University of Nebraska Medical Center
Nebraska Medicine

Strengthening Infection Preventionist Support: Results of a National Needs Assessment

Executive Summary

Introduction & Background

The COVID-19 pandemic exposed significant gaps in infection prevention and control (IPC) understanding and practices within healthcare environments. These gaps include variation in expertise, infrastructure weaknesses, insufficient training strategies, and a narrow perception of infection control as a collection of guidelines and procedures. Funded by the Centers for Disease Control and Prevention (CDC) and Project Firstline, the Strengthening Infection Prevention and Control in Healthcare (SHIPC) grant (CDC-RFA-CK22-2203) aims to develop tools and resources to help Infection Preventionists (IPs) to evaluate and improve their Infection Prevention and Control Programs, as well as effectively prepare for future epidemics.

A comprehensive needs assessment was conducted to understand the challenges faced by Infection Preventionists (IPs), identifying gaps and priorities to inform resource development for IPs across the United States its territories. The data gathered will be used to develop targeted interventions and initiatives that support IPs, increase access to IPC resources, and enhance their effectiveness in their roles.

This summary presents valuable insights from the needs assessment, forming a foundation for focused efforts and strategic resource development in infection prevention and control.

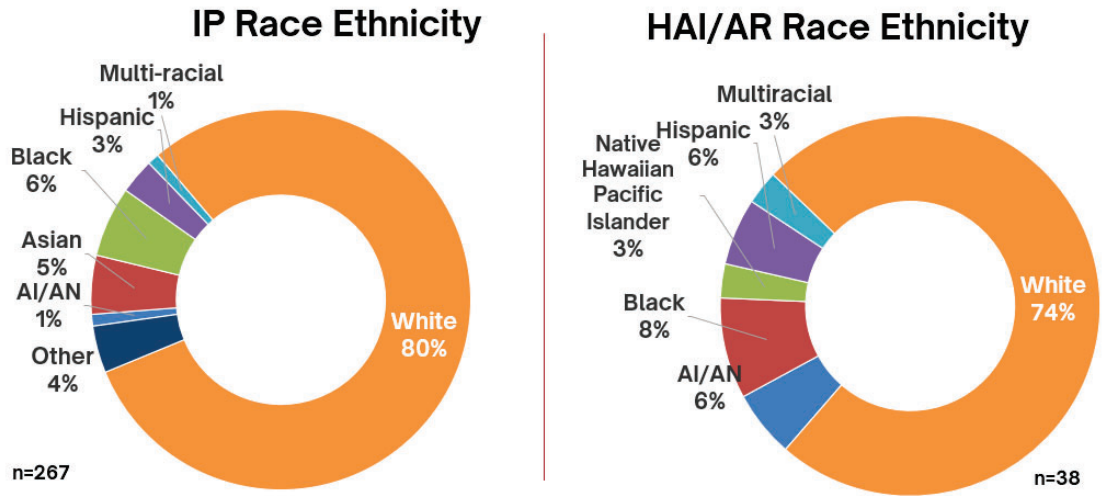
Methodology

Developed by infection prevention subject matter experts, the needs assessment built upon the previous work of Soma et al., 2023 who explored resources needed by IPs to effectively operate IPC programs. The current needs assessments conducted online via Qualtrics expands on that work and includes information from both state-based Hospital Acquired Infection/Antimicrobial Resistance (HAI/AR) Directors/Coordinators and IPs. Survey links were directly emailed to HAI/AR coordinators; IPs were recruited via professional organizations, social media links, and webinars. A total of 305 participants (HAI/AR=38; IPs=267) completed the survey. The surveys collected information about demographics, including professional background and practicing facility characteristics. In addition, the survey explored IP roles and responsibilities, relationships with internal leadership and external public health officials, top IPC, and healthcare-associated infection (HAI) concerns, IPC training, and IPC resource gaps.

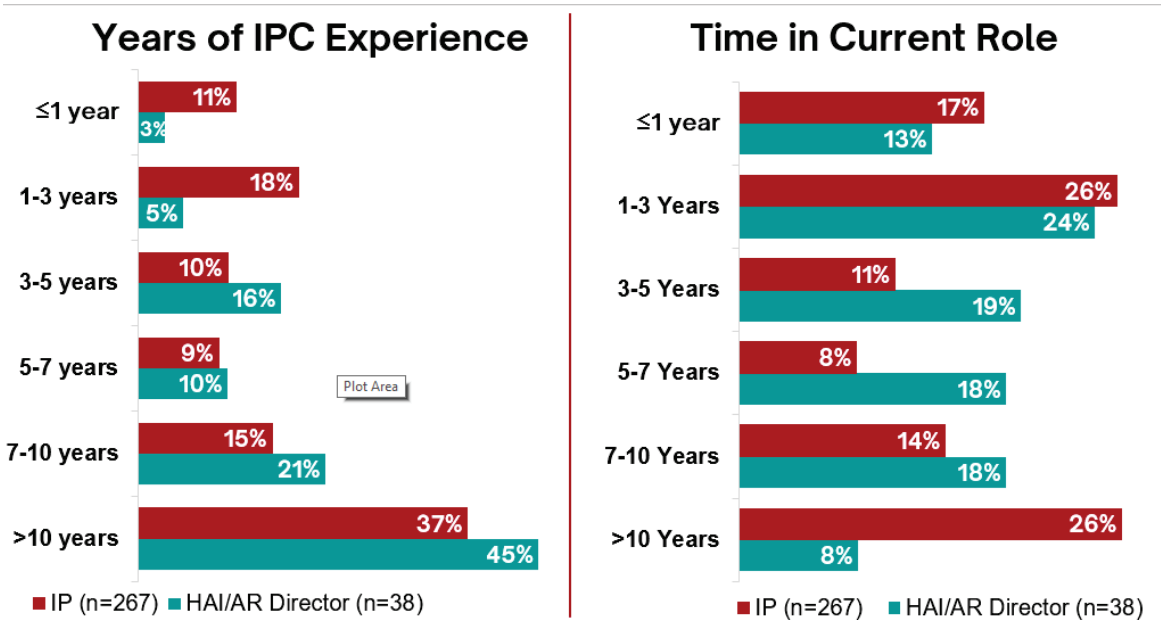
Summary of Findings

Respondent Demographics

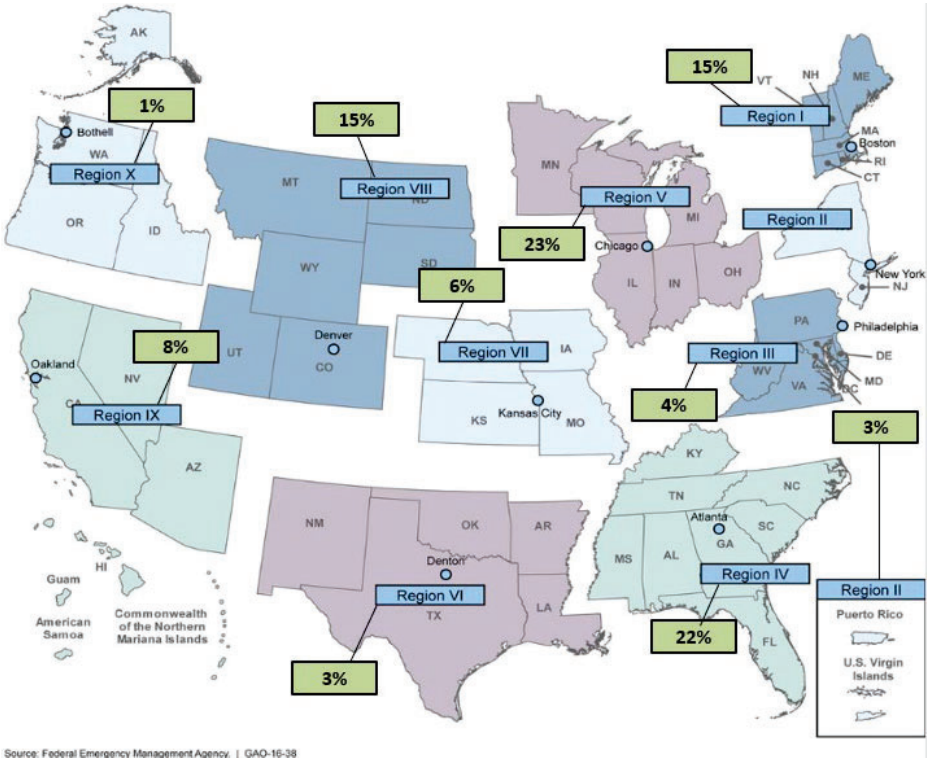
The comprehensive needs assessment survey respondents included 305 participants: 38 HAI/AR Directors and 267 IPs. The racial and ethnic demographics reported for HAI/AR Directors were 6% American Indian/Alaskan Native, 9% Black, 3% Native Hawaiian/Pacific Island, 6% Hispanic, 3% Multiracial, and 74% White and IPs were 1% American Indian/Alaskan Native, 5% Asian, 6% Black, 3% Hispanic, 1% Multiracial, 80% White, and 4% Other.



Experience in infection prevention and control varied, with 45% of HAI/AR Directors and 37% of IPs having over 10 years in the field and 29% of IPs with only 8% of HAI/AR Directors having 3 years or less of experience in the field. In their current roles, 24% of HAI/AR Directors and 26% of IPs had been in their positions for 1-3 years.



Geographically, the surveys had participation from all 10 HHS regions. Representation spanned 31 states, with notable participation from Alabama, Wisconsin, Colorado, Illinois, Massachusetts, Montana, and Florida.



Key Findings

The needs assessment revealed several critical challenges faced by IPs. Workforce challenges are prominent, characterized by high vacancy rates, location barriers (e.g., limited access to IP subject matter experts), difficulty retaining and recruiting skilled IPs, and a significant portion of the current workforce nearing retirement (Rebmann et al., 2023). Training and professional development opportunities are also lacking, with inadequate training programs, insufficient comprehensive onboarding for new IPs, and concerns about the affordability and availability of quality training.

Resource limitations further compound these issues with scarce availability of personnel and materials for implementing effective IPC programs, especially in small and rural hospitals. The assessment highlighted positive associations between IP job satisfaction and the support and engagement of hospital leadership in IPC practices. However, there is a clear need for stronger collaborative relationships between IPs, healthcare administrators, public health officials, and professional organizations.

To address these challenges, several strategic priorities are recommended. Enhanced communication and collaboration are essential, including strengthening networks among IPs and other healthcare professionals and administrators through regular meetings, forums, and workshops. Robust data monitoring and evaluation systems should be implemented to track the effectiveness of IPC interventions and provide a process to adjust strategies accordingly. Additionally, investing in research and innovation is crucial for developing new resources, training programs, and technologies tailored to the needs of IPs. Resource allocation and advocacy are also key priorities, ensuring adequate, equitable resources for IPC programs, particularly in underserved areas, and advocating for policy changes to support access to these materials.

Next Steps

In response to the Needs Assessment results, our team is actively developing tools and resources to support Infection Preventionists. The tools and resources available for implementation and those under development include:

- **Self-led Infection Control Evaluation Tool (SLICE)***
  - Evaluates 17 IPC domains to self-assess individual facility IPC Programs
- **Behind the Mask Webinar Series***
  - Topics driven by needs assessment data, SLICE domains, and IP requests
  - Nursing Continuing Education credits available
  - Post-webinar office hours for questions and collaboration
- **Extended Reality (XR) Education***
  - Novice, intermediate, and advanced modules focused on IPC practices in the Sterile Processing Department
- **90-Day Survival Guide****
  - 12-week workbook for IPs to navigate the early days of their new role
- **IPC Resource Repository****
  - Templates, checklists, and forms to support daily IP practices. (e.g., policies, audit forms, action plans, rounding checklists)

* = Resources currently available

**=Resources under development

The results provided by the needs assessment emphasize the need for enhanced efforts to support IPs. We believe there are three key areas where the infection prevention community can make significant improvements:

- **Communication and Collaboration**
  - Strengthen relationships among IPs, healthcare administrators, public health officials, and professional organizations.
- **Data Monitoring and Evaluation**
  - Track the effectiveness of interventions addressing identified needs and concerns of IPs.
- **Research and Innovation**
  - Advance the IPC field through the development of new resources, training programs, and technologies.

This summary provides important information about the current state of IPC, the needs of IPs, and strategic priority actions required to support and enhance IPC efforts across healthcare settings. By addressing these priorities, we can improve the effectiveness of IPC programs, ensure the safety of patients and healthcare workers, and build a more resilient healthcare system.