

Low-income neighborhoods experience far more injuries than high-income areas

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Penetrating injury rates were more than 20 times higher for persons living in the lowest income neighborhoods compared with those living in the highest income neighborhoods, according to a new study published in the August issue of the *Journal of the American College of Surgeons*. Researchers also found that those in the lowest-income neighborhoods experienced nearly six times higher rates of blunt injury than persons in the highest income neighborhoods. Penetrating injuries included those from firearms or cuts; blunt injuries included motor vehicle crashes, falls and assaults.

Geographic variations in health have been a concern for researchers for many years. Previous research indicates that there is a clear association between living in a poor neighborhood and suffering from high rates of injury of various types. Furthermore, numerous reports indicate that there is an association between living in a socioeconomically disadvantaged neighborhood and poor health outcomes.

"These findings support the need to focus interventions to reduce injury rates in [neighborhoods](#) with the lowest socioeconomic status," said Ben L. Zarzaur, MD, MPH, FACS, assistant professor at the University of Tennessee Health Science Center in Memphis, Tenn. "Besides ensuring that all patients have access to the appropriate level of trauma care, we need to find ways to prevent those injuries in the first place."

Researchers evaluated 17,658 patients ages 18 to 84 who were admitted after injury to the Elvis Presley Memorial [Trauma Center](#) (EPMTC)

from Jan. 1, 1996 to Dec. 31, 2005. EPMTC is a Level I trauma center at the Regional Medical Center in Memphis, and serves Tennessee, Mississippi and Arkansas. [Level 1 means it has a full range of specialists and equipment available 24-hours a day.] Addresses of adults admitted to EPMTC in the county from 1996 to 2005 were geocoded and matched to one of 214 census tract groups. The researchers divided census tract groups into quintiles based on percent of the population living below the poverty level (lowest to highest income neighborhood socioeconomic status (N-SES)). The five N-SES categories were: lowest (>34.8 percent of the population living below the poverty line); low-middle (20.9 to 34.8 percent of the population living below the poverty line); middle (10.0 to 20.8 percent of the population living below the poverty line); high-middle (4.4 to 9.9 percent of the population living below the poverty line); and highest (\leq 4.3 percent of the population living below the poverty line).

Crude injury admission rate ratios were calculated by N-SES category in Shelby County from 1996 to 2005 for blunt and penetrating injuries, with the highest N-SES category as the referent. Crude blunt injury rates steadily and significantly increased across N-SES categories to the point that persons living in the lowest N-SES category had nearly six times the crude blunt injury admission rate as those from the highest N-SES category. The results for injury admission rate ratios for penetrating injury were similar. Persons living in the lowest N-SES category in Shelby County had almost 21 times the rate of penetrating [injury](#) admission compared with those living in the highest N-SES category in Shelby County.

Provided by Weber Shandwick Worldwide

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