2010 MRSA Collaborative and Benchmarking Report

Background and Activities

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a type of bacteria that is resistant to certain antibiotics including methicillin and other more common antibiotics. Staph infections, including MRSA, occur most frequently among persons in hospitals and healthcare facilities (such as nursing homes and dialysis centers) who have weakened immune systems. MRSA infections that occur in otherwise healthy people who have not been recently hospitalized or had a medical procedure are known as community-associated (CA)-MRSA infections.

The Kentucky Hospital Association, in partnership with the University Of Louisville School Of Public Health, the Kentucky Department for Public Health, and the University of Kentucky, launched in January 2009, **a statewide MRSA Collaborative aimed at increasing knowledge of identification, treatment and containment of MRSA through evidenced based and systematic data reporting and education.** The Collaborative utilizes best practices, infection prevention experts, and easily accessible Web-based tools to educate health care providers and members of other disciplines. Activities included in the Collaborative are:

- Established statewide advisory committee including state leaders and stakeholders from various disciplines to provide recommendations on activities
- Developed a Web-based toolkit for hospitals and other healthcare providers including access to best practices, national guidelines and recommendations, resources on environmental support and a portal for information sharing among peers
- Resources on data collection and observations
- Development of a secure benchmarking data portal for hospitals to participate in monthly data collection of infection rates, hand hygiene compliance and room cleaning protocol compliance
- Recruitment of Kentucky hospitals to participate in MRSA Collaborative and Benchmarking Program
- A statewide education summit for various disciplines and ongoing access to education through web-based resources.

Collaborative and Benchmarking Participation

There are 130 licensed acute, psychiatric and rehabilitation hospitals in Kentucky. Approximately 70 percent of licensed hospitals continue active participation in the MRSA Benchmarking Program. A decrease in participation has been attributed to hospitals shifting resources to new infection prevention and patient safety projects. To address the stress related to resource allocation for hospital personnel, the MRSA Benchmarking Program discontinued collection of process measures for hand hygiene and environmental cleaning beginning August 2010.

Type	Number Participating
Critical Access Hospital (≤25 beds)	29
Less than 100 Beds	27
100 – 250 Beds	20
>250 Beds	24
Specialty	14

The ongoing purpose of the MRSA Benchmarking Program is to provide valuable information and resources for hospitals to track MRSA bloodstream infections and to provide the resources and best practice guidelines to promote improvement in infection prevention. This information brings awareness to infection prevention and environment factors contributed affecting infection prevention. The use of a benchmarking program allows hospitals to see how they compare to similar organizations and allows hospitals to set internal goals for improvement. It also helps KHA develop priorities and activities on targeted infection prevention areas.

Data is submitted via a web-based program by a hospital designee assigned a username and password. Each hospital was provided a benchmarking program User Manual and one-on-one technical assistance is available to all participants. Data collection began January 2009 and continues in 2011. All hospitals are asked to submit data to the program by the last day of each month. For example, February 2011 data is due March 31, 2011. Reminders are sent via email each month.

Hospital data is blinded to other participating hospitals. Participants can compare their own rates to the statewide average and to the average for their assigned peer group. There is also a ranking feature available.

My Data: These reports allow hospitals to analyze data compared to all hospitals and to the goals set for an individual facility under the "Edit My Profile" section. The user can choose the number of months of data to review and also choose from three types of data report outputs: Spider (radar) diagram, line graph and bar graph.

My Ranking: This section allow hospital to run a report that shows individual hospital ranking compared to other participating facilities in the state. This is all participating facilities and is not organized by peer group.

Peer Group Ranking: This section will allows a hospital to run a report that shows the ranking compared to other participating facilities in the hospital's peer group. Hospitals can only see their peer group on reports.

Peer groups include:

Facility Type

- Acute Care Facilities
- Critical access hospitals

- Psychiatric hospitals, or
- Rehabilitation hospitals

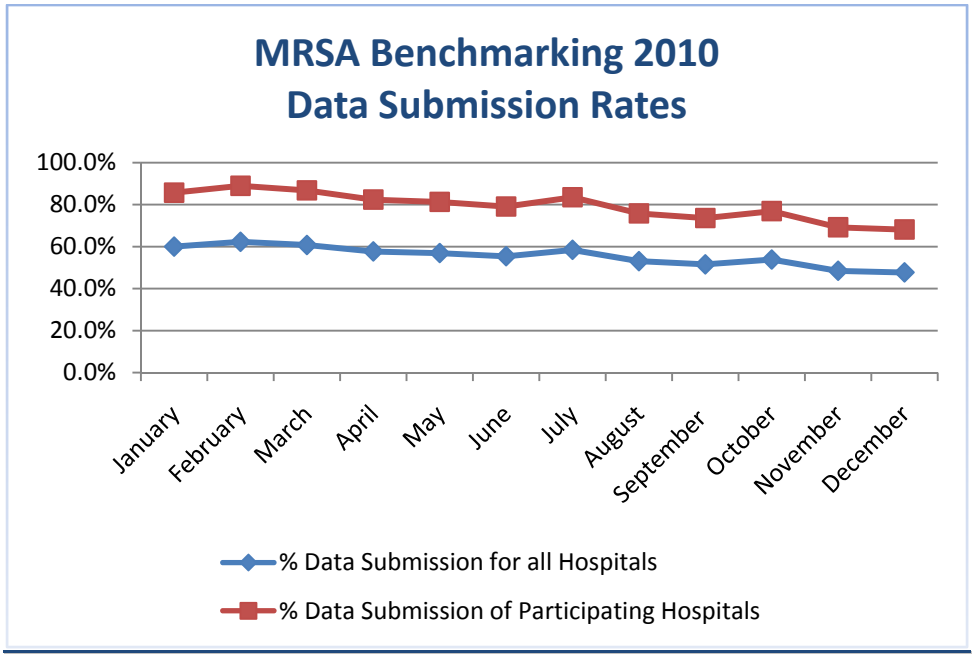
Bedsize

- <=25 beds
- 26 – 100 bed acute care hospitals
- 101 – 250 bed acute care hospitals
- >250 bed acute care hospitals

My Trends

This section allows users to review all data over time submitted for the hospital. The user may choose the number of months in which to review the data.

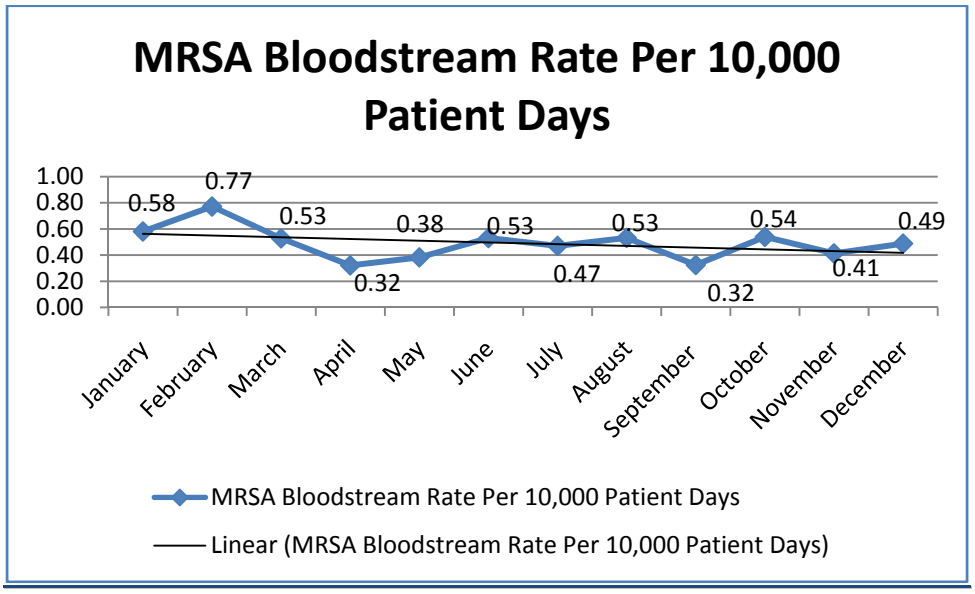
Data submission fluctuated throughout the year with an average of 68 percent of hospitals submitting data each month. The highest data submission rate was 73 percent in April and May 2009.



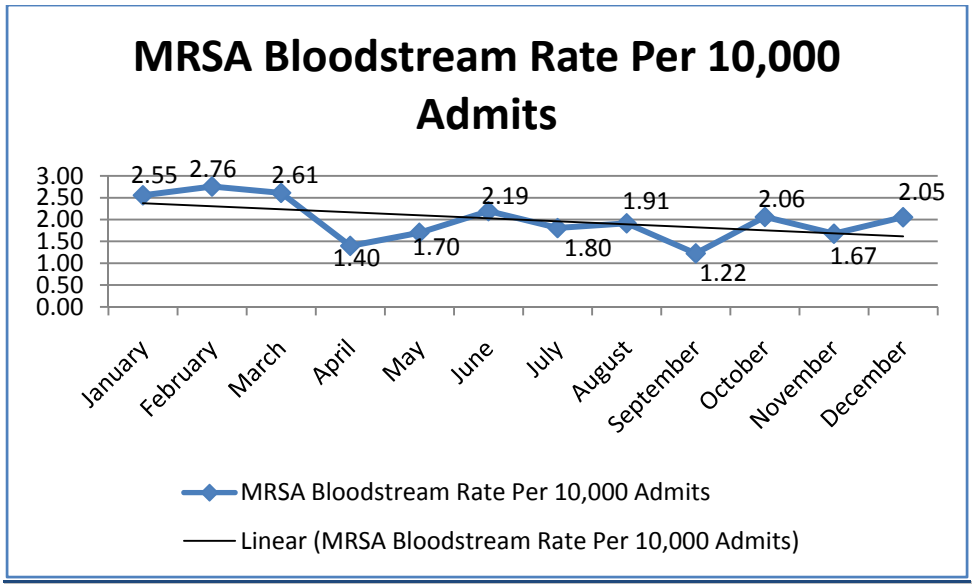
RESULTS

Participation in the Benchmarking Program decreased by approximately 20 percent from January 2010 to December 2010. This decrease in participation is due to a number of factors including lack of staff resources at hospitals, adoption of new infection prevention projects at hospital level, state levels and national levels. There have been fluctuations in outcome measures however, the overall rates of MRSA blood stream infections have gone down.

Blood infection rates are defined as a positive bloodstream infection during the patient stay but not including patients with a length of stay two days or less and patients with MRSA bloodstream infections identified from blood cultures collected in the first two days of the patients hospital stay. The highest blood infection rate occurred in February 2010 and the lowest rates of bloodstream infections were reported in April and September.



When looking at the rate of blood stream infections per 10,000 admissions, a similar trend is seen. The highest rate of bloodstream infections per 10,000 admissions occurred in February with the lowest rate occurring in September. An overall decrease in the rate was seen throughout 2010.



NEXT STEPS

Hospitals have participated 27 months of data submission and benchmarking. In 2011, the Kentucky Hospital Association and the participating hospitals will review the data, discuss outcomes and consider ongoing support for the project. Several other infection prevention projects are underway including those focusing on central line associated bloodstream infections and catheter associated bloodstream infections. The Kentucky Hospital Association is also in the process of supporting state partners in the development of a comprehensive, statewide education program for hospital infection preventionists and those from other health care settings across the state.