Assessing the Effectiveness of Gun Violence Restraining Orders in Reducing Intimate Partner Homicides in California

Seda Shirinian¹, Wilson Hammett ², Jennifer Wagman ²

¹ UCLA Fielding School of Public Health, Department of Epidemiology ² UCLA Fielding School of Public Health, Department of Community Health Sciences

Background

- Intimate partner homicide (IPH) is a major public health issue, especially among women of color. In 2016, California implemented Gun Violence Restraining Orders (GVROs) to reduce firearm-related harm, yet their effectiveness in preventing IPH remains unclear.
- Women of color, particularly Black and American Indian/Alaska Native women, face disproportionately high rates of IPH.
- In January 1 2016, California implemented Gun Violence Restraining Orders (GVROs) to temporarily remove firearms from individuals deemed a threat to themselves or others.
- While GVROs have shown promise in preventing mass shootings, their effectiveness in reducing firearmrelated IPHs has not been well studied.

Objective

To evaluate whether GVRO implementation was associated with changes in IPH rates in California from 2010 to 2023 using population-level data.

Methodology

Data Sources:

- California DOJ Homicide File (2010– 2023): Victim-offender relationship, weapon used, victim race/ethnicity.
 - N=2062
- California DOJ GVRO Data (2016– 2024): Number and type of GVROs issued, requesting agency, and issuing county.
 - N= 11,732

Descriptive statistics and plots to explore:

- Number of GVROs issued, by requesting agency and issuing county
- Top counties issuing GVROs
- Weapon types used in all homicides and in IPH
- Annual number of IPH and total homicides
- Victim race/ethnicity in IPH cases

Interrupted Time Series:

 The ITS model estimates trends in IPH rates per 100,000 population in California from 2010 to 2023, comparing observed post-policy trends to a counterfactual scenario where GVROs were not implemented.

Analyses conducted using SAS On Demand.

Results

GVRO trend:

 GVRO issuance increased from 85 in 2016 to 2,762 in 2024. This is more than a 30-fold increase since the policy's first year.

Top counties using GVROs since 2016:

 San Diego (3,039), Santa Clara (2,161), Orange (831), Riverside (666), Los Angeles (585).

Weapon Type in Homicides:

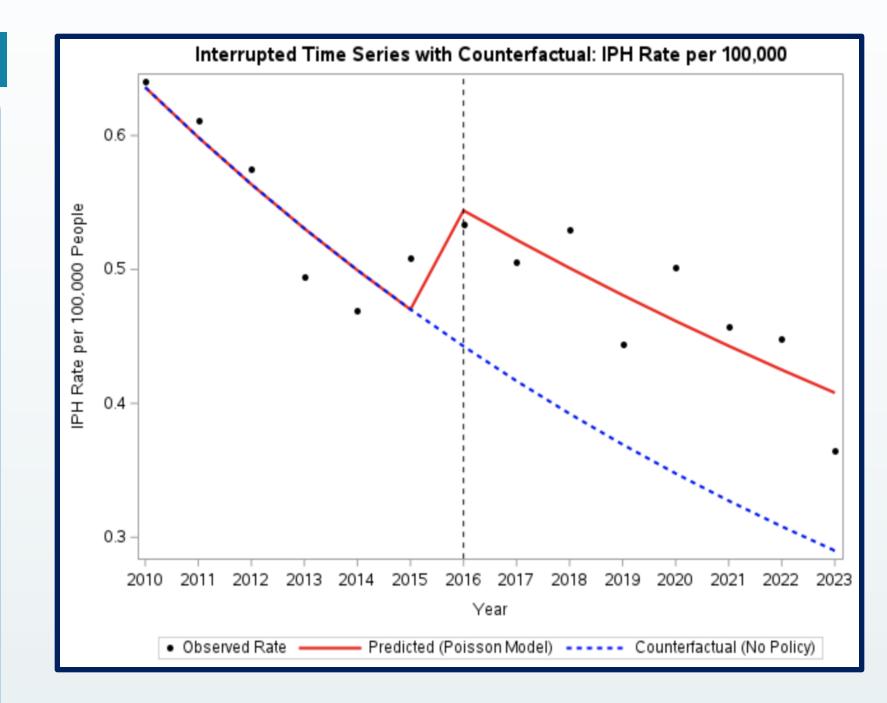
 Firearms used in over 70% of all homicides. In IPH cases, firearms involved in slightly more than half of deaths.

Intimate Partner Homicides:

 Although overall homicides increased from 2010 to 2023, overall IPH declined. IPH declined from 239 in 2010 to 143 in 2023.

Demographics:

 Among IPH victims from 2010 to 2023, the majority were White (n=743), followed by Hispanic (n=699), Black (n=343), Asian (n=159) and other racial groups (n=118), including, American Indian and Pacific Islander.



Limitation and Strengths

Limitations: Possible underreporting or misclassification in homicide and GVRO data may affect accuracy. No ability to directly link GVROs to IPH cases.

Strengths: Uses comprehensive data from California DOJ over 13 years (2010–2023), capturing trends before and after policy

Conclusion

implementation.

GVROs offer a promising tool for firearm violence prevention. Future research should focus on barriers to GVRO use in IPV cases and explore ways to improve access, equity, and enforcement. Barriers may include lack of awareness or variable law enforcement engagement.

