

0241 **URBAN VERSUS RURAL FIREARM INJURY PYRAMIDS:
USING ECODES TO COMPARE THE BURDEN OF INJURY**

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Study Objective To compare the incidence of fatal and non-fatal firearm injuries in urban and rural counties in Nebraska using ecodes, with graphic depiction in the form of injury pyramids.

Methods County-specific firearm injury ecode frequencies for 2001 to 2005, were received directly from the state health department. Counties were categorised small metro, non-metro adjacent, rural/city > 10 000, and rural/city < 10 000, based on a previously described system. Incidence rates per 100 000 were calculated using estimates from U.S. census data. Injury pyramids were constructed using emergency department (ED) visit incidence(base), hospitalizations (midsection) and deaths (apex).

Results For the study period, there were 1600 total firearm injuries, with 652 seen in an ED and discharged, 345 requiring hospital admission and 503 resulting in death. The smallest rural counties accounted for the highest incidence of unintentional injuries resulting in ED visits at 5.606 per 100 000. The urban counties reported the highest incidence of ED use, hospitalisations, and deaths resulting from assaults, at 3.793, 3.193 and 2.207, respectively. The highest incidence of suicide occurred in the rural counties, with rates of 0.854, 0.527 and 0.909, compared to 0.236 for urban counties.

Conclusions Overall, the ED use resulting from unintentional firearm injury and firearm suicide impact rural counties more than urban counties, while the incidence ED use, hospitalisation and deaths from assaultive firearm injuries was higher in the urban areas.