

# Assuring Access to Acute Care in a Rapidly Growing Community

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# Introduction



- **Emergency Department overcrowding**
- **Frequent ambulance diversion**
- **Lack of available beds**

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**Limited access to  
care for our  
community**

# The Problem:



- Rapid population growth in some communities is outpacing hospital capacity
  - A 17% increase in population was projected for our community from 2000-2010
- Regulatory restriction or limited financial ability may delay hospital facility expansion
  - We experienced an 18 month wait for approval from the state for facility expansion
  - With 270 beds, our average occupancy rate was 92%
- Increasing number of patients with no PCP seek care in the Emergency Department
- Inpatient diagnoses increasingly call for single-patient rooms, effectively closing off available beds

# The Problem:



- Overcrowding in the ED results in decreased patient satisfaction and increased patient complaints
  - Over half of our ED patients felt the wait time was too long
  - Complaints related to prolonged stay in the ED waiting for an inpatient bed were commonplace
- Long wait times and overcrowding in ED place patients at risk for adverse events
- Ambulance diversions decrease community access to care and have a negative impact on hospital growth and financial status
  - Our hospital had the highest rate of ambulance diversion in the county, with 2,365 diversion hours in 2003
  - Diverting patients means lost admissions and ultimately loss of licensed beds

# Goals for Capacity Management:



- Optimize current capacity
- Reduce episodes and hours of ambulance diversion
  - 2,365 diversion hours in 2003
- Improve efficiency of patient flow
- Improve patient satisfaction
  - 50% of patients felt ED wait time was too long
- Reduce inpatient length of stay, in order to increase capacity
  - ALOS was 3.87
- Reduce ED length of stay, especially for admitted patients
  - ED LOS for admitted patients was **397 minutes**
- Reduce risk of adverse events

# The Solution:



- **Identify Capacity Management Plan as strategic priority**
  - Define a set of strategies to be taken when census nears capacity (see example of Capacity Management Plan attached)
- **Determine root causes of delays in patient flow through cause & effect diagrams, process mapping – examples may include:**
  - Discharge delays
  - Discharge after 12:00 noon
  - Procedure delays
  - Prolonged ICU LOS
  - Bed turnaround time
  - Patient transport delays

# The Solution:



- **Identify best practices to address root causes**
- **Create process improvement teams to help streamline patient flow**
  - **Discharge Team**
  - **Throughput Team**
  - **ED Team**



# Important Factors:

- Top level leaders (President/CEO, executive staff) must be very involved in implementation, monitoring, and removing obstacles to success
- Incorporate measures of success into performance goals for all leadership
  - ED LOS
  - Inpatient LOS
  - Patient satisfaction
  - Inpatient admission volume
  - ED volume
  - Diversion rates

# Measures of Success:



- **Develop Patient Flow Report Card to track progress (see example attached) and distribute monthly**
- **Most data is readily available**
- **Suggested measures include:**
  - Patient satisfaction
  - ALOS
  - ED LOS for admitted patients
  - Admission volume
  - Admissions through ED
  - % of patients discharged before noon
  - Room turnaround times
  - ED diversions
  - ED boarders
  - PACU boarders
  - ICU boarders
  - Cancellation or delay in scheduled surgery

# Actions to Consider:



- Clinical bed coordinator position
- Automated bed tracking system
- Hospitalist program
- Intensivist program
- Short Stay (observation) Unit
- Census meetings twice daily with administrative staff
- Census forecasting

# Actions to Consider:



- House-wide telemetry
- “Think Noon” program for discharges earlier in the day
- Rapid test turnaround for pending discharges
- Dedicated admission nurse
- Innovative communication with physicians regarding priority areas
- Adequate weekend support services
- Review/modify Environmental Services staffing
- Review/modify Case Management staffing

# Forecasting Bed and Staffing Needs:



- Census forecasting allows the organization to:
  - Anticipate and plan for daily bed needs
  - Align bed needs with staffing needs in advance
- Census is predictable - utilize a census forecasting methodology based upon:
  - Historical data on admissions (ED, OR, L&D)
  - Previous day admissions and discharges
  - Midnight and noon census reports
  - Current census
  - Scheduled surgical admissions
  - Current number of boarders
  - Early identification of potential discharges
- Conduct daily meetings with top level leaders to analyze forecasted needs, patient acuity, and staffing patterns

# Communicate Results

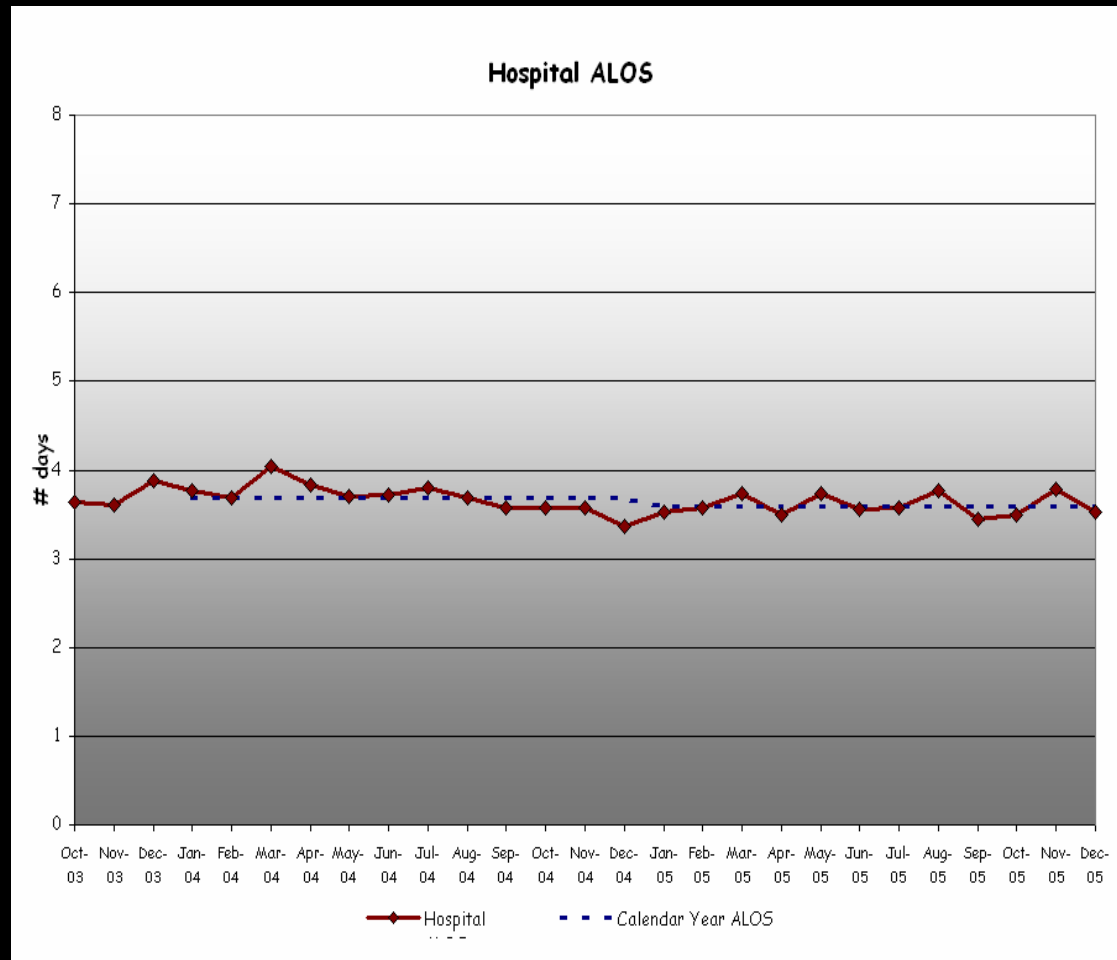


- Develop an easy-to-read scorecard to monitor performance closely (see example attached)
- Communicate results to everyone on a regular basis, including medical staff
- Demonstrate commitment from top level leaders

# The Results:



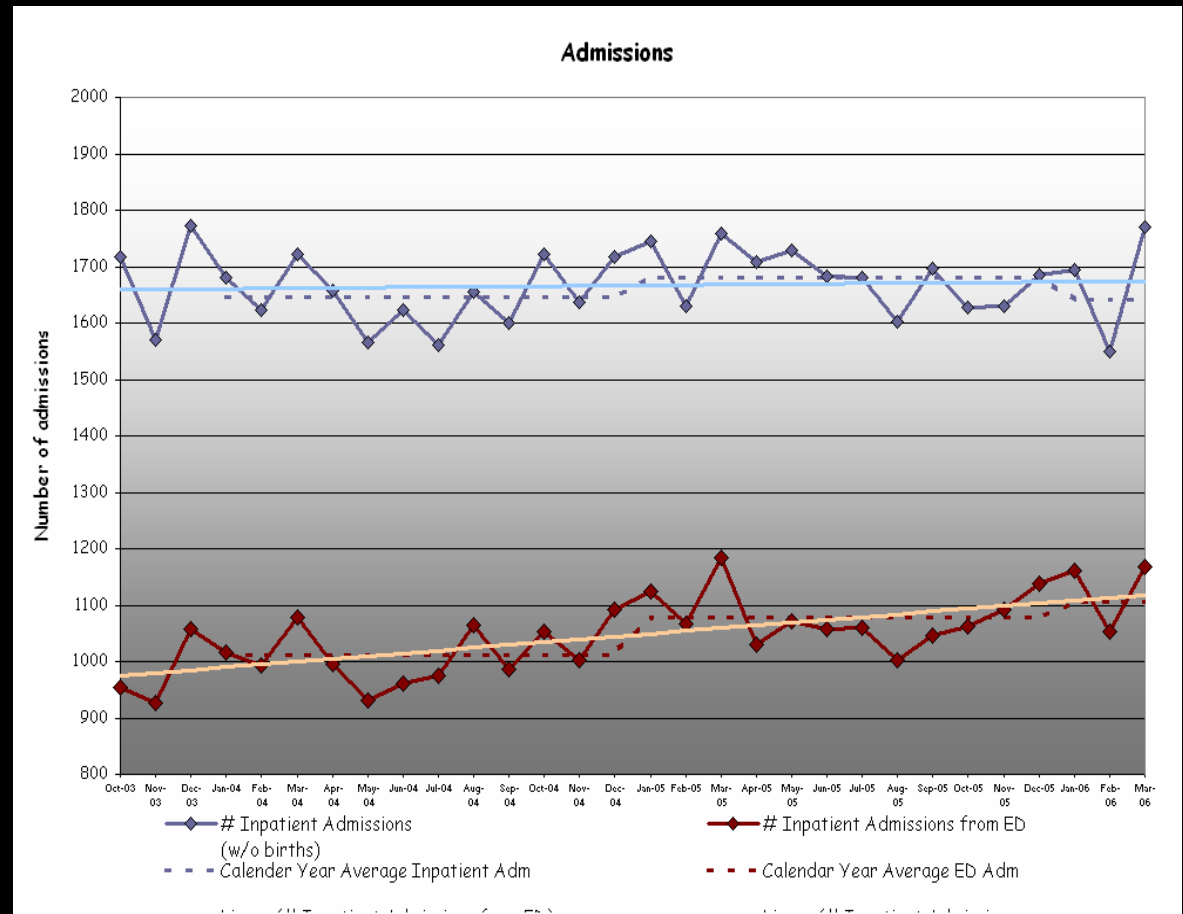
- **Hospital ALOS decreased**
  - 3.87 in 2003
  - 3.69 in 2004
  - 3.60 in 2005



# The Results:



- Inpatient admissions increased
- Inpatient admissions from ED increased

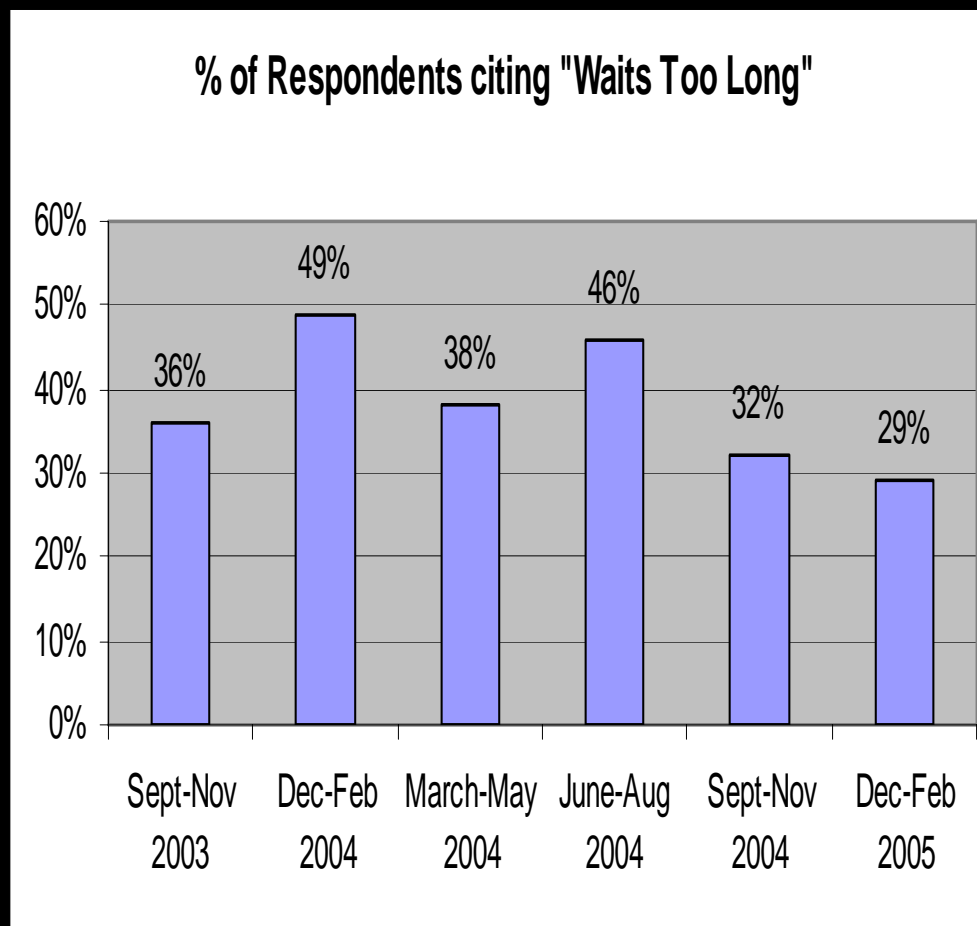


# The Results:



## Emergency Department Patient Satisfaction:

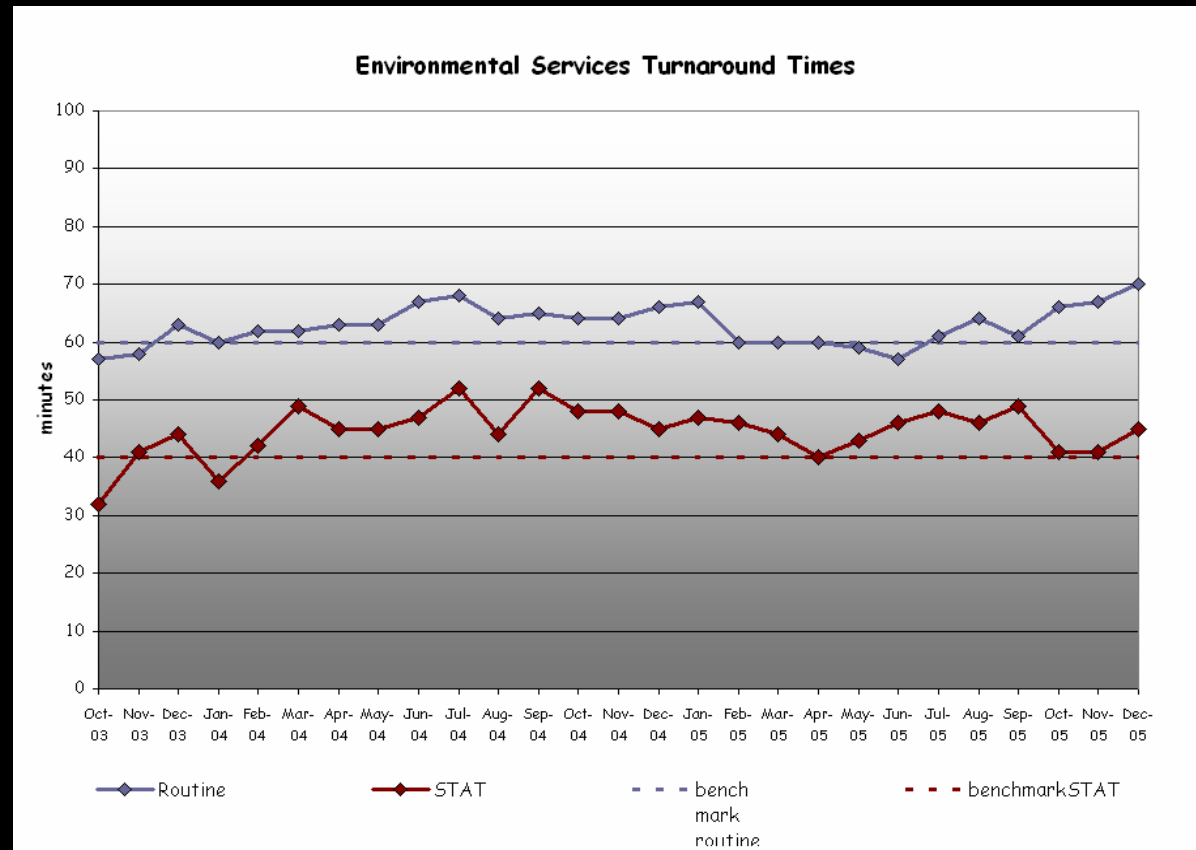
- Fewer patients cite wait time as too long



# The Results:



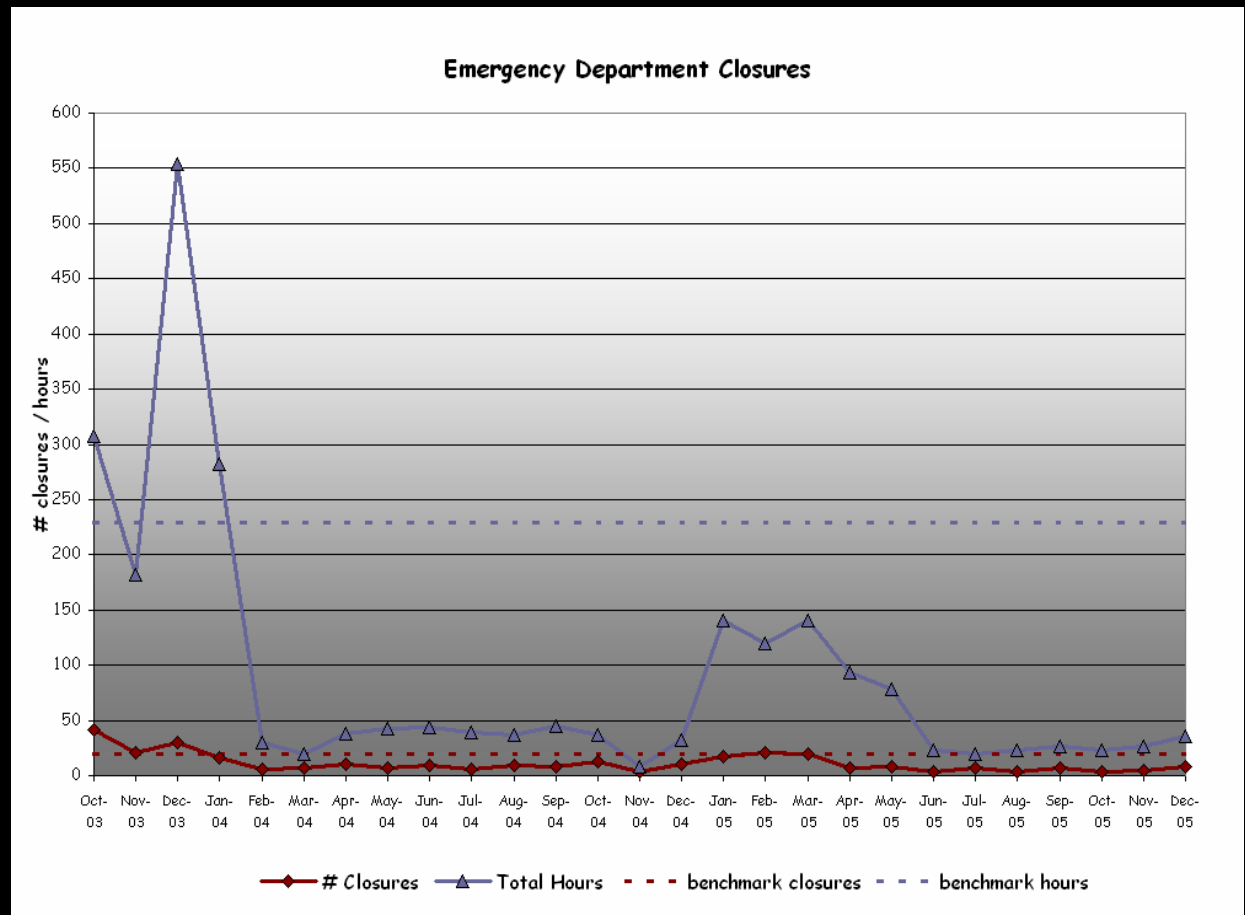
- **Environmental Services turnaround time**
  - GOAL: < 60 minutes for routine requests, < 40 minutes for stat requests



# The Results:



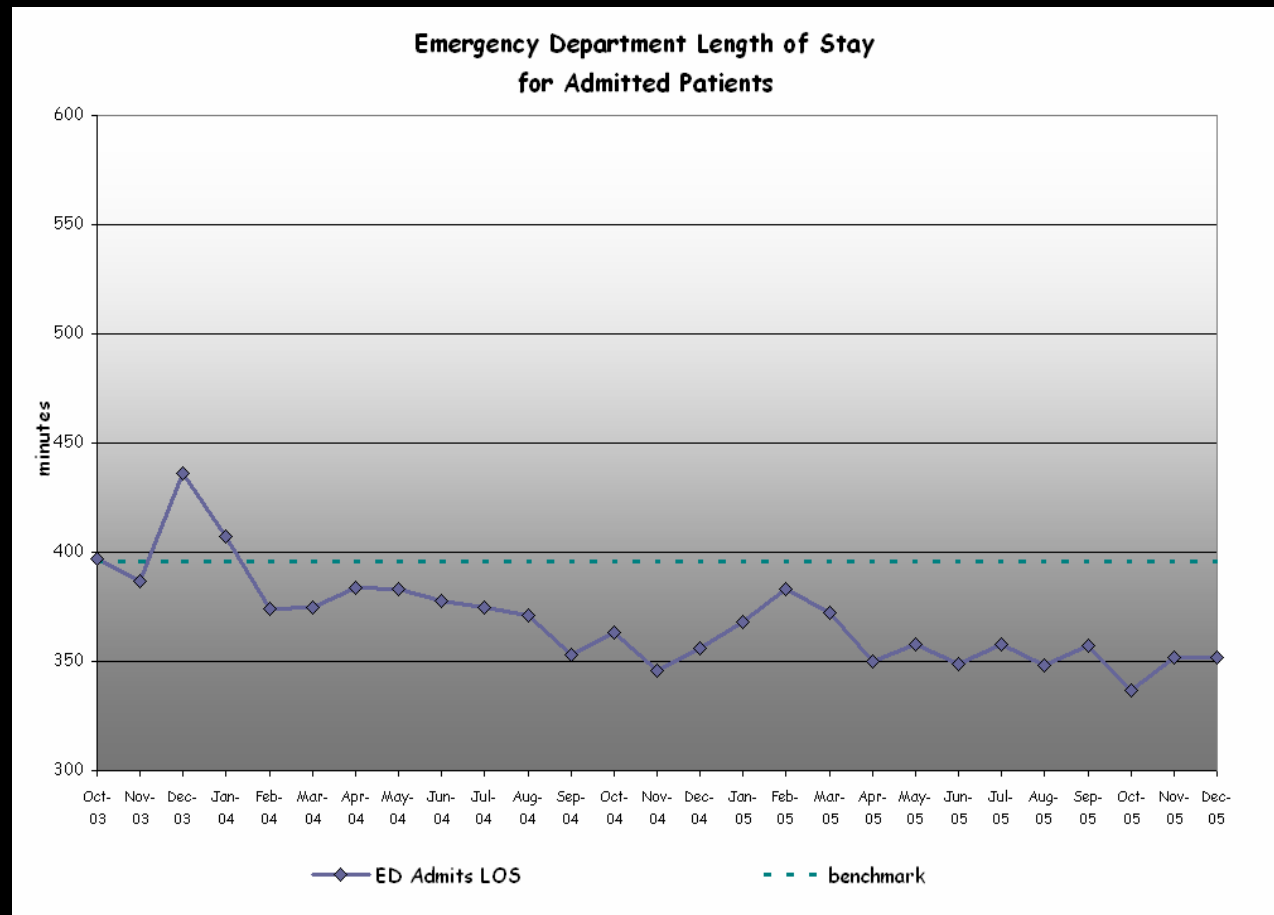
- ED diversions decreased



# The Results:



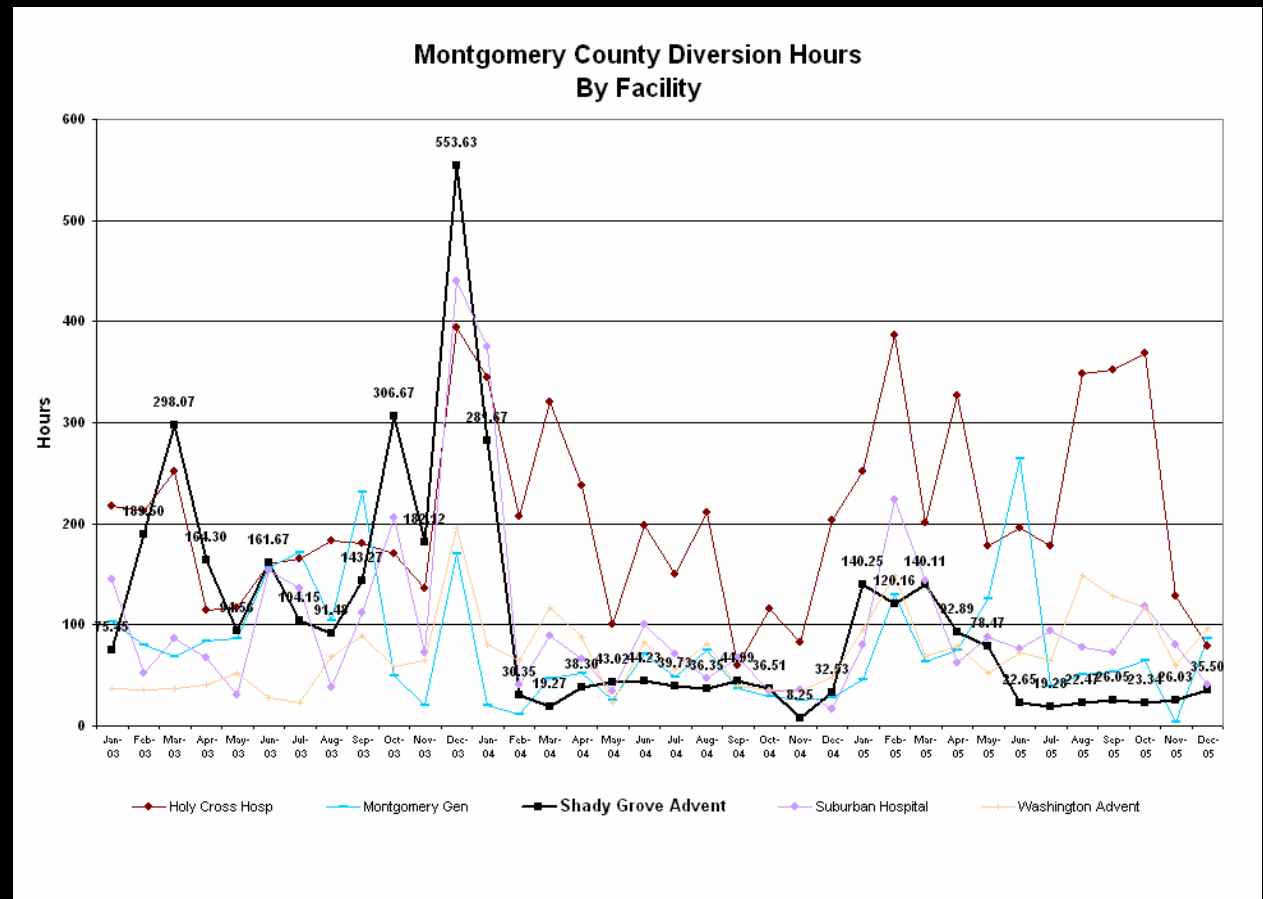
- ED LOS for admitted patients decreased



# The Results:



- Hospital now maintains the lowest diversion rates in the county



# Sustaining Improvement:



- Leadership to conduct analysis of performance levels monthly to maintain improvement and identify new opportunities
- Improve throughput and optimize capacity in order to better respond to potential need for disaster-related surge beds
- Focus on areas with variable patient flow

# Questions?



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