

Methods/Approach This demonstration project is a funded study, employing a randomized control trial research design to determine the effectiveness of an enhanced Hospital Based Violence Intervention model versus a treatment as usual model. The enhanced intervention provides case management whereas the treatment as usual intervention provides only a referral card.

Results A number of preliminary baseline data points will be presented and discussed, including but not limited to mechanism of injury, trauma type, whether surgery was needed, percentage of patients who present as trauma recidivists, levels of life satisfaction and other selected variables.

Conclusions The lack of evaluations on the effectiveness of HBVIPs has left significant gaps in our understanding on whether these programs in fact have an impact on rates of violent victimization. This on-going longitudinal study seeks to fill that gap by comparing a case-management led intervention to a referral only model.

Significance and Contributions to Injury and Violence Prevention Science Trauma recidivism and re-current violent injury are public health issues that have significant implications for the lives of victims, their families, and the overall community. The evaluation of HBVIPs are an important step in developing the evidence base for interventions that seek to mitigate rates of violent injury and recidivism.

Mental health consequences of violence

33 IMPACT OF MENTAL ILLNESS IN THE RISK OF INCIDENT COMORBID DRUG USE DISORDER IN INDIVIDUALS WHO SURVIVE FIREARM INJURY

Bindu Kalesan. *Boston University*

10.1136/injuryprev-2020-savir.4

Statement of Purpose To determine the risk of emergency department (ED) or hospital readmission with new Drug Use Disorder (DUD) among patients who survive an index firearm injury, with and without mental illness at baseline, and if the risk varies based on treatment pathway.

Methods We conducted a retrospective cohort study of drug-use naïve patients surviving index firearm injury treated in emergency departments (ED) in California from 2006–2010. We compared patients with and without mental illness at baseline and treatment pathway (ED alone and ED+hospitalization). Of the 18,941 treated in ED alone and 10,370 with ED+hospitalization, 1,875 (9.9%) and 2,568 (24.8%) had pre-existing mental illness at index injury.

Results Patients with mental illness had a greater risk of readmission with new DUD at one year [5.6% vs 2.1%; adjusted Hazard Ratio (aHR) 2.04 (95% CI 1.60, 2.60)] than those without. In patients not hospitalized, 7.7% of those with mental illness were readmitted with incident DUD versus 2.2% for those without (aHR=2.99, 95% CI 2.18, 4.09). No such risk was demonstrated in hospitalized patients. The risk of readmission with incident opioid use at 1-year among patients with and without mental illness was 1.5% versus 0.6%, [aHR=1.81 (95% CI 1.13, 2.90)].

Conclusion Patients exposed to firearm injury with mental illness have an increased risk of 1-year readmission with new

DUD when treated in ED without hospitalization. This vulnerable population may benefit from an additional evaluation, treatment, and possible hospitalization, to reduce the risk of future DUD.

Significance Our study reveals the impact of identifying patients with pre-existing mental illness at the time of firearm injury, considering mental illness in treatment decisions, and addressing mental illness as a risk factor for post-injury complications, regardless of their injury severity, to avoid the development of drug use and dependence that may lead to further adverse outcomes.

Firearm violence

34 MEDICAID ENROLLMENT AFTER FIREARM INJURY INCREASES LIKELIHOOD OF READMISSION AMONG ADOLESCENTS

Bindu Kalesan. *Boston University*

10.1136/injuryprev-2020-savir.5

Statement of Purpose A substantial proportion of adolescents in the US who are hospitalized for firearm injury and survive require subsequent hospitalizations, but lack health insurance. However, they become eligible for Medicaid through a post-injury enrollment policy. The impact of Medicaid conversions in this population has not been evaluated. We determined the difference in the likelihood of hospital readmissions among adolescents surviving firearm injury hospitalization by health insurance, and whether this likelihood changed after postinjury Medicaid conversion.

Methods/Approach We conducted a retrospective cohort study using data from the National Readmissions Database (2011–2014). We used Cox proportional hazards regression to assess the association of insurance status (Medicaid, private insurance, or uninsured) with time to readmission within 180 days of discharge, among adolescents (10–19 years of age) discharged alive after treatment of a firearm injury.

Results We compared 6,840 Medicaid-insured patients to 2,969 privately-insured patients and 2,664 uninsured patients in a cohort of adolescents hospitalized due to firearm injury. There was no difference in the likelihood of readmission within 180-days after discharge among the three groups, considering insurance designation at the time of the injury. Based on postinjury payer conversion, the likelihood of readmissions did not vary between the Medicaid and private insurance groups, while the likelihood was 75% greater in the Medicaid group versus uninsured group (adjusted hazard ratio=1.75, 95% CI 1.24, 2.48).

Conclusion Medicaid bears the financial burden of treatment for firearm injuries, providing subsequent treatment to adolescents after firearm injury.

Significance Adolescents surviving a firearm injury are discharged from the hospital to adverse environmental stressors with disability and face competing decisions to spend on health versus paying utilities, rent, etc. to survive. Conversion to Medicaid in this vulnerable group of adolescents may allow them to obtain treatment so that they can recover.