

The Impact of the Repeal of Michigan's Universal Helmet Law on Traumatic Brain Injury: A Statewide Analysis

ABSTRACT

Authors: Rachel N. Saunders, Nicholas S. Adams, Alistair J. Chapman, Alan T. Davis, Tracy J. Koehler, Luke T. Durling, Gaby A. Iskander, John A. Giroto,

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Background

In April of 2012, Michigan repealed its 35-year-old universal motorcycle helmet law in favor of a partial helmet law, which permits motorcyclists older than 21 years old with sufficient insurance and experience to drive un-helmeted. We evaluated the clinical impact of the repeal.

Methods

The Michigan Trauma Quality Improvement Program's trauma database was queried for motorcycle crash patients between 1/1/09–4/12/12 and between 4/13/12–12/31/14.

Results

There were 1970 patients in the pre-repeal analysis and 2673 patients in the post-repeal analysis. Following the repeal, patients were more likely to be un-helmeted ($p < 0.001$) and to have a traumatic brain injury ($p < 0.001$). Patients were also more likely to require neurosurgical interventions (relative risk 1.4, $p = 0.011$).

Conclusion

Following the repeal of the universal helmet law, there has been a significant increase in traumatic brain injuries and neurosurgical interventions. This analysis highlights another detrimental impact of the repeal of the universal helmet law.