Respirator and surgical mask
efficacy from cough aerosols – FY 13 (921ZBFW)

Objective
Determine efficacy of FFR and surgical masks when exposed to aerosols generated by a cough simulator

Aerosol generator

Aerosol particle counter

Cough simulator

Breathing Machine

2 m

Applicable standards
- Polices and procedures

Key Partners
- HELD – NPPTL Collaboration
- NIOSH/CDC/DHHS
- Other Federal Agencies (OSHA/EPA/FDA)

Stakeholders
- Safety Professionals
- Other Government Agencies
- Other Research Organizations

Project Scope
- Controlled studies are needed to address the efficacy of surgical masks and FFR use in preventing transmission of influenza and provide healthcare recommendations

Milestones FY13
- Measure the effects of different room air exchange rates on healthcare worker exposure to potentially-infectious cough-generated aerosols.
- Extend initial study to examine the effectiveness of different types and configurations of PPE at protecting healthcare workers from cough-generated airborne particles

Outputs

Outcomes
Improved worker respiratory protection as a result of updated guidelines/recommendations for use of FFR and surgical masks

Updated: 11 April 2013