

## Racial Disparities in Emergency Department Mortality and Departure Status among Trauma Patients in Massachusetts

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**Background:** Understanding racial inequities in emergency medical care for traumatic injuries is important to policy considerations.

**Methods:** We analyzed data on the first emergency department (ED) visit for trauma treatment among patients in the Massachusetts (MA) Statewide Trauma Registry. This Registry collects information on all trauma patients who die in the ED, or are dead on arrival, or who are transferred between hospitals in MA. This analysis included ED visits among MA residents aged 15 years and older from 2008 through 2010. Those who died on arrival were excluded. Patients were grouped as non-Hispanic white, non-Hispanic black, Hispanic, Asian, and other or unknown races. We compared injury severity, departure status and ED mortality among the 5 groups while adjusting for severity, sex and age.

**Results:** The 27,453 patients averaged 57.3 years of age, and included 44.9% women, 83.4% whites, 5.4% blacks, 6.8% Hispanics, 1.3% Asians, and 3.1% other or unknown races. In total, 534 (1.95%) died in ED. There was no clinically significant difference in injury severity among race groups. Compared to whites, blacks and other race group had higher mortality (OR=1.62, p=0.006 and OR=2.30, p<0.001, respectively). Among survivors, blacks and Hispanics were more likely to leave against medical advice (AMA) or elope (OR=2.88, p<0.001 and OR=1.67, p=0.05, respectively) and less likely to be transferred to another care unit (OR=0.77, p<0.01 and OR=0.84, p=0.001, respectively). Blacks were less likely to have a within hospital referral (OR=0.23, p<0.001).

**Conclusions:** Substantial racial disparities in ED mortality and departure status were observed among MA trauma patients. Determinants of the disparities are under investigation in an ongoing study funded by the National Institute on Minority Health and Health Disparities.

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