



# Getting back to baseline: Infection prevention post-COVID



## Introduction

The infection prevention field has seen a great deal of fluctuation in the last few years. The COVID-19 pandemic placed a massive strain on hospitals' infection control departments, many of which were already underfunded and understaffed prior to the pandemic.<sup>1</sup>

While the challenges wrought by the pandemic have begun to subside, some difficulties still remain. Many healthcare-associated infections (HAIs) are still higher than pre-pandemic numbers, and infection preventionists must address this uptick in HAIs while juggling additional responsibilities and the threat of new outbreaks—often while short-staffed due to the healthcare labor shortage.

“The responsibilities of infection prevention have continued to increase as infection prevention has become a priority across the healthcare continuum, and the priority of emergency preparedness has become heightened by the COVID-19 pandemic,” explained Sara Bienvenu, manager of clinical quality growth at Q-Centrix. “This has resulted in increased demands, which have carried over into daily infection prevention workflows and have further stretched resources.”

Given the changes this field has seen recently, hospital leaders need to ensure that infection prevention departments have the support they need as they look to the future. This white paper explores the state of infection control today, discusses the obstacles infection preventionists have faced in the last three years, and highlights how infection prevention experts at a regional health system Q-Centrix partners with have navigated these challenges. This white paper also examines where infection prevention is headed next and shares recommendations for how hospitals and health systems can prepare for the shifting landscape ahead.



## >> Changes and challenges



### Rising HAIs

Hospitals have continued to see rising HAI numbers since the pandemic. Data from the Centers for Disease Control and Prevention (CDC) show increases in several types of HAIs during 2020 and 2021 compared to 2019 figures. For example, ventilator-associated events saw a 45 percent increase in 2020, and this number rose still higher in 2021.<sup>2</sup>

Hospitals experienced a temporary reprieve from HAI reporting when CMS implemented the extraordinary circumstance exception policy in March 2020, excusing facilities from HAI surveillance and reporting through mid-2020.<sup>3</sup> During this time, CMS did not count data from the first six months of 2020 for performance or payment programs, including the Hospital-Acquired Condition Reduction Program.<sup>4</sup>

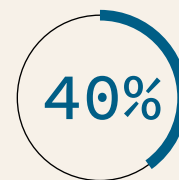
Reporting levels for the second half of 2020 were similar to pre-pandemic figures for most HAIs, indicating that facilities were able to continue reporting with little issue. However, this return to regular activity meant that hospitals were once again subject to potential payment reductions under the Hospital-Acquired Condition Reduction Program.<sup>5</sup> With hospitals still facing significant increases in many HAIs, working to reduce HAIs and avoid payment reductions may remain challenging.



### Staffing shortages

The healthcare labor shortage has impacted hospitals across service lines and departments. A quarter of infection prevention roles are currently vacant, and an additional 40 percent are expected to retire in the next decade.<sup>6</sup> As more infection preventionists reach retirement age or leave the profession entirely, hospital leaders have had to contend with finding ways to fill the gap.

Even before the shortage, hospitals have long struggled to maintain adequate staffing ratios for infection preventionists. Many hospitals have not complied with the longstanding ratio of one full-time equivalent infection preventionist for every 250 beds, nor with more recent recommendations of one infection preventionist per 69 beds.<sup>7,8</sup>



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## Growing responsibilities

Infection preventionists' roles have increased dramatically in the last few years. Infection preventionists in nursing homes have seen added responsibilities, and their average number of hours spent on infection prevention nearly doubled.<sup>9</sup>

Infection preventionists in hospitals have also received more responsibilities. These additional tasks include keeping up with constantly changing guidance, retraining hospital staff and patients on proper use of personal protective equipment (PPE), and working with environmental services departments to ensure proper CDC guidance.<sup>10</sup>



## Change in COVID-19 reporting

Starting in mid-December 2022, the CDC National Healthcare Safety Network (NHSN) assumed responsibility for collecting COVID-19 hospital data.<sup>11</sup> Hospitals were required to begin submitting COVID-19 data through NHSN rather than through the portal they had been previously using. While most hospitals were already enrolled in NHSN, learning the new reporting process and preparing for the transition added still more responsibilities for busy infection prevention staff.

## >> A health system's experience navigating change

Infection prevention professionals at one health system Q-Centrix partners with—which has four medical centers and dozens of locations statewide—shared their experience managing change in the last few years. Like many others, this health system experienced workforce shortages during the pandemic. Its clinical epidemiology department saw the departures of several infection prevention staff at the start of the pandemic.

The health system's director of clinical epidemiology had to find ways to hire new staff, onboard and train them, and help her team navigate shifting priorities in an uncertain time—all while continuing to deliver quality care.



The clinical epidemiology team used several strategies to assemble and train a team of skilled infection prevention staff, mitigate the effects of labor shortages, and improve processes going forward, helping them become better equipped for any new obstacles that may arise. Some of these strategies included:

- **Finding creative ways to recruit new staff.** Recruiting new employees during periods of instability can be challenging, particularly if budget limitations preclude typical recruiting methods. The clinical epidemiology team found that relying on word of mouth and using existing resources (such as sharing job postings on the APIC listserv) helped spread the word about job openings.
- **Supporting new staff with training and orientation guides.** With experienced healthcare workers in short supply, most of the clinical epidemiology staff hired during the pandemic did not have infection prevention experience. To get new staff up to speed, the director of clinical epidemiology developed orientation guides for each new employee. These guides, which were tailored to each employee's level of experience and learning style, led employees through learning activities such as reading modules from NHSN, watching videos, reviewing cases, and discussing cases with a team member.
- **Cross-training for sufficient coverage.** Just before the pandemic, the health system hired a system-level infection preventionist, who was then cross-trained to cover multiple roles across the health system. Through cross-training, which involves teaching employees how to perform job functions in multiple roles, the infection preventionist could fill in at different sites and roles when needed. "Not only were we able to pull her for special things when emergencies happened, but she was able to offload some of that day-to-day stuff so [staff] could concentrate on the more important things that were coming up each hour as we went through the pandemic," said the clinical epidemiology director.
- **Partnering with a third party.** Enlisting Q-Centrix's services to identify infections and aid in clinical data management and reporting gave staff more time to focus on duties they couldn't outsource. "Surveillance and looking at all those fine details of each of those definitions takes some time and practice," said the clinical epidemiology director. "And because we didn't have time, and we didn't have time to do practice with the newer infection preventionists that we were orienting, we simply could not keep up.... We realized very quickly, as Q-Centrix came on, the value of not having to worry about looking at that list every day."

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## >> Looking ahead

Since the pandemic, some HAIs—such as *C. difficile*—have decreased, which has been attributed to the recent focus on hand hygiene, use of PPE, and quarantining.<sup>12</sup> Considering the impact these practices have had on HAIs, it is likely that some of these measures will continue after the pandemic.

Hospitals might need to get creative to fill staffing needs as more infection preventionists retire. For instance, one health system developed a staffing model that involved using retired infection preventionists to increase staffing capacity on a short-term basis.<sup>13</sup>

New viruses such as Monkeypox may continue to pose a challenge for infection preventionists to tackle.<sup>14</sup> However, the infection prevention field will likely be better prepared for any new developments. The CDC’s fiscal year 2023 budget request shows a continued commitment to infection prevention: the request allocates an additional \$2.3 billion toward several measures, including improving readiness for future public health crises.<sup>15</sup>

## >> Lessons learned for the future

### Embrace change.

Some established practices might not be feasible in uncertain times, and hospital leaders may need to find innovative ways to keep operations running smoothly. “Always make sure your mentality is to embrace changes and learn on the fly,” said a member of the health system’s clinical epidemiology department. “Things that were established before may not necessarily be helpful now. Thinking out of the box, always being more creative, and trashing things that are no longer helpful has been key to our success as a team.” In the case of the health system Q-Centrix partners with, changes the clinical epidemiology team embraced included hiring staff with less experience, training them on the job, and partnering with Q-Centrix for clinical data management services.

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### Seek out clinical data expertise.

With infection preventionists taking on more responsibilities, executives should consider what duties can be outsourced. Third-party partnerships can add stability in volatile times, help hospitals keep up with changing reporting requirements, and free up infection preventionists to focus on duties they cannot outsource.

Through these partnerships, clinical data experts can review data in real-time, immediately alert hospital staff to infections, and look for process improvements to help staff prevent more infections.

At the health system Q-Centrix partners with, working with Q-Centrix also ensured that clinical data management practices were consistent across all sites in the health system. The health system's clinical epidemiology team met with Q-Centrix's clinical data experts weekly to review and discuss cases, which both instilled the team's confidence in the integrity of the clinical data and helped new staff learn the process of abstracting and reviewing cases.

### Consider what worked well.

As healthcare professionals observed during the pandemic, the emphasis on hygiene practices and PPE led to reductions in certain HAIs. Along those same lines, healthcare workers should take stock of practices implemented during the pandemic and consider what may be worth integrating into established protocols. Standardizing these processes could prove useful for the next pandemic and beyond.

“Make sure you have those processes for decision-making, communication, and follow-up,” said the health system's clinical epidemiology director. “For example, for our exposure follow-up, we worked really hard to get that down pat, teaching people how to use the tools. Then, when Monkeypox came, we were able to do the same processes.”

### Prioritize collaboration.

The pandemic has underscored the importance of infection prevention teams collaborating with other departments to reduce and prevent HAIs.<sup>16</sup> The health system's clinical epidemiology team noted that developing relationships with different departments and seeking out their help was key to helping their program run more efficiently. “Ask for help,” advised the clinical epidemiology director. “People can step up to bat. We know everybody in every position in the hospitals had to really change their thinking about ‘This isn't just my job; I have to be able to help everybody.’”



## Invest in infection prevention.

As hospitals face rising costs, it might be tempting to scale back on infection prevention funding post-pandemic. However, the importance of investing in infection prevention and control programs has been well documented. Studies have shown that increased investments in infection prevention have a significant impact on reducing HAIs.<sup>17</sup> Costs associated with HAIs can rise as high as \$25,000 per infection, and HAIs in U.S. hospitals have direct medical costs of more than \$28 billion each year.<sup>18,19</sup> Given this, allocating more funding to infection prevention could help hospitals see significant savings in the long run.



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## Leverage training.

Training is a valuable tool for ensuring all team members can perform their role—or even duties outside of their role—efficiently. The orientation guides the health system’s clinical epidemiology director developed helped new staff, who lacked traditional infection prevention experience, gain the skills their roles required. Similarly, the clinical epidemiology team found that cross-training their system-level infection preventionist to fill in at different sites and roles afforded their team adequate coverage, which was particularly valuable during the pandemic.

“We had to reorganize to help each other make [processes] run more efficiently,” said the clinical epidemiology director. “At some places, you have a team that does surveillance and that’s it. That works well when things are going well. But when you get in a crisis like [the pandemic] and you need to pull their help, they need to be well-rounded enough that they can step in for some of these other jobs.”



## Conclusion

While the infection prevention field has seen great turbulence in recent years, these events have brought lessons and practices infection preventionists can continue following as they work on getting back to baseline. Embracing change, collaboration, and creative problem-solving will be invaluable moving forward.

Hospital leaders need to support infection preventionists and employ strategies to cope with labor shortages while prioritizing patient care. By investing in infection prevention, prioritizing training, and pursuing partnerships with clinical data experts, leaders can help infection prevention departments prepare for any changes that lie ahead.

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## About Q-Centrix

Q-Centrix believes there is nothing more valuable than clinical data—it is critical in delivering safer, consistent, quality healthcare for all. Providing the industry's first Enterprise Clinical Data Management (eCDM™) platform, Q-Centrix utilizes its market-leading software, the largest and broadest team of clinical data experts, analytics and reporting data structure, and the best practices from more than its 1,200 hospital partners to curate meaningful, high-fidelity, complete, and secure clinical data. Its solutions address a variety of clinical data needs, including regulatory, cardiology, oncology, trauma, research and more. For more information about Q-Centrix, visit [www.q-centrix.com](http://www.q-centrix.com).



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