



2009

# Understanding H1N1 Risks in the Transportation Sector



## Instructor Guide

**RUTGERS**

Edward J. Bloustein School  
of Planning and Public Policy



# Center for Transportation Safety, Security and Risk

## Understanding H1N1 Risks in the Transportation Sector

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**Center for Transportation Safety,  
Security and Risk**

**Understanding H1N1 Risks in  
the Transportation Sector**

**Instructor Guide**

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## **IMPORTANT**

Before attempting to teach this course, read through all of the materials provided within the Instructor Manual, as well as all slides (and accompanying notes) and activities.

# Table of Contents

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Overview .....	1
Course Description .....	3
Course Outline .....	5
Preparing for the Course.....	6
Learning Activity 1.....	9
Learning Activity 2.....	11



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# Overview

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Contained within this Instructor Package are all the materials you will need to implement *Understanding H1N1 Risks in the Transportation Sector* at your agency. Included here are:

- Instructor Guide
- PowerPoint presentation and instructor notes
- Participant Materials

This course and all associated materials are made available to you **free of charge** as a result of generous support provided to the Center for Transportation Safety, Security and Risk by the US Department of Homeland Security. It is designed to provide participants with accurate, timely information regarding the Novel H1N1 virus (formerly referred to as “swine flu”), which led to the declaration of a pandemic during the summer months of 2009, and which public health experts predict may resurface in conjunction with the annual (fall and winter) flu season. The materials provided here are intended to familiarize participants with basic infectious disease terminology and to provide an introduction to the seasonal flu and H1N1 viruses; transmission pathways are also identified, and a number of protective measures discussed. Upon completion of the course, participants will have a thorough understanding of H1N1, how to prepare for possible exposure and prevent infection, as well as what to do if they or a family member should fall ill.

Health officials predict that H1N1 infections may become widespread throughout the fall and winter months of 2009, and affect individuals at all levels within all organizations. While workers who have direct contact with the public (such as bus drivers, ticket salespeople and train conductors) are at the greatest risk of exposure in the workplace; everyone from administrative assistants to members of upper management, may be exposed to H1N1 and become ill. It is recommended, therefore, that all employees participate in this training, both to raise general awareness regarding risks and protective behaviors, and to help ensure continuity of operations in the event of a second pandemic wave.

These training materials have been designed to provide you with everything you will need to present the topics effectively, lead in-class discussions, respond to trainees’ questions, and oversee activities. Every effort has been made to ensure that all of the information contained here is accurate and timely; however, as our knowledge of H1N1 continues to evolve, some guidance and recommendations may be altered as a result. It is recommended, therefore, that you familiarize yourself with the governmental agency websites listed at the end of the Resource Book and in the pamphlet, to ensure that the information you present is in line with the most current thinking on the subject.

You do not have to be an expert in infectious disease to facilitate this course. In fact, the most valuable asset you bring to the classroom is your knowledge of your particular agency’s

procedures, operations, customers and employees. This training contains generalized information regarding H1N1, disease-prevention and treatment strategies; however, you are encouraged to tailor the messages to fit with your Agency's overall mission and any relevant capacities or programs that have been put in place. The final slides of the course include a series of bulleted questions intended to guide you in presenting agency-specific information to your class; plan to alter them accordingly.



# Course Description

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The goal of *Understanding H1N1 Risks in the Transportation Sector* is to enhance transportation employee awareness and personal preparedness relative to the H1N1 virus.

After completion of this course, participants will be able to:

- Define basic infectious disease terms and concepts – not only will familiarizing yourself with these items be useful throughout the training process, it will allow you to better understand and interpret information delivered by the popular media and made available within the workplace.
- Discuss the risks of H1N1 within the transportation sector. The virus has unique characteristics related to how it spreads and causes disease. By understanding these characteristics, you will become better able to safeguard your own health, and the health of those around you.
- Describe techniques for disease prevention and treatment – arguably the most important goal of this training is to equip you with the knowledge and tools necessary to stay healthy, and if necessary, to appropriately care for yourself and/or others should illness occur. Included here are a number of tips and strategies for accomplishing these outcomes, both generally, and as they relate specifically to H1N1.

This course relies upon a combination of lecture, visual and written aids, in-class participation and learning activities. The following is a brief description of each element:

## Learning Activities

### Activity 1: Personal Introductions

Time permitting, it is recommended that students are provided with an opportunity to introduce themselves to the class and provide a brief description of their job duties. During this exercise, you may wish to encourage students to share any questions or concerns they might have about flu or H1N1, as doing so can help guide the presentation and focus later discussions.

### Activity 2: Exposure Scenarios

This activity has been created to allow participants an opportunity to apply the knowledge they have gained throughout the training in the context of realistic scenarios that could be encountered in the workplace. This portion of the training can be used at the end of the program, as a kind of capstone activity; or can be used in lieu of a break, after slide 20.

## **Understanding H1N1 Risks in the Transportation Sector Module**

Because of the focused nature of the material to be addressed in this training, all information is contained with a single module, which is designed to accomplish all of the outcomes described at the beginning of the Course Description.

### **Resource Book**

A large number of topics are covered throughout this training, which is designed to provide participants sufficient information to become familiarized with H1N1, know how to protect themselves and others from infection, as well as what to do if they or someone close to them should become ill. Due to time constraints and general informational requirements, this training's coverage of particular topics, while always accurate and sufficient, does not facilitate the breadth and depth of understanding some participants may desire. For this reason, a Resource Book has been compiled and is included here, which provides more in-depth discussions of a number of the topics touched upon throughout the training. Also included within the Resource Book are lists of websites that can be accessed for additional information on issues discussed throughout its pages, as well as a list of government agencies' websites that should be accessed for the most timely and accurate information regarding our continually evolving understanding of H1N1 virus. Before training begins, print copies of the Resource Book and place (along with the Pamphlet) on participants' chairs or desks.

### **Understanding H1N1 Risks in the Transportation Sector Pamphlet**

This course presents participants with a wealth of information in a relatively condensed format. Included here is a tri-fold pamphlet that contains all of the important take-aways from the training in a user-friendly, portable format. Before training begins, print double-sided copies of the pamphlet (preferably in color) on legal-sized paper and place (along with the Resource Book) on participants' chairs or desks.

# Course Outline

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## Understanding H1N1

<b>Element</b>	<b>Estimated time</b>
<b>Personal Introductions</b>	10 minutes
<b>Module: Understanding H1N1</b>	75 minutes
<b>Infectious vs. Communicable Diseases Activity</b>	20 minutes
<b>Exposure Scenarios Activity</b>	30 minutes
<b>Discussion</b>	30 minutes

# Preparing for the Course

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## The Audience

This training has been designed for transit employees in a variety of job descriptions; and as such, potential exposure levels may vary considerably among individual attendees. Discussions of infectious disease (particularly diseases, such as H1N1, which have received wide and often contradictory media coverage) can be expected to produce a variety of emotional responses among those involved. As the course instructor, it is important that you remain sensitive to any concerns, fears or misunderstandings that may be harbored by members of your audience. Also, expect that some people may use the training as an opportunity to express the idea that your agency is not doing enough to safeguard its employees.

It is your job to keep the discussion controlled and focused so that emotional responses do not confound the purpose of the course. Remind participants that the training itself is evidence that their agency is aware of the potential health threat, and is taking steps to protect them. If necessary, express the idea that everyone involved must be treated with dignity and respect. Also, be sure to tailor the final slides of the presentation to include details specific to your agency's planning and preparedness efforts.

For confidentiality reasons, participants should be actively discouraged from discussing specific previous incidents that have occurred within your agency, or naming the individuals involved. If someone attempts to relate specific stories, remind them of the need for privacy, and move on to the next planned discussion point. Do not, however, discourage your students from asking general questions about agency policies and procedures, as this is the exact information this training is intended to promote.

Finally, be aware of the role of unions in the issues surrounding infectious disease. Make union representatives aware of this training, and invite them to play an appropriate role.

## Course Schedule

This course contains all of the materials needed to teach your employees about the H1N1 virus, about how to protect themselves from infection and what to do in the event of an illness. You are encouraged to customize the training to meet the needs of your agency, and to include information specific to your agency's planning and preparedness efforts whenever appropriate. Although the course is designed to include learning activities in addition to a PowerPoint lecture, if time is limited, activities can be omitted as needed.

The complete training is estimated to take 165 minutes. Should you opt to forego one or more activities, this time can be reduced to between 140, to as little as 75 minutes.

## Participant Materials

In order to ensure that participants leave the training with a clear understanding of the issues covered, two takeaway items are included in this package. The Resource Book provides in-depth discussion of a number of the more complex topics touched upon throughout the training, as well as citations for a number of online resources trainees can turn to for additional information. Also included here is a tri-fold Pamphlet, which acts to highlight the lessons and principles stressed throughout the training. Ideally, the brochure should be printed double-sided and in color on legal paper and distributed to all members of the class.

## Instructor's Role

At the heart of adult learning is the principle that students will respond better, and learn more, if the information presented is relevant to their everyday lives and job duties. As such, the success of this training depends in large part on your efforts as the instructor. The materials contained here provide a sound foundation; however, in order to make them truly meaningful for your audience, you will need to gather information about your agency's specific policies and procedures and tailor the training to the needs and expectations of the employees you will serve.

There are a number of ways in which you can customize this training for use in your agency. Here are a few simple suggestions:

- Include additional materials (slides, pictures, videos, etc.) that compliment the information presented here. Examples to consider include: employee resources and agency policies.
- Use the exercises provided here, or create new exercises to facilitate hands-on learning. For example, you may wish to give a hand washing demonstration using a "wash and glow" hand washing kit (or similar product) that leaves a glowing residue on hands that are improperly washed.
- In-class discussion is central to the learning process. Don't hesitate to pose questions to the audience in addition to, or in lieu of, those suggested throughout the training.

## Before You Begin

It is critical that you prepare the learning environment in advance of a training session so that you will be ready to begin as soon as students arrive. Be sure to:

- Reserve a space that can comfortably accommodate all participants and facilitate note-taking, as well as any activities that are planned. Check that lighting and temperature are adequate and find out how to adjust them if needed.
- Obtain and set up all necessary equipment. For this training, you will need:
  - A laptop or desktop computer
  - A copy of the PowerPoint presentation
  - A computer-compatible projector and screen
  - A chalkboard, whiteboard, or large pad and easel to use during class discussions
- Make adequate copies of Participant Materials and place one on each seat or desk
- Familiarize yourself with all training materials and test equipment to ensure that it is functioning properly. It is suggested that you conduct at least one “dry run” to ensure that you are comfortable with the presentation.

## Program Support

This instructor package is designed to support you in training employees about H1N1. Staff at Rutgers are also available to provide additional support. For more information about course content and format contact:

**Josephine Faass, Ph.D. (732) 932-4101 x 566, [jfaass@rci.rutgers.edu](mailto:jfaass@rci.rutgers.edu)**

**Chris Kozub (732) 261-4170, [ckozub@rutgers.edu](mailto:ckozub@rutgers.edu)**

For questions about course delivery options, contact:

**Fran Conti (732) 932-1700 x238, [fconti@rutgers.edu](mailto:fconti@rutgers.edu)**

We also strongly encourage you to contact us to share your experiences in using the training. We would like to know what worked; what didn't work; and any other input you might have. Your feedback is vital as it will help us enhance the usefulness of our future training efforts to the transit community.

# Learning Activity 1

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## Infectious vs. Communicable Diseases

Total activity time: 25-30 minutes (10 minutes for within-group discussions; 15-20 minutes for post-exercise discussion)

This activity helps participants to better understand the difference between infectious and communicable diseases. Begin by telling the group that many diseases are infectious— they are caused by a pathogen. However, explain that this does not mean that all infectious diseases are all are communicable. Use Lyme disease as an example. Lyme disease is an infectious disease that is transmitted to humans through a tick bite. Explain that it is not communicable, though, because you cannot catch Lyme disease directly from another person.

Ask the group if they can think of a few more diseases that are infectious, but not communicable. Next, you can ask for several types of communicable diseases. Several examples follow, including questions and answers to use to lead the discussion.

### **Tetanus**

The bacteria causing tetanus lives widely in the environment and can enter through a break in the skin, such as a puncture wound from a nail or rose thorn. Tetanus is an infectious disease, caused by a pathogen.

**Can one person infected with tetanus pass it on to others?** <Participants should respond>

**Answer:** No, you can't pass tetanus on from person to person. Therefore tetanus is an infectious disease but it is not communicable.

So we have determined that Lyme disease and tetanus are infectious diseases but they are not communicable.

**Measles and chicken pox? Are these diseases infectious?** <Audience should respond>

**Answer:** Yes, they are infectious diseases caused by pathogens.

**Are these diseases communicable?** <Audience should respond>

**Answer:** Yes, these are viral illnesses that spread from person to person. They are infectious diseases and they are communicable.

**Influenza? How do you catch influenza?** <Audience should respond>

**Answer:** You catch it from another individual who has it. Therefore it is infectious and communicable. And, since H1N1 is a type of flu, that means it is both infectious and communicable.

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# Learning Activity 2

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## Exposure Scenarios

Total activity time: 25-30 minutes (10 minutes for within-group discussions; 15-20 minutes for post-exercise discussion)

Divide class into groups of two to three people and assign one of the following scenarios to each. Ask that one person in each group act as a note taker, as this will facilitate later discussions.

Instruct students to read their assigned scenarios carefully and discuss the different ways in which they might create exposure pathways for H1N1, as well as the different steps they could take to safeguard themselves against infection. Allow approximately 10 minutes for group discussion, then reconvene the class and initiate a group discussion in which individual scenarios, and the points raised in various groups, are discussed.

### Scenario 1

You work in your organization's call center in close proximity to a number of other employees. At the start of your shift, you have a brief conversation with the person going off duty, during the course of which you notice that he appears to have a stuffy nose and coughs on several occasions.

### Scenario 2

You work in your organization's call center in close proximity to a number of other employees. At the start of your shift, you have a brief conversation with the person going off duty; he shows no signs of illness and wishes you a good day before leaving.

### Scenario 3

Your child has been sent home from school because another student in her class has reported experiencing influenza-like-illness. Your daughter, however, is experiencing no unusual symptoms.

#### **Scenario 4**

Your child has been sent home from school because another student in her class has reported experiencing influenza-like-illness. Since arriving home, your daughter has begun to cough and her skin feels warm to the touch.

#### **Scenario 5**

You are a train conductor and are working during the morning rush hour. You make your rounds through the cars as usual, punching tickets and handling customers' money. Nothing appears out of the ordinary.

#### **Scenario 6**

You are a train conductor and are working during the morning rush hour. You make your rounds through the cars as usual, punching tickets and handling customers' money. During your shift, you notice several passengers who appear ill, one of whom blows their nose before handing you their ticket.

#### **Scenario 7**

You are a shift supervisor in charge of coordinating bus drivers' schedules. It's Monday morning and you have called a meeting to debrief your employees about construction on one of the major thruways. The meeting goes smoothly and everyone goes on to carry out their duties as normal.

#### **Scenario 8**

You are a shift supervisor in charge of coordinating bus drivers' schedules. It's Monday morning and you have called a meeting to debrief your employees about construction on one of the major thruways. The meeting goes smoothly, but you notice several of your drivers blowing their noses and coughing.

#### **Scenario 9**

You are a ticket salesperson at one of the major transit hubs in the city. You generally work the morning rush, and are constantly accepting money and credit cards from members of the public. You're on duty now, and nothing seems out of the ordinary.

## Scenario 10

You are a ticket salesperson at one of the major transit hubs in the city. You generally work the morning rush, and are constantly accepting money and credit cards from members of the public. You're on duty now, and have already served several people who appear ill.

### Pointers for leading group discussion:

- Allow each group to briefly describe their scenario, the exposure pathways they identified, and any safety measures they would take to avoid infection.
- Point out similarities across scenarios and stress that exposure to microbes is constant
  - Be clear that, especially with regard to H1N1, droplet transmission and contact with infected surfaces are the primary mechanisms through which the virus is spread. Examples of exposure relevant to the scenarios included here are:
    - An infected individual coughing or sneezing on you
    - Contact with a contaminated surface; such as a ticket, dollar bill, door handle, credit card or desk; followed by touching the eyes, nose or mouth
- Stress that regardless whether ill people are noted in their immediate environments, the following precautions should have been taken:
  - Get sufficient rest, eat healthfully and exercise to strengthen natural immunity
  - Wash hands frequently for at least 20 seconds using soap and hot water or disinfect hands using an antibacterial cleanser containing 60 to 95% alcohol
    - This is especially important to do before eating or rubbing the eyes, nose or mouth
  - Clean frequently touched surfaces with commercial cleansers or a water and bleach solution
    - Viruses can live on surfaces for several days; therefore, it is important to focus on a variety of areas, such as:
      - Desks
      - Telephones
      - Handles/knobs
      - Keyboards
      - Steering wheels
      - Writing implements
      - Kitchen and bathroom surfaces

- Practice proper cough and sneeze etiquette and encourage others to do the same
  - Advise sick colleagues to go home and/or seek medical attention
  - Try to remain more than 6 feet away from ill individuals
- Also, be clear about what is not necessary:
    - Wearing facemasks or respirators at work
    - Refusing to provide service to passengers or avoiding all contact with coworkers
    - Calling in sick should a pandemic be declared, even if you have no signs of illness