

## Community and youth violence

### 147 THE PROMISES AND CHALLENGES OF PLACE-BASED SOLUTIONS TO VIOLENCE PREVENTION

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**Statement of Purpose** Place-based interventions affect social and physical environmental conditions in neighborhoods and are policy-relevant opportunities for violence prevention that can also promote population health equity. This presentation discusses study design challenges and novel data integration methods relevant to such interventions.

**Methods/Approach** We examine the impact of vacant land and abandoned building remediation on crime and violence, including family violence, through observational and quasi-experimental research and discuss methodology for an ongoing cluster randomized trial aimed at reducing blighted properties in a southern U.S. city known for elevated rates of violence and neighborhood inequities.

**Results** Strong spatial correlations between the rate of vacant land and both violent crime and domestic violence call rates, as well as in the rates of child abuse and neglect, were evident. Cluster analysis of data on potential vacant land and abandoned houses was used to detect and select approximately 200 geographic clusters with a high density of vacant properties. Clusters were block randomized into five intervention arms based on the two cluster types, those with only vacant land and those with both vacant land and abandoned homes. Challenges were found in terms of assignment of properties within a reasonable timeline that satisfied research goals and municipal realities. Data integration software is a promising tool for examination and monitoring of trends in vacant land and resultant health and social outcomes.

**Conclusion** Testing the efficacy of such straightforward, inexpensive, and scalable methods is challenging but can be addressed through innovative methods and adaptive trial designs.

**Significance and Contributions to Injury and Violence Prevention Science** This presentation will discuss development of and preliminary results from a neighborhood-level cluster randomized trial that advances the science of violence prevention, as well as potential measurement tools to understand place-based disparities that can also be used to monitor progress toward neighborhood equity.

## Opioids: epidemiology and interventions

### 148 EXPANSION OF THE MICHIGAN SYSTEM FOR OPIOID OVERDOSE SURVEILLANCE (SOS) TO INFORM DATA-DRIVEN COMMUNITY RESPONSES

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**Statement of Purpose** Opioid overdose represents an urgent public health problem in the United States, with Michigan

ranking among the states hardest hit by the dramatic escalation over the past 15 years. A key barrier to addressing this problem is the lack of timely surveillance data, with data in many jurisdictions lagging by up to 18 months. In response to this need, the University of Michigan Injury Prevention Center partnered with the Michigan High Intensity Drug Trafficking Areas (HIDTA) to develop a near real-time opioid overdose surveillance system.

**Methods/Approach** The System for Opioid Overdose Surveillance (SOS) collects and automatically cleans data daily from emergency medicine services (EMS) encounters where naloxone was administered, and from Medical Examiner (ME) records where overdoses are suspected (confirmation via toxicology reports are obtained 4 to 12 weeks later). Current coverage is 100% of the state through EMS, and MEs in counties totaling 75% of the state population. County-level summaries generated by SOS are viewable on a public web site. Authorized public health and public safety stakeholders have access to a dashboard that allows customizable demographic and spatio-temporal data summaries in near real-time. This dashboard was designed in part through an iterative process with stakeholders in two Michigan counties.

**Results** Qualitative work completed with community stakeholders in two Michigan counties suggests SOS can be used to improve planning, implementation, and responses to opioid overdoses.

**Conclusions** Timely opioid overdose surveillance in Michigan can have broad implications for both public health and public safety, allowing for focused interventions and resource allocation in communities with the highest rates of opioid overdose.

**Significance and Contributions to Injury and Violence Prevention Science** SOS's multidisciplinary model can be replicated across the nation to inform data-driven opioid overdose prevention and response efforts with the ultimate goal of reducing overdose injuries and fatalities.

## Domestic and sexual violence

### 150 BURDEN OF MALE-PERPETRATED SEXUAL VIOLENCE AMONG BISEXUAL WOMEN IN THE UNITED STATES, 2011–2017

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**Statement of Purpose** Using a large, nationally-representative sample, we examine the burden, as well as lifetime prevalence and associated sexual healthcare utilization, of sexual violence (SV) experienced by bisexual women.

**Methods/Approach** We used data from female respondents aged 18–44 (N=14,309) in the 2011–2017 National Survey of Family Growth. Using sexual orientation components (identity, attraction, and lifetime sexual behavior) as separate main predictors, multivariable logistic regressions (adjusted for age, race, education, and poverty) compared male-perpetrated SV experience (forced vaginal, oral, or anal sex) and healthcare utilization among bisexual versus non-bisexual women.

**Results** Lifetime prevalence of SV was higher, compared to non-bisexual women, among women who identified as