

Case Study: Achieving Increased Compliance and Infection Reduction by Staying Committed to Staff and Resident Safety



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Categories:

- ◆ Reduced Number of Infections
- ◆ Increased Reporting Capabilities

About the Organization

Organization Name:

Parker Health Group

Main Contributor:

James Dellapa, CIO

Organization Type:

Adult Day Care/Senior Centers, Assisted Living Facilities, Acute Rehab Facilities, Skilled Nursing Facilities, Memory Care Facility

Organization Description:

Parker Health Group is a non-profit organization based in New Jersey that specializes in aging services and long-term care. They have over 100 years' experience that is committed to empowering older Americans. Parker is a diverse community of more than 1,000 dedicated and passionate employees, caregivers, volunteers, thought leaders, researchers, educators, and partners. Their award-winning standards and approaches have made them a pioneer of inclusive aging services and long-term care residences.

Project Description

Long-term care residents have a higher risk of infection due to impairment, conditions, or overuse of antibiotics; many of which can be managed with proper hand hygiene ([World Health Organization](#)). Because direct observation can be misleading or overrepresent actual compliance, additional opportunities were sought out to enhance hand hygiene performance and reduce opportunities for infection. Parker's objective was to deploy an organization-wide hand hygiene solution to achieve sustainable positive change in caregiver hand hygiene resulting in reduction of health care-acquired infections, enhanced patient quality of life, and staff safety improvement.

Infection Control Modality

Hand Hygiene Compliance, Contact Tracing, Infection Prevention and Control Software Solutions.

System Embodiment

Badge, location beacons, Analytics Software.

Business Model

Medicare Advantage Program (Medicaid/Medicare), Private Insurance, Private Pay.

Implementation Approach

BioVigil's Hand Hygiene Solution was deployed across Parkers' five long-term care communities by January 2021. A wearable badge provides cues to care partners via audible, visual, and vibratory reminders when they have not performed hand hygiene: This includes both washing with soap and water at the sink or using an alcohol-based sanitizer. When a care partner performs hand hygiene, they bring their hand in front of the badge and the light turns green. If hand hygiene is not performed within a specified time, the badge turns yellow, and then red. The visual cues and data insights provide education opportunities for clinical leaders to engage with and coach care partners on Parker-specific hand-washing protocols and to ensure compliance.

Infection Control Preventionists and stakeholders created, defined, reviewed, and discussed the metrics below, which are used to measure activity and compliance at each home and across the organization:

- ◆ 95% overall hand-hygiene compliance
- ◆ No more than 4–5% opt-out rate
- ◆ Less than 1% cross-contamination compliance

This data is reviewed within Parker’s corporate infection control reporting, including at the home level, with infection control preventionists, the nursing team, and the Board of Trustees Quality Committee. Compliance reporting, learnings, and best practices are reviewed during monthly Quality Assurance and Performance Improvement meetings.

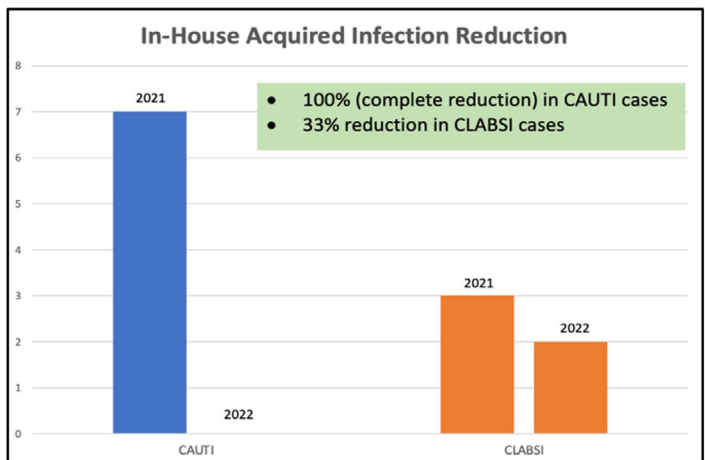
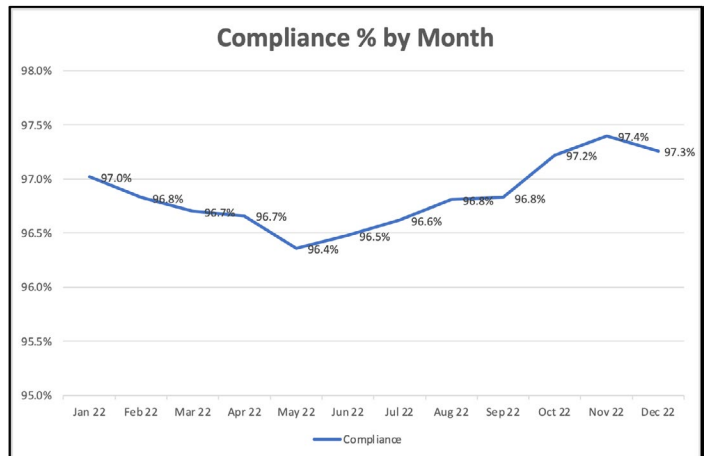
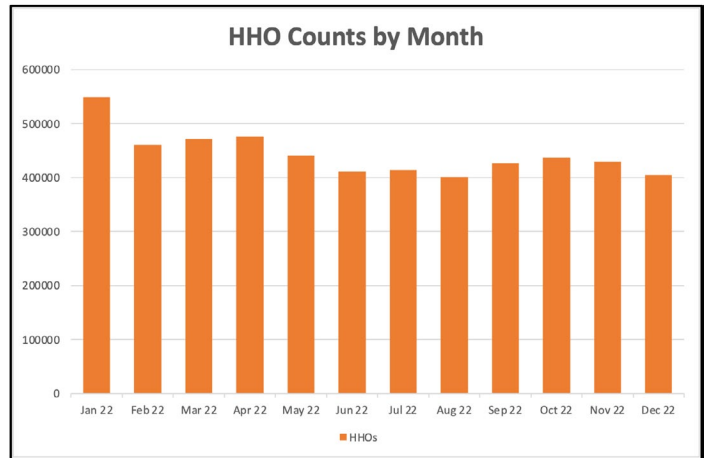
The team focused on an engagement and education approach, communicating the value to residents and staff, rather than focusing on low compliance. There was a grace period to allow care partners to become familiar with the technology before going live, enabling them to ask questions, try the technology, identify potential challenges, and feel that they contributed to the solution. With consistent and ongoing communication, Parker strived for transparency of information and data so care partners were aware of their successes and could address opportunities for improvement in real time.

Outcomes

Reduced Number of Infections, Increased Reporting Capabilities

Outcomes and recognition from 2021 to 2022 exceeded overall expectations:

- ◆ 100% reduction of in-house acquired CAUTI cases.
- ◆ 33% reduction of in-house acquired CLABSI infections.
- ◆ 96% + overall hand hygiene compliance.
- ◆ 99% non-cross-contamination aided by BioVigil’s cross-contamination alert sequence.
- ◆ Contact tracing helped staff identify where an infected person moved to quickly test and contain the spread of infection, especially during COVID.
- ◆ Staff time savings and efficiency versus direct observation.



Graphs for Cumulative Hand Hygiene Opportunities, Compliance, and In-house Infection Reduction

- ◆ Additional safety measures enforced with contact plus room protocol (requires hand wash with soap and water).
- ◆ Parker is the Gold recipient of McKnight's Tech Awards (2022) for Skilled Nursing in the Quality category for implementing BioVigil.
- ◆ Regulatory bodies have been impressed with the reports submitted. Since Parker began submitting BioVigil reports to the Department of Health, Parker has not received any hand hygiene violations.
- ◆ Positive feedback from care partners and family members for commitment to safety and quality.

"I am very proud of our organization for this achievement. BioVigil's technology has made a significant impact on reducing in-house acquired infections thanks to the increase in compliance with hand hygiene opportunities by the staff."

— Carolyn Bachonski,
Chief Clinical Officer, Parker Health

Lessons Learned/Advice to Share with Others

These five components are important keys to successful launch.

- ◆ Leadership engagement and timely communication
- ◆ Wearing the badge is mandatory
- ◆ Use data to assist with staff adoption and learning curve
- ◆ Dispel the notion that the badge is a tracking device (big brother)
- ◆ Availability and accessibility of hand sanitizer dispensers

Parker continues to receive comments and questions when family members and visitors enter their homes. The BioVigil badge raises questions, starts conversations, promotes engagement, and provides reassurance that Parker supports an organization-wide commitment to hand hygiene and infection control.