115.6% respectively), followed by NH Asians ages 15–24 (90.7% increase), Hispanics ages 24–34 (57.2% increase), and NH blacks ages 15–24 (54.5% increase). Mechanism differed by age and race, though firearms were most common (22.2%–80.8%).

Conclusions Although most suicides occur among NH whites, rates of suicide are increasing among youth across all groups, and more rapidly among youth of color. Prevention efforts are needed to address suicide among these populations that incorporate culturally appropriate messaging and variations in mechanisms.

Significance Analysis of multiple demographics at the state level is often overlooked due to small numbers. Use of rolling rates and other analytical methods are useful and necessary to understand disparities across demographic groups.

Child maltreatment

0076

TEXT-AND CHAT-BASED HOTLINES: A NOVEL APPROACH TO PROVIDE CHILD MALTREATMENT-RELATED SUPPORT

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10.1136/injuryprev-2021-SAVIR.53

Statement of purpose The purpose of this study is to describe how people seek child maltreatment-related support from a text- and chat-based crisis hotline. Ultimately, this study will provide the foundation for the Childhelp National Child Abuse Hotline practice model and training.

Methods/Approach We conducted a qualitative content analysis of 300 conversations from a text- and chat-hotline, selected through stratified random sampling. After the first round of coding was complete, we compared the characteristics of the initial sample to all conversations. Then, we purposefully sampled additional conversations from underrepresented groups, including perpetrators, young people, and maltreated children.

Results We identified six groups who seek support, as defined by their relationship to the maltreated child: family members, peers/friends, maltreated children (self), distressed children (self), other known adults, and persons unknown to the child. Many people used the hotline as a source of information for referral to CPS. Children often sought resources for coping with maltreatment or supporting a friend who was being maltreated. Overall, the conversations progressed through five stages: introduction/clarification of hotline role, exploring the issue, problem-solving, working towards a resolution, and conclusion. Across these stages, crisis counselors used empathy/active listening to build rapport.

Conclusions Text- and chat-based hotlines may be one way to reach young people and others who need child maltreatment-related support. In a recent survey of text- and chat-based users, 90% of chat-based and 50% of text-based hotline users reported that they would not call a phone hotline, suggesting that this service fills a critical gap in available services.

Significance As text- and chat-based hotline services become increasingly popular, it is critical to understand how to provide adequate and appropriate support to individuals seeking child maltreatment-related help.

Occupational safety

0077

MENTAL HEALTH AMONG FIREFIGHTERS: UNDERSTANDING THE MENTAL HEALTH HAZARDS, TREATMENT BARRIERS, AND COPING STRATEGIES

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10.1136/injuryprev-2021-SAVIR.54

Statement of purpose The purpose of this qualitative study is to explore potential risk factors, treatment barriers, and coping mechanisms that may influence mental health outcomes in Minnesota firefighters.

Methods/Approach This study employed a two-phased, sequential qualitative design consisting of in-depth interviews followed by focus group discussions with both fulltime and volunteer firefighters in Minnesota. Fifty-two interviews were conducted with open-ended questions designed to identify themes and main areas of concern about Minnesota firefighters' mental health, then presented to focus groups (n=10, with 3–15 participants per group) to obtain feedback and initiate open discussion. Audio recordings were analyzed for codes and themes developed after each interview and focus group session.

Results The major contributor to mental health stress perceived by Minnesota firefighters involves the personal impact of the call. Coping mechanisms varied among institutions and individuals, and included Employee Assistance Programs, Critical Incident Stress Management, departmental debriefs, peer support groups, family, and exercise. However, barriers to treatment were equally as diverse, and included departmental and individual stigma, lack of personal and institutional support, and lack of knowledge about mental health.

Conclusions Our study identified potential pathways to mental health conditions in firefighters. The findings should be leveraged to improve current strategies to protect the health and well-being of firefighters.

Significance Major themes identified contribute to literature gaps regarding the perceived factors influencing psychological injuries in firefighters, in addition to the perceived barriers to treatment that would mitigate or prevent these injuries. However, the burden to each of the concepts, themes, and mental health issues are currently being assessed in a statewide survey completed by Minnesota firefighters. Study findings warrant future research to consider assessing the mental health in firefighters from other states, regionally, nationally, and globally.

Child maltreatment

0078

UNDERSTANDING IMPLEMENTATION OF CHILD DEATH REVIEWS IN THE UNITED STATES UNDERSTANDING IMPLEMENTATION OF CHILD DEATH REVIEWS IN THE UNITED STATES

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10.1136/injuryprev-2021-SAVIR.55

Statement of purpose Child death review (CDR) teams provide insight into why child deaths occur by conducting systematic

investigations to identify missed opportunities to prevent each death under review and recommend strategies to prevent future deaths. Investments in the CDR system to date have prioritized building the system and expanding participation. Attention to implementation to identify best processes and practices is now needed.

Methods/Approach We conducted in-depth interviews with 19 CDR team coordinators to understand how their teams are organized, the process for reviewing a death and issuing prevention recommendations, and how the recommendations are used to impact child death in their jurisdictions.

Results Respondents stressed the importance of relationships with their internal and external partner organizations. Strong relationships facilitate data sharing, CDR team participation, and being able to have an impact on the community. Some respondents were challenged to articulate how CDR has impacted child death in their communities. While almost everyone stated that there had been a decline in child deaths over the years, few respondents could quantify how or point to an example where the results of the CDR meetings prevented child injury and rarely reported being engaged in translating the recommendations into action.

Conclusions CDR teams provide a strong foundation for identifying local vulnerabilities for child injury and death, but lack resources to act on recommendations.

Significance New strategies are needed to help bridge the gap between the work of CDR teams and injury prevention policy and practice.

TBI/Concussion injuries

0079

SPORT-RELATED CONCUSSION IN PRACTICE, COMPETITION, AND AFTER COLLISION RULE CHANGES IN MICHIGAN HIGH SCHOOL FOOTBALL

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10.1136/injuryprev-2021-SAVIR.56

Statement of purpose Estimate rates of sport-related concussion (SRC) in high school football and evaluate a rule change over 5 seasons.

Methods/Approach The Michigan High School Athletic Association (MHSAA) surveillance system records total numbers of participating athletes and circumstances of each SRC occurring in athletic-sanctioned events. Across five seasons, MHSAA progressively limited time for collision practices. We estimated player-days exposed as the total number of players multiplied by the total number of possible practices (11 weeks, 4 days each) or competitions (9 weeks, 1 day each) each regular season. Rate ratios (RR) and 95% confidence intervals (CI) compared practice and competition SRC, and compared each season relative to the most recent season (2019/20). Annual SRC rates modeled by year (2015/16–2018/19, 2019/20) and event (practice, competition) using Poisson regression estimated rate difference-in-differences and 95% CI.

Results The overall football SRC rate was 0.82/1,000 player-days. The greatest proportion of practice SRC occurred during the first two weeks of the season (preseason;40.6%) and competition SRC occurred between weeks 5–9 (63.5%). The competition SRC rate (3.10/1,000 player-days) was higher than practice (0.35/1,000 player-days; RR:8.87, 95%CI:8.47,9.29).

For practice SRCs, risk of SRC was lower in 2019/20 than 2015/16 (RR:0.85, 95%CI:0.75,0.97) and 2016/17(RR:0.84, 95%CI:0.74,0.95). The competition rate was lower in 2019–20 than 2015–16 (RR:0.90, 95%CI:0.82,0.98). However, the difference-in-differences analysis for practice vs. competition in the 2019/20 season vs. the 2015/16– 2018/19 seasons was null (-0.015, p=.958).

Conclusions SRC rates in football were higher in competition than practice. The reduction noted in practice SRC in 2019/20 compared to prior seasons was not greater than the reduction observed during competition.

Significance Highlighting when SRC occur throughout an athletic season may focus preventative efforts. The strategy of progressively limiting collision practices did not alone reduce SRC in Michigan high school football.

Domestic & intimate partner violence

0080

DO TRADITIONAL MASCULINITY ATTITUDES MODERATE RELATIONSHIPS BETWEEN CUMULATIVE VIOLENCE EXPERIENCES AND MARIJUANA/ALCOHOL USE AMONG BLACK YOUNG MEN IN BALTIMORE, MARYLAND?

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10.1136/injuryprev-2021-SAVIR.57

Statement of purpose To examine relationships between cumulative violence (CV) experiences and marijuana/alcohol use among Black young men and to test whether relationships are modified by traditional masculinity attitudes.

Methods/Approach We examined cross-sectional survey data from 100 Black men ages 18–24 recruited from community organizations in violence (IPV), reproductive marijuana/alcohol use were models. Moderating effects of masculinity norms were examined by adding a product term to the final multivariable model and by examining stratum specific estimates. Baltimore, MD. We measured CV as lifetime intimate partner coercion (RC), and child abuse (CA). Associations between CV and tested using unadjusted and adjusted logistic regression.

Results Most men (81%) experienced one or more types of violence. We observed positive trends between CV experiences and marijuana/alcohol use in unadjusted associations (OR 1.667, 95% CI 0.595, 4.665) and adjusted associations (OR 1.409, 95% CI 0.438, 4.534) but neither were statistically significant. Masculinity attitudes did not modify the relationship with statistical significance (p-value = 0.504). However, in bivariate logistic regression analyses stratified by masculinity attitudes, there were increased odds of marijuana/alcohol use among men with high traditional masculinity attitudes who experienced CV (OR 2.231, 95% CI 0.549, 9.061) and lower odds among men with low traditional masculinity attitudes who experienced CV (OR 0.945, 95% CI 0.159, 5.634).

Conclusions Our analyses did not reach statistical significance; however, the odds of marijuana/alcohol use among Black young men who experienced CV had an increased trend. There was also evidence that traditional masculinity attitudes moderate this relationship.

Significance Black young men's CV experiences could be a potentially important predictor for substance use. Screening