



2015 Nebraska Sports Concussion Athletic Director Survey Results

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NEBRASKA SCHOOL ACTIVITIES ASSOCIATION



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Nebraska Department of Health & Human Services
Injury Prevention Program

Nebraska School Activities Association

Brain Injury Association of Nebraska

Nebraska State Athletic Trainers Association, Inc.

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Executive Summary

Background: evaluating the effectiveness and impact of Nebraska's Concussion Awareness Act

In an attempt to reduce the long-lasting consequences of second-impact concussions, the Nebraska State Legislature enacted the Concussion Awareness Act in 2012. There are four essential components of this law, which are:

- Concussion education training must be made available to all coaches on how to recognize symptoms of a concussion, and how to seek proper medical treatment.
- Athletes and parents must be provided with information about concussions prior to an athlete's participation in school sanctioned sports on an annual basis.
- An athlete suspected of having a concussion must be removed from participation and may not return until evaluated by an appropriate licensed health care professional.
- An athlete removed from participation for a suspected concussion must receive written and signed clearance from an appropriate licensed health care professional and from the athlete's parents prior to returning to play.

In 2014, an amendment was added to the Concussion Awareness Act, creating a fifth component: Schools must have a policy outlining the protocol for students returning to the classroom after sustaining a concussion.

In order to evaluate the effectiveness and impact of this law, the Concussion Evaluation Work Group was formed from individuals participating in the Injury Community Planning Group (ICPG). The work group created three separate surveys to answer a broad array of evaluation questions. Head coaches of organized high school sports, athletic directors at high schools, and youth who received a concussion as a result of participation in an organized sport were surveyed. **This report presents the results of the Athletic Director Survey. Surveys were conducted in 2013 and 2015 to assess change over time.**

Survey sample

- 164 surveys were collected from high school athletic directors in April 2013 (response rate: 53.4%).
- 261 surveys were collected from high school athletic directors in April 2015 (response rate: 85.9%).

Survey Results

Seventeen key indicators were selected to serve as a summary of the results from the Nebraska Sports Concussion Athletic Director Survey and are contained in Figure 1 below. All but one (#11) showed at least some improvement from 2013 to 2015, though not all of these improvements are necessarily statistically significant. The most notable areas of improvement are seen in baseline cognitive screening (#1), keeping concussion histories for student athletes (#2), getting all coaches to participate in concussion education training (#6), making concussion training mandatory for coaches (#7), and a variety of return-to-learn protocols for student athletes returning to the classroom after sustaining a concussion (#12-#15).

Figure 1		Comparison of selected survey items: 2013 to 2015	
		2013	2015
Concussion Management	1. Athletes are required to undergo a baseline cognitive screening (such as ImPACT, SCAT3, or SAC) to participate in all school sports	57.7%	71.3%
	2. School keeps concussion histories for all student athletes	76.1%	86.4%
	3. Coaches or athletic trainers always remove an athlete with a suspected concussion from play	75.5%	81.8%
	4. School always requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play	94.5%	96.5%
Coaches	5. School has made concussion training available to all coaches at the school	93.9%	99.6%
	6. All coaches have participated in concussion education training among those whose school made concussion training available	81.7%	95.7%
	7. School made it mandatory for coaches to take concussion education training among those whose school made concussion training available	77.1%	95.7%
	8. School keeps track of which coaches have received concussion education training among those whose school made concussion training available	85.6%	97.7%
	9. Made at least one of the state-approved concussion trainings available to coaches among those whose school made concussion training available	95.4%	99.2%
Parents	10. School provides education to parents and students about the signs and symptoms of concussions before the start of practice	90.2%	89.5%
	11. School always requires the parents of an athlete with a suspected concussion to provide written approval before their child returns to play	69.3%	71.7%
Classroom	12. School has provided education to teachers about the signs and symptoms of concussions and return-to-learn accommodations/management of concussions	32.5%	71.6%
	13. School notifies teachers when an athlete with a suspected concussion returns to the classroom	60.1%	87.2%
	14. School has a designated person for concussion management to assist student athletes with a suspected concussion when they return to school	34.4%	60.0%
	15. School has a written return-to-learn policy that provides accommodation for the classroom work of a student athlete with a suspected concussion	6.1%	70.8%
School Policy	16. School has a formal written policy for removal and return to play for athletes with suspected concussions	63.2%	74.3%
	17. School's concussion policy was developed as a result of the Concussion Awareness Act among those whose school has a formal written concussion policy	74.8%	81.7%

2013 Nebraska Sports Concussion Athletic Director Survey Results

Introduction

In an attempt to reduce the long-lasting consequences of second-impact concussions, the Nebraska State Legislature enacted the Concussion Awareness Act in 2012. There are four essential components of this law, which are:

- Concussion education training must be made available to all coaches on how to recognize symptoms of a concussion, and how to seek proper medical treatment.
- Athletes and parents must be provided with information about concussions prior to an athlete's participation in school sanctioned sports on an annual basis.
- An athlete suspected of having a concussion must be removed from participation and may not return until evaluated by an appropriate licensed health care professional.
- An athlete removed from participation for a suspected concussion must receive written and signed clearance from an appropriate licensed health care professional and from the athlete's parents prior to returning to play.

In 2014, an amendment was added to the Concussion Awareness Act, creating a fifth component: Schools must have a policy outlining the protocol for students returning to the classroom after sustaining a concussion.

In order to evaluate the effectiveness of this new law, the Concussion Evaluation Work Group was formed from individuals participating in the Injury Community Planning Group (ICPG). The work group designed three surveys to answer the following evaluation questions:

- Do coaches and athletic trainers have concussion training available? Are they aware of the signs and symptoms of concussions?
- Do youth and parents receive education on concussions before the start of practice?
- Are youth athletes with a suspected concussion as a result of a school related activity removed from play? Are their parents given notification? Are they offered post-concussion assistance when returning to school? Are they cleared by a licensed medical professional and parent before returning to play?
- Do schools and youth sport organizations have a policy in place for removal, clearance, and return to play?
- Do schools and organizations have a policy for paperwork and record keeping when a youth receives a concussion?
- Are second impact concussions being prevented?

Three surveys were developed to gather feedback from one of the following groups: (1) head coaches of Nebraska high school organized sports, (2) athletic directors at Nebraska high schools, and (3) youth who received a concussion as a result of participation in an organized sport.

This report presents the results from the Athletic Director Survey of Nebraska high school organized sports. An online survey was administered via SurveyMonkey in April 2013 and a follow-up in April 2015 to athletic directors of Nebraska High Schools that offer school organized sports.

Survey Response and Respondent Characteristics

In the 2015 administration of the Nebraska Sports Concussion Athletic Director Survey, there was a total of 261 respondents, making for a response rate of 85.9% (Figure 2). Figures 3 through 6 outline demographic characteristics from both administrations of the survey. Note that the 2015 administration of the survey had a higher proportion of smaller schools (i.e., Class C and D) compared to 2013 (Figure 5).

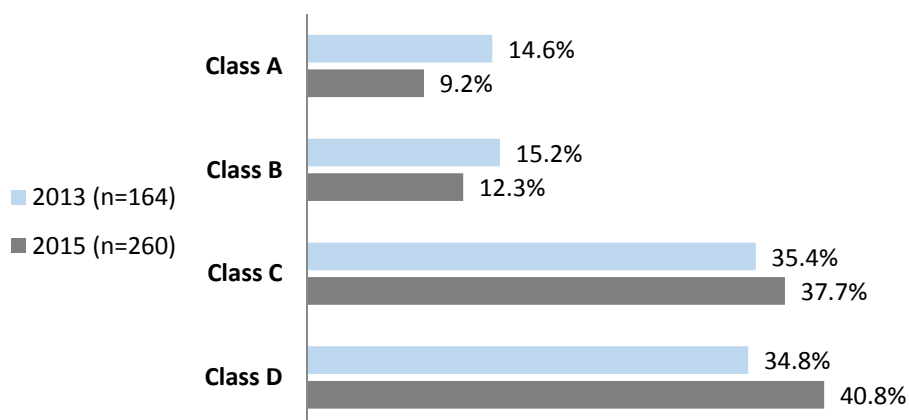
Figure 2	Survey response		
	Number of Respondents	Number of Surveys Sent Out	Response Rate
2013	164	307	53.4%
2015	261	304	85.9%

Figure 3	Type of school	
	Public	Private/parochial
2013 (n=164)	86.0%	14.0%
2015 (n=261)	88.1%	11.9%

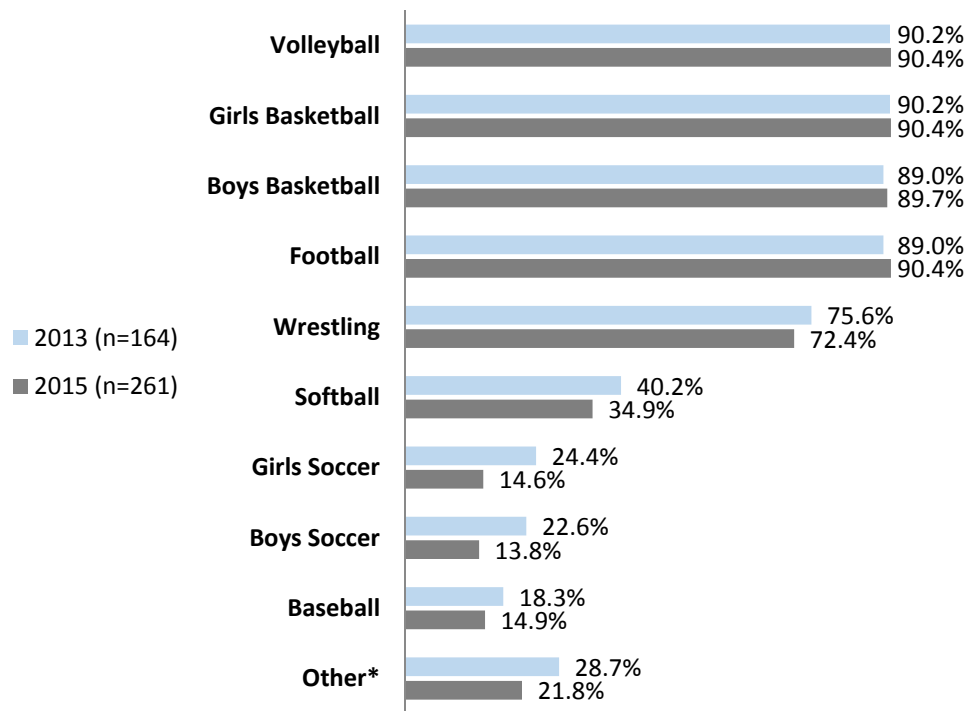
Figure 4	School description		
	High school	Both high school and middle school	K-12
2013 (n=164)	36.0%	22.0%	42.1%
2015 (n=261)	29.9%	24.9%	45.2%

Note: a fourth option "middle school" was not selected by any respondents.

Figure 5. Class in which school participates for most sports and activities



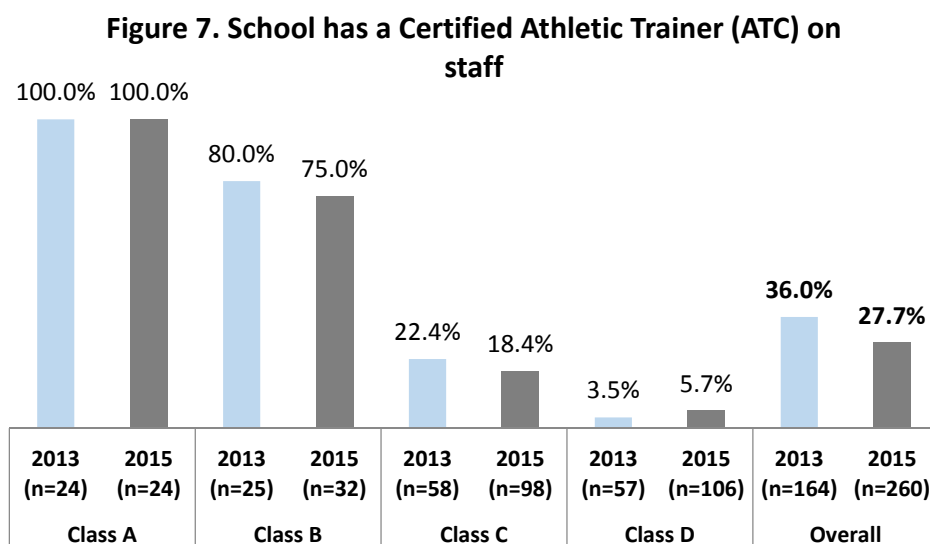
**Figure 6. Sports teams available at school of respondent
(multiple responses)**



*"Other" includes track and field, cross country, golf, tennis, bowling, and swimming.

Concussion Policies and Guidelines - Athletic Trainers

In 2013, 36.0% of respondents indicated that their school has a certified Athletic Trainer (ATC) on staff. This dropped to 27.7% in 2015, due to the fact that there was a higher proportion of respondents from Class C and D schools (Figure 7, see also Figure 5 above).



The next two figures display the availability of ATCs by sport for practices (Figure 8) and competitions (Figure 9) among those whose school has an ATC on staff. An ATC was reported as being always or often available for football practices and competitions by around 90% of respondents in both administrations of the survey, making this the sport with the most access to ATCs among those whose school has an ATC on staff.

Figure 8	ATC is always or often* available for team practices among those whose school has an ATC on staff by sport	
	2013 (n=58)	2015 (n=71)
Football	91.1%	87.1%
Wrestling	80.7%	79.7%
Girls Basketball	80.7%	75.7%
Boys Basketball	80.0%	75.7%
Volleyball	75.4%	68.6%
Boys Soccer	73.8%	66.7%
Girls Soccer	72.7%	69.4%
Baseball	47.4%	52.3%
Softball	46.9%	54.2%

*Response options: always or often, sometimes, rarely or never.

Note: results shown only for those schools that offer each sport. Sample size varies by sport.

Figure 9	ATC is always or often* available for team competitions among those whose school has an ATC on staff by sport	
	2013 (n=58)	2015 (n=71)
Football	96.4%	90.0%
Boys Soccer	92.9%	89.8%
Girls Soccer	90.7%	89.8%
Boys Basketball	90.9%	80.0%
Girls Basketball	89.3%	77.1%
Wrestling	84.6%	81.3%
Volleyball	71.9%	73.9%
Softball	61.2%	66.4%
Baseball	55.3%	57.8%

*Response options: always or often, sometimes, rarely or never.

Note: results shown only for those schools that offer each sport. Sample size varies by sport.

Concussion Policies and Guidelines - Concussion Management

When an ATC is not available, someone with First Aid or basic life support training was reported as being always or often available between 67% and 78% of the time in 2015 (varying by sport) (Figure 10).

Figure 10	When an ATC is not available during organized practices or competitions, someone with First Aid or basic life support training is always or often* available to the team by sport	
	2013 (n=163)	2015 (n=260)
Football	79.4%	78.1%
Girls Soccer	74.1%	78.7%
Boys Soccer	73.1%	75.0%
Baseball	68.8%	68.7%
Softball	68.4%	64.8%
Wrestling	68.1%	65.6%
Boys Basketball	65.4%	66.8%
Girls Basketball	64.4%	69.2%
Volleyball	62.7%	67.6%

*Response options: always or often, sometimes, rarely or never.

Note: results shown only for those schools that offer each sport. Sample size varies by sport.

There was a notable increase in the percentage of respondents indicating that athletes are required to undergo baseline cognitive screening for all sports from 2013 (57.7%) to 2015 (71.3%). The largest gains from 2013 to 2015 were made by Class C and D schools, which had considerably higher rates of requiring baseline cognitive screening for all sports compared to Class A and B schools in 2015 (Figure 11).

Figure 11	Athletes required to undergo a baseline cognitive screening (such as ImPACT, SCAT3, or SAC) to participate in school sports by class of school									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Yes, for all sports	45.8%	37.5%	60.0%	59.8%	50.9%	77.3%	68.4%	77.1%	57.7%	71.3%
Yes, but only for some sports	50.0%	62.5%	36.0%	37.5%	31.6%	18.6%	22.8%	14.3%	31.9%	23.3%
No school sport requires this	0.0%	0.0%	4.0%	3.1%	15.8%	4.1%	7.0%	7.6%	8.6%	5.0%
Unknown	4.2%	0.0%	0.0%	0.0%	1.8%	0.0%	1.8%	1.0%	1.8%	0.4%

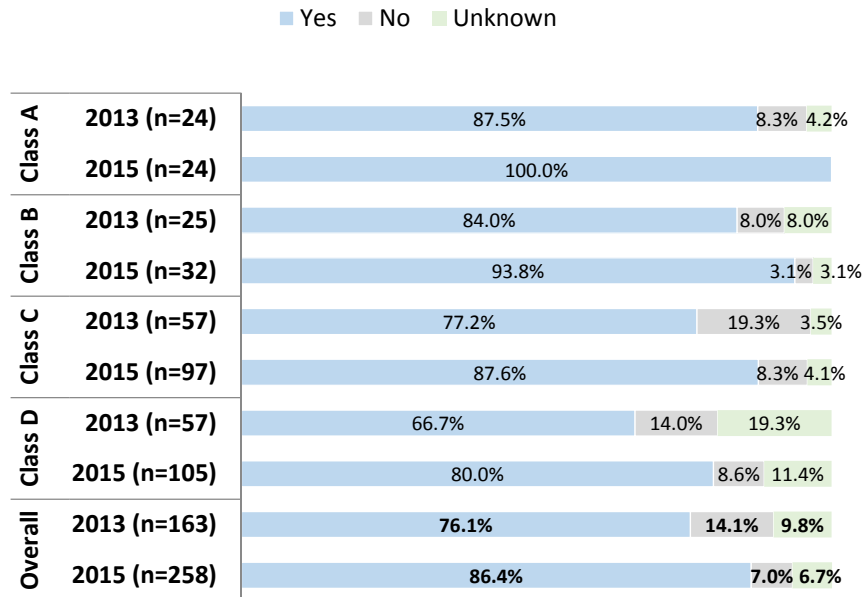
The percentage of respondents reporting that they conduct “sideline” evaluations or assessments for athletes suspected of sustaining a concussion increased from 81.0% in 2013 to 93.0% in 2015 (Figure 12). Note that the wording for this survey item changed from 2013 (see the note below the figure).

Figure 12	“Sideline” evaluation or assessment conducted for athletes suspected of sustaining a concussion.									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Yes, for all sports	70.8%	95.8%	88.0%	93.8%	80.7%	91.8%	82.5%	93.3%	81.0%	93.0%
Yes, but only for some sports	25.0%	4.2%	12.0%	6.3%	12.3%	4.1%	5.3%	6.7%	11.7%	5.4%
No school sport requires this	0.0%	0.0%	0.0%	0.0%	3.5%	3.1%	3.5%	0.0%	2.5%	1.2%
Unknown	4.2%	0.0%	0.0%	0.0%	3.5%	1.0%	8.8%	0.0%	4.9%	0.4%

Note: 2013 survey asked if “on-field or off-field mental status evaluations are conducted for athletes with suspected concussions.”

In 2013, 76.1% of respondents indicated that their school keeps concussion histories for all student athletes. This increased to 86.4% in 2015. Notable improvements were seen across all classes of schools, with larger schools continuing to be more likely to keep concussion histories than smaller schools (Figure 13).

Figure 13. School keeps concussion histories for all student athletes by class of school



The percentage of respondents indicating that coaches or athletic trainers always remove an athlete with a suspected concussion from play increased from 75.5% in 2013 to 81.8% in 2015. While improvements are seen among Class D schools, they still lag behind larger schools (Figure 14).

Figure 14	How often coaches or athletic trainers remove an athlete with a suspected concussion from play by class of school									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Always	83.3%	91.7%	76.0%	90.6%	82.5%	82.5%	64.9%	76.2%	75.5%	81.8%
Often	8.3%	8.3%	8.0%	6.3%	8.8%	4.1%	19.3%	6.7%	12.3%	5.8%
Sometimes	8.3%	0.0%	16.0%	0.0%	7.0%	9.3%	7.0%	16.2%	8.6%	10.1%
Rarely	0.0%	0.0%	0.0%	3.1%	1.8%	3.1%	5.3%	1.0%	2.5%	1.9%
Never	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unknown	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	3.5%	0.0%	1.2%	0.4%

In 2015, 96.5% of respondents indicated that their school always requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play, a slight improvement from 2013 (94.5%). In 2015, smaller schools were more likely to always follow this mandate of the Concussion Awareness Act than larger schools (Figure 15).

Figure 15	How often school requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play by class of school									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Always	91.7%	91.7%	92.0%	93.8%	100%	96.9%	91.2%	98.1%	94.5%	96.5%
Often	4.2%	4.2%	4.0%	6.3%	0.0%	1.0%	5.3%	0.0%	3.1%	1.6%
Sometimes	4.2%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.6%	1.2%
Rarely	0.0%	0.0%	4.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.6%	0.8%
Never	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unknown	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	1.2%	0.0%

In the 2015 survey, respondents were asked to describe any difficulties they have had in obtaining medical clearances from health professionals. Following are the responses that were given (Figure 16).

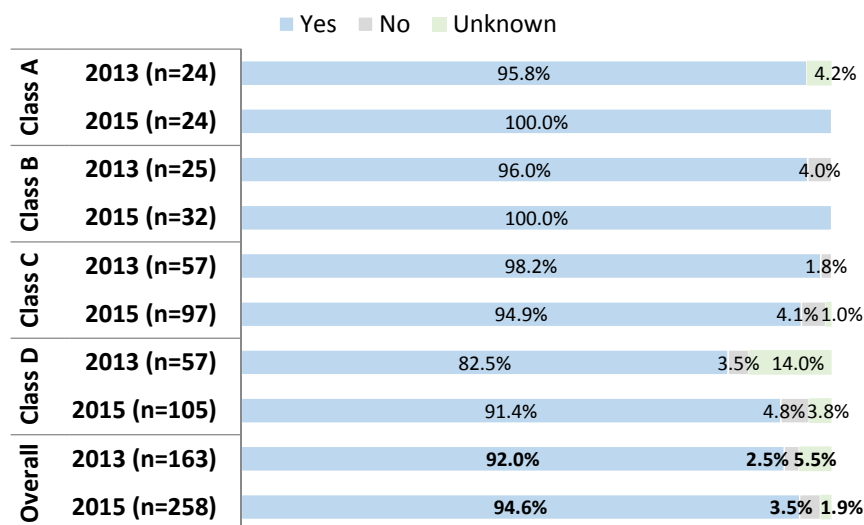
Figure 16	Open-ended responses: Has your school had any difficulties obtaining medical clearances from health professionals? If so, please describe. (2015 only)
	<ul style="list-style-type: none"> • But we have the right to keep a kid out even if they have a doctor's clearance. • Once in a while the medical health care professional will override the diagnosis of the training staff. • What has been frustrating for us is a doctor states to parents that if the school would purchase the concussion football helmets, kids would not have concussions. Really? Another problem is the hospital doesn't have a "quiet room" where the student can be impact tested. The doctor comes to the school to give the exam. • Yes we have a hard time finding health professionals who will do the second impact tests and then lets us know when they can return. • No, in fact we have a bigger issue getting parents to make sure that they understand, that just because they are cleared doesn't mean they can instantly begin play. • Not often, but we did have an incident where an athlete had a suspected concussion during a rollover accident at another town and could not get a local physician to clear him. Poor kid and family had to try and get back to the visiting physician who worked on him at the rollover accident at another town to see him again so he could be cleared to play sports. • Yes at times parents will take a student to another doctor outside our coverage area. • Have had difficulty with medical re-evaluation. • There has been confusion regarding the doctor's clearances. Some forms give permission to start the progression to return-to-play, but don't have a final clearance signature once they have gone through the stepwise progression. One doctor directed us to begin the stepwise progression and the student was to return to see the doctor following those steps. When we told the student they needed to return to the doctor to get the final clearance, the student and parents were upset that we were asking them to go back. The doctor said the final clearance wasn't necessary, even though the paperwork indicated it was.

In both survey administrations, medical providers/physicians were indicated as being most commonly responsible for clearing an athlete to return to play after a suspected concussion (Figure 17).

Figure 17	Individual(s) most commonly responsible for clearing an athlete to return to play after a suspected concussion by class of school (multiple responses)									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Medical provider/physician	70.8%	75.0%	88.0%	84.4%	98.2%	94.9%	96.5%	90.5%	92.0%	90.3%
Certified Athletic Trainer (ATC)	79.2%	79.2%	56.0%	62.5%	29.8%	36.1%	17.5%	30.5%	36.8%	41.1%
Parent/guardian	16.7%	8.3%	16.0%	9.4%	31.6%	24.7%	26.3%	16.2%	27.3%	17.8%
Coach	4.2%	0.0%	16.0%	3.1%	7.0%	11.3%	8.8%	13.3%	8.6%	10.1%
School administrator	0.0%	8.3%	8.0%	6.3%	3.5%	7.2%	7.0%	16.2% [PO1]	4.9%	10.8%
Neuro-psychologist	8.3%	4.2%	0.0%	3.1%	1.8%	0.0%	1.8%	1.0%	2.5%	1.2%
School nurse	4.2%	8.3%	0.0%	6.3%	1.8%	2.1%	1.8%	2.9%	1.8%	3.4%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	1.0%	0.6%	0.4%

In both survey administrations, over 90% of respondents indicated that their school keeps track of medical clearances of athletes who have received concussions. There was a notable improvement among Class D schools from 2013 to 2015 (Figure 18).

Figure 18. School keeps track of medical clearances for student athletes who have received concussions by class of school



Concussion Policies and Guidelines - Coaches

Nearly all (99.6%) of respondents in 2015 indicated that their school has made concussion training available to all coaches. Among those whose school has made concussion training available, the vast majority (95.7%) indicated that all coaches have participated in the training in 2015. Both of these indicators mark notable improvements from 2013, especially among Class D schools (Figures 19 and 20).

Figure 19. School has made concussion training available to all coaches at the school by class of school

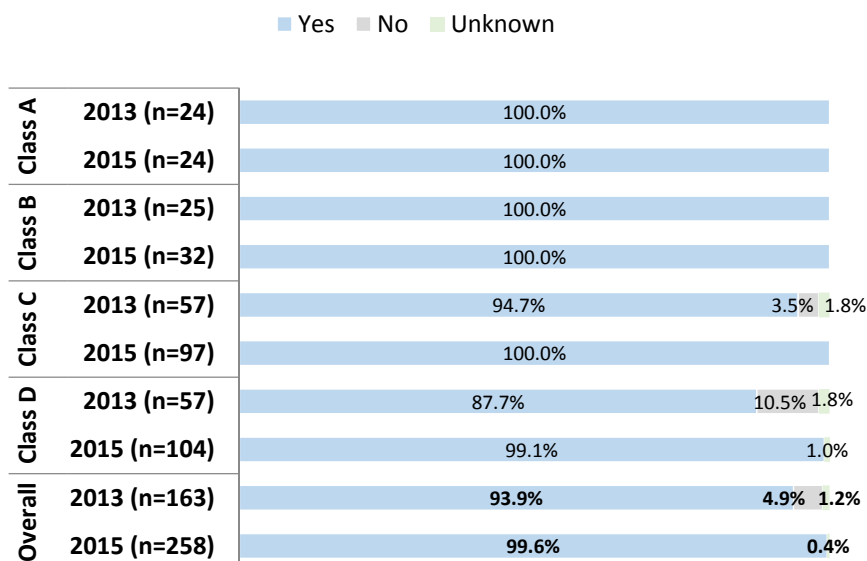
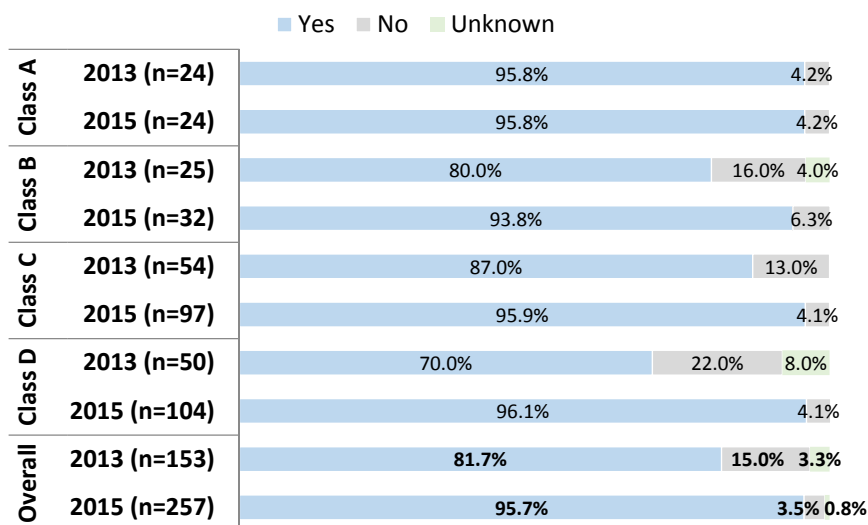


Figure 20. All coaches have participated in concussion education training among those whose school made concussion training available by class of school



In 2015, among those whose school has made concussion training available, 95.7% of respondents indicated that concussion training was mandatory for coaches at their school and 97.7% reported keeping track of which coaches have received the training. Again, both of these mark considerable improvements from 2013, especially among Class D schools (Figures 21 and 22).

Figure 21. School made it mandatory for coaches to take concussion education training among those whose school made concussion training available by class of school

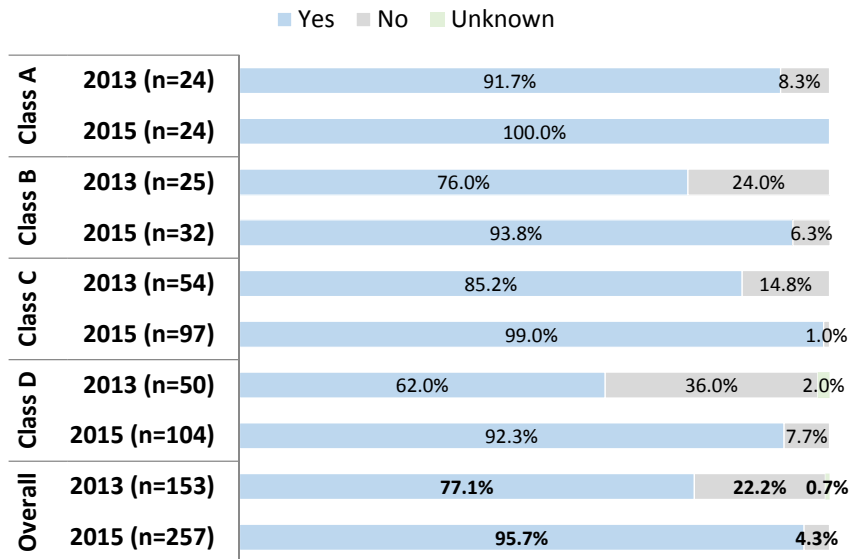
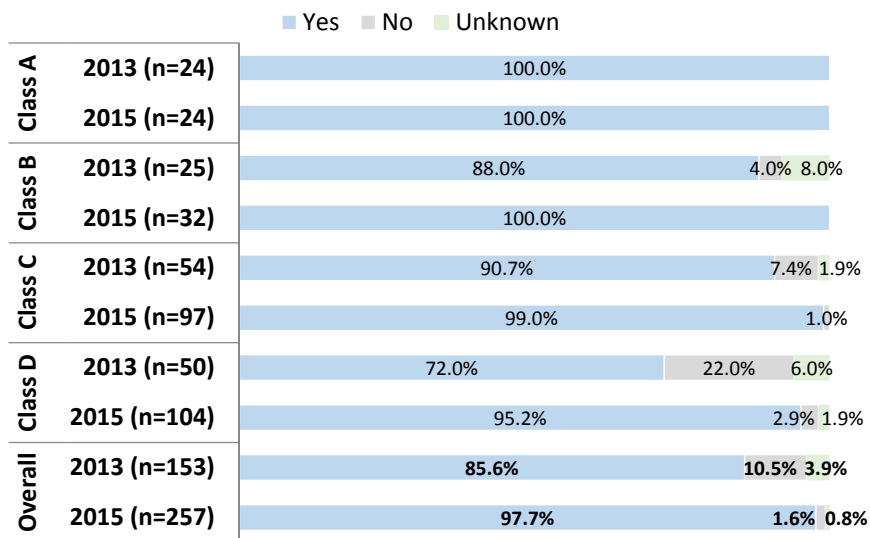


Figure 22. School keeps track of which coaches have received concussion education training among those whose school made concussion training available by class of school



Among those whose school has made concussion training available to coaches, the vast majority of respondents indicated that their school is using the training “Concussion in Sports – What you Need to Know (National Federation of High Schools).” Nearly all (99.2%) made at least one of the four state-approved trainings available to coaches in 2015, which marked an increase from the 95.4% of 2013 (Figure 23).

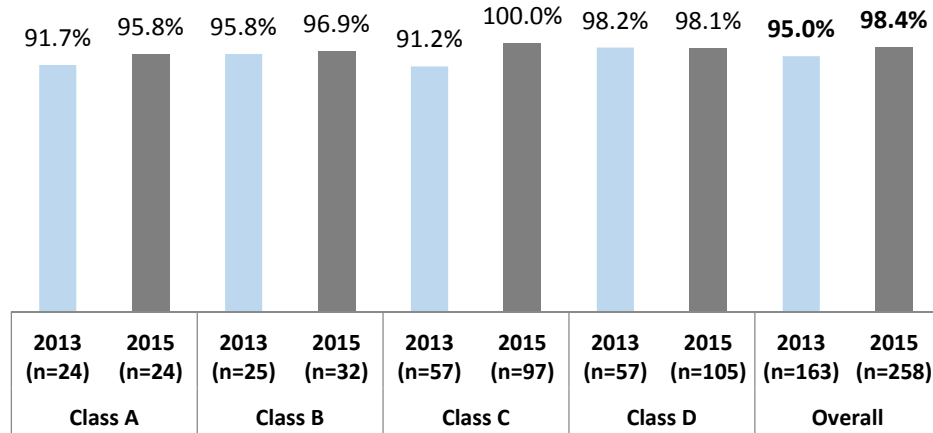
Figure 23	Type of concussion training made available among those whose school made concussion training available by class of school (multiple responses)									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=54)	2015 (n=97)	2013 (n=50)	2015 (n=104)	2013 (n=153)	2015 (n=257)
Concussion in Sports - What You Need to Know (National Federation of High Schools)	95.8%	100%	80.0%	96.9%	72.2%	97.7%	92.0%	95.2%	83.7%	96.9%
Heads Up Concussions in Youth Sports (Center for Disease Prevention and Control)	20.8%	20.8%	28.0%	25.0%	37.0%	28.9%	24.0%	23.1%	28.8%	25.3%
ACTIVE Athletic Concussion Training for Coaches (Oregon Center for Applied Sciences)	25.0%	8.3%	8.0%	3.1%	14.8%	2.1%	6.0%	2.9%	12.4%	2.3%
ConcussionWise (Sports Safety International)	8.3%	0.0%	16.0%	3.1%	9.3%	3.1%	2.0%	1.9%	7.8%	3.1%
Other	8.3%	0.0%	12.0%	9.4%	13.0%	3.1%	10.0%	1.9%	11.1%	3.1%
Made at least one state-approved training available*	100%	100%	96.0%	100%	94.4%	99.0%	94.0%	99.0%	95.4%	99.2%

Most frequent "other" responses: athletic trainer provided training, speaker/training provided by a local health agency/clinic/hospital, ImPACT.

*Any of the four trainings noted above.

The vast majority of respondents in both survey administrations agreed or strongly agreed that concussion training should be mandatory for all coaches (Figure 24).

Figure 24. Agree or strongly agree that concussion training should be mandatory for all coaches by class of school



*Response options: agree, strongly agree, neither agree nor disagree, disagree, strongly disagree.

Concussion Policies and Guidelines - Parents

Little change was seen in the percentage of respondents indicating that their school provides education to parents and students about the signs and symptoms of concussions, with the rate being around 90% in both administrations (Figure 25).

Figure 25. School provides education to parents and students about the signs and symptoms of concussions before the start of practice by class of school

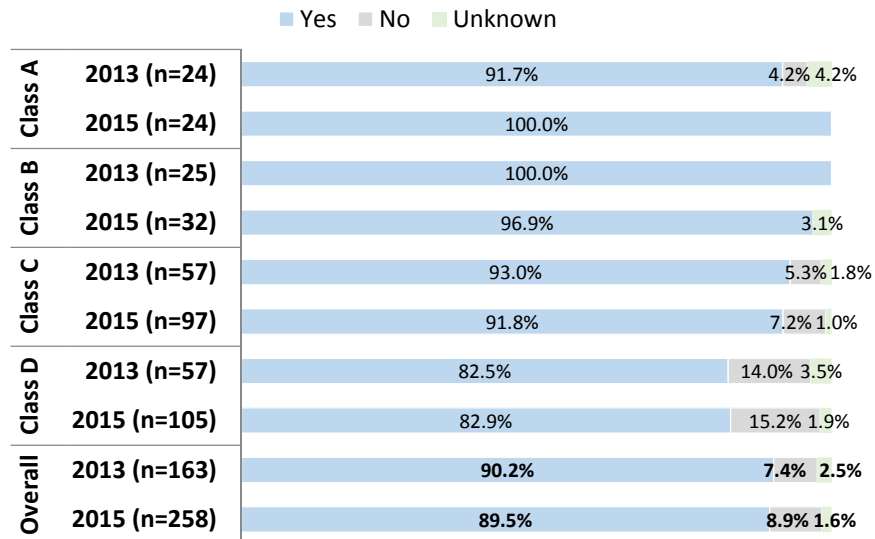
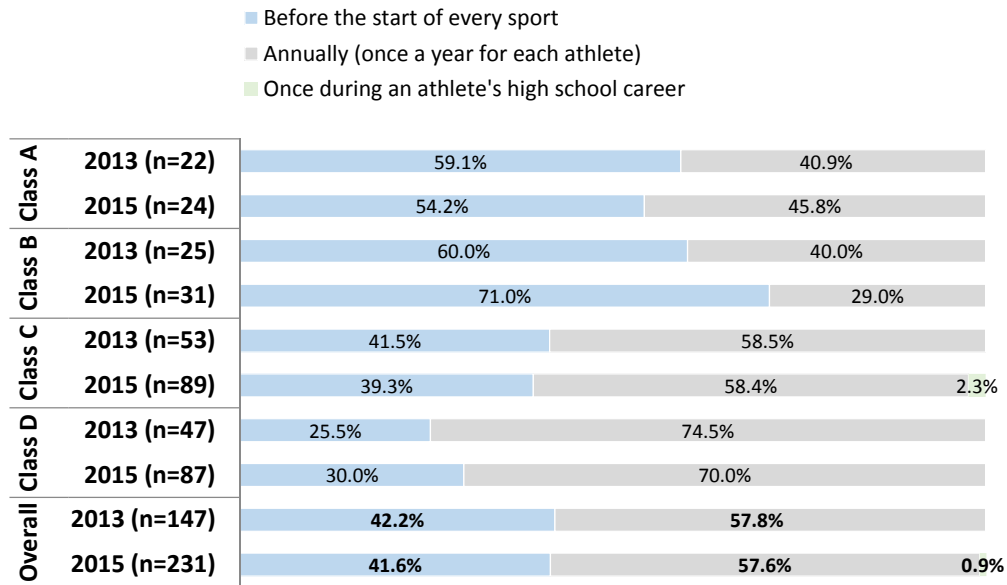


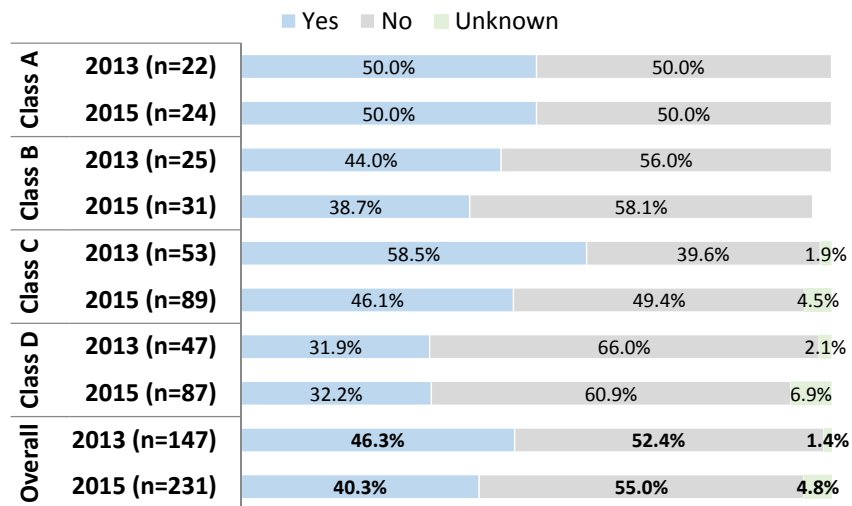
Figure 26 shows the frequency with which the respondents' schools provide concussion education to parents and students, among those whose school provides the education.

Figure 26. When school provides education to parents and students about the signs and symptoms of concussions among those whose school provides education to parents and students by class of school



Among those whose school provides concussion education to parents and students, less than half of the respondents in both survey administrations indicated that their school has a form it gives to parents to sign after receiving concussion education (Figure 27).

Figure 27. School has a form it gives to parents to sign after receiving concussion education among those whose school provides education to parents and students by class of school

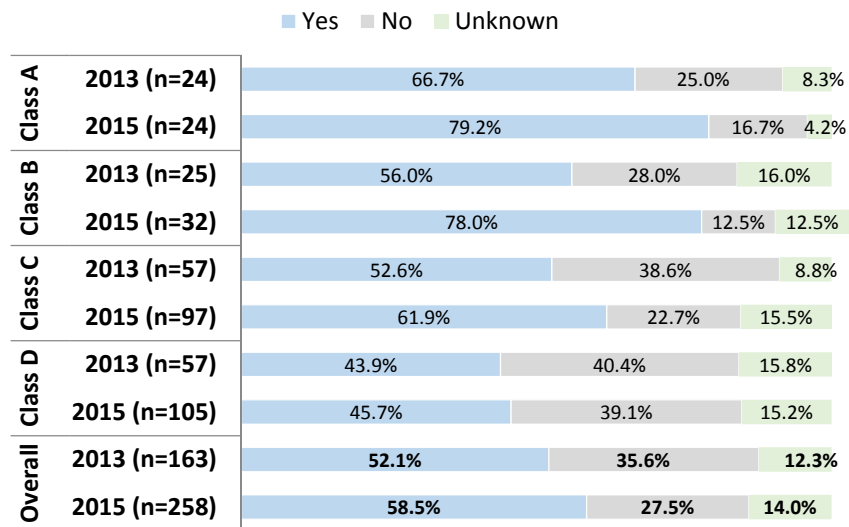


In both survey administrations, over 95% of respondents indicated that their school always notifies an athlete’s parents or guardians after a suspected concussion (Figure 28).

Figure 28	How often school notifies an athlete's parents or guardians after a suspected concussion by class of school									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Always	100%	95.8%	100%	100%	96.5%	94.9%	91.2%	96.2%	95.7%	96.1%
Often	0.0%	4.2%	0.0%	0.0%	3.5%	4.1%	5.3%	2.9%	3.1%	3.1%
Sometimes	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.8%	1.0%	0.6%	0.8%
Rarely	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Never	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unknown	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.6%	0.0%

Nearly three-fifths (58.5%) of respondents in 2015 reported that their school has a shared responsibility form for parents defining their role in the event that their child sustains a concussion and indicating their understanding of the severity of concussion injuries. This represented a modest increase from the 52.1% of 2013. Larger schools (i.e., Class A and B) are more likely to have such a form than smaller schools (i.e., Class C and D) (Figure 29).

Figure 29. School has shared responsibility form for parents defining their role in the event that their child receives a concussion and indicating their understanding of the severity of concussion injuries by class of school



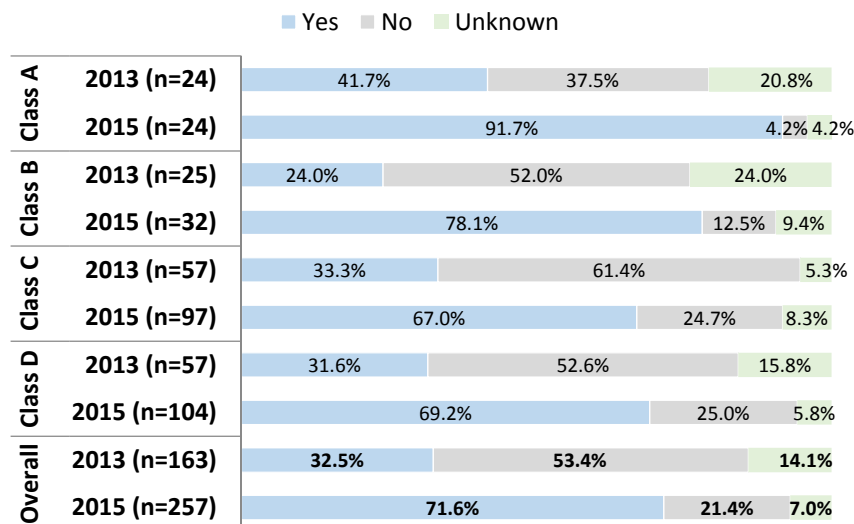
In both survey administrations around 70% of respondents indicated that their school always requires the parents of an athlete with a suspected concussion to provide written approval before their child returns to play (Figure 30).

Figure 30	How often school requires the parents of an athlete with a suspected concussion to provide written approval before their child returns to play by class of school									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=105)	2013 (n=163)	2015 (n=258)
Always	70.8%	70.8%	64.0%	78.1%	73.7%	72.2%	66.7%	69.5%	69.3%	71.7%
Often	0.0%	0.0%	4.0%	3.1%	1.8%	7.2%	7.0%	8.6%	3.7%	6.6%
Sometimes	0.0%	0.0%	8.0%	3.1%	8.8%	6.2%	5.3%	3.8%	6.1%	4.3%
Rarely	8.3%	0.0%	8.0%	0.0%	0.0%	1.0%	5.3%	4.8%	4.3%	2.3%
Never	4.2%	12.5%	4.0%	6.3%	8.8%	7.2%	8.8%	5.7%	7.4%	7.0%
Unknown	16.7%	16.7%	12.0%	9.4%	7.0%	6.2%	7.0%	7.6%	9.2%	8.1%

Concussion Policies and Guidelines - Classroom

The amendment to the Concussion Awareness Act mandating accommodations for the return to the classroom of athletes who have sustained concussions has had considerable impact on school policy (see Figure 36 below). In 2013, just under one-third (32.5%) of respondents indicated that their school has provided education to teachers around concussion issues and return-to-learn. This increased to 71.6% in 2015 (Figure 31).

Figure 31. School has provided education to teachers about the signs and symptoms of concussions and return-to-learn accommodations/management of concussions by class of school



In 2015, 87.2% of respondents indicated that their school notifies teachers when an athlete with a suspected concussion returns to the classroom and 60.0% indicated that their school has a designated person for concussion management. Both of these indicators showed considerable improvement from 2013 (Figure 32).

Figure 32. School notifies teachers when an athlete with a suspected concussion returns to the classroom by class of school

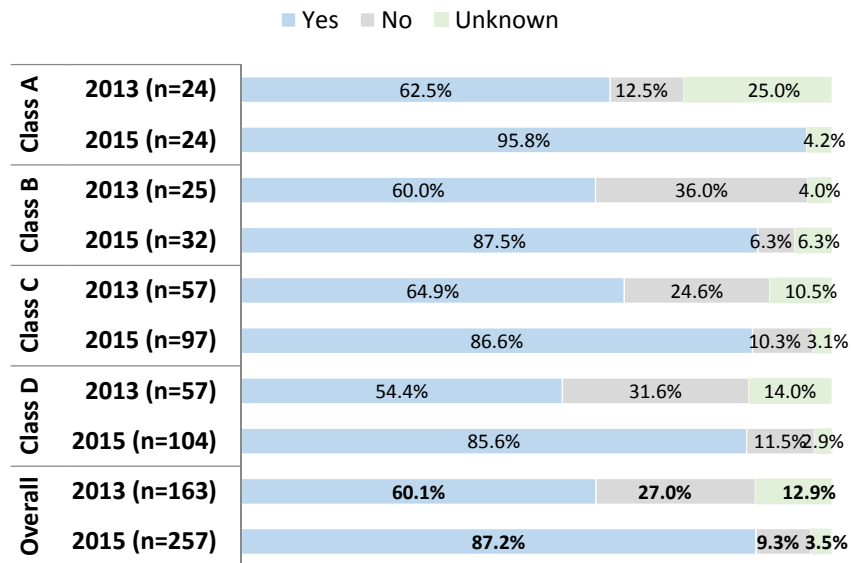
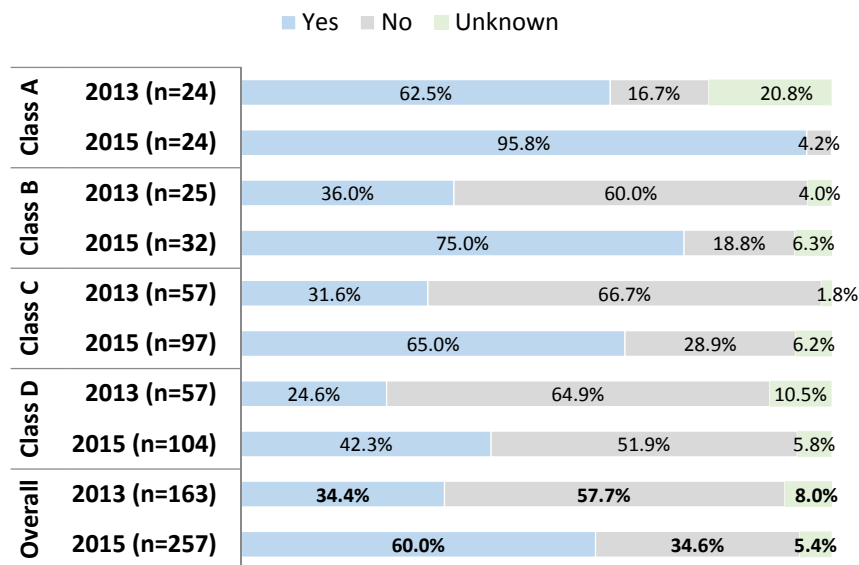


Figure 33. School has a designated person for concussion management to assist student athletes with a suspected concussion when they return to school by class of school



Among those whose school has a designated person for concussion management, a wide array of individuals were indicated as being responsible for assisting student athletes when they return to school (Figure 34).

Figure 34	Job title of individual responsible for concussion management to assist student athletes when they return to school among those whose school has a designated person for concussion management (multiple responses)						
	School nurse	Athletic trainer	Athletic director/ activities coordinator	School counselor	Superintendent/ principal/ assistant principal	Coach	Concussion management tem
2013 (n=47)	42.6%	29.8%	23.4%	6.4%	6.4%	4.3%	0.0%
2015 (n=96)	36.5%	26.0%	27.1%	20.8%	26.0%	8.3%	6.3%

In 2013, just 6.1% of respondents indicated that their school has a written return-to-learn policy that provides accommodation for the classroom work of a student athlete with a suspected concussion. This increased to 70.8% in 2015. Among those with a return-to-learn policy, 86.8% indicated that the policy was developed as a result of the amendments made to the Concussion Awareness Act (Figures 35 and 36).

Figure 35. School has a written return-to-learn policy that provides accomodation for the classroom work of a student athlete with a suspected concussion by class of school

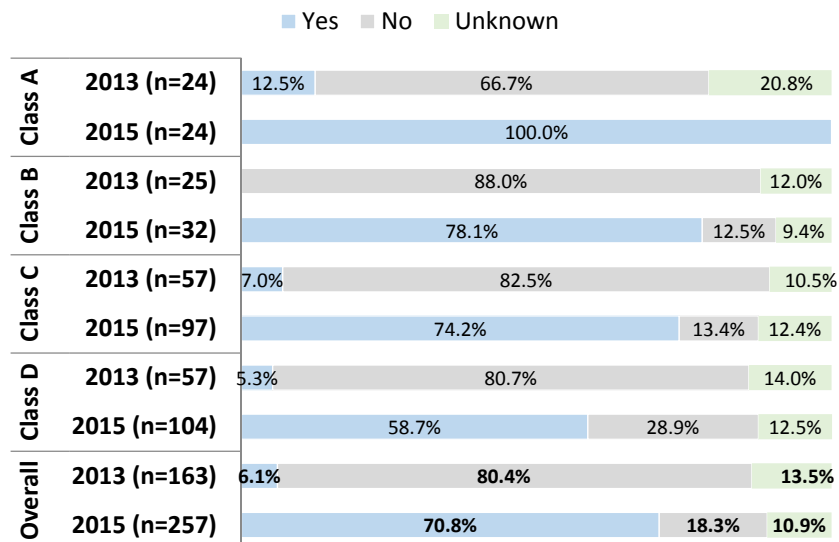
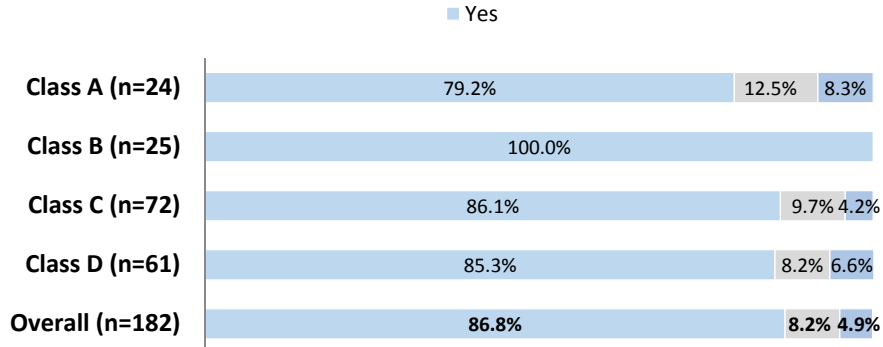


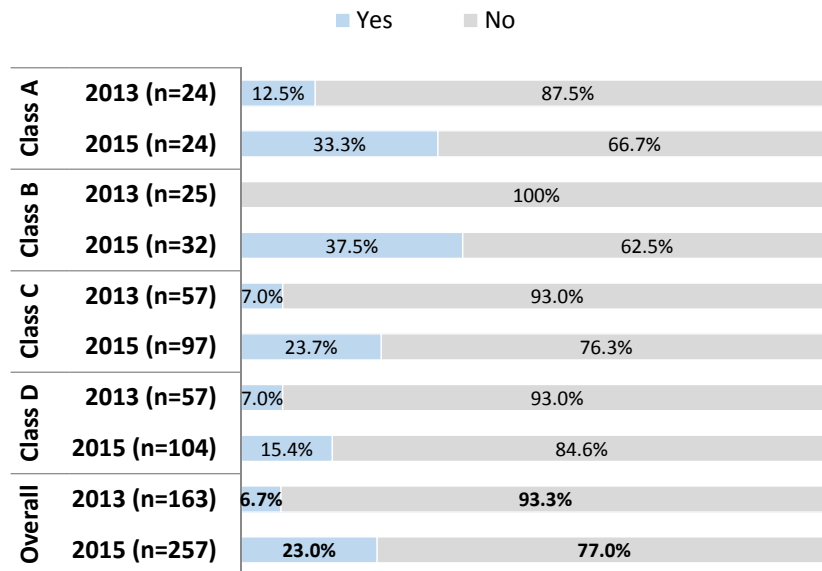
Figure 36. Return-to-learn policy developed as a result of the amendments made to the Concussion Awareness Act in July 2014, among those who have a policy by class of school (2015 only)



[PO2]

Although relatively few respondents were aware that a Brain Injury Regional School Support Team (BIRSST) is available to their school in both survey administrations, there was a considerable improvement from 2013 to 2015 (Figure 37).

Figure 37. Aware that a Brain Injury Regional School Support Team (BIRSST) is available to the school by class of school



Concussion Policies and Guidelines - School Policy

The percentage of respondents indicating that their school has a formal written policy for removal and return to play for athletes with a suspected concussion increased from 63.2% in 2013 to 74.3% in 2015. In both survey administrations, the vast majority of those whose school has such a policy, indicated that it was developed as a result of the Concussion Awareness Act (Figures 38 and 39).

Figure 38. School has a formal written policy for removal and return to play for athletes with suspected concussions by class of school

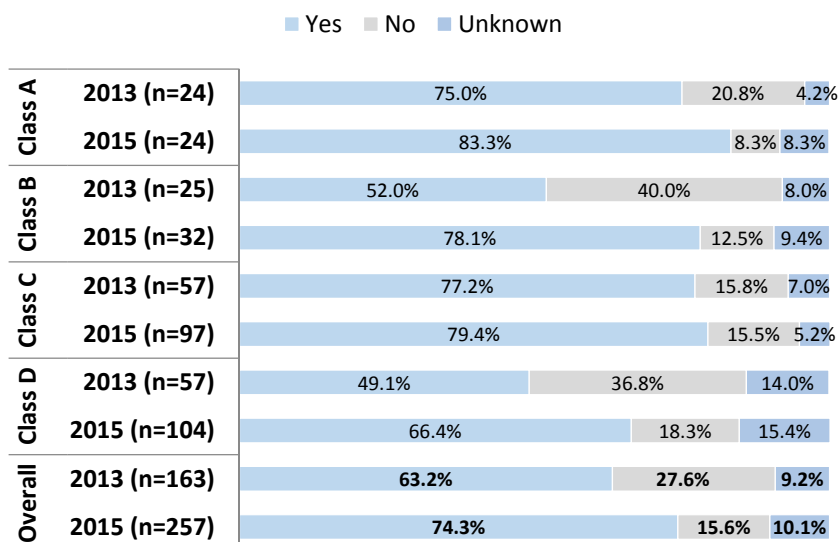
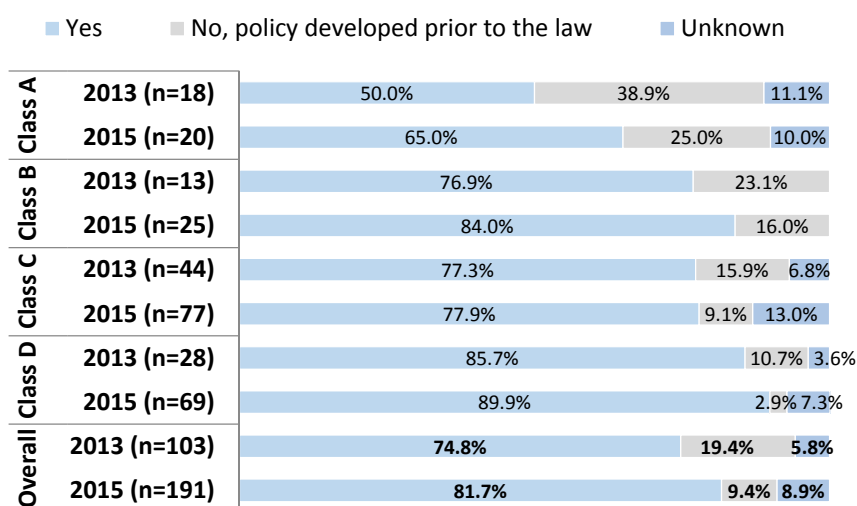
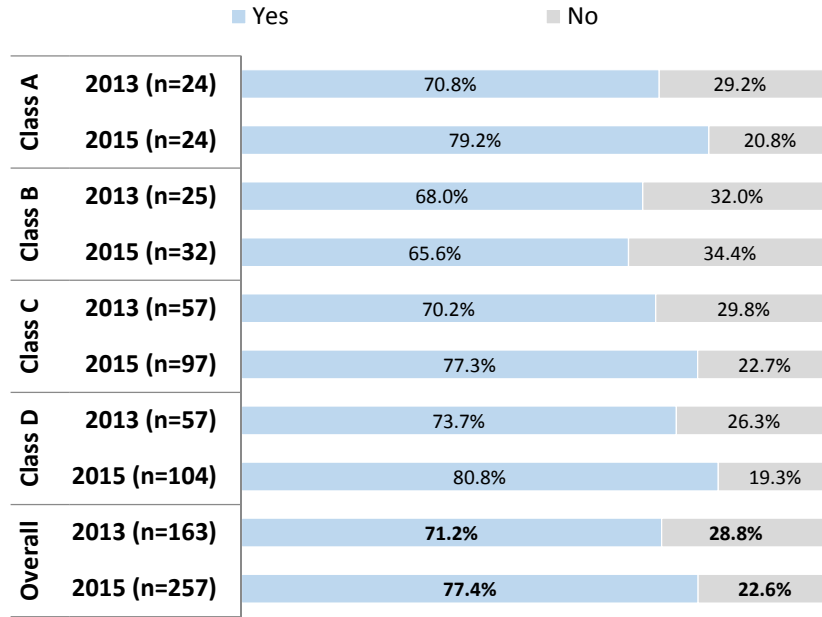


Figure 39. School's concussion policy was developed as a result of the Concussion Awareness Act among those whose school has a formal written concussion policy by class of school



In both survey administrations, over 70% of respondents agreed that all school activities should be required to follow school concussion policies (Figure 40).

Figure 40. All school activities* should be required to follow school concussion policies by class of school



*For example, marching band, cheerleading, etc.

Respondents were asked to identify from a list of five components those that pertain to the Nebraska Concussion Awareness Act. All five components are part of the law. There were modest improvements from 2013 to 2015 in the correct identification of all of the components. In 2015, over 90% correctly identified the components of concussion education training for coaches, information about concussions for parents and athletes, removal from play and evaluation by a licensed health professional, and written clearance from a licensed health care professional and the athletes parents. The new return-to-learn amendment to the law was recognized by 84.8% of respondents (Figure 41).

Figure 41	Correct identification of the components of the Nebraska Concussion Awareness Act* by class of school									
	Class A		Class B		Class C		Class D		Overall	
	2013 (n=24)	2015 (n=24)	2013 (n=25)	2015 (n=32)	2013 (n=57)	2015 (n=97)	2013 (n=57)	2015 (n=104)	2013 (n=163)	2015 (n=257)
Concussion education training must be made available to all coaches on how to recognize symptoms of a concussion, and how to seek proper medical treatment.	91.7%	100%	100%	96.7%	100%	99.0%	96.5%	97.1%	95.7%	98.1%
Athletes and parents must be provided with information about concussions prior to an athlete's participation in school sanctioned sports on an annual basis.	100%	95.8%	100%	96.7%	100%	96.9%	91.2%	91.4%	95.1%	94.6%
An athlete suspected of having a concussion must be removed from participation and may not return until evaluated by an appropriate licensed health care professional.	87.5%	95.8%	96.0%	96.7%	96.0%	95.8%	93.0%	95.2%	93.9%	95.7%
An athlete removed from participation for a suspected concussion must receive written and signed clearance from an appropriate licensed health care professional and from the athlete's parents prior to returning to play.	75.0%	87.5%	92.0%	87.5%	92.0%	94.9%	89.5%	95.2%	88.3%	93.4%
Schools must have a policy outlining the protocol for students returning to the classroom after sustaining a concussion (2015 only)	-	91.7%	-	84.4%	-	87.6%	-	80.8%	-	84.8%

*Respondents were asked to identify which, if any, of the four components are contained in The Concussion Awareness Act. The percentages given are for the percent who identified the component as part of the law. All five components are contained in the law.

Conclusion

Overall improvements in policies and procedures

From 2013 to 2015 there have been many noteworthy improvements in terms of the concussion protocols and procedures utilized by Nebraska high schools. Notable areas of improvement are seen in baseline cognitive screening, keeping concussion histories for student athletes, getting all coaches to participate in concussion education training, making concussion training mandatory for coaches, and a variety of return-to-learn protocols for student athletes returning to the classroom after sustaining a concussion.

Improvements in return-to-learn protocols

Perhaps the greatest improvement is seen around the issue of return-to-learn. The 2014 amendment added to the Concussion Awareness Act mandating that schools have a policy outlining the protocol for students returning to the classroom after sustaining a concussion has clearly had an impact on most (but not all) schools. In 2013, just 6.1% of survey respondents reported that their school has a written return-to-learn policy that provides accommodation for the classroom work of a student athlete with a suspected concussion. This increased to 70.8% in 2015. The vast majority (86.8%) of those whose school has such a policy indicated that it was developed as a result of the amendment to the Concussion Awareness Act. While this represents a tremendous improvement, it still means that almost 30% of schools are not compliant with the law. In addition, 71.6% of respondents in 2015 indicated that their school has provided education to teachers about the signs and symptoms of concussions and return-to-learn accommodations/management of concussions (compared to 32.5% in 2013), and 87.2% in 2015 reported that their school notifies teachers when an athlete with a suspected concussion returns to the classroom (compared to 60.1% in 2013).

Improvements made by smaller rural schools

In 2013, smaller schools, especially Class D schools, were notably behind larger schools in terms of policies and procedures around the issue of concussions (training for coaches, education for parents and students, proper management of athletes suspected of sustaining a concussion, etc.). Although Class D schools may still be behind larger schools in these areas, many of the gaps appear to be closing. For example, two-thirds (66.4%) of respondents from Class D schools in 2015 indicated that their school has a formal written concussion policy. This represented a considerable improvement from 2013 when just 49.1% of Class D schools indicated they had such a policy. Yet, Class D schools still lag behind larger schools. Overall in 2015, 74.3% of all respondents indicated that their school has a formal written concussion policy. If these improvements continue, perhaps there will be no difference between small and large schools within a few years.

Still a need for continued development of policies and procedures at many schools

Although the follow-up 2015 survey results demonstrate several positive improvements from 2013, it appears that many schools are still not doing everything required by the Concussion Awareness Act. For example, in 2015 74.3% of respondents indicated that their school has a formal written concussion policy, 70.8% indicated that their school has a written return-to-learn policy, and 81.8% reported that coaches or athletic trainers always remove an athlete with a suspected concussion from play. While all of these results indicate a positive improvement from 2013, there is clearly still a need for improvement in order for all schools to become compliant with the law.