consultants for assistance in the review and implementation of our framework; provided initial racial equity training for our staff and board; created a blog series highlighting the gun violence epidemic in communities disproportionately affected by gun violence; applied findings in policy development work with researchers.

Conclusions A racial equity framework will help mitigate potentially harmful inequities in GVP, and instead will promote social justice.

Significance/Contributions Equity is an established and necessary component of public health that has received little attention in GVP. The Ed Fund's self-evaluation, training, and development/application of a racial equity framework for GVP provides guidance and context for researchers, advocates, partner organizations, and policymakers to consider and advance in their own work. This framework is modifiable for a variety of violence and injury topics.

210 CHARACTERISTICS OF HOSPITALS THAT CARE FOR PATIENTS WITH FIREARM INJURIES: EVIDENCE FROM THE NATIONWIDE EMERGENCY DEPARTMENT SAMPLE

Elinore Kaufman, Kit Delgado. *University of Pennsylvania*

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Statement of Purpose Firearm injury is a public health crisis in the United States, but little is known about the distribution of firearm injury care among health systems. We examined national estimates of ED visits and hospital admissions to describe the hospitals that care for patients with firearm injuries. This research aims to identify areas of focus for practice improvement and hospital-based violence prevention.

Methods Data was collected from the Nationwide ED Sample (NEDS) for 2016. The NEDS is a 20% stratified sample of all U.S. EDs weighted to provide national estimates. We identified firearm-related injuries using ICD-10 external cause-of-injury codes. We described the distribution of firearm injuries among hospitals and characterized hospitals that treat an average of 2 firearm injuries per week (100/year) according to hospital size, ownership, region, teaching status, urban-rural location, and region.

Results Of the 953 hospitals in the NEDS, 818 hospitals weighted to represent 3,892 hospitals nationally treated a total of 97,608 firearm injuries in 2016. The median firearm injuries treated was 8 (interquartile range 3, 19). The 226 hospitals (5.8%) that treated ≥ 100 firearm injuries cared for 47.4% of all firearm injuries, 69.0% of 26,812 admissions, 60.3% of 12,775 severely injured patients, and 58.3% of 7,626 deaths. Eighty-two percent were Level I or II trauma centers and 91% were metropolitan, teaching hospitals, with 57% located in major urban centers. Forty-six percent were in the South, 37% in the West, 29% in the Midwest, and 8% in the Northeast.

Conclusions Most U.S. hospitals care for firearm injuries, but care is concentrated in a small minority of hospitals, primarily in metropolitan trauma centers in the South and West.

Significance and Contributions to Injury and Violence Prevention Science Hospitals treating substantial numbers of gunshot wound patients may be the most appropriate sites for hospital-based violence intervention programs.

213 CREDIT SCORES AS A NOVEL MEASUREMENT TOOL TO EXAMINE VIOLENCE INEQUITIES IN PHILADELPHIA, PA

Mudia Uzzi, Lorraine Dean. *Johns Hopkins School of Public Health*

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Statement of Purpose Neighborhood Violence is a major social and public health issue throughout the United States and specifically in urban areas. Credit scores are an emerging novel measurement tool to examine violence across communities. Area-level credit scores reflect elements of neighborhoods' economic structure that is not captured by traditional socioeconomic position measures.

Methods/Approach Our ecological cross-sectional study obtained Census Block Group (CBG) Equifax Vantage 3.0 credit score averages for all CBGs (n=1,325) in Philadelphia, PA from 2013–2017. We joined credit score data with geocoded data from 78,184 individual violent crime incidents between 2013–2017 and across Philadelphia CBGs. We created five separate analytic datasets for each year of our study time period by combining credit score and violence CBG data with covariates from the US Census. We used Poisson regression to determine associations between CBG credit scores and CBG violent crime counts, after controlling for population density and percentages of home ownership, vacant houses, black residents, female-headed households, and poverty.

Results Across the five-year period, 27%–32% of CBGs had poor/fair credit score averages, 56–57% had good, and 12%–16% had excellent credit score averages. Moreover, violent crime counts per CBG across the five-year period ranged from 0–93 with a median of 8–10 incidents per CBG. CBGs with good credit scores had 18%–28% less risk of violent crime compared to poor/fair credit CBGs. Furthermore, CBGs with excellent credit scores had a 36%–46% less risk of violent crime compared to poor/fair credit CBGs.

Conclusions Excellent and good credit score averages by CBG are associated with lower violent crime counts compared to CBGs with poor/fair averages across Philadelphia.

Significance and Contributions to Injury and Violence Prevention Science Credit scores have potential for improving the understanding of violence inequities and what contributes to violence, over and above traditional socioeconomic position measures.

216 THE RISK OF WATCHING A SUNSET – EPIDEMIOLOGIC FEATURES OF A COHORT OF COASTAL CLIFF-RELATED TRAUMATIC INJURY

Kathryn Schaffer. *American Trauma Society; American Association of Surgical Trauma; Trauma Quality Improvement Program*

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Statement of Purpose California coastal cliffs are known for scenic views, natural beauty inviting the public to explore, but are also known for environmental risks. An increase of falls from cliffs with severe outcomes, combined with risky behaviors, was identified. A review describing cliff-related falls from two geographically different coastal regions was done.

Methods/Approach All trauma admissions 2010–2018 from two trauma centers (TC) was reviewed for unintentional falls at coastal cliffs. Study sites have coastline catchments with

distinct differences. North TC (NTC): higher cliffs with trails towering over the beach; South TC (STC): lower shoreline cliffs. All injury event data available were reviewed from both sites, including prehospital and media. Medical record and registry data collected include demographics, diagnoses, procedures, outcomes.

Results 159 trauma patients treated at sites were identified. Males comprised 67%, mean age 31.5 years. 48% occurred between 2014–2016. NTC had more events (54% vs 41%), younger patients (29 vs 34 years) and more complex injuries. Mean length of stay was similar (8 vs 7 days) but differences in gender, age and injuries were evident between sites. Activities prior to injury included hiking, hang gliding and intentional jumping into ocean. 47% with positive alcohol. Fall distance ranged 10–300 feet. 75% discharged home, 4 hospital deaths, 10 at scene.

Conclusions Coastline cliffs continue to change with erosion and development. Communities continue to fight to preserve natural beauty while ensuring public safety. Incidence increase corresponded with documented surge of social media for gathering and intentional cliff jumping but has since subsided slightly. Visitors, unfamiliar with the environment were common, as well as alcohol use combined with poor judgment; potentially fatal combinations.

Significance and Contributions to Injury and Violence Prevention Science There exists common behaviors, severity and outcomes demonstrating opportunities to develop education and prevention interventions, and still enjoy that sunset.

220 FARM EQUIPMENT CRASHES ON PUBLIC ROADS: RESULTS FROM A SURVEY OF MIDWEST FARMS

¹Matt McFalls, ²Corinne Peek-Asa, ³Karisa Harland, ⁴Motao Zhu, ⁵Nichole L Morris, ¹Marizen Ramirez. ¹University of Minnesota, School of Public Health; ²University of Iowa, Department of Occupational and Environmental Health; ³University of Iowa, Carver College of Medicine; ⁴Ohio State University, College of Public Health; ⁵University of Minnesota, Roadway Safety Institute

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Statement of Purpose Rural public roads experience higher crash rates than other roadways, with agricultural equipment adding greater risk of injury and fatality. This study investigated farm-level factors and their association with farm equipment crashes on public roads, along with circumstances of these crashes.

Methods/Approach A 2014 survey of nine Midwestern states was analyzed, in which farm operators reported history of farm equipment crashes, details of the crash, and past-year driving of equipment. Chi-square tests were used to compare operator, farm, and vehicle characteristics by crash status. Backward stepwise logistic regression was used to identify predictors of a crash.

Results Of 1403 farms operating equipment on public roads, a weighted 6.4% reported a crash (n=100). Crops, acreage, vehicle miles, and number of vehicles were initially associated with a crash. Higher odds of crash were observed with second acreage tertile (OR=2.98; 95% CI: 1.37–6.49), third acreage tertile (OR=2.72; 95% CI: 1.22–6.08), and a 10-vehicle increase (OR=1.28; 95% CI: 1.02–1.61). Crashes occurred most often in June–August (44.3%). Driver experience was often fewer than five years (83.1%) and many were paid/

unpaid workers (48.0%). Crashes often went unreported to law enforcement (29.0%).

Conclusions With higher acreage and number of vehicles driven on public roads, farms were more likely to report history of a crash. Many crash characteristics appear to align with findings from previous studies, although differences were observed in seasonality.

Significance and Contributions to Injury and Violence Prevention Science This study suggests further points to explore in the role of large farms and high vehicle usage in farm equipment crashes. These findings provide farm-level context to previous research with motor vehicle crash reports, with the implication that crashes may often go unreported. Limited driver experience may have safety implications for vulnerable high-risk occupations in rural settings.

222 THE SPATIAL RELATIONSHIP BETWEEN VIOLENT CRIME, BLIGHTED HOUSING, AND EMERGENCY DEPARTMENT UTILIZATION IN HOUSTON, TX

Alaina Beauchamp. University of Texas Health Science Center at Houston School of Public Health

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Background To identify the relationship between the proximity of crime and blighted housing, and the influence on emergency department (ED) utilization.

Methods/Approach Blighted housing violations and violent physical crime offenses from 2010 were used for spatial analysis of ED utilization. Blight and crime data were taken through open access Houston records, and the ED data was collected in a prior study. Clustering measures (nearest neighbor ratio), frequencies of events within location buffer zones, and spatial autocorrelation calculations were used for analysis.

Results There were 11,741 violent physical crimes, with majority of being aggravated assault (92.34%). There were 2,969 blight violations, with the largest proportion being ‘visual damage is dangerous to life’ (32.06%). The average number of emergency department visits per month was 15.71 visits per 1000 persons in population (SD=26.35). Blighted housing and violent crime both displayed clustering of the location points (NNR=0.23, NNR=0.31 respectively). As the number of ED visits per month increases, both the number of blighted properties and crimes increased at a similar rate. Sixty-five percent of all violent physical crimes in Houston occurred within 500 meters of a blighted property (N=7595). Of all the murders which occurred in Houston in 2010, 83.2% occurred within approximately five blocks of a blighted house (N=208).

Conclusions This study provides evidence of the relationship of both factors (e.g. violent crime and blighted housing) on the use of emergency department (ED) services. Future research should look to dissect the reasons for high utilization of emergency services, and the results of criminal actions within Houston.

Significance Although there are many factors that will inevitably influence crime, the blight of the housing in the community may be a large contributor in the perpetuation of violent physical crime. This research supports a link in the blighted housing of the community providing an opportunity for crime and subsequent injury.