

# The Role of Hospital Leadership in Reducing HAIs

Today, it's considered common knowledge that hand hygiene is one of the best defenses against healthcare-associated infections (HAIs). Nonetheless, frontline healthcare professionals face multiple obstacles in their efforts to practice sound hand hygiene on a daily basis. Some of the main challenges include:

- **Lack of time and resources:** In a fast-paced hospital environment, even the few moments needed to properly wash or sanitize hands can seem like an unacceptable diversion from patient care. This is especially true when sinks or sanitizing stations are not readily accessible while nurses or other staffers are moving from room to room. Both of these issues—scheduling constraints and the availability of hand hygiene products—must be addressed to sustain improvements in hand hygiene and reduce HAIs.
- **Lack of training, feedback, and coaching:** It may seem silly for seasoned healthcare professionals to be trained on an activity they have been doing since childhood, but improper hand-washing techniques can leave behind dangerous pathogens. Furthermore, staff need to be instructed on when it is more efficient to use sanitizer, rather than washing with soap and water. Ongoing feedback and coaching are necessary to ensure all team members are adhering to optimal hand hygiene practices.
- **Lack of clear goals and accurate performance indicators:** Without a clear understanding of what is expected of them, staff will struggle to balance competing priorities and work towards organizational goals. It is especially hard to link daily behavior with long-term outcomes when hospitals lack an accurate, efficient, and reliable hand hygiene measurement system.

This white paper explores these challenges in depth, with a focus on practical steps hospital leadership can take to support sustained improvement in hand hygiene—reducing HAIs and improving patient outcomes in the process.

## The Historical Record Emphasizes the Need For Leadership on Hand Hygiene

During the 1800s, multiple doctors and scientists began experimenting with antiseptic techniques to improve the safety of surgical and obstetrical procedures. Many of the earliest advances in hand hygiene practices occurred in connection with the treatment of puerperal (childbed) fever, including:

- Dr. Oliver Wendell Holmes collected evidence about the spread of childbed fever and concluded that physicians were unwittingly spreading the disease from patient to patient via invisible pathogens on their hands. Holmes described his theory in an article titled “The Contagiousness of Puerperal Fever,” published in the *New England Quarterly Journal of Medicine and Surgery* in 1843.<sup>1</sup>

- Dr. Ignaz Semmelweis advocated strict hand hygiene policies at the maternity ward in Vienna General Hospital, where nearly one-third of the patients were dying of childbed fever in the 1840s. Infection and mortality rates plummeted after doctors began washing their hands with a chlorine solution. Semmelweis published his seminal work, “The Etiology, the Concept, and the Prophylaxis of Childbed Fever” in 1861.<sup>2</sup>
- Dr. Joseph Lister, a British surgeon, began experimenting with carbolic acid to kill germs during the 1860s, inspired by the work of French microbiologist Louis Pasteur. Lister publicized his findings in 1867 through a series of articles published in the medical journal *The Lancet*.<sup>3</sup>

Although these early innovators would be vindicated in time, their findings were considered highly controversial at the time, and the slow reaction of the medical establishment perpetuated unsafe practices that led to countless infections and deaths in hospitals. For years after Holmes published his paper, leading medical schools in the United States continued to teach students that puerperal fever was not contagious and unrelated to hand hygiene. Meanwhile, Semmelweis’ conflicts with colleagues at Vienna General precipitated his departure from that institution and slowed the adoption of his recommendations about hand hygiene.

Despite the reluctance of the day’s healthcare leaders to take action on hand hygiene, the concepts promoted by Holmes, Semmelweis, Lister, and other innovators gained widespread acceptance during the late 1800s. Physicians’ understanding of these issues continued to evolve during the following century, and today, hand hygiene is widely recognized as a cornerstone of infection control.

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An institutional focus on reducing HAIs has helped to raise awareness of the importance of hand hygiene. For example:

- The U.S. Centers for Disease Control and Prevention published *Hand Hygiene Guidelines for Healthcare Workers* in 2002—citing regular hand washing and use of alcohol-based hand sanitizers as “one of the most important ways to prevent the spread of infections” in hospitals.<sup>4</sup>
- The World Health Organization released *Guidelines on Hand Hygiene in Health Care* in 2009—echoing the CDC’s support for robust hand hygiene practices, including the regular use of alcohol-based sanitizers.<sup>5,6</sup>
- Accrediting agencies now require hospitals to demonstrate processes for measuring and improving hand hygiene compliance rates.

In spite of these high-level efforts to promote hand hygiene, it remains difficult for hospitals to show sustained improvement in compliance rates. Consider the following:

- Among U.S. hospitals, the **average hand hygiene compliance rate is below 50%**.<sup>7</sup>
- About **5% of all hospitalized patients contract HAIs**.<sup>8</sup>
- Up to **40% of HAIs are transmitted to patients from hospital employees**.<sup>9</sup>
- Approximately **750,000 HAIs and 80,000** related deaths occur every year.<sup>10</sup>

Tackling this multi-faceted challenge effectively requires a comprehensive strategy to sustain higher compliance rates. The Joint Commission Center for Transforming Healthcare has advocated a data-driven approach that helps hospitals to deploy targeted solutions based on their unique needs, goals, and culture. According to the Joint Commission, organizations participating in the Hand Hygiene Project have:

- **Increased hand hygiene compliance by 23%**—and sustained higher rates.<sup>11</sup>
- **Reduced HAIs by between 26% and 45%**—and realized significant financial savings as a result.<sup>12</sup>

Below, we'll draw on the results of the Joint Commission's work to examine five best practices hospitals can use to sustain improvement in hand hygiene.

## 5 Ways Leadership Can Advance a Comprehensive Approach to Reducing HAIs

### Proactive Communication

The first step in a successful hand hygiene improvement plan is to secure top-to-bottom alignment around common goals. Frontline staffers need to understand how any upcoming changes will affect their day-to-day lives and why hand hygiene is a priority for the organization—and managers must be prepared to explain the details and allocate resources as needed. Without education and commitment at all levels of the organization, hand hygiene initiatives are likely to founder amid competing priorities.

### Accurate, Objective Measurement

The Joint Commission notes that developing an accurate baseline measurement of compliance rates was a critical part of its successful Hand Hygiene Project—and leadership figures at the participating hospitals were surprised to learn that their reported hand hygiene rates were significantly inflated. Many other hospitals may have similar surprises in store; a recent study published in the *BMJ Quality & Safety Journal*<sup>13</sup> found that direct observation leads to reported compliance rates being inflated up to 300%.

Due to the industry's ongoing reliance on direct observation as the primary method of measuring hand hygiene, the next step for many hospitals is to implement a more accurate, efficient, and reliable measurement system. This can involve using mobile applications to make direct observation more efficient, or a more robust electronic monitoring system.

Electronic monitoring offers several key advantages over direct observation, including:

- **24/7 monitoring** produces a much larger data set, covering every shift. This allows leadership to identify high-performing units and those that are struggling, facilitating the design of targeted interventions.
- **Objective data** is captured and reported by the electronic system, eliminating human biases and methodological variations that could skew the results.
- **Less labor** is required for observation and reporting, leaving infection preventionists with more time to devote to training, coaching, and other activities that directly improve clinical quality.

### Realistic Goals

Once hospital leaders are able to develop an accurate baseline measure of hand hygiene compliance and track changes over time, they can start setting goals for improvement. It is critical to focus on achieving sustainable improvement by setting a series of small, realistic goals that can be met over time.

For example, if a hospital is hoping to improve from 40% compliance to 80%, it could take years for workers to sufficiently adapt their behavior. During that time, it is valuable for staff to be able to focus on shorter-term objectives. At first, the hospital can work to reach 50% compliance—and sustain it. Then the goal becomes 60%, and so on, until the ultimate goal is achieved.

At each step, leadership can examine the results of the latest phase of improvement, identify best practices and residual obstacles, compare success rates for different types of interventions, and design a more targeted plan for the next phase.

### Ongoing Engagement

Leadership needs to continually emphasize that hand hygiene is a priority and provide reinforcement to frontline staff. There can be significant benefits to even relatively low-key activities such as having executives tour a high-compliance unit to understand how its members approach hand hygiene. Not only will the visit encourage the staff, but it will also give decision makers a ground-level view of the challenges they are facing.

At a more granular level, supervisors and infection preventionists should be empowered to provide feedback and coaching to nurses, doctors, and other personnel. Implementing an electronic monitoring system can help by freeing up time and providing objective data for performance evaluations.

### Long-Term Commitment

It's critical for all parties to remember that improving hand hygiene isn't a short-term, one-time project; it's an ongoing campaign. As compliance rates improve, the challenges will not disappear—they will evolve. Hospital leaders need to be prepared to support a long-term effort that requires substantial investments of time, energy, and money to be successful.

Unfortunately, hospitals often lack the internal resources to launch a full-scale hand hygiene program.

As a result, many leading institutions are seeking external partners to help them achieve their hand hygiene goals. When selecting a vendor, hospitals must remember that they need a comprehensive, yet flexible solution.

GOJO combines technology, products, and clinical expertise to help hospitals sustainably increase hand hygiene and reduce HAIs. Our high-tech, high-touch engagement begins with an assessment of current compliance rates and obstacles to improvement. From this starting point, we work with your staff to develop a practical, sustainable plan to strengthen hand hygiene practices and demonstrate measurable improvement in metrics related to clinical quality and financial performance.

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