

Background

- Infection prevention is the cornerstone of a resilient healthcare system, relying on the expertise of infection preventionists (IPs). As healthcare complexity increased, the knowledge and skills required of IPs have also increased.
- It may take up to two years for a new IP to demonstrate competence and become certified.
- Without adequate support to acquire the necessary skills and competence, new IPs can experience considerable frustration, resulting in high turnovers, understaffing and coverage gaps impacting safe delivery of patient care.
- Recognizing that competence develops with experience over time, this program demonstrates that targeted education could enable acquisition of competency and transfer to practice of managing a hospital infection prevention program.

Goal

The goal of this program was to create a standardized training program based on national professional standards to help novice and newly-hired IPs to develop competency as practitioners and manage the local infection prevention program.

Disclosures

Nothing to disclose

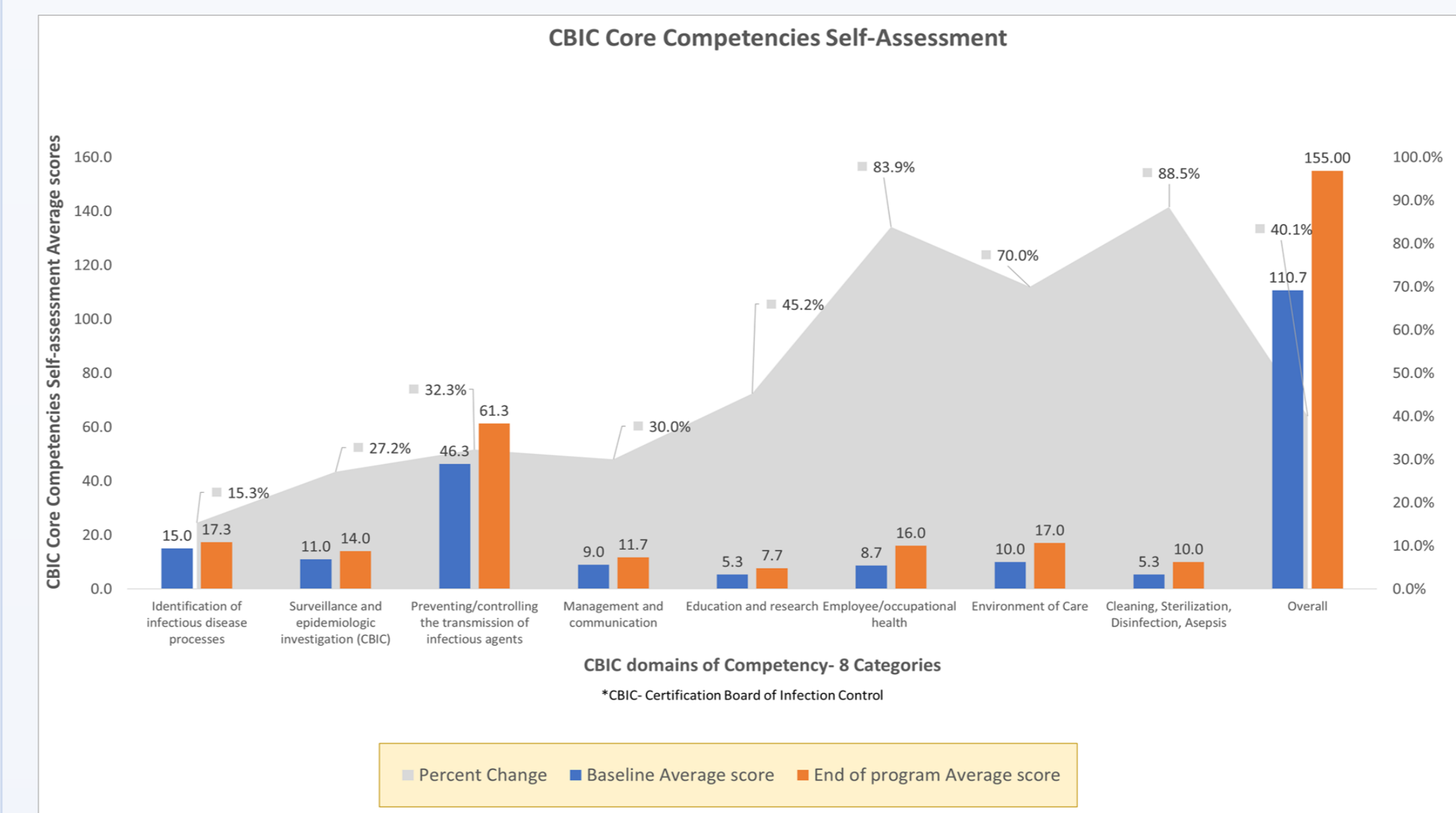
Methods

A survey administered to the medical center IPs at a Northern California hospital system showed that IP training was variable, and a standard training and mentoring program would be helpful in training newly hired IPs.

Methods

- A mentor-led, 20-week infection prevention practice fellowship program was developed based on the **Association for Professionals in Infection Control and Epidemiology (APIC) accelerated internship program guide**.
- The program was implemented in January 2023. Since then, seven IPs have gone through this program over two cohorts.
- The program framework included the following features:
 - Ten learning modules to be completed over 20-weeks
 - Mentor-led check-ins and didactic presentations (900 minutes total)
 - Subject matter expert guest speakers
 - Mentor led 1:1 clinical rounding (16 hours)
 - Access to resources such as APIC e-text, guidance from professional organizations, webinars
 - Shadowing interdisciplinary teams (e.g., nursing, antibiotic stewardship pharmacist, EVS, Laboratory)
 - Financial support for attendance at a national conference or a certification preparatory course
 - Record keeping through the organization's central repository for professional education
 - An orientation program set the expectation for commitment from leaders and IP fellows
 - Time commitment: at least 10 hours per week
- Pre- and post-intervention assessment surveys were administered to the IP fellows to self-assess their competencies in the domains used in the criteria by the Certification Board of Infection Control and Epidemiology.

Results



- A de novo scoring system measured the change in knowledge, skills, experience, and confidence from baseline to post-intervention in 44 items across eight competency domains. Statistical analyses were not performed due to the small sample size (n=3) in the first cohort.
- The participants demonstrated a **40%** overall collective improvement in the eight CBIC competency areas.
- Three domains with the lowest pre-intervention scores, showed the **most improvement** post-intervention increase at 89% (Cleaning, sterilization, disinfection, and asepsis), 84% (Employee/occupational health), and 70% (Environment of care) respectively.
- Financial analysis demonstrated a compelling cost-benefit potential with a cost benefit ratio of 4.65 in one year indicating the programs effectiveness outweighs the costs.
- Two IPs were certified in infection control (CIC) since the completion of the first cohort in July 2023.

Conclusion

- The 20-week fellowship established a foundation to prepare an internal IP workforce to lead infection prevention and control programs filling an organizational need.
- Targeted education and transfer to practice by mentoring clinical skills and didactic review could expedite skill building and IP acquisition of competencies to successfully manage a hospital infection prevention program.

Testimonials

"[the] program helped me spend time with the EVS, Engineering and Facilities. It was an eye opener to see first-hand the work that they do for the hospital to operate and how they play an important part in preventing spread of infections."

"You are really learning practical (on the job), but the actual depth was otherwise hard to obtain. I did not get this until I went in deep, and this program got me deep. I am not sure I would have gone there if I was doing this education independently on my own."

References

- Association for Professionals in Infection Control and Epidemiology. (2019). *Competency self-assessment activity for novice or becoming proficient IPs*. https://apic.org/wp-content/uploads/2019/05/IP_Comp_Self_Assessment-2019-Activity_5-24-19.pdf
- Association for Professionals in Infection Control and Epidemiology. (2022). *Between a rock and a hard place, March 2022: Recommendations for balancing patient safety and pandemic response*. <https://apic.org/between-a-rock-and-hard-place-march-2022/>
- Association for Professionals in Infection Control and Epidemiology. (n.d.). *Accelerated Internship*. <https://apic.org/academic-pathways-internship/>
- Edmond, M. B., & Wenzel, R. P. (2015). Infection prevention in the health care setting. In J. E. Bennett, R. Dolin, & G. L. Mandell (Eds.), *Mandell, Douglas, and Bennett's principles and practice of infectious diseases* (8th ed., Vol. 2, pp. 3286-3293). Elsevier Saunders. <https://doi.org/10.1016/B978-1-4557-4801-3.00300-3>
- Reisinger, J. D., Wojcik, A., Jenkins, I., Edson, B., Pegues, D. A., & Greene, L. (2017). The project protect infection prevention fellowship: A model for advancing infection prevention competency, quality improvement, and patient safety. *American Journal of Infection Control*, 45(8), 876-882. <https://doi.org/10.1016/j.ajic.2017.03.031>

Contact

Sejal Naik, DNP, MHA, RN, CIC
 Clinical Practice Consultant, Infection Prevention
 Kaiser Permanente: Northern California
 Email: sejal.x.naik@kp.org