



From Pushcar to NASCAR®:

How Innovation Helped to Accelerate Patient Safety at Novant Health Matthews Medical Center

Novant Health is an integrated health network that consists of more than 640 locations spread over 4 states, including 15 hospitals, and over 1,600 physicians. Part of Novant Health, Matthews Medical Center (MMC) serves Matthews County, in Suburban Charlotte, North Carolina and its surrounding areas. The hospital has more than 157 licensed beds, nearly 1,000 employees, including 300 physicians, and the hospital admits 10,000 patients each year. MMC is also consistently recognized for quality having achieved Magnet® designation, earning a Leapfrog Safety Grade of an 'A' and receiving 5 stars from the Centers for Medicare and Medicaid Services.



Stuck in a Pit Stop

Hand hygiene is the most effective way to prevent the spread of infection, including common HAIs, such as C. Diff, MRSA, CAUTI, and CLABSI, yet adherence to hand hygiene best practices is reportedly low nationwide amongst clinicians and hospital staff. Like many hospitals, MMC previously relied on manual, pen and paper observation to monitor hand hygiene, regularly reporting near perfect compliance rates, with a small sample size of less than one thousand observations each month.

Building on their commitment to providing a world-class patient experience, effectively managing infection control, and establishing organizational excellence for patient safety, MMC partnered with SwipeSense to implement electronic hand hygiene monitoring.

Nearly 800 MMC team members wear SwipeSense Caregiver Badges, which collect data on hand hygiene activity at the employee, unit, and facility levels. When they launched SwipeSense, automated tracking revealed average hand hygiene compliance of 54% and one out of four staff members were identified as bottom performers with compliance as low as 25%. At the same time, some staff had as high as 90% compliance.

“ There was no excuse for the drastic difference in compliance from one employee to the next. SwipeSense data speaks for itself. Whether we wanted to hear it or not, we weren't doing great in hand hygiene and the data presented us with the truth.”

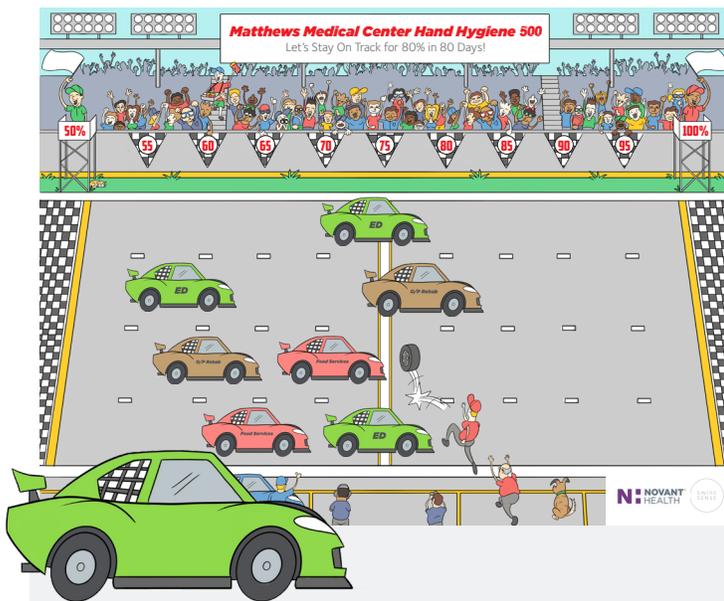
Tracy Forster

Chief Nursing Officer
Matthews Medical Center

Fueling Behavior Change

Hospital leaders, which included Roland Bibeau, President of Matthews Medical Center, knew they needed to address this challenge. To quickly boost performance, they set a facility-wide goal to reach 80% compliance in 80 days. Studies have pointed to 80% compliance being a critical threshold for reducing infections. At the 80% marker, there is a higher ability to reduce infections.

They partnered with SwipeSense to launch the ‘Matthews Medical Center Hand Hygiene 500,’ a race track-themed improvement program that measured each unit’s weekly progress toward 80%. A large race track poster was placed in a prominent area where team members enter and exit the building and race cars representing hospital units were moved along the track to display weekly performance. Unit summaries were also posted in each break room to ensure hand hygiene and the parameters for success stayed top of mind.



The ‘Hand Hygiene 500’ was a fun, interactive way for each unit to track compliance progress toward 80% Compliance in 80 Days.

Staying on Track

Compliance data provided leaders and managers with actionable information, helping them to focus energy where improvements needed to be made. During the program, they found that some team members didn’t fully understand the proper hand hygiene process and what they were being measured on, presenting an opportunity to provide important education and coaching, which Forster notes played a key role in driving successful behavior modification.

With strong support and engagement from the top down, the program also generated excitement and friendly competition. Staff members regularly gathered at the race track to compare progress, unit summaries were discussed in weekly leadership meetings, and frequent celebrations took place to acknowledge top performers. SwipeSense also held monthly raffles to award individuals who exceeded expectations. MMC even invested in a trophy which is regularly engraved with the names of the top performers.

“ There was a lot of energy around the initiative and it became a friendly way to transform our culture. While there was pressure to improve, we wanted to make it fun. When we took the time to celebrate effort and achievement, while keeping people accountable, we grew together and saw real change.”

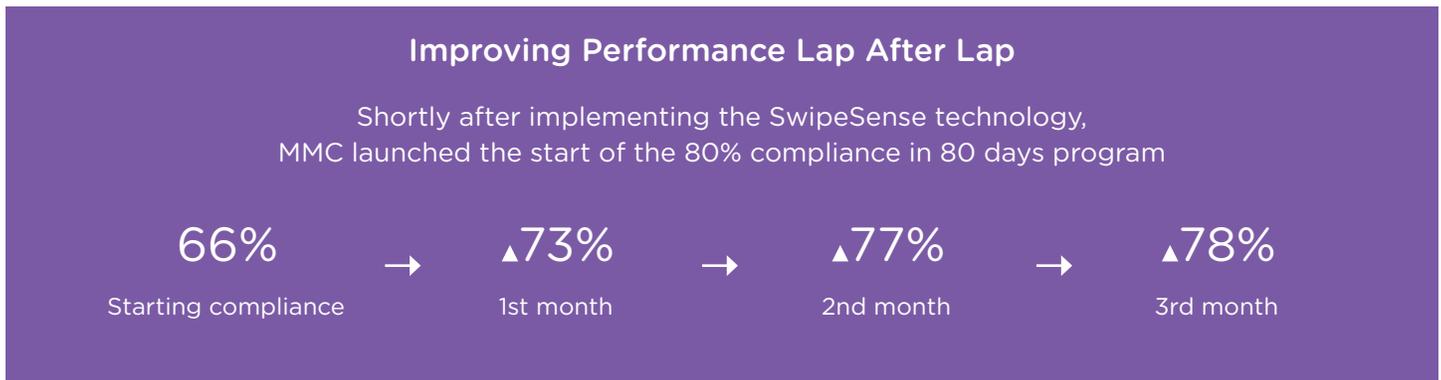
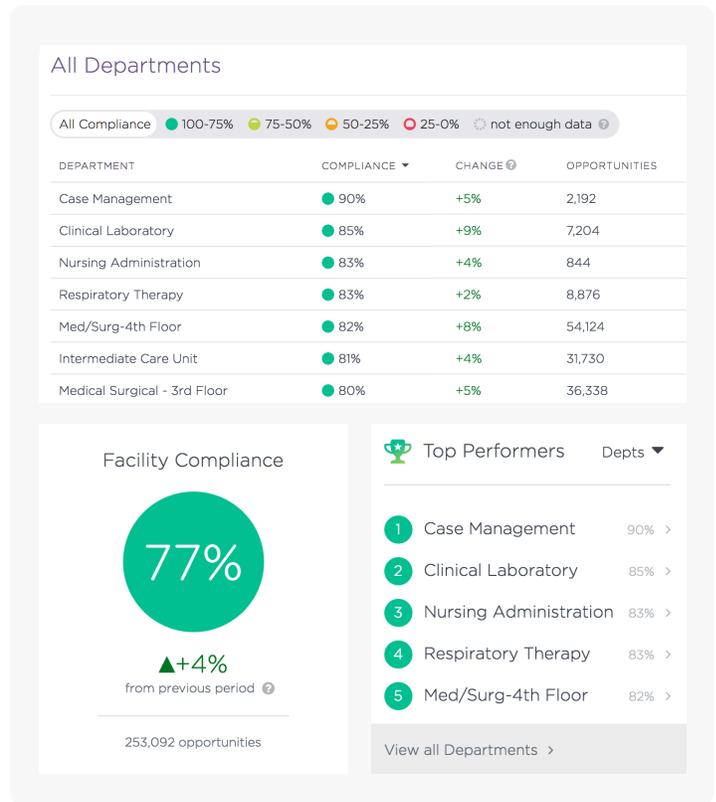
Tracy Forster

Chief Nursing Officer, Matthews Medical Center

Reaching the Finish Line

As a result of the program, most units significantly improved compliance, demonstrating a collaborative and committed effort to focus on improving safety.

Success Snapshot



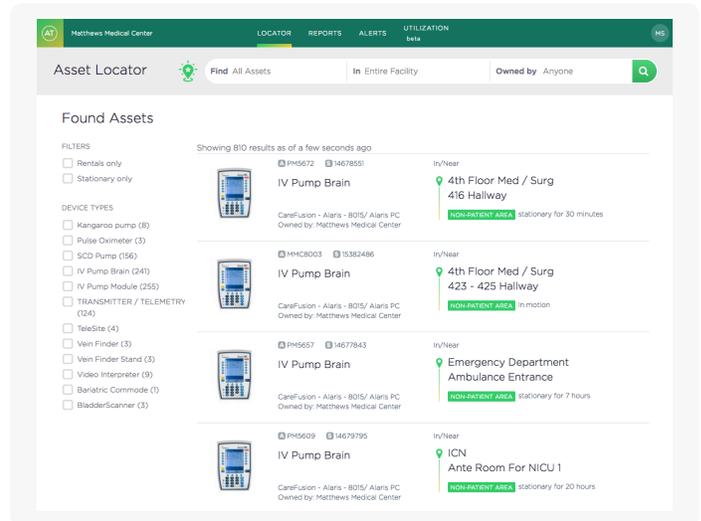
More High Performers, Fewer Low Performers

Compliance Range	Before the Program 5/1/19 - 7/31/19	After the Program 8/1/19 - 10/26/19	Improvement (% Change)
100-75%	33%	52%	59%
75-50%	42%	37%	-12%
50-25%	22%	11%	-53%
25-0%	3%	<1%	-78%

A Low Cost Way to Reduce Costs and Eliminate Waste

Quickly realizing the power of SwipeSense's RTLS platform, Matthews Medical Center made the decision to further leverage the existing monitoring structure to not only measure hand hygiene compliance, but to also track hospital equipment using SwipeSense's Asset Tracking application.

Asset Tags are attached to more than 800 assets, such as IV pumps, SCD pumps, telemetry modules, and other mobile equipment, to quickly track the location and utilization of each asset. As part of the improvement initiative, a goal was set to lower the facility's Lost Asset Rate below 5%.



Asset Tracking has enabled Matthews Medical Center to:

- Reduce the facility's Lost Asset Rate to as low as 3%
- Decrease the time nurses spend looking for equipment during a shift
- Optimize daily assessment of equipment on-hand for timely clinical use
- Analyze data to accurately calculate costs associated with lost, broken, or underutilized equipment
- Save money by preventing small equipment from being lost in the laundry or trash



Upcoming Races

As a leader in Novant Health, Matthews Medical Center was the first hospital to implement the technology to show impact. With the results demonstrated in the first year, Novant Health is now considering a larger roll-out within the health system.



Start Your Engine

SwipeSense is a Real-time Location System (RTLS) platform that powers applications designed to eliminate waste and improve patient outcomes in healthcare delivery networks. Learn more about how our Hand Hygiene, Asset Tracking, and Nursing Insights applications can support your organization's goals.

Visit www.swipesense.com to learn more