Injuries caused by firearms differ in rural or urban settings
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Researchers examining pediatric firearm injuries found that the age a child is injured by a gun is closely related to where he or she lives: the city or the country.


For the study, researchers analyzed the Kids’ Inpatient Database to identify hospitalizations for injuries due to firearms in patients under age 20. A total of 21,843 hospitalizations from 2006, 2009, and 2012 were compared based on demographics, rural versus urban location, and the cause of the injury (assault, suicide attempt, accidental, or undetermined).

Researchers found that most of the pediatric firearm injuries resulting in hospitalization occurred among older teens (ages 15 to 19) and that those living in urban areas had the highest rate of hospitalization. However, among younger children (ages 5 to 14) the rate of hospitalization was higher in rural areas. Accidental firearm injuries were the most common cause of hospitalization across all age groups in urban or rural locations, except for 15- to 19-year-olds living in urban areas (for which firearm assaults were highest). Researchers also found that rates of hospitalization for firearm injuries due to suicide attempts were higher in rural areas compared to urban areas among older teens.

"Compared with other causes of death in the United States, there is a relative scarcity of research on understanding the epidemiology of firearm injuries, and this is particularly true for the pediatric population," said lead author Bradley Herrin, MD, a pediatrician at the Yale School of Medicine. "This study helps to build our understanding of the problem by providing more detailed data on hospitalizations for firearm injuries in different pediatric age groups in both urban and rural communities."

Firearm injuries are a leading cause of injury and death for children and adolescents in the United States. Prior research has identified male gender, non-white race, low median income and late adolescent age as risk factors for both fatal and non-fatal firearm injuries. However, previous studies have not examined the differences in rates of firearm injury hospitalizations between rural and urban areas by age group.

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