

# Achieving Sustainable Improvement in Hand Hygiene Performance

Hospitals are required to have processes in place to measure and improve their employees' compliance with the hand hygiene guidelines published by either the World Health Organization or the Centers for Disease Control and Prevention.

However, in a fast-paced hospital environment, it's a challenge for workers to find the time for proper hand hygiene; hand hygiene compliance rates at U.S. hospitals average less than 50%.<sup>1</sup> Rising awareness of the link between employee hand hygiene and healthcare-associated infections (HAI) has motivated hospitals to pursue higher compliance rates, but it remains difficult to achieve sustained improvement.

This white paper examines the barriers impeding sustainable improvement in hand hygiene performance and offers strategies hospitals can use to overcome these obstacles, sustain improvements in hand hygiene, and achieve financial and clinical quality goals stemming from a reduction in HAIs.

## Connecting Hand Hygiene to Financial and Quality Goals

One of the most basic obstacles that impede hand hygiene initiatives is that senior leaders are often unable to see how these efforts relate to their high-level financial and quality objectives. As a result, it is difficult to justify allocating limited human and financial resources to improvement projects. Without top-level commitment and engagement, hand hygiene initiatives are unlikely to produce any lasting change in employee behavior.

Researchers have been working to connect the dots—recent studies have found a correlation between higher hand hygiene compliance and lower HAI rates.<sup>2,3</sup> The potential financial benefits of reducing HAI rates are significant; studies suggest that the annual economic impact of these infections is in the billions of dollars.<sup>4,5,6</sup>

Unfortunately, reported compliance rates from direct observation are inflated by the Hawthorne Effect—the tendency of individuals to improve their behavior when they are conscious that an observer is present. A landmark study published in 2014 found that reported hand hygiene figures may be inflated up to 300% due to the Hawthorne Effect.<sup>7</sup>

Presented with this skewed data, hospital leaders are often unable to recognize the opportunity to improve financial and clinical outcomes through higher hand hygiene compliance. Or they may believe that the costs exceed the benefits, because the already-high compliance rates reported through direct observation programs are unlikely to show significant improvement in response to interventions launched by the hospital.

# Components of a Sustainable Strategy to Improve Hand Hygiene Performance

Achieving sustained improvement in hand hygiene performance requires a combination of education, planning, and technology. Here are some of the steps hospitals can take to support a successful outcome.

## Secure Commitment and Alignment at All Levels of the Organization

Without commitment from senior leaders, no hand hygiene initiative is likely to deliver the desired results. Managers and frontline staff simply will not be able to dedicate the time and resources required for success. Balancing tight budgets and competing priorities is part of the daily routine in hospitals, and if hand hygiene isn't a priority for the organization, improvement projects will inevitably be buried under other tasks.

## Develop an Accurate Baseline Measurement of Current Compliance Rates

Many hospitals are reporting inflated compliance rates as a result of the Hawthorne Effect, making it difficult for them to assess the impact of clinical interventions. Before starting new hand hygiene initiatives, hospitals need to ensure that they have a realistic picture of current compliance rates—and the ability to measure changes accurately. Supplementing existing direct observation programs with electronic monitoring technologies can help establish an accurate baseline.

## Define Your Goals—and Create a Realistic Plan to Achieve Them

While the general goal—improved hand hygiene and reduced HAI rates—may be common to all hospitals, the specific objectives facilities set for themselves vary between organizations. Each hospital has unique cultural, financial, and operational factors to consider.

Hospitals also need to ensure that they set a realistic timeline for improvement. If the current compliance rate is 40% and the goal is to reach 80%, that change is not going to occur overnight. It takes years to instill new habits in staff, so it is critical to sustain interventions and provide positive reinforcement even after compliance rates have reached the desired level.

It can be helpful to break the desired performance improvement into multiple smaller steps. For example, rather than shooting for 80% right off the bat, a hospital could seek to improve from 40% to 50% and sustain that level for a period of time before moving on to a new phase of intervention aimed at reaching 60%. By using this stepped model, organizations can better evaluate the effectiveness of different interventions and focus on identifying barriers in areas or groups that lag in improvement.

## Examine Employees' Workflows and Identify Hand Hygiene Barriers

Do workers have easy access to soap or sanitizer dispensers, or do they have to go out of their way to clean their hands? Adjusting the placement of dispensers to make them more accessible can have a significant positive impact on compliance rates. When considering potential interventions, hospitals should take a hard look at their employees' daily routines to identify any other obstacles they are facing and develop targeted solutions.

## Identify “Positive Deviants” and Assemble a Performance Improvement Team

In most groups, there are individuals who face the same obstacles as their peers, but manage to overcome the challenges and reach their goals more effectively. Within the hospital staff, these are the employees who figure out how to make time for hand hygiene within their busy schedule. These “positive deviants” make ideal members of performance improvement teams due to their clear motivation and ability in overcoming barriers to success.

## Over-Communicate

An intervention may be specifically targeting one area or group within the hospital, but there are probably many workers outside of the target unit who are involved with its patients. These stakeholders need to be informed about the hand hygiene initiative, or they could unknowingly impede its progress. Engaging more employees will also help spread knowledge to other parts of the hospital, increasing the potential impact of the intervention.

## Make Hand Hygiene Visible

It’s hard to change human behavior, especially when the problem is largely invisible on a day-to-day basis. While nurses and other staff members must deal with the impact of HAIs, they can’t look down at their hands and see the microscopic germs that they picked up from a countertop or a patient’s bedside table.

The lack of natural visual cues makes it extremely important for interventions to be highly visible so workers are reminded of the need to clean their hands even when they don’t appear to be dirty. This could involve posters, prominently placed dispensers, or anything else that helps workers be more mindful of hand hygiene. Depending on the hospital’s culture, posting different units’ compliance rates to stoke a friendly competition could help drive engagement in the hand hygiene initiative.

## Keep Interventions Fresh—and Tailor Them for Different Units

Over the course of any intervention, hospitals will inevitably face a growing fatigue factor within the target units. Even the most eye-catching display will eventually blend into the background for those who see it every day. Furthermore, as compliance rates improve, new challenges will emerge. To keep workers engaged in hand hygiene performance improvement, it is essential to continually introduce fresh initiatives that address the current concerns of frontline staff.

Research has shown that multi-year performance improvement initiatives featuring different types of clinical interventions are effective. A teaching hospital in New Hampshire successfully used this strategy to raise its compliance rate from 41% in 2006 to more than 90% in 2009.<sup>8</sup>

Subsequent analysis of these results revealed that, despite significant improvement in overall hand hygiene performance, compliance rates varied widely between groups, areas, and types of workers. This finding indicates that interventions may need to be tailored based on the group or area being targeted.

## Measure Your Progress—and Relevant Clinical Quality Metrics

Because of the Hawthorne Effect, direct observation alone may not be sufficient to demonstrate the value of keeping resources committed to improvement projects. New electronic monitoring technologies promise to capture large, accurate, and unbiased data sets, which are far more useful in evaluating the impact of clinical interventions.

Hospitals should also seek to correlate improvements in hand hygiene with positive clinical outcomes. For example, if an increase in compliance occurs alongside a drop in the prevalence of MRSA or C-diff, the ability to correlate these outcomes will help senior leaders see the value of hand hygiene and keep them engaged in the performance improvement project.

### **Offer Reinforcement to Frontline Staff**

When hospital leaders are engaged in a hand hygiene initiative, there are multiple ways for them to support frontline workers. Even simple steps to acknowledge and show interest in the program will make a difference to the staff. At the same time, getting a ground-level view of the challenges these workers face will help leadership ensure that its performance-improvement strategy is properly targeted.

## **Overcome Internal Resource Constraints With Help From a Committed Partner**

Pursuing a full-scale hand hygiene improvement strategy with all of the components outlined above requires a significant commitment of human and financial resources. For hospital leaders, the prospect of making these investments can be daunting, even if the potential benefits are understood. As a result, many organizations are bringing in external resources to bridge the gap and drive successful performance improvement projects.

At GOJO, we're committed to helping our clients make the best use of their precious time and financial resources. We offer a flexible portfolio of solutions that can be tailored to work in any hospital, and we start every engagement with an assessment of the staff's goals, needs, and culture. This helps us to determine what will work best for the organization and create a customized improvement plan.

Our comprehensive programs combine advanced hand hygiene products and monitoring technology with education, training, and ongoing support backed by clinical expertise. Our high-tech solutions and high-touch engagement empower hospitals to achieve sustained improvement in hand hygiene—and translate that performance improvement into positive financial and clinical outcomes.

<sup>1</sup> McGuckin, M., Waterman, R., Govednik, J. "Hand hygiene compliance rates in the United States—a one-year multicenter collaboration using product/volume usage measurement and feedback." *American Journal of Medical Quality*. 2009.

<sup>2</sup> Kirkland, et al. "Impact of a hospital-wide hand hygiene initiative on healthcare-associated infections: results of an interrupted time series." *BMJ Quality & Safety Journal*. July 2012.

<sup>3</sup> Brunk, D. "Hand hygiene alone may cut hospital-onset MRSA." *International Medical News Group*. July 2009.

<sup>4</sup> Magill et al. "Multistate point- prevalence survey of health care associated infections." *N Engl J Med* 370. 13 March 2014.

<sup>5</sup> Stone et al. "Economic burden of healthcare associated infections: an American perspective." *Expert Rev. Pharmacoeconomics Outcomes Res.* 9(5), 417–422. 2009.

<sup>6</sup> Douglas Scott II, R. "The direct medical costs of healthcare-associated infections in U.S. hospitals and the benefits of prevention." Centers for Disease Control and Prevention. March 2009.

<sup>7</sup> Srigley, et al. "Quantification of the Hawthorne effect in hand hygiene compliance monitoring using an electronic monitoring system: a retrospective cohort study." *BMJ Quality & Safety Journal*. 2014.

<sup>8</sup> Homa, K, Kirkland K. "Determining next steps in a hand hygiene improvement initiative by examining variation in hand hygiene compliance rates." *Wolters Kluwer Quality Management in Health Care*. 20(2), 116–21. April–June 2011.



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