

# How one hospital system changed hand hygiene compliance

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Hand hygiene is easier said than done. Sentara Healthcare, a nonprofit health system that includes 10 acute care hospitals and covers 2 million residents in Virginia and North Carolina, knew that all too well before it launched a system-wide testing and implementation project that increased hand hygiene compliance from about 77 percent to 95 percent. How did it do it? By changing the culture of the system, the hospitals and the staff, including the worst offenders--physicians.



Bloodstream infections, urinary catheter-associated infections and ventilator-associated pneumonia all used to be conditions that were simply considered the cost of doing business at a hospital. Today, those types of healthcare-acquired conditions are avoidable with patient safety advocates making a concerted push for health workers to wash their hands.

## The impact of hand hygiene on infections

Providers and other hospital workers who don't participate in hand hygiene could contribute to infections and poor patient outcomes and even deaths, Gene Burke, Sentara vice president and executive medical director of clinical effectiveness, told FierceHealthcare. In fact, people in public restrooms are more likely to wash their hands than in hospitals--a shocking (and gross) reality, based on a 2010 study from the American Society of Microbiology and the American Cleaning Institute.



What causes this friendly fire of providing care? It's a mix of a hospital churning out care and providers being in a rush.

"The industry of healthcare in this country has become a production industry. We are like the U.S. automobile industry in the 70s. We have been more concerned with cranking out more units of care, rather than attending to the quality of care," Burke said. He continued, "What we're seeing in noncompliance of hand hygiene is that if you're always rushing to get more work out of a day--and I propose most doctors and nurses are doing--little things that aren't glaringly necessary drop off. Hand hygiene is one of those things that people aren't making a deliberate decision to not do it; it's that it takes time."

## Discovering misleading compliance rates

Sentara reengineered its audit process. Before testing, the hospital system thought compliance was at 95 percent; it turns out it was more like 77 percent. Hundreds of front-line employees at eight hospitals brainstormed and came up with 364 ideas about what could improve hand hygiene compliance. From those, they tested 21 factors that were practical, fast, safe and--perhaps the most appealing part--cost-free. They had two rounds of testing, coming up with recipes, that is, combinations of methods that might help health workers to use wipes, use sanitizer foam or wash their hands with soap and water.



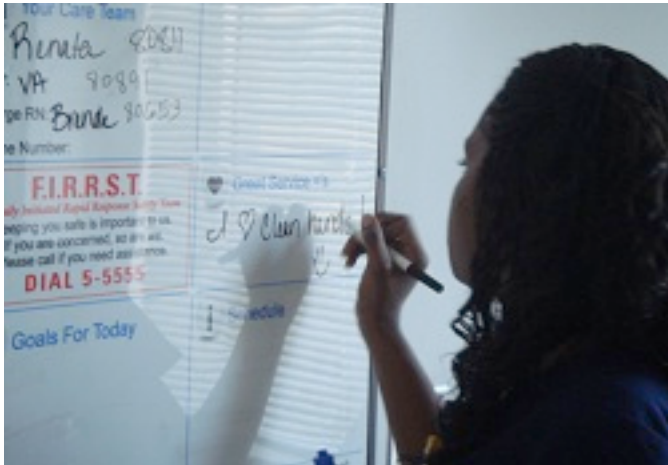
## What worked and didn't work

It was surprising what worked and what didn't work, according to Burke.

For example, peer coaching--which was expected to be one of the most effective methods--actually reduced compliance. Although counter-intuitively, bedside hand foam dispensers (as opposed to outside the room) didn't improve compliance, nor did replenishing the sanitizer canisters.

"It actually moved us in the wrong direction," Burke said, although the system isn't sure exactly why. Burke said further research would look to find out why.

As QualPro, the consulting firm that worked with Sentara, expected, a little more than half (53 percent) of the interventions made no difference in outcomes, a quarter (25 percent) helped, and more than a fifth hurt (22 percent) compliance.



What was effective were staff quizzes, initiated by leaders such as the hospital president or at any other level. For example, a nurse director would ask simple questions on a written quiz about hand hygiene, which was completed, signed and dated to make it official. It wasn't so much the paper quiz but the "power of the dialogue," Burke said. "It's not so much as getting an answer, as it is in the exchange." Leaders taking an active interest in hand hygiene builds an awareness with staff.

Similarly, nurse-initiated conversations with patients about hand hygiene, along with handwritten notes on white boards, helped reinforce the idea. They

encourage patients to remind providers to wash their hands if they forget, holding them accountable.

Another intervention that worked was adding red stop signs around the hospital to remind staff to do their hygiene duty.

"Everyone is [responsible] because it requires a culture change to place safety ahead of production. And that's a job for, first of all, leaders, but execution is ultimately everybody," Burke said. "You can't confine hand hygiene to the immediate bedside staff. Every hospital president, every CEO has that responsibility in setting the tone for the facility, for the company, the entire organization; that has to start at the top."



## Changing the organizational culture

It's Burke's hope that one day, hospitals will treat hand hygiene at the bedside like the operating room.

"If a surgeon walked in off the street and into an operating room and started to pick up a scalpel, he would be tackled before he could get to the patient in the operating room. And yet, people can walk up to a bed in an ICU, walk right in and stick a filthy stethoscope on a patient and walk out; nobody stops him. How do we get the general floor bed to be like an OR? That's the vision we had for this," Burke said. "Hand hygiene throughout the facility is just as important as scrubbing in for the OR. We're [the industry] a long way from that."



Healthcare workers should be educated about contamination on all things, including the bedside table, the tug cord on the lamp, the privacy drapes, the water pitcher, among other things in the patient's room.

"Everything in the room has to be considered contaminated ... you have to think [about] all of this stuff. Just because you walked into the room and didn't touch the patient doesn't give you a [pass] on hand hygiene."

Using the science behind the new testing and the implementation helped gain buy-in from staff, Burke explained.

Burke warned other organizations testing similar hand hygiene improvements, however, that each culture is different, and what may work in one culture may not necessarily work in another. The key is to test what you implement and then implement what you test, he said.

### Tips for improving hand hygiene

- *Welcome ideas from front-line staff:* Gather ideas from physicians, nurses and other health professionals. Every idea could be beneficial.
- *Provide standard auditor education:* Offer a standardized course for safety coaches in how to properly identify opportunities for hand hygiene. Doing so will help establish current compliance rates.
- *Audit outside your environment:* Use the standardized audit process in which auditors work outside their department or unit. Because people are likely to have biases, Burke recommended switching locations to gather meaningful data about compliance.
- *Aim for near-100 compliance:* When asked if 100 percent compliance is ever possible, Burke said it's not possible because people are human, but he acknowledged the goal is to reach near-100 percent. "If your mom was lying in an ICU with lines in everywhere, would you be happy with 1 out of 100 times people didn't bother to do something as basic as cleaning their hands?" Burke said. "The patient needs better than 95 percent," Burke said. "Ninety-five percent isn't close to where we want to be. Ninety-nine percent isn't close to where we want to be. We need 99.995 percent level of compliance if we're going to deliver to our patients the kind of environment they expect reasonably of a healthcare institution." Perfection may never be possible, given that everyone in healthcare is prone to human error, but near-perfection is always the goal.