Wisconsin HAI Program expands infection preventionist resources for health care facilities and public health departments

CSTE Stories FROM THE Field

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The Wisconsin Healthcare-Associated Infections (HAI) Prevention Program expanded regional and topic-specific infection prevention capacity throughout the state. This resulted in improved infection prevention and control (IPC) activities, stronger relationships with local/Tribal jurisdictions, and more collaboration with other public health partners.

The "What"

Wisconsin's HAI Prevention Program (WHAIPP) has a strong history of infection preventionist (IP) staffing and relationships to support education development and facility assistance. However, past program resources did not allow for increases to the staffing model. WHAIPP was founded by a certified IP and continued to have at least one IP on staff throughout its first decade, but role expansion was needed to truly impact more facilities in real time, particularly to meet the extensive demands during a global pandemic.

WHAIPP utilized Epidemiology and Laboratory Capacity for the Prevention and Control of Emerging Infectious Diseases (ELC) COVID supplemental funding as part of the Enhancing Detection and IPC Training/Project Firstline opportunities to develop a regional IP model. This model was built on a foundation developed in 2016 as part of the Ebola response when retired, part-time IPs were brought onto the team to perform infection control assessment and response (ICAR) visits and National Healthcare Safety Network data validation, provide backup technical support, and develop educational materials. Two IPs, one in the northern part of the state and one in the southern part of the state, formed an invaluable service to support the smaller central team. As a result, when this funding opportunity presented itself, WHAIPP expanded the model into full-time remote assignments around the state.

Five experienced IPs were recruited from acute care hospitals and assigned to one of the five public health regions in the state. These Regional IPs (RIPs) brought infection prevention experience from health systems that included a wide range of health services and settings in addition to their nursing and microbiology roles prior to becoming IPs. Utilizing experienced IPs allowed for a fast transition into performing state-based infection prevention support. They reviewed materials and shadowed existing WHAIPP IPs to adapt from an individual facility-based assistance model to a regional-based one that crossed facilities and settings.

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In addition to the five RIPs, WHAIPP added four topic-specific IPs in 2022 as part of the ELC Strengthening HAI/AR Programs (SHARP) funding. These IPs increased prevention and response activities for Wisconsinites in higher-risk settings such as ambulatory clinics (outpatient clinics and ambulatory surgery centers), dialysis centers, multidrug-resistant organism (MDRO) outbreaks and containment initiatives, project-focused topics (oral health and new IP onboarding), and emerging diseases and outbreaks. These specific areas were identified as gaps in the IPC infrastructure model and are key areas in keeping the most vulnerable patients free from HAIs. Due to the high number of facilities that fall within these settings, it was not sustainable for the RIPs to cover these facilities and understand the inner workings of these specialties.

The ELC-funded IPs have become an invaluable resource in Wisconsin for external stakeholder partners, health care facilities, and LTHDs, as well as other ELC-funded communicable disease surveillance programs and state agencies.

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The "So What"

The RIPs infused new energy into WHAIPP at the end of summer 2020, just as a large wave of COVID-19 overtook the state. While IPs have always been a part of WHAIPP, more than doubling the number allowed for greater outreach to facilities, particularly in the long-term care setting that was hardest hit with COVID-19-related outbreaks and response. The RIPs remain highly sought for guidance interpretation and ICARs, for COVID and beyond, including personal protective equipment (PPE) use and optimization, basic IPC principles, outbreak testing, resident cohorting, and application of changing guidance. The increased resource also allowed WHAIPP to build stronger relationships with local/Tribal health departments (LTHDs), a group that was not engaged very much prior to COVID-19 aside from a few that assisted with MDRO follow up. As soon as travel was more feasible and vaccination more widespread in the spring of 2021, the RIPs began performing frequent on-site visits to add another dimension to their technical assistance. Between October 2020 and April 2023, the RIPs made more than 343 on-site and 362 virtual visits to health care facilities.

Developing this structure extends well beyond the IPs. It naturally transitions into MDRO technical assistance, which utilizes similar containment principles, as well as support for other ELC-funded communicable diseases and Wisconsin agencies. This included:

- Wisconsin identified additional cases of targeted MDROs, including carbapenem-resistant Enterobacterales (CRE) and carbapenem-resistant *Acinetobacter baumannii* (CRAB), between 2020 and 2021 most likely due to variations in patient transfer patterns, pandemic-related changes to PPE use and infection prevention adjustments, staffing shortages, and communication breakdowns between facilities. From 2021 to June 2023, the RIPs educated affected facilities on MDRO response strategies and testing, which led to the collection of more than 2,700 point prevalence surveillance (PPS) screening swabs. Currently, seven facilities are engaged in some form of MDRO PPS, either actively as part of containment or those that recently achieved PPS containment and continue to spot check at longer intervals.
- Communicable disease epidemiologists reach out to WHAIPP IPs for consultation on topics like Legionella, respiratory, and gastrointestinal outbreaks in health

care facilities. The additional expertise and capacity offered by the IPs allows for enhanced follow up with the LTHDs and affected facilities as many of the other surveillance programs have limited staffing. Facilities are able to relate to the HAI IPs as former facility IPs who have been in a similar position and take an educational, collegial approach to investigating the situation and providing evidence-based response recommendations. Prior to the introduction of the RIPs, WHAIPP did not have the staffing capacity to collaborate with the other ELC-funded programs on a scale like this.

- The RIP program has led to a greater understanding of the IP role within state government. The specialized expertise offered by the RIPs and WHAIPP leads to frequent consultation on guidance documents, education materials, PPE use, and facility outbreaks. Some of the Wisconsin agencies that collaborate with the RIPs includes the Wisconsin Department of Public Instruction (PPE use and fit testing), Wisconsin Department of Natural Resources (medical waste), and DHS Division of Quality Assurance state surveyors (guidance interpretation and outbreak response).
- The increase in IP capacity and staffing has allowed WHAIPP to develop a 6-month IPC mentoring and training program for LTHDs. The program allows for one health department participant from each of the five public health regions and 1-2 participants from a Tribal health department across the state each round. The participants are partnered with a RIP to learn more about the role of IPs in different health care settings and how to fit all the pieces together when doing surveillance and outbreak investigation. The program includes a full curriculum, workbook, presentations, on-site visits, and mentoring to expand LTHD comfort with IPC practices and consultation in their jurisdictions.

The "Now What"

Moving forward, WHAIPP will increase prevention activities by adding educational opportunities, increasing on-site visits, continuing the LTHD HAI/IPC training program, increasing oral health prevention on-site visits, and supporting prevention and containment of MDROs. The biggest area that WHIAPP will build upon is an expansion in on-site visits to dialysis centers, ambulatory clinics, and dental clinics for consistent infection prevention practices across all health care facilities and settings.

The ELC-funded IPs have become an invaluable resource in Wisconsin for external stakeholder partners, health care facilities, and LTHDs, as well as other ELC-funded communicable disease surveillance programs and state agencies. This model has successfully provided outreach and IPC-focused education to improve practices in the state. There remains a lot of work to be done and through the ELC funding mechanism there is continual hope to stabilize the longevity of this resource for the health of Wisconsin residents.

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