

## Investigation of Provisional Medical Care in the Public Secondary School Setting

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Pryor RR, Casa DJ, Vandermark LW, Stearns RL, Attanasio SM, Fontaine GJ, and Wafer AM. Athletic Training Services in Public Secondary Schools: A Benchmark Study. *J Athl Train*, 2015;50(2):156-162.

### BACKGROUND

- Sport-related injury is the leading cause of hospital visits in kids age 12-17 years. (Centers for Disease Control and Prevention, 2011)
- 37% of public secondary schools employ a full-time athletic trainer. (Pryor et al., 2015)
  - 55% of student athletes have full-time athletic trainers
- A subset of 147 schools with full or part-time athletic trainers over three years (Kerr et al., 2015)
  - >210,000 visits to the athletic training room
  - >557,000 services provided by the athletic trainer



### BACKGROUND

- ✓ 92% of school administrators believed an AT was most qualified
- ✓ 80% believed an AT would provide moderate-high liability reduction
- 18% believed a full-time AT should be hired

Gould and Dievert, 2003



### GOAL

To determine medical coverage employed for athletic events at secondary schools without an athletic trainer



### Methods



## METHODS

- September 2011-December 2013
- Mixed methods approach
  - Contacted athletic directors (ADs)
  - Semi-scripted phone interviews (or emails)

### Data Analysis

Categorized Responses  
by Caregiver

Analysis of quotes via  
multiple analysts

Descriptive analysis of  
numerical data



## Qualified Schools

- **Public** secondary schools in the United States
- No alternative, charter, magnet, vocational, or technical schools
- Include grades 9-12



## Interviews

1. Number of students and athletes
2. **Does the school have an AT?**
  1. If no, why not?
  2. If no, **what medical coverage is there at games?**
3. How many ATs?
4. What is the extent of AT services?
5. Does the AT teach a sports medicine/health class?
6. Is there AT coverage at all practices?
7. Are all high risk home sports games covered?



## Categories of Caregiver

### Licensed Medical Caregivers

- Emergency medical services (EMS)
- Physician
- Physician Assistant
- First Responder
- Nurse
- Physical Therapist
- Chiropractor

### None/Non-medical Caregivers

- Volunteers
- Parents
- Coaches
- Students
- Spectators
- "On-call" care



## Results



Contacted all **15,011**  
public secondary schools


8,509 schools responded

**57% response rate**

66 callers, plus Dr. Casa and the NATA staff  
1,000 phone call hours



SCHOOLS		Schools per US Region without ATs
<b>NORTH</b> CT, DE, MA, ME, NH, NJ, NY, OH, PA, RI, VT	11.1% n=241	Total n= 2,180
<b>SOUTH</b> AL, AR, DC, FL, GA, KY, LA, MD, MS, NC, SC, TN, VA, WV	18.3% n=399	
<b>MIDWEST</b> IA, IL, IN, KS, MI, MN, MO, ND, NE, OK, SD, TX, WI	38.8% n=845	
<b>SOUTHWEST</b> AZ, CA, CO, HI, NM, NV, UT	15.2% n=332	
<b>NORTHWEST</b> AK, ID, MT, OR, WA, WY	16.7% n=363	




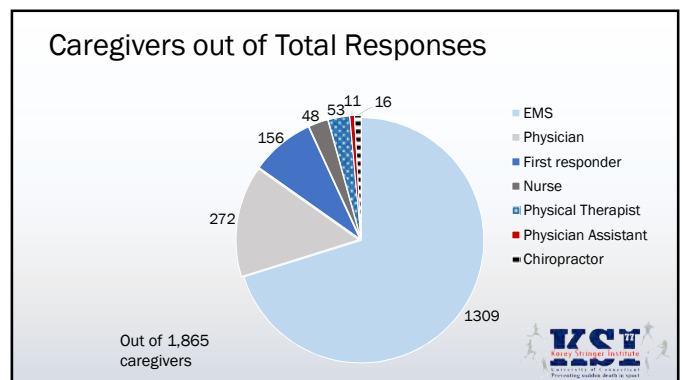
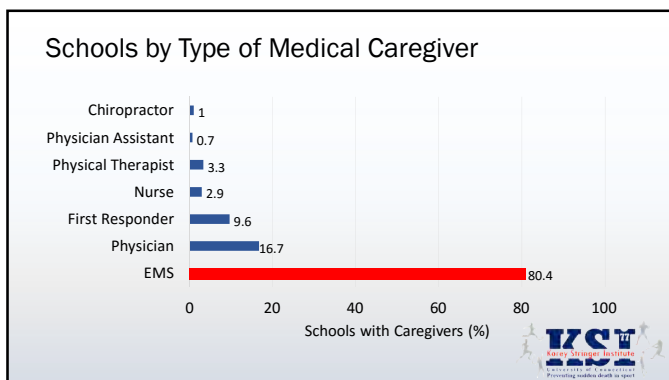
26% of schools do not hire an athletic trainer for home athletic events

From our survey...

Of schools without AT service:  
25% have no medical care at home athletic events

Of schools with some medical care:  
80% use EMS  
17% use physicians

Of schools with some medical care:  
86% use one  
13% use two  
>1% use three or more





### Quotes- Licensed Medical Caregivers

"In some ways our **EMT is better than an athletic trainer** with things like concussion...he doesn't do injuries and stuff like that, but he can do the important stuff." – MD

"Our **EMT trainer can do everything athletic trainers do...has unbelievable credentials...**pay her per diem...not here for practices." – OH

"**Nurse** (has been advised not to touch the injured athletes)." – PA




### Quotes- Non-medical Caregivers

"**Coaches** have first aid training and watch tapes about different injuries. It's all we can afford." – AK

"**Parents in the stands** are always on alert, and I'm sure they would help in emergency situations." – TX

"We never have **EMTs** on duty at the game, but it usually doesn't take more than a few minutes for the ambulance to get here." – NY

"We have **parents who are doctors** in the stands. I guess that would be our coverage." – KS



## Discussion



## DISCUSSION

- This is the first study to examine alternative medical care in public secondary schools.
- 25% of schools without an AT have no medical care
  - Some reliance on medical volunteers, parents, coaches, or other non-medically trained persons
- Budgetary and non-budgetary concerns (Mazerolle et al., 2015)
  - Lack of power to hire an AT
  - Funding
  - School location
  - Community interference
- Misperceptions of sports medicine need (Gould and Deivert, 2003)



## DISCUSSION

- Emergency medical services were employed in 80% of schools that employed some medical caregiver, but not an AT
  - Emergency care is considered, but daily care is not
  - ATs spend working time performing non-emergency tasks (Kerr et al., 2015)
    - 45% therapeutic exercise
    - 18% modality application
    - 16% injury evaluation
- Establish an athletic health care team (Almqvist et al., 2008)
  - Comprehensive health care plan
  - Continuity of care between medical professionals



## Take Home Points

- 25% of schools without an AT do not employ any medical care for athletic events.
- Emergency medical services are the most commonly employed medical caregiver in lieu of an athletic trainer.
- Misperceptions of the value of athletic trainers in public secondary schools leads to hiring alternative medical care.
- Collaborative approach with multiple members of the sports medicine team is preferable.



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