Significance/Contribution to Injury and Violence Prevention Science Our findings are the first to examine concussion prevention in MS sports, and highlight the need to further explore strategies to disseminate and implement concussion education.

Policy efforts in substance use and abuse

118 INFORMING POLICY CHANGE: REACHING POLICYMAKERS WITH IOWA'S OPIOID OVERDOSE CONCERNS

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Purpose The opioid overdose epidemic continues to devastate the United States through dangerous variations and combinations of drugs. In Iowa's population of over 3 million people, there were 137 overdose deaths involving opioids in 2018. While Iowa's opioid related overdose deaths remain lower than the national average, there is concern that the rurality of Iowa could contribute to increases in opioid involved deaths. In August 2019, the University of Iowa Injury Prevention Research Center (UI IPRC) began collaborative efforts with Iowa stakeholders to identify policy priorities to address rural opioid concerns and identify ways to reach policymakers with these priorities.

Methods In September 2019, the UI IPRC convened over 30 stakeholders across Iowa representing more than a dozen fields including groups with rural and farming interests. We reviewed evidenced-based strategies, identified what Iowa was doing to address rural overdose issues, proposed policy and program changes, and identified priorities. An online survey was sent to participants to vote on their top five priorities.

Results The five stakeholder priorities included developing holistic treatment and recovery resources, improving communication strategies between stakeholders, considering polysubstance drug use during surveillance and prevention efforts, improving naloxone access and distribution, and combating stigma. The UI IPRC will disseminate a report describing the unique characteristics of Iowa's rural drug issues, including the rise in polysubstance overdose deaths, and the five stakeholder priorities to Iowa policy makers beginning in the 2020 legislative cycle. In addition, the UI IPRC will also publish an op-ed highlighting the priorities.

Conclusions/Significance Upon identifying the priorities, it is clear there are still gaps in surveillance, prevention, and treatment efforts with regards to licit and illicit drugs in Iowa. In order to prevent further drug related mortality in Iowa, it is crucial to continually identify policy priorities and actively disseminate recommendations to Iowa policy makers.

Violence prevention policy and advocacy

120 PUBLIC EDUCATION FUNDING AND FIREARM MORTALITY IN THE UNITED STATES

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Purpose We sought to assess the association between public education funding and county-level firearm mortality in the United States.

Approach Spatial analyses were conducted to assess the associations between a 5-year aggregated (2013–2017) county-level firearm mortality rate and public education funding. Public education funding was calculated by school district-level per-pupil spending and adjusted by the Cost Wage Index to account for geographic variation in wages and costs.^{1,2} Funding data from 2003 and 2010 were used to account for a lag effect and to evaluate effects of the nadir in state-level funding after the Great Recession.^{3–5} Spatial autocorrelation, hot-spot, and geographically weighted regression analyses were performed.

Results Geographic hot spots were primarily identified in central, rural counties of the U.S. In the regression model, education funding from 2003 exhibited a small effect size ($b=0.08$, $se=0.03$, $p=0.002$) on firearm mortality. Statistically-significant covariates included county-level proportions of Black residents ($b=0.04$, $se=0.02$, $p=0.038$), residents <18 years old ($b=0.06$, $se=0.02$, $p=0.012$), and residents living in urban areas ($b=-0.05$, $se=0.02$, $p=0.013$). 2010 data yielded similar trends.

Conclusions Unexpectedly, higher school funding was associated with higher firearm mortality. Given the broad nature of per-pupil rate measures for education funding, future studies should explore the extent (e.g. proportion) and in what capacities (e.g., programming) funding streams are allocated specifically to address gun violence as well as community and individual-level risk factors.

Significance School-related factors like truancy and poor school performance are linked to gun violence victimization among youth^{6,7}, implicating schools as a critical platform to address individual and structural causes and consequences of the gun violence epidemic in the U.S.^{8,9} The extent to which adequate public education funding informs firearm mortality remains poorly understood.

Epidemiology of TBI

122 SCHOOL-LEVEL DETERMINANTS OF VARIABILITY IN OBSERVED CONCUSSION INCIDENCE: A CARE CONSORTIUM STUDY

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Statement of Purpose To investigate variability in observed concussion incidence between NCAA colleges participating in a multisite prospective study of concussion, and to quantify the effect of selected school-level factors on concussion risk.

Methods/Approach Data on sport-related concussion (SRC) were provided by the CARE Consortium, a multisite study of 30 collegiate institutions. School-level factors included NCAA Division (DI, DII, DIII) and school type (military or civilian)