Personal Protective Technology Stakeholder Meeting

OVERVIEW

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Presentation overview

NIOSH and PPT Program background

PPT Program relevance and impact

Where are we going?
NIOSH Divisions & Laboratories

- Office of the Director, NIOSH
- Office of Extramural Programs
- Office of Mine Safety and Health
- National Personal Protective Technology Laboratory (NPPTL)
- Division of Respiratory Disease Studies (DRDS)
- Division of Safety Research (DSR)
- Health Effects Laboratory Division (HELD)
- Education and Information Division (EID)
- Division of Applied Research and Technology (DART)
- Division of Surveillance Hazard Evaluation and Field Studies (DSHEFS)
- Office of Compensation Analysis and Support (OCAS)
- Research to Practice (r2p)
- Spokane Research Laboratory
### NIOSH Program Portfolio

#### NORA / NIOSH

<table>
<thead>
<tr>
<th>Industry Sectors (N=9)</th>
<th>NIOSH Cross Sector Programs (N=24)</th>
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<tr>
<td>• Agriculture, forestry, and fishing</td>
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<td>• Healthcare and social assistance</td>
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<td>• Mining</td>
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<td>• Public Safety</td>
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<td>• Construction</td>
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<td>• Manufacturing</td>
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<td>• Services</td>
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<td>• Transportation, warehousing, and utilities</td>
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<td>• Wholesale and retail trade</td>
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<td>• Personal Protective Technology (PPT)</td>
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<td>• Authoritative recommendations development</td>
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<td>• Cancer, reproductive, cardiovascular, neurological &amp; renal diseases</td>
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<td>• Communications and information dissemination</td>
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<td>• Emergency preparedness/response</td>
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<td>• Global collaborations</td>
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<td>• Health hazard evaluation (HHE)</td>
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<td>• Hearing loss prevention</td>
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<td>• Immune, dermal and infectious diseases</td>
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<td>• Musculoskeletal disorders</td>
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<td>• Radiation dose deconstruction</td>
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<td>• Respiratory diseases</td>
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<td>• Training grants</td>
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<td>• Traumatic injury</td>
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<td>• Work organization and stress-related disorders</td>
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<td>• Economics</td>
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<td>• Exposure assessment</td>
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<td>• Engineering controls</td>
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<td>• Work life initiative</td>
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<td>• Occupational health disparities</td>
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<td>• Small business assistance and outreach</td>
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<td>• Surveillance</td>
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<td>• Nanotechnology</td>
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<td>• Prevention through design</td>
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An estimated 20 million workers use PPE on a regular basis to protect themselves from job hazards.

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PPT Program Goals

PPE Workplace needs

Strategic Goal 1: Inhalation Hazards
Strategic Goal 2: Dermal Hazards
Strategic Goal 3: Injury Hazards

Policy and Standards Development
Respirator Certification
Surveillance Outreach

Research

Conformity assessment
NPPTL & PPT Program Activities

PPT Program Management

- Respirator Certification Program
- Quality Audit Program
- Certified Product Investigations
- Firefighter SCBA Investigations
- Long-term Field Evaluation
- Enhancements to 42 CFR Part 84
- Chemical, Biological, Radiological, and Nuclear (CBRN) Respirator Standards Development
- Guidance Document Development
- Respiratory Protection
- Protective Clothing & Ensembles
- Integration of Sensors & Electronics
- Human Performance
  - Fall Protection
  - Hearing Protection

Administrative Support

Scientific Excellence Focus

Technology Evaluation

Policy & Standards Development

Technology Research

Surveillance, Communication & Scientific Support

- Surveillance
- Scientific Evaluations
- Program Evaluations
- Outreach
Today we have 85 people and a $16.9 million budget

HHS
Department of Health and Human Services

CDC
Centers for Disease Control and Prevention

~$10.1 billion   ~ 9797 FTE

NIOSH
National Institute for Occupational Safety and Health

~$424 million   ~ 1400 FTE

Div/Labs

NIOSH Divisions / Labs

NPPTL: ~$16.9 million 85 FTE
PPT Program activities focus on workplace relevance and Impact

CBRN Protection
• Respirator Standards Development
• CBRN PPT Research
• Respirator Certification
• NFPA/IAFF Collaboration
• TSWG IAA
• OSHA Collaboration

Mine Escape Strategies
• Respirator Certification
• Respirator Investigations
• New Technology Research
• Escape Respirator Research
• Escape Respirator Standards
• MSHA Collaboration

Nanotechnology Hazards
• Filtration Research
• Protective Clothing Research
• Respirator Research
• Respirator Certification
• Workplace Guidance

Pandemic Preparedness
• N95 Respirator Research
• Standards (Total Inward Leakage)
• Respirator Certification
• FDA Collaboration
• National Academies Activities
• Pandemic Planning and Response
PPT Program and NPPTL Logic Model (Operating Philosophy)

Inputs

NPPTL Programs / Activities

Outputs

Intermediate Outcomes

Public Benefit Outcomes

Program Execution Components

Surveillance and Environmental Assessment

Stakeholders

External Factors

National Academies COPPE

Performance Metrics and Measures
National Academies Evaluations provide high level scientific input to PPT Program

- IOM Committee on PPE (COPPE) Established in 2005
- Forum for discussing scientific and technical PPE/PPT issues
- 7 Reports
- 1 committee in process
National Academies Evaluations provide high level scientific input to PPT Program

- PPT Program Evaluation Committee Report
  - The Personal Protective Technology Program at NIOSH (2008)

- COPPE Spin-off Committees
  - Preventing Transmission of Pandemic Influenza and Other Viral Respiratory Diseases (2011)
  - Certifying Personal Protective Technologies: Improving Worker Safety (2011)
  - Preparing for an Influenza Pandemic: PPE for Healthcare Workers (2008)
  - Reusability of Facemasks During an Influenza Pandemic: Facing the Flu (2006) (funded by HHS)
  - Respiratory Protection Nursing Program Curriculum Content – in process

Reports available through http://www.iom.edu/Activities/PublicHealth/PPEinWorkplace.aspx
National Academy Evaluation of NIOSH PPT Program is setting stage for future activities

• Comprehensive National PPT Program
• Establish PPT Research Priorities and Expand the Extramural Program
• Enhanced respirator certification program
• Research on use and usability of PPE
• Assess PPT use and effectiveness using a lifecycle approach
National Academies Review of PPT Program (2008)
Recommendation 1: Implement and Sustain a Comprehensive National PPT Program

- Oversee, coordinate, and where appropriate, conduct research across all types of occupational PPT and across all relevant occupations and workplaces;

- Participate in policy development and standards setting across all types of occupational PPT;

- Oversee all PPT certification in order to ensure a minimum uniform standard of protection and wearability. The National Program should collaborate with other relevant government agencies, private-sector organizations, and not-for-profit organizations to conduct an assessment of the certification mechanisms needed to ensure the efficacy of all types of PPT; and

- Promote the development, standards setting, and certification of effectively integrated PPT components and ensembles in which multiple types of PPT (e.g., eye protection, hearing protection, respirators) can be effectively and seamlessly worn together.
IOM Certifying PPT Report Recommendations issued Nov 2010

- Develop and Implement Risk-Based Conformity Assessment Processes for Non-Respirator PPT
- Enhance Research, Standards Development, and Communication
- Establish a PPT and Occupational Safety and Health Surveillance System
What is the conformity assessment challenge?

- How can a risk based approach to conformity assessment system design be applied to PPT?
- How do standards and conformity assessment impact the selection and use of PPE?
- When is assurance beyond first party certification necessary?
- What is the federal agency role in the process?
Organizing and Operating Philosophy:
“First, do no harm.”

The committee recognizes that many conformity assessment processes already in place can fit this framework.” (p. 114, IOM report)

Provide your input to NIOSH PPT Conformity Assessment Docket # 237 to be available May 2011 – July 2011

Identify collaborators to participate in PPT Conformity Assessment Working Group
Why are we here today?

Innovative approaches to collaboration are needed
Quality Partnerships Enhance Worker Safety & Health

Visit Us at: http://www.cdc.gov/niosh/npptl/

Disclaimer:

The findings and conclusions in this presentation have not been formally disseminated by the National Institute for Occupational Safety and Health and should not be construed to represent any agency determination or policy.

Thank you