Implementation of State Youth Concussion Laws: Perspectives from the Frontlines


Moderator: Cindy Rodgers, M.S.P.H.

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Polls
Our Presenters

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Gary Matthews
Epidemiology of head injury in youth sports

» CDC estimates between 1.6 and 3.8 million sports-related concussions in U.S. every year

» For young people aged 15-24, sports are 2\textsuperscript{nd} leading cause of TBI (after MVAs)

» Once an athlete has suffered a concussion, risk of second concussion is 3-6 times greater

*Risk of secondary impact syndrome, chronic traumatic encephalopathy

» Risk greater for young, developing brains
Epidemiology of head injury in youth sports

» Concussion rates per 1,000 athletic exposures, regardless of time played (Lincoln, et al.):
  
  Football—0.60  
  Girls’ soccer—0.35  
  Boys’ lacrosse—0.30  
  Girls’ lacrosse—0.20  
  Boys’ wrestling—0.17  
  Girls’ basketball—0.16

» Girls have more symptoms and longer recovery time (Covassin, et al)
Junior Seau had degenerative brain disease when he committed suicide

The National Institutes of Health says in a study that Seau, one of the greatest linebackers in NFL history, had chronic traumatic encephalopathy when he shot himself in May. More than 2,000 former players are suing the NFL over the issue of head injuries.

January 10, 2013 | By Sam Farmer and Rosie Mestel

Institute of Medicine to study youth sports concussions

By Ian Simpson, Reuters

WASHINGTON - The Institute of Medicine launched on Monday a sweeping study of rising sports-related concussions among U.S. youth, amid concerns that the injuries may have contributed to the

CTE found in living ex-NFL players

By Steve Fainaru and Mark Fainaru-Wada | ESPN.com

Updated: January 22, 2013, 4:19 PM ET
States with Laws Addressing Youth Concussion—2009-2010

- 2009 (Effective)
- 2010 (Effective)
Implementation of state youth concussion laws: Lessons, strategies, and best practices • January 24, 2013

States with Laws Addressing Youth Concussion—2009–2011

- 2009 (Effective)
- 2010 (Effective)
- 2011 (Effective)
State Youth Sports Concussion Laws Enacted/Adopted by Year

- Laws enacted in year indicated
- Total laws enacted

<table>
<thead>
<tr>
<th>Year</th>
<th>Laws Enacted</th>
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<tbody>
<tr>
<td>Before 2009</td>
<td>1</td>
</tr>
<tr>
<td>2009</td>
<td>3</td>
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<tr>
<td>2010</td>
<td>8</td>
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<tr>
<td>2011</td>
<td>24</td>
</tr>
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<td>2012</td>
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Implementation of state youth concussion laws: Lessons, strategies, and best practices • January 24, 2013
Common provisions of state sports concussion laws

✓ Education for student athletes and their parents (with signed information form)
✓ Immediate removal of concussed athlete
✓ Return-to-play restrictions with medical evaluation
✓ Training for coaches and officials
✓ Return-to-learn provisions

Lystedt Law “Key components”
The law passed...now what?

» Policy evaluation—do they “work”?  
» Too early to see long-term outcomes (e.g., CTE, early-onset dementia, suicide risk)  
» Lay groundwork for future policy evaluation studies by first studying how the laws are being implemented

Although the laws are very similar, they may be implemented very differently.
Study Aims

1. Describe coverage of the laws
   » Does “law on books” = “law on streets”? 
2. Identify promoting and inhibiting factors to successful implementation 
3. Describe evaluation mechanisms 
   » “What gets measured gets changed.”" 
4. Characterize enforcement mechanisms
Methodology

» Semi-structured phone interviews
» E-mail recruitment
» 72.1% response rate to date (31:42 states)
» Interview length: 15-25 minutes
Preliminary findings: Coverage of the law

Many voluntarily increasing coverage of law

» Recreational sports, middle schools, etc.

Some primary prevention initiatives have emerged

» Requiring rules re: less dangerous play

Source: www.technorati.com/sports
Preliminary findings: Greatest impact

Awareness

Almost universal belief that greatest impact of the law will derive from increased awareness and “culture change” in sports

Standardized RTP protocol
Preliminary findings: Promoting Factors

Implementers involved in lawmaking process

» Associations/agencies that were involved in process reported fewer barriers to implementation

Clear delegation of responsibility in law

Preexisting resources and partnerships

» Reported fewer concerns with cost and ease of implementation

Grants, data collection programs

Local NFL team, brain injury association, universities
Preliminary findings: Promoting Factors

Prior state-level activity re: youth concussions

“I need to underscore that we, like many states, have been working on this issue before the law. This law didn't just "flip a switch," people have been doing this work for years.”

Media attention

» Particularly re: athlete and parent “buy in”
Preliminary findings: Inhibiting Factors

Vagueness of statutory language

» Definition of *youth*, which medical providers can authorize RTP, etc.

Limited time to comply (emergency legislation or immediate effective date)

“Football had already started, so we had to scramble to get all the schools in compliance.”

Decentralized nature of recreational sports
Preliminary findings: Inhibiting Factors

“Unfunded mandate”

Mismatch between text of law and implementing organization’s purview

» “Unworkable law”

E.g., Middle school-aged kids covered by law, but high school association charged with implementation.
Preliminary findings: Compliance challenges

Rural areas
» Rural areas have less access to medical personnel authorized to make RTP determination

Parents
» “Doctor shopping” (Some reported this problem beginning to wane over past year)

Recreational sports
» Decentralized

Differing levels of awareness of risk by sport
Preliminary findings: Enforcement

“Still, as the [Southbridge] Massachusetts game suggests, rules are only as effective as the adults charged with enforcing them.” –NY Times, 10/23/2012

Little-to-no formal enforcement mechanisms

» Loss eligibility, coaching permit
» Belief that threat of liability will ensure compliance
» Unclear delegation of enforcement authority
Preliminary findings: Evaluation

7 of 31 states collecting data

» Incidence (expect increase)
» Compliance (e.g., schools reporting, trainings completed)
» Awareness measures (e.g., Web site “hits”)

States with partnerships more likely to collect data (brain injury associations, universities)

Source: www.bostonglobe.com
Preliminary findings: Evaluation

Some schools not reporting

Barriers reported include:

» Time (another thing schools have to do)
» Few personnel and $ resources

Source: www.sportsdiagnosis.com
Webinar Participant Poll
Preliminary findings: “Wish list” provisions

“Return to learn”

» Guidance, provisions for helping student return to classroom

Training of parents, officials, and students

Broader coverage

» Extending coverage to middle schools, recreational/community sports

Better definition of providers authorized for RTP

Funding for implementation
Acknowledgments

Research Team

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Funders
RWJF and Harvard Catalyst
Table summary of state youth sports concussion laws

www.networkforphl.org

Click on “Network Resources”
References


Implementing the Massachusetts Sports Concussion Law: Lessons Learned

Carlene Pavlos, Director
Division of Violence and Injury Prevention
Massachusetts Department of Public Health
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The Law in Massachusetts

In July 2010, Governor Patrick signed into law An Act Relative to Safety Regulations for School Athletic Programs.

Law went into effect on July 19, 2010.
Components of the Law

• Applies to extracurricular interscholastic sports for public middle and high schools and all MIAA member schools

• Does not apply to town or club sports (Little League, Pop Warner, etc.)
Components of the Law

- DPH Division of Violence and Injury Prevention named in law and responsible for identifying **annual training program** for: athletic directors, coaches, trainers, parents and students, other school staff/volunteers

- Injured athlete *suspected of concussion* must be **removed from play** until written clearance by licensed health professional
Components of the Law

• All students must disclose history of head injuries at start of each season
• Recordkeeping by schools
• Allows establishment of penalties for noncompliance
• DPH must develop regulations to implement law

Regulations

- Drafted for public comment in January 2011
- Promulgated June 2011

The Massachusetts concussion regulations can be found at:

http://www.lawlib.state.ma.us/source/mass/cmr/cmrtext/105CMR201.pdf
Key Provisions of the Regulations

Address 7 areas:

1. School Policies and Procedures
2. Annual Training
3. Participation Requirements for Students & Parents
4. Exclusion from Play
5. Medical Clearance and Return to Play – including graduated reentry to sports and academics
6. Roles and Responsibilities of Key School Personnel
7. Record Maintenance and Reporting
Where We Are:
Work Since the Regulations

• Support and T/A to Schools: conference calls, presentations, phone consultations, model policies, meetings with stakeholders

• Annual Training:
  – two, free, on-line training programs approved
  – Criteria for in person trainings developed and 3 organizations approved to provide

• Clinician Awareness and Training:
  – Clinical Advisories issued
  – Finalizing criteria for clinical trainings

The Clinical Advisory to Pediatricians and Emergency Physicians can be found at: http://www.mass.gov/eohhs/docs/dph/com-health/injury/concussion-clinical-advisory-pediatric-providers.pdf
School Reporting

• School compliance with policy requirement: vast majority of schools have submitted confirmation that they have policies in place

• Number of concussions being reported: many schools did not report the first year

• Information from the field

What We Have Learned:
Partnerships are All-Important

• Clinical Advisory Group: they have lent their time and expertise every time we have asked
• Development an effective, collaborative relationship with MIAA
• MassPINN members – started the work and are still active
• Internally, the DPH Medical Director and School Health Unit have been essential
What We Have Learned

- This was way more work than we expected
- Unfunded mandates limit what you can do
- Public health and organized sports have two very different cultures (state and local level)
- This work is about culture shift, but the pushback comes from unexpected corners
- When you don’t have total control of the legislative language, you may get something you didn’t ask for (or didn’t think about!)
What we’ve Learned: Schools and Concussions

• It isn’t just returning to play, but returning to academics
• Everyone must be in on the reentry plan: parents, teachers, students, guidance counselors, coaches, certified athletic trainers, etc.
• Many clinicians do not have the most up to date information and need training
• School nurses are invaluable
• Standard forms important and provide consistency
• Schools need time to develop formal policies – have model guidance/policies ready early
The Road Ahead/Ongoing Challenges

• Schools are where the rubber meets the road
  – Uneven resources and expertise
  – Chose to emphasize programmatic support rather than penalties for lack of compliance and/or significant reporting requirements

• Better access for parents w/ limited English proficiency

• Who makes the call on the field?
Questions?

http://www.mass.gov/dph/injury
Gfeller-Waller Concussion Awareness Act

NC Legislation on Traumatic Brain Injury

Paula Hudson Hildebrand, Chief Health and Community Relations Officer, NCDPI
Les Spell, Health/Physical Education/Athletics Consultant, NCDPI
Gfeller-Waller

Matthew Gfeller
R. J. Reynolds High School
Winston-Salem, North Carolina

Jaquan Waller
J. H. Rose High School
Greenville, North Carolina
What is the Gfeller-Waller Concussion Awareness Act?

• A law that was implemented to protect the safety of student-athletes in the state of North Carolina

• Areas of focus:
  – Education
  – Emergency action and post-concussion protocol implementation
  – Clearance and return-to-play after concussion
Gfeller-Waller Concussion Awareness Act

Implications & Considerations For Schools
Compliance Information and Checklist
Student-Athlete Education & Statement Form
Adult Education & Statement Form
Guidelines for an Emergency Action Plan
Sample Emergency Action Plan
Post-concussion Protocol
Return to Play Written Clearance Form
Poll
A culture shift has been set in motion, and North Carolina is making a difference.

– Concussion education is key

– Know “red flags” for a situation turning catastrophic

– Establish an objective comprehensive evaluation & standardized RTP protocol (graduated exertional exercises)

– Think beyond the acute trauma

– Equipment safety & behavior modification

– State laws will make a difference!
Stakeholders

Matthew Gfeller
Sport-Related TBI Research Center
The University of North Carolina at Chapel Hill

Public Schools of North Carolina
State Board of Education
Department of Public Instruction

BIANC
Brain Injury Association
of North Carolina

NCATA
1974

North Carolina
Neuropsychological
Society

NCHSAA
North Carolina High School Athletic Association
Resources

Matthew Gfeller Sport-Related TBI Research Center
http://tbicenter.unc.edu/MAG_Center/Home.html

Sports Concussion Toolkit
http://www.aan.com/go/practice/concussion

Concussion in Sports
http://www.cdc.gov/concussion/sports/

Heads Up to Clinicians
http://www.cdc.gov/concussion/headsup/clinicians.html

PACE – Protecting Athletes Through Concussion Education
https://www.mydickssportinggoods.com/pace/default.aspx
Contact Information

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(a) The governing body of a school district shall consult with the Alaska School Activities Association to develop and publish guidelines and other information to educate coaches, student athletes, and parents of student athletes regarding the nature and risks of concussions. Guidelines developed under this section must include a description of the risks of return to play and standards for return to play, including the procedures required under (c) and (d) of this section.

(b) A school shall annually provide to a student and the parent or guardian of a student who is under 18 years of age written information on the nature and risks of concussions. A student may not participate in school athletic activities unless the student and the parent or guardian of a student who is under 18 years of age have signed a verification of receipt of the information required under this subsection.

(c) A student who is suspected of having sustained a concussion during a practice or game shall be immediately removed from the practice or game.
Sports Medicine

MISSION
The mission of the Sports Medicine Advisory Committee is to ensure that all athletes from ASAA member schools are provided with sound and consistent medical expertise to enhance the safety of their athletic experience.

PURPOSE
The purpose of the Sports Medicine Advisory Committee is to review proposals and make recommendations to ASAA’s board of directors on all issues related to the health, wellness and injury reduction of member schools’ student-athletes.

OBJECTIVES – The objectives of the Sports Medicine Advisory Committee are to:
1. Gather current data on health and safety related issues.
2. Educate, interpret, monitor and disseminate materials to students, coaches and administrators concerning medical issues related to sport.
3. Assist ASAA in researching sports medical issues and/or concerns.
4. Assist in the development of guidelines related to sports medicine, in an effort to assist ASAA member schools with making informed decisions.
5. Proactively address new health and safety concerns.
6. Develop a network of medical professionals dedicated to providing member schools with appropriate sports medical education and care.

COMPOSITION
The committee will be composed of medical professionals, a coach, a referee and a school administrator. A staff member will serve as liaison to the committee.
Chair – a physician – Cary Keller, MD FACSM (Fairbanks)
Other medical – Don Lehmann, MD FACSM (Sitka) | Jeff Brand, MD, Pediatrician, Referee, (Anchorage) | Lynne Young, ACT (Anchorage) | David Head, MD (Nome)
Coach – Rus Schreckenghost
ASAA Liaison – Gary Matthews
ASAA

Policy Components, Procedures and Forms
Relating to the Management of Concussions in Student Athletes

Adopted
April 2012
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  - Student and Parent/Guardian Education and Notification
  - Risks and Standards for Return to Play (RTP)
  - Risks
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  - Sideline Decision Making
  - Steps to Return to Play (RTP)
  - Symptomatic Period
  - Return to Play Protocol
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  - Resources
    - On-Line Educators Resources
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Page 10  Other Resources
  - House Bill 15
  - Senate Bill 119
  - CDC Website
Page 10-11  Forms
  - ASAA Parent and Student Verification of Receipt of Information Concerning Concussions Form
  - ASAA Medical Release for Student Athlete with Suspected or Actual Concussion Form
Healthcare Provider List Registration Form

Rationale
ASAA shall maintain a list of those healthcare providers in Alaska who self-verify that they meet the requirements stated in ASAA's policy (see pages 5 and 6) and are qualified under AS 14.30.142 (see enclosed House Bill 15 and Senate Bill 119), and are available to evaluate and manage student athletes with suspected or actual concussions. This list is provided for the convenience of student-athletes, their parents, and their coaches who are seeking concussion care.

PROFESSIONAL DESIGNATION

NAME
First
Last

BUSINESS ADDRESS
Street Address
Address Line 2
City
State / Province / Region
Zip / Postal Code

Disclaimer
The Healthcare Provider List is not intended to be all-inclusive and does not imply endorsement or verification of qualifications by ASAA or its Sports Medicine Advisory Committee (SMAC).
Discussion

Please use the chat to ask the presenters your questions.

We’d love your feedback! Please take a moment to take our survey on your experience:

http://www.surveymonkey.com/s/csnpolicy_012412