



Infection Prevention Education

Infection Prevention & Control

This module focuses on how pathogens are transmitted and how to prevent infections in the healthcare setting. This module is intended for frontline staff in healthcare facilities.



Infection Prevention & Control (IPC)

Upon finishing this education module, participants should:

1. Understand the chain of infection and its six components.
2. Know different transmission-based precautions.
3. Know proper hand hygiene practices.
4. Know how to disinfect the healthcare environment.

Background Information for Trainers

The Chain of Infection contains six components:

- **Microorganisms:** Disease producing, also called pathogens
 - Virus, parasite, fungus, bacterium
 - Risk factors: Virulence, pathogenicity, ability to enter host
- **Reservoir/Source:** Environment/habitat where a pathogen can live and multiply
 - Environmental surfaces/equipment, body fluids (blood, saliva), urine/fecal material, food/water, soil, skin, respiratory tract
- **Portal of Exit:** How the pathogen exits or leaves reservoir
 - Skin to skin, skin to surface, blood, mucous membranes, oral cavity, fecal
 - Other potentially infectious material: Seminal fluid, joint fluid, saliva, urine/fecal material, any body fluid contaminated with blood
- **Modes of Transport:** How a pathogen moves from reservoir to susceptible host
 - Direct Transmission: Airborne, droplet, contact (e.g., skin), bite, needlestick or other sharps injury
 - Indirect Transmission: Fomites – contaminated equipment or medication (multidose vials, single dose vials), vectors, food, water
- **Portal of Entry:** Opening where the pathogen may enter
 - Body openings (e.g., mouth, eyes, urinary tract, respiratory tract), incisions, wounds
- **Susceptible Host:** The person at-risk: patient or healthcare worker
 - Factors affecting susceptibility (e.g., age, health, co-morbidities, infective dose, medications)

Additional Resources

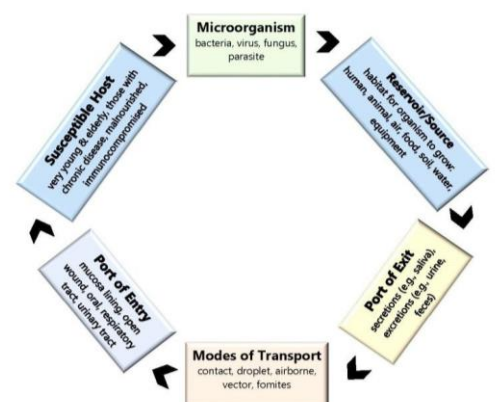
[CDC Clinical Safety: Hand Hygiene for Healthcare Workers | Clean Hands](#)

[CDC PPE: Protect the Worker](#)

[CDC Donning and Doffing PPE](#)

[gideon What Is the Chain of Infection and How to Break It?](#)

[Video: How do infections spread?: Understanding the chain of infection](#)



Facilitation: Preparation

Follow these guidelines to successfully facilitate this training session. **Read this in its entirety before presenting to ensure adequate preparation.**

Activity	Details
Slide deck	Most of this module relies on a slideshow presentation. Plan ahead if a computer or projector is not available. Link to website with slide decks: https://www.dph.ncdhhs.gov/programs/epidemiology/communicable-disease/information-health-departments-and-providers/infection-prevention-education
Welcome	Start the slideshow before participants arrive.
Pre-assessment <i>*For a shortened version, ask participants to complete this activity as they walk in</i>	https://forms.office.com/g/8QhSjvQsqK If participants do not have a smartphone or computer, print out copies of the post-assessment link to hand out at the end of the session. Ask participants to complete the post-assessment when they have access to the internet.
KWL Chart (Know, Want to know, Learned) <i>*For a shortened version, skip both KWL activities</i>	<i>Supplies: Flipchart, sticky notes, markers or use a virtual whiteboard</i> Create the outline for the KWL chart before the scheduled start time of the module. See what a KWL chart should look like on slide 3. Have sticky notes and markers already distributed to different tables in the room. If you don't have sticky notes readily available, the facilitator can record participant answers on the flipchart.
Slideshow	<i>Supplies: Projector or screen, computer hook-up, no audio required</i>
Team Trivia	<i>Supplies: Projector or screen, computer hook-up, no audio required</i>
KWL Chart	Use the same KWL chart from earlier in the module.
Post-assessment <i>*For a shortened version, let participants scan the QR code on their way out</i>	https://forms.office.com/g/JrYmjCcpEt If participants do not have a smartphone or computer, print out copies of this link to hand out at the end of the session. Or you can ask participants to copy it from the slide and write it down on their personal paper. Ask participants to complete the post-assessment when they have access to the internet.
Thank you/Conclusion	

Facilitation: Activities and Steps

Follow these guidelines to successfully facilitate this training session. **Read this in its entirety before presenting.** For questions or guidance, please reach out to infectionprevention@dhhs.nc.gov



Time	Activity	Details
	Slide deck	Link to website with slide decks: https://www.dph.ncdhhs.gov/programs/epidemiology/communicable-disease/information-health-departments-and-providers/infection-prevention-education
	Welcome	Welcome participants to the class.
5 min	Pre-assessment <i>*For a shortened version, ask participants to complete this activity as they walk in</i>	Go to slide 2. Ask participants to use their smartphones to complete the pre-assessment via the QR code on the screen. If participants do not have a smartphone, ask them to partner with someone else. Allow 5 minutes for participants to answer the questions. Remind everyone that their responses will be kept anonymous. If they ask the purpose of this assessment, share with them that this allows the infection prevention team to monitor the impact of our education.
7 min	KWL Chart (Know, Want to know, Learned) <i>*For a shortened version, skip this activity</i>	<i>Supplies: Flipchart, sticky notes, markers or use a virtual whiteboard</i> Go to slide 3. Share with participants that before we start today's education, we will complete the first two sections of a KWL chart. A KWL chart is a Know, Want to Know, Learned chart. The Know and Want to Know sections should be completed before the education to gather a sense of where your participants knowledge-base lies. This can help inform you, the facilitator, which sections to focus on and which don't need as much time and attention. Create the outline for the KWL chart before the scheduled start time of the module. Have the sticky notes and markers already distributed to different tables in the room. Sticky notes are not required to complete this activity. You can use markers to write directly onto the chart.

Facilitation: Activities and Steps

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Time	Activity	Details
15 min	Slideshow presentation	Present the information in slides 4 – 24. Refer to the slide notes for a script.
5-10 min	Team Trivia	Go to slide 25. Have participants rejoin their KWL groups. If they haven't done so already, prompt them to create a team name. Use the slides to facilitate a trivia game. Give groups time to discuss and write down their answers before moving on to the next question. The team with the most correct answers wins! If time is starting to run out, have teams shout out answers instead.
7 min	KWL Chart <i>*For a shortened version skip this activity</i>	<i>Supplies: Flipchart, sticky notes, markers or use Canva Whiteboard</i> Go to slide 38. In their same groups, ask participants to brainstorm a few new things they learned from this module. Ask them to write this on the provided sticky notes. After 5 minutes, ask each group to have a representative share with the larger whole and put their group's sticky notes on the KWL chart. Take a picture of the KWL chart to keep for records.
3 min	Post-assessment <i>*For a shortened version, let participants scan the QR code on their way out</i>	Go to slide 39. Ask participants to use their smartphones to complete the post-assessment via the QR code on the screen. If participants do not have a smartphone, ask them to partner with someone else. Allow 3 minutes for participants to answer the questions. Remind everyone that their responses will be kept anonymous. If they ask the purpose of this assessment, share with them that this allows the infection prevention team to monitor the impact of our modules. (https://forms.cloud.microsoft/g/F4GYFp87hL)
	Final Remarks/Thank you/Conclusion	Thank participants for completing today's module. Ask if there are any lingering questions at this time. If not, they can always reach out to infectionprevention@dhhs.nc.gov in the future.

We appreciate your feedback! Send us comments, questions, pictures of your KWL chart to Infectionprevention@dhhs.nc.gov