New concussion laws result in big jump in concussion treatment
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New laws regulating concussion treatment, bolstered by heightened public awareness, have resulted in a large increase in the treatment of concussion-related injuries for school-age athletes.

Over the past decade, concerns over concussion injuries and media coverage of them have skyrocketed. Since 2009, all 50 states and the District of Columbia have enacted concussion laws regulating concussion treatment—the first laws written to address a specific injury.

A University of Michigan study designed to evaluate the impact of new concussion laws found a 92 percent increase in children seeking medical assistance for concussions in states with the legislation in place. States without concussion laws showed a 75 percent increase in those seeking injury-related health care.

"There are two stories here," said Steven Broglio, the study's senior author and an associate professor at the U-M School of Kinesiology and director of the NeuroSport Research Laboratory. "First, the legislation works. The other story is that broad awareness of an injury has an equally important effect. We found large increases in states without legislation, showing that just general knowledge plays a huge part."

Broglio and colleagues examined nationwide insurance data from privately insured 12- to 18-year-olds to evaluate the effect of concussion laws on concussion treatment from Jan 1, 2006 to June 30, 2012 in states with and without concussion laws.

The legislation seems to be working as intended.

"My thought was that all types of concussion-related services might increase in states that enacted the legislation," said Teresa Gibson, the study's first author who was vice president of health outcomes for Ann Arbor-based Truven Health Analytics when the research was conducted. "The fact that we didn't see inpatient visits and emergency department visits increase in states with the legislation, but we saw office-based procedures go up, suggests that the legislation is having the intended effect on these injuries."

Broglio said "these injuries are the ones you want to catch, so that athletes will sit out until these injuries are resolved."

The results of the study underscore the importance of public education as well as legislation, said Broglio, who also has an appointment with the U-M Injury Center.

Other statistics include:

- After the first concussion law passed in 2009, treatment rates in states without concussion laws increased roughly 20 percent annually. In states with concussion laws, the annual rates of treated concussion averaged an additional 13 percent higher.
- Rates of treated concussion in states without legislation were 7 percent higher in 2009-10, 20 percent higher in 2010-11 and 34 percent higher in 2011-12 compared with pre-legislation trends.
- By 2012, in states without legislation, office visits for concussion rose 78 percent compared to pre-legislation trends. The rate was 17 percent higher in states with concussion laws.

