

Bright Spot Communities: Community-Level Protective Factors to Improve Opioid Outcomes

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Background

There were over 100,000 fatal drug overdoses in the US in 2021. Research on opioids often focuses on communities with poor opioid-related outcomes. Investigating “Bright Spot” communities with better-than-expected opioid-related outcomes, may help identify key strategies to better address opioid mortality.

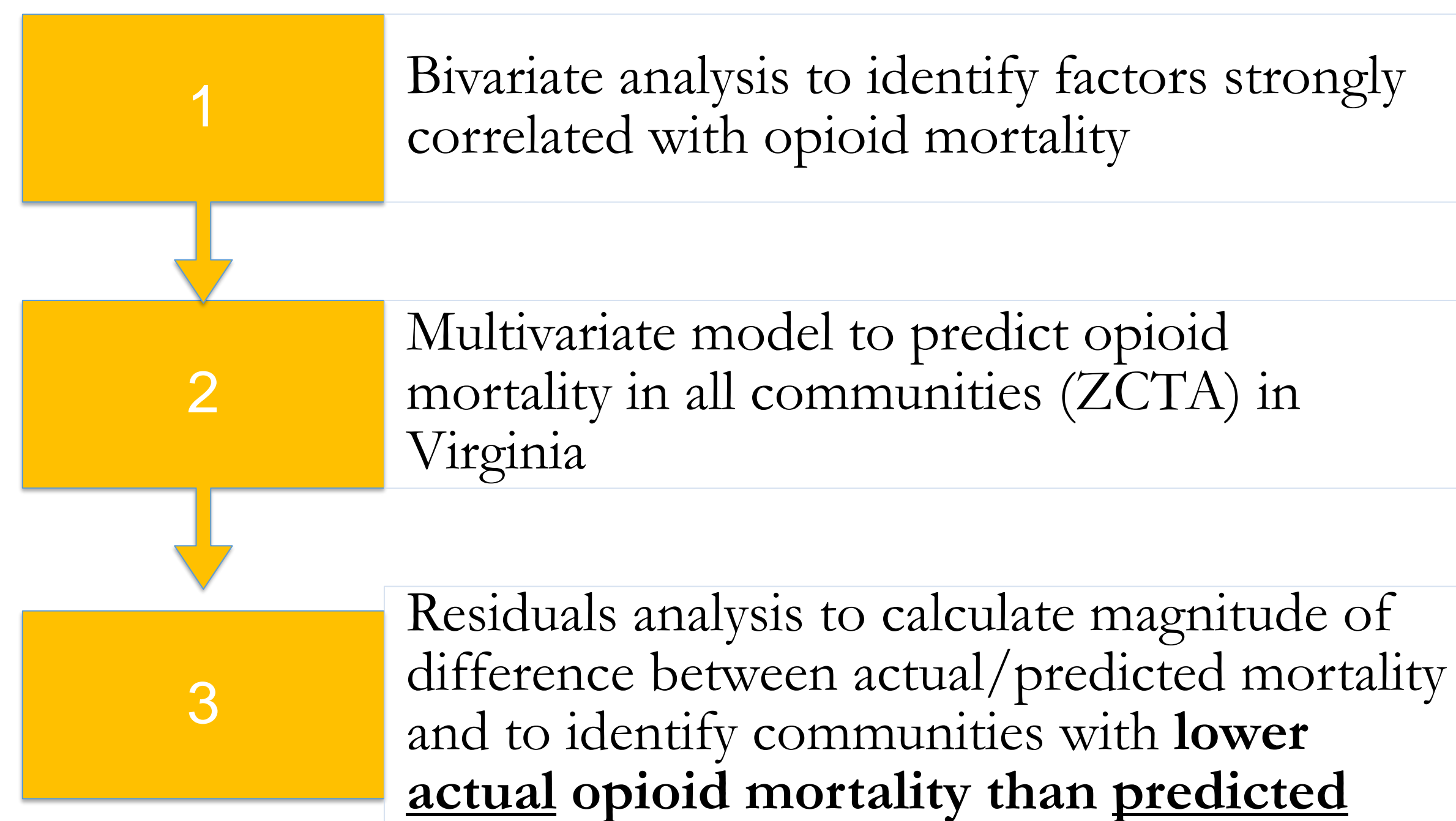
Objective

To identify “Bright Spot” communities in Virginia with lower opioid mortality than predicted based on risk factors.

Methods and Design

Dataset: Virginia All Payer Claims Database (APCD), Virginia Department of Health (VDH) statewide medical examiner registry, and American Community Survey (ACS). Time period: 2019.

Study Design and Analysis: Ecologic study.



- A qualitative analysis was performed, using thematic coding, to review key factors associated with Bright Spots.

Outcomes:

- Fatal opioid overdoses per 100,000
- Outpatient diagnosis of opioid use disorder (OUD) per 1,000
- Emergency dept visits for non-fatal opioid overdose per 1,000
- Mental health diagnoses per 1,000

Key Findings

Opioid Overdoses Correlated With:

- Mental health diagnosis ($\beta=0.53$, $p<.001$)
- Disability ($\beta=0.25$, $p<0.01$)
- Divorce/separation ($\beta=0.31$, $p<.001$)
- Urban communities ($\beta=10.18$; $p<.001$)

Racial Disparities

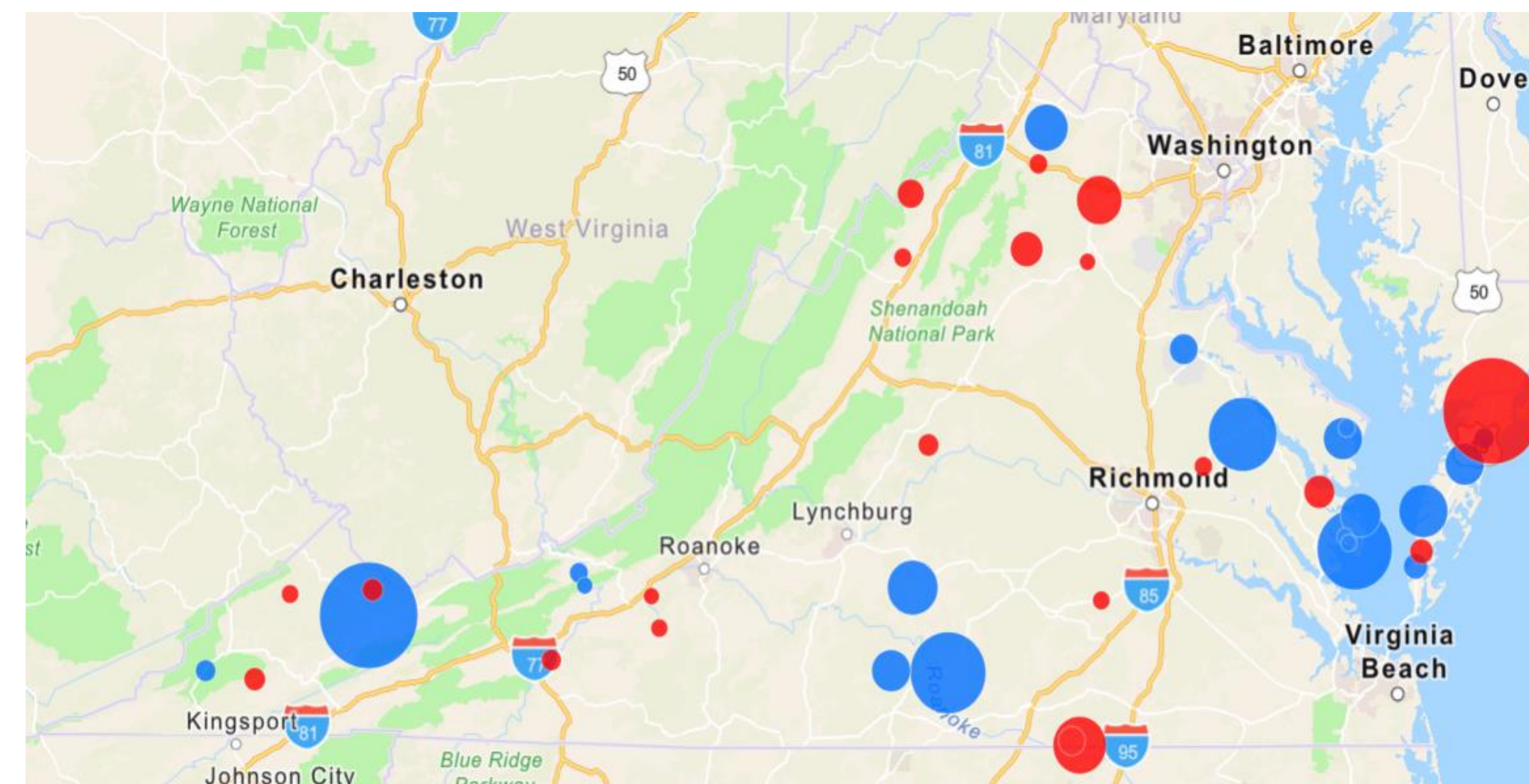
- Black individuals more likely to have fatal opioid overdoses ($\beta =0.28$, $p<.001$); not more likely to get outpatient diagnosis and treatment for OUD.

Community-Level Protective Factors Were Identified:

Medications for opioid use disorder (MOUD)	• 18 of the 30 Bright Spots have higher rates of MOUD prescriptions than the 2019 statewide median
Primary Care	• 28 of the 30 Bright Spots have higher rates of primary care visits than the 2019 statewide median
Population Density	• Average population of Bright Spots: 313 (vs. Cold Spots: 2,252)
Local Innovation and Collaboration	• Multiagency quarterly meetings with structured process for reviewing fatal overdoses
Other	• Some Bright Spots lacked clear themes. Interviews with community members is essential to understand best practices.

“I think the biggest accomplishment was not necessarily the review board, but the partnership that was developed.”
 - Kelly Hill Bulin, Director of Program Development, Eastern Shore Community Services Board

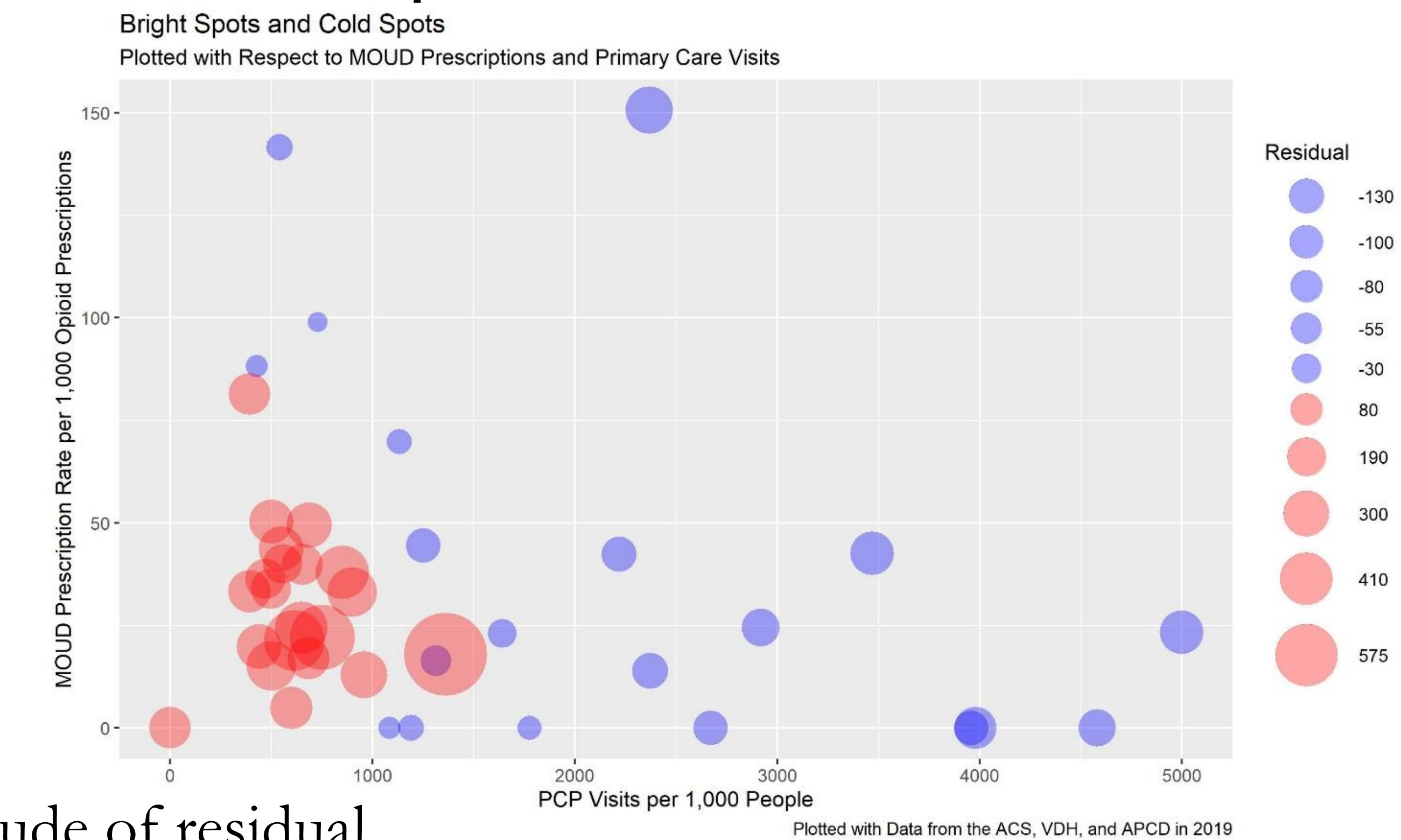
Figure 1: Geographical Distribution of Bright Spots by Magnitude of Residual*



- Bright Spot (Better outcomes than predicted)
- Cold Spot (Worse outcomes than predicted)

*Size of circle correlates with magnitude of residual

Figure 2. Mapping of Bright and Cold Spots by Rate of MOUD Prescriptions and PCP Visits*



Conclusions

- Opioid overdose mortality is associated with widening racial inequities in early diagnosis and access to treatment for mental health and opioid use disorders.
- Combining large socioecological datasets with community context demonstrates that Bright Spot communities have distinct types of community-level protective factors.
- We can learn new and innovative ways to address the opioid epidemic from Bright Spot communities.

Conflicts of interest: None

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