Instructor Guide

# INFECTIOUS DISEASE AWARENESS

# THE POWER TO EXCEL



SKU 4150

# INFECTIOUS DISEASE AWARENESS

Instructor Guide



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# To the Instructor

# Introduction

This Instructor Guide is designed using the best practices of adult education to help you organize and deliver interactive training. This design was developed with the input of Laborer Instructors across North America and adult educational experts.

This guide is intended for use with the appropriate Participant Guide and handouts to deliver training. The Lesson Plan provides a step-by-step guide on the most appropriate way to deliver this curriculum.

While the logistics of your training location may necessitate slight changes to classroom or hands-on activities, these changes should be kept to a minimum so that the training is delivered as intended.

# **A Note About Teaching Methods**

The teaching methods suggested in the Lesson Plans promote active learning. These methods are designed to work with all types of learners. By following the suggested Lesson Plans, participants will be involved in problem-solving and group activities that build on their existing knowledge and skills and promote learning by doing. The Instructor Guide is designed to help you facilitate this type of learning and teaching.

# A Note About English Language Learners

For laborers in the process of learning the English language (English language learners, or ELLs) who are at an intermediate level or above, the active learning strategies suggested in the Lesson Plan will help them to participate successfully in your training. While active learning benefits all adults, ELLs in particular can benefit from these strategies.



# **Preparing for Delivery and Lesson Overview**

Everything you need for the classroom part of this course can be found in the Preparing for Delivery and Lesson Overview sections. Exercises, videos, A/V equipment – it's all here.

# **Lesson Plans**

Lesson Plan teaching notes present information for you on how to best organize the class. This will include what participants should do and what you should do to help them meet the learning objectives. Additional instructional materials, timelines, and special points of emphasis are also noted.

# Handouts, Instructional Tools, and Hands-On Exercises

Instructions for classroom and hands-on exercises are included in the Lesson Plans. If the exercise requires a handout for participants to respond to and/or write on, the exercise is on a handout. Handouts and Instructional Tools are in printable files available at www. liunatraining.org/affiliateservices/instructionalmaterials provided by LIUNA Training. The Lesson Plan identifies each handout, when to distribute it, and how to conduct the exercise. An answer key, if applicable, is also provided with the Lesson Plan. For hands-on exercises, the Lesson Plan also identifies any tools or equipment required.

# **PowerPoint Slides**

If a lesson has an accompanying presentation in PowerPoint format, the Lesson Plan identifies each slide and when to display it. The files for each PowerPoint slide can be found at www.liunatraining.org/affiliateservices/instructionalmaterials.

# **Performance Measurement**

Most Lesson Plans will have a Performance Measurement Checklist for evaluating and documenting a participant's performance during classroom or hands-on activities. Your copies of the Performance Measurement Checklists are provided in the Lesson Plans. Printable files to distribute to participants are provided at www.liunatraining.org/ affiliateservices/instructionalmaterials.

## **Glossary and Resources**

A Glossary of frequently used terms and abbreviations is available for participants. This includes all terms that are defined in the sidebars of the Participant Guide. A Resources list with links to organizations and articles that participants may find useful for further research on the topic is also available. Instructors should photocopy the Glossary and Resources and distribute them to participants. These documents are available at www.liunatraining.org/ affiliateservices/instructionalmaterials.

# **Video Presentations**

All video presentations are included on the LIUNA Training Videos Series application, available from LIUNA Training.

### Exams

Details regarding written exams to evaluate participant's knowledge including description, time range, and minimum passing scores are provided following the appropriate chapter and/or course. Printable files of exams to distribute to participants are provided at www. liunatraining.org/affiliateservices/instructionalmaterials.



# **Infectious Disease Awareness**

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# **Infectious Disease Awareness**

Preparing for Delivery

# **Preparing for Delivery**

# Time

The Infectious Disease Awareness course is approximately 4 hours of classroom training.

Follow the Lesson Plan for a guide to scheduling this course. Time allotments for specific topics are provided within the plan. You may devote more time to classroom and hands-on activities as needed, as the plan reflects the minimum suggested time allotments.

# Staffing

The maximum participant – instructor ratio is 25:1.

During classroom activities, the recommended participant – instructor ratio is 10:1.

During hands-on activities, the recommended participant – instructor ratio is 5:1.

# **Materials Needed**

For this course, you will need the following:

- A copy of the Infectious Disease Awareness Participant Guide (PG)
- A flip chart or whiteboard and markers
- A computer and projector or monitor

The table on the following page lists the materials needed for this lesson.



Preparing for Delivery (continued)

Lesson	Media	Handouts
Overview		
Introduction and Pre-test (15 min.)	Slides 1 to 2	Infectious Disease Awareness Pre-test
Exercise 1: Infectious Diseases and Routes of Transmission (40 min.)	Slides 3 to 9	HO 1: What are Infectious Diseases? HO 2: Routes of Disease Transmission
Exercise 2: Recent or Frequent Disease Outbreaks (15 min.)	Slides 10 to 12	HO 3: Recent and Historic Disease Outbreaks
Exercise 3: Categories of Infectious Diseases (15 min.)	Slides 13 to 18	HO 4: Categories of Infectious Diseases
Exercise 4: Exposure, Risk, and Precautions (40 min.)	Slides 19 to 22	HO 5: Exposure, Risk, and Precautions
Exercise 5: Controls, Decontamination, and Disinfection (40 min.)	Slides 23 to 26	HO 6: Controls, Decontamination, and Disinfection
Exercise 6: Regulations, Guidelines, and Standards (15 min.)	Slides 27 to 28	HO 7: Regulations, Guidelines, and Standards
Exercise 7: Psychosocial Hazards (15 min.)	Slides 29 to 31	
Summary (15 min.)	Slides 32 to 35	Things to Remember
Exam (30 min.)		Infectious Disease Awareness Post Exam

#### **Course Introduction and Pre-test**

Welcome participants and introduce yourself to the class.

**Display** Slide 1. Explain that the four-hour *Infectious Disease Awareness* course serves as a foundation for workers who may need to understand the issues surrounding working in an environment where infectious disease or diseases are known or suspected to be present. Explain that this course will help them to learn about these issues, and that a separate, 40-hour *Infectious Disease Operations* course provides more in-depth instruction for these topics, as well as opportunities for hands-on practice.

**Display** Slide 2. Explain that participants will first take a short pre-test, which will assess their prior knowledge about working around infectious diseases, and help guide their learning experiences throughout the course.

**Distribute** a copy of the Pre-Test to each participant. Tell them they will have 5 minutes to complete the test. Explain that participants will have the opportunity to compare their pretest results against their final test at the end of the course.









Infectious Disease Awareness Pre-test





### Exercise 1: Infectious Diseases and Routes of Transmission

**Display** Slides 3–4 to present the exercise objectives to the class. (You may also want to refer participants to where the objectives are listed at the beginning of the Participant Guide.) At the end of this exercise, participants will be able to:

#### **Objectives**

- 1. Define *infectious disease*.
  - 2. List at least five occupations that are at risk from infectious disease exposure.
  - 3. Describe the primary routes of transmission for infectious diseases.

**Open** the lesson by asking participants to shout out names of any infectious diseases they know. Note their answers on a piece of flip chart paper and post it. On a separate piece of flip chart paper, have participants list the types of occupations that may expose workers to infectious diseases.

**Display** Slide 5 and compare the list of occupations with the list of ones that participants created.

**Explain** that next, participants will work together to come up with a definition for the term *infectious diseases*.

**Display** Slide 6 and distribute Handout 1: *What are Infectious Diseases?* Tell participants to work in groups to create a definition for infectious disease by filling in the blanks with the words in the box. (Note that participants should *not* use their PG for this activity.)

**Display** Slide 7 to show the definition for *infectious diseases* from the PG. Check the group's definitions to see if they match. (See the answer key on the following pages.)

**Return** to the list of diseases that participants came up with at the beginning of the lesson. Ask, "Are all infectious diseases transmitted in the same way? How are these diseases transmitted?" Note answers on the flip chart paper together with the diseases.

**Display** Slide 8. Explain that these terms represent different categories for how infectious diseases are transmitted to people. Ask participants if they can briefly say or guess what the terms means as they relate to transmission of disease. Explain that understanding how diseases are transmitted is key to knowing how to protect oneself on an infectious disease worksite.

**Distribute** Handout 2: *Routes of Disease Transmission*. Assign one of the routes of transmission on the handout to each participant (some routes will be assigned to more







Flip Chart



HO 1: What are Infectious Diseases?



HO 2: Routes of Disease Transmission



PG: 3 to 10

## Exercise 1: Infectious Diseases and Routes of Transmission (continued)

than one participant). Tell them to find the information for the number they've been assigned and note it on their handout. Share with them that they can find information they need in the PG on pages 4 to 6.

**Have** participants take turns reading the answers to their questions aloud, and tell participants to fill in the rest of the answers on their handout as they listen. Review the answers to the handout with the class. (See the answer key on the following pages.)

**Display** Slide 9. Say, "The risk of getting ill from an infectious disease depends on the opportunity for exposure – for example, what type of contact workers may have with the host or object that contains or carries the pathogen – but it also depends on a couple of other factors." Ask participants to read the information on the slide and to try and come up with the missing words. Participants may refer to PG pages 4 to 6 as a reference. After a minute, ask pairs or groups to shout out their ideas. Click through the slide to reveal the answers. (Each click reveals one answer.)

**Answer** any additional questions that may have come up in the completion of the lesson.

**Conclude** by telling participants that different diseases have different routes of transmission, and that employers have a responsibility to ensure that they provide workers with the right training and protection for working around any type of infectious diseases.



# **Infectious Disease Awareness**

Handout 1: What are Infectious Diseases?



#### Handout 1 What Are Infectious Diseases?

Instructions: Create a definition for infectious diseases. Use these words.

bacteria	disorders	ir	nfections	parasites	
biological agents	fungi	r	nultiply	pathogens	
body	illnesses	0	rganisms	viruses	
Infectious diseases are	illnesses	infections	, or other health	disorders	_
that are caused by organi	sms that enter the	body and	multiply	These small	
organisms	(microorganisms) inclue	<sub>de</sub> <b>bacteria</b>	vvirus	565	
fungi	_, and parasites	They may also b	e called <b>pathc</b>	ogensor	
biological	agents				

Infectious Disease Awareness

# Handout 2: Routes of Disease Transmission



Handout 2 Routes of Disease Transmission

Instructions: Fill in the chart with information about routes of disease transmission.

Route of Transmission	Definition	Examples
1. Direct contact	A susceptible person physically contacts an infected person and transfers the organism.	Ebola
2. Indirect contact	Transmission occurs when an individual touches a contaminated surface and then becomes infected by touching his or her mouth, eyes, or nose.	Influenza
3. Airborne	Transmission occurs through droplets or aerosols. When they are inhaled by a susceptible individual, they enter the respiratory tract and can cause infection.	Tuberculosis Whooping cough
4. Vector-borne	Carried by another species; "vector" usually refers to an insect, and transmission occurs via a bite from the vector.	Zika West Nile virus
5. Non-contact vehicle transmission	Infection spreads from a contaminated source to the individual. Often the contaminant is ingested.	E. coli Salmonella
6. Bloodborne	From contact with an infected person's blood or sometimes other body fluids. Contaminated needle sticks often transmit these diseases.	HIV hepatitis B

Infectious Disease Awareness – Instructor Guide





### **Exercise 2: Recent or Frequent Disease Outbreaks**



SL 10 to 12



HO 3: Recent and Historic Disease Outbreaks



PG: 7 to 10

**Open** the lesson by displaying Slides 10 and 11. Ask participants to look at the list of diseases, and briefly mention what they already know about each. List their ideas on the board.

**Explain** that one of the reasons for having a course such as this one is in response to different types of disease outbreaks in the past, but another reason is that new diseases are always emerging, and in some cases, may even be weaponized for use in biological attacks.

**Display** Slide 12 to present the exercise objectives to the class. At the end of this exercise, participants will be able to:

#### Objective

4. Describe three infectious diseases, their symptoms, and how they are transmitted.

**Distribute** Handout 3: *Recent or Frequent Disease Outbreaks*. Divide the class into small groups and assign each group 1–2 diseases listed on the handout. Tell each group to write down information about the history, symptoms, and route(s) of transmission for the assigned disease(s) on their handout. Participants may look at PG pages 7 to 10 as a reference.

**Have** participants (individually or in groups) read their answers aloud. Tell other participants to listen and fill in the rest of the items in their handout.

**Review** the answers with the class. (See the answer key on the following page.) Answer any questions that may have come up in the completion of the handout.

**Conclude** by telling participants that a number of different government agencies are working constantly to research new trends in infectious diseases, and to ensure that there are guidelines for protecting workers against exposure.

# Handout 3: Recent or Frequent Disease Outbreaks



#### Handout 3 Recent or Frequent Disease Outbreaks

Instructions: Fill in the chart with information about the diseases.

Disease	History	Symptoms	Route(s) of Transmission
HIV/AIDS	The first documented case was in 1959 in the Congo. As of 2011, over 60 million people were affected and 25 million had died.	Flu-like symptoms Rapid weight loss Night sweats Extreme exhaustion Swollen lymph glands Prolonged diarrhea Sores on the mouth, anus, or genitals Pneumonia Skin blotches Memory loss Depression	Bloodborne pathogen
Influenza	Various flu outbreaks have had worldwide impacts. Many different strains of the influenza virus continue to cause outbreaks every year. Some are more serious than others.	Fever/chills Cough Sore throat Runny or stuffy nose Muscle or body aches Headaches Fatigue Vomiting Diarrhea	Direct contact Contact with an infected object Inhalation of infected aerosols
E. Coli	Escherichia coli are bacteria found in the environment, foods, and intestines of people and animals.	Diarrhea Urinary tract infection Respiratory illness Pneumonia Severe cramps Vomiting	Contaminated food

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Infectious Disease Awareness





#### Handout 3 Recent or Frequent Disease Outbreaks

Disease	History	Symptoms	Route(s) of Transmission
SARS	SARS began in China in 2002 and spread to 37 countries worldwide through airplane travel. SARS demonstrated how quickly viruses spread in a world interconnected by international travel.	Fever Dry cough Shortness of breath Headache Muscle aches Sore throat Fatigue Diarrhea	Droplets expelled from an infected person's cough or sneeze and then breathed in by others; indirectly from contact with infected surfaces.
Ebola	The 2014 Ebola outbreak was the largest Ebola outbreak in history and the first in West Africa. The fatality rate is around 50 percent.	Fever Muscle pain Headache Sore throat Nausea Vomiting Diarrhea Impaired organ function	Direct contact with blood secretions, organs, or other body fluids of infected individuals.
Zika	In 2016, Zika outbreaks occurred in South and Central America, the Caribbean, and in areas of Miami-Dade County, Florida. To date over 5,000 cases have been reported in the United States, most by travelers returning from affected areas outside the U.S.	Mild fever Rash Joint/muscle pain Headache	Spread primarily through the bite of an infected mosquito, or can also be sexually transmitted.
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#### **Exercise 3: Categories of Infectious Diseases**

**Display** Slides 13 to 14 and present the exercise objective to the class. At the end of this exercise, participants will be able to:

#### Objective

5. Describe the NIAID Category A, B, and C priority pathogens/agents.

**Display** Slide 15. Open the lesson by asking participants to say (or guess) what the acronyms stand for. Click through the slide to reveal the answers. (Each click reveals one answer.)

**Display** Slides 16 and 17. Pause on each slide and briefly present the information about the roles of the CDC and NIH. Explain that the National Institute of Allergy and Infectious Diseases (NIAID) is part of the NIH, and that NIH, CDC, OSHA, and other government agencies often collaborate to help promote better understanding of and safe work practices around various infectious diseases.

**Display** Slide 18. Explain that NIAID groups infectious diseases into three different priority categories. Categories A, B, and C refer to the severity of the disease, with Category A as the most dangerous. A fourth category, *Emerging Diseases*, includes diseases that are starting to appear or reappear in a population. Upon further review, these diseases may be put into one of the three priority categories.

**Distribute** Handout 4: *Categories of Infectious Diseases*. Read the instructions aloud. Ask, "What are you going to do in this activity?" (Write A, B, C, or E next to each piece of information.) Have participants work in pairs to complete the handout. Tell participants to refer to PG pages 10 to 13 as a reference.

**Review** the answers with the class. Answer any additional questions that may have come up in the completion of the handout. (See the answer key on the following page.)

**Conclude** by explaining that in many situations where workers are asked to do cleanup of an infected area, the category of the pathogen(s) may determine what type of controls are used to work safely to handle, store, or transport infected waste and effectively disinfect worksites.





SL 13 to 18



HO 4: Categories of Infectious Diseases



PG: 10 to 13





#### Exercise 4: Exposure, Risk, and Controls

**Display** Slides 19 to 20 and present the exercise objectives to the class. At the end of this exercise, participants will be able to:

#### **Objectives**

- 6. Explain what to do if you are exposed to blood or other body fluids.
- 7. Define *biosafety*.
- 8. Explain the importance of using Standard Precautions and Expanded Precautions when working around infectious diseases.
- 9. Explain and give an example of airborne, droplet, and contact precautions.

**Open** the lesson by asking, "What factors may contribute to coming up with a plan for working around infectious diseases?" Give participants one minute to work in pairs or groups to make lists of their own. After time is up, ask pairs or groups to share their lists. Note their answers on the board.

**Display** Slide 21. Compare the lists that the class generated with the information listed on the slide. Explain that every jobsite is different, and that different types of controls are needed to work safely around different types of diseases.

**Display** Slide 22. Explain that facilities such as medical laboratories have established protocols for biosafety. Have participants read the definition for biosafety and ask them what types of issues labs may consider in establishing these protocols. (Answers: type of pathogen, work tasks, primary barriers and safety equipment needed, and the type of facilities where the work is performed.)

**Explain** that certain OSHA standards, such as those for bloodborne pathogens, respiratory protection, and PPE require exposure assessments, but that risk assessments for infectious diseases sites should include other criteria, depending on the type of tasks and the type of pathogens involved.

**Distribute** Handout 5: *Exposure, Risk, and Precautions*. Have participants work in groups to complete the handout. Tell them to use PG pages 13 to 15 as a reference. (You may wish to divide the questions up and assign 1–2 questions to each group. Also, if time permits, you can have groups write their answers on flip charts and post them around the room. Then have the groups do a gallery walk to find the answers to the questions they were not assigned to.)









HO 5: Exposure, Risk, and Precautions



PG: 13 to 15



**Have** a volunteer from each group read their answers to each question. Ask participants to offer additional information or different answers, if any. Answer any questions that may have come up in the completion of the handout.

**Conclude** by saying that each worksite requires its own site-specific assessment, and that different types of controls may be used. Since outbreaks of infectious diseases can sometimes occur quickly and the specific details about exposures may not be known, or not be measurable in a short amount of time, many sites may require a higher level of protection to ensure that workers' safety.

# Handout 5: Exposure, Risk, and Precautions





# Handout 5: Exposure, Risk, and Precautions (continued)



#### Exercise 5: Controls, Decontamination, and Disinfection

**Display** Slides 23 to 24 and present the exercise objectives to the class. At the end of this exercise, participants will be able to:

#### Objectives

- 10. Define *Hierarchy of Controls* and give an example of each of the following controls: engineering, administrative, and PPE.
- 11. Identify types of PPE for working safely around infectious diseases.
- 12. Explain the importance of proper donning and doffing of PPE.
- 13. Explain the role of decontamination after working in areas contaminated by infectious pathogens.
- 14. Explain the role of disinfection when working around infectious diseases.

**Tell** participants that you will now talk about different types of controls for the specific hazards posed by infectious diseases.

**Ask** participants, "What is the Hierarchy of Controls?" Invite a volunteer to come to the board, or to a flip chart, and draw/list the Hierarchy of Controls (elimination/substitution, engineering controls, administration controls, and PPE).

**Display** Slide 25 to check the answers. Ask, "Which controls are the most effective?" (Elimination and substitution.) "Why does this generally not apply to an infectious disease site?" (If diseases are already known to be present on a site, elimination/substitution isn't an option. This generally applies to use of chemicals on a site, not the presence of biological agents.) "Why is PPE at the bottom of the list?" (PPE should be a last resort, after all other types of controls have been put into place.)

**Divide** the class into two groups. Draw a T-chart on the board with two headings: *Engineering Controls* and *Administrative Controls*. Say, "First we're going to talk about Engineering and Administrative controls. We'll move on to PPE in the next part of the exercise."

**Assign** each group one of the two topics. Say, "In your group, try to come up with a list of examples of these types of controls for working around infectious diseases." Have each group come up with a list of controls for each of these areas. Tell participants to look at PG pages 19 to 22 as a reference. When they're finished, have groups post their lists on the wall.

**Ask** the class to shout out any additional items that they feel are missing on the lists, and add them to each list. When discussing engineering controls, point out the term

40

Minutes





PG: 19 to 27



HO 6: Controls, Decontamination, and Disinfection



Flip Chart



*biocontainment*, and make sure that participants understand the meaning of this term. (The physical containment of highly pathogenic organisms.)

**Review** by asking, "What is the purpose of the engineering and administrative controls that we just discussed?" (To prevent exposure of workers to harmful pathogens.) Then ask, "How might PPE play a role in preventing exposure?" Have participants talk about their answers in pairs and then share their information with the class. Note their ideas on the board. (Suggested answer: PPE should provide protection from the different routes of transmission for the pathogens that are present.)

**Display** Slide 26. Ask participants to name the types of PPE they can see in the image. (Protective suits, full-face APRs, and nitrile gloves.) Ask, "What other types of PPE might a worker need to wear in an environment like this?" Note answers on the board. Next, write the terms *decontamination* and *disinfection* on the board. Ask the class if anyone can explain the difference between the two terms. Note answers on the board. Explain that in the next activity, participants will learn more about what types of PPE are used, as well as the roles of decontamination and disinfection in infectious disease settings.

**Distribute** Handout 6: *Controls, Decontamination, and Disinfection*. Read the directions aloud. Divide the class into two groups and have each group prepare their presentation notes. Have participants write notes for their presentations on sheets of flip chart paper. Tell participants to look at PG pages 27 to 28 as a reference. (As an option, you can split the class into six individuals/groups/pairs and assign each one question to present to the class.)

**Have** the two groups post their notes and take turns presenting the information. Tell the other group to listen and to fill in the answers to those questions on their handouts. (See the answer key on the following page.)

**Check** the answers with the class. Answer any questions that may have come up in the completion of the handout. Note that there are OSHA standards that require certain types of PPE/training for working around infectious diseases, and that this will be covered in more detail in the next exercise.

**Conclude** by reiterating that exposure control plans must be site-specific, and that in cases where there aren't adequate resources for testing for the presence of infectious agents, the rule is that employers should err on the side of greater protection than may be deemed necessary. This may affect the types of PPE used, as well as the techniques and materials used in decontamination and disinfection of surfaces on a jobsite.

### Handout 6: Controls, Decontamination, and Disinfection



#### Handout 6 Controls, Decontamination, and Disinfection

#### **Group 1: PPE for Infectious Diseases**

Instructions: Answer the questions and prepare to present the information to the class.

1. What are key considerations for selecting PPE?

 ${\it Considerations}\ {\it for\ selecting\ PPE\ for\ workers\ at\ risk\ of\ infectious\ disease\ exposure\ include:}$ 

- Type of anticipated exposure: For example, workers may be exposed through splashes or sprays, blood, body fluids, or other contaminated liquids that might penetrate regular clothing or get into mucous membranes.
- Durability and appropriateness of the PPE for the task: This will affect, for example, whether an apron, gown, or full protective suit is selected for PPE. It is also important to know if the protective clothing needs to be fluid resistant, fluid proof, or neither. For cleaning/disinfecting tasks, the type of cleaning products used will impact PPE selection.
- Fit: PPE must fit the individual user. Poorly fitted respirators will allow contaminants to enter.
- 2. What types of PPE are used for working safely around infectious diseases?
  - Gloves: Usually nitrile or vinyl.
  - Protective clothing: A hooded fiber suit (such as Tyvek®) and an outer suit constructed of durable viral penetration-resistant material.
  - Face shields: May be worn over certain respirators to protect the face from splashed or sprayed substances.
  - Respirators: Half-face or full-face APR, PAPR, or SCBA.
- 3. Why are there specific procedures in place for donning and doffing PPE in an infectious disease environment?

Workers must don (put on) and use PPE properly to achieve the intended protection and minimize the risk of infection. Workers should doff (remove) PPE in a way that avoids self-contamination. This includes using a checklist, as well as a trained observer/trained observer's assistant.

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#### **Exercise 6: Regulations, Guidelines, and Standards**

**Display** Slides 27 to 28 and present the exercise objective to the class. At the end of this exercise, participants will be able to:

#### Objective

15. Identify two government standards related to working around infectious diseases.

**Open** the lesson by asking participants about the OSHA standards that they have learned about in previous OSHA-related courses or other training, either in class or on the job. Explain that there is no single OSHA standard for infectious diseases, but that OSHA is considering creating a new standard for infectious diseases targeted at workers in healthcare and other high-risk environments.

**Ask** participants which current OSHA standards are likely to be applicable to work in infectious disease environments. Note their answers on the board. Explain that in the next exercise, participants are going to look at these standards, as well as other agencies and groups that provide guidelines and standards for working around infectious diseases.

**Distribute** Handout 7: *Regulations, Guidelines, and Standards*. Have participants complete the handout individually or in pairs. Give them a few minutes to search for and fill in the missing words in the descriptions. Tell them they can use pages 28 to 32 of the PG as a reference if needed.

**Check** the answers to the handout with the class. (See the answer key on the following page.) Answer any questions that may have come up in the completion of the handout.

**Conclude** by saying that employers are responsible for making sure that workers are adequately trained in all standards that are relevant to their work situation, and that on infectious disease worksites, there may be several that apply.

15 Minutes



SL 27 to 28



HO 7: Regulations, Guidelines, and Standards



PG: 28 to 32



# **Infectious Disease Awareness**

Handout 7: Regulations, Guidelines, and Standards

	Regulations, Guidelines, and Standards			
nstruct	ions: Fill in the missing words.			
1.	Bloodborne Pathogens Standard (29 CFR 1910.1030):			
	Places requirements on employers whose workers have occupational exposure to <b>blood</b>			
	or other potentially infectious materials (OPIM).			
2.	Personal Protective Equipment (PPE) Standard (29 CFR 1910.132):			
	Requires employers to provide PPE, to conduct an assessment to determine the need for PPE, and to provide			
	training, including how to properly <b>don</b> and <b>doff</b>			
3.	Respiratory Protection Standard (29 CFR 1910.134):			
	When respirators are required, employers must develop a written program that details			
	respirator selection, types of respirators, fit-testing, medical evaluations, maintenance and			
	care, training/retraining, and evaluation.			
4.	Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120):			
	work in the United States. Spills of infectious material are also covered by the standard's requirements.			
5.	General Duty Clause (Sec. 5(a)(1)) of the Occupational Safety & Health Act:			
	This requires employers to furnish each employee with a place of employment that is free from recognized hazards			
	that are causing, or are likely to cause, death or serious physical harm to employees.			
6.	Hazard Communication Standard (29 CFR 1910.1200):			
	Requires employer compliance when workers use certain <b>Chemicals</b> for cleaning,			
	decontamination, and disinfection, including labeling, Safety Data Sheets (SDS), and training.			
7.	Centers for Disease Control and Prevention (CDC):			
7.	Centers for Disease Control and Prevention (CDC):   A federal agency that works to investigate, identify, prevent, and control			
7.	Centers for Disease Control and Prevention (CDC):   A federal agency that works to investigate, identify, prevent, and control			

# **Infectious Disease Awareness**

Handout 7: Regulations, Guidelines, and Standards (continued)

101	Regulations, Guidelines, and Standards
8.	National Institute for Occupational Safety and Health (NIOSH): A federal agency responsible for conducting research and making recommendations for the prevention of work- related disease and
9.	State plans:   Most states have their own worker health and safety laws and agencies. Some states have
10.	Cal-OSHA Aerosol Transmissible Diseases (ATD) Standard:   Only required in California, but is the only standard that requires covered employers to develop a comprehensive exposure
11.	Interim Planning Guidance for Handling Category A Solid Waste: A consolidated overview of regulations that provides information and guidance on the proper management and handling of these waste materials.
12.	Medical screening and surveillance:   The Bloodborne Pathogens Standard requires that an employer offer the hepatitis B,   and the HAZWOPER Standard requires a pre-placement medical exam as well as emergency/   exposure examinations.





### **Exercise 7: Psychosocial Hazards**

Display Slides 29 to 30 and present the exercise objectives to the class. At the end of this exercise, participants will be able to:



SL 29 to 31

#### **Objectives**

- 17. List at least five symptoms of stress.

Flip Chart



PG: 32 to 34

- 16. Define *psychosocial hazard*.
- 18. Give at least two actions employers can take to address issues of concern for personnel working around infectious diseases.
- 19. Give at least two actions workers can take to manage stress from working in environments that pose a risk of infectious disease.

Write the term *psychosocial hazard* on the board. Open the lesson by asking, "What are psychosocial hazards?" Give participants one minute to work in pairs or groups to list examples of their own. After time is up, ask pairs or groups to share their examples. Note their answers on the board.

**Explain** that psychosocial hazards affect the workers' emotional or psychological wellbeing. These hazards are often linked to workplace stress, absenteeism, difficulties at home, and even workplace violence. Ask, "How might working in an infectious disease environment present psychosocial hazards to workers?" (Suggested answers: Workers may feel stress from a fear of exposure to a deadly disease, or be part of a response team where they may have to deal with violent sights, such as the aftermath of a disease outbreak or a natural disaster.)

**Display** Slide 31. Ask, "If workers feel these types of symptoms, are they easy to remedy? What kinds of things can they do to if they feel these types of stress?" Note answers on the board.

**Divide** the class into two groups. Have each group take a piece of flip chart paper. Tell Group 1 to make a list of things that an employer can do to help workers who are experiencing stress from working around infectious diseases. Tell Group 2 to make a list of things that an employee can do for himself or herself to manage stress in this type of environment. Tell them they can use pages 32 to 34 of the PG as a reference if needed.

Have the two groups post their lists take turns presenting them to the class. Ask if anyone can add other ideas to either list. Answer any questions that may have come up in the completion of the activity.

**Conclude** by saying that stress can be mentally, emotionally, or physically harmful if not managed or treated properly, and that employers have a responsibility to ensure that workers have access to the tools they need to deal with this type of hazard.



Summary



#### Summary

**Distribute** Things to Remember.



**Explain** that the *Things to Remember* document is a take-home list of information that can be used for reference or for self-study. Note that this document provides information about the learning objectives and may be used as a study guide for the end-of-course assessment.

information on the *Things to Remember* handout for each objective. Ask participants if they are comfortable with their knowledge about, or ability to do, each of the objectives, or if

**Display** Slides 33 to 35 and briefly review the objectives with the class. Review the

Things to Remember



SL 32 to 35

**Redistribute** the pre-test that they took earlier and review the answers.

they need review or additional support on any of the items listed.

Ask the participants if they have any questions regarding any other topics of the course.

Address any questions or concerns.

Instructor Note: It is now time for them to take the course post-test.

# Things to Remember







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Infectious Disease Awareness













# Infectious Disease Awareness

Things to Remember

- 26. Actions workers can take to manage stress from working in environments that pose a risk of infectious disease include:
  - Develop a "buddy" system with a co-worker. Watch out for each other.
  - Take care of yourself physically by exercising regularly and eating small quantities of food frequently.
  - Take frequent rest breaks.
  - Drink plenty of fluids such as water and juices.
  - Try to eat a variety of foods and increase your intake of complex carbohydrates (breads, whole grain muffins, granola bars, etc.).
  - Whenever possible, take breaks away from the work area. Eat and drink in the cleanest area available.
  - Recognize and accept what you cannot change the chain of command, organizational structure, waiting, equipment failures, etc.
  - Give yourself permission to feel bad you are in a difficult situation.

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Infectious Disease Awareness

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