($M=2.29$ minutes, $SD=2.41$). Not only did parents supervisory attention increase ($M_{pre} = 77.60\%$ of time, $SD_{pre} = 25.99$, $M_{post} = 87.45\%$ of time, $SD_{post} = 20.34$), but so did their level of proximity to their child ($M_{pre} = 71.83\%$ of time proximal, $SD_{pre} = 24.40$; $M_{post} = 87.95$, $SD_{post} = 18.32$). In particular, parents identified that their typical supervision pattern at the beginning of the intervention was 'being in another room but listening closely to their child', and at the end of the intervention, parents identified that they were typically 'in the same room (in view of the child) but beyond reach'. Moreover, when assessing for behavioral change on a 5 point rating scale, there was a significant increase in the 'action' stage of change from pre intervention ($M=2.96$, $SD=1.16$) to post intervention ($M=4.10$, $SD=0.6853$) indicating a considerable shift in parents beliefs that they have the ability to change their supervisory behavior and actively use ALTER to do this.

Conclusion The SHS-Brief Program can be successfully delivered to vulnerable caregivers in community settings and can produce desirable changes that are expected to improve caregiver's supervision practices.

Contribution To the best of our knowledge, this is the first safety program aimed at increasing parental supervision practices for vulnerable families. Given that improved supervision is associated with a decrease in children's injuries, identifying programs that can create readiness for change to improve vulnerable caregiver's supervision is essential. The current findings indicate that the ALTER for Home Safety-Brief is such a program.

Opioids: epidemiology and interventions

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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 $\sim 7.7\%$ 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

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CATALYZING 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 state-wide 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)

linkage evaluation results, which demonstrate that our linkage was of high quality; (3) several unique features of the warehouse—including determination of race and ethnicity, geocoding of residential addresses, coding of injury severity, and identification of multiple events for an individual (e.g., crashes, hospitalizations); and (4) an ongoing effort to link the NJ-SHO to NJ Medicaid/Medicare data.

Significance of Contributions The resulting NJ-SHO warehouse is one of the most comprehensive and rich injury data warehouses to date. It is fully primed to support collaborative studies on a host of high-priority injury topics.

Domestic and sexual violence

157 VIOLENCE VICTIMIZATION AND NEGATIVE HEALTH CONDITIONS AMONG SEXUAL MINORITIES, U.S. ADULTS, 2010–2012

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Statement of Purpose The National Intimate Partner and Sexual Violence Survey (NISVS) showed that U.S. adult victims of violence were more likely to report negative health conditions. In addition, sexual minorities—who identify as gay, lesbian, or bisexual—were more likely to experience violence than their heterosexual peers. We examine whether sexual identity (SI) influenced the association between violence victimization and health conditions.

Methods NISVS is a cross-sectional telephone survey on health and violence victimization. The survey sample was designed to represent the non-institutionalized English- and Spanish-speaking U.S. adult population. Analyses were based on data ($n=41,174$) collected from 50 states and the District of Columbia from 2010 to 2012. Measurement of sexual identity was based on individuals' self-identification. Multivariable models, adjusted for age and educational attainment level, were evaluated to ascertain the effect of SI.

Results Sexual identity did not moderate the association between various forms of violence victimization and health conditions. However, sexual minorities had significantly higher victimization prevalence and odds of experiencing several health conditions. Sexual minority women had higher odds of reporting diagnosis of asthma and irritable bowel syndrome (IBS), experiencing frequent headaches, chronic pain, difficulty sleeping, activity limitations, and poor mental health, whereas sexual minority men were more likely to report diagnosis of IBS, experiencing frequent headaches, difficulty sleeping, and activity limitations, compared with heterosexual women and men, respectively.

Conclusions While SI did not influence the relationship between victimization and health, it was associated with several negative health conditions and victimization.

Significance and Contributions to Injury and Violence Prevention Science Using nationally representative data, this study reveals a disparate share of negative health conditions and victimization among U.S. sexual minorities. These findings can help further raise awareness of the injury burden, strengthen culturally sensitive violence prevention programs, and promote health equity across SI groups.

Epidemiology of TBI

158 PHYSICAL AND COGNITIVE ACTIVITY IN YOUTH POST-CONCUSSION: RELATIONSHIP BETWEEN OBJECTIVE AND SELF-REPORTED MEASURES

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Statement of Purpose Current clinical guidelines call for a brief period of rest post-concussion, followed by a gradual return to activities. However, studies to date have relied primarily on self-reported measures to identify levels of rest needed to promote concussion recovery. This study assessed the relationship between objectively measured and self-reported physical and cognitive activities (the inverse of rest) in concussed youth for a period of 7 days post-injury.

Methods Youth ages 11 to 17 were enrolled within 72 hours following a physician-diagnosed concussion. We monitored participants' physical and cognitive activities, including activity duration and intensity, for a 7-day period using an Actigraph (to measure physical activity) and a Narrative Clip (to measure cognitive activity). Participants also completed a daily survey that captured data on their physical and cognitive activities as well as their post-concussive symptoms from enrollment until symptom resolution.

Results A total of 83 concussed youth (Mean age=14.2 years $\pm$ 1.9 years) were included, with most being males (65.1%), white (72.3%), and injured in a sporting activity (84.3%). The average symptom score at injury was 39.5. Over half (54.2%) of youth experienced symptoms for >2 weeks. We found no significant correlations between objectively measured and self-reported level of physical activity (duration $\times$ intensity). There were only weak correlations between objectively measured and self-reported cognitive activities by level of activity (low: $r=0.16$, $p=0.0022$; medium: $r=0.16$, $p=0.0111$; high: $r=0.31$, <0.0001), although correlation coefficients were statistically significant.

Conclusions Our findings suggest that Actigraphy is a better tool for measuring physical activity post-concussion than self-reported measures. Additional research is needed to validate tools that measure physical and cognitive activity post-concussion.

Significance and Contributions This study furthers our knowledge of objective tools for monitoring physical and cognitive activity post-concussion. Findings of this study provide insight on how best to measure physical and cognitive activity post-concussion.

Motor vehicle injuries and policy

159 ELEMENTS OF STATE GRADUATED DRIVER LICENSING LAWS ACROSS 50 STATES: A POLICY CONTENT ANALYSIS

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Statement of Purpose All 50 US States enacted Graduated Driver Licensing (GDL) laws to protect and prevent teens from injuries and death while learning to drive. However,