

Pathogen Safety Data (PSD) Guide Training Module

INSTRUCTOR GUIDE

OCTOBER 2016

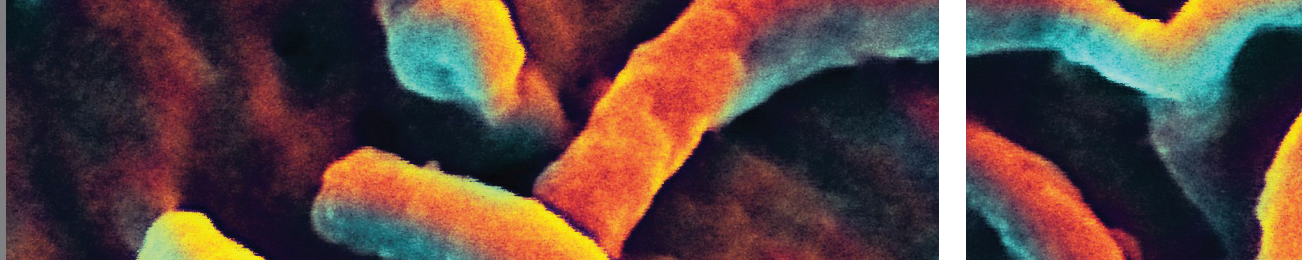
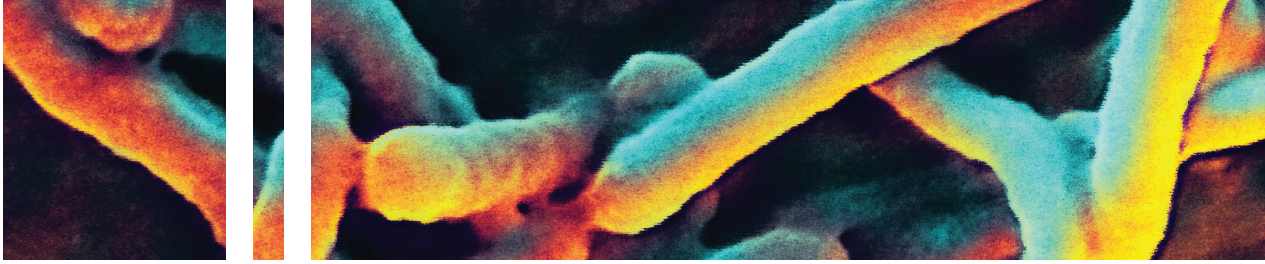


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INSTRUCTOR GUIDANCE

This document provides guidance for Instructors of the NIEHS Pathogen Safety Data Guide Training Module. Trainers are encouraged to adapt and modify how they deliver the course to meet the needs of specific target audiences, programs,, and circumstances. The training module is geared to train workers with potential exposure to infectious pathogens on how to use the PSD Guide. The PSD Guide reviews existing PSD resources, their strengths and limitations, and how to access them.

Sections of the PSD module may be integrated into existing infectious disease training programs, developed into a series of training sessions or used as a standalone module, depending on the needs of the target audience. The curriculum uses interactive training techniques to teach workers how to research the characteristics of infectious pathogens that they may be exposed to on-the-job and understand how pathogen safety data resources may be used to develop site-specific risk assessment and worker protection programs. The materials for the module include:

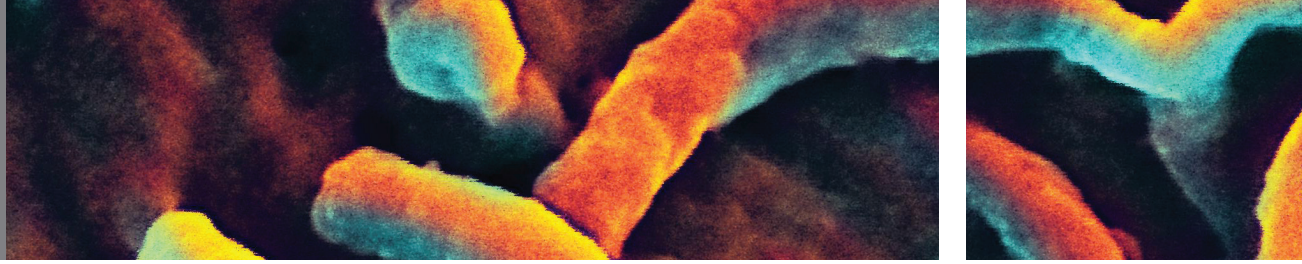
- 1) a PPT presentation
- 2) a participant worksheet
- 3) the PSD Guide
- 4) a glossary
- 5) four case studies that can be used as a supplement or alternative to activities 3 and 4, and
- 6) an instructor guide.

These materials may be downloaded from the NIEHS WTP website:

<http://tools.niehs.nih.gov/wetp/index.cfm?id=2528>

Course Goals

This is a four-hour course entitled “Pathogen Safety Data Guide Training Module”. The goal of the guide and its companion training module are to highlight existing PSD resources and clarify how they may be used to develop infectious disease occupational exposure control plans in a broad spectrum of industries.



Course Objectives

Upon taking this module, participants will be able to:

- 1) Access and use existing resources for pathogen safety data.
- 2) Look up key terminology used in pathogen safety data resources.
- 3) Explain the use of pathogen safety data resources in risk assessment and infection prevention and control activities.

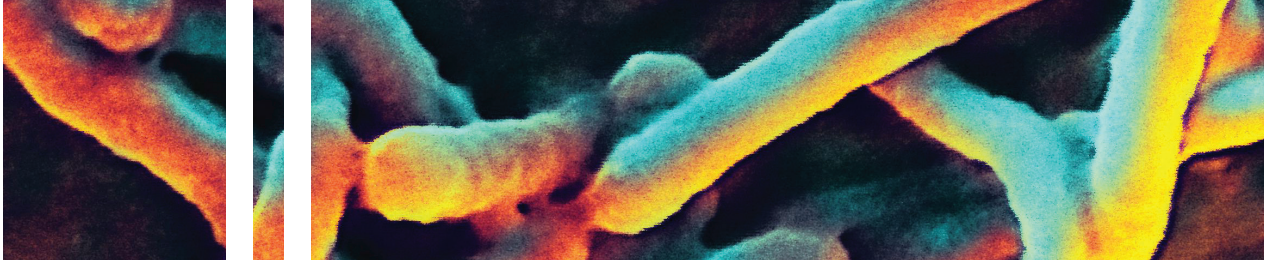
Target Audience

The guidance in the PSD Guide and the companion training module is primarily intended for workers and employers in industries with potential for occupational exposure to infectious pathogens. The Guide is intended to increase awareness of credible resources for pathogen safety data, empower routine use of a risk assessment process on-the-job and be a reference for developing site specific infectious disease exposure control programs.

The companion training module may be integrated or adapted, in part or in whole, into existing training programs. It should not be used to replace a comprehensive pathogen specific training program and should be modified to meet industry- and site-specific conditions by customizing it to targeted populations. While not all elements of this course will directly pertain to each training population, it is valuable for all workers who have a potential for exposure to infectious pathogens to learn how to use existing PSD resources. Trained workers and leaders will more likely be able to contribute to the development and implementation of infectious disease prevention and control activities as well as understand the logic for the control measures implemented in their workplaces and question when there are gaps in prevention programs.

Instructors should tailor the materials to the educational level, experience, and job tasks of the people who are being trained. For example, transportation workers would benefit from doing the glossary exercise, thereby becoming familiar with terminology used in PSD resources. Conversely, healthcare and EMS workers may not find the glossary exercise as useful. A list of industries that may benefit from using this guide is in the table below.

- Healthcare
- Humanitarian aid
- First responders and emergency personnel
- Laboratory
- Environmental services (clean-up and waste disposal)
- Funeral and mortuary
- Travel: airline, rail, ship
- Border, customs, and quarantine workers



Allocated time

The module is designed as a four program. However, the material may be shortened by selecting activities and slides that will conform to shorter time frames. For example, for some training populations, such as healthcare and EMS workers, the Glossary exercise may not be necessary or valuable. Alternatively, consideration should be given to integrating subsections into existing infectious disease training programs.

Adult Education Techniques

This course is based on proven adult education techniques including:

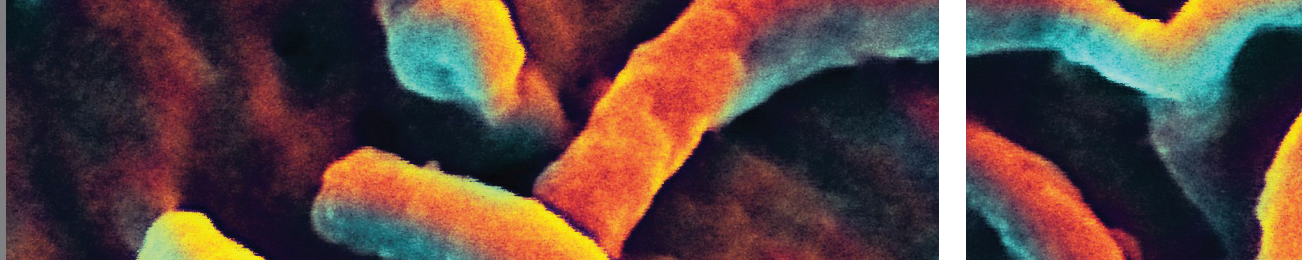
- group discussions with flip charts;
- small group activities with worksheets and report backs;
- individual worksheets; and
- optional case studies.

The participative approach encourages students to play an active role in learning. Participative training techniques are much more effective than lecturing. Experience demonstrates that most instructors lose students interest after 6 to 10 minutes of lecturing. By drawing on participant's work experience you will engage them in actively learning and solving problems presented in the material.

Course Agenda

The training module consists of **six sections** and **five activities**:

- Section I: Background
- Section II: Introduction to Pathogen Safety Data and Occupational Hazards
- Section III: Existing Sources of Pathogen Safety Data
- Section IV: Occupational Exposure Risk Assessment
- Section V: Infection Prevention & Control: Best Practice Example & Resources
- Section VI: Selection of Control Measures
- Activity 1: Introductions and hazard identification.
- Activity 2: Terms & Definitions. Glossary exercise.
- Activity 3: Characterizing Infectious Disease Hazards. Participants form small groups and use smart phones or laptops to complete the worksheet, characterizing pathogens relevant to their workplace.
- Activity 4: Occupational Risk Exposure Assessment & Selection of Controls. Participants form small groups and use smart phones and laptops to complete the worksheet, selecting exposure controls for the pathogen they are working with.
- Activity 5: Brainstorm, Action Planning & Realistic Implementation Approach. This activity is useful for trainers or leaders who may consider how to use the PSD Guide and Training Module with their constituency.



Materials and Logistical Requirements

- Computer/LCD Projector – for PPT
- Hardcopy of the PSD Guide, the Glossary, the Agenda, the Worksheet, and the Case Studies
- Wireless Internet – required during Activity 3 and 4 to enable participants to use smartphones or laptops to download apps and navigate PSD resource websites

Case Studies *(alternative or supplementary to Activities 3 and 4)*

The four case studies provide an alternative to Activities 3 and 4. Instead of using the worksheet to look up characteristics of the pathogens of concern and listing suitable control measures, the instructor may use a case study that describes an industry specific exposure and includes a relevant set of questions that will require participants to use existing PSD resources to research the answers. The four case studies are:

- 1) EMS/ First Responders: Meningococcal Disease (*Neisseria meningitidis*)
- 2) Environmental Service Workers (non-hospital): Ebola Virus Disease
- 3) Transportation Workers: Middle Eastern Respiratory Syndrome
- 4) Healthcare Workers: Hantavirus

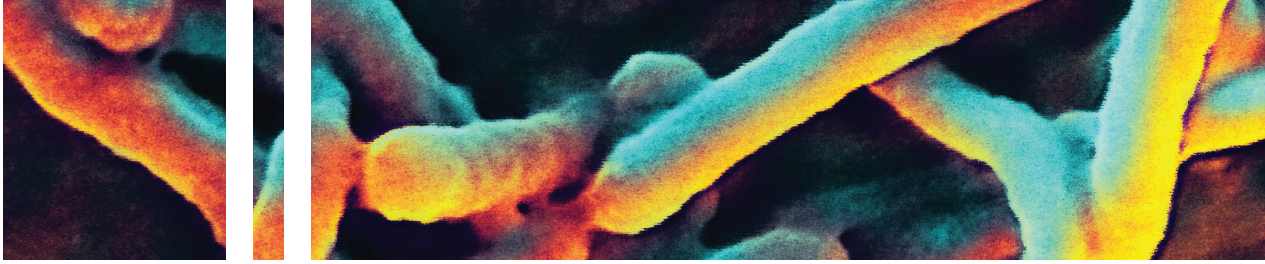
PPT Slides and Instructor Notes

Below each PowerPoint™ slide is a set of instructor notes. Some of these notes are material that is intended to be directly communicated to participants. The notes also indicate when participants should be encouraged to download apps and when instructors can click on active links to demonstrate the PSD websites. It is a good idea to practice navigating the sites so that you can comfortably demonstrate how to search for a specific pathogen and look up relevant information. It is recommended that instructors prepare by reviewing the instructor notes, rather than reading them to the participants. The delivery of the material will be stronger when instructors use their own words and examples. Instructors should also keep in mind that the activities are at the core of the PSD training module and the slides and demonstration of the sites are intended to orient participants so that they are confident in doing the activities.

Group Discussions

Keep in mind that some of the questions provided are open- ended and may generate more than one correct response.

It is important to allow students to present their ideas and solutions. The activities and case studies also may reveal gaps in infection prevention and control programs that may not have an immediate, easy, or clear solution. As the instructor, you want to draw out the knowledge and expertise of the participants and help them to clarify potential problems and solutions.



Small Group Activities

The instructor will need to help the class divide into an appropriate number of groups. For example, if there are 20 in the class, you could divide into four groups of five. You will also have to decide if the groups should be organized based on certain characteristics such as a) all from the same workplace; b) all in the same occupation; or c) a mix of experienced and novice workers.

Make sure the groups know which activity on the worksheet or which cases study to work on and how much time they have to do the task. It is also important to emphasize that they need to select one person to be the recorder/ reporter for the report back. Ask if there are any questions before they begin. It is a good idea to walk around the room and observe the groups and make yourself available if they have questions. Make sure everyone is engaged and participating in the activity.

Be a Facilitator

We encourage you to be an instructor who facilitates the course. Use the worksheet, activities, case studies and questions included in the presentation to draw out students' experiences related to occupational infectious diseases and help them fill in the missing pieces. Your role is to serve as a discussion leader, not just as an "expert". This approach is more rewarding for participants and less of a burden on trainers.

Cultural Awareness

Definition:

- Awareness of your own culture as a set of values, behaviors, attitudes, and practices, and the understanding that other cultures may be different from your own
- Respect for the beliefs, languages, and behaviors of others
- A quality that develops over time, usually involving increasing sensitivity and long-term commitment

Instructors should strive to understand and respect the cultures within the community that they are training. Make adjustments to the training based on cultural considerations.

