

FISCAL IMPLICATIONS

This bill does not contain an appropriation. While there may be additional administrative costs to school districts and NMAA to establish rules and implement the mandatory training, the fiscal impact should be minimal.

SIGNIFICANT ISSUES

SB 431 seeks inclusion of the student athlete in the brain injury training which is currently only required of coaches in each school district.

According to Section 22-13-31 NMSA 1978, Subsection D, the establishment of rules surrounding the training is required of the NMAA in consultation with the “brain injury advisory council and school districts.” This training is intended to train the coach and student athlete to understand and recognize brain injuries as well as to alert the appropriate medical professionals if needed. The bill specifies that training is to be provided by the school district, which is also to be responsible for acquiring signature acknowledgements from parents or guardians confirming that a student has received the training, and that both student and parent/guardian are to acknowledge they understand the brain injury information provided prior to allowing a student athlete to participate in athletic activities.

GCD notes that in 2014 the Brain Injury Advisory Council, a program of the GCD, contracted with the UNM Health Sciences Center Brain and Behavioral Institute to conduct a state-wide survey about sports concussion in youth in New Mexico. Data was collected on about 20,000 students who participated in high school or middle school athletics and 7,000 students who participated in physical education. Some of the findings included:

- The rate of concussion for youth participating in sports in New Mexico was over two and a half times higher than the rate reported in a similar study in another state;
- The rate of concussion during physical education classes was 60 percent higher than the rate of concussion during sports;
- 99 percent of coaches in high school or middle school received state-mandated NMAA training on concussion management. It is not clear what training physical education teachers or youth club sports coaches receive regarding sports concussion management;
- Over 60 percent of NM schools do not have athletic trainers to assist in sports concussion identification and management;
- Over 50 percent of NM schools indicated that they do not feel there are adequate resources to diagnose and manage sports concussions; and
- Over 70 percent of schools indicated interest or strong interest in more education and training on the diagnosis and treatment of concussions.

GCD adds data indicate a continued need for more brain injury education for children, parents, teachers, guardians and coaches to reduce the incidence of concussion during sports. Better identification and appropriate and timely treatment are other components in concussion management that will make positive change in youth sports safety.

DOH provides additional research on brain injury among students. According to hospital inpatient discharge and emergency department data, during 2011-2012, the most recent years for which data are available, youth between the ages of 10 – 17 accounted for more than 80 percent

of sports-related traumatic brain injury among youth in New Mexico under the age of 19. In addition, among youth under the age of 19, males accounted for 77 percent of sports-related traumatic brain injury, and sports-related traumatic brain injury occurred 3.3 times as often among males as it did among females. Youth under the age of 19 years made 810 emergency room visits for traumatic brain injuries that were sports related during 2011-2012.

PED notes if a student athlete were trained to recognize the signs and symptoms of brain injury in themselves or a fellow student athlete, this may prompt them to alert the appropriate authorities and remove themselves or encourage the removal of others from a potentially dangerous situation. Therefore, the proposed inclusion of student athletes in the district training may increase the awareness of risks and harmful effects related to brain injury and may result in action taken to prevent further harm to the affected student athlete.

PED also notes that the bill as written addresses critiques of similar laws in other states. These critiques include: lack of specificity related to age groups; lack of medical release required to resume athletic activity; and few states requiring the signatures of both student athletes and parents in relation to the brain injury information. SB 431 addresses these components.

ADMINISTRATIVE IMPLICATIONS

PED notes that as SB 431 does not state a plan for oversight related to compliance with the required training of student athletes in brain injury, the agency may need to develop a plan to ensure that school districts are providing training as indicated under the bill.

RELATIONSHIP

Senate Bill 492 also makes changes to the same section of the Public School Code. That bill adds non-scholastic youth athletic activities to the protocols regarding brain injuries outlined in Section 22-13-31 NMSA 1978. SB 492 does not address brain injury training for student athletes as outlined in this bill, however.

OTHER SUBSTANTIVE ISSUES

DOH provides additional information on athletic-related brain injuries nationwide:

According to the Centers for Disease Control and Prevention (CDC), national surveillance of nine different high school sports indicated that traumatic brain injury represented almost 9 percent of all injuries reported, with rates highest for boys' football and girls' soccer. High schools nationwide reported 55,007 traumatic brain injuries for one year among male football players and 29,167 traumatic brain injuries among female soccer players.

Concussion injuries are generally not visible, nor recognizable, to the outside observer. Consequently, if coaches, student athletes or their parents/guardians choose to conceal, ignore or disregard symptoms of concussion so that a student athlete can continue to engage in a particular sport, the athlete risks further brain injury from a second episode of collision and concussion.

In September 2012, the Clinical Journal of Sport Medicine published research findings conducted to analyze the effectiveness of the Sports Legacy Institute Community Educators (SLICE) curriculum for student-athletes on recognition and appropriate responses to

concussions. Evaluations assessing knowledge of concussion recognition and appropriate response were administered before and after participating in the SLICE concussion education program. Students displayed significant improvements in absolute mean score on the concussion knowledge quiz between pre-presentation and post-presentation.

DOH adds these findings reflect a higher prevalence of concussion in high school football players than previously reported in the literature. The ultimate concern associated with unreported concussion is an athlete's increased risk of cumulative or catastrophic effects from recurrent injury. Future prevention initiatives should focus on education to improve athlete awareness of the signs of concussion and potential risks of unreported injury.

ALTERNATIVES

Given the UNM Health Sciences Center Brain and Behavioral Institute's finding that the rate of concussion during physical education classes was 60 percent higher than the rate of concussion during sports, the Legislature may wish to include physical education classes in brain injury training to prevent brain injuries in those classes as well as student athletic activities.

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