

CASE STUDY

“Do What You Can, With What You Have, Where You Are;” MRSA Prevention in Pittsburgh Veterans Hospitals

Organization

The VA Pittsburgh Healthcare System (VAPHS) serves veterans in Pennsylvania, Ohio and West Virginia. It has a 146-bed hospital and a 262-bed long term care facility in Pittsburgh, and five outpatient clinics.

Situation

Researchers documented a 32-fold increase in MRSA infections between 1976 and 2004. VAPHS began using the Toyota Production System (TPS) in 2001 to fight healthcare acquired infections and medication errors in two units. By 2004, infection rates had dropped 70% in those units, but success had not spread. VAPHS leaders figured expansion would require hiring another dozen TPS team leaders.

The Positive Deviance Approach

TPS emphasizes standardization. VAPHS leaders wanted a less resource intensive and more people-driven approach. PD looked like a way to develop in-house leadership and engage everyone in consistent adherence to known infection prevention protocols.

- By the end of 2006, some 500 VAPHS staff members from all disciplines had generated hundreds of suggestions to aid adherence and remove barriers to consistency.
- Hand cleaner was installed in all areas where staff, patients and visitors handled communally used items. Foam pouch necklaces and larger bins to accommodate increasing gown and glove usage were acquired.
- Visuals illustrated bacterial behavior. Pens dipped in Glow-Germ, a substance invisible in normal light, were used for a meeting sign-in. Under ultra violet light, attendees saw surprising evidence of how “germs” spread everywhere they went.

Impact

Staff started new prevention efforts. A post-op unit nurse got MRSA status of all surgical patients and initiated an isolation surgical recovery room and direct transport to isolation beds. Meticulous records showed MRSA status of new patients. All staff saw transmission data and could work on tracing probable sources and preventing recurrence.

- With the Toyota Production System, the MRSA rate declined 35% hospital-wide.
- With the PD work in 2005-2006, the hospital-wide MRSA rate dropped 64%.
- Individual contributions of the two processes weren’t identified, but VA officials noted the influence of PD on broad culture change.
- Network maps showed workers throughout the facility connected and collaborated more, generating new ideas and practices.
- In 2007, the VA began a nationwide “getting to zero” MRSA prevention initiative.
- Measures to prevent MRSA also prevent other infections spread by contact.