

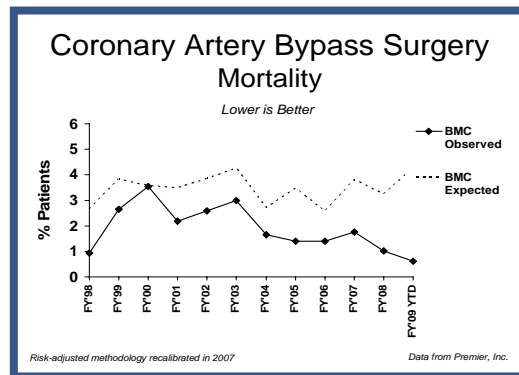
# CORONARY ARTERY BYPASS GRAFT SURGERY

## **Where we've been...**

Coronary artery bypass graft (CABG) surgery has been available at Baystate Medical Center since 1978 and more than 800 cases are performed annually. In 1995, the Division of Cardiac Surgery and the Division of Healthcare Quality initiated an ongoing project with the Institute of Healthcare Improvement (IHI) to measure clinical, quality of life, and patient satisfaction outcomes for patients undergoing bypass surgery; many of these selected components of the IHI model are still in place. These interventions have focused on improving OR efficiency (consistent dedicated start times), appropriate use of new technologies, such as minimally invasive procedures and anesthetic agents, continued early extubation (RT/RN driven protocol in CICU), prevention of ventilator-associated pneumonia (VAP) and central line-related bloodstream infections, multidisciplinary care rounds, proactive planning, and timely triage of patients through the hospitalization. To help BMC compare quality and identify process improvements, the Division of Cardiac Surgery participates in the Society of Thoracic Surgeons (STS) comparative database and the Surgical Care Improvement Project (SCIP), co-sponsored by the Centers for Medicare and Medicaid Services (CMS) and the Centers for Disease Control (CDC). SCIP encourages hospitals to incorporate interventions known to decrease adverse events related to surgical care into clinical care. Rates of use of these interventions, along with other key processes of care, provide the basis for physician-specific feedback, which enables the surgeons to compare their individual performance with those of their colleagues. STS provides explicit risk-adjusted information on observed and expected complications to direct improvement efforts. Also, CABG mortality, complications, and efficiency by surgeon are publicly reported on the Commonwealth of Massachusetts Health Care Quality and Cost Information site ([mass.gov/healthcareqc](http://mass.gov/healthcareqc)); BMC has the lowest mortality in the state.

## **Where we are now...**

**BAYSTATE MEDICAL CENTER** Over the past twelve years, risk-adjusted mortality rates have consistently remained lower than expected. The FY'09 Q2 observed mortality rate of 0% is well below the expected rate of 5.1%. Currently, the rate of appropriate antibiotic selection is 99%. Administration of antibiotics within 60 minutes prior to incision and antibiotics discontinued within 24 hours are both at 100%. These rates, combined with low rates of mortality, infection, post-operative hemorrhage and hematoma, and adoption of minimally invasive and robotic procedures have made BMC a national leader, consistently performing in the top 10<sup>th</sup> percentile of HQID hospitals.



## **Where we are going...**

The effects of performance improvement initiatives to enhance quality, safety, and efficiency have been noteworthy. It has been possible to standardize surgical and anesthetic practices and to improve overall quality of care. Performance improvement work has led to emphasis on population-based care management and division-wide initiatives to decrease length of stay, such as early patient care rounds, ambulation protocols, aggressive heart rate control, lipid management, and anticoagulation.