A Report Prepared For:

The Interim Education and Local Government Committee

Project Team:

Valerie Moody PhD, ATC, LAT
Project Director

Emily Tosoni MS, CHES, ATC
Samantha Riordan LAT
Seth Lindauer

Department of
Health and Human Performance
Athletic Training Program

The University of Montana

Missoula, MT

Assessment of Implementation of the Dylan Steigers Protection of Youth Athletes Act:

A Descriptive Study

SUMMARY REPORT
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University of Montana
ATHLETIC TRAINING
Rising Above

IMPLEMENTATION OF DSPYAA: SUMMARY REPORT

INTRODUCTION/PURPOSE

In 2013, the Montana Legislature passed the Dylan Steigers Protection of Youth Athletes Act (DSPYAA) promoting safety for youth athletes stating that any youth athlete who exhibits concussive symptoms must be removed from participation and must be medically cleared. Specifically, this piece of legislation protects athletes that participate in athletic activities sponsored by a school or school district. Since the enactment of this legislation, there has been some development of school district policies to educate youth athletes, parents and coaches about the nature and risk of brain injuries, as well as how to appropriately manage them once they occur. However, previous research indicated a significant gap in implementation and a need to raise awareness for those youth athletes and their families who participate in athletic activity in Montana.

HJ 26 was passed in 2015 calling for evaluation of the implementation of the DSPYAA. The lack of knowledge regarding concussions is concerning due to the vulnerability of youth athletes. There is an abundance of evidence suggesting that the inability to detect or appropriately treat a concussion may lead to catastrophic injury, permanent cognitive deficits, and impaired school performance. In addition, because of Montana's rural nature, several communities lack direct access to a healthcare professional appropriately trained in concussion management, thereby decreasing the likelihood that these youth athletes and their parents are educated about the risks associated with concussion. As a result, there is a critical need to first conduct a thorough analysis of what is being done in Montana to implement the current law. Therefore the purpose of this study was to evaluate the implementation of the current law as well as identify barriers to implementation.

KEY FINDINGS

1. Almost half of all schools do not have direct access to a Certified Athletic Trainer or a School Nurse. Having limited access to appropriate health care providers was identified by respondents as the second largest barrier to fully implementing the law.
2. Primary care physicians and athletic trainers were identified as the health care providers most responsible for making return to play decisions.
3. There is a high level of concern for the number of high concussion risk sports being offered to youth athletes that are NOT sanctioned/ sponsored by schools or school districts.
4. Only 84% of responding Institutions report having a concussion policy in place. Most of these policies <u>do contain</u> the required components.
5. Although it appears parents and student athletes are receiving concussion education materials, the respondents are not always collecting documents that state parents have received and read the information, placing schools at an increased risk of liability.
6. Coaches are completing annual concussion education training and it is being well documented as outlined in the law; however, as the law is written, athletic trainers and officials are not always completing the training, nor is it being documented.

7. The NFHS website is the most commonly used website for concussion education training and was deemed effective by respondents.
8. Parents were identified as a significant barrier to implementation because of under reporting or disclosing concussions when they occur in their children, not following return to play protocols, or "doctor shopping."
9. ImPact is the most commonly used cognitive baseline and assessment tool used to diagnose concussions; however the cost and limited access to appropriately trained health care providers prohibits other schools from implementing its use.

GENERAL RECOMMENDATIONS

1. There is a critical need to place athletic trainers and school nurses in Montana schools to provide comprehensive medical care to student athletes. These health care providers can also provide vital support for implementation of the law by facilitating education of parents, athletes, coaches and officials, as well as developing and monitoring return to play and return to learn protocols.
2. More financial and personnel resources are required to help schools fully develop and implement concussion policy. Specifically, it seems that time to educate parents, athletes and coaches is a significant barrier as well as completing the required documentation. Therefore, it is recommended that additional personnel are hired or assigned time dedicated to facilitating administration, documentation, and tracking of the required components of the concussion policy throughout the state.
3. The MHSA should continue to be a vehicle to facilitate implementation of the law to the fullest. Their proactive approach to developing forms and a system for documentation facilitates the implementation process for schools that belong to the MHSA. Although the system seems to be working well with coaches, there is substantial evidence reported by school personnel that some of the necessary documents are not being utilized or collected by schools.
4. Non-sanctioned sports/activities, particularly those that are high concussion risk sports, should be included under the current law and held to the same standard as sports/activities that are school sponsored.
5. The role of parents in the current legislation should be more closely examined in regards to responsibility in disclosing a concussion or reporting concussions to appropriate personnel.
6. Cognitive baseline testing is a useful assessment tool; however, because of the limited financial resources mentioned above and the limited access to health care providers who are appropriately trained to interpret the findings, it is unrealistic to require mandatory baseline testing at this time.

SPECIFIC RECOMMENDATIONS FOR LANGUAGE CHANGE TO DSPYAA

1. Remove athletic trainers from Section 4 (3) of the current legislation:
   Current Language: 3) School districts shall ensure access to a training program consistent with subsection (1). Each coach, athletic trainer, and official participating in organized youth athletic activities shall complete the training program at least once a school year.
   New Language: 3) School districts shall ensure access to a training program consistent with subsection (1). Each coach and official participating in organized youth athletic activities shall complete the training program at least once each school year.
   Rationale: Athletic trainers are licensed health care providers with extensive education and training on sport-related concussion and return to play protocols; as the law is currently written, no other licensed health care providers are required to complete the annual concussion education training.
2. Include non-sanctioned/ sponsored sports activities:
   Current Language: "Organized youth athletic activity" means an athletic activity sponsored by a school or school district in which the participants are engaged in an athletic game or competition against another team, club, or entity, in practice, tryouts, training exercises, or sports camps, or in preparation for an athletic game or competition against another team, club, or entity.
   New Language: "Organized youth athletic activity" means any athletic activity in which the participants are engaged in an athletic game or competition against another team, club, or entity, in practice, tryouts, training exercises, or sports camps, or in preparation for an athletic game or competition against another team, club, or entity.
   Rationale: Currently many high concussion risk sports and activities are offered throughout Montana that are currently not required to have a concussion policy in place because they are not sponsored by a school. If a policy does exist, many of those are not up to date with the most current recommendations outlined by the Centers for Disease Control and the US Department of Health and Human Services. Furthermore, there are no requirements to educate parents and athletes about the potential risks associated with concussion, no requirements for an athlete to be removed if a concussion is suspected and does not require medical clearance prior to return to participation. As a result, we are not currently protecting all of our youth athletes in Montana from the dangers of concussion.

METHODS

The study underwent Institutional Review Board (IRB) review and was approved. Participants completed the Implementation of Dylan Steigers Protection of Youth Athletes Act survey (IDSPYAAS) developed by the researcher outlining concussion policy development criteria using internet-based survey collection software. The survey was distributed to superintendents, principals, athletic directors across Montana (n= 900). 263 surveys were started and 215 were completed entirely for a response rate of 29%. Participants were asked to provide information on school demographics, concussion policy and educational requirements, as well as any barriers to implementation.

RESULTS

Description of Survey Respondents

Coaches largely made up the responses for this particular survey (51%) followed by athletic directors (29%). We obtained responses across all enrollment sizes (small and large schools) with a majority of the schools represented teaching K-12 (41%). 46 of the 56 counties were represented with responses. See Table 1, 2, 3 and Figure 1.

Table 1: Percentage of Survey Respondents Occupations

Role		Response	%
Superintendent		35	14%
Principal		48	19%
Athletic Director		72	29%
Coach		127	51%
Other		19	8%

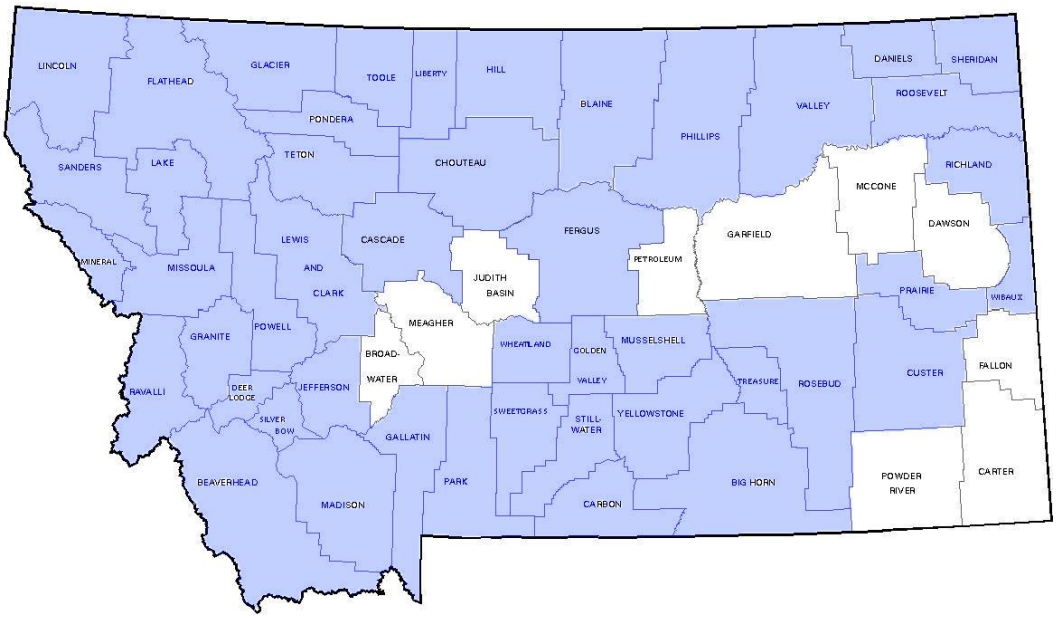
Table 2: Percentage of School Setting by Number of Students Enrolled

Students Enrolled		Response	%
0-100		54	22%
101-200		43	17%
201-300		38	15%
301-400		22	9%
401-500		24	10%
501-600		11	4%
601-700		4	2%
701-800		2	1%
801-900		7	3%
901-1000		2	1%
1001-1500		24	10%
1500+		18	7%

Table 3. Percentage of School Settings by Grade Levels Taught

Grade Level Taught		Response	%
Grades K through 5		3	1%
Grades 6 through 8		8	3%
Grades K through 12		102	41%
Grades 9 through 12		95	39%
Grades K through 8		19	8%
Other		19	8%

Figure 1. Map of Montana Counties Represented by Survey Respondents



(Blue Shaded Area Indicates Responding Counties)

Youth Sports Activities Offered in Schools

As the DSPYAA is written, "organized youth athletic activity" is defined as an athletic activity "sponsored by a school or school district." Although a large part of the respondents offer school sponsored sports, of particular concern in Table 4 is the large number of youth sports offered as non-sanctioned sports. High Risk sports for concussion such as Football, Ice Hockey, Wrestling, Soccer, Gymnastics, and Lacrosse are offered (highlighted in blue), but currently as the DSPYAA is written, these youth sports organizations are not held to the same standard as those offered by the school or school district.

Table 4: Sports Offered to Youth Athletes

Activity	Number of respondents with school sponsored sports	Number of respondents offering non-sanctioned sports
Physical education	243	0
Baseball	4	98
Softball	128	26
Volleyball	237	4
Wrestling	164	19
Soccer	72	44
Football	226	9
Basketball	240	8
Gymnastics	2	28
Cheerleading	148	3
Swimming/Diving	56	20
Track & Field	234	3
Cross Country	170	5
Golf	151	6
Lacrosse	2	34
Field Hockey	1	4
Ice Hockey	0	40
Other*	12	7

*Other was identified primarily as rugby, tennis and rodeo

Health Care Professionals in Montana Schools

The results of this survey reinforce that Montana Schools are grossly understaffed with appropriate health care professionals. Only 20% of the respondents have access to a full time athletic trainer and only 19% of the respondents have access to a full time school nurse. See Table 5.

Table 5: Access to Certified Athletic Trainer or School Nurse

On-Site Health Care Provider	Yes- Full Time	Yes- Part Time	No	Unsure
Certified Athletic Trainer	20%	37%	42%	1%
Nurse	19%	33%	46%	2%

Compliance with DSPYAA

AS written the DSPYAA requires that schools must have a concussion policy in place addressing the nature and risks of brain injuries; signs, symptoms, and behaviors associated with brain injuries; the need to notify licensed health care providers for recognition and treatment; and the need for proper medical direction to guide return to play. Schools must also document distribution of educational materials to youth athletes and their parents/guardians regarding the school concussion policy (this must be signed and returned to the school). Lastly, schools must document and ensure that coaches, athletic trainers and other school officials participating in youth athletic activities complete a concussion specific training program at least once a year.

Largely the respondents in this study reported having a policy in place (84%) with 9% either in the process of developing or planning to develop a policy. 7% were either unsure if they had a policy or reported not having a policy in place. See Figure 2. Most of the respondents indicated that their school policy had the required components. See Table 6. Table 7 outlines who receives a copy of the school concussion policy.

Figure 2: Concussion Policy in Place

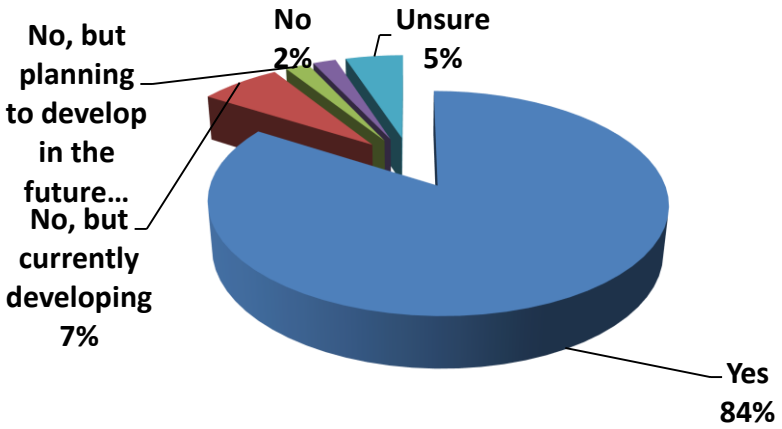


Table 6: Percentage of mandated components Included in individual school concussion policies

Components of Policy	Percent Included in School Policies
Nature and risks of brain injury	97%
Lists signs, symptoms and behaviors consistent with brain injury	96%
Indicates the need to alert a licensed health care provider for urgent recognition and treatment when a youth athlete exhibits signs and symptoms consistent with a concussion	98%
Indicates the need to follow proper medical direction and protocols for treatment and returning to play after a youth athlete sustains a concussion	99%

Table 7: Who Receives a Copy of the Concussion Policy

Who Receives Policy	%
Athletic Directors	81%
Coaches	90%
Youth Athletes	55%
Certified Athletic Trainers	46%
Officials	16%
Parents and Guardians	74%
School nurse	21%
The policy does not list specific individuals	6%
Other	3%

- Other responses included school principals or they were unsure

Table 8: Concussion Education Materials Distributed to Parents and Athletes

Question	Yes	No/Unsure
Concussion education materials given to athletes and parents/guardians prior to participation	94%	6%
Are the athletes and parents/guardians required to sign a form stating materials were received	82% (parents and athletes both); 9% (parents only)	9%

Annual Concussion Education Training

When asked who was required to complete the annual concussion education training, 93% reported coaches being required to complete the training; only 63% indicated athletic trainers were required to complete the training and 45% required officials to complete the training. 92% of the respondents reported having a system in place to document completion of the required

training for coaches, whereas only 51% have a mechanism to document when athletic trainers complete the training and 27% for officials. When asked what resources are used to inform coaches, officials and staff about concussion awareness and protocols, largely the National Federation of State High School Associations Concussion Website was used (81%) followed by the Montana High School Association Website (77%) and Centers for Disease Control Heads Up website (7%). When asked if the resources used to educate coaches, officials and other staff were effective, 94% of the respondents said yes. When asked if the resources used to educate parents/guardians and athletes were effective, 82% said yes.

Assessment Tools Used to Evaluate Concussions

The next part of the survey examined what tools and resources Montana schools are using to assess concussions, determine if schools are conducting cognitive baseline testing, identify who is most responsible for making return to play decisions and if protocols exist to facilitate return to the classroom. See Table 9, 10, 11, and 12.

Table 9. Computerized Baseline Testing Reportedly Used in Individual Schools

Cognitive Baseline Testing Resource	Response	%
ImPact	126	60%
King Devick	0	0%
My school does not use baseline testing	50	24%
Unsure	24	11%
Other*	11	5%

*Other included Axion, SCAT3, and CogState

Table 10. Evaluation Tools Used to Assess Whether an Athlete Has Sustained a Concussion

Concussion Assessment Tool	Response	%
Sideline assessment testing (SAC)	94	44%
Sport Concussion Assessment Tool (SCAT 2 or SCAT 3)	36	17%
ImPact	106	50%
King Devick	0	0%
Vestibular-Oculomotor Screening (VOMS)	4	2%
Other	28	13%
Unsure	61	29%

Table 11. Health Care Provider Most Responsible for Making Return to Play Decisions Once an Athlete Sustains a Concussion

Health Care Provider	Response	%
Primary Care Physician	176	82%
School Nurse	3	1%
School Psychologist	1	0%
Guidance Counselor	0	0%
Athletic Trainer	47	22%
Neuropsychologist	1	0%
School/Team Physician	11	5%
Concussion Program Specialist	10	5%
Parent	5	2%
Other	6	3%

Table 12. Percentage of Respondents Reporting Return to Learning Protocol in School Following a Concussion

Return to Learn Protocol In Place	Response	%
Yes	163	76%
No	26	12%
Unsure	26	12%

Barriers to Implementation of the DSPYAA

84 Different Responses were provided when asked to identify barriers associated with implementation of the concussion law. Thirty respondents indicated that there were no barriers associated with implementation (35%). Three respondents stated that they have never heard of the Dylan Steigers Protection of Youth Athletes Act. Three primary themes were evident following thematic analysis of the written responses: ***Parental Responsibility***, ***Resources***, and ***Access to Appropriate Health Care Professionals***.