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This fall issue of *Prevention Strategist* was a bit of an emotional roller coaster for me as I perused the various articles in store. I was inspired by our APIC champions and heroes, as well as an IP who has a successful SSI consulting practice. I was saddened to hear about the passing of our colleague and friend, Jennie Mayfield. I was encouraged by the efforts underway to define and strengthen our profession, and also by learning more about the journey and vision of Dr. Shanina Knighton, our Executive Director for the new Center for Infection Prevention and Control Research, Practice & Innovation. I was amazed (and frustrated) to learn that the Department of Labor Standard Occupational Classification (SOC) System does not (yet) recognize Infection Prevention as a profession. I felt determination and commitment when learning about the post-COVID-19 IP and the fresh ideas that will help build IPC programs and retain IPs in our profession. I felt reinforced when reviewing the excellent SSI case study. And finally, I felt thankful for the review of outstanding sessions from this year’s annual conference, and also for the earnest diversity, equity, and inclusion (DEI) journey we are on together, spearheaded by our DEI taskforce. Pretty much a normal day for an IP—some highs, some lows, and the occasional surprise (OK, more than occasional). It’s not easy work, but our contributions are something to be proud of—and this issue of *Prevention Strategist* is a perfect example!

Linda Dickey, RN, MPH, CIC, FAPIC
2022 APIC President

Riding the Infection Prevention Rollercoaster

Linda Dickey
2022 APIC President

MISSION
Founded in 1972, the Association for Professionals in Infection Control and Epidemiology (APIC) is the leading association for infection preventionists and epidemiologists. With more than 15,000 members, APIC advances the science and practice of infection prevention and control. APIC carries out its mission through research, advocacy, and patient safety; education, credentialing, and certification; and fostering development of the infection prevention and control workforce of the future. Together with our members and partners, we are working toward a safer world through the prevention of infection.
LOOKING BEYOND THE SURFACE

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One of CBIC's strategic goals for 2019-2022 was to demonstrate the value of certification in infection prevention and control. In 2019, the *American Journal of Infection Control and Epidemiology* (AJIC) published our brief report on the perceived value of the CIC® credential. Over 34,000 surveys were sent to Infection Preventionists (IPs) and other stakeholders across North America. Respondents identified an increased sense of professionalism, competency, and career growth associated with obtaining the CIC® credential, as well as improved patient safety.1 Take a look at our CIC® in the Spotlight (cbic.org) to read "first hand" how certified IPs around the world feel about their achievements.

Perception is one thing, but do certified IPs impact infection prevention and control practices? This was the question posed by Yea-Jen Hsu, et al, in their recently published study in AJIC.2 The authors conducted a systematic review of published research spanning the past 21 years. The results showed that hospitals hiring certified IPs were more likely to implement certain infection prevention practices. They concluded that CIC® IPs may have a stronger understanding than other practitioners of the evidence for certain IPAC practices and are more likely to recommend implementing them in the hospitals where they work, especially when the lead IP is certified.

These studies demonstrate the perceived value and influence of certified IPs, but more studies are needed to explore the impact of CIC® IPs on healthcare-associated infections.

Now, more than ever, external activities by legislatures have increased their focus on certification requirements as it continues to validate one's competency within the profession. Certification allows employers and other stakeholders to identify individuals with the competencies needed to perform a role or task. This has been identified in not only acute care, but also in long-term care, ambulatory care, and other healthcare settings such as college health. Check out our CBIC site where college health professionals share why CIC® IPs are key to preventing outbreaks, averting threats, and preparing for the unexpected.

Over the past year, it has been great to connect with local APIC Chapters to discuss the value of certification. CBIC is happy to connect with local chapter leaders and to share with your members the many pathways to certification. Please reach out to Jessica Dangles (jangles@cbic.org) in our CBIC office if you would like to have your local APIC Chapter engage with CBIC.

As we head into the autumn months and prepare for another school year and monitor for respiratory infections, don’t forget to prepare for recertification! For those recertifying this year by IPUs (infection prevention educational units), completed submissions are due October 31. The deadline for those purchasing the recertification exam is November 30. CBIC staff are here to help if you have any questions (info@cbic.org). This is also my opportunity to say thank you for your passion, your leadership, and your positive influence on healthcare practices, as certified Infection Preventionists.

Sandra Callery, RN, MHSc, CIC
2022 CBIC President

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**References**


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Congratulations to the 2022 APIC Fellows!

The APIC Fellows program recognizes exemplary APIC members with status as a Fellow of the Association for Professionals in Infection Control and Epidemiology (FAPIC). Fellow of APIC status is a distinction of honor for infection preventionists who are not only advanced practitioners of infection prevention practice, but also leaders within the field.

Congratulations to the 35 new APIC Fellows selected in 2022 listed below!

The 2023 application period will open February 1, 2023, and will close on April 17, 2023. Visit [https://apic.org/professional-practice/apic-fellows/](https://apic.org/professional-practice/apic-fellows/) for more information.

Jennifer Adams, MT, MPH, CIC, FAPIC
Mohd Adawee, MSN-IPC, RN, CIC, CPHQ, FAPIC
Feah Altura-Visan, BSN, RN, MN, CIC, FAPIC
Jessica Arias, MHL, BSN, RN, CIC, FAPIC
Rebecca Battjes, MPH, CIC, FAPIC
Natalie Bruce, BScN, MScN, CIC, FAPIC
Stephanie Carraway, MPH, CIC, CER, FAPIC
Diana Cervantes, MS, DrPH, CIC, FAPIC
Michelle DeVries, MPH, CIC, VA-BC, FAPIC
Rebecca Fitzpatrick, DNP, RN, CIC, FAPIC
Margaret Gilman, MAS, CIC, FAPIC
Miki Gould, MHA, BS, CIC, FAPIC
Rachel Guran, RN, BSN, MPH, CIC, FAPIC
Larissa Lewis, MPH, RN, CIC, FAPIC
Elizabeth Marrero, MSN, RN, CIC, FAPIC
Teri Mauldin, MBA, BSN, RN, CIC, FAPIC
Marissa McMeen, MPH, MLS (ASCP), CIC, FAPIC
Marie Moss, RN, BSN, MPH, CIC, FAPIC
Carmen Murphy, MSN, RN, CIC, FAPIC
Hannah Newman, MPH, CIC, FAPIC
Anna Nutt, MPH, CIC, FAPIC
Heather Parth, MPH, CIC, FAPIC
Dana Piatek, MPH, MSN, RN CIC, FAPIC
Lisa Sanders, MBA, RN, BSN, CIC, FAPIC
Jonathan Schouest, MPH, CIC, FAPIC
Patricia Steger, MSI CLS MT(ASCP) CIC, FAPIC
Patricia Stone, PhD, RN, FAAN, FAPIC
April Sutton, MSN, RN, CIC, FAPIC
Jessica Swanson, MSN, RN, CIC, FAPIC
Leslie Teachout, MS, MT(ASCP), CIC, FAPIC
Robert Tucker, MPH, CIC, FAPIC
Ogie Umasabor-Bubu, MPH CPH CIC, FAPIC
Maria Vacca, MSN, RN, CIC, FAPIC
Amy Ward, MS, BSN, RN, CIC, FAPIC
Sheron Wilson, MPH, CIC, FAPIC
APIC Champion Recognition

2022 APIC Champions
The Champion Recognition program is an expression of the board’s gratitude for the individual’s dedication and service to the infection prevention profession and to APIC.

Rebecca Bartles, DrPH, MPH, CIC, FAPIC
Together with Chaz Rhone, Becca has co-chaired the IP Academic Pathway (IPAP) since it originated in 2021. The IPAP will help pave the path for an academic entry into our profession and facilitate bringing a new generation of infection preventionists into the field. This work is critical to maintaining the future of our profession. Becca’s efforts have been instrumental in moving this work forward. She has contributed a significant amount of her personal time and has effectively facilitated the contributions of others to help create the Accelerated Internship Program Guide, the IPAP’s first deliverable.

Chaz Rhone, MPH, CIC, FAPIC
Together with Becca Bartles, Chaz has co-chaired the IP Academic Pathway (IPAP) since it began in 2021. The IPAP will help create a future path for academic entry into the infection prevention and control profession as well as facilitate bringing a new generation of infection preventionists into the field. Chaz’s leadership has been consistent, patient, and tireless. Like Becca, he has contributed a significant amount of his own time and has effectively facilitated the contributions of others to move this critical work forward, including the first deliverable from the IPAP with the Accelerated Internship Program Guide.

APIC Mourns the Passing of Past President Jennie Mayfield

Jennie L. Mayfield, BSN, MPH, CIC, died August 9, 2022. Jennie retired as a clinical epidemiologist from Barnes-Jewish Hospital in St. Louis, Missouri in 2017, after being a member of the BJH Infection Prevention and Hospital Epidemiology team since 1994. She was active in her local APIC chapter and served as president of APIC in 2014. Jennie was recognized nationally for her expertise, receiving the SHEA Advanced Practice Infection Control Professional award in 2005, and an APIC Hero of Infection Prevention award in 2007. Jennie’s contributions to and impact on the field of infection prevention are significant. She will be remembered by many as a mentor, thought leader, investigator, and friend.
International Infection Prevention Week: October 16-22, 2022

*The Future IS Infection Prevention: 50 Years of Infection Prevention… and Beyond*

2022 marks APIC’s 50th anniversary. As we look back on the last 50 years, and look forward to another 50 more, we reflect on how infection prevention has changed and how it has remained steadfastly the same. While times shift and technology changes, infection prevention has always had the same goal – to save lives. Infection Prevention has stopped people from dying before their time and has saved more lives and more functionality for patients; from births to weddings, to marathons run, to vacations taken, to job promotions accepted, Infection Prevention, and Infection Preventionists, save lives. They do it without knowing the impact they’ve made, the lives they’ve spared, or the crises averted. This IIPW we remember our history, look forward to our future, and build up the heroes of today. Here’s to 50 years of infection fighting, and 50 more!

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Reducing *C. Diff* Through Novel Diagnostic Stewardship Program

Elizabeth (Beth) Richardson, MPH, MSN, RN, CIC
Beebe Healthcare, Lewes, Delaware
IPC Operations

Elizabeth, (Beth) Richardson, MPH, MSN, RN, CIC, created and led a novel, multi-disciplinary process that helped Beebe Healthcare achieve the lowest *Clostridioides difficile* (*C. diff*) rate in the organization’s more than 100-year history, and the lowest rate among all hospital systems in Delaware state.

When Richardson joined Beebe as an infection preventionist in 2015, *C. diff* was one of the system’s biggest concerns. A gap analysis and implementation of best practices “slowly but surely” decreased case numbers from a 2014 high of 62. “But in 2018, we got stuck,” Richardson said. “We asked ourselves, what else can we do?”

A performance improvement exercise highlighted an opportunity for diagnostic stewardship around indeterminate *C. diff* testing results. Specifically, over-use of a PCR reflex test—which can frequently generate false positive results—was contributing to unnecessary treatment and increased potential for microbial resistance. “We said, ‘We wish we could talk ordering physicians through it in real time,’” Richardson said. “And then we realized, wait…we can!”

The result was the novel “Pause and Review” process, created by a diverse team of Beebe infection preventionists, laboratory and pharmacy staff, executives, and physicians, and led by Richardson. Under “Pause and Review,” laboratory staff alert Beebe’s Antimicrobial Stewardship Team to every indeterminate *C. diff* sample result. A member of the team contacts the ordering physician to review the patient case and determine if a second test is needed, also providing real-time infection-prevention education. “We focus on the clinical scenario, and whether the reflex test result is really going to change patient management,” Richardson said.

With help from the system’s well-respected infectious disease physicians and physician advisory group, Richardson quickly generated buy-in to “Pause and Review.” Beebe’s *C. diff* standardized infection ratio dropped from 1.43 in 2017 to 0.34 in 2021—particularly impressive given the sharpest decrease occurred during the COVID-19 pandemic. The process is now part of Beebe’s normal workflow.

“This program demonstrates the power of one of our system’s core values, which is ‘always learning, always growing,’” Richardson said. “I love that as infection preventionists we get to constantly learn and improve while helping people every day.”

Heroes of Infection Prevention in IPC Operations Erin Minnerath, MSPH, CIC, Tiffany Martens, BSN, BA, RN, CIC, CMSRN, and Angie Silva, MT (ASCP), CIC, contribute their group success to their diverse backgrounds. “It was three different brains working together for the whole,” Minnerath said.

The team, led by Minnerath, were instrumental in St. Mary’s Medical Center Special Pathogens Assessment hospital designation, which was established in 2015. The designation prepared the hospital for dealing with highly hazardous pathogens, such as Ebola, and over time evolved to include other highly infectious pathogens. The infrastructure included a High-Risk Infection team and biocontainment unit and had ample leadership support.

Due to this solid infrastructure, the hospital was able to develop a powerful response to COVID-19 quickly and successfully. They were well prepared for the pandemic, having held training sessions, personal protective equipment (PPE) donning and doffing demonstrations, and had developed relationships with staff that helped ease staff anxiety during a time of panic.

The team not only ensured their healthcare workers were safe, confident, and prepared during this challenging time, but they found additional resources to support training for other hospitals in their region. They extended their high-risk pathogen training program to rural hospitals with fewer resources, ensuring the region was prepared for handling highly infectious patients. They developed a program that included facility assessments and gap analyses, customized training, and continual follow up as needed. In addition, the regional training program was supported by a Colorado Department of Public Health and Environment grant in July 2020. Now that the training program is established, the team continues the outreach to the rural hospitals in the region led by Martens.
Tackling Rare Surgical-Site Infections Through Leadership and Engagement

**Patrick Gordon, DNP, RN, CIC**
Beth Israel Deaconess Medical Center, Boston, Massachusetts
Quality Improvement

Hero of Quality Improvement Patrick Gordon, DNP, RN, CIC, spearheaded a rapid and thorough epidemiologic investigation to tackle a cluster of rare surgical-site infections (SSIs) at Beth Israel Deaconess Medical Center (BIDMC), creating safer operating room (OR) conditions for patients at his facility and nationally.

Just following the first COVID-19 surge at BIDMC in June 2020, the hospital’s microbiology lab alerted the infection control department to positive non-tuberculous mycobacteria (NTM) cultures from surgical wounds. Gordon, then an infection control practitioner and experienced in both SSIs and environmental infection control, immediately recognized an issue. “These organisms are not common for SSIs—they are definitely atypical,” he said.

Over the next several months, Gordon engaged BIDMC colleagues and external consultants to help investigate, identify and mitigate the source of the infections. He interviewed operating room and ICU staff, completed OR walkthroughs and collected environmental samples. “AFB is an environmental pathogen, so we looked first at every system in the operating room that uses water,” Gordon said. Positive cultures obtained from heater/cooler units identified them as the likely source. External consultants completed OR airflow particulate studies, and helped Gordon improve internal cleaning and disinfection protocols. The specimens were sent to an external lab to confirm genetic relatedness as well. “In the meantime, we moved the heater/cooler units outside the OR to eliminate the risk while still allowing for the necessary patient care,” Gordon said.

Since 2020 when the resulting process improvements were fully implemented, BIDMC has not identified any new NTM-related SSIs. Additionally, Gordon’s work led to the U.S. Food and Drug Administration’s release of a letter to health care providers advising about the potential of heater/cooler-related SSIs in cardiac surgery patients.

“As infection preventionists, we can’t be experts in everything,” Gordon said. “Don’t try to solve problems in a silo. Engaging the input of both internal and external experts enabled us to effectively and quickly manage this situation, even in the midst of the pandemic.”

Recruit, Train, and Retain: An IP-Developed Program for the Future

**Kelley Knapek, BSN, RN, CIC, CWON**
Good Samaritan Medical Center, Lafayette, Colorado
Leadership

When Kelley Knapek, BSN, RN, CIC, CWON, created the Infection Preventionist Training program at her small hospital system, Good Samaritan Medical Center, of Lafayette, Colorado, she had no idea she would be opening the door for so many passionate, yet under experienced, individuals. “The main roadblock into getting into IPC is that there is no clear first step,” Knapek said.

Beginning with the APIC Roadmap, Knapek developed a program that broke down the mysterious first step of entering IPC. She expanded on the roadmap and added in details specific to her institution, turning it into a clearly outlined plan that incorporated the things she learned as a novice IP, such as the importance of relationship building.

Knapek also found that you don’t want to stereotype your ideal candidate. “You’ll want to open the call for new IPs to everyone in your facility, because you don’t know who is interested,” Knapek said. Those with less than conventional backgrounds should not be discredited. “You can train a skill, but not a personality. The ideal IP will be curious and willing to learn how to ask the right questions.”

Knapek doesn’t just train new IPs; she continues to act as a mentor and leader long after they graduate from the training program. The novice IPs in the system look to Knapek as a steady resource for skills and tactics to further their education and improve patient safety.

Between 2020 and 2021, during the height of the COVID-19 pandemic, Good Samaritan Medical Center hired five new IPs, either with little or zero IPC experience. Due to the success of Knapek’s Infection Preventionist Training tool, within one year of hire many of them are not only comfortable practicing IPC but are now studying for their Certification in Infection Control exam. The Infection Preventionist Training program has since been outlined in a sharable template and can be adapted to fit a variety of IP program structures. The training has been successfully used by other managers and mentors with their new IPs across the hospital system.
Infection Preventionist Leads the Way Through a Pandemic

Jodie Leonard, BS, RN, CIC
Gunnison Valley Health Hospital, Gunnison, Colorado
Leadership

Jodie Leonard, BS, RN, CIC, has been a model of great resiliency and collaboration for her colleagues at Gunnison Valley Health Hospital (GVH). At the start of the pandemic, she took on the role as Operations Chief for the Gunnison County via Unified Command between Public Health and GVH. Duties included overseeing nursing home protocols, staff screening and mandatory screening tests, and PPE training/fit testing. "Starting with the basics is what truly prevents the spread of disease," Leonard said.

As part of the COVID-19 response, Leonard also oversaw the development of an alternate care site for potential surge capacity in the 24-bed critical access hospital. "We went from one negative pressure room to having 15 negative pressure rooms," Leonard said. "It was amazing."

Leonard championed infection prevention when working on COVID-19 response efforts. She forged new relationships and built on existing ones, establishing herself as a credible and valuable member of Incident Command. Leonard worked with research group epidemiologists to develop a tiered approach to testing, which also transferred to COVID vaccine administration.

Even when faced with significant ambiguity and evolving information, Leonard led with confidence and skill. She researched available information in order to draw sound conclusions and was open to the views of others when drafting new policies and practices for the organization to function safely. "As new guidelines emerged, it really took a collaboration of ideas from different infection preventionists and public health officials to roll out a new change with authority," Leonard said. "Limiting significant changes to workflow once per week helped with morale, too."

Leonard also co-developed the online application Safe2Return.org, which screens employees at home and reduced potential ill traffic into the healthcare setting. Her hard work and dedication during vaccination efforts resulted in her health system achieving one of the highest employee vaccination rates in the state.

Jeffrey Miller, MD, MPH, CIC
Pennsylvania Department of Health, Harrisonburg, Pennsylvania
Leadership

Congratulations to Commander Jeffrey Miller, MD, MPH, CIC, Pennsylvania Department of Health, Harrisonburg, Pennsylvania, on his 2022 Heroes of Infection Prevention Award for Leadership. The Award acknowledges CDR Miller’s ability to lead the COVID-19 response of Pennsylvania’s Long-Term Care Task Force.
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What is an Infection Preventionist? **APIC Efforts to Define a Profession**

**BY LISA TOMLINSON, NANCY HAILPERN, RICHARD CAPPArell, MONICA ALEXANDER, AND ROSHA CHOWDHURY**

**The Challenges of Defining a Profession**

As the largest organization of infection preventionists (IPs), in the country, APIC is the voice for IPs. However, it is not the only voice when it comes to defining the profession. Facilities have a significant role to play in this instance, as they often define the roles and responsibilities and provide on-the-job training. States also play a key role as they have differing requirements regarding education, certification, training, and how the role intersects with their healthcare-associated infections (HAIs) plans. Additionally, other healthcare organizations weigh in with policymakers on how they view the healthcare paradigm, which often overlooks or fails to understand the role of infection prevention and control.

With so many voices influencing the scope of an IP, the role itself is largely defined by individual healthcare facilities. The scope of the program can be further influenced by the needs of the moment or on-the-job...
training that reinforces the existing structure of a program. While federal regulations require some uniform IPC requirements in healthcare settings, many areas are left for states to develop the role. This impacts what background you need to become an IP, education level, certification requirements, and if prior IPC experience is required.

As an organization, APIC is striving to clarify the IP title, define the scope of an IP, the training process, and establish pathways for new IPs to enter the field.

**Regulatory Efforts**

Each year, the Centers for Medicare & Medicaid Services (CMS) revisits its payment rules for healthcare settings. These rules often outline new requirements that facilities must meet in order to participate in Medicare. APIC staff and the APIC Public Policy Committee monitor these rules every year for items that affect infection prevention and control, including how new or updated rules may define certain aspects of an IP’s role. For example, rules may look at reporting requirements, allotted time to the role of an IP, or education and training requirements to be an IP. APIC will often comment on these rules, recommending ways to make the profession and practice of infection prevention and control more uniform, such as including certification to practice as an IP.

This year, APIC has taken a more proactive approach with the U.S. Department of Labor (DOL), whose Standard Occupational Classification (SOC) System currently does not recognize Infection Preventionist as a profession. APIC is engaging DOL and other partners to formally establish an IP classification. DOL recognition of IP as a profession could be instrumental in APIC efforts to create an apprenticeship program, explore certification and licensing opportunities, establish an academic pathway to infection prevention, and grow a diverse and inclusive profession for the future.

**Pathways to the Profession**

The lack of academic pathway has been a major challenge for establishing the role of an IP. Without a consistent pipeline of new talent to the field, employers, regulators, and others will continue to determine who enters the profession and how the role is defined. As part of APIC’s strategy to increase the pipeline for new IPs, APIC formed the IP Academic Pathway (IPAP) initiative. APIC will partner with colleges and universities to design a certificate program, as well as bachelor’s and master’s degree programs to prepare students for careers in infection prevention and control. An APIC member task force is working on this initiative to create a clear pathway for new professionals to enter the profession.

To supplement this academic pathway, APIC is also planning to partner with healthcare facilities to lead apprenticeship programs that standardize experiential learning and the on-the-job training currently taking place in healthcare settings. It can also be a way to introduce this profession to other healthcare professionals.

**Legislative Policies**

APIC continues to meet with Congressional offices to encourage the standardization of IP roles and to ensure facilities have the resources necessary to create a successful IPC program. Unfortunately, even after all facilities have gone through during this pandemic, Congress has not taken significant action. Meaningful policy to fix the large gaps in infection control has been introduced, but has largely been ignored by the U.S. House of Representatives and Senate. Congress has shown little initiative this session, and any action to protect patients will likely be left for future policymakers to consider.

On the state level, however, the roles of IPs have seen some changes. Several states are taking action to require IPs to have a full-time presence in nursing homes and establish what that role encompasses. This is not only happening in state legislatures, but also through the regulatory process. States implementing changes seem to be favoring a full-time IP for nursing homes with more than 100 beds or for facilities that provide high-acuity services. Additionally, these measures include language to have the IP be in a managerial position and report directly to the nursing home administrator. APIC will continue its efforts to educate legislators on the importance of IPs and on ways to incorporate chapters in this campaign.

An ongoing campaign standardizing the field and preparing the next generation of IPs is a major focus of the APIC Public Policy Team. Members that are interested in joining these efforts can contact us at legislation@apic.org and join the Action eList for updates!

Lisa Tomlinson, MA, CAE, is APIC vice president, Government Affairs and Practice Guidance; Nancy Hailpern is APIC director, Regulatory Affairs; Richard Capparell is APIC director, Legislative Affairs; Monica Alexander is APIC associate director, Regulatory Affairs; and Rosha Chowdhury is specialist, Government Affairs.
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Asif Saiyed, BS, MBA, M (ASCP), MT (AMT), CIC, has over 15 years’ experience as a CIC® board-certified infection prevention and control (IPC) consultant specializing in microbiology and IPC leadership. Saiyed has a broad educational background, including degrees in microbiology and business administration. He is driven by process improvement initiatives and building a compelling business case for IPC best practices and processes. In addition, Saiyed holds a Clinical Laboratory Scientist (CLS) license from the California Department of Public Health.

Currently, Saiyed is a director of infection prevention at a 450-bed acute care trauma and stroke center in Northern California. He oversees the IPC program and a team of Infection Preventionists (IPs). His expertise in the field includes IPC oversight in acute care, behavioral health, in-patient rehabilitation medicine, and skilled nursing facilities. Utilizing his microbiology training, Saiyed also specializes in microbiology laboratory capacity building from the ground up.

**PS:** What are three things that acute care and other facilities should prioritize for their SSI surveillance programs?

**Saiyed:** Any prevention strategy, including surveillance, must first and foremost engage the facility stakeholders. The IPC team should start by raising awareness of the current surgical site infection (SSI) rates. IPC teams can do this in a variety of ways, through committee presentations with Surgery, case reviews with the Operating Room (OR) team, and/or audit various processes in the OR and Sterile Processing Department.

Additionally, a good SSI line list is a must to track and trend the SSI case findings. Data usually points the IPC team in the right direction. As a trained microbiologist, I have always followed the data and learned to trust my instincts, which are informed by my years of IPC experience and microbiology education, to identify and narrow down areas of concern. Depending on what the data identifies, here are three practices I would prioritize for an SSI surveillance program:

1. Focus on patient prep including chlorhexidine gluconate (CHG) bathing or wipe down.
2. Monitor antibiotic prophylaxis process prior to surgery to assure the right antibiotic is given at the right dose and at the right time.
3. Minimize microbial contamination. Research has shown that the majority of SSIs are related to patients’ own microbial flora, and if you can minimize microbial contamination, there can be a lot of success in preventing SSIs.

**PS:** What are the most important and/or the most challenging SSIs for surveillance?

**Saiyed:** Each institution has their own list of SSIs that they would like to focus on for surveillance. The risk of SSIs from elective procedures is different for trauma or emergency cases. Additionally, the Centers for Medicare & Medicaid Services (CMS) and each individual state have their own required priority list for surveillance. In my experience as an IP, I have found COLON (colon surgeries) to be complicated and COLON SSIs difficult to prevent.

**PS:** What are the trends you are seeing in SSI surveillance programs?

**Saiyed:** Throughout the United States there is a significant shortage of experienced IPs with knowledge and experience in OR and National Healthcare Safety Network (NHSN) surveillance programs. Many hospitals are struggling to adjust to the additional workload COVID-19 placed upon them and do not have time to focus on other prevention programs. One trend is that many health systems are opting to create their own centralized surveillance program. The goal of this centralized support is to free up the local onsite IPs to perform IPC interventions, deliver education, and provide other impactful activities.

At the local or facility level, smaller hospitals and institutions are unable to afford expensive surveillance software. If the software was affordable, smaller hospitals and institutions would be able to perform more timely and impactful surveillance.

**PS:** Tell us more about your SSI surveillance consulting work.

**Saiyed:** One of my SSI projects was for a multi-hospital system client, an acute care facility licensed for 600-bed acute care with a level I trauma center. The work involved...
a review of their current SSI surveillance program for preventing, identifying, reporting, investigating, and controlling SSIs specifically, related to COLON and HYST (abdominal hysterectomy) procedures.

The client’s surveillance program was mostly performed through their corporate or centralized surveillance resource. The Quality Department, where IPC reported into, was actively participating in surveillance, but relying mostly on the corporate/centralized data. It was evident that for the past couple of years, the centralized resource/office was not providing sufficient resources to local IPs to undertake and mitigate the increasing rates for COLON and HYST SSIs. In addition, the local IPC team included several new members who did not have extensive experience with data collection and analysis.

**PS:** What were some of the challenges you encountered during your SSI consulting work?

**Saiyed:** Initially the consulting project to evaluate and assess the current COLON and HYST SSI surveillance data began with an engaged client IPC team. We toured the facility, met with the chief of surgery, pharmacy, IPC and quality teams, nursing, and OR staff. Each team was involved and responsive.

Unfortunately, due to several COVID-19 surges, the teams were exhausted managing the additional COVID-19 workload related to reporting mandates. The teams became less communicative, and data sharing become less frequent as COVID-19 mitigations demanded focus, time, and attention.

A second challenge was the need to convince the corporate team/office to fully participate and steward the proposed surveillance improvement plan. The proposed plan included the following initiatives:

- Initiate the accurate collection of denominator data
- Work through existing data/information technology (IT) issues
- Revise antibiotic prophylaxis practices
- Re-engage pharmacy, and
- Order additional SSI data sets.

The local IPC team had to take a secondary role in implementing recommendations for the SSI surveillance improvement plan. Due to a lack of corporate IPC support, the quality team was charged with leading the recommendations for the SSI surveillance improvement plan. Unfortunately, the IPC team’s expertise was not fully utilized.

**PS:** How did the client respond to your finding and recommendations for process improvement?

**Saiyed:** Assessment recommendations were accepted, and work began, at a slower pace than recommended. As mentioned, many IPC initiatives were affected due to COVID-19 workload and thus the IPC team had to realign resources at the facility level. The IPC team was excited to participate in the process and program improvements. The quality team agreed to the recommendations and led issues, which needed to be escalated to leadership.

Slow or halted progress with process improvement is anticipated in IPC consulting work, so it is the role of the consultant to re-engage the client. With this particular client, once COVID-19 mandates and mitigation efforts began slowing down, we were able to restart the process improvement work and SSI surveillance recommendations. Success to prevent harm is only possible if we continue down the recommended path.

**PS:** Do you think other facilities would benefit from new assessments of their SSI surveillance program and practices?

**Saiyed:** There are few hospitals that have robust IPC programs and tools for surveillance. These facilities may fall into the category of major academic centers and others with both leadership and a culture that supports prevention programs.

There are few hospitals that have robust IPC programs and tools for surveillance. These facilities may fall into the category of major academic centers and others with both leadership and a culture that supports prevention programs. If you’re interested in becoming a consultant or would like more information about services, contact APIC Consulting at info@apicconsulting.com. Kathryn Hitchcock, MBA, is deputy director of APIC Consulting Services.
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A dynamic professional nurse since 2005 with almost 17 cumulative years of experience, Feah Altura-Visan, MAN, CIC, has experience in Obstetric Gynecology Tocolysis, Labor and Delivery Unit and Operating Theatres. She has worked as an Infection Prevention and Control professional since June 2007. Feah is a Certified Infection Control (CIC) Practitioner, is a Certified Quality Improvement Associate (CQIA), holds a Master of Arts in Nursing (Philippines and USA), and holds a Post Graduate Diploma in Infection Control (UK). She was recently awarded status as a Fellow of the Association for Professionals in Infection Control and Epidemiology (FAPIC).

Feah is currently employed in Al Wakra Hospital, Hamad Medical Corporation, a general hospital with the only Burn Center in Qatar as Head of Hospital Infection Prevention and Control since 2014. She has worked with different units on day-to-day implementation of the Infection Prevention and Control Program.

As a licensed Registered Nurse (RN) from the Philippines, a licensed Nurse Practitioner by the Department of Healthcare Professions, Qatar, and recently licensed as a General Nurse by the Nursing and Midwifery Board of Ireland (NMBI), she is primary investigator, facilitator, and team lead for quality improvement projects and research in infection prevention and control. She has published and presented multiple oral and poster projects in conferences locally (Philippines/Qatar) and internationally (Dubai, USA, Switzerland).

What inspired you to become an infection preventionist?

I have always been curious about specialties in nursing that will allow me to be fluid, to go and explore the hospital and not be told that ‘you are not allowed in here.’ I wanted to be able to see the world of healthcare and not be limited by the unit where I am assigned, or the work that I do. It was interesting to me that in Infection Prevention and Control, you do not just explore the hospital, you explore the myriad of specialties and how each one plays in the healthcare system. Each individual staff member, each individual unit—whether clinical or non-clinical—are like cogs keeping the system alive, playing an important role in the provision of quality healthcare. As an Infection Preventionist, I was able to work with the housekeeping department and the Chief Executives, from the engineers to the frontline staff, convincing everybody of the compelling belief that Infection Prevention and Control (IPC) is everybody’s responsibility.

What were some of your challenges when you first entered the field?

When I entered the field of IPC, it was accidental; someone just requested for me to talk to the then Chairman of the IPC committee about whether we were providing IPC orientations to the staff. The chair suddenly offered to let me apply to be acting IPC nurse as the current one was about to leave for abroad. There were multiple challenges as my limited background as an OR and OB Gyn nurse did not prepare me for the vast scope of IPC. Surveillance of healthcare-associated infections (HAIs) was not yet fully established and there were limited policies at that time. However, as I slowly got my footing, as I got support not just from the management but from the collaborative relationships formed with the different hospital units, I learned a lot about IPC. Learning to use my people skills was more important than the theory or science of IPC in forging cooperation with different people and positions. When I moved abroad, the same people skills and the power of communication and continuous feedback were instrumental to proving myself and my worth. My demographic as a young, Asian female stereotypically isn’t taken as seriously when trying to establish an IPC practice. Yet, I was able to get through the IPC matters and to work with different nationalities with varied backgrounds and experiences to reduce HAIs.

What has helped you most as you have progressed in your role as an IP?

Mentoring was so important for me. Finding a role model who believed in my potential and showing that I was very interested to learn helped me make a lot of progress in the field of IPC. When I came to the Middle East, there were several senior IPs that I asked help from, and wanted to learn from as I started my vision board on my journey to CIC certification. Membership in national and international societies such as APIC has been a huge help with all of the updates, guidance, journals, and resources like the APIC Text. Understanding that IPC is an evolving science has led me to ensure that I schedule in study and updating time, in order to be always abreast with the newest guidelines and movements of infections around the globe.

How has your background helped you in the IPC profession?

My training as a nurse and experience at the bedside has surely made me a strong IP. As I went through my stages of improvement, I worked side by side with a lot of nurses, and was able to communicate the procedures and convince nurses to follow the care bundles much more easily. At the same time, it also made me humble as I learn that there are specialties that I am not familiar with. I learned from the nurses, and they helped me a lot in my journey to becoming an IP. However, all specialties in the hospital are equally important and contribute to the IPC practice across all healthcare settings.

Why is obtaining (or maintaining) the CIC credential important to you?

It was my goal to get CIC certified in my first two years in the Middle East; in total I had seven years IPC experience when I took the leap of faith and eventually passed the CIC certification. The CIC certification itself

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It’s time to take proven infection prevention further

Figures released from the CDC make stark reading for Infection Preventionists. An estimated 722,000 healthcare-associated infections occur annually, resulting in 75,000 deaths and billions in additional costs. More than half of these occurred outside of the intensive care unit.

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Focus on long-term care and behavioral health outbreaks

Identify the pathogen!

BY STEVEN J. SCHWEON AND ERIN R. BABE

Hospital outbreaks are reported more often in the medical literature than occurrences in the long-term care (LTC) or behavioral health setting. By studying and learning from outbreaks in the LTC/behavioral health setting, infection preventionists (IPs) can glean additional knowledge and apply this information to hopefully prevent future infections and infection clusters in their facilities. This quarterly column helps the IP heighten awareness of appropriate interventions to prevent outbreaks.

Yan et al\textsuperscript{1} describe a gastroenteritis outbreak occurring in a mental healthcare facility in Japan. The facility has 11 separate dormitories that each house 22-25 adult residents. The residents in the facility ranged from 36 to 81 years of age. Fifty-six residents, resulting in an attack rate of 21.7\%, from a total of 258 residents, experienced one episode of acute gastroenteritis, during an 8-week period. Of the 11 dormitories, 10 reported residents who had symptoms. One healthcare worker had gastroenteritis during the outbreak.

Symptoms occurring during the “cold season” included diarrhea, nausea, and fever. Symptom duration ranged from 1 to 4 days, with an average of 1.4 days. A total of 18 fecal specimens were collected from 17 residents and 1 staff member.

Based upon your clinical acumen, and the geographic location, you suspect the pathogen(s) to be:

1. \textit{Eubacterium brachy}
2. \textit{Fusobacterium mortiferum}
3. Sapovirus and rotavirus
4. \textit{Gardnerella vaginalis}

All 18 specimens were molecularly tested for the presence of rotaviruses, noroviruses, sapoviruses, astroviruses, and adenoviruses. Multiplex RT-PCR (Reverse Transcription Polymerase Chain Reaction) was performed. Out of the 18 fecal specimens, 10 were positive. Results revealed 5 cases of rotavirus and 5 cases of Sapovirus in the 10 residents. None of the tested residents were co-infected with both pathogens. The healthcare worker tested negative.

\textbf{Rotavirus}

Rotaviruses\textsuperscript{2} are non-enveloped viruses and remain stable in the environment. They have a characteristic wheel-like appearance when viewed with the electron microscope. Resultantly, the name rotavirus is derived from the Latin word “rota,” meaning “wheel.”

Outbreaks have been reported\textsuperscript{3} in a hospital, childcare center, adult assisted living facility, and a subacute inpatient care facility. Although rotavirus is most commonly diagnosed in children, infections among adults also occur. The most common symptoms reported for rotavirus are diarrhea, vomiting, and increased temperature; however, additional symptoms include stomach pain and malaise. These symptoms are similar to other gastroenteritis viruses including norovirus and Sapovirus and therefore require stool sampling for clinical diagnosis. While there is no cure for rotavirus, supportive treatment such as rehydration therapy is used for managing the virus.\textsuperscript{4}

Rotavirus is predominately spread person to person through close contact and fecal-oral transmission. Residents of long-term care facilities are at an increased risk of severe health outcomes due to comorbidities and close living quarters. Several mitigation steps should be taken to avoid contamination and spread of the virus.

Anderson and colleagues\textsuperscript{5} noted that 43\% rotavirus virions placed on human fingers can survive for up to 60 minutes; therefore, wearing gloves, gowns, and frequent and thorough handwashing are key factors for interrupting the chain of infection.

Additionally, isolation precautions for patients with rotavirus can prevent transmission.

Patients who are identified as having rotavirus should, when possible, be moved to a single room. Contact and standard precautions are implemented for the duration of illness.\textsuperscript{6}

Healthcare workers providing care should wear gloves and gowns and appropriately don and doff when entering and leaving the patient room. Patients should limit movement outside of their rooms whenever possible and the facility should utilize disposable or dedicated patient-care equipment.\textsuperscript{6}

Likewise, rotavirus is transmitted by contaminated fomites and survives in low-humidity environments and on non-porous surfaces at room temperature or cooler.\textsuperscript{7} One essential prevention tool for long-term and other congregate care settings is to ensure proper cleaning and disinfecting agents are used. Facilities should use an Environmental Protective Agency (EPA)-approved hospital disinfectant with activity against rotavirus and Sapovirus. The Sapovirus is also a non-enveloped virus, and belongs to the Caliciviridae genera-family, which norovirus also belongs to. In 1977, Sapovirus was first detected as the viral cause for a gastroenteritis outbreak in an

\textbf{Sapovirus and rotavirus}

Sapovirus was first detected as the viral cause for a gastroenteritis outbreak in an...
infant home in Sapporo, Japan. Outbreaks have been reported in long-term care facilities, grade schools, prisons, psychiatric hospitals, cruise ships, a restaurant, and a bed and breakfast.

**Sapovirus**

Although Sapovirus is found primarily in young children, waning immunity can lead to reinfection later in life. The elderly and immunocompromised are at increased risk for adverse outcomes related to illness from Sapovirus. Approximately 14% of the population age 85 and older reside in nursing homes in the United States, and those individuals are four times as likely to die from gastroenteritis than those older than 85 living in the community. Sapovirus has higher prevalence in areas where rotavirus vaccine is available.

In a systematic review of gastroenteritis incubation periods, Lee et al found that the incubation period for rotavirus was 2 days and 1-3 days for Sapovirus. With a short incubation period and the vulnerability of patients residing in long-term care facilities, proper identification of the virus and implementation of infection prevention and control measures is essential for minimizing the spread of disease in long-term care and other congregate living facilities.

Most outbreaks reported in long-term care facilities are caused by norovirus; however, specimens should be tested for Sapovirus in combination with norovirus testing or when norovirus is ruled out. Symptom evaluation alone is not enough to diagnose Sapovirus because they are almost indistinguishable from norovirus and therefore laboratory diagnostics are essential. While foodborne Sapovirus outbreaks have been documented in nursing homes, the primary mode of transmission is direct contact through person to person, fecal-oral, and contaminated surfaces. Incubation for the virus ranges from less than 1 day to 4 days and primary symptoms include diarrhea, vomiting, nausea, abdominal cramps, chills, headache, fever and malgia. Individuals who are asymptomatic can continue to shed the virus in their stools. Sapovirus shedding levels in feces; however, decrease after symptom onset and diarrhea typically resolves within 1 week.

Although there are no vaccines or therapeutics currently available for sapovirus, some evidence suggests early infection provides immunity later in life, providing optimism that a Sapovirus vaccine could be developed to lessen disease burden. Treatment for Sapovirus is limited to therapy for dehydration and electrolyte imbalances aid in the treatment for Sapovirus.

Unlike norovirus, mortality and hospitalization for Sapovirus are rare and outbreaks have been known to occur throughout the year and are not restricted to winter months. Since there is no current vaccine available for Sapovirus, one way to control the virus is to prevent transmission. The Centers for Disease Control and Prevention (CDC) recommends Standard Precautions for gastroenteritis, and implementing Contact Precautions for diapered or incontinent persons.

CDC does not have specific Sapovirus isolation precaution recommendations. Precautions such as handwashing, proper disposal of fecal- and vomit-soiled materials, environmental disinfection with chlorine-containing agents, safe handling of food, and improving water quality are the most effective ways to prevent spread of the virus.

Research suggests that outbreaks for Sapovirus are underestimated due to limited cost-effective clinical diagnostic availability, as well as common coinfection with other viruses, such as norovirus.

According to a review completed by Lee et al, documentation of Sapovirus outbreaks in long-term care facilities is limited and future gastroenteritis outbreaks in long-term care facilities should include clinical testing for Sapovirus, particularly in areas with rotavirus vaccinations available and for norovirus negative specimens.

Unfortunately, the authors did not describe isolation precautions, treatment, and other infection prevention interventions to curtail the outbreak. Of interest, this is the first described gastroenteritis outbreak due to the co-circulation of rotavirus and Sapovirus. 

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**TAKE-HOME MESSAGES**

1. Adhere to your federal, state, and local regulations, in addition to facility policy, when an outbreak is suspected; consider developing an outbreak policy utilizing key contacts, including the daily and after-hours phone numbers of the appropriate health department. It might be helpful to keep a copy of your facility’s outbreak policy on your personal computer/phone.

2. The CDC’s “National Notifiable Diseases Surveillance System” (https://ndc.services.cdc.gov/) does not list Rotavirus and Sapovirus as reportable diseases. Thus, underreporting of disease severity is possible. Regardless, it may be helpful to contact your local health department, epidemiology section, for concerns or questions, especially during an outbreak.

3. There are two Rotavirus vaccines licensed for infants in the United States: RotaTeq and Rotarix. The Rotavirus Vaccine Information Statement (VIS) (https://www.cdc.gov/vaccines/hcp/vis/about/facts-vis.html) should be presented to the legal representative, prior to vaccination https://www.cdc.gov/vaccines/hcp/vis/about/facts-vis.html.

4. There is no Sapovirus vaccine licensed by the Food and Drug Administration in the United States.

5. Consider a resident hand hygiene policy, at mealtime, regardless of the resident being independent or requiring assistance. This prevention initiative will help to prevent gastroenteritis and respiratory infections. Consider performing a risk assessment and implementing hand hygiene wipes with alcohol. This may augment your hand hygiene program by their convenience and potentially greater safety when compared to hand sanitizer gel.

6. Due to the environmental soiling risk from a gastroenteritis outbreak, ensure the cleaner/disinfectant has activity against the outbreak cause (if known, or suspected). Information is available on the product’s EPA label or directly contact the manufacturer for assistance.

7. Rotavirus and Sapovirus symptoms are similar to other gastroenteritis viruses, such as norovirus. Consider panel screening residents for multiple pathogens.

8. Having hand hygiene stations in convenient locations is essential to breaking the chain of infection.

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Welcoming and Recruiting Challenges in the Post-Pandemic Environment

The level of COVID-19 post-traumatic stress that has been placed upon healthcare workers (HCWs) and healthcare systems is unprecedented. This, along with the ongoing social disruptions, is greatly impacting the nursing workforce. It is not just nursing that is affected, however. A recent study found the physical and mental health of infection preventionists (IP) worsened due to the COVID-19 pandemic. The scope of responsibility for IPs related to healthcare-associated infection (HAI) reduction, now coexisting with a pandemic for 2 plus years, illustrates the need for an understanding of workplace health and wellness, and the impact on mitigating burnout and focused interventions to retain the expertise of IPs. Prior to the pandemic, the IP role was already experiencing challenges related to the expanding needs of the job. Overcoming these challenges, appreciating a non-traditional workforce, and evaluating IP onboarding needs will be the focus of this discussion.

Overview of the Onboarding Challenges During the Pandemic

System Director Eileen Sherman experienced firsthand the difficulty of bringing in new IP talent during the pandemic. She hired four team members new to the IP role and a fifth who had the experience but needed onboarding and training specific to the organization. “This was a challenge for us because we barely had time to orient them to the tasks that required immediate attention,” said Sherman. “These new team members were quickly onboarded using our department overview checklist. This approach was a very high-level/cursory review to help the team member become familiar with the department. Once acclimated, we gave them assignments specific to the public health crisis such as how to work up an exposure in patients and staff.” Traditional IP-related tasks were added to the new IP’s plate as needed and time allowed for training. Sherman added, “Most new IPs were learning volumes specific to pandemic response and very little related to how to implement initiatives to prevent infection or infection surveillance.”

Building a team with various backgrounds and skill sets

- Recognize the various backgrounds, academic preparation, and skill sets that lead to a successful infection prevention team
- Expand the infection preventionist recruiting net of candidates
- Recognize that IP onboarding may need to be customized to meet the needs of varying employee backgrounds
- Develop an elevator speech to describe the role of the IP
Creating Opportunities for Extended Orientation and Onboarding

It might be necessary to evaluate your orientation and onboarding processes. You may even need to “retrain” or extend the orientation period for newer IPs. To support these endeavors, use of the APIC competency model ([https://apic.org/professional-practice/infection-preventionist- ip-competency-model/](https://apic.org/wp-content/uploads/2019/05/IP_Comp_Self_Assessment-2019-Activity_5-24-19.pdf)), along with asking each IP to perform a self-assessment of their knowledge ([https://apic.org/professional-practice/roadmap/](https://apic.org/professional-practice/roadmap/)), will provide a focus on where to support the professional development of each team member. (See Novice Roadmap for Infection Preventionist, Proficient Practitioner Bridge [https://apic.org/professional-practice/roadmap/](https://apic.org/professional-practice/roadmap/)). IPs are then encouraged to seek out learning opportunities based on their professional development assessment. Each development plan will be different depending on the skills and experiences of the individual. For example:

- Offer opportunities to spend time shadowing in the sterile processing area
- Provide opportunities to attend conferences or webinars on topics where knowledge is limited
- Consider pairing an experienced IP with a novice to learn infection surveillance using NHSN definitions.

Building a Team with Various Backgrounds and Skillsets

According to the APIC MegaSurvey performed in 2015, more than 80% of IPs surveyed reported a primary discipline of nursing. Since that time, it has become clear that the knowledge and skills needed to successfully fulfill the IP role are developed through a myriad of health science backgrounds including nurses but also laboratory scientists, respiratory therapists, physicians, public health experts, and more. It is important for leaders in infection prevention to recognize that people with backgrounds outside of the nursing field have these qualifications and may well become excellent IPs. Expanding the net for recruiting opportunities is crucial to finding and identifying the best candidates for our teams.

In this tenuous post-COVID time, many people are entering the field of public health and infection prevention with limited experience working as contact tracers during the pandemic and supporting local public health efforts. Graduates of MPH programs are well suited to work in the field of infection prevention. This is the time to maximize our recruitment efforts and connect with these potential candidates! We may need to modify job descriptions to include different education and experiential backgrounds and adapt our training programs to reflect the breadth of APIC’s competency model. Partnering with local MPH programs, public health departments, and other applied science fields can become new avenues to enter the field of IPC, which is a part of APIC’s strategic plan for 2022 and beyond.

It can be difficult to describe infection prevention work in a concise way. Develop a short elevator speech that describes our influence, leadership, and collaboration inside and outside of healthcare to help potential IP candidates anticipate this type of work. The job description must also describe the importance of IP work, domains of the IP role, and diversity of work environments.

Open and Frequent Communication and Hybrid Work Environments

It can be difficult to find the right candidate for an infection prevention position as there are a limited number of potential candidates with experience. When you do find that person, you want to make sure to keep them and that starts with how you welcome them to your team or to the facility if a solo practitioner. This actually starts before day one. Ensure you have a work area available and cleaned from the last occupant. Have computers and phones ready for use upon arrival. Generally, the first day of work is occupied with new employee orientation. If not in the plan already, make a point to at least go and welcome the new recruit during the lunch break. On the first office day, take them around for brief introductions to coworkers and then to departments/units they will be working with routinely. Send a welcome email to colleagues and staff with a short bio on your new employee. Make them feel like an important part of the team by assigning them a small task during their first week that's separate from their onboarding work. This will allow them to show their value to the institution and feel like they are already contributing.

Once you have a good and valued employee, you want to keep them. However, we are working in trying times. The COVID-19 pandemic has put healthcare through the ringer. In March 2022, the American Hospital Association sent a letter to members of the U.S. House of Representatives Energy and Commerce Committee sharing the challenges healthcare institutions are facing going into the third year of the pandemic. “With 23% of hospitals reporting a critical staffing shortage to the government, hospitals have seen a decrease of nearly 105,000 employees since February 2020.” Hospitals are having to rely on contract staff to fill nursing positions and even some infection prevention positions. People leave jobs for four main reasons: employee dissatisfaction, better alternatives, planned changes, or a negative experience. Two of these, alternatives and changes, you will likely not have much control over. The other reasons for leaving, however, may be preventable.

Because of the pandemic, people were encouraged to stay home as much as possible so for many jobs, this meant working from home. This even spilled over into some aspects of healthcare. Infection prevention staff found they could function with a hybrid work environment. There are days you absolutely had to be at the facility but there were days when you were just going to be in meetings that were virtual, so why not do that from home? As COVID numbers decrease from the surge heights, there has been a slow but steady return to work, but many businesses are continuing to allow working from home as studies have shown “increases of up to 77%” in productivity. If the work situation allows for it, hybrid work environments can improve job satisfaction.

Checking on staff periodically is important. Many facilities do employee engagement surveys annually or biannually to gain in-depth information on big-ticket items such as salary.

Retaining and Building the Team

- Assessing individual and team professional needs—what is important?
- Flexibility—what are some options?
- Hybrid work schedules—what IP tasks can be performed remotely?
- Voice surveys and stay interviews
benefits, and work environment. There are a few quick methods to get prompt feedback from staff including pulse surveys and stay interviews. Pulse surveys are short, more frequent, and can be tailored to fit the needs of the department. These surveys should be 10-20 questions maximum. How often you conduct pulse surveys should be based on what you want to measure. If you are implementing action plans, you may need to survey monthly. However, if your goal is to assess how the department feels about their jobs and workflow, you can consider quarterly surveys.

Stay interviews are done with your high-performing employees who have been working at the institution for a while. In contrast with an exit interview (done when an employee leaves trying to determine if you can keep them from leaving), stay interviews ask why the employee chooses to stay and what things would cause them to leave. These face-to-face interactions can keep leaders tuned into what is good, what needs improvement, and how you can work as a team to keep the good and fix the other parts to make it a better work environment for all.

Non-traditional times call for non-traditional methods. When considering the “Post COVID” IP workforce, the approach to IP recruitment, hiring, onboarding, engagement, and work environment should be assessed. While a brief discussion was offered here, references are included to provide more detailed information on these strategies.

References

Further reading
Laura E. Buford, MSN, RN, CIC, Maggie Reavis, MPH, RN, CIC, CPHQ, Eileen R. Sherman, MS, CIC, FAPIC, and Christine C. Zirges, DNP, ACNS-BC, CIC, FAPIC are members of APIC’s Professional Development Committee.

Conversation with an IP: Feh Altura-Visan continued from page 24

and preparing for the exams strengthened my skills and knowledge in the IPC field. Once I got myself credentialed, I felt more confident and valued and I am more likely to speak up knowing that I have specialized in the IPC field and have the certification to prove it. It is vital to not just get certified but to maintain the certification.

Once certified, I started my dream to become a Fellow of APIC, which requires the CIC but also a strong foundation and experience in IPC. I tried multiple times and humility set in every time that I did not make it. But post COVID-19 pandemic, receiving the distinguished FAPIC made the pain of the pandemic worth it. It was one of the ultimate successes I had in IPC and I am forever grateful and more inspired to help other IPC colleagues build their journey to become CIC and hopefully Fellows of APIC, too. Pay it forward!

What is the best advice you ever received?

Never give up! In my IPC journey, there have been multiple hurdles. There are times that I question if I am enough or if I am made for this specialty because there is just too much to learn and too many complex questions to solve. But as my mother would always say, “You are doing well, you are doing great—never give up! Show them what you got! Arm yourself to the tooth! Learn, understand, try to introduce small changes and take small steps—you will get there eventually. They will all trust you and know that you are great at this—eventually.” Mother knows best!

What advice do you have for others who are new to the field or considering the field of infection prevention and control?

I have a group of colleagues who I have had the opportunity of guiding from IPC link nurse to IPC practitioners, and I always say the same thing—IPC is a clinical and mobile specialty. You will not be good at it in the confines of the office or in front of the computer system. It must be practiced. It may overwhelm you, but try to learn one unit at a time, and build relationships with the different specialties as you go along. Be humble enough to know that there’s a lot to learn and a lot to digest—you will be a great IP! Just when you think you are an expert in IPC, think again because there really is a lot to learn. If you have strong relationships with the different units and have gained the hospital executives’ trust, nothing is impossible!
To get started, we created a conference planning committee and quickly established several important goals that gave direction to the planning efforts. We sought to offer a low-cost, full-day program that not only provided education for our members but also supported the chapters themselves by promoting membership and involvement. Like many chapter conferences, we offered a reduced rate to chapter members. We also offered to refund the difference in registration fee between non-members and members if the person joined a chapter after registering; several new members were gained through this approach. We also used time during announcements and the chapter presidents’ messages to encourage chapter membership, participation in meetings and other chapter activities, as well as running for chapter office.

While both chapters had always provided in-person conferences in the past, the ongoing nature of the COVID-19 pandemic caused us to plan a virtual conference.

The virtual format simplified planning complexity as we did not have to secure a venue, make travel and hotel arrangements, prepare menus, or purchase conference swag. The virtual platform was COVID-19 friendly, easy to use, and allowed for recording and sharing of the presentations for later viewing.

A conference planning outline was used to quickly identify key tasks needed to be completed and establish a timeline for each. Virtual bimonthly meetings enabled us to review our progress and designate individuals or subgroups to manage the specific plans with due dates noted in minutes, and promptly shared via email. Each chapter shared topics believed important to cover in the conference, which led us to plan both general and breakout sessions.

Typical for any conference planning effort, much time was spent identifying speakers, planning the itinerary, gathering information from speakers, completing the education credit application, and preparing the evaluation form. Setting up the online conference website and registration process was easy because of experience with these tasks. Milestones were celebrated as key tasks were completed. Marketing was accomplished by emailing chapter membership, asking chapters elsewhere in New York to share conference information with their members, faxing and calling a number of area long term care facilities, and asking professional partners like the Greater New York Hospital Association and the state Department of Health to help promote the event.

Early in the conference planning, we determined who our audience would be and agreed to award education contact hours (CH) to participants who completed the conference. To accomplish this goal, we created a sub-committee with equal participation from both chapters, led by an experienced CH planning member. This sub-group researched accredited approvers of continuing professional development, comparing application criteria, cost, timeline, and overall familiarity with the approval organization. Meeting regularly, this group reviewed application requirements, delineated responsibilities, and reported progress to the main conference planning committee throughout its work.

The continuing education application itself helped guide the conference planning,
by effectively identifying practice gaps for speakers to cover, as well as making sure we established clear learning objectives and measurable learning outcomes. We used email to compile the necessary documents from each speaker and collaboratively reviewed the content to confirm that conference objectives would be met. We were able to submit the application in time to receive approval so we could award contact hours for our conference. Immediately following the conference, each participant received a link to the online evaluation form created using a free online survey tool (Jotform.com). With this process, we were able to award contact hours to all who participated in the conference and completed the required evaluation, achieving an important goal for the conference.

The opportunity of putting two chapters’ conference planning efforts into one team taught us a number of valuable lessons and we believe these are worth sharing to enable other chapters to collaboratively plan conferences effectively. We are confident what we learned will also help us with future collaboration between our chapters.

As your chapter teams begin to meet, take note of what special knowledge or skills each chapter may bring to the planning and executing process and use these to your advantage. Early in the planning process, take time to share what kinds of conferences each chapter held in the past and provide honest assessments of the strengths and weaknesses of past conference planning. Your chapters may have different skill sets that complement each other as well as matching or overlapping expertise in conference planning, which will only make your collaboration stronger.

In our case, both chapters had conference committee members who were facile in using virtual platforms to conduct meetings. This skill was integral in conducting our meetings, as a mutually convenient location for in-person committee meetings was difficult to identify. Commuting would also have been quite challenging. The virtual platform enabled us to really get to know one another since our chapters usually operated independently, with very little interaction between chapter leadership teams. Meeting on camera is far more personal than connecting impersonally via email.

Evaluate the technical resources each chapter can provide and take advantage of the networks each of your chapters can offer that may enhance planning work. We found we had some very different yet complementary skill sets and networks that contributed to our successful planning work. The Greater NY chapter has used online conference registration and online payment for more than five years, and the Long Island chapter had a deep reservoir of contacts with the long term care community. Using these specialized abilities and resources was an immense aid to planning and marketing efforts. Further, the Greater NY chapter brought expertise in obtaining CH credit and the Long Island chapter brought excellent connections with some top speaker prospects, so again, sharing unique talents each chapter possessed enabled us to achieve our shared goal of a great conference experience.

For the technical aspect of the conference, we also learned a few critical lessons worth sharing. Enlist help from your members to obtain the technically skilled people you will need. They may need to practice some of the tasks to be comfortable and manage unexpected issues with technology or software. We planned concurrent tracks during some time slots but had only one internal expert who knew the meeting technology well enough to facilitate breakout sessions. We trained one of our conference planners how to run breakout sessions in the event the internal expert was suddenly unable to participate, but we knew we needed additional help. So, using our network of connections, we hired an external technical expert who had conference planning and hosting experience. We met virtually with this technical assistant on several occasions before the event to review plans and expectations, and ran two technical dress rehearsals to ensure a seamless and easy event experience for our audience.

Well in advance of your conference, we also learned that we should conduct a technical rehearsal with each speaker before the conference just to make sure they will be comfortable with our online meeting platform.

Following our conference, the planning group brainstormed ideas we could use for future joint chapter conferences that may help reach a wider audience and make planning efforts more effective. We recognized that more effort was needed in promoting the conference, so we hope to use social media in the future to get the attention of IPs who might not respond to email notices. We could also offer a session where we host multiple chat rooms to allow vendors to showcase their products as well as provide a moderated but open-ended networking group.

Our planning committee will also consider using a shared Google Docs tool instead of using email for minutes and working documents to enable more streamlined communication and shared access among all members. We think such a change would enhance the successful collaboration we experienced planning the past conference. We believe our collaborative model may even be expandable to enable a future conference co-led by more chapters in our state. Using a shared platform to host working documents would undoubtedly
When you hear the word “diversity” what comes to mind? Diversity can mean many things to different people. When referring to diversity, words such as race, ethnicity, or religion may come to mind. Diversity and inclusion can be an uncomfortable topic for many; however, many organizations are just starting to discuss DE & I in the workplace. The Greater Baltimore Chapter has been discussing it and has taken action to move it forward within our chapter.

Diversity in our professional life can go well beyond what’s on the surface. What if we dig deeper and consider what it means in the world of infection prevention? When it comes to APIC, we can see diversity in the age, levels of experience or expertise, and in the education or vocational background of our members.

Several years ago, our then chapter President, Joelle Glass, shared with the chapter how a lack of diversity within APIC made her feel. She was disheartened to see so few women of color and men at one of the national conferences she attended. Joelle then began the chapter’s journey to improve diversity and inclusion among its members. She created goals and objectives in collaboration with chapter leaders to create the first Diversity Chair position. The goals and objectives were submitted and approved by National APIC.

The Diversity Chair position was added to our chapter’s board. The chapter revised the by-laws to reflect this new role. We wanted to ensure continued growth of the chapter and to utilize the expertise of all its members.

The first project started was the mentor/mentee program, which was created to foster supportive partnerships between novice and experienced IPs within our chapter.

Years later, we continue this important work. Our current chapter President, Bria Graham-Glover, is also a co-chair on the national APIC DE & I Task Force. Uzoamaka Obiekwe, past Diversity Chair, also serves on the Task Force. This ensures a two-way flow of ideas and most importantly, continued support for the chapter’s diversity program. Our board is always willing to engage in meaningful conversation about this important topic.

Diversity has a space on the agenda at every chapter and board meeting. We want to continue discussing DE & I, solicit new ideas and create both short- and long-term goals. Some of our DE & I efforts include bringing in diverse speakers from varying backgrounds with a wide range of topics including DE & I and leadership building. We support minority-owned businesses whenever possible. We strongly encouraged the chapter’s partnership with local colleges to recruit potential future IPs. From personal experience I can say this has been very rewarding and several of those students have even gone on to pursue a career in IP. My hope is that through the chapter, our members will continue to flourish and therefore have a positive ripple effect on the communities we serve.

I believe where there is diversity, there is also strength. “We are better together” is much more than just a catchy phrase. By embracing diversity and inclusion, we can bring in different viewpoints and perspectives and perhaps spark new and innovative ideas and answer questions with a wider range of creative solutions.

You may be asking where does the work of diversity begin within our chapters? In short, we start by having the conversation.

Erica Jones, BSN, RN, CIC, Diversity Chair & Immediate Past President, Greater Baltimore Chapter of APIC.
When I visited her in her later days, I watched her use a fingernail at a time to remove dirt from the others on the nonaffected hand. Early on as a diploma-prepared nurse I had a growing knowledge of research. As I gained more nursing experience, I started to seek out and sit on research committees, do quality improvement and evidence-based practice work, and really fell in love with infection prevention. At the Cleveland VA, my collaborative work with the infection prevention and control committee and infectious disease research lab grew and was making a difference for the development of practices, policies, and procedures at my facility. At that time, there was a max number of IPs in the facility with no hopes of hiring more, so essentially my work in this area was created and supported even as a floor nurse with the mentorship of my infectious disease colleagues. I was the closest to the patients and learned to understand and contribute to study designs that were realistic and sustainable based on workflow and my experience with patients. That was the motivation for me to pursue research and to continue to focus solely on IPC.

**What attracted you to infection prevention specifically?**

I was a new nurse during the time of the H1N1 pandemic, pregnant, and a mom to a toddler. My first nursing job as a medical-surgical telemetry nurse was at a faith-based hospital located in one of the most impoverished neighborhoods in Cleveland, Ohio. I recall the many patients for whom I performed a nasopharyngeal swab, the sneezing and coughing that occurred, but even more eye opening was the lack of patient hand hygiene education and products provided to patients. I wanted to ensure that I kept myself safe and my patients safe. As I was getting close to my unborn child entering the world and feeling more comfortable in my role, I began to put hand sanitizer on paper towels for patients that could not leave the bed, I reminded them to clean their hands when I walked them to the bathroom, and I advocated for them by asking our unit manager if we could purchase hand sanitizer for patients. The answer was no. I started keeping tally marks on everyone that I needed to remind to clean their hands, I asked my coworkers if they were experiencing the same thing and asked that they keep the same notes each shift. Simultaneously, I had loved ones who were transitioning, including my grandmother who was meticulous about hand hygiene, but after her stroke was challenged with aphasia so she struggled vocally to remind the staff to help her clean her hands. When I visited her in her later days, I watched her use a fingernail at a time to remove dirt from the others on the nonaffected hand. Early on as a diploma-prepared nurse I had a growing knowledge of research. As I gained more nursing experience, I started to seek out and sit on research committees, do quality improvement and evidence-based practice work, and really fell in love with infection prevention. At the Cleveland VA, my collaborative work with the infection prevention and control committee and infectious disease research lab grew and was making a difference for the development of practices, policies, and procedures at my facility. At that time, there was a max number of IPs in the facility with no hopes of hiring more, so essentially my work in this area was created and supported even as a floor nurse with the mentorship of my infectious disease colleagues. I was the closest to the patients and learned to understand and contribute to study designs that were realistic and sustainable based on workflow and my experience with patients. That was the motivation for me to pursue research and to continue to focus solely on IPC.

**You accomplished a great deal academically and professionally at a young age. Who were your influencers and mentors? What do you consider your highest achievement so far?**

Thank you for saying that. However, I have a motto to “keep my head up in failure and down during success.” Sometimes it takes me to reflect and realize what I am doing, but even then, I am motivated to do more. I recognize that my success is because others invested in me and that even though I do the work, I did not get here alone. For example, I had a sixth grade teacher who valued education, but passed away at a young age from breast cancer shortly after I became a nurse. It came full circle, because she allowed me to care for her during her last days. She loved me and taught me the value of education as a tool to move forward in life. I've had mentors in several areas: nursing, PhD chairs, postdoctoral chairs, and infectious disease and infection prevention science. They led by example and took a keen interest in me growing just as I did learning from them. This also may sound very predictable, but Elaine Larson is my other role model. As I was learning about infection prevention and control early on as a nurse I read about her journey as a first-generation high school graduate just like me. Until I met her in person and then afterwards, she was a constant reminder to work hard and to stay on the path for what I believe in. My highest professional achievement so far is a tough question to answer. I never really think about that as much as I do how to make a difference and help others. On my current path that story is still being written as I stand on the shoulders of giants before me to help push APIC’s agenda for research, practice, and innovation forward.

Shanina Knighton comes to APIC from Case Western Reserve University where she taught in the School of Nursing and the Department of Biomedical Engineering. Her research focuses on infection prevention self-management of patients, and the design, development, and evaluation of technology-based interventions including wearable sensors, machine learning, and simple technology to support patient self-management. Read on to learn more about Knighton’s path to becoming APIC’s first Executive Director of CIPCRPI.
You recently have been appointed as Executive Director of CIPCRP at APIC. Can you describe a little about what this position entails, and what you hope the position brings to or accomplishes at APIC?

The position entails me leading a center that focuses on the research, practice, and health equity domains of APIC. Through this work we will work with APIC members, volunteers, academia, and industry to swiftly translate science to practice in a collaborative manner. The center aims to prioritize focus areas provided by the APIC Board and Executive Leadership Team and to create a team of scientists, researchers, and research fellows who will produce original infection preventionist-led research to advance the IPC field. One early research effort will focus on updating research on infection preventionist staffing ratios to help guide healthcare facilities in ensuring there are enough IPs to protect patients and healthcare personnel from infections. I seek to form linkages with research institutions throughout the U.S. and internationally with hopes of supporting our pipeline of future IPs through scholar and internship programs. I would like the center to become a vehicle and resource for our members to use as their “go to” when they are considering publishing their work. Essentially, I want more IPs to be leading this charge as volunteers. APIC committees have value that they bring to the organizations and industry to swiftly translate science to practice in a collaborative manner.

Leadership Team and to create a team to practice in a collaborative manner. The Health Inequities and Disparities Taskforce completed their objectives and put forth a multifaceted approach that includes expanded research focus and funding, engagement of stakeholders for policy changes, collaboration with other institutions, equitable approach to health literacy and cultural competency, and training a diverse group of infection preventionists. Furthermore, the taskforce vocalized the need for APIC to establish a standing committee to carry this work forward. APIC adopted this recommendation and created the Health Equity Committee (HEC).

The HEC adopted the work set forth by the taskforce, which is to identify interventions to address health disparities and to produce recommendations, research, education, resources, collaborations, and other applicable actions that can be taken to identify and mitigate health inequities related to infection prevention and control and epidemiology.

Health disparities data inform us of a problem, imperative to address, and health equity is the goal we seek to achieve. The renaming of the taskforce aligns with the goals of APIC. We recognize that when all who we serve can reach their full health potential without disadvantage due, but not limited, to factors including gender, race, ethnicity, language, disability, age, socioeconomic class, immigration status, uninsured, sexual orientation, and the intersections of their identities and their environment, we move much closer to APIC’s mission of “Creating a Safer World for Everyone.” The work of the HEC is essential to that realization.

Pending board approval, some of the current Health Inequities and Disparities Taskforce members will transition to the HEC. APIC members will be invited to volunteer for the inaugural committee as early as fall 2022.

References

5. References

Focus on long-term care and behavioral health outbreaks Identify the pathogen!

continued from page 28

References


Steven J. Schweglen, RN, MPH, MSN, CIC, CPHQ, FSHEA, FAPIC, is an infection prevention consultant with a specialized interest in acute care/long-term care/behavioral health/ambulatory care infection prevention challenges, including outbreaks.
Erin R. Babé, BSW, MPH, is a public health professional with concentration in long-term infectious disease and infection prevention and control management.
Health care-associated infections studies project:

An *American Journal of Infection Control* and National Healthcare Safety Network Data Quality Collaboration Case Study—Chapter 9 Surgical site infection event (SSI) case study

BY HENRIETTA SMITH RN, MSN, CIC*, JENNIFER WATKINS RN, BSN, MPH**, MELISSA OTIS RN, BSN***, JOAN N. HEBDEN RN, MS, CIC**, AND MARC-OlIVER WRIGHT MT (ASCP), MS, CIC*  
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This case study is part of a series centered on the Centers for Disease Control and Prevention/National Healthcare Safety Network (NHSN) healthcare-associated infection (HAI) surveillance definitions. This specific case study focuses on the application of three of the surveillance concepts included in the Patient Safety Component, Chapter 2—Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance. The intent of the case study series is to foster standardized application of the NHSN HAI surveillance definitions and encourage accurate HAI event determination among Infection Preventionists (IPs).

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Learn more about NHSN Clinical Case Studies by listening to episode #35 of the *5 Second Rule* podcast where host Marie Wilson interviews Marc-Oliver Wright. As space allows, NHSN Clinical Case Studies will be reprinted in *Prevention Strategist* to increase awareness and use of these valuable competency-building tools.

For each case, a link to an online survey is provided, where you may answer the questions posed and receive immediate feedback in the form of answers and explanations. All individual participant answers will remain confidential, although it is the authors’ intention to share a summary of the findings later. Cases, answers, and explanations have been reviewed and approved by NHSN Protocol and Validation Team. We hope that you will take advantage of this offering, and we look forward to your active participation. The online survey may be found at: [https://www.surveymonkey.com/r/NHSNChapter2](https://www.surveymonkey.com/r/NHSNChapter2).

**Conflicts of interest:** Henrietta Smith has nothing to disclose. Jennifer Watkins has nothing to disclose. Melissa Otis has received honorarium from Georgia Infection Prevention Network. Joan N. Hebben has received consulting fees from PDI, Inc., Netflix, and APIC Consulting; received honoraria from ICU Medical and Cepheid, received support for attending meetings/travel from PDI, Inc.; has a Leadership or fiduciary role in SHEA Education Committee and APIC Research Committee. Marc-Oliver Wright is employed by Professional Disposables International, Inc.; has received consulting fees from APIC, Inc. All are unrelated to this submission.

**Key Words**  
- Healthcare-associated Infections  
- Surveillance  
- NHSN  
- Infection Window Period  
- Repeat Infection Timeframe

This National Healthcare Safety Network (NHSN) surveillance case study is part of a case-study series in the American Journal of Infection Control (AJIC). These cases reflect some of the complex patient scenarios Infection Preventionists (IPs) have encountered in their daily surveillance of healthcare-associated infections (HAI) using NHSN definitions. Objectives have been previously published.

This case study is part of a series centered on the Centers for Disease Control and Prevention/National Healthcare Safety Network (NHSN) healthcare-associated infection (HAI) surveillance definitions. This specific case study focuses on the application of three of the surveillance concepts included in the Patient Safety Component, Chapter 2—Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance. The intent of the case study series is to foster standardized application of the NHSN HAI surveillance definitions and encourage accurate HAI event determination among Infection Preventionists (IPs).


This National Healthcare Safety Network (NHSN) surveillance case study is part of a case-study series in the American Journal of Infection Control (AJIC). These cases reflect some of the complex
We strongly recommend participants review or reference the NHSN website and NHSN Patient Safety Component Manual Device-Associated Module for information that may be needed to answer the case study questions. The website links are:

Chapter 7—https://www.cdc.gov/nhsn/pdfs/pscmanual/7psccauticurrent.pdf

The findings and conclusions in this case study are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

For each question, please select the most correct answer.

Understanding the concepts outlined in the NHSN Patient Safety Component Chapter 2 “Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance” is critical for identifying many of the NHSN healthcare associated infection events. This case study presents three separate vignettes, each focusing on one of the following Chapter 2 concepts:

• Infection Window period (IWP) selection.
• Event determination and location of attribution.
• Pathogen assignment.

The following key terms are used throughout the case study:

• Infection Window Period (IWP) is the 7-days during which all site-specific infection criteria must be met. It includes the collection date of the first positive diagnostic test that is used as an element to meet the site-specific infection criterion, the 3 calendar days before and the 3 calendar days after. This timeframe is set by the first positive diagnostic test.  

• Date of Event (DOE) is the date the first element used to meet an NHSN site-specific infection criterion occurs for the first time within the seven-day infection window period (IWP).  

• Healthcare-associated Infection (HAI) is an infection that meets an NHSN site-specific infection criterion with a date of event that occurs on or after the third calendar day of admission to an inpatient location where day of admission is calendar day 1.  

• Present on Admission (POA) is an infection that meets an NHSN site-specific infection criterion with a date of event (DOE) that occurs in the POA time period, which is the day of admission to an inpatient location (calendar day 1), the 2 days before admission, and the calendar day after admission.  

• Repeat Infection Timeframe (RIT) is a 14-day timeframe during which no new infections of the same type are reported. The DOE is Day 1 of the 14-day RIT.  

• Secondary BSI Attribution Period (SBAP) is a combination of the IWP and the RIT. Depending on the date of event, the SBAP ranges from 14 to 17 days.  

The total time estimated for completing the case study is 30-55 minutes. The estimated time for completing each vignette is listed below. Keep in mind that these are only estimates to assist with time management and should not be construed as absolute timeframes for completing the case study.

• Vignette #1: 8-12 minutes
• Vignette #2: 12-18 minutes
• Vignette #3: 10-20 minutes

Vignette #1—Learning objective: To correctly select the first diagnostic test and set the IWP

Patient presented to the emergency department on May 10 with elevated blood glucose, fever and hypotension and was admitted to the medical unit for management. A PICC was inserted in the Left arm and intravenous fluids were started.

On May 13, the patient complained of “intense” pain in right heel when standing and walking. The heel was examined and found to be inflamed with 1-2+ edema extending to the ankle and forefoot. A dime-size black eschar was noted on the bottom of the foot near the heel.

May 14, mechanical debridement was attempted but it was too painful to continue. Blood cultures were collected and positive for *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

May 17, magnetic resonance imaging (MRI) was performed on the Right heel—“cortical bone destruction with bone marrow edema was noted; markedly low signal on T1 weighted imaging and adjacent rim enhancing fluid collections high probability for osteomyelitis.”

May 18, the patient was taken to the OR for debridement; the eschar was excised down to the bone and cultures were taken. The bone culture was positive for *Staphylococcus aureus*.

May 20, the patient developed fever (39°C) and increased pain in right heel. Blood cultures were collected and positive for *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

Based on the elements present, BONE—Osteomyelitis is the most appropriate site-specific criteria to apply.

1. Which of the following is the correct IWP?

   A. BONE 3a is met. IWP is set using the MRI (imaging test) with:
      DOE: 5/14
      IWP: 5/14-5/20
      RIT: 5/14-5/27
      SBAP: 5/14-5/27

   B. BONE 3a is met. IWP is set using the blood culture with:
      DOE: 5/13
      IWP: 5/11-5/17
      RIT: 5/13-5/26
      SBAP: 5/11-5/26

<table>
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<tr>
<th>Date</th>
<th>Details</th>
<th>First diagnostic test</th>
<th>DOE</th>
<th>IWP</th>
<th>RIT</th>
<th>SBAP</th>
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<td>Adm</td>
<td>PICC – hypotension</td>
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<td>11-May</td>
<td>Right heel pain, swelling, hot, fever</td>
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<td>14-May</td>
<td>BC - S. aureus &amp; P. aeruginosa fever</td>
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<td>18-May</td>
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<td>20-May</td>
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<td>27-May</td>
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B. BONE 3a is met. IWP is set using the blood culture with:

DOE: 5/13
IWP: 5/11-5/17
RIT: 5/13-5/26
SBAP: 5/11-5/26

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C. BONE 1 is met. IWP is set using the bone culture with:

DOE: 5/18
IWP: 5/15-5/21
RIT: 5/18-5/31
SBAP: 5/15-5/31

Vignette #2—Learning Objective: To correctly determine the infection event and location of attribution.

A 62-year-old male presented to Community Hospital’s Emergency Department (ED) on 6/1 with complaints of shortness of breath, swelling of the legs, and minimal urine output for the past day. The patient is diagnosed with acute kidney injury and an indwelling urinary catheter (IUC) is placed.

The patient is admitted to the inpatient medical unit later that day. On 6/4 the patient has a documented fever of 38.3°C and is transferred later that same day to University Hospital for further testing and treatment, with the IUC still in place. On 6/6 the patient complains of suprapubic tenderness and a urine specimen is collected for urinalysis and culture. The urine culture results with > 10^5 CFU/ml Enterococcus faecalis. Upon reviewing the patient’s University Hospital medical record, the IP notes that the patient had a documented fever of 38.3°C on 6/4 at Community Hospital prior to transfer.

2. What is the determination in this case (select all that apply)?
A. HAI Symptomatic Urinary Tract Infection (SUTI) 1a (Catheter-associated UTI [CAUTI]) attributed to University Hospital
B. HAI SUTI 1a (CAUTI) attributed to Community Hospital
C. HAI SUTI 1b (non-CAUTI) attributed to Community Hospital
D. POA SUTI 1a (CAUTI) for University Hospital
E. POA SUTI 1b (non-CAUTI) for University Hospital
F. No SUTI identified for University Hospital
G. No SUTI identified for Community Hospital

Vignette #3—Learning Objective: To correctly identify pathogen assignment for secondary BSI attribution.

A 74-year-old female was admitted to Hospital A due to myocardial infarction on April 1. Right subclavian central line and indwelling urinary catheter were placed on the date of admission. On April 6, she began running a fever (101.2°F), had complaints of dysuria and became lethargic. Urine culture grew >100,000 CFU/ml Escherichia coli (ESBL). Blood cultures were collected with the following results:

Blood Culture #1: Escherichia coli/Enterobacter aerogenes (collected on April 7)

Blood Culture #2: Escherichia coli/Candida albicans (collected on April 11)

This patient meets Urinary Tract Infection (UTI) (Symptomatic Urinary Tract Infection [SUTI] 1a) criteria with an indwelling urinary catheter in place for more than 2 consecutive days in an inpatient location that was in place on the date of event, fever, and a urine culture that was positive with no more than two species of organisms identified and the bacterium was ≥10^5 CFU/ml. Using the information provided, how should each blood culture be attributed?

3. How should blood culture #1 organisms be attributed? Select all that apply
A. Escherichia coli deemed primary Blood Stream Infection (BSI)—Central Line Associated Blood Stream Infection (CLABSI)
B. Escherichia coli deemed secondary to UTI
C. Enterobacter aerogenes deemed primary BSI (CLABSI)
D. Enterobacter aerogenes deemed secondary to UTI

4. How should blood culture #2 organisms be attributed? Select all that apply
A. Escherichia coli deemed primary BSI (CLABSI)
B. Escherichia coli deemed secondary to UTI
C. Candida albicans deemed primary BSI (CLABSI)
D. Candida albicans deemed secondary to UTI

References
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Jessica Swain (left) and Nicki Shorr

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When it comes to professional development, no one else is going to do it for you. That doesn’t mean there aren’t tools, however, to help.

In the APIC22 session “Building Your Brand and Maximizing Your Professional Development,” Angel Mueller, MPH, CIC, FAPIC, and Lisa Caffrey, MS, BSN, RN-BC, CIC, FAPIC, provided insight into how to take hold of one’s career path, and the tools with which to do so. Mueller is chair of APIC’s Professional Development Committee and Caffrey is past chair of that committee and a member of the APIC Board of Directors. Both were co-authors of the APIC Competency Model.

“Professional development is a journey, not a destination,” Mueller said. “It’s something you will do throughout your career and life. Our goal is to provide some of the knowledge and tools that you need to help you on that journey.”

Realizing that the many tools APIC offers may not be enough, Mueller asked attendees to “think about what else you need. What information do you need? What tools do you need?”

The committee welcomes the input. It is feedback that has driven many of the existing tools, like the development of the APIC Competency Model. “This was the basis for professional development. It’s where it all starts and what helps guide all of us,” Mueller said. It includes the Certification Board of Infection Control and Epidemiology (CBIC) core competencies and the APIC Professional and Practice Standards, she said.

The model also includes six future-oriented competency domains, which advance and expand throughout the career stages.

The APIC Competency Model is broken into four levels: novice, becoming proficient, proficient, and expert. Despite their experience in the field, both Mueller and Caffrey said evaluation was important.

“IPs must be actively engaged in their own development to maximize their own potential and to move our profession forward,” Mueller said. “It’s essential that we continue to grow and develop. APIC grows and develops along with us. The infection prevention career grows and develops too.”

APIC’s Professional and Practice Standards were published in 2008 with another iteration in 2016. “They are that foundational element for our profession,” Mueller said. “They lay out the priorities, the values, and the standards for our profession: IPs shall pursue competencies, certification, and assume responsibility for the development, evaluation, and improvement of our practices.”

Certification can show knowledge and competency. The new associate Infection Prevention and Control (aIPC) certification measures basic competency for those newer to the profession. “It gives you a leg up as you start to work in the profession,” Mueller said. “It’s a great way to show that you are growing in your profession.”

The Novice and Becoming Proficient Self-Assessment Tool can be found on the APIC website under the IP Competency Model page. The Proficient Practitioner Bridge “is a great tool that takes you through each of the future-oriented competency domains and subdomains,” Mueller said.

A new toolkit, You Are Not Alone, is designed for the solo IP. It is available on the APIC website.

The self-assessment should be used at various career stages, such as when one changes jobs or when the facility brings in a new population. Some facilities include the self-assessment tool as part of an annual performance evaluation, Caffrey said.

“The first step in professional development is in understanding the current state with a self-assessment. “This is a way to evaluate yourself personally and professionally. Identify opportunities that you have to grow in knowledge, training, and experience,” Mueller said. “This will be used to guide your professional development training. Reflect on accomplishments. Have you improved in those opportunities that you identified in the previous years? It’s a great way to show that you are growing in your profession.”

The self-assessment provides the foundation for a professional development plan, which serves as a “road map for your growth and career advancement,” Mueller said. The plan incorporates what has been
identified in the self-assessment and attaches specific, measurable, attainable, relevant, and time-based (SMART) goals.

**A Well-Defined Speech**

Not all professional development is done on paper. Sometimes it can be an interaction with a senior leader. Caffrey recommended attendees create an elevator speech, a 60-second request for what’s needed—either as part of your professional development, or a new tool or program you’d like to implement. The elevator speech is delivered during an “impromptu meeting, but you have to be prepared,” Caffrey said.

The speech should include a brief introduction, particularly if the leader encountered doesn’t know you, or know you well. It should last no more than 10 seconds. Describe the problem in 15 seconds, sharing data or a story to support your request.

“Stick to one request,” Caffrey said. “Know what your one thing is, ask for it, and move on.” A solution should take up about 25 seconds of the speech. “What are you going to do to solve the problem? Show passion and excitement,” she said. Close with 10 seconds of asking for what is needed to move forward.

“It’s really important that you develop the message. Define the outcome. What’s your ‘soundbite?’ Always use lay person’s language,” Caffrey said. “You want them to feel motivated to act, to understand how your request fits into the big picture and your story and why it matters.”

**A Professional Portfolio**

Caffrey recommends a professional portfolio—either digital or physical. This collection of documents demonstrates skills, abilities, and professional developments. “It’s your professional story,” she said. This portfolio can showcase competency. It can house your infection prevention units (IPUs) as well as other types of training.

Caffrey said when she returned from the conference, she planned to print out the presentation she delivered on professional development and include a copy from the program guide for her portfolio. She recommends regular updates to the portfolio. “Pick a time: every six months, every month, or every time you’re done with something.”

Caffrey has her staff keep their career statements and personal mission statements in their portfolios, along with career goals, a CV, and/or resume. It can include any publications or other ways to highlight work experience.

She recommended attendees start a CV, or curriculum vitae. A CV is used to apply for graduate school or to speak at conferences. A resume is a job history, what is sent to employers when looking for work. CVs incorporate other things rather than work history, including training, publications, and presentations.

The CV should be checked for typos and spelling. “Make sure that your credentials are listed in the right order,” Caffrey said. “It’s your academic degrees first. For those that are licensed, like an RN, those are next, then certifications.”

With a clearly thought out career path, careful self-assessment and tools at the ready, the next career move is just a matter of time.

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**A 5-Step Process to RESOLVING CONFLICT**

**BY MELANIE PADGETT POWERS**

Conflict seems to be everywhere in our society during the COVID-19 pandemic. In particular, the complex, high-stress, and emotionally laden environment of healthcare can lead to conflict. But teamwork is critical to patient safety, quality care, and infection control.

In their on-demand session “Conflict Resolution for the Infection Preventionist,” available at APIC 2022 Annual Conference, consultants and married couple Terri L. Bogue, MSN, RN, PCNS-BC, and Robert Bogue, MS, of Carmel, Indiana, walked viewers through multiple steps and strategies to understand and resolve conflict. Terri is the COO of Thor Projects, a clinical nurse specialist, and an IP. Robert is the president of Thor Projects and has a master’s in management and leadership.

“Conflict is normal, and it’s good. You have it every day,” Terri said. “It means to come into a collision, or disagree. It’s actually not a bad thing to disagree. Great things happen when people disagree and work through it to come up with a better solution.”
The couple pointed out that all conflict comes from only two sources: perspective and values. Tools such as the Myers-Briggs Personality Type Indicator can help people better understand their own perspective and values or where they’re coming from in a conflict.

Considering the foundations of your morality can also be helpful. Where do you fall in the spectrum of areas such as care/harm, fairness/cheating, loyalty/betrayal, authority/subversion, sanctity/degradation, and liberty/oppression? And how do your various morality beliefs work together?

The couple pointed to 16 factors that motivate a person, taken from Steven Reiss’ book *Who Am I?* In their interactive session, they shared a handout that allows you to assess your motivators (access handout at https://tinyurl.com/ConflictHandout), which can show you what drives you in conflict. For example, some people thrive on power, while honor or family may be more important to others.

Conflict arises when one person has a strong affinity in a particular area, while the other person has a low affinity. “When people are in the middle, particularly when both of them are, there tends to not be a great deal of conflict,” Robert said. “The motivators aren’t very strong. The values aren’t held that deeply.”

The Bogues shared their process for resolving conflict:
1. Address the emotion. “Until you address the emotion, you’re not ever going to get further,” Robert said.
2. Understand the problem.
3. Understand the real objective. What people say is not always what they mean. What are the means and ends and root causes? What do they really want?
4. Create options.
5. Select the option.

The couple walked viewers through their five steps to understand the real problem and the real objective before trying to find a mutually acceptable solution. First up: emotions.

They pointed out that humans have a “lizard brain” and a “primate brain.” We primarily live in lizard brain, which is our more primitive brain that works fast but doesn’t necessarily make great decisions. But our primate brain is where our logic and rationale live. It’s how we think about something and where we consider long-term consequences.

Robert explained a model called the “rider-elephant-path,” developed by psychologist Jonathan Haidt. “It’s my favorite all-time model...because it’s useful,” he said. “You can use this every single day as you’re talking to people to understand ‘Am I doing the things to get to the results I want? Am I talking to the right person?’ and ‘How do I make things work, even when people may not want to change?’

The rider represents our reason and rationale, while the elephant represents our emotions. The path are the defaults, cultural norms, and habits. While we may think the rider is always in control, the elephant (our emotions) always wins when it wants to.

Also, the rider and elephant are both lazy, Robert said. When neither are fully engaged, they will follow whatever the path is. “You’ve all seen this [with] people who are not doing things the way they should because they’ve been habituated to [doing something else]. We have a set of defaults that when nobody else cares, they just happen,” Robert said.

The Bogues described how, in the midst of an argument, someone may become so angry that they become “emotionally flooded.” This is when their amygdala asserts control over executive function. In this state, the person needs time to recover before addressing the conflict. A walk can help—as long as the person doesn’t ruminate or replay the conflict during their stroll.

“It’s difficult but possible to remain calm and centered,” Robert said. “Our goal is to minimize the ability of our emotions to override what we’re thinking.”

It’s also important that all parties feel safe in the midst of a conflict, which will reduce emotional flooding. You can help others feel safe by considering several factors that influence our sense of safety, including emotional state, time of day, equipment, resources, degree of control, location/environment, degree of loss, and people involved.

Stress is a lack of perceived safety, Terri said. Humans have subsumed the stress our bodies have to immediate threats to our survival—like being confronted by a lion in the wild—to everyday things like our children’s college applications, choosing what to wear each day, and the long line at the fast-food drive-through.

The next thing to do is figure out how to remain detached from the outcomes, which can be quite difficult. “You cannot be responsible for something you cannot control,” Robert said. “And if you can’t really control the outcomes—and we mostly can’t—we can only really be worried about what we bring to the situation and how do we make it better. The outcomes are going to be what they’re going to be. We’ve just got to do the best we can.”

Before you start to understand and work on the problem, you must acknowledge and deal with these emotions, the couple stressed. Start to understand what someone else is feeling, which can help you resolve the conflict. Understand your breathing rate; if you match your breathing rate to the other person’s, you can get a sense of what they’re feeling, Robert suggested.

Also, reading body language isn’t always helpful, even though we’ve been taught that it is, Terri said. Body language doesn’t always mean what you think: A person may have crossed-arms and look disengaged, but it could be because they’re cold or have an achy back.

Next up, work to truly understand the problem and real objectives—people don’t always say what they mean, so you may need to dig deeper. Seek to understand, which is completely judgment free. Be aware of the other person’s feelings and be tolerant and forgiving. You don’t have to reach an agreement on a conflict, but you may be able to come to a decision that meets in the middle.

The Bogues also went through a couple of exercises to highlight the importance of learning how to be an active listener and validate what the other person is saying.

When it’s time to try to come to a solution, first create more than one option. Ask the person: What would you like? Provide answers that are win-win, not win-lose. How can you enhance the request or the idea and start to expand the idea?

Sometimes you can’t find an option where both people are happy. At that point, you have to revert to and enforce the rules—but only after trying to find a solution.
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Located in Massachusetts, the infection control program under review has its roots in 1976. Program expansion and improvement in the past 4 plus decades has been influenced by staffing, access to advancing knowledge in the field of healthcare practice, and the availability and use of technology. Resources and references were integrated over time to reframe the program, and prevention and control strategies. Considering current HAI issues relative to the pandemic response and general industry awareness, this heightened our need for a more effective program.

To perform a needs assessment to improve our established program, program staff met to review the current infection prevention and control program and to propose a well thought out, optimal, effective program. The review was met with enthusiasm and excitement. Prior to the first of three meetings, staff members drafted areas of focus and opportunities to share, using the tool in Figure 1.

The team, including hospital epidemiology, met and brainstormed program improvement strategies, including modernization and improving the safety of patients and employees relative to infection prevention. The resulting review and recommendations for program improvement align with the APIC program of distinction model with focus on the following strong recommendations for change:

• Staff the program with qualified personnel to support the initiatives aligned with safety and quality compass points.
• Support the education, professional growth, and current knowledge of the team.
• Remove identified barriers to an effective program, budget program initiatives to encourage employee input and engagement, support sharing of knowledge and respect for guidance provided. Align duties with role, clarifying administrative support functions for clerical staff.
• Schedule infectious disease epidemiologists, time to align with daily interactions with the team.
• Enhance data management processes with up-to-date data mining, data management, and proactive, preventive infection control software to support workflow, denominator data collection, graphing, and current intervention recommendations.
• Expand surveillance activities to include assessment of patients at risk for device, procedural, or encounter-related HAIs.
• Support a culture of safety that includes relationship building, communication, and a centralized education model to support an informed, engaged work force focusing on improvement strategies and outcome improvement.

The Massachusetts Department of Public Health’s Healthcare-Associated Infection Expert panel reported in 2008 that the primary goal of hospital infection prevention and control programs is to protect patients, employees, and visitors from transmission of infection.« The Joint Commission in their 2021 publication states that the primary goal of an infection prevention and control program is the prevention of HAIs, across the continuum of care.³ This program supports the care of patients extending outside the walls of the acute care building; into the ambulatory setting, procedural, and specialty areas as well as private homes. Infection prevention across the continuum of care is essential, and an effective program will help to accomplish our goals. The combined risk assessment of the about 800-bed acute care hospital

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**Figure 1**

<table>
<thead>
<tr>
<th>Infection Prevention and Control Process: Current Process</th>
<th>Compass Points Alignment: Safety</th>
<th>Priority 1-5, 1 is most important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed timeline to achieve and impact: 6 months</td>
<td>Needs to achieve improvement:</td>
<td></td>
</tr>
<tr>
<td>How is it measured and reported?</td>
<td>Needs to achieve improvement:</td>
<td></td>
</tr>
<tr>
<td>Proposed improvement, including measurement if different:</td>
<td>Evidence/Literature sources:</td>
<td></td>
</tr>
</tbody>
</table>
and ambulatory practice risk assessments identified current needs across the continuum of care and were included in the review. As healthcare and emerging global infectious diseases become complicated and more of a challenge, the critical need for an optimal, effective program supported our review and recommendations for change.

The success of an effective infection prevention and control program can be measured by the lack of poor outcomes, harm, and near-miss events relative to infections. Additionally, being flexible to meet the needs of advancing care, challenges in technology, and expanded reach of surveillance would support that effective program. Reviewing the established program included all program aspects and current literature sources. Modern (up to date, in line with current recommendations), effective program attributes were discussed, and recommendations were made by the team. Proposed changes were prioritized, aligned to current healthcare “compass points,” and needs identified to achieve those changes were listed as well as any assumed barriers. Lastly, the predicted time frame for rollout of each measure was drafted (Figure 2).

Facility Compass Points are Safety, Quality, Patient Experience, and Value. The overarching goal/compass points identified by improvement strategies focused on Safety and Quality. The obvious improvements in outcome impacts Patient Experience. Some of the program improvements will have a financial impact (Value) as well as return on investment. The predicted return on investment could include a reduction of risk associated with Centers for Medicare & Medicaid Hospital Acquired Conditions (HAC) penalties and the cost and time savings for HAIs that would not occur.

The Hospital Infection Control Advisory Committee (HICPAC) of the CDC in 2017 recognized program measures need to evolve over time, as evidence and research analysis include additional core measures for prevention and control of infections. Various practices over the years have been adopted based on evidence or ethical concerns, making them integral to performance and improvement of care. As identified in our exhaustive review of the program, the HICPAC analytical process to review and update guidelines is essential and time consuming.

Essential to the successful, effective program is the integration of hospital epidemiology in the assessment, planning, and response regarding program development and issues that arise. The 2015 Society for Hospital Epidemiology of America white paper authored by Keith S. Kaye, MD, and colleagues, “Guidance for Infection Prevention and Health Care Epidemiology Programs: Healthcare Epidemiologist Skills and Competencies,” provided a framework for basic and advanced knowledge and skills for each competency. Essential to an effective program is the integration of the epidemiology and infection prevention programs. Included in the modern infection prevention program, the healthcare epidemiologist role includes being a subject matter expert, a quality improvement leader, a healthcare administrator, and outcomes assessment evaluator and researcher, with the time and expertise to publish findings. Regulatory and public health role definition and relationship building provides a guiding infrastructure and outreach potential for external support. As a clinical educator, the healthcare epidemiologist reaches the varied audiences in the healthcare setting, assuring the knowledge imparted support the practice change needed for safety and improvement.

As we evaluated our program for healthcare epidemiology, we found most of the competencies and role is performed by the current program senior director. We identified a need for closer physical location with the epidemiology team for enhanced collaboration, sharing of knowledge and scheduled time for the epidemiology staff to work with infection prevention to achieve the most successful effective (optimal) program. Aligned with the APIC program of distinction measures, our recommendations included investing in our infection prevention and epidemiology team members and their continual professional development and expertise.

The overarching program measures brainstormed included the following categories: Team, Infrastructure, Innovation, Data Collection, Surveillance Process, Prevention, Employee Health Services, Service Line, and Departmental Relationships. As described by the World Health Organization in 2018, when evaluating and planning for program enhancements, the “multi modal thinking” method suggests a combination of five elements for improving outcomes and changing behavior. The five elements incorporate:

- Identifying how the change will be facilitated (build the program)
- Include education and training (teach the program)
- Evaluate the changes and the proposed vs. actual impact including monitoring and feedback (check the program)
- Communicate and remind others about program changes (sell the program)
- Make and maintain program changes, prioritize, and engage role models, strengthening culture and response (safety climate, culture of safety) (live the program)

Each described category included ideas, concepts and measures of a successful, effective infection prevention and control program and were prioritized by team members to present the most important concepts for consideration, needs to achieve those goals, and a timeline for initiation or completion. Complete category discussion listings were shared with senior leadership when the proposal was submitted. The table in Figure 3 includes the highest prioritized change per category.

- Knowing how overwhelming launching a program overhaul would be, we identified the timeline and further compiled the overarching time for implantation of all initiatives to achieve the program results (Figure 4).
Aligned with the APIC program of distinction model, due to the progression of knowledge, practice enhancement, and forward thinking, the current program evaluation needed to be fluid including the opportunity to continue improvement over time. Attributes in our categories included: Surveillance, Hand Hygiene, Cluster and Outbreak Investigation, Safe Patient Care Equipment and Environment, Emergency Management, Employee Health, and Antibiotic Stewardship. Due to space limitations in this publication, the following categories will be described as examples of the review and outcome recommendations: Team, Surveillance, and Employee Health.

Team: The Infection Prevention team’s focus is on training and relationship building in order to establish a culture of infection prevention and control across the health system. Our team review revealed individuals certified in infection prevention and control. Certification is a requirement with supportive education and experiential learning to achieve certification once hired. Team building is encouraged through daily huddles, educational and goal setting retreats, shared educational experiences, and research collaboration. These activities lead the team toward continued professional development and a common mindset in leadership engagement and support.

Employee Health: The employee health program was appraised against the current industry standards and opportunities were identified. The program has been strengthened by dynamic leadership with the support of a full-time employed physician with an infectious disease background to oversee infectious disease aspects. The optimal, effective infection control program requires a close working association and partnership with employee health for maintaining and improving employee safety. Barriers to an effective program include standard surveillance processes and evidence-based practice guidelines to manage communicable diseases, hand/skin health conditions, MDRO colonization, allergies to products, and presenteeism. Developing enhanced communication strategies and reporting mechanisms are imperative for implementing prevention and control measures when managing employee-related communicable disease exposures and outbreaks.

Overarching barriers to achieve these three categories are a noticeable lack of employee health barriers that were identified as team related (Figure 5).

As the industry has been impacted by the pandemic and the gains in HAI prevention strategies have been reduced, the tool and process shared here along with the described review of an established program could be instrumental to prepare for the future of infection prevention and control. Upon presenting our review to leadership, in the months that followed we were able to move some things forward ourselves; the integration of epidemiology into daily team huddles and team meetings. This enabled the partnership to develop further and shared insights to improve day-to-day function of the team. Our second gain is in hours for the program; a recent increase in an opening by an additional 12 hours per week will enable some of our surveillance activities and prevention functions to increase.

Our program review identified gaps, opportunities, and barriers to improve the program in a standardized fashion, setting a foundation for further leadership discussion and implementation of various improvements. Establishing realistic timelines and measures for success aligned with national guidelines to support the modernization of an effective program will further depend on leadership endorsement and support. Presenting the report to senior leadership is only part of the deliverable; the program staff own the remainder, being open to change and being the agents to achieve it.

References

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In the spring issue of *Prevention Strategist*, we introduced APIC’s DEI Task Force along with our mission. Since then, we have partnered with Perspectives, a Chicago-based consulting firm, to serve as our DEI consultant and guide this important work.

The DEI initiative has been broken down into four goals.

**Components of APIC’s DEI Initiative**

**Goal 1: Identify our core DEI values**
- These values are the foundation of this work and are crucial in guiding the remaining goals. APIC has not had an organization-wide definition of DEI and recognized the need for this to resonate with members, volunteers, staff, and the board.

**Goal 2: Apply DEI values to Staff Engagement and align DEI values with Organizational Development**
- This goal is focused on the APIC staff and integrates DEI values into employee engagement, as well as systemic changes, such as human resources practices.

**Goal 3: Apply DEI values to Member Engagement**
- This goal is owned by the DEI Task Force and is focused on equitable succession planning and policies and procedures in APIC’s volunteer structure.

**Goal 4: Workforce Development with Members**
- This is a long-term goal looking at incorporating DEI into future efforts in recruiting IPs to the field.

**Progress on Goal 1**

In March, we identified five key stakeholder groups to gather inputs to start identifying our DEI values. These groups were members-at-large, volunteers/chapter leaders, DEI Task Force, APIC staff and the Board of Directors. Each group attended two collaborative sessions lead by Perspectives.

During the first session, we broke down the words diversity, equity, and inclusion. We completed a series of exercises to show how they impact us as an infection preventionist, APIC member, APIC volunteer and more broadly as an individual person. These conversations became the basis for the next discussion.

In the second session, stakeholders explored DEI at APIC. We brainstormed those values and behaviors that can best demonstrate DEI. For example, one exercise asked participants to imagine “where do we want to be” as it relates to diversity, equity, and inclusion.

**Figure. Answers to the question: “Where do we want to be” as it relates to Diversity**

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encompassing everyone</td>
<td>Different and wide range of experiences.</td>
<td>Social responsibility towards each other.</td>
<td>Life is short. Be a part of a group that values your uniqueness.</td>
<td>Different as a positive.</td>
</tr>
<tr>
<td>Assortment of perspectives.</td>
<td>We make everyone feel valued.</td>
<td>Building a membership as varied as those we serve.</td>
<td>Trust is important part of coalition in DEI.</td>
<td>It’s not a one and done—it’s every day.</td>
</tr>
<tr>
<td>Valuing the different backgrounds.</td>
<td>We come from different backgrounds but our mission is the same.</td>
<td>Celebrating unique solutions through building a global community.</td>
<td>Positive culture.</td>
<td>We want to value diversity, not just talk about it.</td>
</tr>
</tbody>
</table>
Words, phrases, and sentences were collected from each of the stakeholder groups.

During April-June, we completed a total of 13 sessions and dedicated over 500 hours to collecting and discussing DEI. We collected excellent feedback and insight from all groups. And, there were positive comments from attendees about the sessions.

- Thank you. I am very excited to be on this journey.
- This was awesome! Very reflective.
- Just being here with you all is D.E.I. in full bloom!

At APIC’s Annual Conference in June in Indianapolis, we were able to have our first in-person meeting of the DEI Task Force and took the opportunity to welcome any APIC members that joined any of the virtual DEI sessions. We reviewed the progress made towards accomplishing this first goal of identifying our core values and debriefed about the virtual sessions. It was also an opportunity to share what local chapters were doing for DEI. (See APIC Chapters at Work on pages 33-35.)

**Next Steps**

A team, with representatives from the various stakeholders, is now synthesizing feedback collected during the 13 sessions. Look for more information later this year on the outcome of goal 1 and the launching of APIC’s new DEI values. We look forward to incorporating the new values into everything we do and fostering an environment where all can feel that sense of belonging.

Special thanks to the DEI Task Force co-chairs Karoline Sperling and Bria Graham-Glover and APIC’s Senior Director of Membership Sara Miller.
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