

## Measure Background

Unclean hands are one of the primary ways pathogens are transmitted throughout the health care environment. Evidence shows that microorganisms can survive on hands for varying lengths of time, some surviving for multiple hours.<sup>1</sup> If those caring for patients do not take the proper steps to clean their hands, these pathogens can easily be transmitted from one patient to another patient. In addition to patient-to-patient transfer of pathogens, contaminated hands can also transfer bacteria to clean surfaces. It is estimated that up to 13% of contact between contaminated hands and clean surfaces can result in cross-contamination.<sup>1</sup> This risk of spreading bacteria in a health care environment makes hand hygiene a pivotal patient safety practice.<sup>2</sup>

Despite the clear evidence and guidelines for proper hand hygiene procedures, studies have shown that on average, health care providers clean their hands less than half of the times they should.<sup>3</sup>

## Why is Hand Hygiene Important?

While it is difficult to definitively measure the impact of improved hand hygiene on rates of healthcare-associated infections (HAI), evidence does support the notion that improved hand hygiene practices drastically reduce HAIs.<sup>4</sup> Multiple studies have demonstrated a temporal relationship between improved hand hygiene practices and reduced HAI rates.<sup>4</sup> For example, a study of hand hygiene compliance for hand washing and the use of alcohol-based hand sanitizer demonstrated that an increase from 48% to 66% compliance over a three-year period was correlated with a reduction in nosocomial infections from 16.9% to 9.9% and a reduction in methicillin-resistant *Staphylococcus aureus* (MRSA) transmission from 2.16 to 0.93 episodes per 10,000 patient-days.<sup>5</sup> Some have even demonstrated the elimination of MRSA from various care settings solely due to improved hand hygiene practices.<sup>6</sup>

## Hand Hygiene Standard

Leapfrog's hand hygiene standard focuses on adherence to "best practice" hand hygiene practices identified by a national [Hand Hygiene Expert Panel](#) and adapted from the World Health Organization's "[Hand Hygiene Self-Assessment Framework](#)."<sup>7</sup>

Leapfrog's hand hygiene standard includes five domains: monitoring, feedback, training and education, infrastructure, and culture. The standard encourages facilities to adopt a multimodal approach to hand hygiene, emphasizing the importance of monitoring and feedback.

Hospitals achieving the Hand Hygiene standard...

- Adhere to the [monitoring domain](#) by:
  - Collecting hand hygiene compliance data on at least **200** hand hygiene opportunities (or a minimum threshold number of hand hygiene opportunities based on unit throughput), **each month, in each patient care unit**;
  - Providing individuals who touch patients or who touch items that will be used by patients with feedback on their hand hygiene compliance; and,
  - Using an electronic compliance monitoring system and/or direct observation methods that meet Leapfrog's criteria for collecting hand hygiene compliance data
- Adhere to the [feedback domain](#) by:
  - Providing feedback on hand hygiene compliance data to individuals who touch patient or who touch items that will be used by patients for monthly improvement work;
  - Using hand hygiene compliance data for creating action plans; and,
  - Providing feedback on hand hygiene compliance data to hospital or ASC leadership and holding leadership accountable for hand hygiene performance through performance reviews or compensation
- Adhere to two of the other following domains:
  - Training and Education
  - Infrastructure
  - Culture

OR

- Adhere to the [monitoring domain](#) by:
  - Collecting hand hygiene compliance data on at least **100** hand hygiene opportunities (or a minimum threshold number of hand hygiene opportunities based on unit throughput), **each month, in each patient care unit**;
  - Providing individuals who touch patients or who touch items that will be used by patients

- with feedback on their hand hygiene compliance; and,
- Using an electronic compliance monitoring system and/or direct observation methods that meet Leapfrog's criteria for collecting hand hygiene compliance data
- Adhere to **all** the following domains:
  - Feedback
  - Training and Education
  - Infrastructure
  - Culture

Download the complete Leapfrog Hospital Survey scoring algorithms document at [Hospital Scoring and Results webpage](https://www.leapfroggroup.org/hospital-survey/scoring-algorithms).

## Why Purchasers Need to Get Involved

While compliance with proper hand hygiene appears to be an evidence-based method for preventing HAIs, facilities have demonstrated varying levels of adherence to adequate hand hygiene practices.<sup>8,9</sup> The issue of hand hygiene offers purchasers an opportunity to reinforce to hospitals that patient safety is important. And that by demonstrating compliance with Leapfrog's hand hygiene standard, it will send a clear signal that the facility prioritizes patient safety.

Given the importance of ensuring that those caring for patients are practicing hand hygiene and the limitations of human observers, it is critical that purchasers send the message that they expect hospitals to consider implementing electronic hand hygiene compliance monitoring systems. Facilities that have adopted electronic compliance monitoring systems are better able to determine their actual hand hygiene compliance rate, creating the opportunity for more robust quality improvement initiatives. The potential cost savings to an employer of reducing HAIs are tremendous, though pales in comparison to the potential for reduced harm to employees.

## References

1. Pittet D, Allegranzi B, Sax H, et al. Evidence-based model for hand transmission during patient care and the role of improved practices. *Lancet Infect Dis*. 2006;6:641-652.
2. Pittet D, Allegranzi B, Boyce J. The World Health

Organization guidelines on hand hygiene in health care and their consensus recommendations. *Infection Control and Hospital Epidemiology*. 2009;30(7):611-622.

3. Sidibe S. Clean Hands Count: A Story of Success. *CDC Foundation*. 2017. Available at <https://www.cdcfoundation.org/blog/clean-hands-count-story-success>
4. Centers for Disease Control and Prevention. Guideline for hand hygiene in health-care settings. *Morbidity and Mortality Weekly Report*. 2002;51(RR-16):1-56.
5. Pittet D, Hugonnet S, Harbarth S, et al. Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. *The Lancet*. 2000;356(9238):1307-1312.
6. Webster J, Faoagali J, Cartwright D. Elimination of methicillin-resistant *Staphylococcus aureus* from a neonatal intensive care unit after hand washing with triclosan. *J Paediatr Child Health*. 1994;30:59-64.
7. World Health Organization. Hand hygiene self-assessment framework 2010. Available at <https://www.who.int/publications/m/item/hand-hygiene-self-assessment-framework-2010>
8. Albright J, White B, Pedersen D, Carlson P, Yost L, Littau C. Use patterns and frequency of hand hygiene in healthcare facilities: Analysis of electronic surveillance data. *American Journal of Infection Control*. 2018 Oct 1;46(10):1104-9
9. Stahmeyer JT, Lutze B, Von Lengerke T, Chaberny IF, Krauth C. Hand hygiene in intensive care units: a matter of time?. *Journal of Hospital Infection*. 2017 Apr 1;95(4):338-43.

For a comprehensive list of references please review the Hand Hygiene Bibliography, available at: <https://ratings.leapfroggroup.org/measure/hospital/2024/handwashing>