# **Advancing Infection Prevention:**



A Public Health Approach to Bridging Gaps

The Centers for Disease Control and Prevention's (CDC) Project Firstline is a collaboration with over 80 healthcare, academic, and public health partners focused on equipping frontline healthcare workers with essential infection control knowledge, tools, and resources. By employing an audience-centered approach, Project Firstline translates CDC infection control recommendations and guide lines into practical, understandable content that emphasizes the science and reasoning behind infection control practices.

As part of this national effort, the National Network of Public Health Institutes (NNPHI) launched a four-part learning series titled *Advancing Infection Prevention & Control: A Public Health Approach to Bridging Gaps*. Grounded in foundational documents developed during the initial years of the Project Firstline grant, the series aimed to deepen understanding and strengthen the application of infection control strategies across both public health and healthcare settings.





## 3 Learn More about Project Firstline

Project Firstline is the Centers for Disease Control and Prevention's national training initiative designed to equip all frontline healthcare workers with the infection control knowledge they need to protect themselves, their patients, and their communities



# Series Overview



This virtual series explored how public health professionals—particularly those with MPH training—can help shape the future of infection prevention and control (IPC). Each session drew from national research, foundational IPC guidance, and frontline experience to build a stronger, more interdisciplinary infection prevention workforce.



<u>Session I - Future Workforce Trends and the Role of MPC in IPC</u>: Explored the evolving demand for infection prevention professionals and how MPH-trained public health workers can meet workforce gaps. This session highlighted key findings from a <u>University of South Florida scan</u> on IPC education and offers strategies to better integrate public health training into IPC roles.



<u>Session II - Healthcare Inequities and Infection Prevention and Control</u>: Infection prevention doesn't reach everyone equally. This session examined how social determinants of health and structural barriers shape IPC disparities and how public health professionals can promote more consistent infection control practices using a <u>Social and Behavioral Sciences (SBS) lens.</u>



Session II - Role of Infection Preventionists: What do Infection Preventionists (IPs) actually do? This session dives into the competencies and career pathways of IPs, using APIC's national report to highlight the future of IPC training, certification, and collaboration across public health and clinical domains.



<u>Session IV - Essential Interpersonal Skills for IPC:</u> Drawing from <u>NNPHI's recent national report</u> (prepared by Health Communication Consultants), this session offers strategies to build interpersonal and leadership skills that enhance collaboration between healthcare and public health professionals.



## Learn More about NNPHI's role in Infection Prevention and Control

Developed by the National Network of Public Health Institutes (NNPHI) in collaboration with the Centers for Disease Control and Prevention's (CDC) Project Firstline, this platform offers a wealth of resources, training materials, and interactive learning experiences designed to empower the public health workforce.



# What's Public Health got do with IPC?



Public health workers play a vital and multifaceted role in Infection Prevention and Control (IPC), contributing at the intersection of policy, surveillance, education, and systems improvement. Their involvement has become increasingly critical in light of COVID-19, antimicrobial resistance (AMR), and other emerging infectious threats. Here's a little bit on how public health professionals are involved in IPC:

#### 1. Surveillance and Data Analysis

Public health professionals are key to strengthening prevention of Prevent Multidrug-Resistant Organisms (MDROs) by leading surveillance and strategies to reduce transmission, supporting inter-facility coordination, and advancing data systems that detect and contain emerging threats. As frontline defenders in antimicrobial resistance efforts, public health agencies have a pivotal role in bridging healthcare and community strategies to stop the spread of MDROs.



#### 2. Workforce Training and Technical Assistance

Public health institutes and agencies deliver IPC training to clinical and non-clinical staff, helping to build infection control competencies across settings. Initiatives like CDC's Project Firstline train public health workers to educate and support frontline staff in applying evidence-based IPC practices.



### 3. Policy and Systems Leadership

Public health professionals develop and implement infection control policies at local, state, and national levels. They are instrumental in integrating IPC into emergency preparedness and public health accreditation processes.



### 4. Advancing IPC Through Data Modernization

In the context of IPC, modernization efforts focus on streamlining data collection, improving interoperability between healthcare and public health systems, and enabling surveillance of healthcare-associated infections and antimicrobial resistance. Public health professionals are leading these efforts, such as working to implement standards like Fast Healthcare Interoperability Resources (FHIR), reduce reporting burden through automation, and ensure that systems like National Healthcare Safety Network are more responsive and accessible across diverse care settings.



# Open Access Resources







- CDC's Antibiotic Stewardship Training
- CDC's Nursing Home Infection Preventionist Training
- CDC's HAI Index
- SHEA's Prevention CHKC Certification
- National Emerging Special Pathogens Training and Education Center's Courses

## **Understanding Stewardships**



- Antimicrobial Stewardship
- Diagnostic Stewardship
- EVS Stewardship
- Environmental Stewardship
- Occupational Health Stewardship
- Data Stewardship

### Worth a Bookmark



- Infection Control & Hospital Epidemiology Journal
- Antimicrobial Stewardship & Healthcare Epidemiology Journal
- SHEA/IDSA/APIC Compendium
- OpenStax: Microbiology Chapter 16: Disease and Epidemiology
- OpenStax: Fundamentals of Nursing Chapter 10: Infection Control and Prevention



# **IPC Series 2025 Evaluation Highlights**



### **Participant Praise**

"Great facilitation!"

"Great session!"

"Lots of good info!"

"Very informative and inspirational"

### **Key Findings**

Knowledge Gain: Yes! Participants reported increased knowledge

on IPC learning objectives.

**High Satisfaction**: Average satisfaction score 8.2/10.

**Increased Interest:** 77% wanted to learn more about IPC after attending.

Planned Action: 80% intended to apply learnings in their work.

### Participants Plan to...

• Share learnings with colleagues

- Apply new models such as the holistic approach
- Address IPC inequities (e.g., health literacy)
- Improve soft skills (communication, leadership, emotional intelligence) •

Continue learning about IPC (resources, career opportunities)

## **Evaluation Overview**

• Sessions Evaluated: 4

• Participants: Session 1 (n=16), Session 2 (n=22), Session 3 (n=29), Session 4 (n=18)

• Method: Surveys in Qualtrics (QR code/link), standard & session-specific questions

• Analysis: Quantitative (descriptive stats) + Qualitative (thematic review)

### **Summary**

The 2025 Project Firstline IPC Series achieved its learning objectives, with participants reporting stronger knowledge, high satisfaction (8.2 out of 10), and clear relevance to their work. Eight in ten plan to take action by sharing insights, applying holistic IPC approaches, addressing inequities, improving leadership and communication, and pursuing further IPC training. These results demonstrate the series' impact on advancing infection prevention and control in public health and healthcare settings.

