Date: January 31, 2025



**Source of Report:** <u>LD 104</u> (PL 2021 Chapter 12) An Act To Protect the Health of Student Athletes by Requiring the Department of Education To Report on the Incidence of Concussions (MRS, <u>Title 20-A, §254, sub-§17</u>)

**Topic:** Concussion Incidence in Maine Schools

### Context

LD 104, An Act To Protect the Health of Student Athletes by Requiring the Establishment of Procedures To Report Concussions, directs the Commissioner of Education, in consultation with an organization representing school principals, to annually report to the Joint Standing Committee on Education and Cultural Affairs any available data on the incidence of concussions sustained by student-athletes in the State. In addition, the report must also include recommendations on best practices for the collection of such data.

The Maine Department of Education (DOE) has continued to work collaboratively with the Maine Principals' Association and other stakeholders to create this report on the available data on the incidence of concussions sustained by student-athletes in the State using existing or new data collection systems.

Various terms have been used when referring to concussion. A concussion is an injury to the brain itself. The injury impacts the way a person's brain works and is sometimes referred to as a traumatic brain injury (TBI). Using precise language will improve communication related to increased awareness, prevention, and management of injuries. The Concussion Workgroup recommends using the term concussion or TBI which aligns with established best practices.

Pursuant to MRS, Title 20-A, §254, sub-§17, as enacted by PL 2011, c. 688, §1, Maine DOE was directed to develop a model policy on the management of concussions in school activities and athletics. It further required Maine DOE to establish a working group to complete this task. Membership in the group has varied over time but has consistently included a representative from the Maine Principals' Association, Maine Athletic Trainers Association, Maine Association of School Nurses, Maine Interscholastic Athletic Administrators Association, and the Brain Injury Association of America - Maine Chapter. The work group previously included representation from the Maine Concussion Management Initiative. In March of 2024, MCMI announced in a letter to all schools and stakeholders that, "after 15 years the Maine Concussion Management Initiative will cease operations on June 1, 2024. We have reached our goal of improving the identification and management of childhood concussions in Maine, and while work remains to be done, major steps toward improving concussion management have been accomplished. It is now time for others to continue the work of improving the safety of youth sports and identifying ways to improve the outcomes for children who sustain a

concussion." The Head Injury Tracker (HIT) online tool that this report used for Maine incidence was created and managed by MCMI. As such, this report and all subsequent reports will not contain any HIT data.

# Actions

During School Year 2023-2024, data was tracked in three ways. Data sources include a survey submitted by a cohort of school administrative units (SAU) that participated in an electronic health record (EHR) pilot, school-based health center data from the University of Southern Maine, and the 2023-2024 School Health Annual Report.

Maine DOE funded sixteen (16) school administrative units in an electronic health record pilot. As part of the pilot, they were asked to track concussions within the time frame of December 1, 2023-June 30, 2024. The data collected from these sixteen SAUs is shown in Table 1. According to these survey results, 58.6% of the concussions reported were due to an injury during an organized athletic event, while 37.9% were during regular routine daily activities or play.

Table 1. Electronic Health Record Pilot Concussion Data							
Total Student Population in pilot SAUs	Total number of diagnosed concussions*	Organized athletic event (school athletic teams and organized recreation league teams)	Routine daily activities and/or play				
15897	29	17 (58.6%)	11 (37.9%)				
*As reported in the Electronic Health Record Pilot reporting period by the sixteen school administrative units.							

Maine DOE added questions to the School Health Annual Report 2024, which is a survey that is sent to all public and non-public schools at the conclusion of each school year. The survey was completed by two hundred thirty-four (234) school administrative units, one hundred ninety-seven (197) of which are public school systems and thirty-seven are (37) non-public systems. The concussion data is represented in Table 2 shown below. Results from this survey show that 59.2% of the reported concussions were due to an organized athletic event, with 30.7% from routine daily life. Within this survey we provided two additional reporting options, "other cause" and "unknown cause" which were combined in this table.

Table 2. School Health Annual Report 2024							
Total Student Population in reporting SAUs (n-234)	Total number of diagnosed concussions reported in survey	Organized athletic event (school athletic teams and organized recreation league teams)	Routine daily activities and/or play	Other or Unknown cause			
165,305	1871	1107(59.2%)	575(30.7%)	173 (9.2%)			

Table 3. School Health Annual Report 2024 Public/Non-Public							
Student	Total number	Organized	Routine daily	Other cause	Unknown		
Population	of diagnosed	athletic event	activities		cause*		
Public	concussions	(school	and/or play				
Reporting		athletic					
SAU (n=197)		teams and					
		organized					
		recreation					
		league					
		teams)					
157,805	1711	992 (58.0%)	547 (32.0%)	110 (7.0%)	46 (2.7%)		
	1	1	1	1			
Student							
Population							
Non-Public							
Reporting							
SAU (n=37)							
7,500	160	115 (71.8%)	28 (17.5%)	17 (10.6%)	0		

The Workgroup requested data from the University of Southern Maine team that serves as the evaluator for Maine CDC funded school-based health centers (SBHC). For the 2023-2024 school year period, SBHC in Maine reported 37 unique users who received a concussion diagnosis during a total of 73 visits (any diagnosis code beginning with 'S06.0'). These include concussions from 5 different SBHC sites (Wheeler, 2024). There is no statistical analysis or conclusions that can be made with this data. It is simply for awareness of Maine concussion data that is available.

### Recommendations

Recommendations of the workgroup include continuing Concussion Work Group meetings, on at least a quarterly basis, and for the Maine DOE to maintain its concussion management toolkit for schools, including the most recent evidence-based materials.

The work group recognizes that access to an electronic health record (EHR) can reduce the burden of data collection in schools. Electronic health records are considered the standard for documentation of health or medical information. The position statement of the National Association of School Nurses states, "EHRs are an essential tool for school nurses to efficiently

and effectively manage health information to optimize student healthcare quality, safety, coordination, and to improve student population health. EHRs enhance 21st century school nursing practices to provide equitable, evidence-based, student-centered healthcare that enables school-age youth to reach their full educational potential" (NASN, 2024).

A second recommendation is to reduce the frequency of this report to the Education and Cultural Affairs Committee to once every five years. The rationale for this recommendation is that changes in national data shows that the incidence of concussion is somewhat stable as stated in our 2023 report, and the International Conference on Concussion in Sports, who leads best practices, only convenes every few years (Patricios, Schneider, Dvorak, et al. 2023). Additionally, without a good data collection system in Maine, it is not possible to draw relevant conclusions or advisable to make actionable changes that diverge from national best practices.

Finally, we recommend that any further legislation related to health data and research in Maine schools also include the Department of Health and Human Services, Maine Centers for Disease Control and Prevention as that is the State of Maine leader in public health and safety.

## References

National Association of School Nurses. (2024). *Electronic health records: An essential school nursing tool for supporting student health* (Position Statement). Doremus, W., Niskanen, W., et. Al.

Patricios JS, Schneider KJ, Dvorak J, et al. Consensus statement on concussion in sport: the 6th International Conference on Concussion in Sport– Amsterdam, October 2022. *British Journal of Sports Medicine* (2023); 57:695–711.

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