

Local and Tribal Health Department Infection Prevention Pilot Program Workbook

Section 5: Environmental Factors

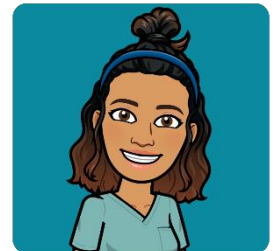
How to Use this Workbook

The Local and Tribal Health Department (LTHD) Healthcare-Associated Infection (HAI) and Infection Prevention Training Program covers a variety of topics and experiences to increase basic healthcare-associated infection and infection prevention and control (IPC) knowledge. Each section of the program has a corresponding workbook with self-paced learning activities and links to additional resources to help supplement your learning. Each workbook includes a list of learning objectives for the section, a tentative meeting and presentation schedule, and self-paced learning activities.

The scenarios and questions included in this workbook are for your own learning and will not be graded. They are intended to supplement group activities and underscore key points in the provided resources. Be prepared to discuss questions, concepts, and scenarios introduced in the self-paced learning sections of this workbook with your regional infection preventionist (IP) or other participants during various follow up activities.

Meet Izzy

Throughout the program, you will follow Izzy, an infection preventionist (IP) at a nursing home, as she encounters IPC scenarios at her facility. Using what you learn in each section, you will help Izzy make decisions that reduce the risk of spreading HAIs in her facility.



Section 5 Objectives

By the end of this section, participants will be able to:

- Identify potential environmental infection risks.
- Explain the importance of a water management program.
- Explain the purpose of an Infection Control Risk Assessments (ICRAs).

Week 1 Activities

Activity 1: IP programs 30 minutes

Read the DHS *IP Starter Kit's* [section](#) on IP programs.

- a. What are three key factors an IP program should be based on?

- b. How often should a facility risk assessment be performed? (Check all that apply.)
 - a. Annually
 - b. Quarterly
 - c. Monthly
 - d. Anytime new risks are identified

- c. True or false: Written IP program plans should be distributed only to facility leadership to preserve sensitive patient information.

- d. Which elements should be included in a written IP program plan?

- e. Complete the list of IP program components below.
 - ✓ _____
 - ✓ _____
 - ✓ _____
 - ✓ _____
 - ✓ Outbreak management plan
 - ✓ Infection control risk assessment analysis
 - ✓ Emergency management plan
 - ✓ Water management plan
 - ✓ Immunizations
 - ✓ Employee health
 - ✓ Committees and communication with key departments

- i. Who should IPs work with to develop a pet or animal policy for their facility?

- j. What is an ICRA and when should one be used?

- k. Why is it important to control dust at all times?

- l. Fill in the blank: Any porous surface that has been damaged by water must be dried within _____ hours/days/weeks/months.

- m. What should be done in the event water damaged materials cannot be replaced within that time frame?

Activity 3: Environment of care rounding virtual tour presentation preparation 1 hour

Please prepare for this week’s presentation by reading the scenarios and reviewing the photos in the “Virtual Facility Tour” handout. Look closely at each picture. Record your observations for each picture and scenario. Ask yourself:

- What is good?
- What do you see that requires improvement?
- What don’t you see?
- How could things be improved?

You will be sharing these observations during the Environment of Care Rounding Virtual Tour presentation on January 22. Please be prepared to discuss.

Week 2 Activities

Activity 1: Environment of care rounding virtual tour 1 hour 30 minutes

Attend the January 22 Environment of Care Rounding Virtual Tour presentation by Aimee Mikesch, regional IP. Use this time to share your observations and ask questions.

- a. What did you learn from the presentation?

Activity 2: Environmental assessment at a local health department 1 hour 30 minutes

IPs often conduct environmental rounding in health care settings. Watch the North Carolina Statewide Program for Infection Control & Epidemiology's [environmental assessment of a local health department](#) and answer the questions below.

- a. Why is the height and placement of a sharps container important to consider according to this video?

- b. How far away should items be from a sink if there is no splash guard in place? Explain why.

- c. Does your LTHD have a dedicated area for device or instrument reprocessing? If so, how does it compare to the area shown in the video?

- d. True or false: You may place two or more items in a pill pouch as long as the pouch can be sealed.

- e. What is the difference between the exam room and the airborne infection isolation room (AIIR) featured in the video?

- f. What sort of potential environmental risks does an IP look for in a medication preparation and storage room?

- g. Storage under sinks is generally discouraged but there are a few exceptions. Some of these exceptions are listed below. Which of the following is **not** an exception?
 - a. Clean trash bags
 - b. Cleaning agents
 - c. Clean hand soap
 - d. Clean sharps containers

- h. Explain why storing items, especially patient care items, in corrugated cardboard containers is discouraged.

- i. True or false: Handwashing sinks should be clearly labeled as dirty sinks.

Week 3 Activities

Activity 1: Environmental rounding in your LTHD 1 hour

Take a tour of your own environment using your “IP eyes.” You may utilize this [Health Department Environmental Rounds Worksheet](#) as guidance or ideas of areas to look at. Utilizing the same questions as the Week 1 Activity 3, make note of at least three things that you observed and come ready to discuss your observations during the Section 3 closing meeting.

- 1.
- 2.
- 3.

Activity 2: Construction in health care 30 minutes

Watch a [short video](#) (about 15 minutes) from the American Society for Health Care Engineering on infection control considerations during construction.

- a. What are the top four patient concerns regarding construction mentioned in the video?
- b. List some infection prevention and control practices that may be implemented to keep patients safe during construction projects.
- c. True or false: Out of the 90,000 deaths caused by HAIs in the United States, **about 1,000** are contributed to construction, renovation or maintenance activities.

Activity 3: ICRA processes 30 minutes

Read the “ICRA processes” section of [Construction and Engineering Roles in Infection Prevention](#). **Bonus:** Although not required for this activity, reading the rest of this article is highly encouraged as it provides good information.

- a. True or false: An ICRA should be done after construction work as already begun.

- b. Who should be a part of a multidisciplinary ICRA team and why?

- c. Which of the following is **not** done during the ICRA process?
 - a. Identifying hazards/risks
 - b. Conducting satisfaction feedback from health care patients and residents
 - c. Deciding who might be harmed and how
 - d. Deciding on proper precautions
 - e. Proposing infection control actions

- d. What is the purpose of the ICRA precautions matrix?

- e. Which of the following is **not** a best practice related to the ICRA process.
 - a. Get IPs involved early on in the design process.
 - b. Adhere to standards set by the Centers of Disease Control and Prevention and other professional agencies.
 - c. Only include the precaution matrix for certain projects or populations.

- f. After reading the article, identify ways you could help with health care facility construction projects or the ICRA process in your jurisdiction.

- b. Fill in the blank: Water management programs should assess their facility’s unique plumbing factors, such as _____.
- c. Describe how sinks and other drains in a health care facility can become contaminated with multidrug-resistant organisms (MDROs).
- d. Explain how patients can become exposed to harmful organisms in drains.

Activity 3: Izzy investigates water management programs 30 minutes

Izzy the IP receives a call from her facility’s director of nursing (DON). The DON is concerned about the facility’s water system after hearing about an outbreak of Legionnaire’s disease on the news. She asks Izzy for help identifying risks related to the building’s water system and asks if the facility should have a water management plan.



The DON provides Izzy with the following information on the building:

- The oldest and main part of the building was built in 1985.
- The facility was originally a state-run inpatient facility.
- The building has undergone several renovations over the years.
- The main area of the building is three stories.
- The facility’s HVAC system was recently upgraded to include a centrally installed humidifier.
- Construction for an additional wing was recently completed in 2019. The new wing boasts a resident tiki bar, movie theater, and an atrium complete with a decorative water feature.
- The facility has capacity for 65 residents. The facility currently houses 48 residents, many of whom have immunocompromising and chronic conditions.
- Each resident room has an attached bathroom with a toilet, sink, and shower.

Using the information the DON provided, Izzy needs to assess whether or not the facility is at increased risk for *Legionella* growth and spread. Use the [CDC worksheet](#) to help Izzy answer the following question

Additional Resources

The following are optional readings, articles, and other resources for information on the topics covered in Section 5.

HVAC

Review [Heating, Ventilation, and Air Conditioning \(HVAC\) and Fan Considerations for Long-term Care during COVID-19](#) from the Minnesota Department of Health.

Construction, renovation, remediation, and demolition

See [Infection Prevention Manual for Construction & Renovation](#) from APIC for guidelines on construction in health care settings.

Water management

- See answers to [frequently asked questions on water management plans](#) from the CDC.
- Review a [checklist for health care facility water management programs](#) from CDC.
- Take the [training](#) from CDC and other partners on creating *Legionella* water management programs.

Notes, questions, and comments