**Why Hospital Staff Catch the Flu: Assessing Modes of Transmission – FY17 (939ZNRW) – Ed Fisher**

### Objectives
- Measure influenza contamination on PPE (FFRs and SMs) of healthcare workers and in the environment (in the air and on surfaces) in a healthcare facility
- Measure contact transfer of virus from contaminated FFRs to hands
- To develop a control banding tool for assessing occupational risk during public health emergencies

### Project Scope
- FY11 - Write proposal, initiate contract with JHU (NPPTL)
- FY12 - Correlate influenza environmental sampling to PPE sampling in the lab (HELD)
- FY13 - Pilot field study. Measure environmental and PPE influenza contamination in healthcare setting (DSHEFS)
- FY14 - Laboratory study to on contact transmission from contaminated PPE using MS2 phage and human test subjects (NPPTL)
- FY15 - Full-scale field study. Measure environmental and PPE influenza contamination. Relate contamination to influenza rates of subjects in the ResPECT study (JHU)
- FY16 - Establish contracts and IPA for control banding study
- FY17 - Publish papers in peer-reviewed journal
- FY18 - Develop control banding tool for other routes of transmission

### Milestones FY17
- Q2: Submitted proposal for Fiscal Year 2017 LaSSI Funding
- Q3: Publish Phase 5 Manuscript in JOEH (submitted)
- Q3: Publish Phase 4 manuscript in JOEH
- Q4: Publish Phase 3 Manuscript
- Q4: Publish Phase 4 Manuscript

### Stakeholders
- Healthcare workers
- Hospital administrators
- Policy makers

### Applicable Standards
- ASTM E2720–10/E2721–10
- NIOSH 42 CFR Part 84

### Key Partners
- Johns Hopkins University
- Veterans Administration
- NIOSH (DSHEFS, HELD)

### Outputs
- Presentation Transfer of Influenza from Contaminated FFRs to the Hands of Healthcare Workers NIOSH PPT Program Healthcare Stakeholder Meeting June 18, 2013 Atlanta, GA.
- Presentation Can Filtering Facepiece Respirators (FFRs) and Surgical Masks (SMs) serve as fomites? SEIU-NIOSH Meeting: Contact Transmission Risks - Surgical Masks January 14, 2014

### Outcomes
- CDC/NIOSH Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings http://www.cdc.gov/niosh/topics/hcwcontrols/RecommendedGuidanceExtendedUse.html
- Other researchers will use the findings of this project to explore the modes of influenza transmission and examine the efficacy of PPT