

The Impact of Education, Audit & Feedback on Improving Sepsis Care Guideline Adherence

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625 bed University Medical Center
30,699 annual admissions in 2009
47,767 ED visits in 2009

Sepsis

- Sepsis is a complex condition that occurs as a result of the systemic manifestation of infection
- Severe sepsis, which occurs when sepsis progresses to involve acute organ system dysfunction, contributes to increased severity of illness, length of stay and mortality rates of 20% to 50%



Surviving Sepsis Campaign: International guidelines for management of severe sepsis and septic shock: 2008

R. Phillip Dellinger, MD; Mitchell M. Levy, MD; Jean M. Carlet, MD; Julian Bion, MD; Margaret M. Parker, MD; Roman Jaeschke, MD; Konrad Reinhart, MD; Derek C. Angus, MD, MPH; Christian Brun-Buisson, MD; Richard Beale, MD; Thierry Calandra, MD, PhD; Jean-Francois Dhainaut, MD; Herwig Gerlach, MD; Maureen Harvey, RN; John J. Marini, MD; John Marshall, MD; Marco Ranieri, MD; Graham Ramsay, MD; Jonathan Sevransky, MD; B. Taylor Thompson, MD; Sean Townsend, MD; Jeffrey S. Vender, MD; Janice L. Zimmerman, MD; Jean-Louis Vincent, MD, PhD; for the International Surviving Sepsis Campaign Guidelines Committee

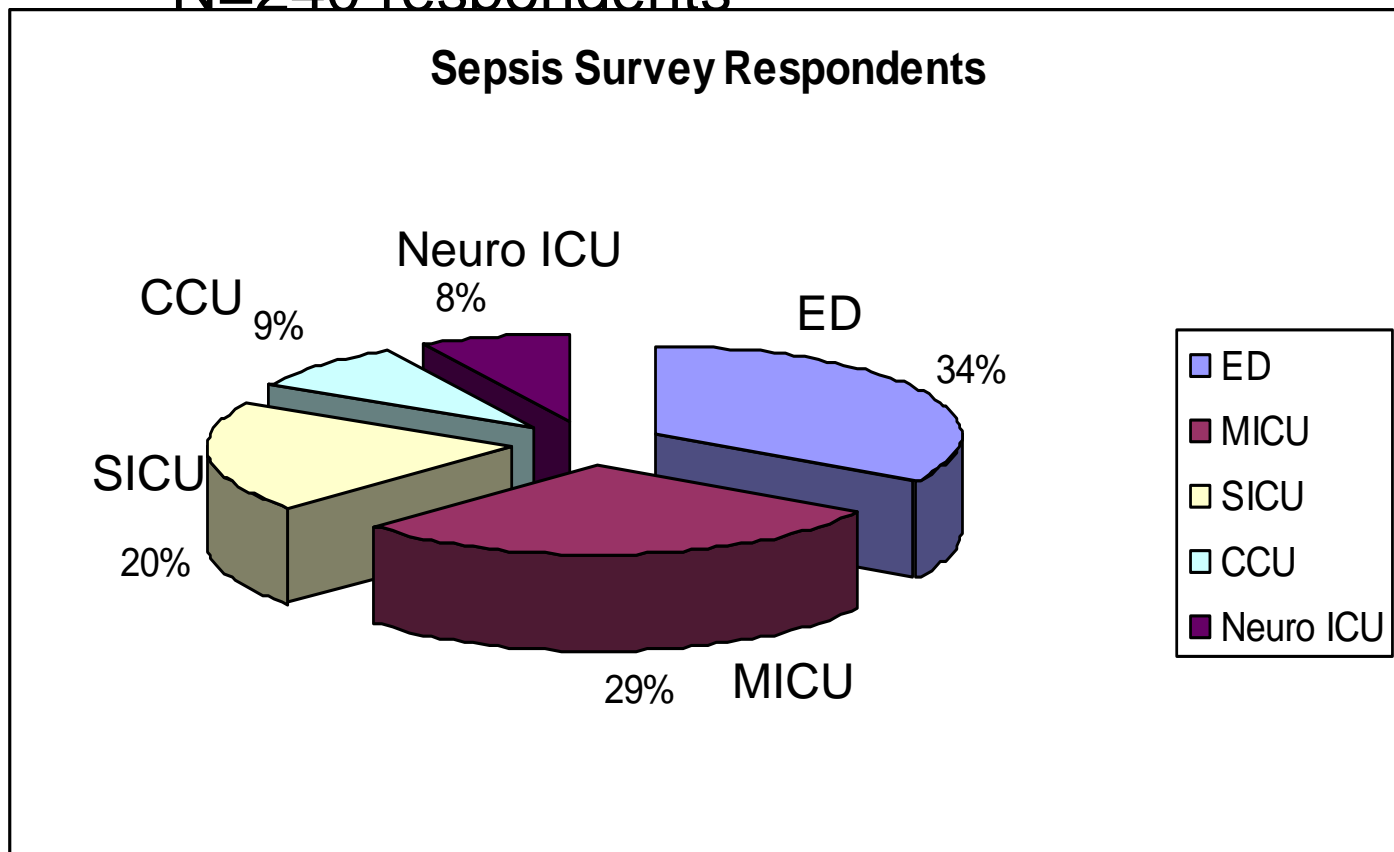
Crit Care Med 2008 Vol. 36, No. 1 296-327



Sepsis Protocol Implementation

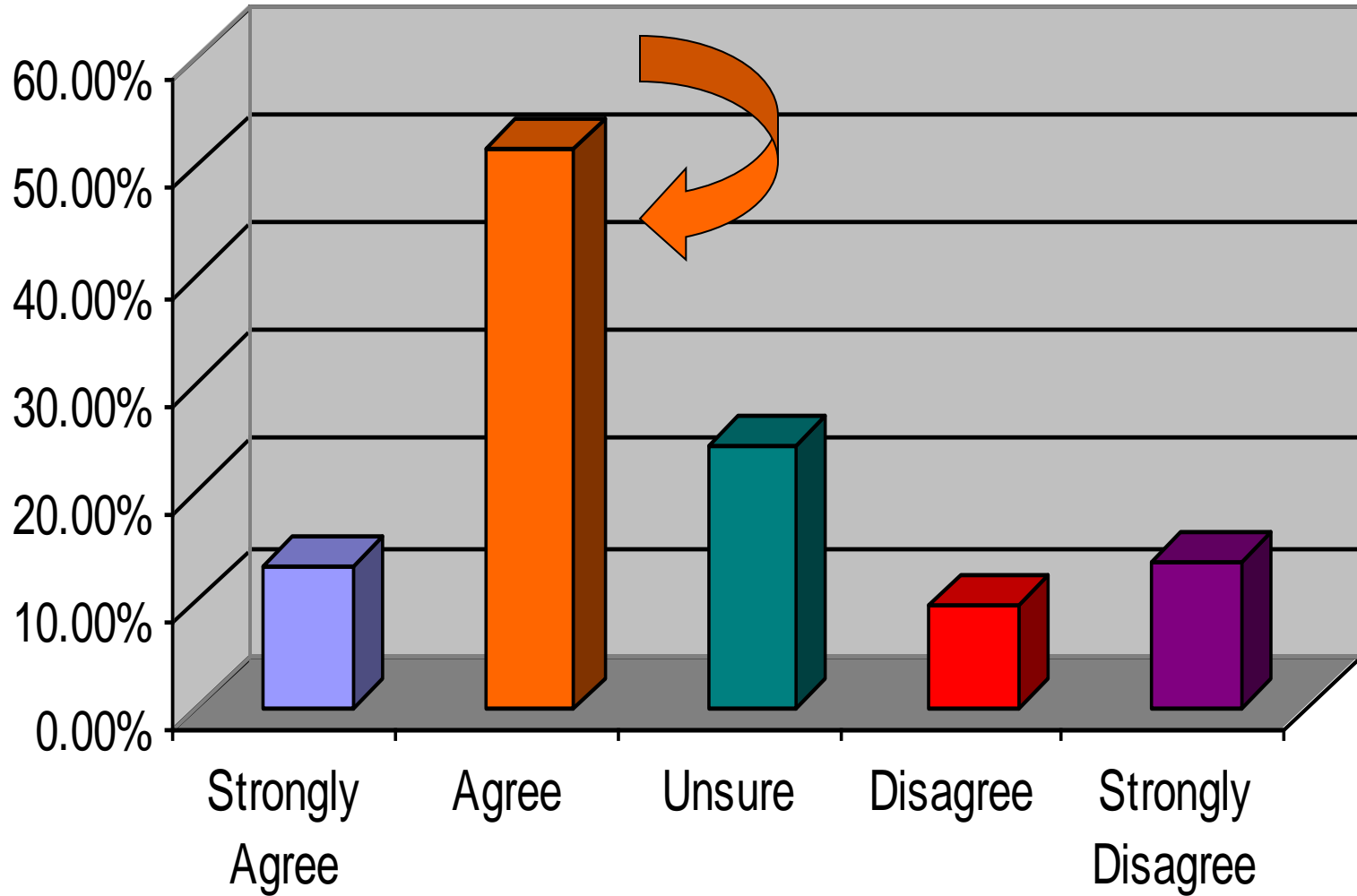
Surveys conducted prior to protocol implementation

N=240 respondents



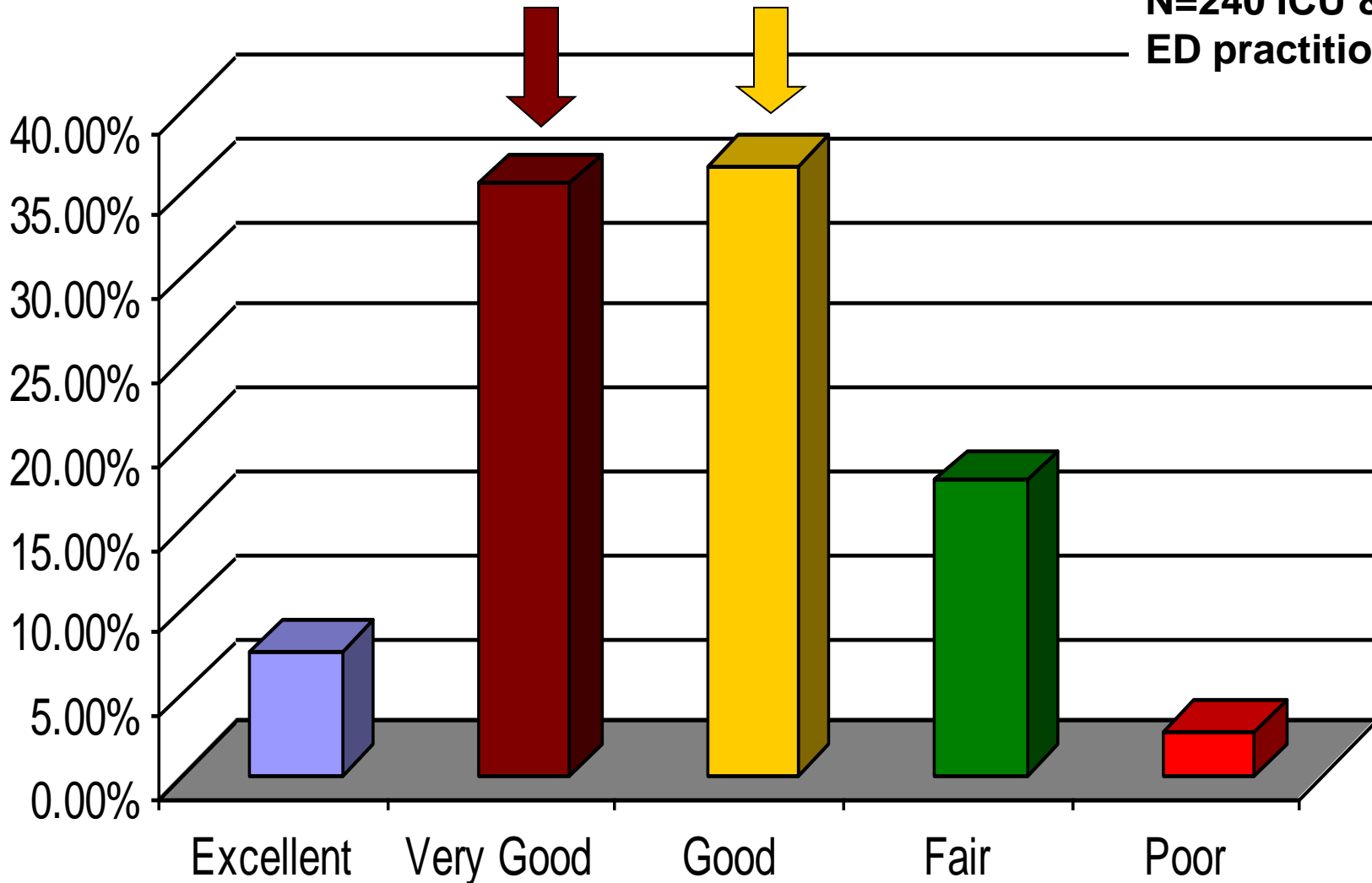
How Well is Sepsis Currently Identified?

N=240 ICU & ED practitioners



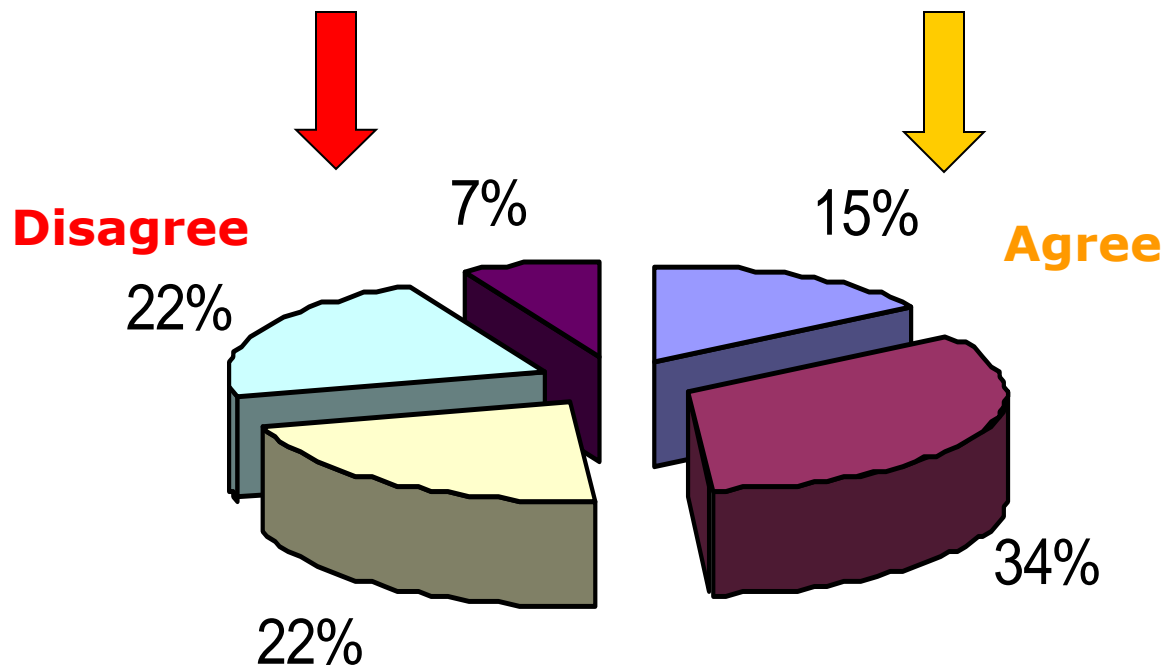
How Well is Sepsis Currently Managed?

N=240 ICU & ED practitioners



I am Familiar with the Early Goal Directed Therapy Guidelines

N=240 ICU & ED practitioners

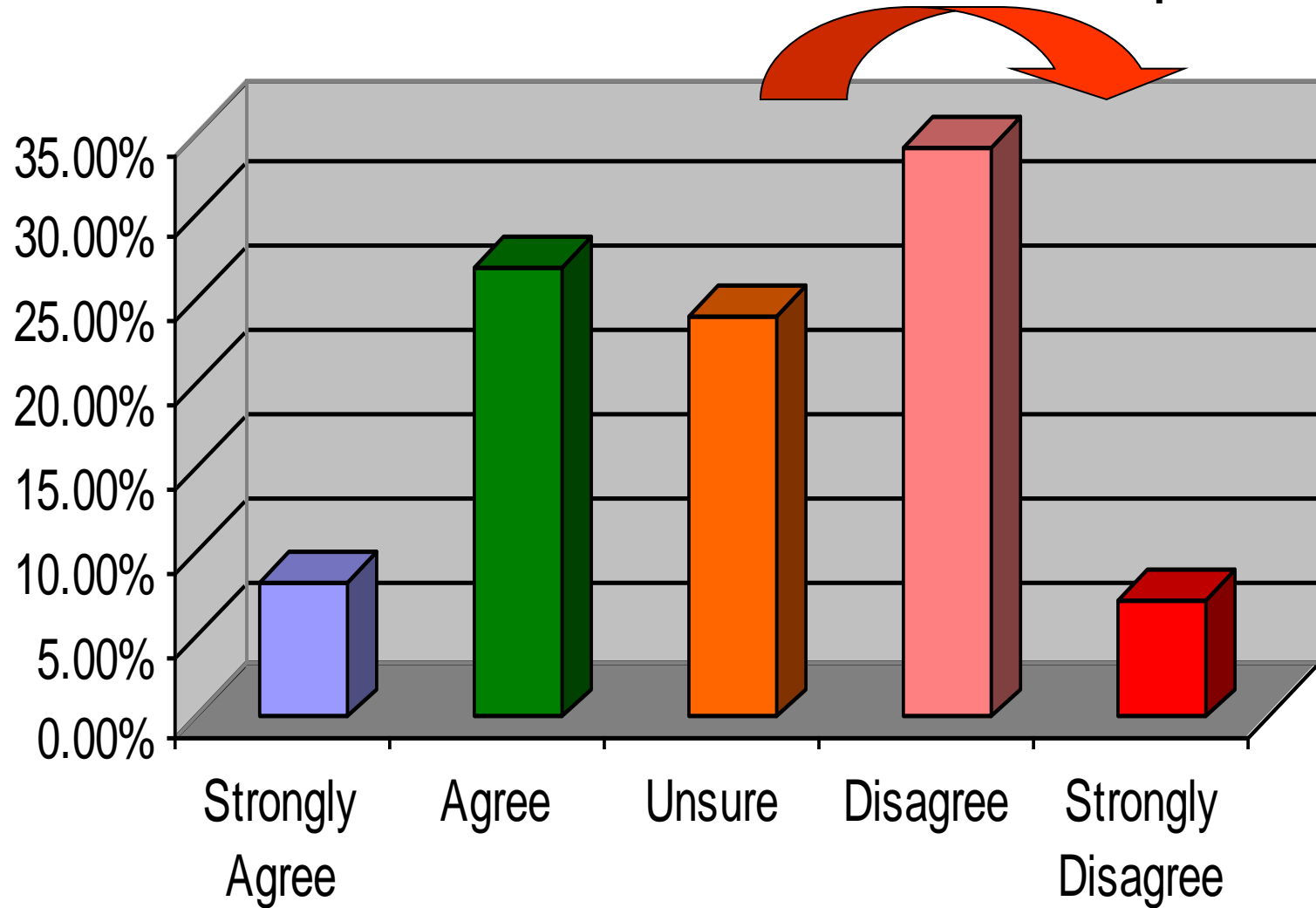


- Strongly Agree
- Agree
- Unsure
- Disagree
- Strongly Disagree

I Am Familiar with the Surviving Sepsis Campaign

Guidelines

N=240 ICU &
ED practitioners



Guideline Implementation Phases

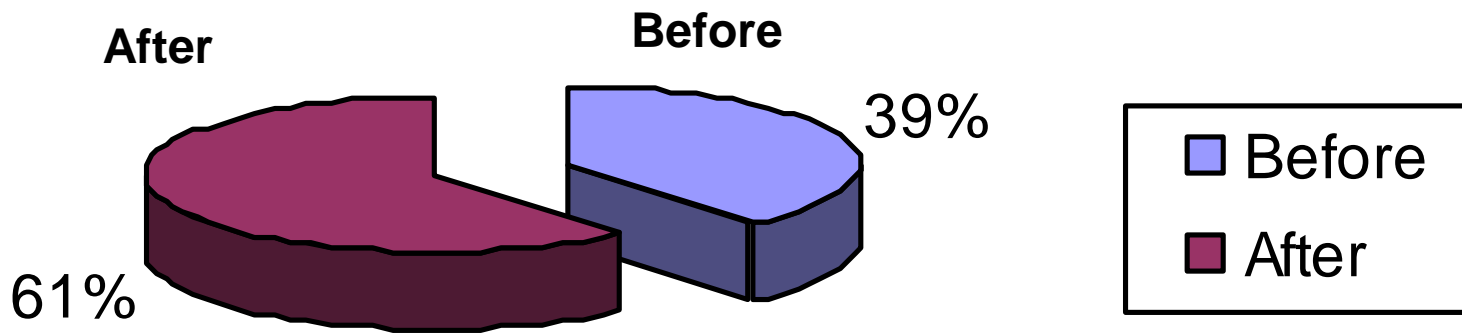
- **Pre-implementation surveys to assess clinician awareness of guidelines**
- **Educational campaign**
 - **ED and ICUs (August to October 2007)**
- **Formal roll-out of sepsis protocol**
 - **October 2007**
- **Post-implementation surveys**
- **Continued performance audits**

Measures to Enhance Compliance

- **Exploration of point of care lactate for ED**
- **Transitioning of order set to computerized order entry**
- **Continued educational beyond ED and ICU**
- **Email and meeting updates on project status and outcomes**

I Am Familiar with EGDT

Comparison of ICU & ED
Staff perceptions
N=240 Pre
N=163 Post

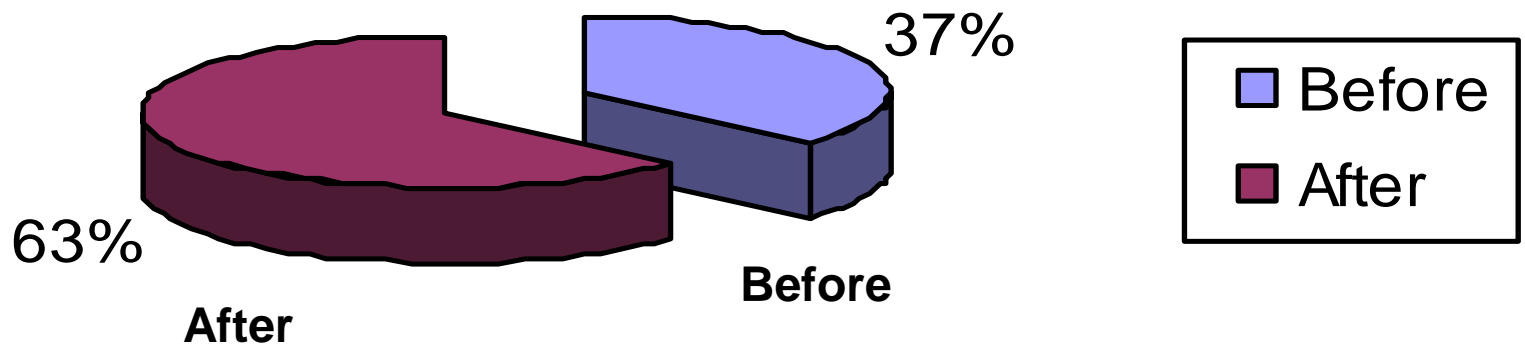


I Am Familiar with SSC Guidelines

Comparison of ICU & ED
Staff perceptions

N=240 Pre

N=163 Post



Impact of Educational Initiative

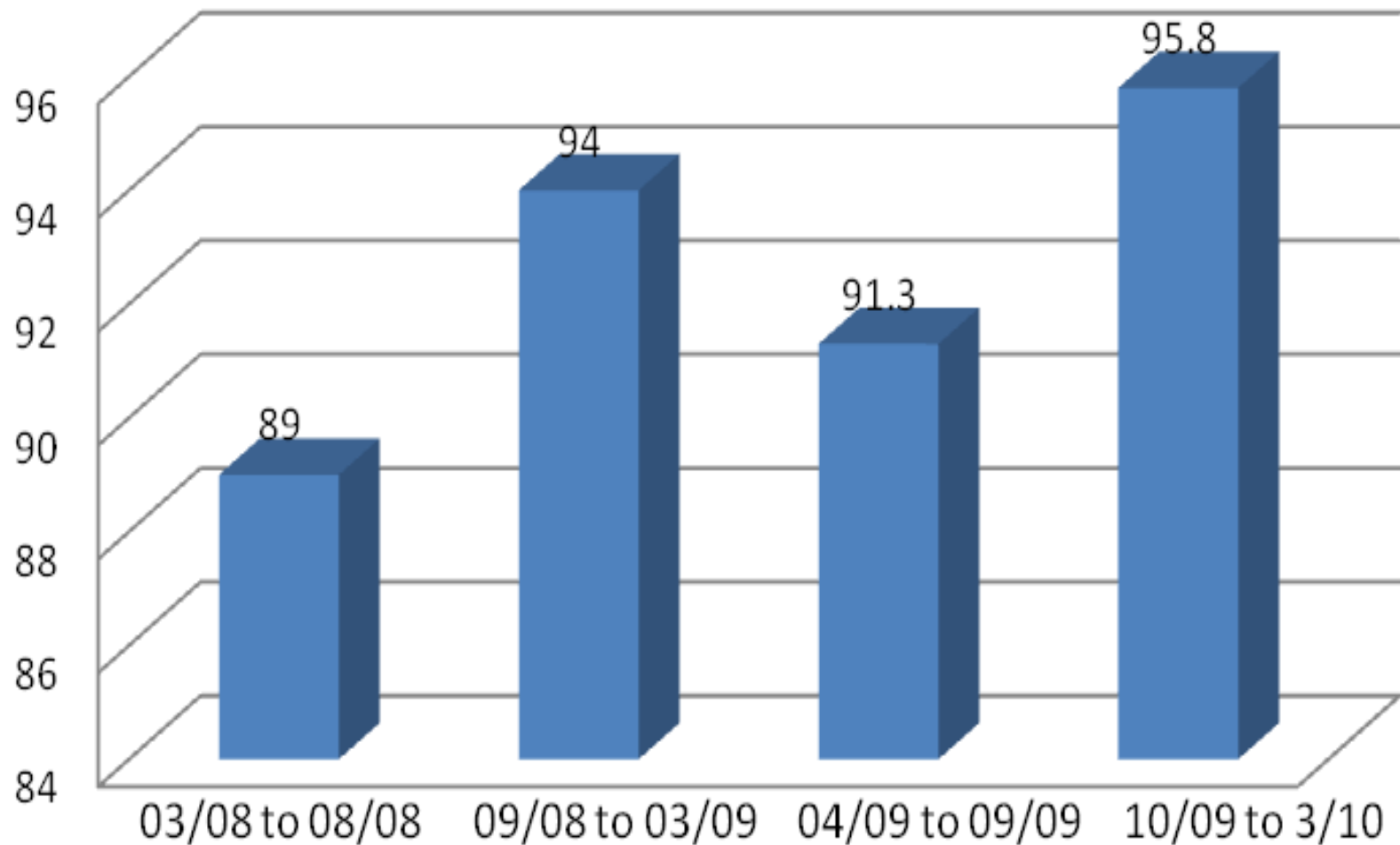
- There is improved ability to rapidly diagnosis sepsis
- Sepsis protocol is being implemented earlier in the ED
- There is improved communication between nursing and the physicians with appropriate discussion of sepsis treatment
- There is better integration of care between the ED and ICU for sepsis patients
- There is more familiarity with the sepsis protocol



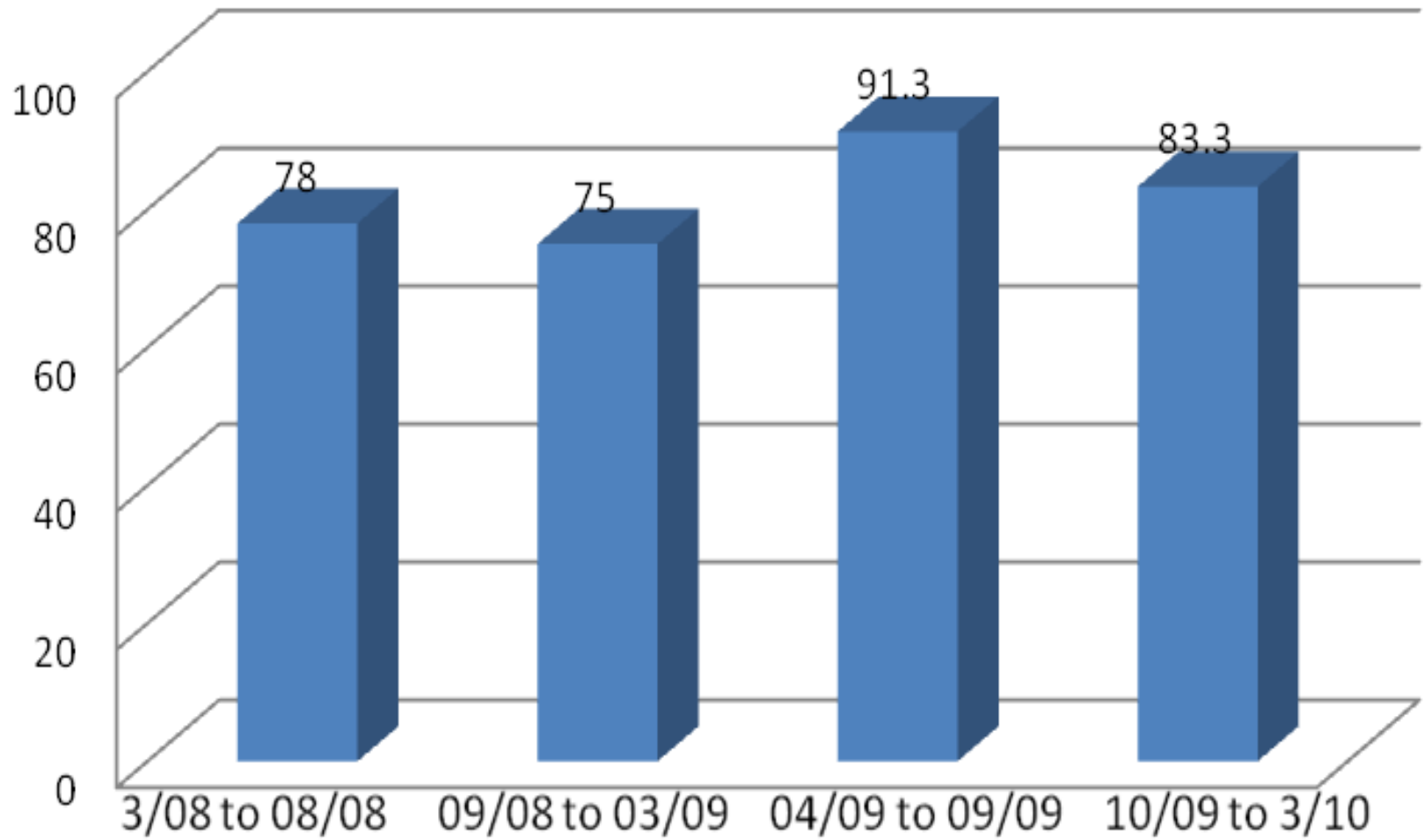
Guideline Use Process

- Conducting 6 month interval chart reviews to assess protocol use
- Evaluate protocol compliance
- Implement point of care lactate in the ED
- Monitor patient outcomes
- Continue to reinforce sepsis protocol
- Transition to EPIC order set

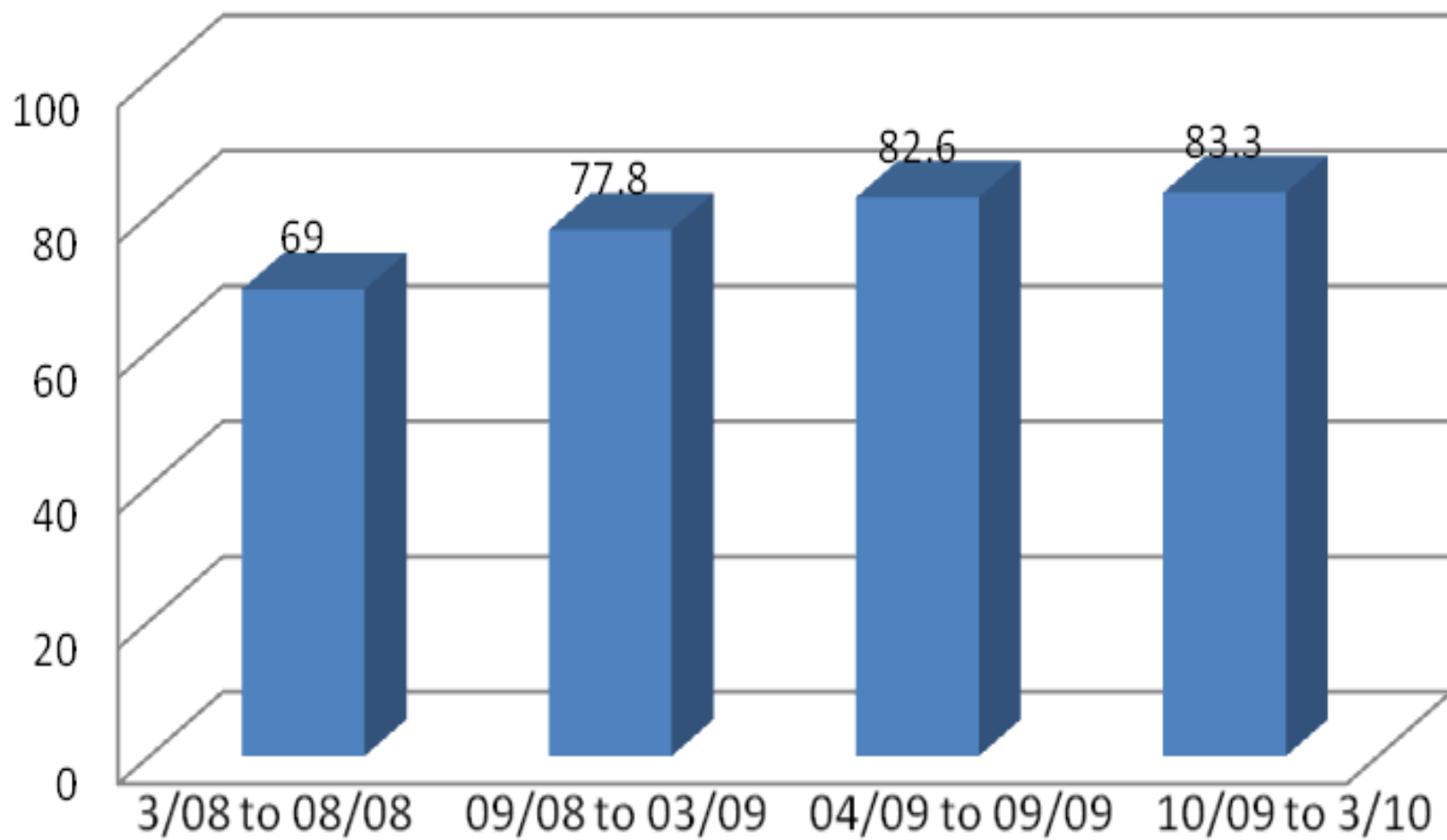
Percent of Patients Meeting Antibiotic Time Goal (60 min)



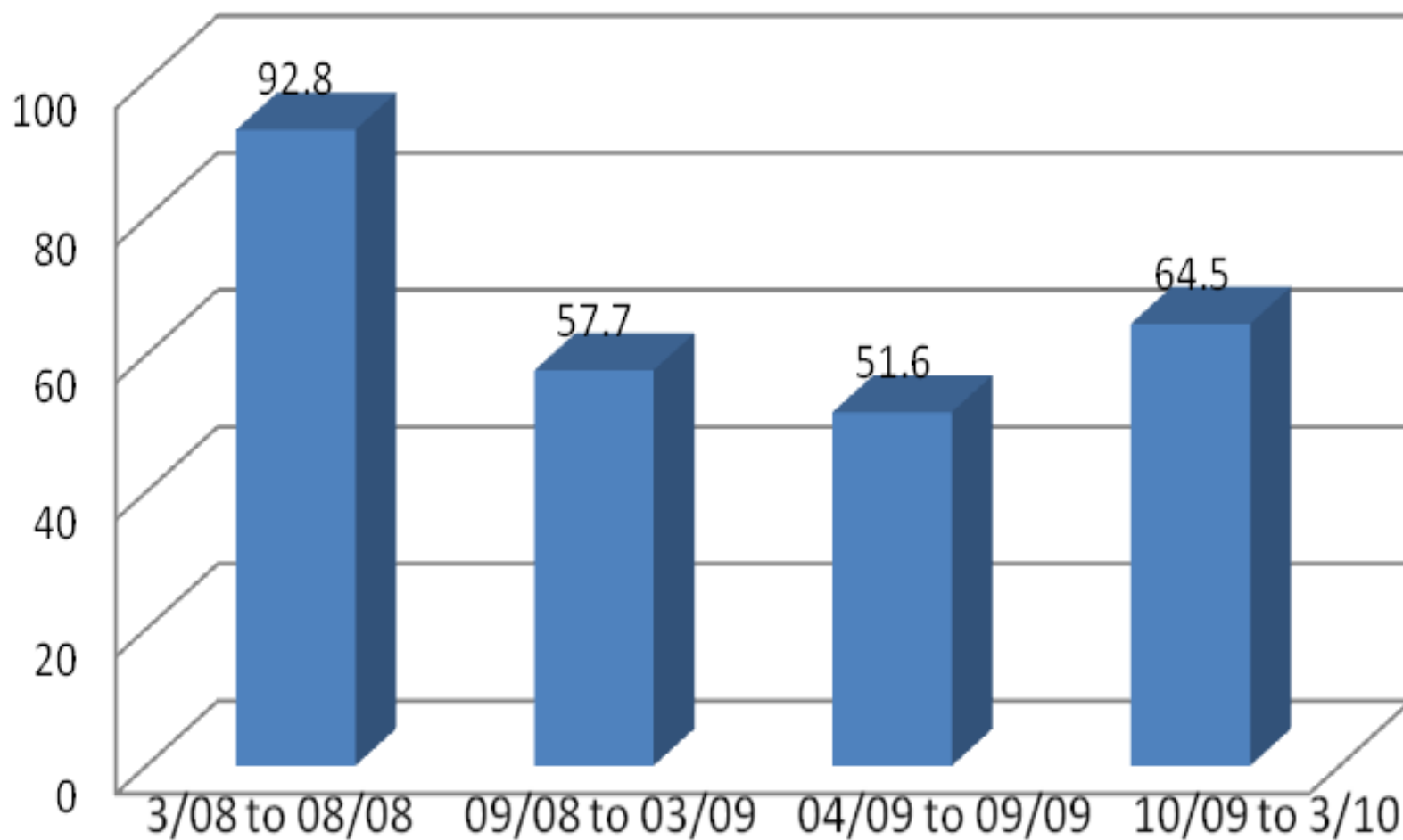
Percent of Patients Meeting Fluid Time Goal (30 min)



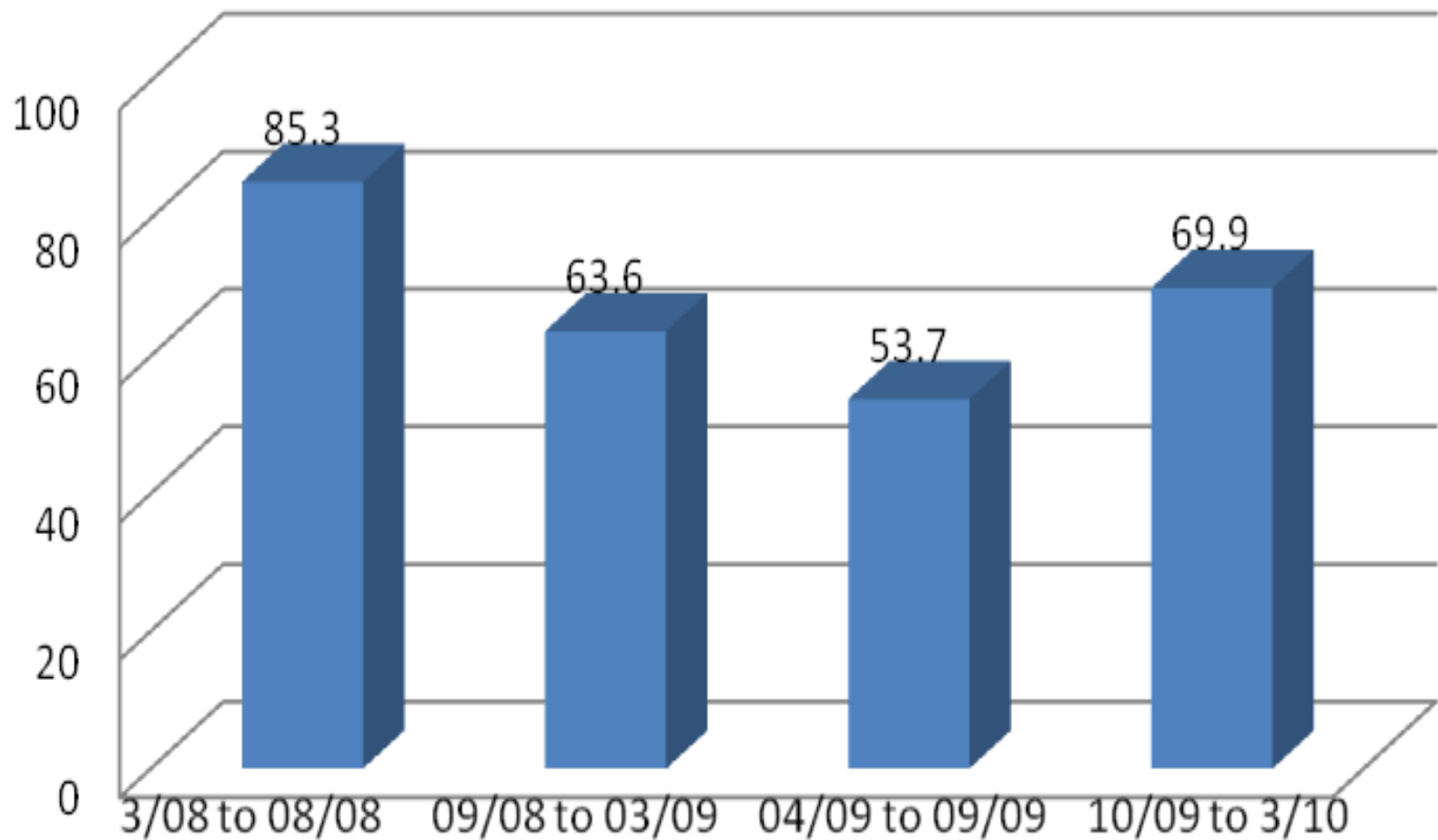
Percent of Patients Meeting BOTH Antibiotic and Fluid Goals



Time from Admission to Lactate Level (Minutes)



Admission to Start of Sepsis Protocol (Minutes)



Summary

- Focused education and reinforcement of sepsis guidelines resulted in significant improvements in adherence to sepsis management recommendations
- Continued efforts are aimed at monitoring guideline components and providing ongoing audit & feedback

