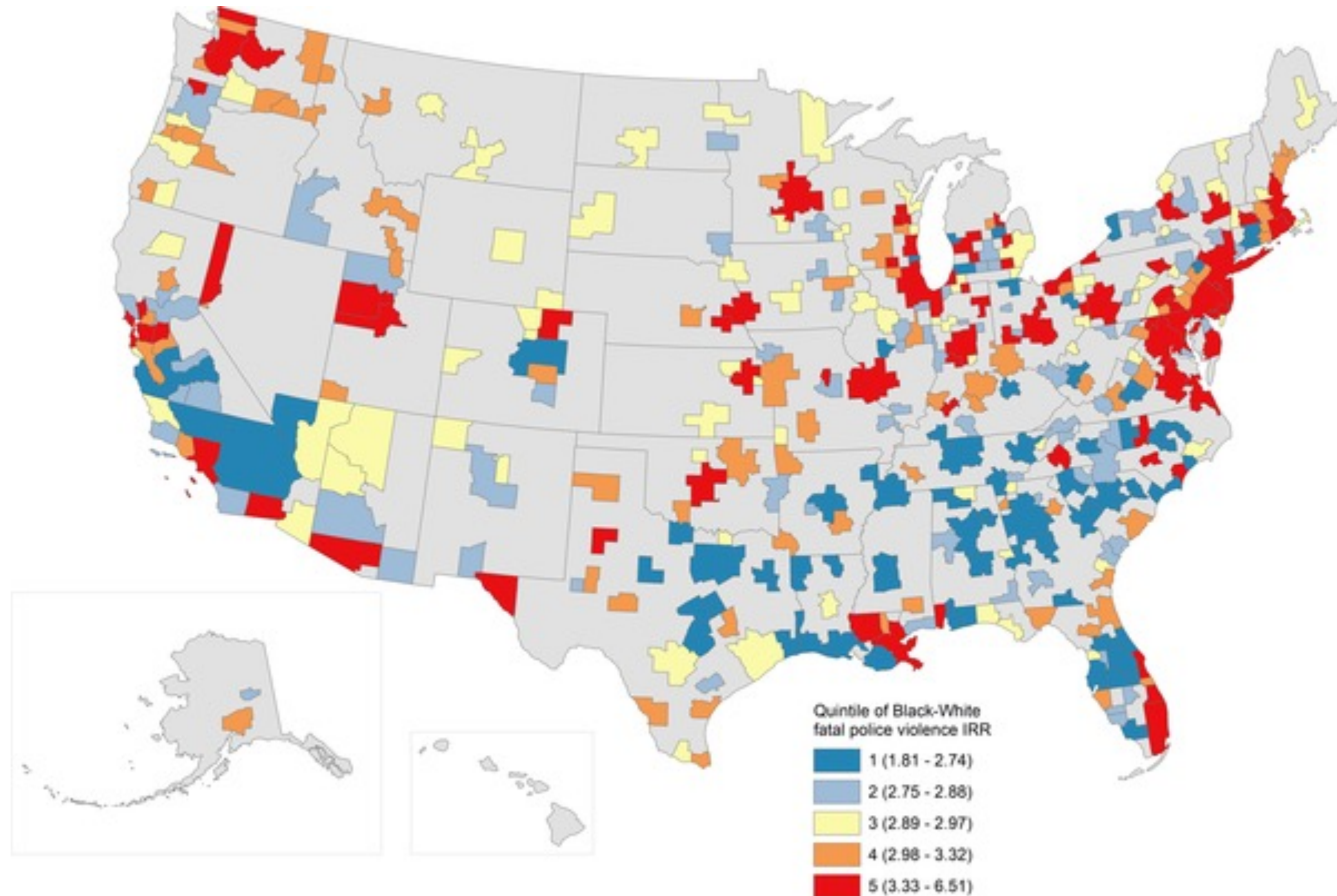
- 1 in 1000 Black men can expect to die of police violence over the course of their lifetime if present rates hold Edwards, Lee & Esposito 2019
- Police-related fatalities accounted for more deaths to Black men in their 20s than diabetes, flu/pneumonia, chronic respiratory disease, or cerebrovascular disease (2012-2018)
- Geography matters: identifying city-level heterogeneity in police violence helps policy-makers, the public, and advocates identify where urgent action is needed

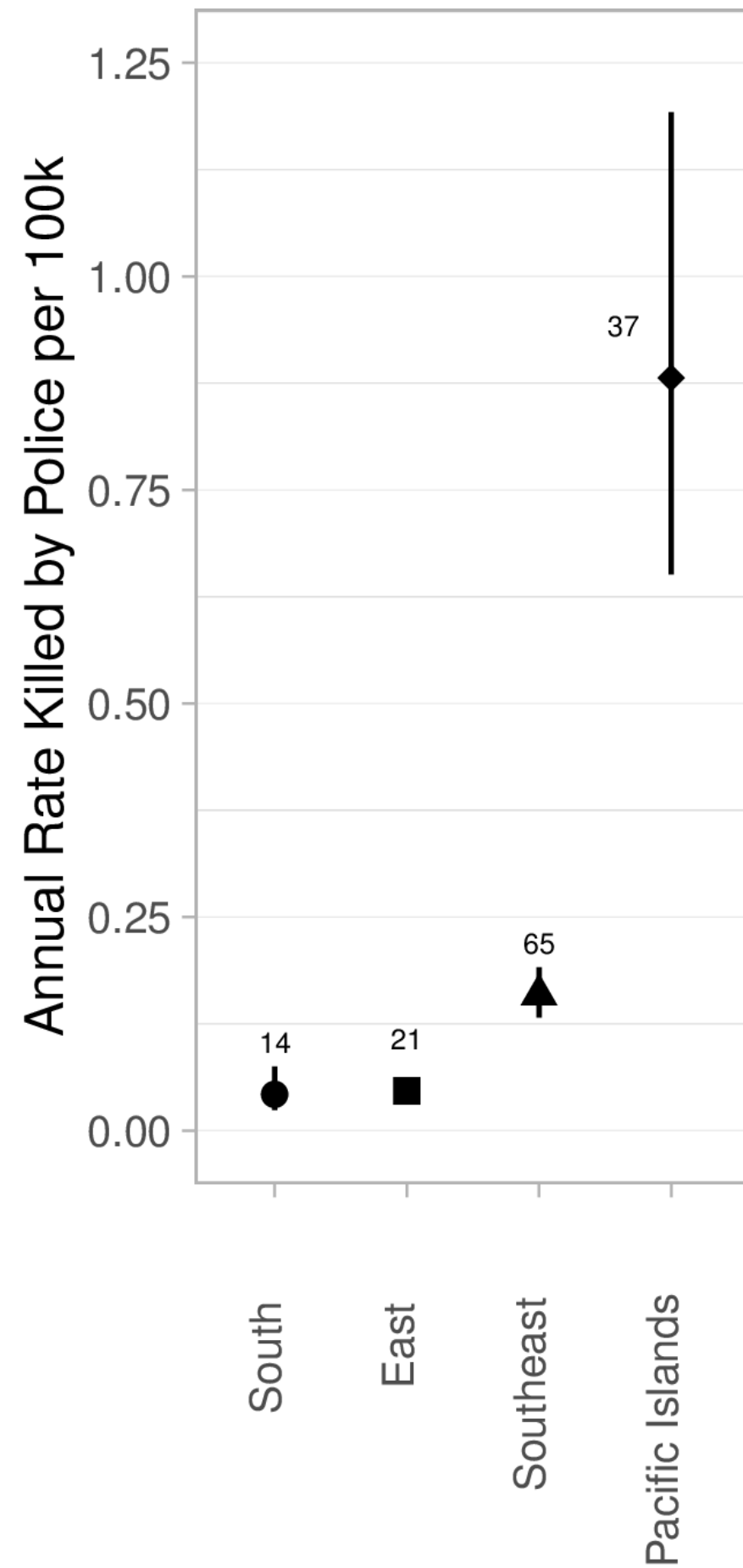
Where are rates of and racial
inequities in fatal police violence
highest & lowest?

Rates of fatal police violence

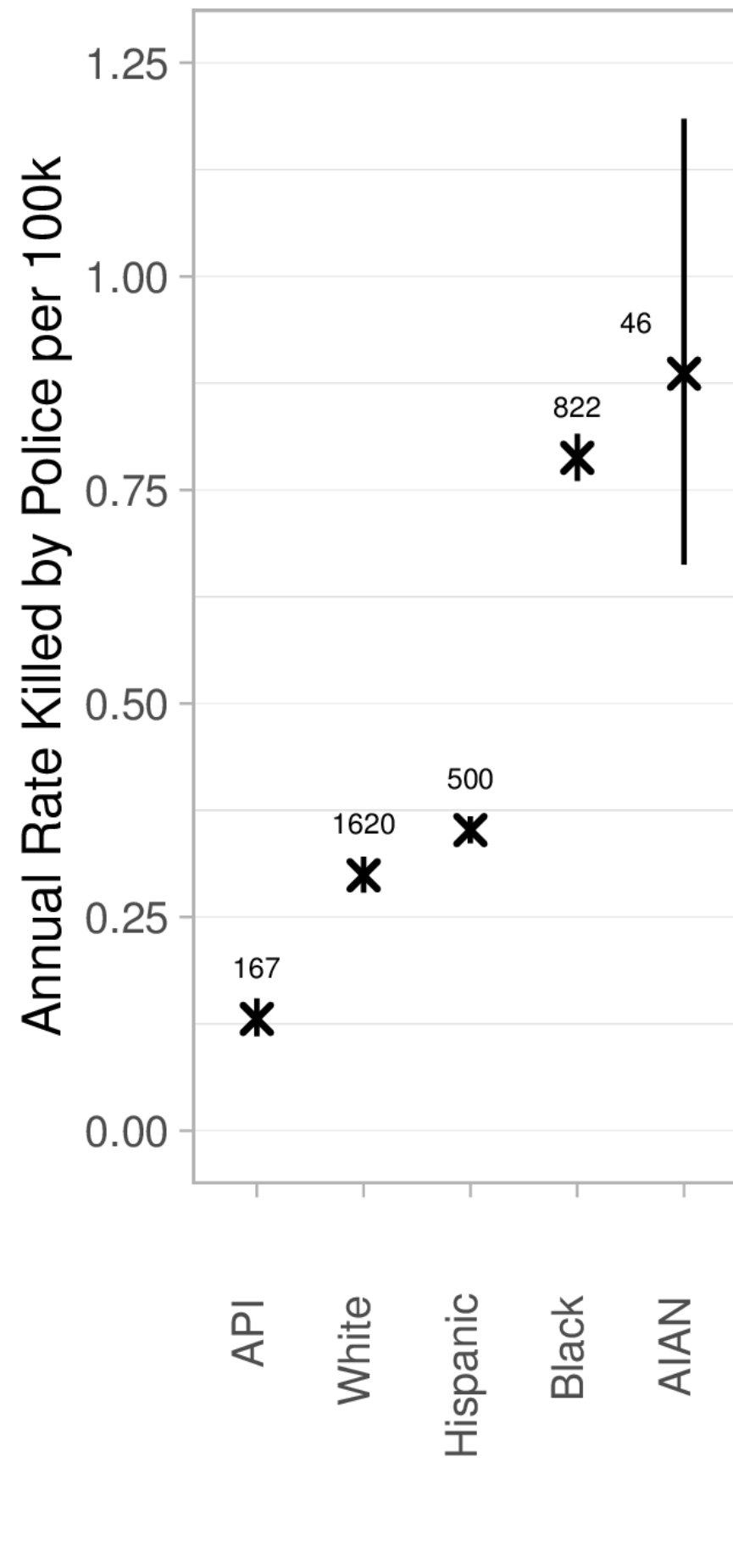


Black-White inequities in fatal police violence





By API Region



By Race/Ethnicity

Police violence & community health

- In addition to improving accurate public health monitoring of deaths involving police, it is also important to understand how these deaths might have broader public health impact in communities
- The emotional toll of fatal police violence extends beyond families & affects mental health in Black communities

Stress & Fetal Development

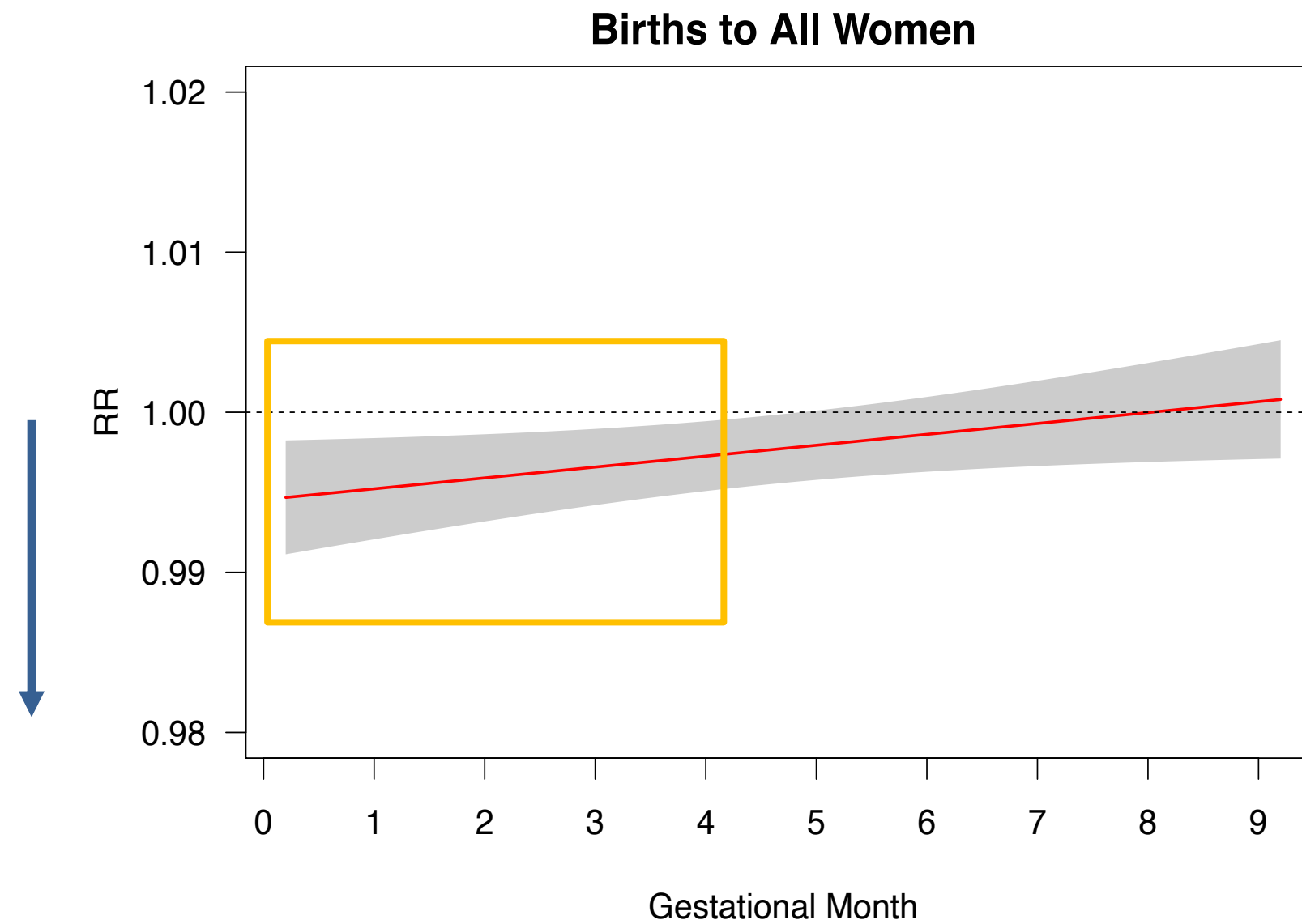
- Stressful life events & community violence during pregnancy & exposure early in pregnancy can be detrimental to fetal development
- Anticipatory stress, such as concerns about the prospect of a loved one having a violent interaction with police, can have important implications for women's health
- Fixed-effects analyses suggest Black women exposed to excessive police force in their block-group in the year prior to pregnancy were more likely to deliver preterm

Does pregnancy loss increase after communities experience an incident of fatal police violence?

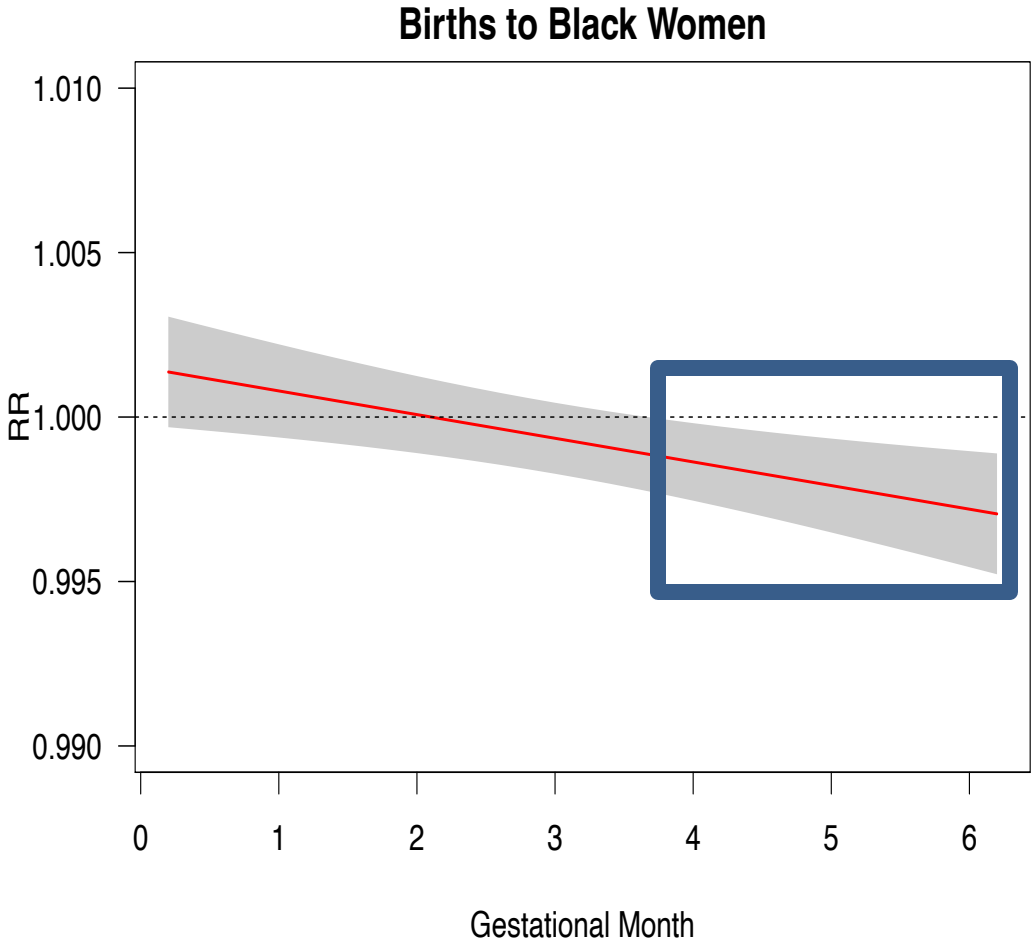
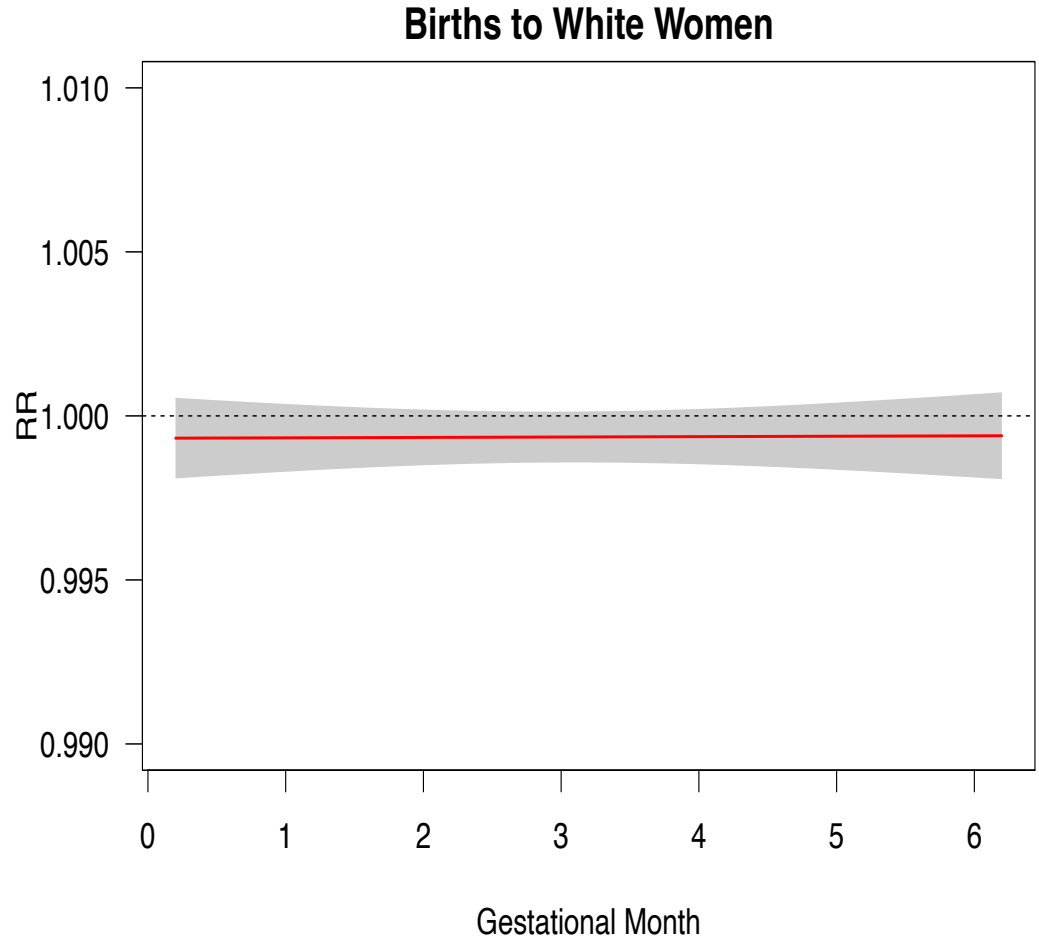
Methods

- ◆ Fatal Encounters & national birth certificate data (2013-2015)
 - ◇ Monthly counts of births & deaths metro & micropolitan statistical areas
- ◆ Distributed lag models to predict changes in live births after incidents of police violence, suggestive of pregnancy loss Kioumourtzoglou et al., 2019
- ◆ Modeling approach useful for addressing structural confounding
 - ◇ Confounders must vary month to month
 - ◇ Area-level fixed effects
 - ◇ Seasonality adjustment

How to interpret results



Police violence & changes in live births



0.29% decrease in births to Black women (95% CI: 0.11%, 0.48%)

Similar findings for Latina & Asian women

Conclusions

- Police violence, like other forms of injury and violence, is a public health problem that health departments & public health professionals have a role in addressing
- The adverse population health consequences of fatal police violence include direct injury & extend beyond those who are directly harmed
 - Particularly for the reproductive health of Black women & other women of color

Conclusions

- The criminal legal system has far-reaching implications for financial & emotional well-being
- Given the vast scale of the criminal legal system in the US, inequalities in this system are amplified in other areas of life, including health
- Multilevel framework can be useful for thinking about the criminal legal system & implications for population health



Individual exposure



Family exposure



Community exposure

Thank you

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