Innovation methods

192 RISK OF SUICIDE BY EMPLOYMENT AND OCCUPATIONAL GROUP: A STUDY USING LINKED DATA FROM THE NATIONAL HEALTH INTERVIEW SURVEY AND THE NATIONAL DEATH INDEX, 2005 – 2015

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Statement of Purpose This study evaluates the risk of suicide by employment and occupational group among adults aged 18–64 in the United States using linked data from the National Center for Health Statistics.

Methods Data from the National Health Interview Survey (NHIS) linked to the National Death Index (NDI) was used to examine the risk of suicide among adults ages 18–64 by employment status and occupational group. Only working-age NHIS respondents with complete occupation information were included. Occupations were categorized by the Census Bureau's Standard Occupational Classification System and grouped as: managerial, professional, teaching/social service, services, sales, and production. Suicides were defined using the International Classification of Diseases, Tenth Revision underlying cause-of-death codes U03, X60-X84, and Y87.0. Cox proportional hazards regression models were fitted to estimate hazard ratios. All estimates incorporate the complex design of the survey.

Results Of the 257,861 sample-adult NHIS participants in 2005 - 2015, 93% (239,382) did not die, and 7% (18,479) died by December 31, 2015. Of those who died, 1.3% (237) were to suicide. Working-age participants in the sales occupational group were at increased risk of suicide (HR=1.97, 95% CI=1.02 – 3.80) compared to those in the professional occupational group, after controlling for age and sex. Non-employed participants were at increased risk of suicide compared to employed participants (HR=1.57, 95% CI=1.06–2.33) after controlling for age and sex.

Conclusions Occupational and employment status may affect risk of suicide. NHIS linked to NDI offers a unique opportunity to examine risk of suicide by both.

Significance and Contributions to Injury and Violence Prevention Science Suicide is the tenth leading cause of death in the U.S., and national studies of suicide by occupation are limited. Understanding suicide by occupation can help inform targeted strategies to prevent suicides in the United States.

Community and youth violence

193 INNOVATIVE SOLUTIONS FOR TACKLING URBAN GUN VIOLENCE: PERSPECTIVES FROM THE COMMUNITY ON FIREARM DISPOSAL UNITS

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Statement of Purpose The public stock of firearms in the U.S. is increasing by an estimated three to five million firearms per

year. Without enacting unpopular (and unconstitutional) controls on the purchase of firearms, there are few options for limiting the availability of firearms, and reducing rates of physical harm. One approach, which does not infringe on constitutional rights, is voluntary disposal of firearms.

Methods/Approach The Penn Injury Science Center, in collaboration with Oxford University designed and conducted 3 focus groups to: 1) consult members of the community on a local initiatives to provide accessible facilities for disposing of firearms; and 2) understand what design specifications would be essential or desirable for community members. General perceptions around firearm violence and ownership were also assessed. Focus groups were recorded, transcribed and analyzed in NVivo 11, using an iterative process.

Results Sixteen females and fourteen males participated across three focus groups. The majority of participants (n=23, 76%) were African American with high school (n=10, 33%), some college (n=11, 37%) or a college degree (n=6, 17%) as their highest level of education. Seven primary themes were initially identified and included perceptions towards firearm violence, ownership and laws; distrust of law enforcement; and attitudes, barriers and facilitators for voluntary disposal of firearms. Participants' provided important insights pertaining to the physical appearance, functionality and geographic locations of potential disposal units.

Conclusion Understanding perceptions around the feasibility and acceptability of voluntary disposal of firearms is an important next step towards implementation.

Significance Understanding perceptions around the feasibility and acceptability of voluntary disposal of firearms is an important next step towards implementation. Community input regarding attitudes around firearm ownership and disposal along with considerations on the physical appearance, functionality and geographic locations of firearm disposal units should be integrated into a future pilot demonstration project.

Equity and methods

195 DISCORDANCE IN RACE AND ETHNICITY BETWEEN MEDICAL RECORD AND SELF-REPORTED DATA

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Statement of Purpose Research into race/ethnicity-based injury disparities requires accurate race/ethnicity data. We compared the race/ethnicity documented in electronic medical records (EMRs) against self-report identity to measure the magnitude of EMR misidentification and potential contributing factors.

Approach Descriptive statistics and misclassification matrices were used to assess sensitivity of EMR to true (self-reported) race/ethnicity within two study cohorts (one including all trauma mechanisms [n=95] and one of firearm assaults [n=217]) at a Level-1 trauma center. Both cohorts oversampled people of color. As processes for data collection vary based on how patients arrive, logistic regression models explored associations between arrival type (transfer, EMS, or walk-in) and accurate EMR identification within a subgroup of individuals reporting a single race/ethnicity.

Results Of 276 individuals who self-reported as a single race that mapped to an existing EMR race, only 65.6% had their

race correctly identified in the EMR. More than 90% of Native Hawaiian/Pacific Islanders were misidentified. Patients brought in by EMS and walk-in patients were more likely to be correctly identified than patients transferred from another facility, but this was not statistically significant (OR 1.61, 95% CI 0.59–3.29 and OR 1.39, 95%CI 0.76–3.39, respectively). Although the majority of patients were correctly identified as either non-Hispanic (194/199) or Hispanic or Latino (53/71), the EMR sensitivity for identifying Hispanic/Latino ethnicity was only 74.6%. Multiracial identity was not included in standard EMR racial categories, systematically miscategorizing 18.9% (n=18) of the first and 15.2% (n=33) of the second cohort. More than 30% of multiracial individuals self-reported an American Indian/Alaska Native identity that was not captured by EMR.

Conclusions Large proportions of injured patients are misidentified by race/ethnicity in EMR. Misidentification is most common among indigenous people of color.

Significance Misrepresentation of race/ethnicity in EMR suggests injury disparities among Hispanic and indigenous groups may actually have been underestimated.

Spreading the word: health communication and education

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THE AVAILABILITY OF INJURY CURRICULA ACROSS ACCREDITED SCHOOLS AND PROGRAMS OF PUBLIC HEALTH: A NEEDS ASSESSMENT

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Purpose Although injury is the third leading cause of death in the United States (US), and the leading cause of death for ages 1–44, injury-related curricula are often unavailable to students of public health. The purpose of this project was to assess the availability of injury- and violence-related curricula in public health education.

Methods We surveyed websites of all Council on Education for Public Health (CEPH)-accredited schools and programs of public health (both graduate and undergraduate) in the US. Degree program catalogs and class syllabi were searched to identify the presence and types of injury- and violence-related curricula offered at each school/program. School/program characteristics were also recorded, including type (schools versus programs), size and region, public health degrees offered, and presence of Injury Control Research Centers (ICRCs). Using descriptive statistics and mapping approaches, we examined the availability and types of injury- and violence-related curricula by school/program characteristics.

Results Out of 178 CEPH-accredited schools/programs of public health, only 43 (24%) offered injury- or violence-related curricula. Of these, most (72%) were schools of public health. Some curricula covered both injury and violence topics (35%), while others focused exclusively on violence (30%). Regionally, the northeast had the most schools/programs with injury- and violence-related curricula (6.1 schools per 100,000 miles) and the western region had the least (0.5 schools per 100,000

miles). Schools/programs with ICRCs were more likely to offer injury or violence curriculum.

Conclusion Results of this project suggest that access to injury- and violence-related curricula continues to be limited across schools and programs of public health.

Significance/Contribution Training efforts led by the Society for Advancement of Violence and Injury Prevention (SAVIR) or other professional organizations might fill this gap by providing distance-learning opportunities that are accessible across regions. Future research should survey school/program leaders to identify additional facilitators to increasing curricula availability.

Spreading the word: health communication and education

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PENN COMMUNITY SCHOLARS PROGRAM: ASSESSING CAPACITY BUILDING AND COMMUNITY-ACADEMIC PARTNERSHIPS THROUGH AN INNOVATIVE, COMMUNITY-BASED TRAINING PROGRAM

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Statement of Purpose The Penn Community Scholars Program (Penn CSP), an initiative of the Penn Injury Science Center's Outreach Core, was developed in 2015 to build community capacity to perform and sustain research in Philadelphia. The program trains community organization leaders in research skills and seeks to match them with academic partners to facilitate community-based participatory research (CBPR) work.

Methods/Approach The Penn CSP selects a cohort of 15–20 participants from 10–12 organizations to participate in a 12-session training program each year. The goals of the Penn CSP are to build capacity of community organizations to perform CBPR with academics; and expand mutually beneficial community-academic partnerships to improve health outcomes. Scholars are trained in navigating the research process, forming CBPR partnerships, and presenting a professional pitch. To assess impact, we employed a pre- and post-survey based approach to evaluate change in knowledge, attitudes, beliefs, and intentions to conduct research and apply skills.

Results Facilitators, barriers, and short-term outcomes associated with the primary goals of the Penn CSP were identified among four cohorts of scholars. Participants reported high levels of satisfaction, and an increase in knowledge, self-efficacy, and skills related to conducting CBPR. Participants reported an increase in confidence to identify problems in their communities (78%), in their trust of academic partnerships (61%), in knowledge on developing program goals and objectives (49%), and in knowledge on formulating research questions (45%).

Conclusion Through an innovative, community-based approach, the Penn CSP builds community capacity and increases the adaptability of organizations to participate in academic research, and connects these leaders with faculty partners across academic institutions to continue CBPR work.

Significance/Contribution to Injury and Violence Prevention Field In a current cohort of 16 individuals representing 10 organizations, over half fulfill missions that center on injury prevention, including suicide, intimate partner violence, gun violence, and opioid overdoses.