



Introduction to Reservoirs: Where Germs Live

Session 3

Body and Healthcare Environment Reservoirs: Synthesis

Project Firstline Infection Control Training Toolkit



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention



Contents

Overview of Session Plan	2
Facilitator Instructions	2
Session Materials	2
Using the Materials	2
Conducting a Session	3
Educational Content at a Glance	3
Learning Objectives	3
Key Takeaways	3
Before the Session	3
Session Slides and Facilitator Notes	4
1. Welcome and Introductions	4
2. Body and Environment Reservoirs	5
3. What Do You Know?	6
4. Bringing It Together	10
5. Conclusion	11
Appendix: Content Outline	13

Overview of Session Plan

The following session plan is provided to support you, as a facilitator of a Project Firstline training, in using Project Firstline materials to create well-rounded training events and to educate your audience about infection control.

Facilitator Instructions

This content can be offered as a stand-alone session, or combined with other Project Firstline sessions to create a longer training event. This session plan includes recommendations for using chat functions and other tools and activities to draw your audience into the material when your time is limited. When you schedule your session, use your knowledge of your audience's availability and learning needs to adapt these materials as needed.

Session Materials

- *Body and Healthcare Environment Reservoirs: Synthesis* session plan
- Corresponding PowerPoint slide deck
- Participant booklet

Using the Materials

This session plan is one of three in a series that explores the concept of where germs live on and in the human body and in the healthcare environment, known as "reservoirs," and why understanding reservoirs is important for infection control. Whether you offer the full series or this session alone, following are things to know:

- Use the session plan and slides as guides for your training presentation.
- The slide numbers in the session plan correspond to the companion slide deck.
- You are encouraged to customize or adapt the sample facilitator scripts to better match your own voice and audience.
- The time recommendations are provided as a guide for short 20-minute training sessions. As needed, take more time with specific sections.

Conducting a Session

Schedule and announce the sessions according to your organization's needs and requirements. Each session should include, at a minimum:

- specific learning objectives,
- the presentation of core content, and
- opportunities for participants to learn more, understand and connect with the key messages for each topic, act on their learning, and engage with others.

Educational Content at a Glance

Learning Objectives

- Describe infection control risks associated with the human body and healthcare environment reservoirs, and pathways for germs to be spread from them.
- Identify strategies to address common infection control risks associated with the human body and healthcare environment reservoirs.

Key Takeaways

- The places where germs usually live are called "reservoirs." Germs frequently spread between and among reservoirs.
- There are reservoirs in the human body, including the skin; the gastrointestinal (GI) system, or "gut"; the respiratory system; and the blood.
- There are also reservoirs in the healthcare environment, including water and wet surfaces; dry surfaces; dirt and dust; and devices.
- Infection control actions are connected to how germs can be spread to and from these reservoirs to different areas of the body, from one person to another, from people to things, or from things to people.
- Knowing where germs live and how they can be spread can help you understand why infection control actions work to stop them from spreading and making people sick.

Before the Session

It is best to conduct this session after *Session 1: Introduction to Reservoirs: Where Germs Live* and *Session 2: Healthcare Environment Reservoirs*. This approach will allow participants to synthesize and connect key messages across the body and healthcare environment reservoirs. However, you can also use it as a stand-alone session or as a teaser to whet participants' interest in the topics explored in sessions 1 and 2. In that case, you may wish to incorporate additional foundational information into this session using the Content Outlines for sessions 1 and 2, and by including additional slides after slides 4–6: Reservoir Review.

Session Slides and Facilitator Notes

1. Welcome and Introductions



1 minute



Slide 1

- Participants log in and get settled.



Slide 2: Agenda



Facilitator Notes

- Welcome the group and add a greeting to the chat box.
- If this session is part of an ongoing series, you may choose to say “welcome back,” “thank you for joining us again,” etc.
- Announce housekeeping notes, either orally or via chat. If needed, provide additional notes specific to the platform you’re using (e.g., how to “raise your hand,” how to post questions).
- Provide an overview of the agenda.
- Adapt this section of the session as needed: for instance, you may choose to spend additional time on introductions if there are new faces, or if participants do not know each other.



Sample Script

“Welcome to Project Firstline. Thank you for joining us! Before we begin, a few housekeeping notes. We’ll meet today for about 20 minutes. Please keep your videos on, to the extent possible, and keep your microphone muted when you are not contributing to the discussion. It’s great to see you all here today!

“Today we’re going to review and discuss the eight core places where germs live in healthcare, and then we’ll discuss strategies for recognizing the risks for germs to spread from them and make people sick. We’ll have an opportunity to reflect before we wrap up for the day.”

2. Body and Environment Reservoirs



1 minute



Slide 3: Body and Environment Reservoirs

(Transition slide)



Slide 4: Reservoir Definition



Facilitator Notes

- Remind participants of the definition of a germ reservoir.
- The next slide lists the four body reservoirs and the four environment reservoirs. Time permitting, you can ask participants to name the reservoirs, either in the chat or by unmuting, **before you advance to slide 5.**



Sample Script

“Let’s refresh our memories. When we think about germ spread in healthcare, we think about ‘reservoirs’ – the places where germs live on and in the human body and in the environment. Germs can be found in other reservoirs, like in food, but this training series focuses on these core categories when we look for risks for germs to spread in healthcare.”

(Advance to slide 5.)



Slide 5: Reservoirs Review



Facilitator Notes

- Remind participants of the eight reservoirs where germs live in healthcare.
 - ▶ Emphasize that germs can be found in other places, but these eight are central to understanding and recognizing the risk for infections to spread in healthcare.



Sample Script

"In the human body, we have skin; the gastrointestinal system or 'gut'; the respiratory system; and blood.

"In the healthcare environment, we have water and wet surfaces, dry surfaces, dirt and dust, and devices. When you understand where germs are found and how they can be moved to places where they can cause harm, you can recognize when they can be spread and decide what you can do to protect yourself and your patients."

3. What Do You Know?



15 minutes



Slide 6: What Do You Know?

(Transition slide)



Slide 7: What Do You Know About Reservoirs?



Facilitator Notes

- This learning activity has three parts.
 - ▶ First, you will assign each participant one body reservoir and one environment reservoir.
 - They will have about 2 minutes to reflect on their assigned reservoirs and make a list of what they know with certainty, and what they think they know but might need confirmation on, about infection control related to their assigned reservoirs.
 - At least two people, but ideally three or more, should be assigned the same reservoir pairs.
 - Use the overall size of your group, your desired breakout group size, and your allotted time for this activity to determine how many reservoir pairings to make.
 - ▶ Next, you will divide participants into small breakout groups with others who were assigned to the same reservoir pairs.
 - In their small groups, they will build on their individual tables and shared knowledge to identify a realistic example of when their two assigned reservoirs interact in healthcare.

- The example might relate to a patient interaction or be a routine work task.
- Depending on your breakout group sizes, allow approximately 4 to 5 minutes for this discussion; smaller groups can take less time.
- ▶ Finally, you will help participants synthesize their learning. As a group, they will: (1) identify ways to reinforce risk recognition across reservoirs on the job, and (2) identify infection control actions everyone can take to stay safer.
 - Allow approximately 8 to 9 minutes for the large-group synthesis discussion.
- Transition to the learning activity.
 - ▶ By means of your choosing, assign one body reservoir and one healthcare environment reservoir to each participant.
 - ▶ Explain that participants will have 2 minutes to reflect on:
 - What they *know* about germs and germ spread from their assigned body and healthcare environment reservoirs
 - What they *think* they know about the reservoirs and germ spread, but might need confirmation on



Sample Script

“Now, we’re going to take quick inventory of our knowledge about reservoirs and infection control. I’m going to assign each of you one body system and one part of the environment to focus on. I’d like you to think about what you *know* about where germs are commonly found in healthcare, and how they can be spread from those places – and what you *think* you know about where germs are commonly found in healthcare, and how they can be spread from those places.”

(Assign reservoirs.)



Slide 8: Reservoir Tables



Facilitator Notes

- Direct participants to the page(s) in their participant booklet with the blank tables.
 - ▶ There are two tables: One for body reservoirs and the other for healthcare environment reservoirs.
 - Each table has three columns: “I Know,” “I Think I Know,” and “I Want To Know.”
 - Column 3, “I Want To Know,” will be addressed later in the session.
- Give participants 2 minutes to reflect and make notes about their assigned reservoirs:
 - ▶ in the “I Know” column: what they know about germs and germ spread from these reservoirs; and

- ▶ in the “I Think I Know” column: what they think they know – but might need confirmation on – about germs and germ spread from these reservoirs.
 - ▶ For instance, a participant who is assigned “skin” might jot down that they *know* that lots of germs are found on the skin, and they *think* they know that *S. aureus* is an example of a germ commonly found on the skin.
- Call participants back together when 2 minutes have elapsed.



Sample Script

“Please turn to the blank tables in your participant booklets. In the first two columns of each table, you’ll see space to jot down what you *know*, and what you *think* you know, about germ spread for both the body and healthcare environment reservoirs assigned to you. We’ll talk about the third column in a minute!

“Start by jotting down one thing you know about germs or germ spread for your assigned reservoirs in the first column. Next, make notes in the second column about what you think you know, but might need confirmation on. For now, focus just on the areas assigned to you. You’ll have about 2 minutes, and then we’ll come back together for the next step. Okay, go!”



Slide 9: How Does It Happen?



Facilitator Notes

- Thank participants for their thinking and transition to breakout groups.
- Divide participants into groups that comprise participants who were assigned the same two reservoirs.
 - ▶ Provide instructions, tailored to your virtual platform, for breakout groups. Inform participants how to ask for help if needed.
 - ▶ Ask each group to designate a person who will report to the larger group.
- Explain that each small group will work together to create a realistic scenario about how their assigned reservoirs could interact in a healthcare setting, using the prompt on the screen.
 - ▶ Instruct participants to make note of their scenario in their participant booklet.
 - ▶ Explain that they will have approximately 5 minutes for this discussion.
 - ▶ Depending upon your audience, you may wish to refer them to the “Body” and “Healthcare Environment” tables in the participant booklets from sessions 1 and 2 in this series, respectively.



Sample Script

“Thank you! Now, we’ll divide into small breakout groups for an activity.

“Think about how your two assigned reservoirs connect with your profession and your daily work. In your groups, work together to identify a realistic scenario showing how your reservoirs can interact with each other in healthcare, and jot down your scenario in your participant booklet.

“I’ve put a simple sentence starter on the slide to help you get started. When we come back together, I’ll ask one representative from each group to share their group’s ideas with everyone. You don’t have to use this exact sentence; feel free to describe the scenario in your own words! You’ll have about 5 minutes to work together. I will give you a warning when you have about 1 minute remaining.”



Slide 10: Discussion



Facilitator Notes

- When 1 minute is remaining, give the groups a “warning.”
- After 5 minutes have elapsed, reconvene the entire group.
- Thank them for their discussion and invite representatives from each small group to share the scenario that they created using their two reservoirs, and any highlights from their discussion.
- Affirm the ideas shared, and invite broader discussion from the entire group on each scenario: What are possible infection risks in this example? What are some actions we could take to address these risks?
- During the open discussion, redirect any incorrect or misleading statements that might be made.
 - ▶ If appropriate, you can suggest that participants use the informational tables in the participant booklets from sessions 1 and 2 for additional discussion points.



Sample Script

“Let’s reconvene. I’m eager to hear your thoughts on this diverse group of reservoirs. Would one group like to volunteer to share first? Please describe your body and environment reservoirs, and tell us about the scenario you identified that illustrates how they interact ‘on the job.’”

(Allow time for discussion, providing prompts as appropriate.)

“That’s excellent. I’d like to open the discussion to the entire group. Where do you see risks for germs to spread in the scenario that [name] described? What infection control actions could address these risks?”

4. Bringing It Together



2 minutes



Slide 11: Bringing It Together

(Transition slide)



Slide 12: Reflection



Facilitator Notes

- Encourage participants to reflect on what they are still curious or unsure about, and to jot their thoughts in the “I Want To Know” columns of the tables in their participant booklets.
- Time permitting, you may wish to ask for responses in the chat or for participants to share their ideas verbally.
- Suggest that participants investigate their questions through resources such as Project Firstline, the CDC website, their supervisor, or their employer’s designated Infection Prevention staff. It is not necessary for you to answer the questions that are shared; rather, acknowledge and affirm participants’ responses and encourage them to take steps to add to their knowledge.
- Explain that you will collect these questions for the Project Firstline team to inspire future product development.



Sample Script

“There is so much more to think about and learn about the body and healthcare environment reservoirs, how we interact with them at work, and how we can use our knowledge to help keep germs from spreading and making people sick. Please take a moment to reflect on these reservoirs. What areas are you still curious or unsure about? Feel free to jot down your thoughts in the third column of your table: ‘What I Want to Know.’”

“Would anyone care to share some of what you still want to know? Please feel free to unmute yourself or type your ideas in the chat!”

(Pause for responses and acknowledge and affirm, as appropriate.)

“Thank you! After our session, I will share these questions and ideas with the Project Firstline team to help guide future product development. In the meantime, what steps are you going to take to answer your questions about infection control in healthcare? Will you ask your supervisor or your facility’s Infection Prevention staff, or consult CDC and Project Firstline resources?”

(Pause to allow for reflection.)



Slide 13: Questions



Facilitator Notes

- If needed and time permitting, you can choose to invite additional remaining questions that were not addressed in the session. Alternatively, you can skip this slide and **proceed to slide 14**.
- If you choose to use this slide:
 - ▶ If the answers are information that is already included in this session, please respond.
 - ▶ If the questions address content that is not covered in this session, please do not attempt to answer. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

“We covered a lot today. Does anyone have any questions still remaining, or items I can clarify about the body and healthcare environment reservoirs, and why they’re important for infection control?”

5. Conclusion



1 minute



Slide 14: Conclusion

(Transition slide)



Slide 15: Key Takeaways



Facilitator Notes

- Thank participants for their time and review the Key Takeaways from the session.



Sample Script

“Thanks for a great discussion. You did a great job connecting where germs live in healthcare to risks for germs to spread, and thinking of actions to keep germs from spreading! Before we take time to reflect on opportunities to learn more, let’s review the key takeaways from today.”



Slide 16: How to Get Involved and Feedback



Facilitator Notes

- Share additional resources from Project Firstline and CDC.
- Explain how participants can reach you, by the means of your choosing, and how they can reach Project Firstline.
- If this session is part of a series, you may choose to describe the themes of upcoming sessions.
- Direct participants to the feedback form.



Sample Script

“Even though we covered a lot today, there is still much more to learn. You can keep exploring these topics on your own using the resources on this slide.

“Project Firstline has a suite of products to help you learn how to recognize infection control risks at work, and to help you learn more about where germs live in healthcare and how they spread. You can also follow Project Firstline on social media!

“I will stay online for a few minutes after our session ends and will be happy to discuss any other questions!”

(If this session is part of a series) Next time, we will cover [insert next training topic]. Finally, please let us know how you enjoyed today’s session by completing the following feedback form. Thanks again for joining us today.”

Appendix: Content Outline

- The places where germs usually live are called “reservoirs.”
 - ▶ Germs frequently spread between and among reservoirs.
- There are reservoirs in the human body: the skin; the gastrointestinal (GI) system or “gut”; the respiratory system; and blood.
- There are also reservoirs in the healthcare environment: water and wet surfaces; dry surfaces; dirt and dust; and devices.
- There are other reservoirs where germs live, but these reservoirs in the human body and in the healthcare environment are particular focus areas for infection control.
- Infection control actions are connected to how germs can be spread to and from these reservoirs to different areas of the body, from one person to another, from people to things, or from things to people.
- Understanding where germs live helps us recognize where there is risk for them to be spread, and helps us understand why infection control actions work to stop them from spreading and making people sick.
- The more you know about germs, where they live, and how to keep them from spreading, the better you can protect yourself and your patients.



For more information, please contact

Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 33029-4027
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov
Web: www.cdc.gov/projectfirstline