WHY HAND HYGIENE IS CRUCIAL FOR PATIENT SAFETY IN 2023

With rising HAIs and intensifying staffing shortages threatening patient safety, improving hand hygiene will be more critical than ever in 2023.

CleanHands SAFE•HANDS

Patient acuity is up.[1] Staffing shortages persist. Budgets are tight. And regulatory agencies are again publicly reporting patient safety data. It's time to double down on one of the most effective, simple, and low-cost patient safety interventions: **hand hygiene.**

All Eyes on Patient Safety

Healthcare-associated infections (HAIs) remain among the top five killers in the United States.[2]

The 2023 launch of the National Healthcare System Action Alliance to Advance Patient Safety is bringing patient safety into the spotlight. Payors, providers, politicians, and consumers are watching – and they expect improvement.

Although HAIs trended downward for years, thanks to intensive efforts by healthcare providers, they have increased dramatically since 2019.

- **Central line-associated bloodstream infections (CLABSIs) increased 24%** between 2019 and 2020, and **another 7%** between 2020 and 2021.
- **Ventilator-associated events (VAEs)** – respiratory infections related to the use of mechanical ventilation – **increased 35%** between 2019 and 2020 and **another 12%** between 2020 and 2021.
- **Hospital-onset Methicillin-resistant staph aureus (MRSA) infections increased 15%** between 2019 and 2020 and another 14% between 2020 and 2021.

	2018	2019	2020	2021
CLABSI	▲ 9% increase	▼ 7% decrease	▲ 24% increase	▲ 7% increase
CAUTI	▼ 8% decrease	▼ 8% decrease	— No significant change	▲ 5% increase
VAE	▼ No significant change	▲ 2% increase	▲ 35% increase	▲ 12% increase
MRSA	— No significant change	— No significant change	▲ 15% increase	▲ 14% increase

Source: CDC 2018 National and State Healthcare-Associated Infections Progress Report

These increases are understandable, as health systems were working under incredible, unprecedented stress during the COVID-19 pandemic. But although health systems are still experiencing the aftershocks of the pandemic – including significant staff shortages – the **current levels of HAIs are unacceptable.** Immediate improvements must be made to protect patient safety.

2023 Focus: Patient Safety & Hand Hygiene

- **Centers for Medicare and Medicaid Service (CMS)** will publicly report PSI 90 data (a composite measure of 10 serious preventable errors including post-operative sepsis rates) in 2023.[3]
- In 2022, the **Leapfrog Group** allowed hospitals to meet its Hand Hygiene Standard by collecting compliance data on just 100 hand hygiene opportunities vs the 200 opportunities originally required.[4] There is no word yet how long this alternative path will be available. Hospitals that want to achieve a high 2023 Leapfrog Hospital Safety Grade should aim to record at least 200 hand hygiene opportunities per unit per month.

Hand Hygiene: The Key to Protecting Patient Safety

Hand hygiene is widely accepted as the cornerstone for preventing HAIs.[5]

Healthcare-associated infections (HAIs) are one of the most prevalent – and significant -- threats to patient safety.[6] Approximately **10% of HAIs are fatal**. According to the World Health Organization (WHO), 1 in 10 affected patients die because of an HAI, with nearly 100,000 HAI-related deaths recorded annually in the United States.[7,8]

Effective hand hygiene is key to protecting patient safety. **Appropriate hand hygiene can prevent up to 50% of avoidable infections.**[9]

The good news: One of the most impactful things you can do to protect patient safety is also **simple and cost-effective**. Hand hygiene can dramatically reduce HAIs, patient morbidity, and patient mortality.

The True Cost of HAIs

Healthcare-associated infection cost U.S. acute care hospitals **$122 – $147 billion annually** in direct and indirect costs.

HAIs increase resource use.

Patients who develop HAIs require additional blood tests, medications, imaging scans, medical supplies, and care.

On any given day, one in 31 hospital patients has an HAI, according to the U.S. Centers for Disease Control and Prevention. So, a 500-bed hospital may be treating 16 patients with HAIs at any given time.

In 2018, researchers found that it takes approximately $38,500 per patient to treat MRSA-associated pneumonia; in 2022 dollars, that's nearly $45,000. Treating just 16 HAIs can cost a hospital well over half a million dollars.

HAIs increase length of stay.

The average length of stay for a hospitalization in the U.S. is 5.5 days. The median length of stay for a hospitalized patient with a HAI is 28 days .

HAIs decrease revenue generation.

Medicare and some other health insurance companies do not reimburse for care associated with HAIs. And because patients with HAIs remain in the hospital longer than they otherwise would, they take up space that could instead be occupied by revenue-generating patients.

Preventing one HAI allows hospitals to admit an additional 4.62 patients, leading to a net gain. That means that 1 HAI essentially eliminates the income a hospital might generate with 4-5 other patients.[10]

Preventing just one HAI can **increase hospital profits by more than $600,000.**[11]

A Powerful, Under-Utilized Patient Safety Strategy

Hand hygiene is the single most important tool to prevent cross-contamination of pathogens in hospitals.[12]

Ignaz Philip Semmelweis, the 19th century Hungarian physician who realized that handwashing could reduce HAIs, is today known as the "father of hand hygiene."[13]

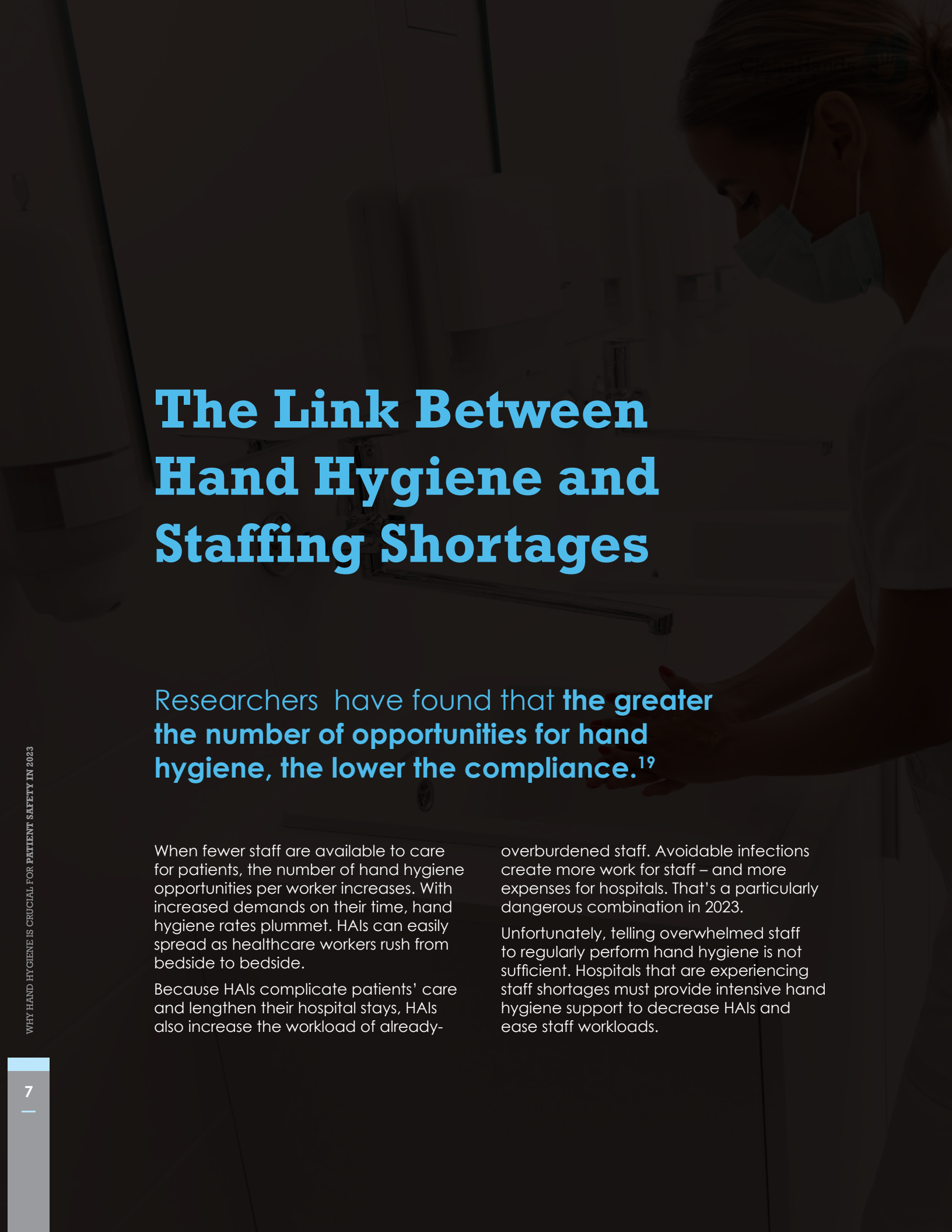
His colleagues, however, did not embrace hand hygiene. They ridiculed Semmelweis, and most refused to alter their clinical habits. Some doctors were offended; many resisted and criticized efforts to promote handwashing. [14]

The healthcare community failed to adopt a simple intervention that could save lives.

More than a century later, **healthcare providers still sanitize their hands less often than they should**, even though the link between hand hygiene and HAIs is well-known and universally accepted.

- On average, healthcare providers clean their hands less than half the times they should.[15]
- Healthcare workers estimate their hand hygiene compliance prior to touching patients at 80%. Actual compliance is often as low as 12%.[16]
- Hand hygiene compliance before gloving is just 42%.[17]
- Doctors and nurses estimate an average hand hygiene compliance rate of almost 70% after touching patient surroundings. Actual compliance is 18%.[18]

Human beings are attracted to novelty, so it's easy to overlook simple solutions. When faced with a persistent problem, humans (and health organizations) often look for novel answers. But **one of the best ways to protect patient safety is also the simplest: regular hand hygiene.**



The Link Between Hand Hygiene and Staffing Shortages

Researchers have found that **the greater the number of opportunities for hand hygiene, the lower the compliance.**[19]

When fewer staff are available to care for patients, the number of hand hygiene opportunities per worker increases. With increased demands on their time, hand hygiene rates plummet. HAIs can easily spread as healthcare workers rush from bedside to bedside.

Because HAIs complicate patients' care and lengthen their hospital stays, HAIs also increase the workload of already-overburdened staff. Avoidable infections create more work for staff – and more expenses for hospitals. That's a particularly dangerous combination in 2023.

Unfortunately, telling overwhelmed staff to regularly perform hand hygiene is not sufficient. Hospitals that are experiencing staff shortages must provide intensive hand hygiene support to decrease HAIs and ease staff workloads.

How to Improve Hand Hygiene Amidst Staffing Shortages

The US Centers for Disease Control and Prevention (CDC) acknowledged handwashing as "the most important procedure in preventing nosocomial infections."[20]

The COVID-19 pandemic proved that it's possible to boost hand hygiene rates even in crisis. At the University of Chicago Medical Center, hand hygiene compliance reached 100% in late March 2020, up from a pre-pandemic average of 54.5%.[21]

Unfortunately, the pandemic also underscored the difficulty of maintaining high rates of hand hygiene amid stress. By August 2020, hand hygiene compliance was 56%.[22]

Contrary to what you may believe, hand hygiene is not second nature to healthcare workers. Obvious patient needs take precedence over invisible threats. To boost (and maintain) hand hygiene rates:

Collect and share hand hygiene data

"Data collection is critical to compliance because it allows facilities to identify shortcomings and develop strategies to improve hand hygiene as well as patient and staff safety."

Healthcare Facilities Management, Feb. 11, 2021[23]

Healthcare providers think about hand hygiene more frequently than they perform it, which is one reason staff tend to over-estimate their hand hygiene compliance rates. A 2022 study under review by Antimicrobial Resistance and Infection Control notes that collecting and sharing objective hand hygiene compliance data allows leaders to "draw attention to current behavior and relevant self-images to create cognitive dissonance."[24]

When healthcare workers can see and track their hand hygiene performance, they can spot trends and adjust their behavior.

Provide reminders

Healthcare providers carry tremendous cognitive loads. External reminders reduce their cognitive burden. One health system experienced a 35% increase in average hand hygiene compliance after enabling the verbal reminders embedded in their electronic hand hygiene system.[25]

Reminders made a critical difference. The health system had tried 10 different interventions in 10 years to reduce HAIs. The only intervention that worked was regular use of an electronic hand hygiene system that included verbal reminders. Six months after reminders were enabled, **infections due to multi-drug resistant organisms decreased by 90%, CAUTIs by 60%, and C. diff. infections by 64%.**[26]

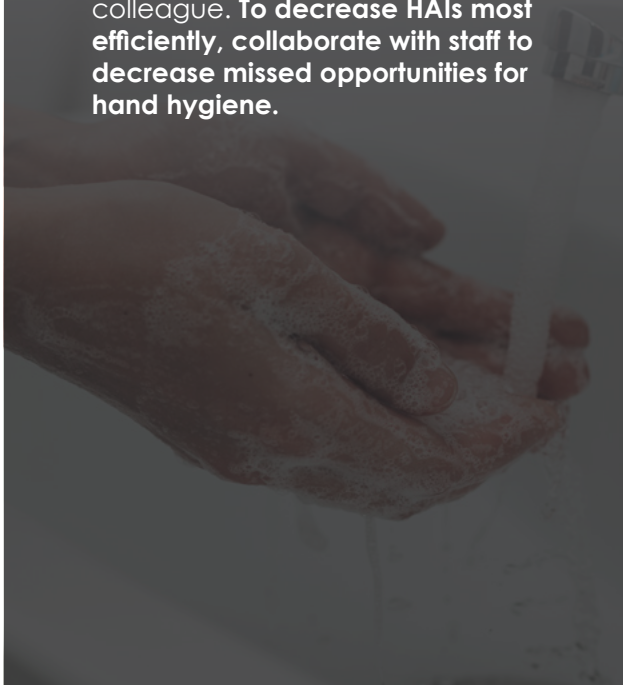
"Missed Opportunities" Matter

Tracking hand hygiene rates allows you to spot missed opportunities – and target your efforts so you can quickly decrease HAIs. Here's how:

A healthcare provider who has 1000 hand hygiene opportunities per week and a hand hygiene compliance rate of 80% misses 200 hand hygiene opportunities each week, on average. That's 200 chances for pathogens to spread.

In contrast, a healthcare worker who has 100 hand hygiene opportunities weekly and a 50% hand hygiene compliance rate misses 50 hand hygiene opportunities per week.

The first provider has an 80% hand hygiene rate but is at greater risk of spreading infection than his colleague. **To decrease HAIs most efficiently, collaborate with staff to decrease missed opportunities for hand hygiene.**



Clean Hands-Safe Hands Electronic Hand Hygiene System Can Help

Protect patient safety (and control costs) in 2023 by prioritizing hand hygiene. The Clean Hands-Safe Hands Electronic Hand Hygiene System can give your staff the consistent support they need to consistently perform hand hygiene.

The Clean Hands-Safe Hands System:

Includes the Natural Language Voice Reminder

People respond an average of 5 seconds quicker to speech alarms than sound tones.[27]

The Clean Hands-Safe Hands System is the only one on the market that utilizes a voice reminder. The system is pre-programmed with a human voice that says "please sanitize" when a provider fails to clean their hands. Hospitals can customize the Natural Language Voice Reminder to use the voices of trusted staff members and personalized messages. Reminders can be recorded in a variety of languages as well.

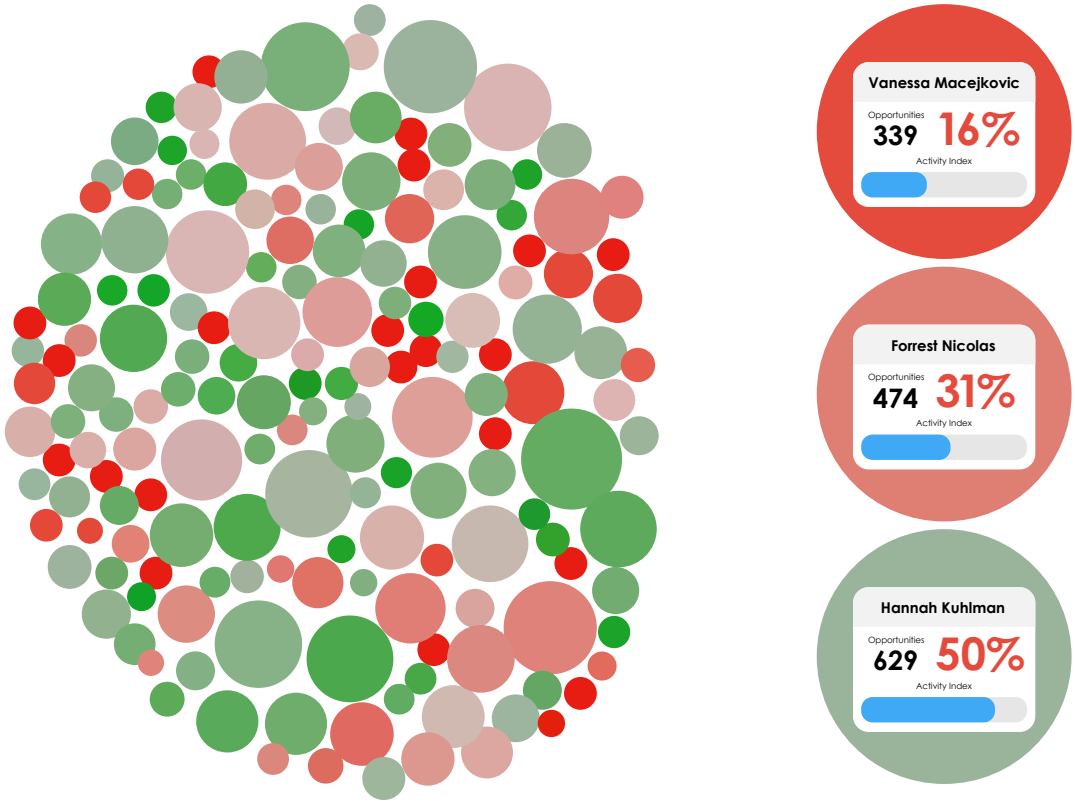
Collects individual data & presents "missed opportunities"

The Clean Hands – Safe Hands system uses Performance Bubble Plots to reflect both the hand hygiene performance and number of hand hygiene opportunities of individual providers. The size of each bubble represents the number of hand hygiene opportunities for a provider; the color of the bubble represents hand hygiene performance. **Dark green is good; dark red indicates room for improvement.**

Each Circle Represents a
Badged Clinician

Size of Circle Represents the Number of Total Hand Hygiene Opportunities
Larger Circles = More Opportunities

Color of Circle Indicates Performance
Darker Green = Higher
Darker Red = Lower



Automatically adapts to changing clinical conditions

The Clean Hand-Safe Hands system can integrate with your electronic medical records (EMR) system and automatically update hand hygiene reminders based on clinical parameters, further reducing the cognitive burden on busy staff. When a positive C. diff result is entered in the EMR, the system will adapt and remind staff to sanitize with soap and water instead of alcohol-based hand rub. Unit leaders can also manually update the system.

Doesn't add extra steps to clinical workflows

Staff don't need to don (or charge) a bulky wearable. The Clean Hands-Safe Hands badge reel is lightweight and non-obtrusive. And there's no need for staff to pause or place their hands over a wearable to get "credit" for hand hygiene. The Clean Hands-Safe Hands system automatically records all hand hygiene opportunities with zero impact on workflow.

Learn More

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