

CASE STUDY

# How We Cut *C. Diff* Infections:

Q&A WITH CENTRAL MAINE HEALTH



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Healthcare-associated infections can be one of the biggest challenges for healthcare organizations. One of the culprits—a bacterium called *Clostridioides difficile* (*C. diff.*)—is particularly dangerous because it can live on surfaces for 5 months and spread easily from person to person through direct contact or indirect contact with a contaminated environment or equipment. After one thorough cleaning with bleach, *C. diff* can come back.

Joanne Kenny-Lynch is the System Director at Central Maine Healthcare in Lewiston, Maine. She has been working in infection prevention for 25 years in several different institutions—and what has struck her is that she’s seen the exact same challenges in so many different places.

Fortunately, her experience and knowledge of what works came in handy when the team at Central Maine implemented a program to cut *C. diff* infections.

## The Results: *C. Diff* Rates

Central Maine Health implemented Sodexo’s Protecta program as part of a system-wide overhaul of environmental services and infection prevention programs.

BEFORE	Q1 2018	AFTER
Primary disinfecting solution was bleach		Implemented full Protecta program
29 <i>C. diff</i> cases per year		4 <i>C. diff</i> cases in 2019
SIR = .41		SIR = .14
Leapfrog rating = C		Leapfrog rating = A

## The Challenge: Scrubbing Off *C. Diff*

**Q:** What was going on with your healthcare system when *C. diff* infections were highest?

**Joanne:** There were a lot of changes made around the time I was hired. I was brought in to oversee the program and I took the department in a different direction.

They had problems with *C. diff* rates, so they did “bleach sweeps.” They would clean every piece of equipment with bleach. After the cleaning, the rates would temporarily decrease, but would eventually rise again because of re-contamination. Also, the bleach cleaning, over time, destroys the equipment, which can be costly.

**Q: They have the *C. diff* rates that go down when the bleach cleaning day happens, and go back shortly thereafter. What was their attitude about it? Did they consider it urgent or did they accept it?**

**Joanne:** It was definitely a problem they wanted to solve, which is why they enlisted the help of Sodexo's Protecta program to focus on the environment.

## What Is Protecta?

Protecta is Sodexo's infection prevention solution that uses a combination of disinfecting chemicals, tools, processes, employee training, and technology.

The Protecta program is for:

- Leaders who care about patient outcomes and avoiding the financial and human costs of dangerous infections
- Infection prevention and environmental services teams who are on a mission to reach zero patient infections
- Management teams who need better, safer tools to proactively do their jobs, satisfy their clients, and protect patients from infections

### WHY USE PROTECTA?

Implementing Protecta can:

- Reduce HAIs, associated costs, and penalties
- Decrease readmissions and length of stay
- Increase patient satisfaction and perception of cleanliness
- Improve employee satisfaction and confidence that they are working in a safe, clean environment



## The Solution: Changing the Products. Changing the Approach.

**Q: So, how did you bring down the *C. diff* number?**

**Joanne:** It was not one single thing, but a multi-faceted approach that brought the numbers down.

In the first quarter of 2018, Sodexo began using different disinfectant products that did not include bleach, but were effective against all commonly encountered microbes and spores. We switched to single-use mops and wipes to prevent cross-contamination. There was a lot of staff training with Sodexo. All EVS techs were re-educated on the Protecta standardized way to clean. That training and reinforcement was important.

At the same time, we realized that it wasn't just an environmental issue. We also took a closer look at specimen collection and testing. Patients can be colonized with *C. diff*, but not be actively infected. Depending on the lab test that you use, it can have a positive result. It was important to reinforce that proper specimens are ones that conform to the container. Patients should be off laxatives and should be exhibiting symptoms, such as fever, high white blood cells, or abdominal pain with diarrhea. We added a consultation with Infection Prevention to our protocol before sending the specimen after Day 3, when it would be considered a Hospital-Onset infection. Additionally, we added another step to our laboratory testing protocols, which would give us more confidence that the patient was truly infected.



### What Happened When Central Maine Health Implemented Protecta?

In 2016—before using Protecta—Central Maine had about 28-29 cases of *C. diff* per year. By August 2019? **Only 5.**

#### Q: What changes did you make to your team?

**Joanne:** We changed our approach and adopted the motto that it's not about Infection Control, it's about Infection *Prevention*. Developing a proactive where we are getting out of the office and away from the computers to perform hands-on infection prevention education and real-time surveillance gave us a better perspective of what was happening.

It is hard with all the demands, but we had to do that extra piece—get in front of our EVS team and support them. Talk to nurses and providers, and coordinate processes with the lab. This multi-disciplinary, interactive approach really made a difference.

#### Q: You also changed your approach to reporting, correct?

**Joanne:** Our team also started looking more at standardized infection ratios (SIRS) rather than rates, because rates are not risk stratified. A SIR is risk stratified based on type of institution, test modality, and many other factors. It gives a more accurate depiction about what's really happening. I made that change when I came on board because the SIR is the national benchmark, a CDC-sponsored statistic.



Between 2016 and quarter 2 of 2019, the standardized infection ratio of *C. diff* infections decreased by **nearly 84%**.

Another important aspect in driving down *C. diff* rates is antibiotic stewardship. The Antibiotic Stewardship program is led by our pharmacists who have been working very diligently over the last two years to look at antibiotic control and PPI (Proton Pump Inhibitor) use that predisposes for *C. diff*. They've been successfully bringing that down, and that's huge.

#### Q: How did your EVS and infection prevention team members react to the new approach?

**Joanne:** Overall, they were really receptive. They had a lot of questions. Of course, change is hard and there were many comments like, "We always did it this way," even if it wasn't the best way.

That's why Sodexo's training and education was so important. It was like hitting a reset button to get everybody trained in the standard way. The EVS teams got new housekeeping carts, new uniforms, and they felt more respected. There were a lot of new things coming on board, and the staff was excited.



## At a Glance: How Central Maine Implemented Protecta

When using Protecta,  
Central Maine made changes to:

- Equipment
- Cleaning Processes
- Protocols for Specimen Collection
- Approach to Surveillance
- Collaboration
- Reporting
- Antibiotic Stewardship Strategies
- Staff Engagement

## The Future: Tips and Advice for the Rest of Us

**Q: So, what's next?**

**Joanne:** We're looking for more ways to implement Protecta. For example, there have been several studies that say people on antibiotics may not have *C. diff*. But the bacteria is in the room, and the next patient coming into the room could be exposed to it. So, we're starting to disinfect for all discharges.

**Q: Any advice you would give to another healthcare organization that is struggling with high infection rates. How can they get support from their C-suite?**

**Joanne:** You can make a business case for it. *C. diff* doesn't just have costs in patient safety, but financially. Think about how the entire hospital is getting hit financially having high infection rates. Also, don't go to the C-suite by yourself. Get other impacted areas involved - providers, nurses, the pharmacy, lab, even IT.

**Q: In your career, what are some other not-so-effective steps have hospitals taken to deal with healthcare-associated infections?**

**Joanne:** Many hospitals financially don't invest in EVS (environmental service) staff. They don't provide the salaries, education, and credit for all that they impact. That's a mistake a lot of places do make, and that is short-sighted. We don't want our good EVS staff to leave, and the quality of our EVS department is directly proportional to our HAI rates.