

# Healthcare-acquired Infections and Financial Impact to Healthcare Organizations



## + The Issue

Healthcare-acquired infections (HAIs), also known as nosocomial infections, are infections that patients acquired after hospitalization or treatment, that were not present at time of admission. The most recent prevalence study in England established that 6.4% of hospital inpatients develop health care-associated infections (HCAs).<sup>1</sup>

The hands of staff are the most common vehicles for transmitting microorganisms between patients<sup>2</sup> and frequent hand washing remains the single most important intervention in infection control.<sup>3</sup> Not surprisingly, hospital staff believe that they wash their hands more often than they actually do, and they also overestimate the duration of hand washing.<sup>4</sup> Unfortunately, without very intentional intervention and education, behaviors are unlikely to change, to some degree, because hospital leadership and health professionals suffer from the "Omo syndrome," a belief that they are always super clean and sterile.<sup>5</sup>

## + The Cost

Improper hand hygiene by healthcare workers (HCWs) is responsible for about 40% of HAIs.<sup>6</sup> According to the CDC, HAIs in U.S. hospitals have direct medical costs of at least \$28.4 billion each year. They also account for an additional \$12.4 billion in costs to society from early deaths and lost productivity.<sup>7</sup>

Duke University researchers report that surgical site MRSA infections cost as high as \$60,000 per case. The average infection case costs \$15,275. For a 500-bed hospital at the current infection rate, this means 194 unnecessary deaths and \$28 million in unnecessary costs per year.<sup>8</sup>

Non-medical costs related to HAI include the cost of medical claims and litigation. The typical hospital is the target of seven HAI-related lawsuits per year with an average settlement of \$1.5 million, for a total of \$10.5 million per hospital.<sup>9</sup>

HAIs are also a risk to the reputation of the institution and patient perception of cleanliness and care quality.

The Centers for Medicare and Medicaid Services (CMS) has instituted mandatory reporting for HAIs. The worst-performing 25 percent of all hospitals are subject to a 1-percent payment reduction for all Medicare claims.<sup>10</sup> Since these penalties are based on the total Medicare revenue for an institution, even a one percent reduction can lead to large penalties, resulting in reductions averaging nearly \$500,000 among the penalized hospitals.<sup>11</sup>



## THE RESPONSE

Continued monitoring and educational efforts can improve hand washing habits and Larson et al reported that by providing feedback to staff regarding the frequency of hand washing, compliance improved by 92%.<sup>12</sup>

Compliance to hand hygiene protocols has been shown to increase when staff is aware of someone monitoring or observing their behavior (the Hawthorne effect). Studies also found that the use of electronic monitoring systems led to rapid, significant improvements in hand hygiene performance within a 2-year period.<sup>13</sup>

## SOURCES

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6483670/>
- [https://www.journalofhospitalinfection.com/article/0195-6701\(83\)90040-3/pdf](https://www.journalofhospitalinfection.com/article/0195-6701(83)90040-3/pdf)
- <https://pmj.bmj.com/content/77/903/16>
- <https://www.sciencedirect.com/science/article/abs/pii/S019567019490149X>
- <https://pmj.bmj.com/content/77/903/16#ref-8>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3862659/>
- <https://www.cdc.gov/policy/polaris/healthtopics/hai/index.html>
- <https://www.wphealthcarenews.com/wp-content/uploads/2011/01/OverlookedUnderprotected.pdf>
- <https://www.beckershospitalreview.com/quality/hospital-acquired-infections-by-the-numbers.html>
- <https://qualitynet.cms.gov/inpatient/hac>
- <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-021-06108-w>
- [https://www.gjicjournal.org/article/S0196-6553\(97\)90046-8/pdf](https://www.gjicjournal.org/article/S0196-6553(97)90046-8/pdf)
- <https://academic.oup.com/cid/article-abstract/71/10/e680/5818269>