bsexual (prevalence ratio/PR=2.69), had same and opposite sex attraction (PR=2.56), or reported same and opposite sex sexual behavior (PR=2.89) (all p<0.001). Bisexual women experienced sexual initiation earlier than non-bisexual women (16.36 vs 17.66 years old, p<0.001) but were also more likely to experience SV earlier in adolescence (16.16. vs 17.29, p<0.001). Compared to non-bisexual women, a history of SV, bisexual women, on average, received more sexual health services (3.11 vs 2.83, p=0.04) and were more likely to have been treated for sexually-transmitted diseases (PR=1.49, p=0.05) in the 12 months prior to the survey.

Conclusion Across all sexual orientation components, prevalence of male-perpetrated SV is consistently higher among bisexual women compared to non-bisexual women. Bisexual women tend to experience SV earlier in adolescence and utilize more healthcare services for associated health outcomes. Ultimately, comprehensive interventions across the social ecology are needed to stop SV among this population.

Significance and Contributions to Injury and Violence Prevention Science Despite increasing acceptance of same-sex behavior, the same changes in attitude have not extended to bisexual individuals (Dodge et al., 2016). SV appears to be common among bisexual women, and more attention and public health efforts are needed to address the role of gender norms and attitudes toward bisexuality in SV prevention.

Motor vehicle crashes: epidemiology and interventions

COMMUNITY-LEVEL VARIATION IN CHILD RESTRAINT SYSTEM USE AMONG CHILDREN INVOLVED IN MOTOR VEHICLE CRASHES

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10.1136/injuryprev-2020-savir.57

Purpose Prior studies have found disparities in child restraint system (CRS) use by individual-level factors like race/ethnicity and income. However, it is unclear if CRS use varies at the community level, which can directly inform effective implementation of resources (e.g., check-points). We determined how rates of CRS use among crash-involved drivers were associated with community-level indicators of race/ethnicity and income.

Methods We utilized the New Jersey Safety and Health Outcomes warehouse—which includes individual-level statewide data on police-reported crashes—to identify all drivers involved in a crash in 2014 who were carrying child occupants < age 8 (n=13,578). We derived each driver’s census tract from residential addresses and determined whether each child occupant was restrained using a CRS. We categorized NJ census tracts by quintile of median household income and race/ethnicity

Results The proportion of child occupants in CRS’s varied substantially by community-level indicators. 58.0% of crash-involved drivers residing in census tracts with the greatest proportion of minority residents had all children in CRS’s compared with 79.1% of drivers residing in tracts with highest proportions of non-Hispanic white residents (p<0.001). Similarly, CRS use was significantly lower among drivers residing in the lowest-income tracts compared with highest-income tracts (60.1% vs. 77.0%, respectively; p<0.001).

Conclusion There appears to be disparities in CRS use across communities, similar to other health behaviors. Future research should aim to better understand the relative contribution of and relationship between individual (e.g., income) and community level (e.g., social norms) influences on CRS use.

Significance of Contributions This project is the first to use statewide crash data to describe community-level CRS use. Results will be utilized to evaluate whether current community-based CRS resources are distributed in an equitable way that prioritizes highest-risk communities.

Health equity and unintentional injury

ALTER FOR HOME SAFETY IN BRIEF: AN ADAPTED INTERVENTION PROGRAM FOR A VULNERABLE POPULATION

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10.1136/injuryprev-2020-savir.58

Purpose Unintentional injury is the leading cause of death in children 1–19 years of age, and research has identified that injury-related occurrences and mortality disproportionally impact vulnerable populations. Past research with middle-class families has demonstrated the effectiveness of a parent-directed program to increase home safety for children 1 – 5 years of age; behavioral measures showed increased supervision practices by parents, with effects persisting for at least one year post-intervention. The purpose of the current study was to determine whether an adapted version of the Supervising for Home Safety program (SHS) would serve as an appropriate intervention for vulnerable ‘high risk’ families (e.g., low income, single parent home, recent immigrant). Measures were completed by parents before (pre) and after (post) delivery of the program.

Methods A total of 40 participants completed the ALTER for Home Safety-Brief program as part of one of the Halton Public Health parenting programs. Participants typically had multiple risk factors including low SES, low level of education, mental health challenges, financial constraints, and recently immigrated, with many referred through the Children’s Aid Society.

Materials The SHS-Brief program aims to increase parent’s safety knowledge through discussion about parents’ supervision practices and challenges they might face in supervising their children. The program uses video-messaging about common types of in-home injuries and introduces parents to the mnemonic ALTER (reduce risk of injury by changing: Activity, Location, Timing, or Environment and using Resources). Parents practice ALTER by completing activity sheets to generate solutions to child safety challenges they face at home.

Results Parents’ overall level of supervision significantly increased from pre to post. They identified that the average number of minutes their children spent engaged in activities alone (e.g., playing in the bathtub) decreased from pre intervention (M=6.73 mins, SD=4.85) to post intervention.
Abstracts

(Opioids: epidemiology and interventions)

Changes in initial opioid prescribing doses following the release of the CDC guideline for prescribing opioids for chronic pain

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Statement of Purpose In 2016, the CDC released the Guideline for Prescribing Opioids for Chronic Pain. The guideline recommends using the lowest effective dose when opioids are started. We assessed changes in initial prescribing doses following the release of the CDC Guideline.

Methods/Approach We used data from the OptumInsights database (1/2012–6/2017), which contains all claims made by commercial and Medicare Advantage beneficiaries enrolled with UnitedHealth. We restricted to enrollees age ≥18 years (consistent with the intended patient population of the CDC Guideline), which comprises ~7.7% of US adults. We created a cohort of opioid naïve individuals (no opioid fills for twelve months) pre-guideline that were continuously enrolled through 6/2017 (fifteen months post-guideline). To establish the pre-guideline trend, we constructed three analogous control groups, but shifted back 1, 2, and 3 years, respectively. Statistical analyses focused on the difference between observed post-guideline initial high-dose (≥50 MME/day) prescribing rates, and those predicted from the pre-existing trend. We derived adjusted effects using logistic regression adjusted for age, sex, race, insurer type, as well as state and time fixed effects.

Results There were 6,276,020 beneficiaries across the four cohorts, 792,591 (12.6%) of whom received a prescription opioid during their follow-up. Among those initiating opioids post-guideline, 18.7% were started with high-dose prescriptions, lower than the 19.8% predicted by the pre-existing trend. Adjusted analyses confirmed that the post-guideline cohort had a 6.3% (95%CI: 4.1%-8.3%) lower odds of high-dose initiation than expected. Sensitivity analyses around the 50MME/day threshold showed post-guideline dosage changes were primarily reflected in lowering moderate/high dosages (40–60 MME/day) to ≤40 MME/day.

Conclusions Changes in high-dose initial prescribing seen following release of the CDC guideline could not be explained by pre-existing secular trends.

Significance/Contribution to Injury Science Safer opioid prescribing has great potential to reduce injuries and other harms incurred by opioid misuse.

Innovation methods

Cataloging advancements in injury prevention research: Development of the New Jersey safety and health outcomes (NJ-SHO) data warehouse

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Purpose Few existing injury data sources contain information spanning the pre-to-post-injury period, inhibiting research into underlying risk factors for and long-term outcomes of those injuries. We describe the development and capabilities of the NJ-SHO warehouse—a unique and comprehensive data source that integrates various state-level administrative databases to support critical, high-priority research questions in injury prevention.

Methods We obtained full identifiable data from six statewide administrative databases: (1) driver licensing; (2) Administration of the Courts traffic-related citations; (3) police-reported crashes; (4) birth certificates; (5) death certificates; and (6) hospital discharges (emergency department, inpatient, outpatient) as well as (7) childhood electronic records from all 200K NJ residents who were patients of the Children’s Hospital of Philadelphia healthcare network, and (8) numerous census tract-level indicators. We undertook an iterative process to develop and execute a probabilistic linkage using LinkSolv 9.0 software for 2004–2018 and evaluated the quality of the linkage process using several metrics.

Results/Conclusions The NJ-SHO includes 82.8M records for 20.3M NJ residents over the 15-year study period. We will discuss (1) development of the NJ-SHO and our approach to intentionally structure the warehouse so it contains rich individual-level childhood data spanning the pre-to-post-injury period for leading injury mechanisms (e.g., motor vehicle crashes, poisonings, firearms, self-injurious behaviors); (2)