

Improving Hand Hygiene Compliance using Electronic Monitoring

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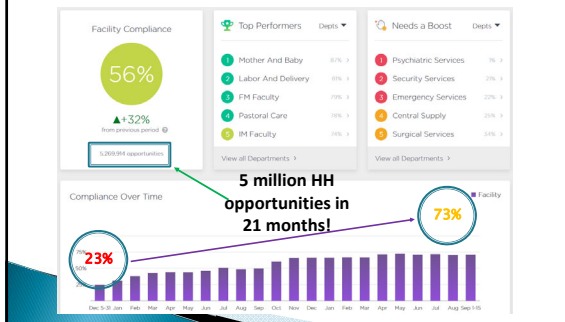
Timeline of Implementation

- ▶ In 2015 my 375-bed suburban Chicago hospital collaborated with a new company started by engineers in Chicago
- ▶ Became a β -site, since 2nd hospital on board and received a decreased price
- ▶ Much of 2016 was a learning process for both parties (hub placement, badge battery life, education, etc.)
- ▶ The system was considered ready for use in late 2016 and initial compliance was **23%**!

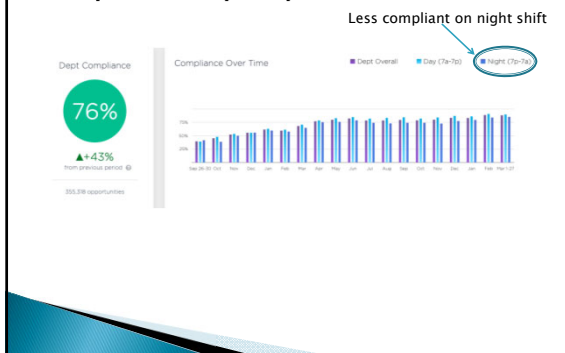
Components of the System



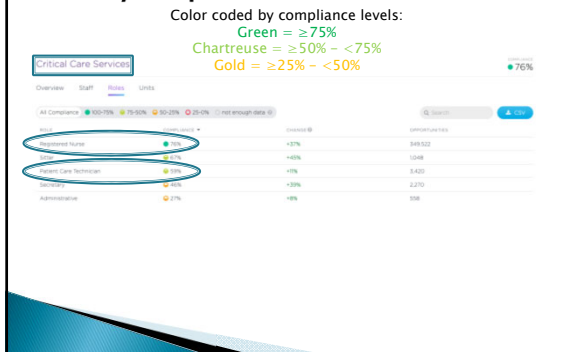
Compliance from 12/2016-9/2018



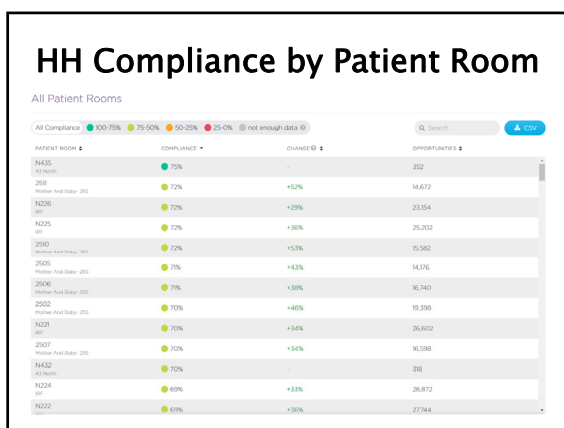
Compliance by Department and Shift

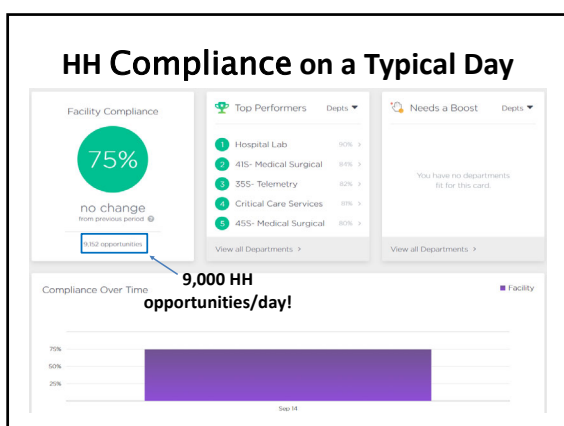


By Department and Role









Learnings

- ▶ Up until now, positive reinforcement has been used to correct performance. May need to adjust.
- ▶ Managers get their data as well as others for comparison and that helped increase compliance.
- ▶ Unit and employees get “judged” during annual performance reviews.
- ▶ IP “owns” the system but needs several helper departments: Human Resources for badge IDs, Facilities for hub placements, IT for communication issues, & Administration for goals
- ▶ 90% *may* represent perfect compliance

Conclusions

- ▶ Pros:
 - Accuracy without Secret Shopper bias
 - 24/7/365 Monitoring with > 1 million observations/year
 - Data analysis is easy and “almost” real-time
 - Works with any soap and sanitizer product (drip plate)
 - Healthcare-associated infections (HAIs) decreased by 50% *but* many other activities at same time
- ▶ Cons:
 - Can “game” the system if wear glove and put HH product on hands, then remove glove
 - Healthcare worker (HCW) needs to WEAR badge
 - Only monitors HH on entry and exit
 - HCW needs to use HH two times in a row if leaving & *directly* entering next room
 - Expensive...but what's the cost of an HAI to the hospital, family and especially the patient?

I'm never going back to Secret Shoppers again!