

NIOSH Influenza Transmission Research

Presenter: Dr. William G. Lindsley, NIOSH.

Part of Roundtable Discussion 1: Improving the evidence base to support guidance on the appropriate level of respiratory protection.

Abstract

How do you protect healthcare workers from the flu? It's an important question because, in an influenza pandemic, tremendous demands will be made on the healthcare system and its workers. At the same time, many of these workers will face a much greater risk of exposure to the virus than will the general public. Thus, it's critical to understand how influenza spreads so that we can determine the best ways to protect health care workers while still enabling them to do their jobs.

For several years, NIOSH has been studying how influenza is transmitted from person to person, with a particular focus on infectious aerosols. We've also been testing the efficacy of different types of personal protective equipment such as masks, respirators and face shields, and examining when they are needed. Our research includes:

- Measuring aerosol production during aerosol-generating medical procedures.
- Simulating the exposure of a healthcare worker to an infectious aerosol produced by a coughing patient.
- Measuring the exposure of healthcare workers to influenza aerosols.
- Developing more sensitive methods to detect viable airborne influenza virus.

A better understanding of the production of influenza-laden aerosols and the exposure of healthcare workers to them will enable NIOSH to provide better guidance for worker protection. More information on the influenza research being conducted at NIOSH can be found on our webpage at <http://www.cdc.gov/niosh/topics/flu/activities.html>.

Dr. Lindsley received his PhD in Bioengineering from the University of California, San Diego. He is currently a biomedical engineer with NIOSH in Morgantown, WV.