

# Success with Technology to Increase Hand Hygiene Compliance

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Issue: Hand hygiene is widely accepted as the most effective means of reducing healthcare associated infection (HAI) occurrence; yet, most studies show hand hygiene compliance rates for healthcare workers (HCW) are below 50%. This hospital understood the need for improved hand hygiene compliance to improve patient safety and quality.



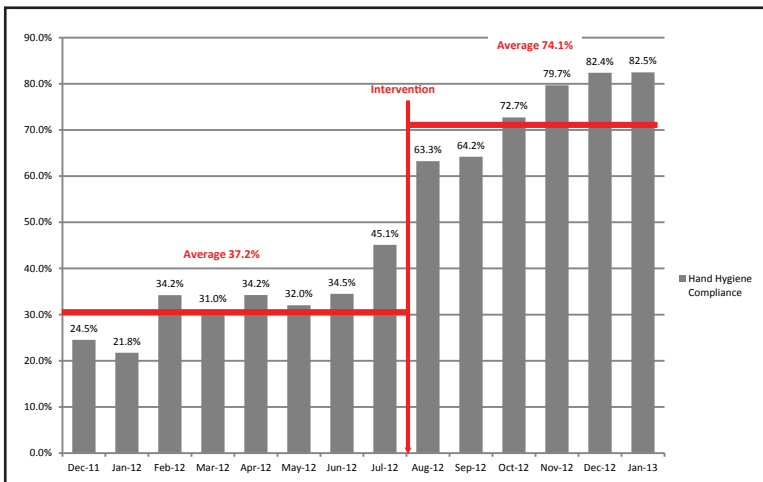
**Project:** This 881-bed hospital installed the Proventix nGage™ wireless hand hygiene technology in a 25-bed medical-surgical unit. The study measured hand hygiene solution dispensing, hand hygiene compliance, and HAI rates

from December 2011 through January 2013 and included:

- 41 alcohol based hand rub (sanitizer) dispensers
- 9 soap dispensers
- 60 employees including Registered Nurses, Patient Care Technicians, Nurse Practitioners, Ancillary Technicians, Clinical Instructors, and Executive Staff

### Initial Results:

- Total hand hygiene solution dispensing increased 48.7%
- Hand hygiene compliance increased 40.7% to an average rate of 37.2%

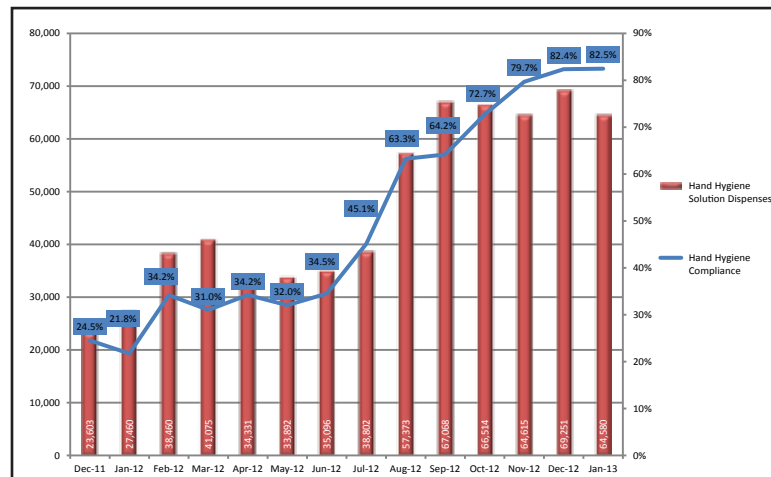


**Leadership Intervention:** Leadership increased their involvement in August 2012 to include:

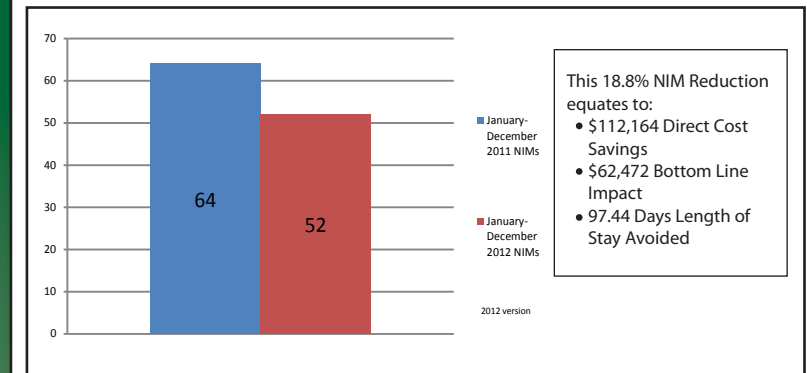
- Employees, patients, and visitors were educated about the importance of hand hygiene compliance
- Caregiver communications included an employee accountability campaign with:
  - Open posting of individual compliance rates weekly
  - A five-team inter-unit competition
  - Goal setting with 80% compliance as a minimum
  - Consultation with individual non-compliance
  - Reward top performers with an incentive plan approved by senior leaders

### Results after Leadership Intervention:

- 173.6% increase in hand hygiene solution dispensing
- 236.7% improvement in hand hygiene compliance (Student's t-test, paired t = 9.507564 (40), p = 2.9452E-15, SAS)



**Financial Results:** An electronic proxy for healthcare associated infection called the Nosocomial Infection Marker® (NIM-Carefusion) was reduced by 18.8%, resulting in a direct cost savings of \$112,164, a bottom line impact of \$62,472, and 97.44 days length of stay avoided.



**Lessons Learned:** The hospital's initial improvements after implementation of the electronic hand hygiene monitoring system were further improved with increased leadership involvement, clear goal-setting, and the initiation of caregiver education, communication, and an incentive program. The combination of these elements increased hand hygiene performance and resulted in improved clinical and financial outcomes.



Nothing to disclose.