Firefighter Cardiovascular Health & Safety Research Summit 2010

Firefighting "State of the art"

Researchers/Scientists

Research Results

Policy and Training

Fire Service tactics, strategies & SOPs

Copyright Board of Trustees of the University of Illinois 2010
Fire Service Research Funding
Motivation: Fatality Statistics

On-Duty Firefighter Deaths - Cardiac vs Others
(Source: NFPA Journal, 1991-2010)


Copyright Board of Trustees of the University of Illinois 2010
Purpose

❖ **Primary aims**
  ❖ Identify *policy and protocol implications* of current firefighter cardiovascular research findings
  ❖ Determine methods of *implementing the lessons learned* from research to provide the highest *positive impact on fireground fatality trends*

❖ **Secondary aim:**
  ❖ Pilot Summit process
Injuries & Fatalities: Contributing Factors

Can we control these?
- Station
- Fire Ground
- Rehab
- Others…

[Diagram showing contributing factors]

Heat Stress
- Smoke
- Heat
- Water
- Mud
- Clutter

Environment

Heat

Footwear

PPE Fit

PPE Design

Equipment

SCBA

Tools

Uneven Loading

Hydration

Conscientious

Fatigue

Individual

Training

Aggressiveness

Situation Awareness

Copyright Board of Trustees of the University of Illinois 2010
Dissemination: Research to Implementation
Agenda

Firefighter Cardiovascular Health & Safety Research Summit 2019

- **Thursday, September 15**
  - Welcome to IFSI – Richard Joehne, Director of IFSI 1:00
  - Background for workshop – Gavin Horn, Director of Research, IFSI 1:20
  - Invited speakers:
    - Denise Smith, IFSI and Skidmore College 1:30
    - Stephenos Koles, Harvard University 2:10
    - Sara Johnke, Institute for Biobehavioral Health Research 2:50
  - Coffee break 3:30
  - Working session: Short presentation and facilitated open forum among all stakeholders to develop actionable outcomes and goals in three areas:
    - Training – Steve Edwards, MFRP 3:50
    - Tour IFSI Facilities 5:00
    - Assemble for Dinner – Alice Campbell Alumni Center 6:00
      (601 W. Springfield Ave, Urbana, IL)

- **Friday, September 17 (0800-1430)**
  - Welcome 8:00
  - Invited speakers:
    - David Hostler, University of Pittsburgh 8:05
    - Steven Lockey, Brigham & Women's Hospital 8:45
  - Coffee break 9:25
  - Working sessions:
    - Policy – Craig Hight, Chief Hanover Park Fire Department 9:45
    - Short coffee break 10:55
    - Research – Denise Smith, IFSI and Skidmore College 11:05
  - Lunch 12:15
  - Report out 1:15
  - Meeting Concludes 2:30

Firefighting
“State of the art”

Researchers/Scientists

Research Results

Policy and Training

Fire Service tactics, strategies & SOPs
## Challenges

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Needs

- **Training**
- **Policy**
- **Research**

Report Out

Copyright Board of Trustees of the University of Illinois 2010
Questions to Consider: Training

What does research suggest needs to be changed from training standpoint?

A. Medical clearance
B. Physical fitness or PAT test
C. Live fire training - risks and benefits
D. Number/duration of evolutions and interaction with environment
E. Rehab protocols and monitoring of trainees
F. Other

How do you support changes in a training environment?

1. State training academies
2. Standards
3. Instructor expectations/experiences
4. Departments sending trainees
5. Financial considerations
6. Other

Copyright Board of Trustees of the University of Illinois 2010
Questions to Consider: Policy

- **What does research suggest needs to be changed from policy standpoint?**
  - A. Medical evaluations
  - B. Fitness standards
  - C. Rehab protocols
  - D. Resource (human and capital) deployment
  - E. Other

- **How do needed policies get implemented?**
  1. Departmental buy-in
  2. Administrative support (city council, village board, protection districts, etc)
  3. Financial support
  4. Partnership opportunities
  5. Other
Questions to Consider: Research

- What research is missing or needs to be further developed to support the Fire Service?
  - A. Medical/physiological
  - B. Fitness
  - C. Behavioral/psychological
  - D. Technology
  - E. Other

- How do we transition research to practice?
  1. Dissemination
  2. State training academies
  3. Standards
  4. Local departments
  5. Other