The Project Firstline
Escape Room and Other IPC Education and Communication Tools

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Disclaimer

Project Firstline is a national collaborative led by the U.S. Centers for Disease Control and Prevention (CDC) to provide infection control training and education to frontline healthcare workers and public health personnel. National Association of County and City Health Officials (NACCHO) is proud to partner with Project Firstline to host the NACCHO Healthcare Infection Prevention and Control Summit (Summit), as supported through CDC Grant # 6NU38OT000306-03-05. CDC is an agency within the Department of Health and Human Services (HHS). This presentation is being hosted as part of the Summit; the contents of this presentation and Summit do not necessarily represent the policies of CDC or HHS and should not be considered an endorsement by the Federal Government.
Learning Objectives

• Understand the role of ELC partners in promoting infection prevention and control (IPC) education.

• Identify key strategies employed by ELC partners to enhance IPC education among healthcare professionals.

• Recognize the impact of effective IPC education on reducing healthcare-associated infections and improving patient outcomes.

• Assess the effectiveness of IPC education interventions in promoting adherence to infection control protocols and reducing the transmission of healthcare-associated infections.

• Evaluate the challenges and barriers faced by ELC partners in implementing IPC education programs within diverse healthcare environments.
Agenda

• Project Firstline Partnerships
• The Project Firstline Escape Room
  ▪ Development
  ▪ Testing and Implementation
  ▪ Escape Room Overview
  ▪ Training Environment
  ▪ Outcomes
  ▪ Improvement Strategies
• Other IPC Communication Methods
  ▪ Social Media
  ▪ IPC Tips of the Week
Project Firstline Partnerships
Project Firstline States Workgroup

- PFL NJ established a workgroup in Spring 2021 originally consisting of 9 PFL jurisdictions
  - Mixture of state health departments and contractors
- Goal of workgroup was to create a space for jurisdictions to share resources, gain support, discuss how to utilize/adapt PFL content, and address programmatic challenges.
- NJDOH received approval from CDC in 2022 to count our workgroup as a “CDC-PFL supported Community of Practice”.
  - An activity tied to our program’s workplan to CDC
- Has grown to 24 PFL jurisdictions as of April 2024.
The PFL ESCAPE ROOM Experience
Development of the Project Firstline Escape Room
Development Team

• Utah
  ▪ Janelle Kammerman
  ▪ Sarah Rigby

• New Jersey
  ▪ Jasmine Davis
  ▪ Miriam Gonzales
  ▪ Celina Koh
  ▪ Kelly McLaughlin

• New York
  ▪ Jackie Pappalardi
  ▪ Melony Spock
  ▪ Jessica Van Wormer
  ▪ Lisa Volk

• Wyoming
  ▪ Crystal Morse
  ▪ Jennifer Adu

• Casper College
  ▪ Riley Ramsey
  ▪ Alaina Griffee
Our Goal and Audience

• Create an interactive training tool and skill building exercise to emphasize and apply key infection control principles.

• Primary audience:
  ▪ All healthcare and public health workers
  ▪ All healthcare and public health students
Product Approval Process for Partners

- Before developing content for a PFL infection control product, a completed PFL Product Brief form must be submitted to CDC for review and approval.
- The Product Brief helps CDC understand the purpose of the product and identify any red flags and plan for any required CDC support before partners complete a first draft of content, finalize dates, promote an event, etc.
- This helps ensure CDC and partners are on the same page from the beginning of product development and saves editing and review time later.
- Estimated time for CDC review/approval/feedback - 3 business days.
Methodology and Learning Objectives

• Methodology
  ▪ Using the Blooms taxonomy framework to have participants apply infection control actions and understand the “why” behind those actions

• Stations and Learning Objectives
  1. Hand hygiene (Utah) - Defining hand hygiene and properly demonstrating the correct steps of hand hygiene.
  2. Source control (New York) - Defining source control and learning how respiratory droplets spread.
  3. Personal protective equipment (New Jersey) - Articulating and demonstrating how to correctly don and doff PPE.
  4. Cleaning and disinfection (Wyoming) - Recognizing how to identify contact time on a disinfectant label as well as identify high touch areas in healthcare facilities.
The Project Firstline Escape Room Manual

• Includes the following:
  ▪ Supply checklist for each station
  ▪ Figures/images/clues for each station
  ▪ Facilitator guide and script
  ▪ “Quick Tips” sheet for participants
Escape Room Stations

• Station 1
  o Hand Hygiene
• Station 2
  o Source Control
• Station 3
  o PPE
• Station 4
  o Cleaning and Disinfection
Do you have what it takes to unlock the clues at each station?

It is all up to you!

TEAM INSTRUCTIONS:
In teams of 5-6 people will have 30 minutes to navigate Clutterbug’s clever traps and unite with Captain Germ-B-Gone to proclaim victory.

The group must work together as a team to answer the clues at each station, win a puzzle piece before moving on to the next station.

GET READY TO SHINE A LIGHT ON INFECTION CONTROL!
The PFL Escape Room Experience

INTRODUCTION VIDEO

The Project Firstline Escape Room and Other IPC Education and Communication Tools
Objective 1:
- Participants will be able to define hand hygiene
- Reasons why hand hygiene is important
- Both hand washing and using alcohol-based hand sanitizer

Objective 2:
- Participants will be able to demonstrate the correct steps of hand hygiene
- Correct steps are provided as a clue
- Practical demonstration within the escape room is required to progress
HAND HYGIENE

STATION 1

Solving Station

**Will you crack the code?**

On average, nursing staff touch _____ surfaces during a 12-hour shift:

682
641
296
735
759

One number is correct and well placed.
One number is correct but in the wrong place.
Two numbers are correct but in the wrong place.
Nothing is correct.

**Final Hand Hygiene Clue**

Find all the missing pieces in order to correctly demonstrate how to wash or sanitize your hands in order to unlock the next piece of the puzzle.

**Proper Way to Wash Your Hands:**

1. Wet your hands with water, using soap or liquid, and work up a lather.
2. Lather your hands for 20 seconds or until well covered, before the nails of your hands.
3. Scrub your hands for at least 20 seconds, then rinse with water.
4. Rinse your hands well with clean water, briskly shaking hands.
5. Dry your hands with disposable paper towel or the paper towel, turn off the faucet.
6. Check your paper towels or the paper towel is not visibly soiled with visible water or dirt.

**Proper Use of Hand Sanitizer:**

1. Apply the gel to the palm of one hand and grasp the other hand for 30 seconds.
2. Rub hands together until dry.
3. Rinse the hands under water and dry.

**Essential Tips:**

- Wash both hands after using the toilet, before eating or touching food, after sneezing, coughing, or blowing your nose, after coming into contact with animals, after handling raw meat, after touching a surface or object that might be contaminated with germs, after touching a pet, and after touching a person who is sick.

**Conclusion:**

Congratulations! You have demonstrated your knowledge on the next step.

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Dear Challengers...

It’s important to know when to use soap and water instead of hand sanitizer to clean your hands. Soap and water should be used when hands are visibly soiled such as after caring for a patient with diarrhea and/or after known or suspected exposure to spores (i.e., C. diff).

- Clutterbug
Objective 1:
• Participants can define source control through key infection control actions

Objective 2:
• Participants will learn how respiratory droplets spread

This station emphasizes the importance of proper source control and the spread of respiratory droplets. “We don’t always know who is infected”.

“If your mask is ill-fitting and doesn’t cover your nose and mouth, you can breathe in viruses and things can go south. Don’t make that mistake at station two or I’ll be there to get you and you won’t make it through!”

-Clutterbug
Respiratory droplets can enter through your nose, throat, lungs, and eyes.

You have the power to stop germs from spreading at the source.
Objective:

- Participants will be able to explain and demonstrate how to safely don and doff PPE

This station was created with the intention for the exercise to be modified should resources be limited

Examples include:

- Using a mannequin
- Tabletop exercise of arranging PPE in the proper donning and doffing sequence

After successfully completing of the donning/doffing exercise, a riddle is read to the group. The answer to the riddle is the lock code to unlock the lock box with the third puzzle piece to be able to advance to the final station.
PPE
STATION 3

The Project Firstline Escape Room and Other IPC Education and Communication Tools
Objective 1:
• Participants will identify high touch areas in healthcare facilities
  o Open a lock box and complete a “high touch area” crossword puzzle
  o Identify a high touch area for second clue with a hidden code to reinforce
    the importance of recognizing high touch areas

Objective 2:
• Participants will recognize where to find the contact time on product label “Directions for Use”.

The Project Firstline Escape Room and Other IPC Education and Communication Tools
Cleansing and Disinfection

Station 4

The Project Firstline Escape Room and Other IPC Education and Communication Tools
CLEANING AND DISINFECTION

STATION 4

The Project Firstline Escape Room and Other IPC Education and Communication Tools
INSTRUCTIONS

GRAND FINALE

YOU THOUGHT
YOU WERE FINISHED?

It turns out you are missing the most important piece!
Everyone plays a PART in infection control.
Put your puzzle together.

Who is the most important thing that is missing?
Escape Room Test Run at NJDOH
Implementation of the Project Firstline Escape Room
TRAINING ENVIRONMENT

- Nursing Homes
- Universities
- Community Colleges
- Public Health
- Federally Qualified Health Centers

- Tribal Health
- Assisted Living
- Home Health
- Hospice Companies
- Community Health Worker Programs
DATA & FEEDBACK

New Jersey:

• Since 2021 to current (April 2024), the NJDOH PFL team facilitated 18 Escape Rooms with 343 participants.

• The total number of those that attended and completed a pre and post-test was 144 participants.
  ▪ An overall 44.3% completion rate.

“Great learning experience”

“A fun way to incorporate training on infection control”

“Great instructors and a lot of fun”
DATA & FEEDBACK

New Jersey:

• **Training Evaluation**
  - 98.4% of participants would recommend this training to a friend or colleague.
  - 94.5% indicated a high to moderately high satisfaction with their learning experience during the escape room.
  - 92.9% indicated that they intend to implement the training they received from their experience.
  - 38.2% increase in self-efficacy in knowledge and understanding of infection prevention control after the escape room training.

• **Pre & Post-Test Knowledge**
  - 13.7% average knowledge gained across aggregated completed and matched pre and post tests.
We’re Published!

Engage, educate, escape: The New Jersey Department of Health Project Firstline Escape Room

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Improvement Strategies
Improvement Strategies

• Improve the station prompts to be more self-lead/ self-paced.
• Create a virtual Escape Room to increase access to healthcare providers and healthcare students.
• More promotion of the Escape Room.
• Provide the Escape Room to healthcare and public health workers at healthcare and public health agencies.
• Train internal staff to be co-facilitators (ICAR Teams).
• A la carte station selections for tabling's at events.
• Translation of the escape room manual.
Other IPC Education and Communication Tools
Social Media in Infection Control Education and Communication

• A required deliverable of our grant work (SHARP 1 – Project V – Activity B3)
  ▪ Communicate with frontline healthcare workers about HAI threats.
    ○ Use existing PFL and health department dissemination channels (trainings, partners, social media, town halls, promotional campaigns, etc.) to communicate with frontline healthcare workers about local HAI threats...keeping in mind actions specific to certain health care professions and settings.
Social Media in Infection Control Education and Communication

• Weekly PFL posts on social media
  ▪ Promoting trainings (virtual, asynchronous)
  ▪ Promoting a new health education product
  ▪ General IPC education

• IPC Tips of the Week Campaign
Social Media in Infection Control Education and Communication

• Partnership with NJDOH Office of Communications
  ▪ Oversight and management of NJDOH social media accounts:
    o Facebook (93,000 followers)
    o Instagram (23,100 followers)
    o LinkedIn (18,000 followers)
    o Threads (4,400 followers)
    o X/Twitter (44,400 followers)
NJDOH PFL Social Media Aggregate Data

- Since 2021 to current (April 2024), the NJDOH PFL team in collaboration with the Office of Communications posted 963 posts about various topics ranging from IPC Tip of the Week, general PFL promotion, learning needs assessment (LNA), virus spread, handwashing, etc. across the Facebook, Instagram, Threads, LinkedIn, and X/Twitter.
  - Out of the 963 posts, we have 629 posts that are unique and not duplicated (does not include posting the same post on multiple platforms).

![Image of a social media post from NJDOH PFL discussing infection control actions reduce risk of infectious disease threats. Practicing hand hygiene, using proper PPE, and practicing source control can help stop the spread of germs in health care.](image-url)
NJDOH Social Media Aggregate Data

• Reached 1,416,181 users across all platforms in June 2023
  ▪ 132,771 total engagements
  ▪ 7,453 total reactions
  ▪ 795 total shares/retweets
  ▪ 590 comments/replies

• Facebook and X/Twitter are the best performing platforms with a reach of 834,775 and 228,428 users, respectively.

• However, in terms of active engagement, Instagram with 197 posts accumulated 31,013 total engagements.
NJDOH Social Media Metrics Continued…

Total Number of Engagements and Users Reached by Social Media Platform

<table>
<thead>
<tr>
<th>Social Media Platform</th>
<th>Engagements (%)</th>
<th>Reached (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X/Twitter</td>
<td>53.6%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Instagram</td>
<td>20.4%</td>
<td>7.1%</td>
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NJDOH PFL Social Media Metrics

Number of Posts by Social Media Platform

- X/Twitter: 24.3%
- LinkedIn: 23.1%
- Facebook: 22.1%
- Instagram: 20.8%
- Threads: 0.3%
IPC Tips of the Week

• Campaign started in 2021
• Tips have a monthly theme related to IPC and are posted on all social media platforms.
• Goal is to provide brief, concise IPC education to healthcare workers while also educating the public.
• Expanding beyond providing tips but also including “Did You Know?” information.
IPC Tip of the Week Aggregate Data

• Since 2021 to current (April 2024), the NJDOH PFL team in collaboration with the Office of Communications posted 421 posts about IPC Tip of the Week – currently at the 124th Tip.
IPC Tip of the Week Aggregate Data

- Reached over 532,407 users across all platforms:
  - 27,964 total engagements
  - 1,725 total reactions
  - 190 total shares/retweets
  - 158 comments/replies
- The best performing tip by:
  - Number of individuals reached was Tip #24 on Facebook with 20,392 users.
  - Number of engagements was Tip #26 on X/Twitter with 1,588 total number of engagements.
- Overall platform performance:
  - Facebook had the highest reached with 272,725 users (78 posts).
  - X/Twitter has the highest engagement with 15,000 (101 posts).
IPC Tip of the Week Aggregate Data Continued…

Total Number of Engagements and Users Reached by Social Media Platform

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The Project Firstline Escape Room and Other IPC Education and Communication Tools
Conclusion

• The efficacy and impact of unique health education training tools have consistently proven to enhance participant learning outcomes and evolving traditional teaching approaches.

• Social media platforms can serve as potential vehicles for disseminating concise and targeted infection control education to healthcare professionals.

• By leveraging the immediacy and widespread reach of social media, it enables swift dissemination of vital information, empowering healthcare workers to stay abreast of evolving best practices and safeguarding patient well-being.
Visit Our Website

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Thank you!

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