

# **Connecticut State Department of Education Health Services Program Information Survey**

## **Concussion Analysis**

School Year 2017-18

Developed by:

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## A. Concussions by Gender

*The number of diagnosed concussions among FEMALE and MALE students during the 2017-2018 school year:*

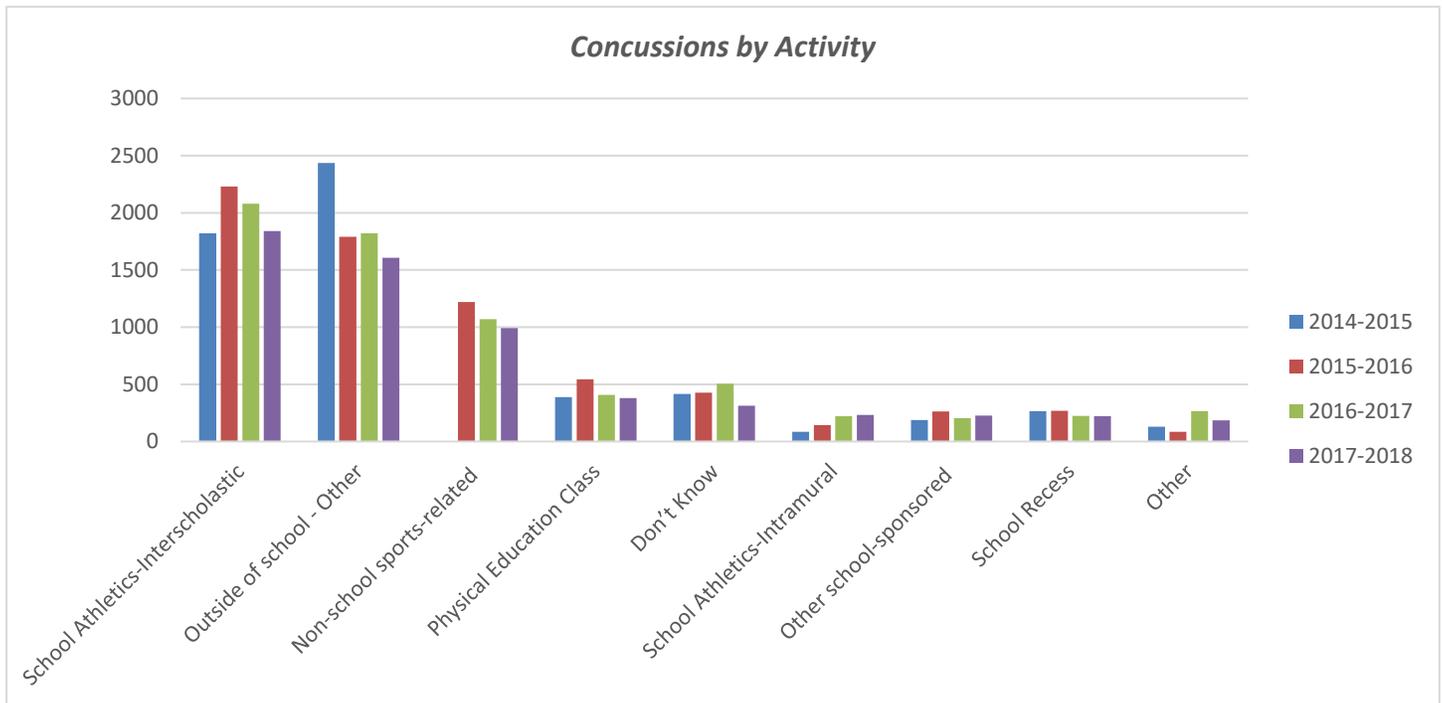
Grade	Diagnosed Concussions FEMALES	Diagnosed Concussions MALES	Total
Pre-K	3	4	7
Kindergarten	16	34	50
1 <sup>st</sup> Grade	30	44	74
2 <sup>nd</sup> Grade	35	64	99
3 <sup>rd</sup> Grade	43	99	142
4 <sup>th</sup> Grade	80	160	240
5 <sup>th</sup> Grade	110	234	344
6 <sup>th</sup> Grade	193	264	457
7 <sup>th</sup> Grade	281	288	569
8 <sup>th</sup> Grade	372	348	720
9 <sup>th</sup> Grade	572	466	1,038
10 <sup>th</sup> Grade	500	425	925
11 <sup>th</sup> Grade	464	392	856
12 <sup>th</sup> Grade	414	344	758
<b>Total</b>	<b>3,113</b>	<b>3,166</b>	<b>6,279</b>

There were no statistically significant differences for concussion rates between female and male students. Interestingly, however, rates increased for both genders and peaked at the 9<sup>th</sup> grade for boys and girls, declining for each year after that.

## B. Concussions by Activity

The number of diagnosed concussions by activity:

Activity	# of Diagnosed Concussions	% of Diagnosed Concussions
School Athletics-Interscholastic	1,841	30.7
Outside of school - Other	1,606	26.8
Non-school Sports Related (i.e. Local Town Recreational Sports)	993	16.5
Physical Education Class	379	6.3
Don't know	314	5.2
School Athletics-Intramural	232	3.9
Any other school sponsored activities	228	3.8
School Recess	222	3.7
Other	184	3.1
<b>Total</b>	<b>5,999</b>	<b>100%</b>

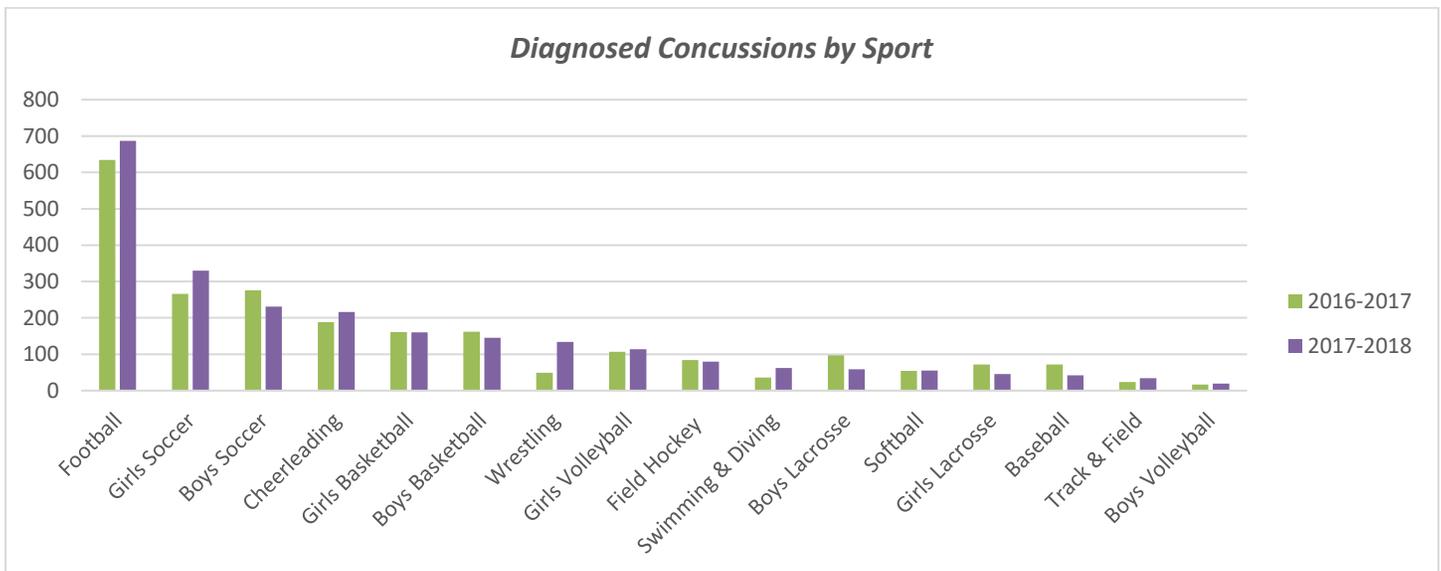


The highest number of reported diagnosed concussions occurred during Interscholastic Athletic Activities (30.7%), and Outside of School/Other reasons (26.8%).

### C. Diagnosed Concussions by Sport

Number of concussions that occurred during each of the following sports: (including both intramural and interscholastic events)

Sport	Occurrences <sup>1</sup>
Football	687
Girls Soccer	330
Boys Soccer	231
Cheerleading	216
Girls Basketball	160
Boys Basketball	145
Wrestling	134
Girls Volleyball	114
Field Hockey	80
Swimming and Diving	62
Boys Lacrosse	59
Softball	55
Girls Lacrosse	46
Baseball	42
Track and Field	34
Boys Volleyball	19



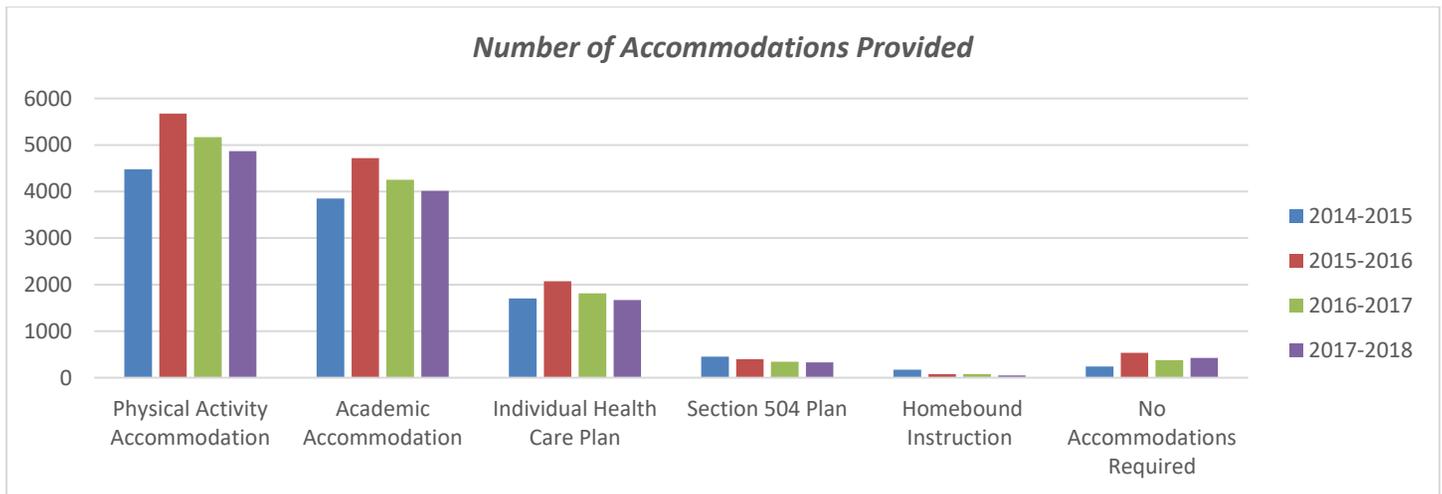
Football accounted for the most concussion occurrences among specific school-sponsored sports, resulting in 687 diagnosed concussions among reporting districts in 2017-18. Girls' soccer was next with 330 concussions reported, followed by boys' soccer with 231 occurrences. (Note: 2016-17 was the first year for which sport specific data was collected.)

<sup>1</sup> The total number of occurrences in the tables in Sections A, B and C differ somewhat due to discrepancies in reporting.

### D. Type of Accommodation Provided

The number of accommodations provided as a result of a diagnosed concussion:

Accommodation	# of Accommodations Required <sup>2</sup>
Physical Activity Accommodations	4,869
Academic Accommodations	4,013
Individual Health Care Plan	1,672
No accommodations required	427
Section 504 Plan	331
Homebound Instruction	48
<b>Total</b>	<b>11,360</b>



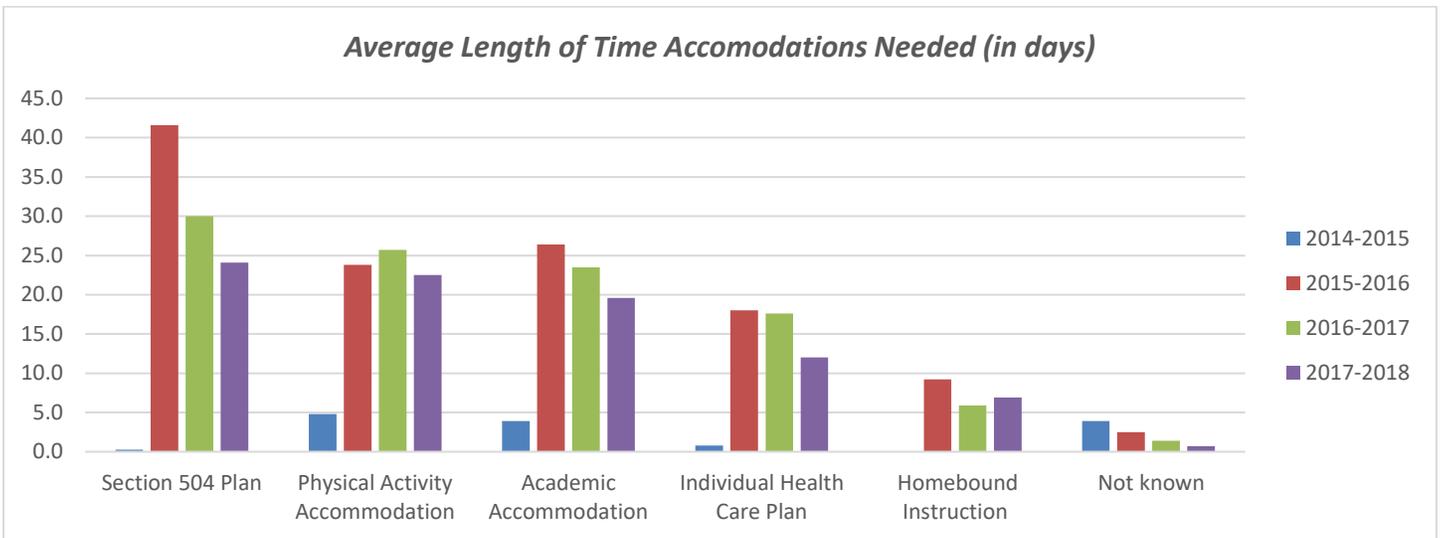
“Physical Activity Accommodations” and “Academic Accommodations” represent the largest number of interventions required. There were 48 directives for “Homebound Instruction” due to a diagnosed concussion, down 36% from the previous year.

<sup>2</sup> The number of accommodations required were greater than the total number of concussions as many diagnosed concussions required more than one type of accommodation.

### E. Length of Accommodations

*Of concussions diagnosed during school year 2017-18, the average length of time (in days) that accommodations were needed:*

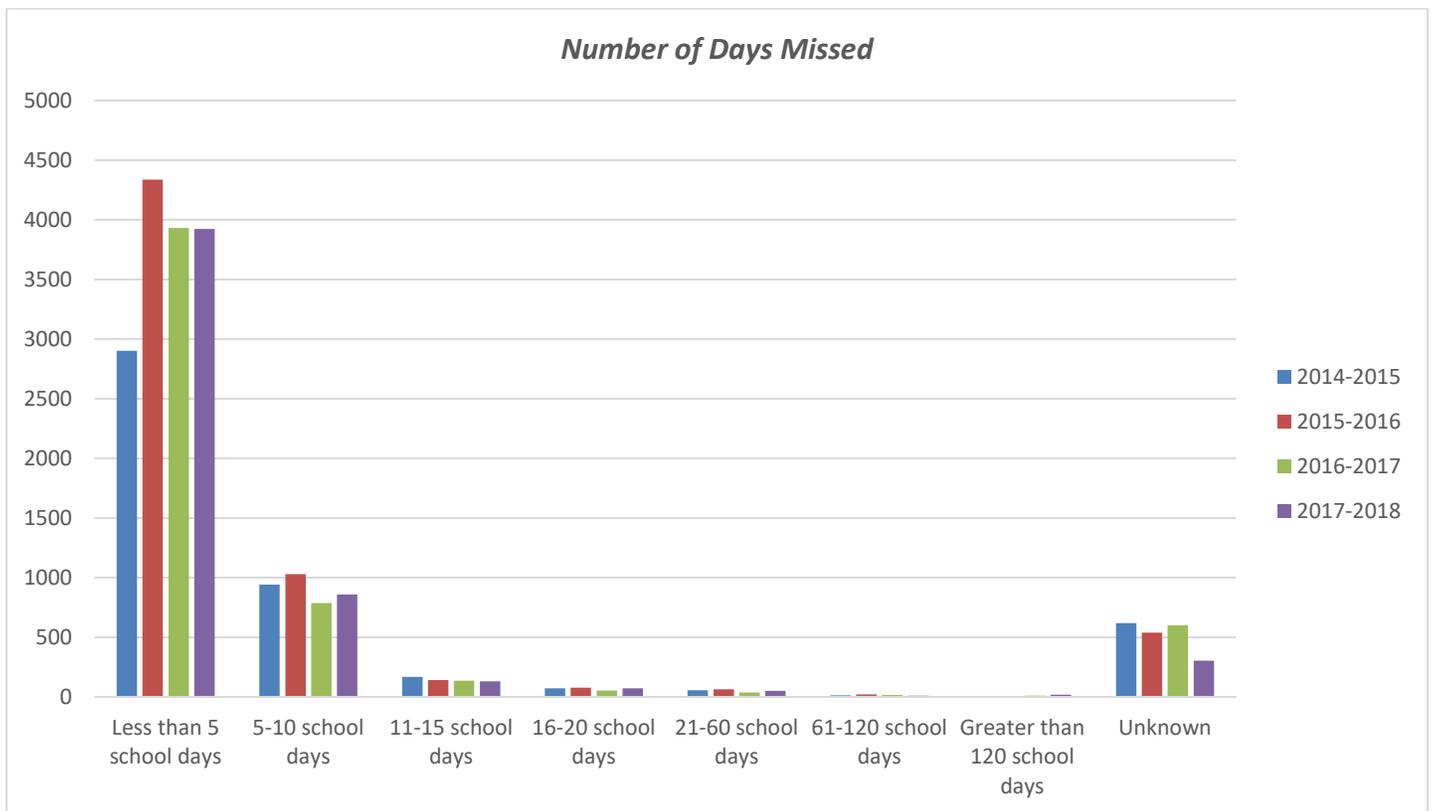
Accommodation	Average Length of Time (Days) Accommodations Were Needed
Section 504 Plan	24.1
Physical Activity Accommodations	22.5
Academic Accommodations	19.6
Individual Health Care Plan	12.0
Homebound Instruction	6.9
Not Known	0.7



## F. Days Missed

The number of students who missed school days due to concussions during the 2017-2018 school year:

School Days Missed	Number of Students
Less than 5 school days	3,923
5 to 10 school days	858
11 - 15 school days	132
16 - 20 school days	73
21 - 60 school days	52
61 - 120 school days	12
Greater than 120 school days	19
Unknown	305
<b>Total</b>	<b>5,374</b>



The majority (72.9%) of students diagnosed with a concussion missed less than 5 school days. 11.6% of students missed between 5 and 10 days of school while 1.0% of students missed more than 20 days of school.

#### IV. Demographics of Survey Respondents

District Reference Group	Number of Districts Responding	Percent
A	10	5.9
B	22	12.9
C	26	15.3
D	24	14.1
E	30	17.6
F	18	10.6
G	18	10.6
H	11	6.5
I	11	6.5
Total	170	100.0

Type of District	Number of Districts Responding	Percent
Urban	24	14.1
Suburban	82	48.2
Rural	64	37.6
Total	170	100.0

Type of District	Number of Districts Responding	Percent
Public School District	162	95.3
Regional Educational Service Center	5	2.9
Charter School	3	1.8
Total	170	100.0

## **V. Data Limitations**

With substantial effort from District Nursing Supervisors and the CSDE, 86.3% of school districts completed the concussion portion of the School Health Services Survey, which is slightly less than the previous year's participation rate of 86.8%. The concussion portion of the School Health Services Survey was introduced in the 2014-2015 school year and changed significantly two years ago. While four-year comparison data is included for relevant questions, any detailed analysis of this data would be flawed due to the numbers and types of schools reporting data.

In 2017-2018, a marginally lower number (170 vs. 171 in the previous year) of school districts reported a total number of 6,279 concussions, slightly fewer total concussions (7.6%) than for the 2016-2017 total of 6,797.