

# The making of a model: APIC updates its Competency Model for the IP

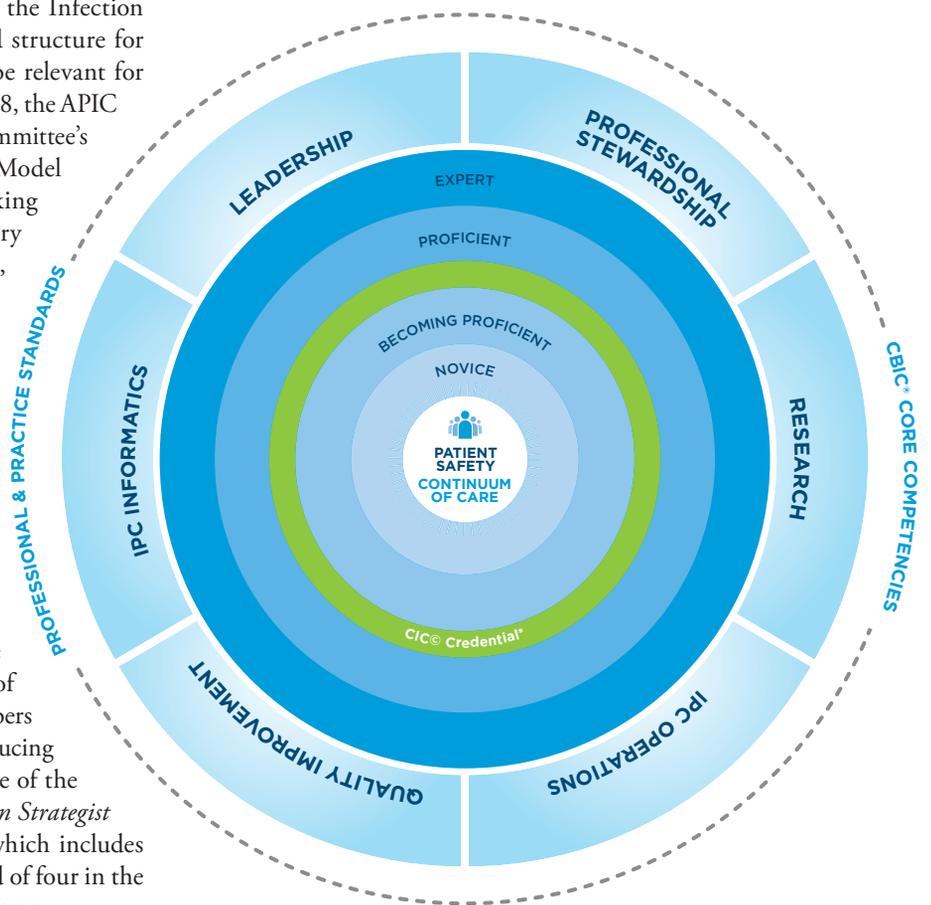
## An interview with members of the APIC Competency Model Revision Task Force

**T**he 2012 APIC Competency Model for the Infection Preventionist (IP) was a novel tool and structure for professional development intended to be relevant for three to five years after publication. In January 2018, the APIC Board approved the Professional Development Committee's (PDC) request to form an APIC Competency Model Revision Task Force. The task force began working on updating the Competency Model in February 2018, starting with an intensive research phase, which included interviews with key stakeholders, surveys of diverse IPs, research and analysis of trends in infection prevention and control (IPC) and healthcare, and a literature review of skill acquisition, competency, and professional growth in healthcare. This phase also included reviewing competency models from other organizations and working with the PDC.

The task force worked throughout 2018, going through many rounds of discussion, prototyping of models, prioritization, development, review, and incorporation of feedback from diverse stakeholders. Then, a team of authors, made up of four task force members and two additional members of the PDC, began work on the white paper introducing the new model (published in the June 2019 issue of the *American Journal of Infection Control*). *Prevention Strategist* discusses the development of the new model, which includes six future-oriented competency domains (instead of four in the previous model), with the members of the task force.

### APIC COMPETENCY MODEL REVISION TASK FORCE

- Corrienne Billings, RN, BS, BSN, CIC (task force chair)
- Lisa Caffery, BSN, MS, RN-BC, CIC, FAPIC (PDC chair)
- Heather Bernard, RN, BS, DNP, CIC, FAPIC (PDC vice chair)
- Barbara Smith, RN, BSN, MPA, CIC, FAPIC (board member; PDC senior advisor)
- Ann Marie Pettis, RN, BSN, CIC, FAPIC (board officer, secretary)
- Michael Anne Preas, RN, MS, CIC, FAPIC
- Connie Steed, RN, MSN, CIC, FAPIC (president elect)
- Susan Dolan, RN, MS, CIC, FAPIC (past president)
- Jim Davis, RN, MSN, CIC, HEM, FAPIC (research committee chair)



## What are important features of the new model you want APIC members to be aware of?

**Corrienne:** The new model includes not only updated content, it is also in an interactive format that adds a dynamic experience including links to key documents. A major goal of this update was to ensure alignment and explanation of how other IP professional development resources work together, including the professional and practice standards and the core competencies of the Certification Board of Infection Control and Epidemiology [CBIC®]. The focus of the Competency Model is still centered on patient safety but with a new element of ensuring this through the continuum of care. New to the model is the “becoming proficient” career stage, which allows the newer IP to build on novice competencies while developing more involved, intricate, and independent skills.

An example of exciting new content is the future-oriented competency domain for professional stewardship, which discusses the need for IPs to hone their skills in financial acumen and have a deeper understanding of population health models. There is also a domain devoted to research that expounds upon the many ways IPs should be participating in and utilizing research in their practice. In the 2012 model, technology was an independent domain, but in the updated model, components of technology are interspersed throughout. The IPC informatics domain highlights the ways IPs use electronic health data to enhance their practice.

## What are future-oriented competency domains?

**Corrienne:** The formal definition of an APIC future-oriented competency domain/subdomain is a topical area of knowledge, skills, abilities, and personal attributes that has been identified as relevant in the next three to five years for growth of the IP and the profession. The updated model provides these competency domains to guide IPs toward areas of professional development. However, the future-oriented domains and subdomains should not be confused with competencies as they are concepts of future-oriented IP needs and not written as formal competencies.

Ultimately, the goal of the future-oriented competency domains is to anticipate advances in the field so that IPs can be equipped with the tools necessary to further their careers while meeting the needs of patients across the continuum of care. This reinforces APIC’s vision of healthcare without infection and the mission of creating a safer world through prevention of infection.

## What stands out for you about the process the task force used to develop the new model?

**Ann Marie:** It was very organized and strategic, with two face-to-face meetings and frequent conference calls with expert guidance from our chairperson and APIC staff to keep us on task. Key IP thought leaders such as the authors of the original Competency Model, as well as next-generation IPs were consulted for input.

**Barbara:** The task force exemplified true collaboration. Each member was well prepared and had valuable insights. The

synthesis of the final model is so coherent that it is impossible to discern which member contributed what segment.

**Lisa:** The chair and co-chair of the PDC were appointed to the task force. PDC members assisted task force subgroups with interviews of key stakeholders and reviewed numerous publications for best practices and trends in the field. They also assisted with the development of the domain and subdomain definitions and reviewed the documents numerous times for clarity. Without their commitment to the project, it would have been difficult to complete the work on time.

## What are some of the areas where the task force had a lot of discussion?

**Ann Marie:** There were robust discussions about how to make the model more interactive and each domain more future-oriented. Much thought was given to creating an impactful visual of the new model.

**Barbara:** The task force remained cognizant of the many phases in the IP’s career. Questions we considered were: Are we allotting sufficient time for each phase? How do we accommodate someone who is moving through the model?

We also spent considerable time on some of the “soft” skills such as behavioral science because, in the end, IPC is about creating an environment where the healthcare team practices safe behaviors.

## What are key emerging technology issues and trends that are reflected in the new model?

**Jim:** I am very excited that a research focus is promoted within the revised Competency Model. Using that as a springboard, the task force has chosen to include forward-thinking technology like using artificial intelligence, natural language processing, and data visualization techniques to enhance surveillance, outbreak investigation, and research activities. There are also the beginnings within the model of the application of comparative effectiveness research to identify how medical device or supply purchasing may affect IPC and patient safety before purchasing decisions are made. Starting to identify these issues, and others, in the revised model should enhance the IPs practice and provide a more in-depth understanding on how to implement current and future-oriented technology for IPC.

## Can you give some examples of how IPs can use the new model to develop their teams, especially IPs at the novice or becoming proficient level?

**Heather:** The model and its tools can be used to assess knowledge, skills, and abilities within the future-oriented competency domains. As IPs are entering the profession with varying degrees of background knowledge, this assessment can inform the

## Updated APIC Competency Model (2019): Future-Oriented Competency Domains and Subdomains

Leadership	Professional Stewardship	Quality Improvement	IPC Operations	IPC Informatics	Research
<ul style="list-style-type: none"> <li>• Communication</li> <li>• Critical Thinking*</li> <li>• Collaboration</li> <li>• Behavioral Science</li> <li>• Program Management*</li> <li>• Mentorship</li> </ul>	<ul style="list-style-type: none"> <li>• Accountability</li> <li>• Ethics</li> <li>• Financial Acumen</li> <li>• Population Health</li> <li>• Continuum of Care</li> <li>• Advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• IP as Subject Matter Expert</li> <li>• Performance Improvement*</li> <li>• Patient Safety</li> <li>• Data Utilization</li> <li>• Risk Assessment and Risk Reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Epidemiology and Surveillance*</li> <li>• Education*</li> <li>• IPC Rounding</li> <li>• Cleaning, Disinfection, Sterilization</li> <li>• Outbreak Detection and Management</li> <li>• Emerging Technologies</li> <li>• Antimicrobial Stewardship*</li> <li>• Diagnostic Stewardship</li> </ul>	<ul style="list-style-type: none"> <li>• Surveillance Technology*</li> <li>• Electronic Medical Records (EMR) and Electronic Data Warehouse (EDW)*</li> <li>• Data Management, Analysis, and Visualization</li> <li>• Application of Diagnostic Testing Data and Techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation of Research</li> <li>• Comparative Effectiveness Research (CER)</li> <li>• Implementation and Dissemination Science</li> <li>• Conduct or Participate in Research or Evidence-Based Practice</li> </ul>

\*Future-oriented and updated definition of a subdomain that was also in the 2012 Competency Model

Note: For definitions of each future-oriented domain and subdomain, see APIC's website under Professional Practice/Competency Model.

development of an onboarding and orientation plan that is tailored for the individual.

**Michael Anne:** I see this model as assisting with hiring selections and developing the individual IP. I may have an IP who has a strong epidemiology background without acute care hospital experience. I would use this model in collaboration with this new hire to frame their learning experience. In the same way, if I were a new or developing IP, I would use this tool to develop my own skill sets.

### Can you give examples of how experienced IPs—those at the proficient or expert-level—might use the new model?

**Ann Marie:** Experienced IPs can use this model as a tool to guide their journey toward becoming an APIC Fellow. As a director of a program with frequent IP turnover, I find the model to be invaluable when orienting and mentoring new IPs. No matter how experienced we are, none of us are a master of all domains. Therefore, the model can be used as a roadmap for your self-evaluation in your own organization.

**Michael Anne:** IPs at the proficient and expert levels can use the model to frame their personal and professional development along with performing periodic gap assessments of the programs they run. Currently, my program focuses on the implementation science domain as we strive to ensure sustainability, both implementation and maintenance, of IP program best practices.

**Barbara:** The professional stewardship domain contains several key elements that an expert or proficient IP should demonstrate. This domain really speaks to the larger realm of influence that the IPs can exert, both individually and collectively.

### What are some of the future-oriented domains in the new model that most have your attention related to your own work and experience with APIC? Why?

**Barbara:** I see APIC's future extending beyond acute care to emphasize establishing best practices in alternative settings, informing the public more directly, and impacting legislation towards healthcare without infections. The leadership and professional stewardship domains provide the framework for us to accomplish these goals.

### What type of work is the PDC doing related to the updated model?

**Heather:** The PDC will be updating the Proficient Practitioner Bridge (PPB) this year. This tool will allow individuals to assess their knowledge, skills, and abilities as they relate to the new future-oriented competency domains, so they can develop and grow throughout their career.

**Lisa:** Over the next year, the committee will update various APIC tools available to support IPs in their professional development. In addition to the PPB, we will be revising the Competency Self-Assessment, APIC Fellows application, and the *APIC Text Online* chapter on competency and certification. We are also collaborating with the Education Committee to develop online learning programs to help the IP advance throughout their career.

### What do you think are some additional ways in which the new model will impact the profession in the next one to three years?

**Heather:** Our profession needs to keep up with the evolving healthcare system. The updated model includes future-oriented competency domains that were carefully selected and defined to

support IPs in their professional development, including emerging areas in healthcare that impact IP programs.

**Lisa:** The new model will provide clear guidance on competencies needed to be an IP regardless of your practice setting or educational background. It can also be used to prepare IPs for practice and develop education programs. Those responsible for IP programs can use the model to evaluate their program and address gaps in competencies. Perhaps we will even see more colleges and universities use the model to develop more degree programs that focus on IPC.

### What does APIC's Competency Model mean for you and the profession?

**Susan:** The Competency Model is a foundational document that is essential for each and every IP working in the profession. By providing structure, standardization, and guidance on how to navigate the competency journey in this dynamic profession, it allows individual IPs to take ownership of their own professional growth which ultimately advances our profession to higher levels. It is about building new IP leaders in our field and providing relevant tools to develop competence and help the IP advance through career stages. Key to this process is purposefully using a future-oriented mindset to be able to anticipate the novel and/or changing issues that affect our profession. We need to be the drivers defining how these new domains and subdomains can best be implemented and addressed by IPs. Creating our own future is exciting and innovative, but, most importantly, the model impacts the safety of the patients we are protecting.

The model will also be informative to those outside the field about the role of the IP, and it will serve as a foundational, standardized model for managers to use when creating and revising IP job descriptions, orientation programs, and evaluations. It's fabulous that IPs created and revised the Competency Model that will be used by IPs each and every day.

### Putting on your leadership hats, what are key changes you have seen in the profession since the first APIC Competency Model in 2012?

**Susan:** The complexities of our IPC work continues to evolve and become more sophisticated. Healthcare systems are expanding into various areas of our communities and providing new challenges for work management with new and diverse responsibilities. As we look to fill IP positions to meet these growing needs, the background experience of IP candidates is becoming more diverse. Exploring creative ways to utilize IPs with varying backgrounds in the safest and most efficient manner while defining evidence for best practices in this area continues to evolve. Furthermore, the focus on IPC in non-acute-care settings has expanded the focus of IPC throughout the continuum of care—a new emphasis in the updated model. Another key area of change revolves around technology. It continues to play an ever-important role in how we collect, analyze, and store data while influencing how IPs manage

and utilize data in a way that is relevant, effective, and resource lean. As Corrienne noted, the influence of rapidly changing technology can be seen among more than one domain, which highlights the interconnectedness of the domains.

**Connie:** Because of the needs of our evolving healthcare environment and increasing focus on infection prevention, IPs are collaborating more than ever with other disciplines to get things done. We are “better together.” Working in multidisciplinary teams is vital to success. IPs are learning that the soft skills of leadership, communication, and relationship building are essential to accomplishing our goal of reducing the risk of infection.

### What are key trends in the field and healthcare overall to watch for in the next three to five years?

**Susan:** Growth of health systems and continued expansion of healthcare delivery models beyond the hospital setting is a given. One key area that continues to affect IPC in these various healthcare settings is improved diagnostic testing, which is rapidly evolving and being adopted by healthcare facilities and reference labs. IPs need to keep abreast and up-to-date with these evolving diagnostic tests (e.g., lab and radiology) so they can be assured their surveillance data are capturing relevant patient results needed to monitor infection data, trends, and outbreaks. The nuances of interpreting some of the newer tests and their relevance in terms of transmission and isolation (initiation, duration, and removal) can be tricky. There are also vulnerable populations for which newer and faster diagnostic predictive tests are being used to detect infections sooner, thus impacting faster treatment initiation and patient outcomes.

Second, I see a trend in surveillance requests to monitor infections for a patient population regardless of their location. Interest in patient infections that occur outside a traditional specialized inpatient unit (e.g., outside the oncology, gastrointestinal, or dialysis units) are of interest to specialists who oversee specific patient populations and the infections they develop regardless of where they are located along the continuum of care.

Finally, with the rapidly changing healthcare market, IPs will need to be competent, nimble leaders with critical thinking skills to effectively navigate new landscapes and lead our profession forward.

**Connie:** The healthcare industry is recognizing that social and nonmedical factors influence the path to good health more than once thought. Population health, taking care of people where they live, is our future. How does the IP fit into that healthcare model and be of value? As healthcare transforms, ethical decision-making and sound judgment will be integral to safe patient care. 

*Interview for Prevention Strategist by John Donaldson, Senior Director, Education and Instructional Design, Staff Liaison to the Competency Model Revision Task Force and Professional Development Committee.*