Work-Related Injuries Are Happening to Youth: Can We Make a Difference?

October 27, 2015
Meeting Orientation

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Work-Related Injuries Are Happening to Youth: Can We Make A Difference?

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Young Workers Injury Surveillance and Prevention Project
Occupational Health Surveillance Program
Massachusetts Department of Public Health

Funded in part by the National Institute for Occupational Safety and Health
Overview

- Why focus on young workers
- Risk factors for working teens
- Young Workers Injury Surveillance System
- Young worker injury statistics
- Translating data to action
Poll Question 1

workforce
Why focus on young workers?

- In 2013, 13% of workforce was <25
- Young workers have high overall rate of non-fatal injuries compared to adults
- Unique risk factors

Rates for work-related ED visits among workers, by age, MA, 2008-2012

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Injuries per 100 Full-time Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-17</td>
<td>1.9 (n=1,871)</td>
</tr>
<tr>
<td>18-24</td>
<td>3.0 (n=39,925)</td>
</tr>
<tr>
<td>25+</td>
<td>1.5 (n=188,914)</td>
</tr>
</tbody>
</table>
Risk Factors for Young Workers

- Job hazards
- Inexperience
- Inadequate training and supervision
- Employment in inappropriate/illegal jobs
- Development characteristics (not just little adults)
  - Physical
  - Psychosocial
- Balancing school and work
Teens who work long hours may experience:

- Lack of sleep
- Difficulty staying awake in class and less time for homework
- Negative effects on learning
- Increased use of stimulants, e.g. caffeine, nicotine
- Increased stress
Massachusetts Young Workers Injury Surveillance and Prevention Project

- 1993: Public health regulations require hospitals and providers to report work-related injuries to teens (persons less than 18)
- 1993: NIOSH funding obtained to conduct statewide surveillance of teen work-related injuries
Goals of the Young Workers Project

- To identify sentinel cases
  - To target work site follow-up
  - Gather more detailed information about circumstances of injury
  - Case studies
- To generate summary data to target broad-based prevention efforts
- Use data to promote prevention activities at state and local levels
Massachusetts Surveillance System for Work-Related Injuries to Youths <25

MA Dept. of Public Health

ED, Burn Registry, Fatalities

Statewide Hospital Data

Workers’ Comp

Youth Interview

Youth Follow-up

Employer Follow-up

Data Analysis & Dissemination

Broad-based Prevention
Injury Statistics
Distribution of work-related injuries among 15-17-year olds, by injury type and data source
Massachusetts: 2008-2012

- sprains, strains, tears
- open wounds
- bruises, contusions, crushings
- burns
- fractures
- other

Percent

ED Data (n=1,906)
WC Data (n=576)
Average annual rates of emergency department visits for work-related injuries among 15- to 17- year-olds, by race and ethnicity
Massachusetts: 2008-2012

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Injuries per 100 Full Time Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>White non-hispanic</td>
<td>1.6 (n=1,564)</td>
</tr>
<tr>
<td>Black non-hispanic</td>
<td>1.5 (n=80)</td>
</tr>
<tr>
<td>Asian non-hispanic</td>
<td>0.4 (n=18)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2.0 (n=147)</td>
</tr>
</tbody>
</table>
Average annual rates of workers’ compensation claims for injuries among 15- to 17-year-olds, by industry Massachusetts: 2008-2012

Overall: 548 injuries, fatality rate 5 per 1,000 full-time workers
Food, services & drinking places: 189 injuries, fatality rate 9 per 1,000 full-time workers
Food & beverage stores: 79 injuries, fatality rate 5 per 1,000 full-time workers
Nursing & residential care facilities: 43 injuries, fatality rate 9 per 1,000 full-time workers
Amusement, gambling & recreation: 23 injuries, fatality rate 5 per 1,000 full-time workers
Public administration: 18 injuries, fatality rate 34 per 1,000 full-time workers
Social assistance: 15 injuries, fatality rate 6 per 1,000 full-time workers
Interviews with Teens Injured at Work
Massachusetts: 2008-2012

229 Interviewed Teens

No health & safety training: 46%
No work permit: 24%
No supervisor on site at time of injury: 15%
Permanent effects*: 22%
Believed injury was preventable: 53%

* Anticipated permanent pain, limited sensation or loss of movement.
Narrative Results

- 10% reported that the equipment being used was malfunctioning or a safety device had been removed.
  
  “The french fryer was low in oil partly because it hadn’t been working properly. We had notified the owner and manager but nothing had been done about it.”

- 9% appeared to be performing a task or working hours prohibited under the child labor laws.
  
  “I was using the deli slicer to cut up lettuce.”

  “I was working at 2:30 a.m. at a retail bakery.”
Narrative Results

- 10% waited a day or more before seeking medical treatment.
  
  “When I woke up in the a.m., my hand was swollen and red and purple, so I went to the ER where I was diagnosed with second degree burns.”

- 4% of adolescents reported that their supervisors made them stay at work.
  
  “Then I went to the supervisor who did not want to fill out an accident report and told me to work light duty. I worked 2 shifts that day while my finger kept bleeding.”
Distribution of work-related emergency department visits among 18-24-year olds, by injury type Massachusetts: 2008-2012

- Open wounds: 40%
- Sprains: 15%
- Bruises, contusions, crushings: 10%
- Burns: 5%
- Fractures: 5%
- Other: 5%

ED = 39,925
Average annual rates of hospitalizations for work-related injuries among 18- to 24-year olds, by race and ethnicity
Massachusetts: 2008-2012

- White non-hispanic: 1.9 (n=235)
- Black non-hispanic: 2.1 (n=22)
- Hispanic: 3.3 (n=64)
Poll Question 2

activities
Putting Data to Work: The Three E’s

- Education
- Enforcement/Policy Change
- Environment/Engineering
Education
Educational Materials
Health and safety training
Massachusetts Youth Employment & Safety Team (YES Team)

Eight state & federal agencies w/interest in protecting and promoting the health and safety of MA young workers:

- Department of Public Health
- Attorney General’s Office (AGO)
- Department of Labor Standards
- Department of Industrial Accidents
- Elementary and Secondary Education
- Commonwealth Corporation (workforce development)
- OSHA Regional Office
- US DOL Wage & Hour Division
Statewide Public Awareness Campaign

Youth Employment Laws

If you’re a teen and you’ve got a job, you have rights.
Do you know what the minimum wage is?
Or how many hours you can work?

There are also restrictions on working alone at night
and all kinds of work hazards to be aware of.
Want to know more?
Click on any topic to find out further information.

Brought to you by the Office of Attorney General Martha Coakley

Labor Low Down | www.laborlowdown.com
Safe Jobs for Youth Poster Contest
Awards Ceremony
TEENS SHOULD BE ABLE TO RECOGNIZE UNSAFE CONDITIONS IN THE WORKPLACE AS EASILY AS THEY RECOGNIZE THESE ICONS.

DANGER? SPEAK UP!

TEENS AT WORK SPEAK UP FOR YOUTHS

200,000 young workers are injured annually. DON'T BE A STATISTIC.

IF YOU SEE SOMETHING UNSAFE IN YOUR WORKPLACE, TELL SOMEONE. SPEAK UP. SPEAK OUT.

Learn more about teen safety in the workplace. Go to www.mass.gov/dos/youth
Enforcement/Policy Change
New MA Protections for Vocational Students and Teachers

- Worksite follow-up of amputation in school shop class

- Changes in statewide school health and safety policy

A 15-Year-Old Student Amputates Fingers While Operating an Unguarded Table Saw in Woodworking Class - Massachusetts

Industrial arts provides students with important opportunities to learn technical skills and introduces them to the work environment. Occupational safety and health is an essential component of this work preparation, both for safety in the school shop and to develop safe work skills for the future.

Incident: In 2003, a 15-year-old student amputated one left finger (both joints) and a portion of another left finger and thumb while operating an unguarded table saw in a woodworking class at school. The saw, manufactured in 1991 and equipped with a 10-inch woodworking blade, was located in the woodworking shop near the shop door. The student was making a lengthwise cut (ripping) and reached around to the back side of the unguarded saw blade to grab the cut piece of wood. The student's two fingers and thumb came in contact with the rotating saw blade, resulting in the serious injuries to the left hand.

To prevent similar incidents, schools that have woodworking shops should:

- Ensure that the manufacturer's supplied guards are installed on all table saws, and that the guards function properly and are used at all times.
- Position tables at the backside of saws to prevent the work pieces from falling off the saws and onto the floor.
- Design the woodworking shop layout to reduce distractions to equipment operators.
- Provide woodworking class conditions that at a minimum meet safety and health standards set by the Occupational Health and Safety Administration (OSHA) and train students about these standards.

REFERENCES


Workplace Violence Added to State Plan Addressing Youth Violence

- State $$$$ for community based project for youth
- Leadership Education and Action to Promote Safety (LEAPS Academy)
Massachusetts Child Labor Laws Strengthened

- New civil enforcement proceedings
- Supervision after 8 pm
- Revised work permit process
Environment/Engineering
Case Study – YWP & Coffee Shops

1998: Injury to teen worker initiates closer look at retail bakery industry data
Occupational Injuries to Teens Working for Nat’l Chain and Other Coffee Shops, by Injury Type, Massachusetts, 1993 - 2002

Source: Massachusetts Department of Public Health, Teens at Work Injury Surveillance System
1999: The Burn Culprit – Coffee

Interviews

- Follow-up interviews with injured teens, 1993-1999 (N=33)

- Similar stories:
  Hot coffee/grounds spilled over hand when pulled out brew basket
2000: Compelling the Customer

- 100’s of franchise owners and corporate staff present
- Summary data compelling to franchise owners
- Sparked corporate communication w/manufacturer
2003: Brew Basket Retrofit
I was changing the coffee filter and did not realize it was still going... as I was taking it out, the grinds went all over my left arm."

"I was pulling out the coffee filter to make more coffee but it was still brewing. Hot coffee and grounds poured over my hand and wrist."
Recent Developments

- **2011**: Meeting with Coffee Chain corporate headquarters
- **2012**: Follow-up report on corporate meeting highlights
- **2013**: New brewer prototype developed
- **2014**: Brewer alpha testing site visit by TAW
2014: Interlock Brewer Rollout

- **New interlock:** Basket cannot be pulled out until brewing is complete
- 3,730 units sold, 1,200+ restaurants nationwide
- **Potential impact:** 13,000 franchise locations
Surveillance to Practice in MA Coffee Shops

1993
1st TAW DD burn investigations
TAW data presentation to DD

1999
AGO settlement & joint agency DD seminars
DD SplashGARD® introduced

2000

2001

2003

2007
TAW DD investigation

2011
TAW/DD corporate meeting
Brewer prototype development

2012

2013
Joint TAW/DD burn investigation
Alpha testing site visit

2014...
Roll out new brewer
Can we make a difference?
Rates of workers’ compensation claims filed for work-related injuries by age
Massachusetts, 1994 - 2014

- 15-17 y.o.: 3% annual change
- 18+ y.o.: -4.8% annual change
Poll Question 3

Social media
Active dissemination of data produces requests for educational materials.
Social Media Increases Awareness

The Conversation Prism – Brian Solis & JESS3
Social Media Impact?

- **2012:** Barely used social media
- **2013:** Actively used social media to promote project activities
- **2014:** Piloted social media strategy to promote project activities
Awareness on Social Media

2013 Retweet by Mass Governor

Twitter share
Conclusions

- Young worker injuries need to be addressed
- Statistics paired with stories can be powerful
- Change can take time (more than you think)
- Partnerships are crucial to success
Please take a moment to complete our short evaluation:
https://www.surveymonkey.com/r/X93LYQF

Contact Information
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www.ChildrensSafetyNetwork.org
617-618-2178