AGE DIFFERENCES IN FIREARM INJURIES TREATED IN THE EMERGENCY DEPARTMENTS AND RELATED COSTS IN THE US, 2006 TO 2016

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Statement of Purpose There is a lack of consensus regarding age- and intent-related differences in the burden of non-fatal firearm injuries. We determined the time trends in burden and costs of age- and intent-specific non-fatal firearm injuries presenting to US emergency departments (EDs) differentiated by survival after treatment to correctly estimate non-fatal injuries.

Methods We performed a retrospective study of the Healthcare Cost and Utilization Program Nationwide Emergency Department Survey (NEDS) from 2006 to 2016. We present survey-weighted counts, proportions, means, and rates, and confidence intervals of national and age groups (0–4, 5–9, 10–14, 15–17, 18–44, 45–64, 65–84, >84 years) specific ED discharges for firearm injuries. Inflation-adjusted charges were applied to costs.

Results There were a total of 1,033,771 ED visits for firearm injuries from 2006 to 2016 and 6.8% died in the ED. The firearm injury ED rates remained steady, while ED death rates declined slightly during 11 years. There was also a slight decline in firearm ED visits in children (0–17), but the largest burden was between 18–44 years (20.8 per 100,000) with stable rates. Assault injuries declined from 39.7% to 36.4% overall with a significant drop in all age groups, while unintentional injuries increased from 46.4% to 54.7% overall and in all age groups. There were significant declines in legal intervention injuries. The total charges were $3,777,264,968 ($369,006,396/year) and increased across time in all subgroups. The mean predicted charges increased from $2,386 to $3,975 among those discharged alive versus $1,322 to $2,203 among those who died in ED.

Conclusions The burden of firearm injury treated in ED is among young adults. Interventions and programs to reduce firearm violence should include non-fatal injuries as they live with ongoing morbidity and economic burden.

Significance There is a need for an accurate and standardized data collection of firearm injuries.

FACTORS ASSOCIATED WITH PERCEPTION OF LIFE EXPECTANCY IN ASSAULT-INJURED URBAN YOUTH: AN EMERGENCY DEPARTMENT SAMPLE

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Statement of Purpose This study aimed to identify factors associated with perception of minimized life expectancy in assault-injured youth, a population at-risk for future assault-related injuries.

Methods Approach Assault-injured youth (n=188; ages 10–15 years; 61% male; 96% black) were recruited from two urban pediatric emergency departments (Baltimore, MD, Philadelphia, PA) to participate in a mentoring intervention to prevent violence. At enrollment, youth were asked ‘Do you think you will live to 35?’, youth responding ‘yes’ (optimistic life expectancy) were compared to youth responding ‘maybe’ (uncertain life expectancy) using descriptive statistics, t-tests and chi-square analysis.

Results Although there were no differences between the groups in age, gender or socioeconomic status, youth with an uncertain life expectancy (31.4%, n=59) were more likely to have a family member injured by violence (61.0% vs. 43.4%, p=0.028) or in a gang (42.1% vs. 19.2%, p=0.002) and less likely to take steps to avoid a fight (57.6% vs. 76.7%, p=0.01) or think about consequences before acting (70.7% vs. 87.6%, p=0.007). These youth also showed more likely to believe that revenge is a good thing (47.4% vs. 29.0%, p=0.019), and think about suicide (42.9% vs. 7.9%, p<0.001). Finally, youth with an uncertain life expectancy felt less likely to go to college or have a successful career, and more likely to have difficulty finding a good job in adulthood.

Conclusions One third of assault-injured early adolescents expressed uncertainty of living until age 35. Several risk factors and behaviors were identified as being associated with possible risk of premature death.

Significance and contributions to injury and violence prevention science Perception of risk of premature death is present in a sizable proportion of assault-injured youth. Future work should investigate the impact that an uncertain life expectancy has on future behaviors and response to violence prevention interventions.

STRENGTHENING RESEARCH PARTNERSHIP AND HEALTH CARE SYSTEMS TO PREVENT VIOLENCE: A SWOT ANALYSIS

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Purpose The Jefferson Center for Injury Research and Prevention (JCIRP) is a full entity of the Department of Surgery’s Trauma Division and the College of Nursing at Thomas Jefferson University in Philadelphia, PA, to participate in a mentoring intervention to prevent violence. At enrollment, youth were asked ‘Do you think you will live to 35?’, youth responding ‘yes’ (optimistic life expectancy) were compared to youth responding ‘maybe’ (uncertain life expectancy) using descriptive statistics, t-tests and chi-square analysis.

Results Although there were no differences between the groups in age, gender or socioeconomic status, youth with an uncertain life expectancy (31.4%, n=59) were more likely to have a family member injured by violence (61.0% vs. 43.4%, p=0.028) or in a gang (42.1% vs. 19.2%, p=0.002) and less likely to take steps to avoid a fight (57.6% vs. 76.7%, p=0.01) or think about consequences before acting (70.7% vs. 87.6%, p=0.007). These youth also showed more likely to believe that revenge is a good thing (47.4% vs. 29.0%, p=0.019), and think about suicide (42.9% vs. 7.9%, p<0.001). Finally, youth with an uncertain life expectancy felt less likely to go to college or have a successful career, and more likely to have difficulty finding a good job in adulthood.

Conclusions One third of assault-injured early adolescents expressed uncertainty of living until age 35. Several risk factors and behaviors were identified as being associated with possible risk of premature death.

Significance and contributions to injury and violence prevention science Perception of risk of premature death is present in a sizable proportion of assault-injured youth. Future work should investigate the impact that an uncertain life expectancy has on future behaviors and response to violence prevention interventions.