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Mass. schools report 4,400 sports-related head injuries

Yearly total, programs providing data are on rise

By Evan Allen | GLOBE STAFF

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BARRY CHIN/GLOBE STAFF /FILE

Football players and other athletes at Boston College High School, in the red uniform, sustained 63 head injuries.

Students across Massachusetts suffered more than 4,400 concussions or other head injuries while playing school sports during the last school year, according to surveys submitted to the state by about 360 public and private schools.

The most head injuries were reported by large schools with robust sports programs. Boston College High School, an all-boys private school in Dorchester for grades 7 through 12, cited 63 head injuries, followed by Needham High with 58 and Andover High with 55.

“I don’t feel that we’re higher than anywhere else; I feel that we are just really conscientious and meticulous about our reporting,” said Theresa Hartel, BC High’s school nurse. “I have a hard time understanding how really big schools that have a lot of sports are not reporting concussions.”

The reports, released to the Globe by the state Department of Public Health under a public records request, come as high schools are wrapping up their football seasons, which for many schools produce the most injuries.

This was the second year that the surveys were collected under the state's 2010 concussion law, and about 150 more schools submitted data this time around. The total number of reported head injuries rose by about 1,000 over the previous year.

"That's good news, not bad news," said Carlene Pavlos, director of the Bureau of Community Health and Prevention at the Department of Public Health. "It's not that they weren't happening before; it's that there was less awareness and less identification."

Awareness has increased as doctors and researchers point to growing evidence that an accumulation of head injuries may lead to long-term cognitive problems.

Although reporting is up, some officials said, the data would be more useful if the state requested a breakdown of head injuries by individual sport and gender, and not just the school's overall total.

"Data helps drive change and education, and I think that would be an important thing for them to add," said Desiree Jubinville, athletic trainer at Andover High School, which like many communities does its own breakdown.

Twenty-five of the 55 head injuries reported at Andover High occurred during football, Jubinville said, while boys' hockey came in second, with five.

The surveys were due to the state on Aug. 31 from public middle and high

schools as well as private schools affiliated with the Massachusetts Interscholastic Athletic Association. About half of the 700 schools complied, including most public high schools. There is no penalty for schools that do not complete the survey.

The data will be studied by the Sports Medicine Committee of the MIAA, which oversees high school interscholastic competition, said the committee's chairman, Dr. Alan Ashare.

"We're interested in doing it quickly," Ashare said. "I think it might tell us where we have deficiencies in reporting, probably some deficiencies in education."

Ashare said schools should not be penalized if they fail to complete the survey. "I want people to cooperate because it's a good thing to do rather than penalize people," he said.

However, he said the surveys would be "tremendously" more helpful if they included the gender, age, and sport of the injured athletes. Ashare said he will discuss with his committee the possibility of the MIAA requiring those specifics.

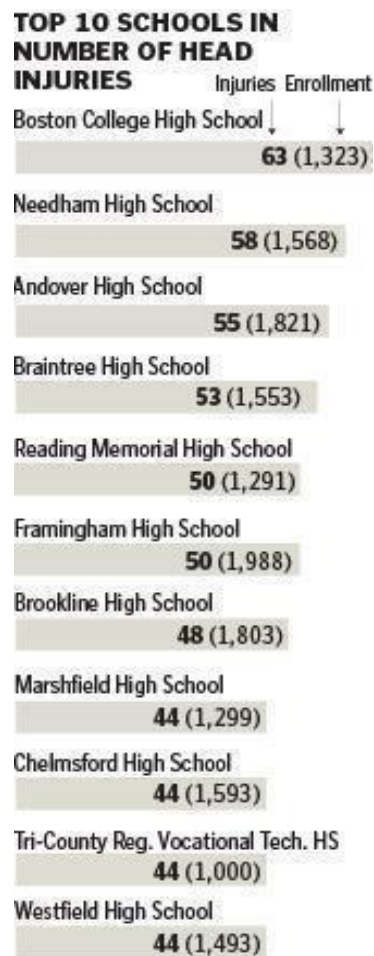
"How else are you going to look at the data?" he said. "It doesn't make any sense. You need more information."

Pavlos said the state has no plans to add more detail to the surveys, calling it an added reporting burden.

All 41 schools reporting 30 or more head injuries were high schools, though some also included lower grades. Eighty-six schools reported zero head injuries, almost all of them middle schools or combination middle and high schools with low enrollments. Another 107 reported head injuries in single digits.

Pavlos warned against using the data to compare schools, saying the purpose of the survey is not to monitor the numbers of concussions that athletes are suffering but to ensure schools are paying attention to the state regulations and tracking head injuries.

All schools must provide annual training to students, parents, and staff on how to recognize and respond to head injuries. Injured



SOURCES: Dept. of Public Health; Dept. of Elementary and Secondary Education
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students must get medical clearance before gradually returning to play.

Coaches and students said concussion awareness has skyrocketed since the law was implemented.

“Concussions are the most talked-about injury,” said Abigail Ojemann, 17, a senior at Concord-Carlisle High School, who has suffered three concussions playing varsity soccer. Her 1,200-student school reported 39 head injuries.

When Ojemann got her third concussion last year, she said, she was out of soccer for about a month, because she kept failing the ImpACT baseline concussion test, which measures cognition before and after an injury. She was furious, she said — until her symptoms came back.

“Now I look back on it, and I blamed the ImpACT testing for me not going back and I hated it, but I guess it kind of saved me, in a way,” said Ojemann.

Still, some schools expressed concern that they were not catching every concussion. According to experts on head injuries, low numbers raise the specter of unreported concussions — and students playing through the pain.

“When you’ve got a full-sized high school, and you’ve got concussions in the single digits, you really have to question and be concerned how good the monitoring is, and how good the concussion care is at that school,” said Dr. Neal McGrath, clinical director at Sports Concussion New England and a concussion consultant for 30 schools in the state, including BC High.

Athletes with concussions who keep playing, he said, risk turning what would be temporary symptoms — headaches, dizziness, trouble concentrating, light sensitivity — into lingering problems if they get hit again.

They also raise their chances of suffering second-impact syndrome, McGrath said, a rare condition thought to be caused when a player

already experiencing concussion symptoms suffers additional trauma. The syndrome causes uncontrollable brain swelling and is fatal about half the time, he said.

Christopher Young, athletic director at 1,865-student Leominster High School, said he is “absolutely” worried that concussions are slipping through the cracks. About 300 students play sports each season, Young said, yet the school reported only nine head injuries last year.

Athletes may be keeping concussions a secret, said Young, to avoid being taken out of the game, a sentiment that athletic directors at several other schools echoed.

“You probably have a lot more lying going on,” Young said.

Everett High, a Division 1 football powerhouse with 1,906 students, had just 12 reported sports-related head injuries this year, which athletic trainer Rachel Loan chalked up to good coaching and good luck.

“It’s all just whatever happens, happens,” Loan said. “This year, we’ve only had three so far in football, but we’ve also had about 10 broken bones.”

Other Division 1 football leaders, such as St. John’s Preparatory School in Danvers, Central Catholic High School in Lawrence, Xaverian Brothers High School in Westwood, and Attleboro High School, reported between 24 and 39 head injuries for all sports.

Schools with high numbers of reported concussions attributed their figures to a high level of concussion education among athletes, parents, and coaches and diligent reporting practices.

At BC High, which has 1,654 students and about 500 athletes per season,

Hartel said she has seen more athletes self-reporting concussions.

Some schools have already begun putting their own numbers to work to identify where and how concussions are happening — and to try to prevent them in the future.

At Needham High School, which a year ago reported the highest number of head injuries in the state at 85, health services director Mimi Stamer reviews head injury reports every month with coaches to identify clusters of concussions and to look for links between injuries and training schedules.

“We can’t prevent everything, but once something does happen, we look to see, is this an isolated incident? Or is this happening over again?” Stamer said.

Over the past two years, she said, she has identified three small clusters: in the boys’ football program, in the girls’ cheerleading program, and among students playing on a community football team unconnected to the school.

After examining practice schedules, athletic director Micah Hauben said, coaches cut down contact drills for the football players and limited stunting and tumbling for the cheerleaders. The concussions abated.

Stamer said she also tracked down the coach of the community football team and offered to provide advice on how to keep players safe.

“It’s an evolving challenge,” said Stamer. “Hopefully, in the long run, we’re helping these kids and saving their brains from lifelong injury.”

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