



# **MH&SC HOSPITAL SURVEY RESULTS**

**Michigan Patient Safety Conference  
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MH&SC and BCBSM**



# Presentation Outline

1. Background and methodology of MH&SC hospital survey
2. What does the data show? Trends in hospital patient safety performance 2002 - 2006
3. Now what? MH&SC's New Direction for 2007



# MH&SC Hospital Survey Background, Reporting, and Scoring



# MH&SC Joint Hospital Survey: Background

- Developed and conducted hospital surveys in 2002 – 2006.
  - Guidelines for volumes of complex procedures
  - Recommended activities for quality of care
  - Patient safety tools (2005): RCA and HFMEA
- 2003: Conducted in partnership with The Leapfrog Group
- MH&SC Survey launch August. Results early December.
- Summary and comparative reports to hospitals and health plans
- Publish hospital-specific results on public Web site



# MH&SC Survey: Categories and Scoring Methodology

Volumes from evidence-based literature and clinical expert opinion. Reported but not scored

	Minimum volume
Open heart surgery	200
Percutaneous coronary intervention	400
Abdominal aortic aneurysm	20
Carotid endarterectomy	50
Esophagectomy	7
Low birthweight infants and infants with congenital abnormalities	70
Physician staffing in ICU	na



# MH&SC Survey: Categories and Scoring Methodology

Non-volume activities are related to three content areas:

1. medical appropriateness (50%)
2. risk-adjustment (25%)
3. participation (or willingness to participate) in a statewide database (25%)

Non-volume activities are scored

Each guideline scored separately; maximum score =  
100%



# MH&SC Joint Hospital Survey

- **Consumers** can view results for individual hospitals on MH&SC website ([www.mihealthandsafety.org](http://www.mihealthandsafety.org))
- **Hospitals** that participate in the survey receive a CD with their summary results
- **Michigan health plans** receive a CD reporting the results of hospitals in their contracted networks.
- Results shared with MH&SC and at public meetings



# MH&SC Survey: Scoring on the website

2003 Consumer Report - Microsoft Internet Explorer provided by Blue Cross Blue Shield of Michigan

File Edit View Favorites Tools Help

Google Search Web 52 blocked AutoFill Options

For each treatment area, hospitals received the following designations:

●●●●●	Fully meets guideline
●●●●	Meets over 80% of guideline
●●●	Meets over 60% of guideline
●●	Meets over 40% of guideline
●	Meets less than 40% of guideline
N/A	Not applicable
N/R	Not reported

For example, if the coalition recommended volume is 50 and a hospital scored 161, that would be represented as follows:

▬	161 (actual volume)
▬	50 (coalition threshold)

For more detail about scoring methods, weights assigned to different indicators of quality and definition of acronyms go to the: > [Technical Notes Page](#)

Done Please visit: [www.mihealthandsafety.org](http://www.mihealthandsafety.org) Internet



# MH&SC Consumer Report: Hospital Screen

2003 Consumer Report - Microsoft Internet Explorer provided by Blue Cross Blue Shield of Michigan

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit

Address [http://mihealthandsafety.org/2003\\_consumer/low\\_graphics/hospitals/univ\\_michigan.html](http://mihealthandsafety.org/2003_consumer/low_graphics/hospitals/univ_michigan.html) Go Links >>

Google Search Web 52 blocked AutoFill Options

In the Annual Volume Results column, the lower bar always represents the Coalition's recommended volume and the upper bar always represents the hospital's volume. The actual volume numbers are displayed below the bars.

Click the links in the Treatment Area column to view the survey results for a specific treatment.

[hospital comments](#)

Treatment Area	Activity Results	Annual Volume Results
<a href="#">Open Heart Surgery</a>	● ● ● ● ●	<p>930 (actual volume)</p> <p>200 (coalition threshold)</p>
<a href="#">Percutaneous Coronary Interventions</a>	● ● ● ● ●	<p>630 (actual volume)</p> <p>400 (coalition threshold)</p>
<a href="#">Abdominal</a>	● ● ● ● ●	

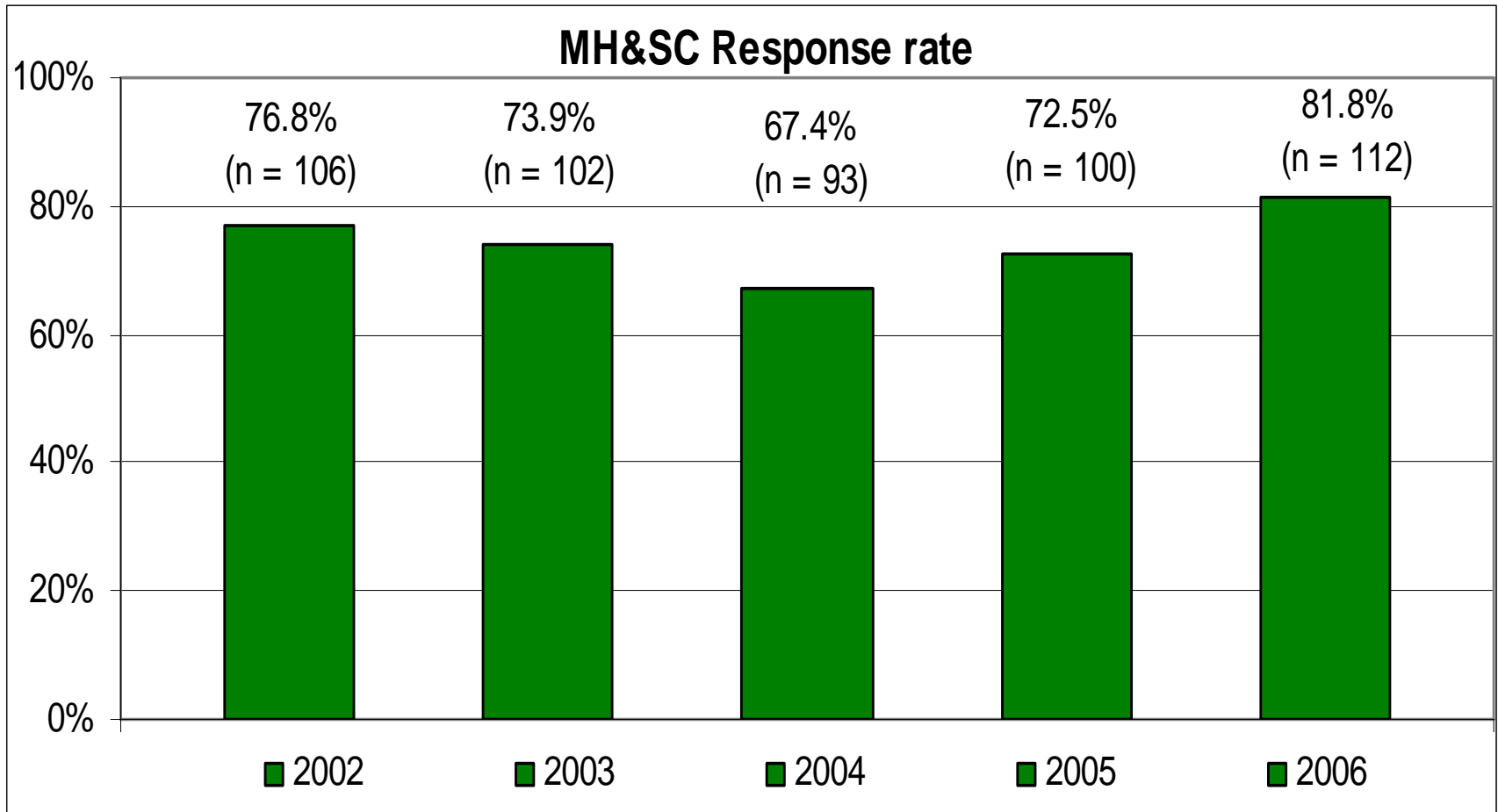
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# Findings MH&SC Hospital Survey 2002- 2006



# MH&SC Survey Response Rate: 2002-2006 Trend

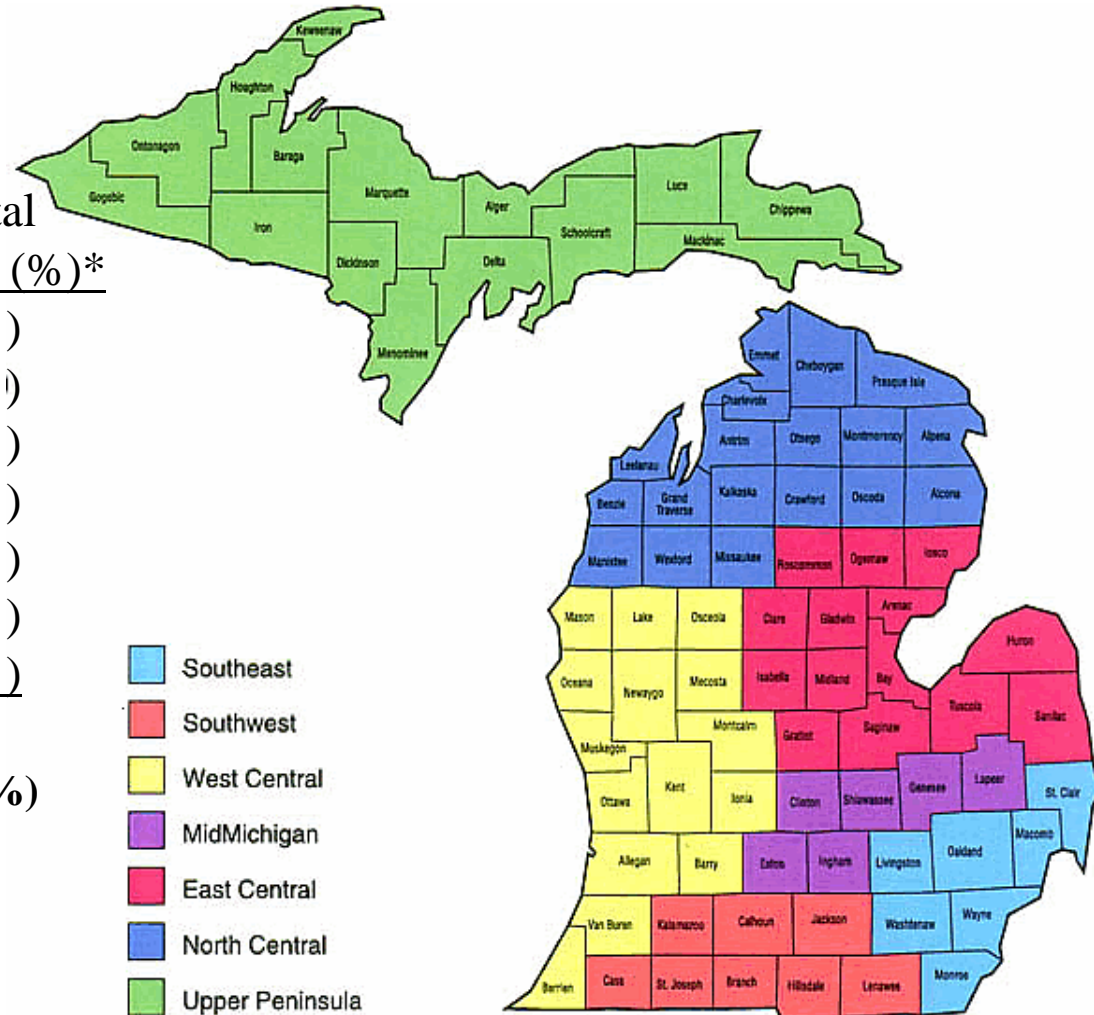




# 2006 MH&SC Survey Response Rate: Distribution by Region

<u>Region</u>	<u># Hospitals/ Region</u>	<u># Hospital Responses (%)*</u>
Southeast	41 (30%)	40 (98%)
Southwest	14 (10%)	10 (71%)
West Central	26 (19%)	18 (69%)
Mid Michigan	10 (7%)	8 (80%)
East Central	20 (15%)	16 (80%)
North Central	12 (9%)	8 (67%)
Upper Peninsula	15 (11%)	12 (80%)

**Total 138 (100%) 112 (81.8%)**





# Multi-year MH&SC Hospital Survey Response Rates (2002 – 2006)

Annual Response	Percent	Total Hospitals
5 yrs	48.9%	67
4 yrs	13.9%	19
3 yrs	17.5%	24
2 yrs	7.3%	10
1 yr	12.4%	17
	100%	137

- Nearly half of all Michigan hospitals did submit survey's for all five (5!) years of the MH&SC survey
- About 20% of the hospitals responded only once or twice to the MH&SC survey



# Distribution Multi-year Response Rates by Peer Group\*

	<b>1 Yr</b>	<b>2 Yrs</b>	<b>3 Yrs</b>	<b>4 Yrs</b>	<b>5 Yrs</b>	<b>Total</b>
<b>Peer 1</b>	--	3.4%	10.3%	10.3%	<u>75.9%</u>	100% (29)
<b>Peer 2</b>	13.6%	--	4.5%	13.6%	<u>68.2%</u>	100% (22)
<b>Peer 3</b>	13.6%	4.5%	18.2%	9.1%	<u>54.5%</u>	100% (23)
<b>Peer 4</b>	18.2%	18.2%	27.3%	9.1%	27.3%	100% (22)
<b>Peer 5</b>	14.6%	9.8%	24.4%	22.0%	29.3%	100% (41)
<b>Total</b>	12.4% (17)	7.3% (10)	17.5% (24)	13.9% (19)	48.9% (67)	100% (137)

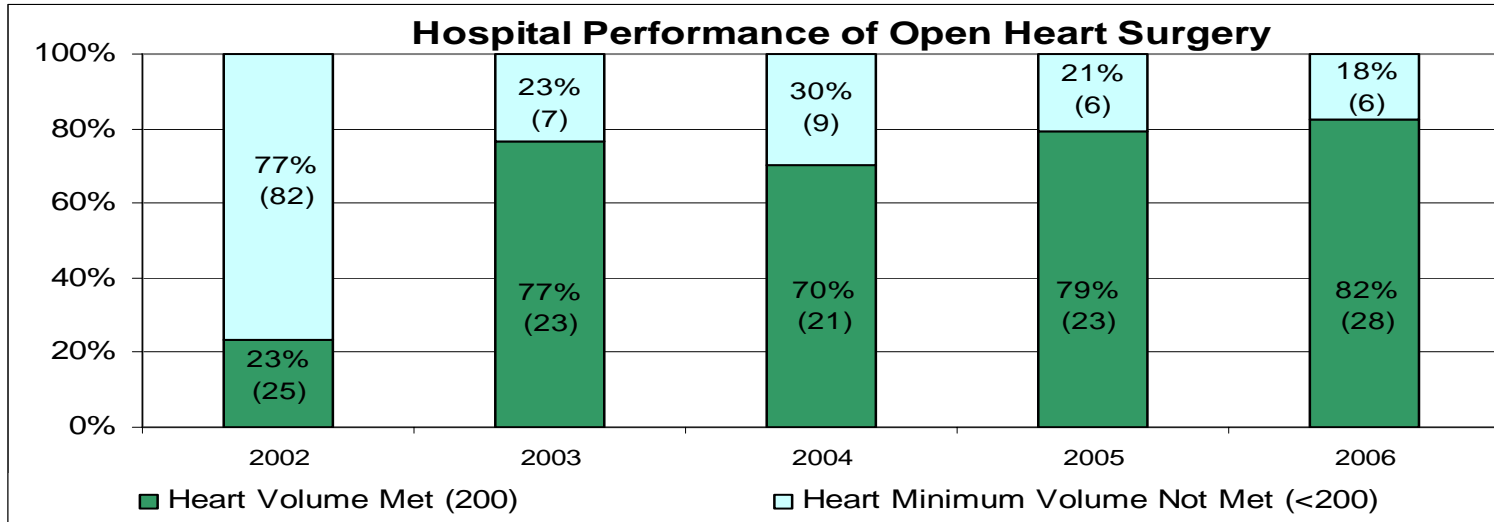
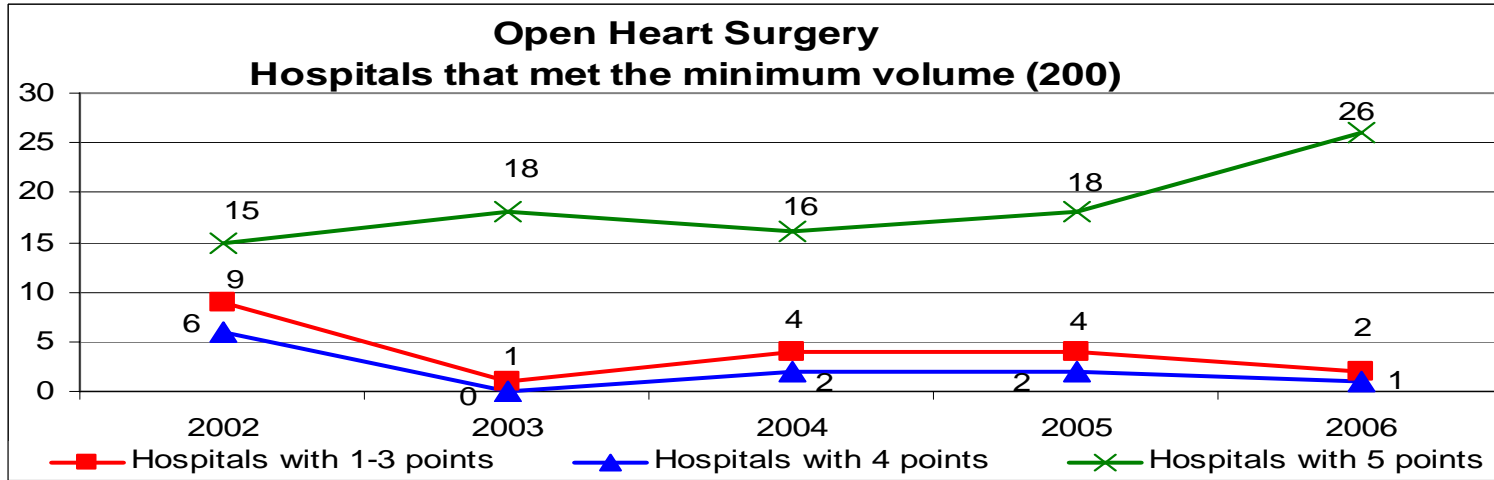
\* Definitions provided in appendix



# Adherence to Volume Requirements and Recommended Activities

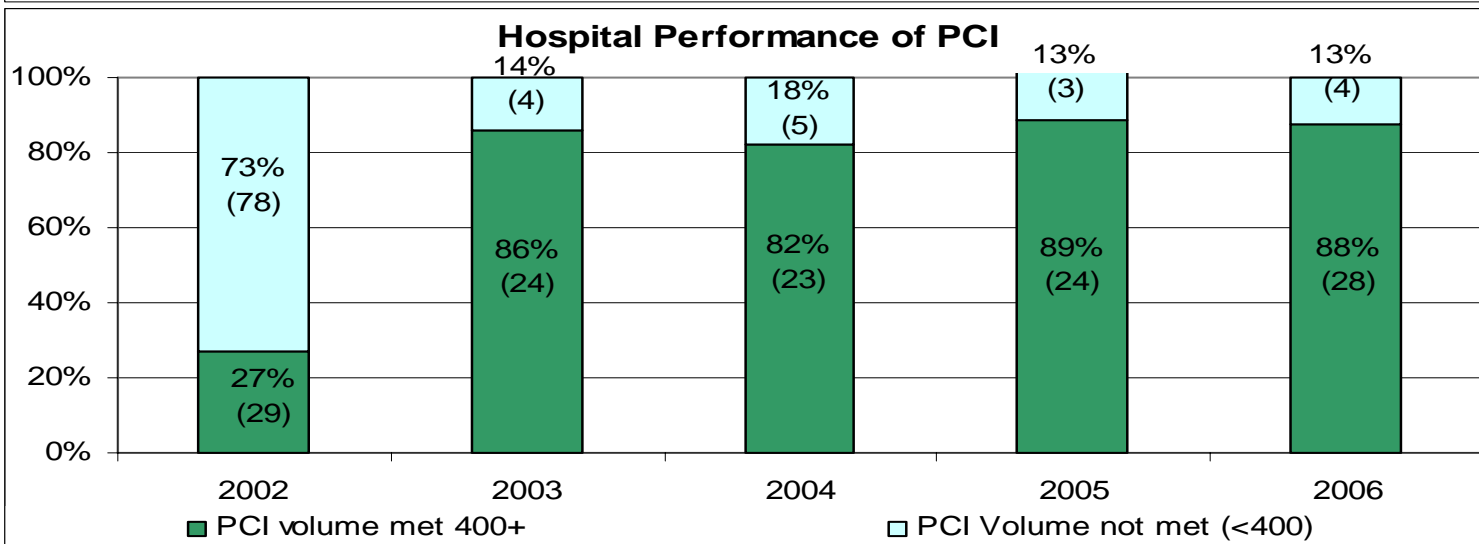
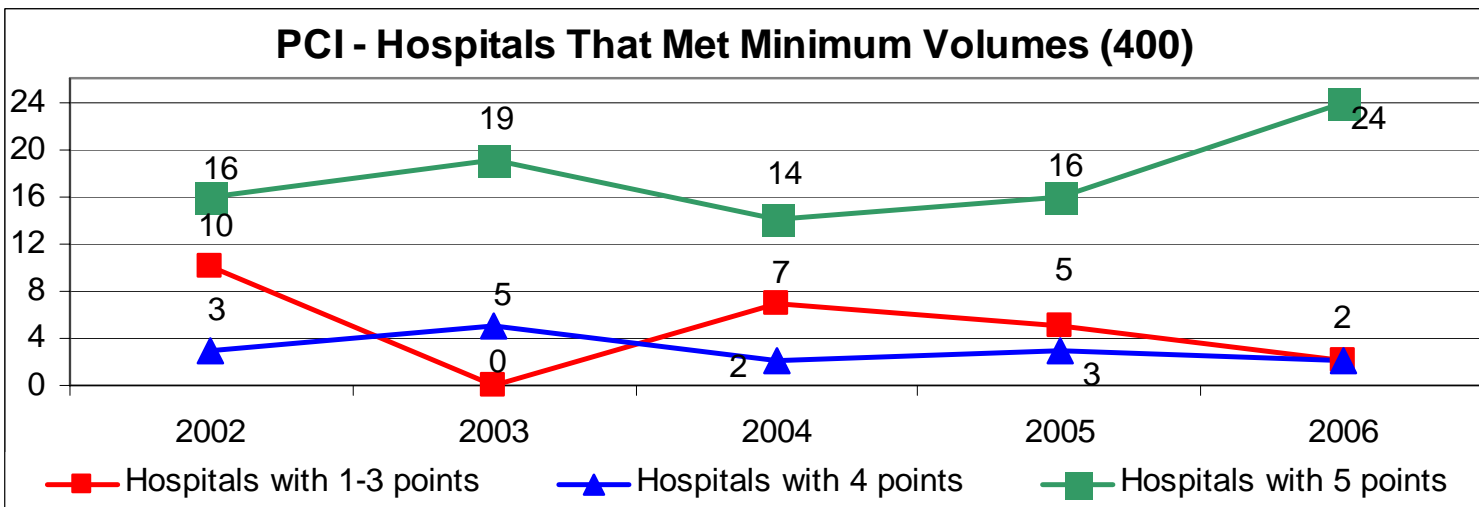


# Recommended Volume Requirements and Activities



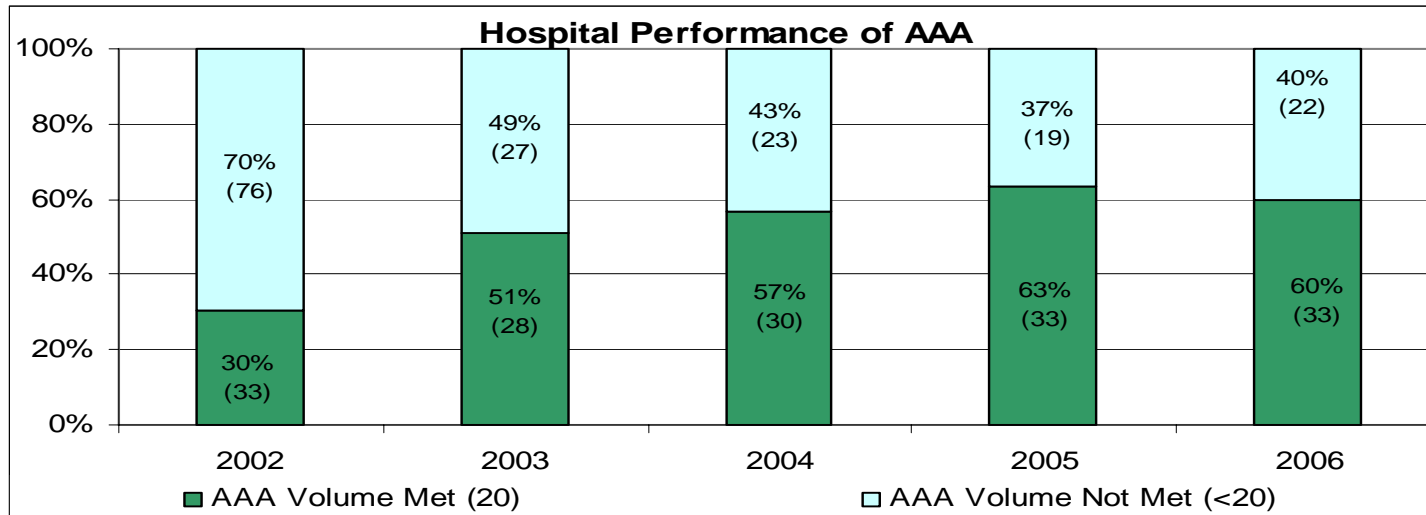
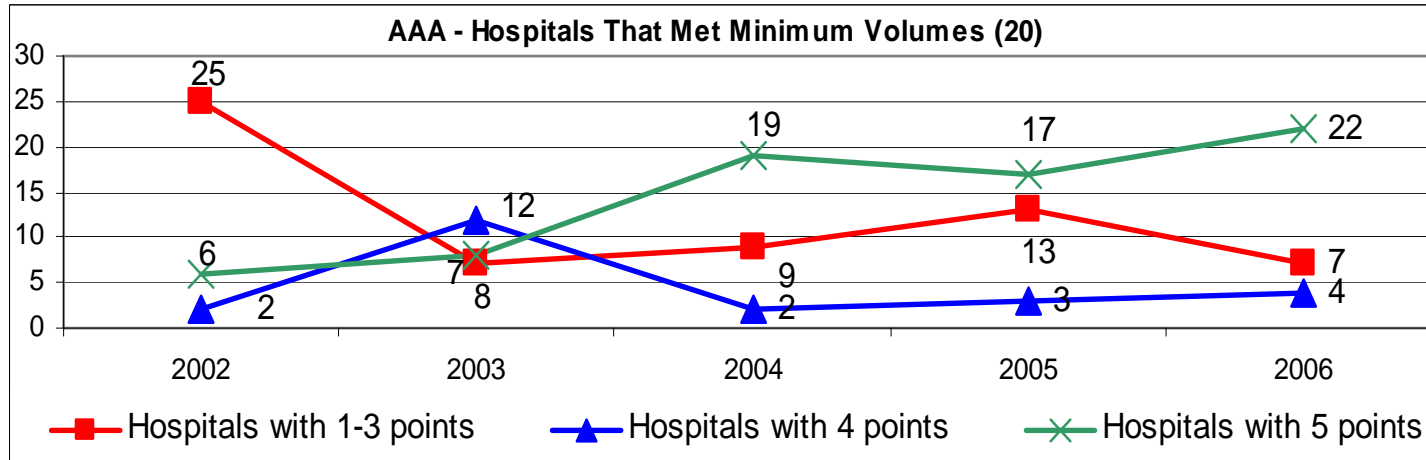


# Recommended Volume Requirements and Activities



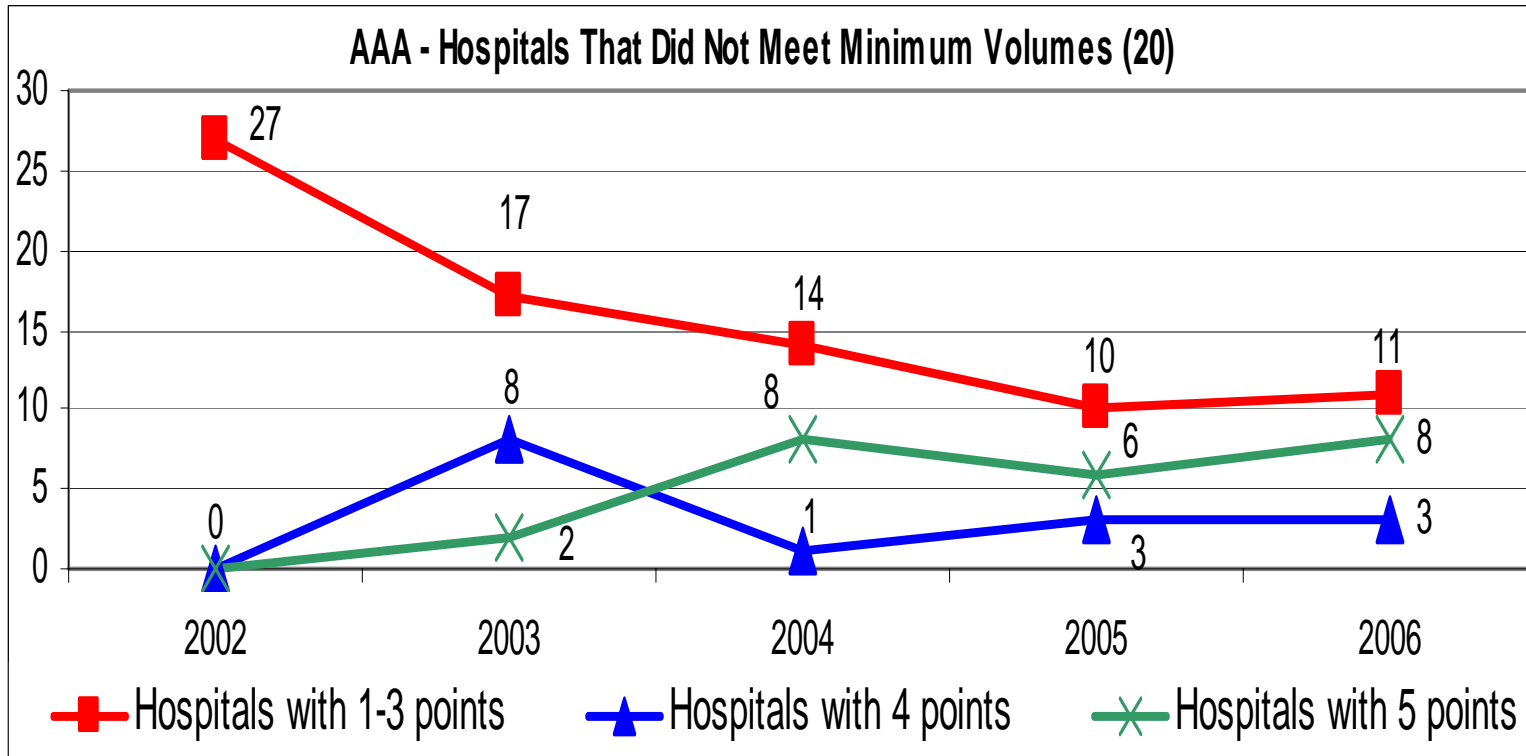


# Recommended Volume Requirements and Activities



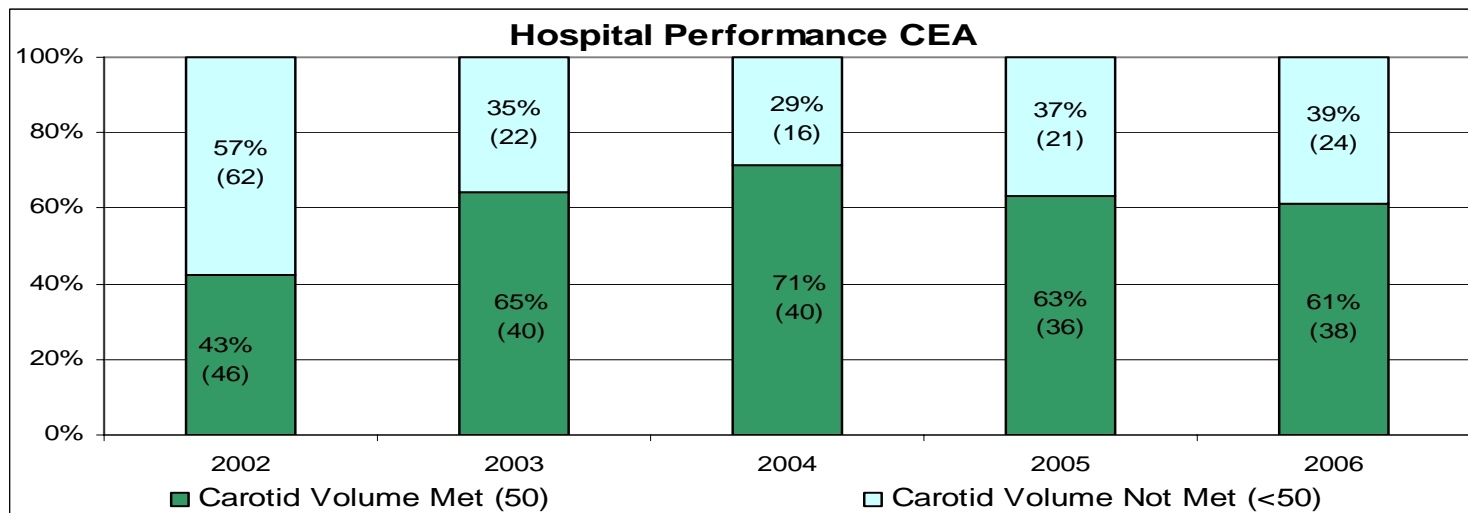
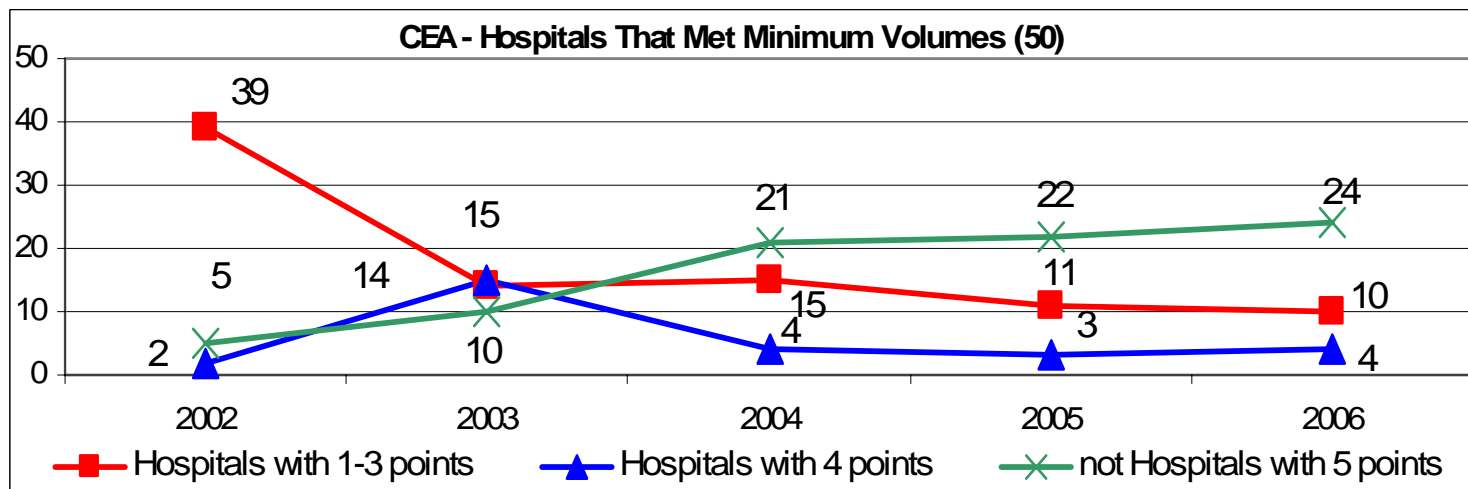


# Implementation of Recommended Activities



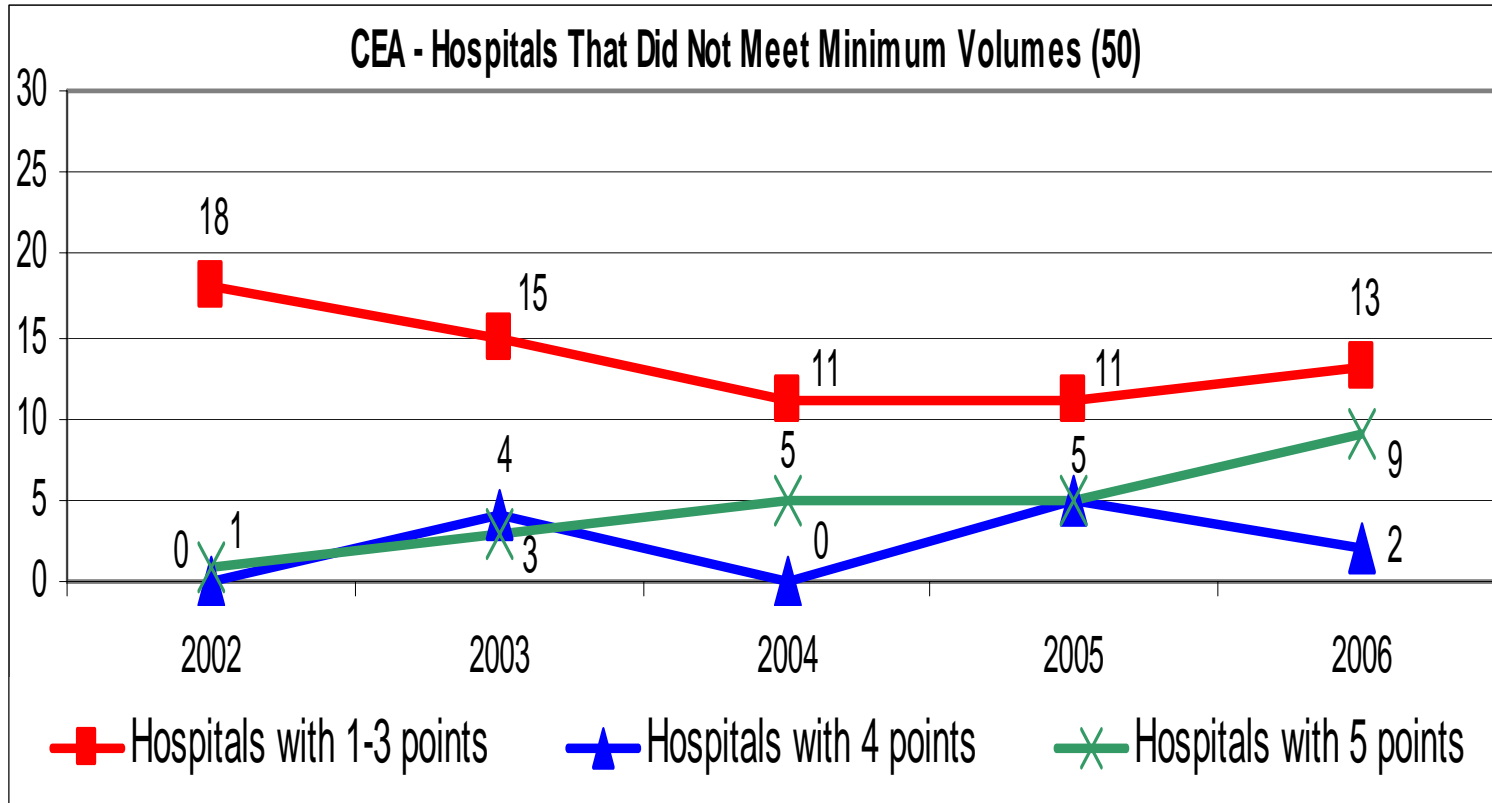


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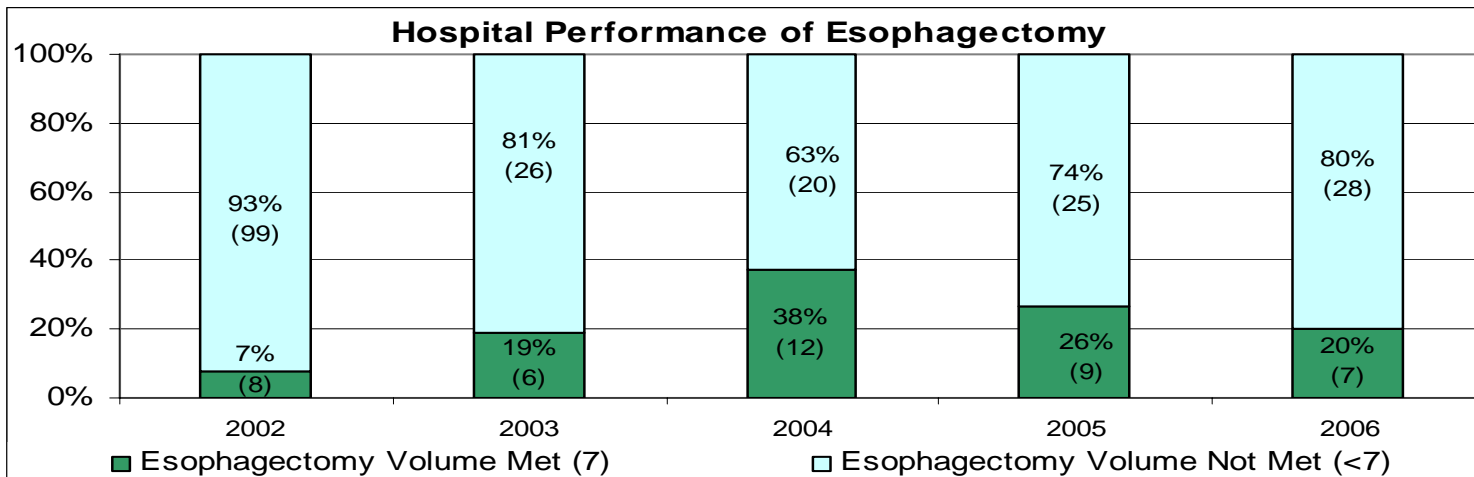
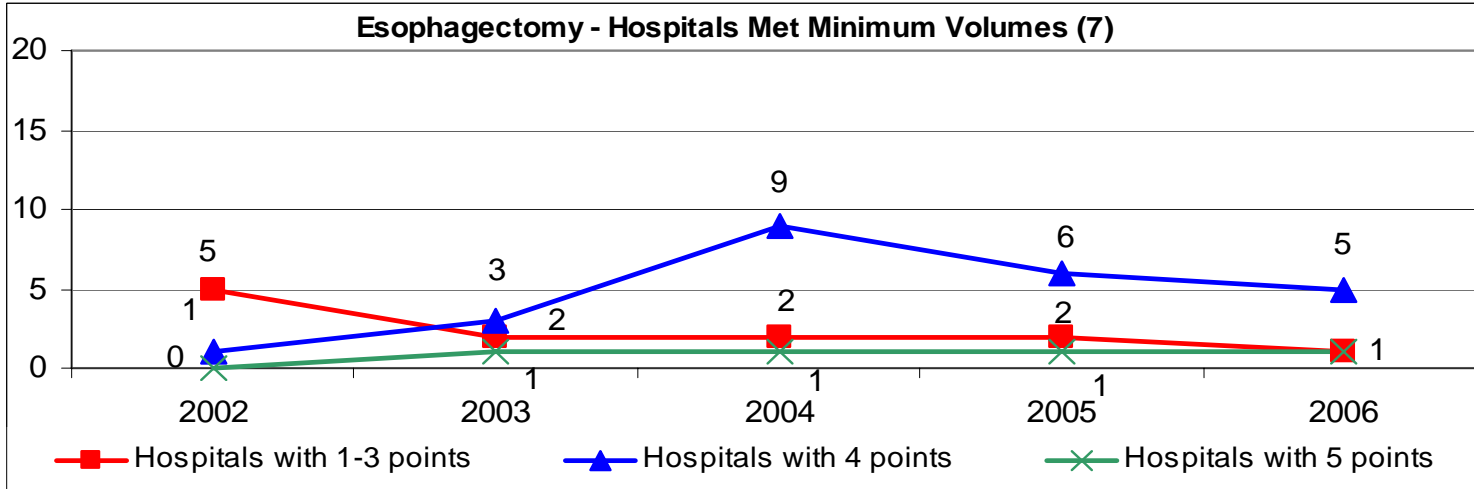


# Implementation of Recommended Activities



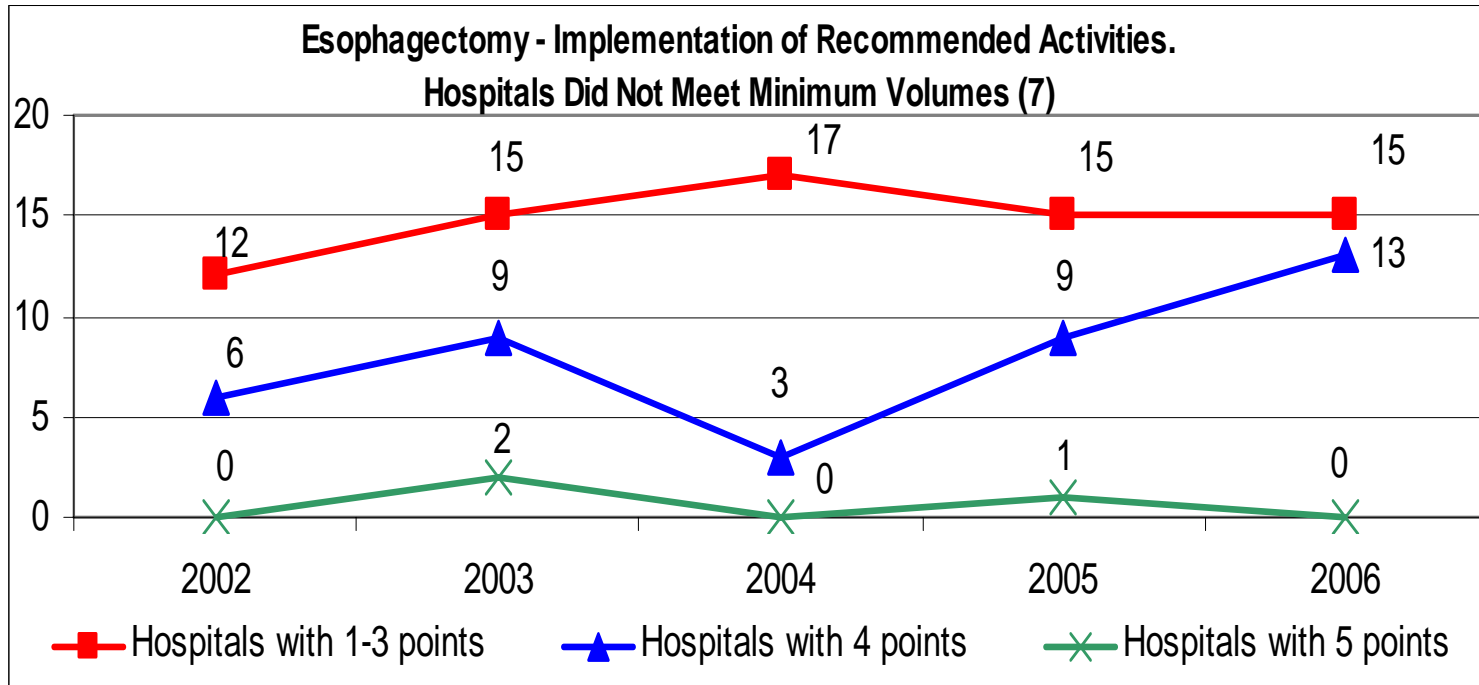


# Recommended Volume Requirements and Activities



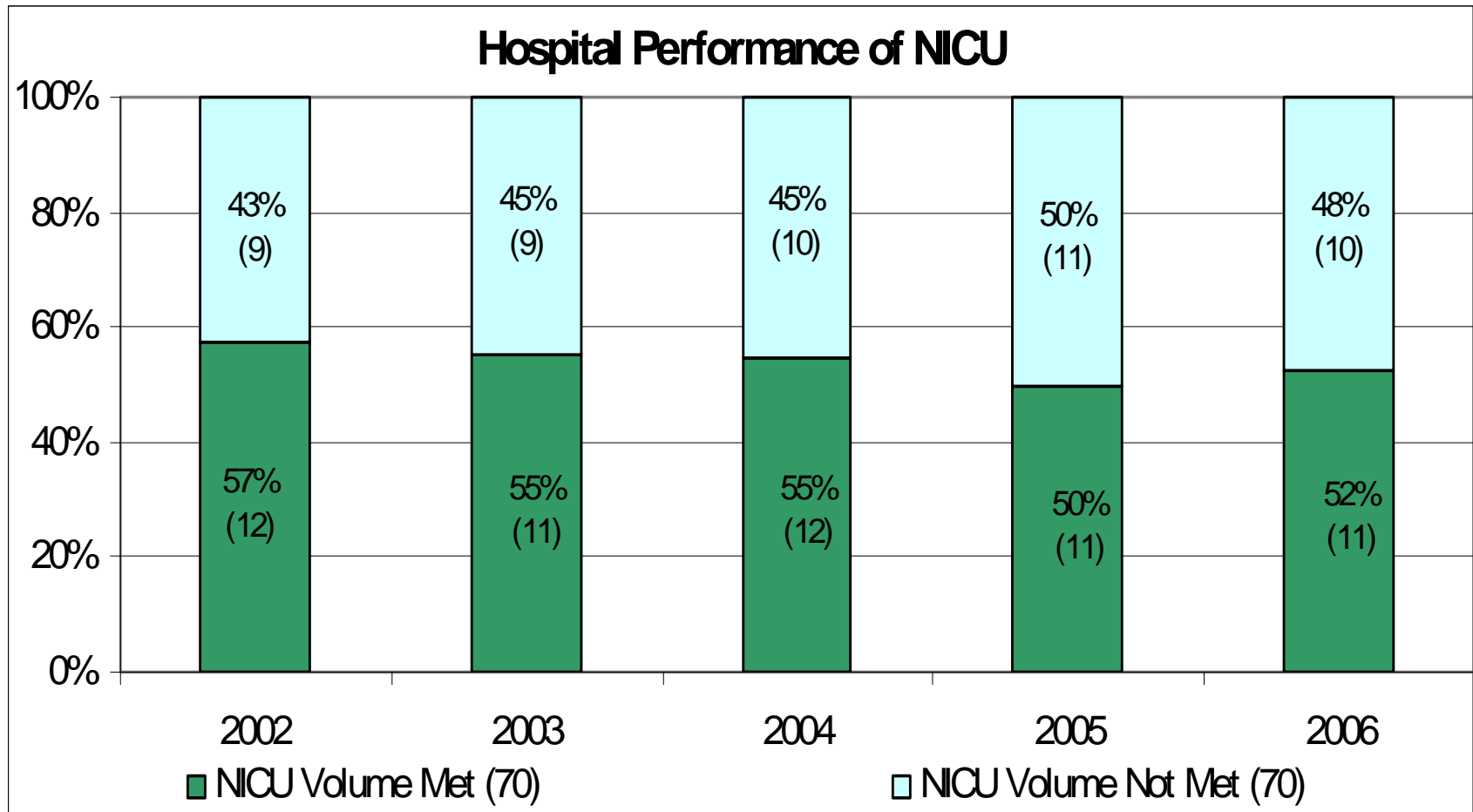


# Implementation of Recommended Activities



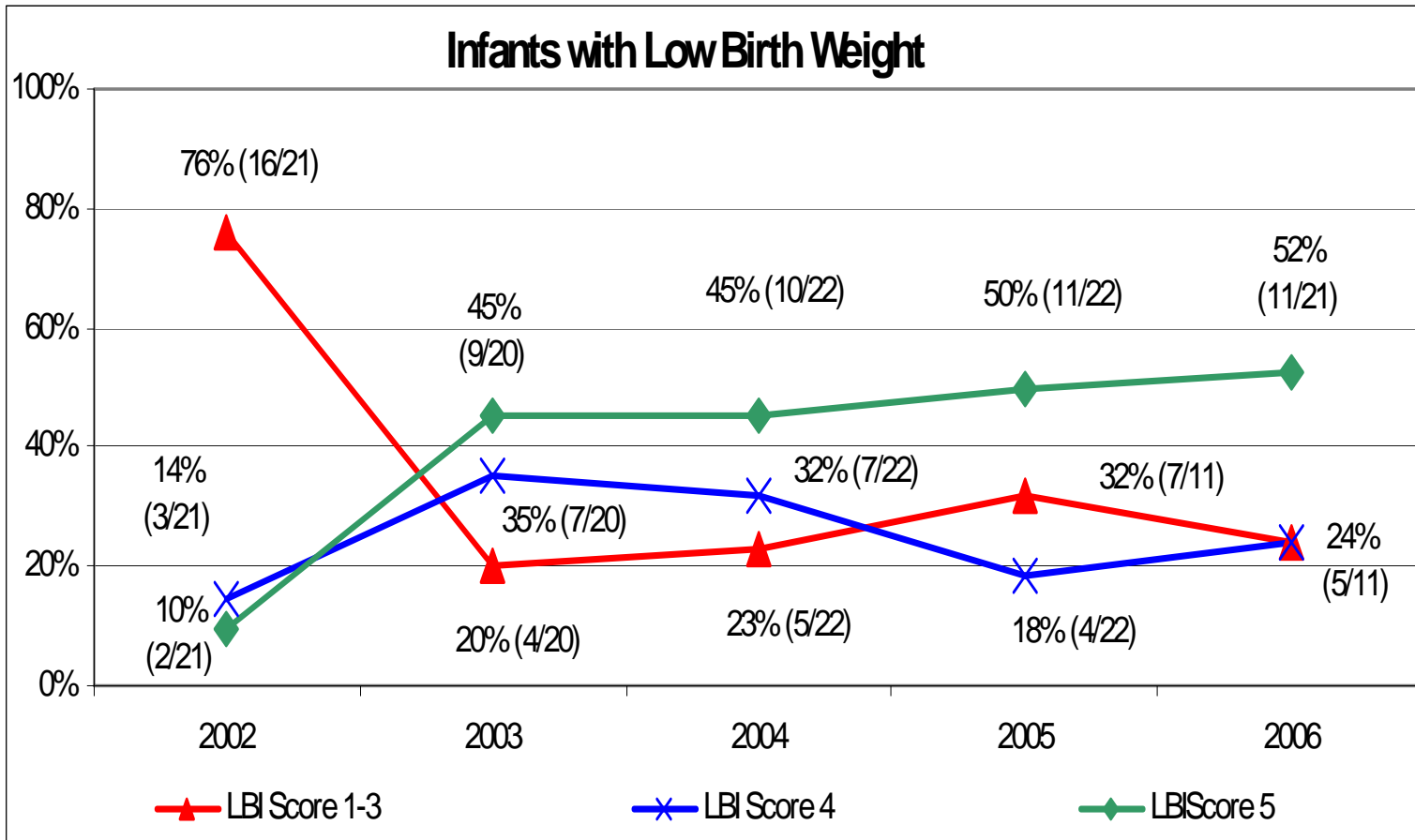


# Recommended Volume Requirements and Activities



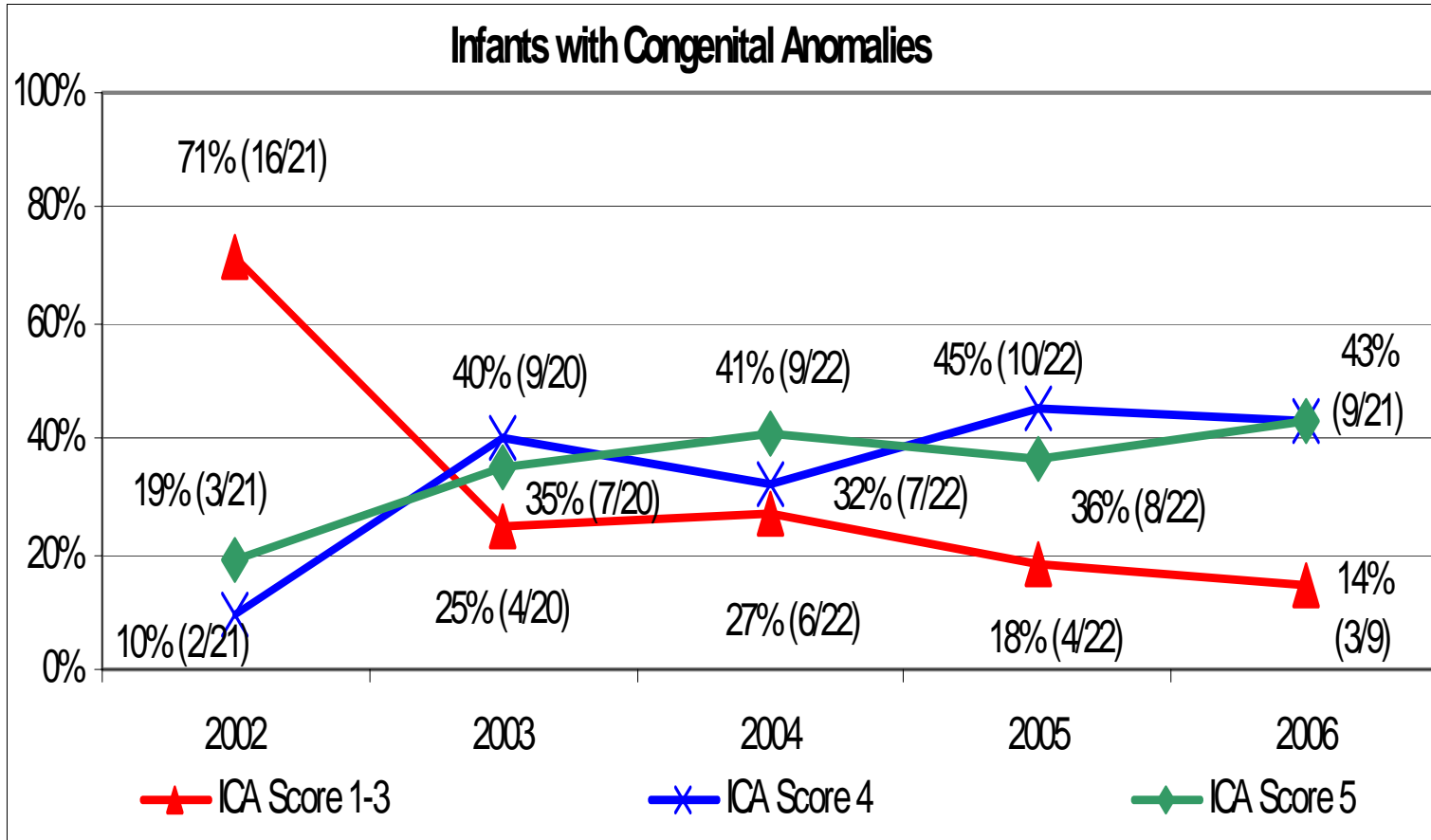


# Implementation of Recommended Activities



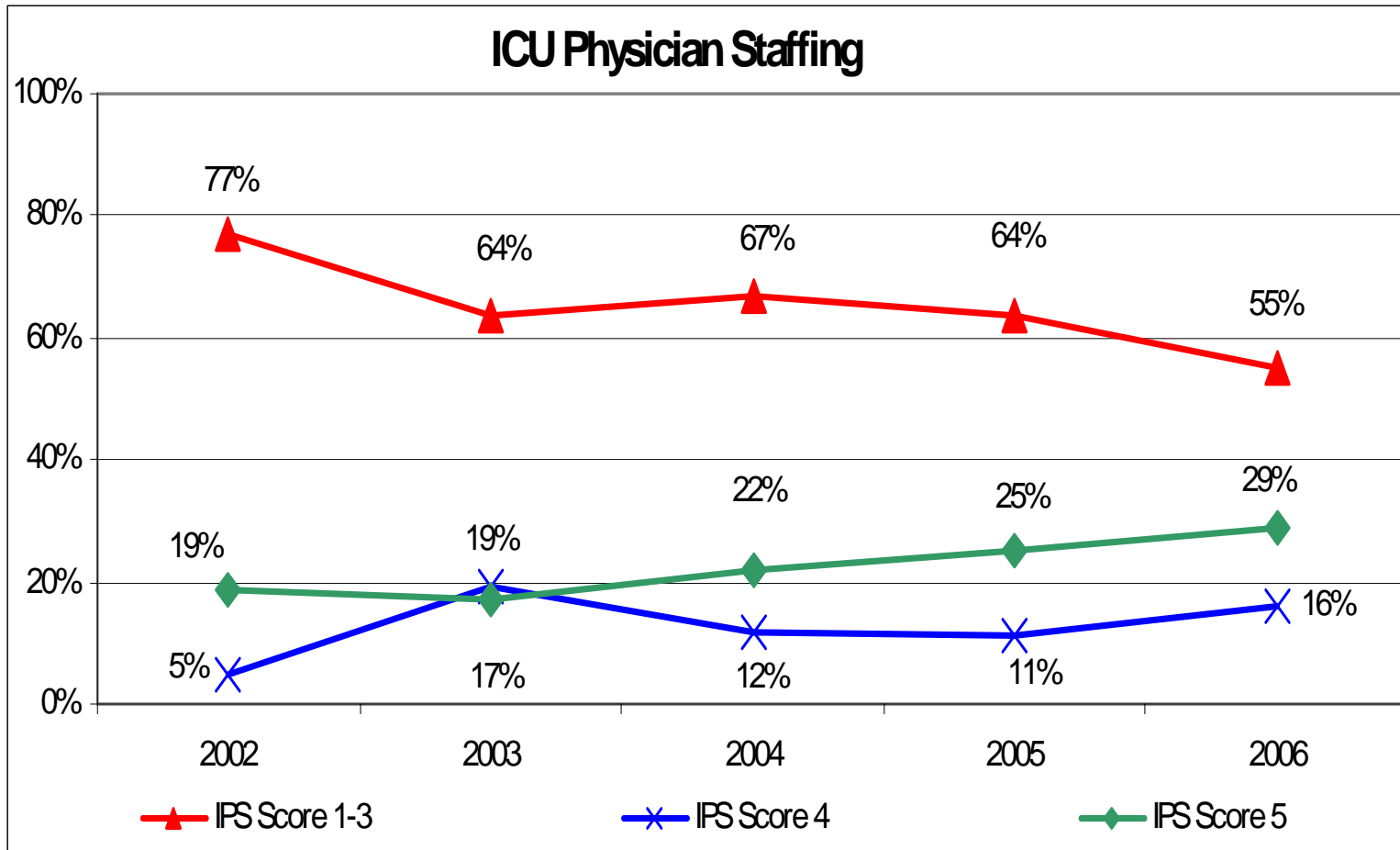


# Implementation of Recommended Activities





# Implementation of Recommended Activities





# Summary

- The trends for major procedures vary with respect to volumes met and implementation status of the recommended activities
- Some procedures have shown considerable improvement in adherence to recommended guidelines, such as open heart surgery and PCI
- Some procedures where hospitals did not meet the minimum volume requirements, improvement in implementation of the recommended activities continued, for example, CEA, AAA, Esophagectomy



# Summary

- For LBWI the number of hospitals with 5 points remained stable (10-11 hospitals). For ICA, the number of hospitals with 5 pts. increased to 9/21, similar to 4 pts.
- For LBWI, the hospitals with only 1-3 pts. have decreased to 5/21 and for ICA to 3/21, suggesting overall improvement of implementation of recommended activities
- Implementation of ICU activities has increased from 19% (2003) to 29% (2006); hospitals with 1-3 pts have decreased from 77% to 55% in 2006



# Root Cause Analysis (RCA) and Healthcare Failure Mode and Effect Analysis (HFMEA)



# MH&SC Joint Hospital Survey: RCA and HFMEA

- Patient Safety Tools:
  - Root Cause Analysis (RCA)
  - Healthcare Failure Mode Effect Analysis (HFMEA)
- This section is NOT scored nor are results posted on the MH&SC consumer report
- Use results as a baseline to determine the need for collaborative improvement efforts in this area

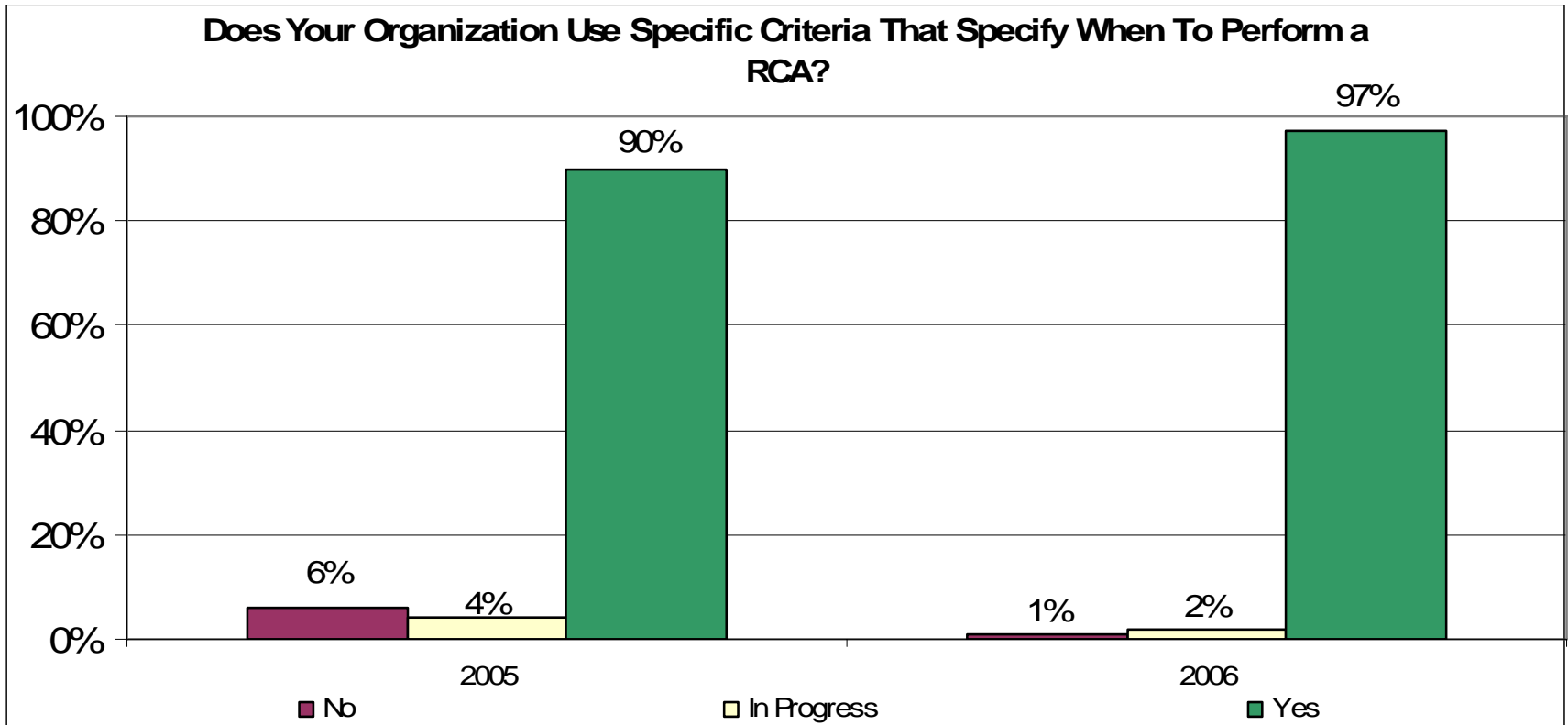


# MH&SC Joint Hospital Survey: RCA and HFMEA

- Root Cause Analysis (RCA)
  - Root-cause analysis is a retrospective qualitative process aimed at uncovering the underlying cause(s) of an error by looking at the “sharp end” of an error to the enabling latent conditions that contributed to or enabled the occurrence of the error
  - A RCA focuses primarily on systems and processes, not individual performance. The result is an action plan that identifies the strategies that the organization intends to implement to reduce the risk of similar events occurring in the future

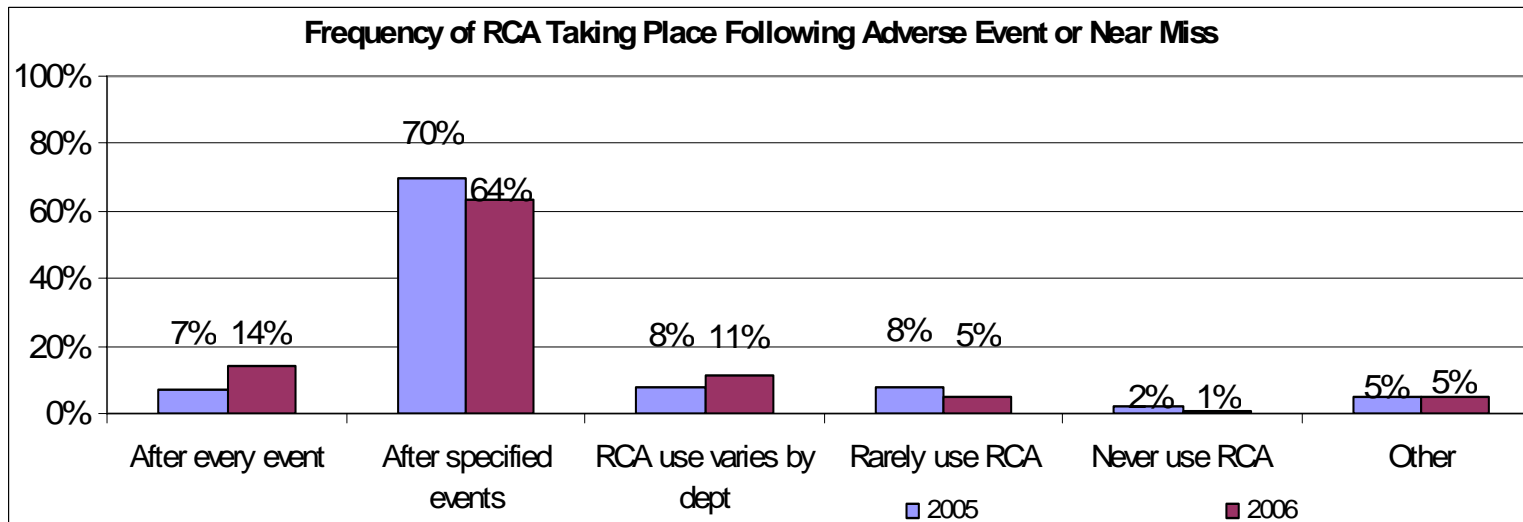
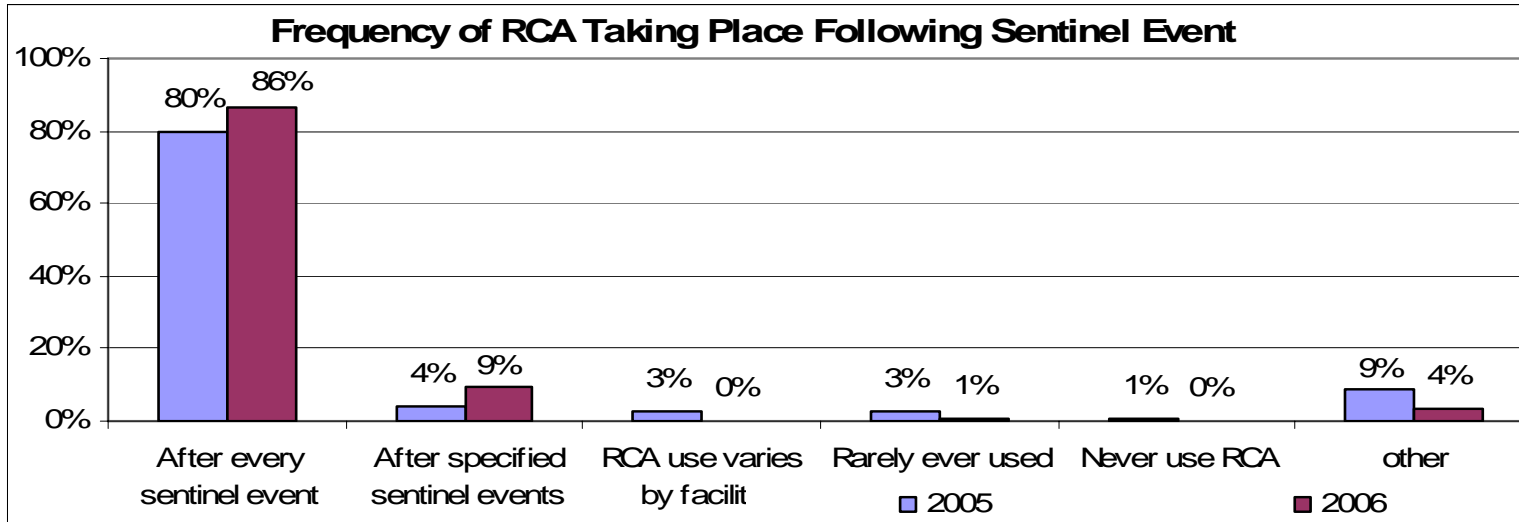


# Root Cause Analysis (RCA)



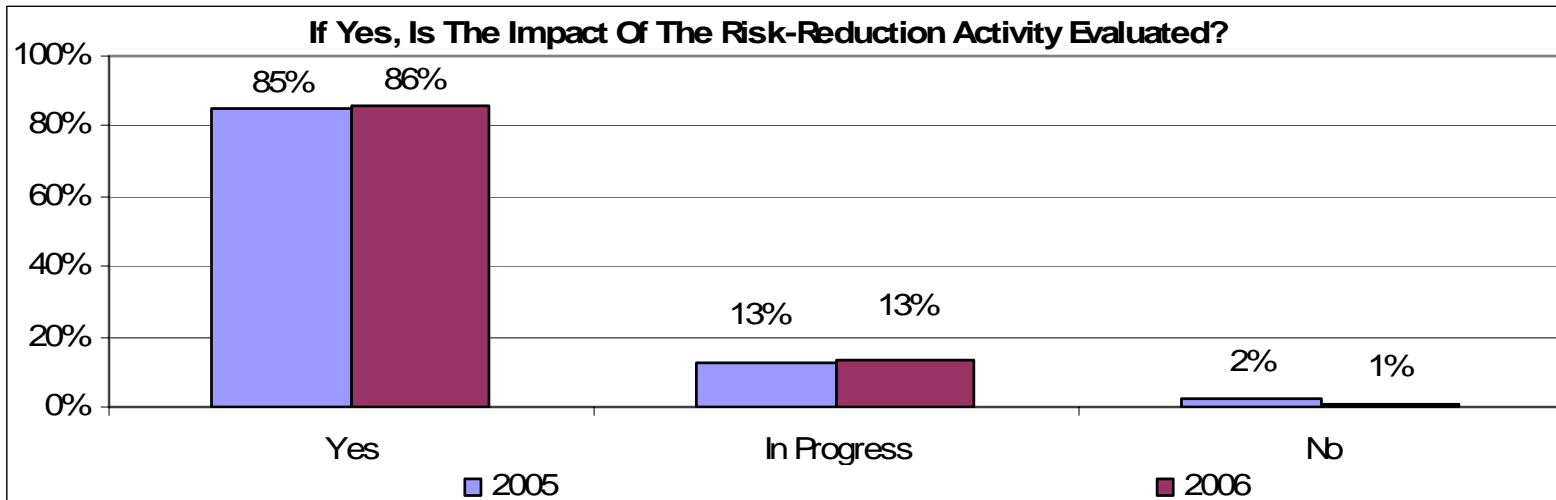
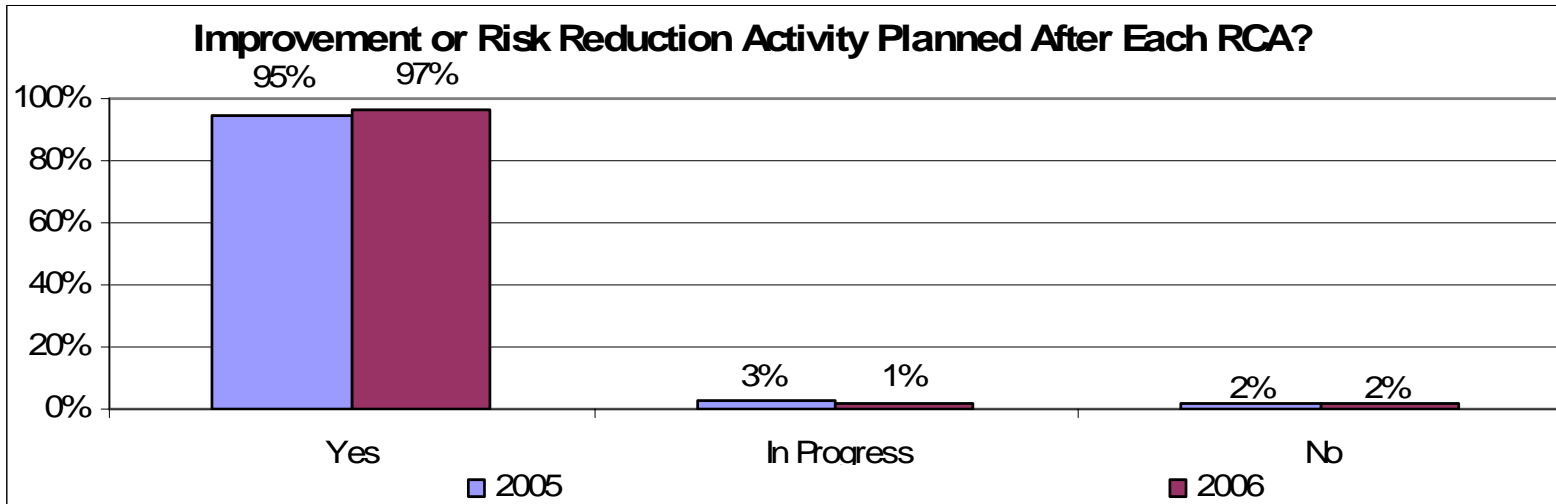


# Utilization of RCA Findings





# Activity Implementation and Evaluation After RCA



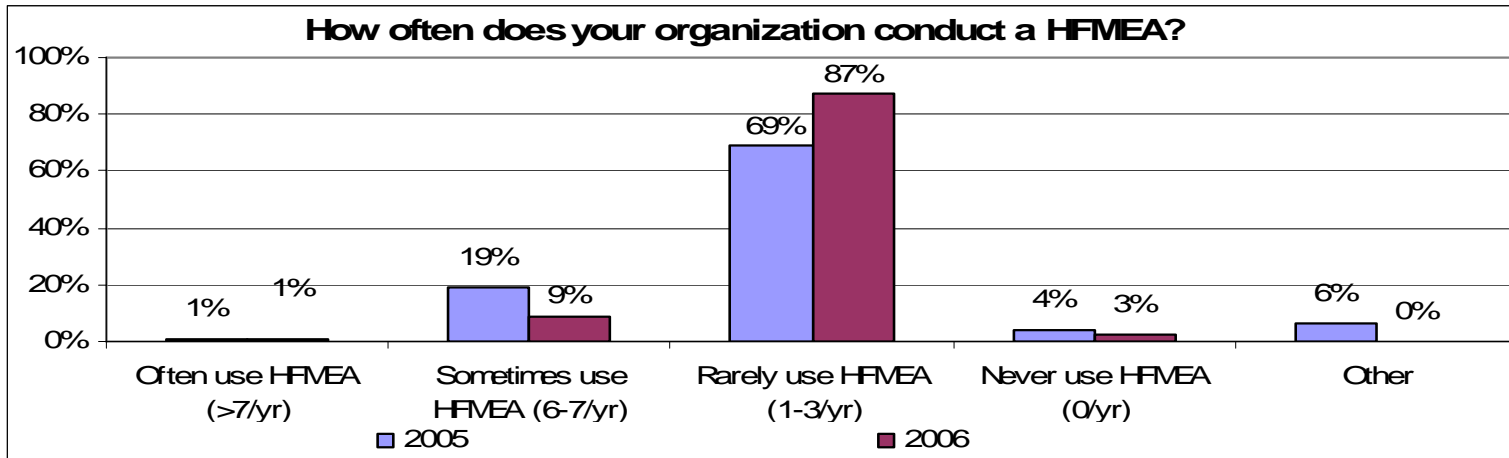
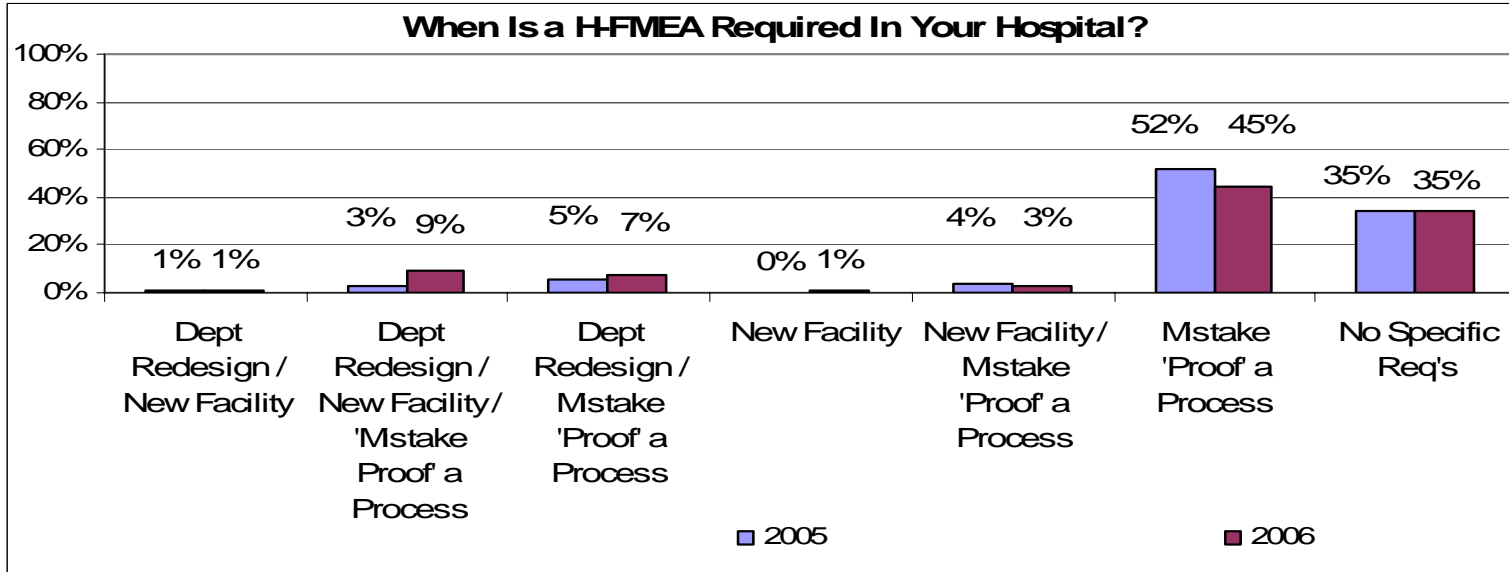


# Healthcare Failure Mode and Effect Analysis (HFMEA)

- Goals are to:
  - Prevent errors from occurring by identifying all of the ways a device or process can fail,
  - Estimate the probability and consequence of each failure,
  - Take action to prevent the potential failures from occurring
- HC-FMEA is typically conducted by multi-disciplinary teams in an HCO on many different patient care processes, including device design

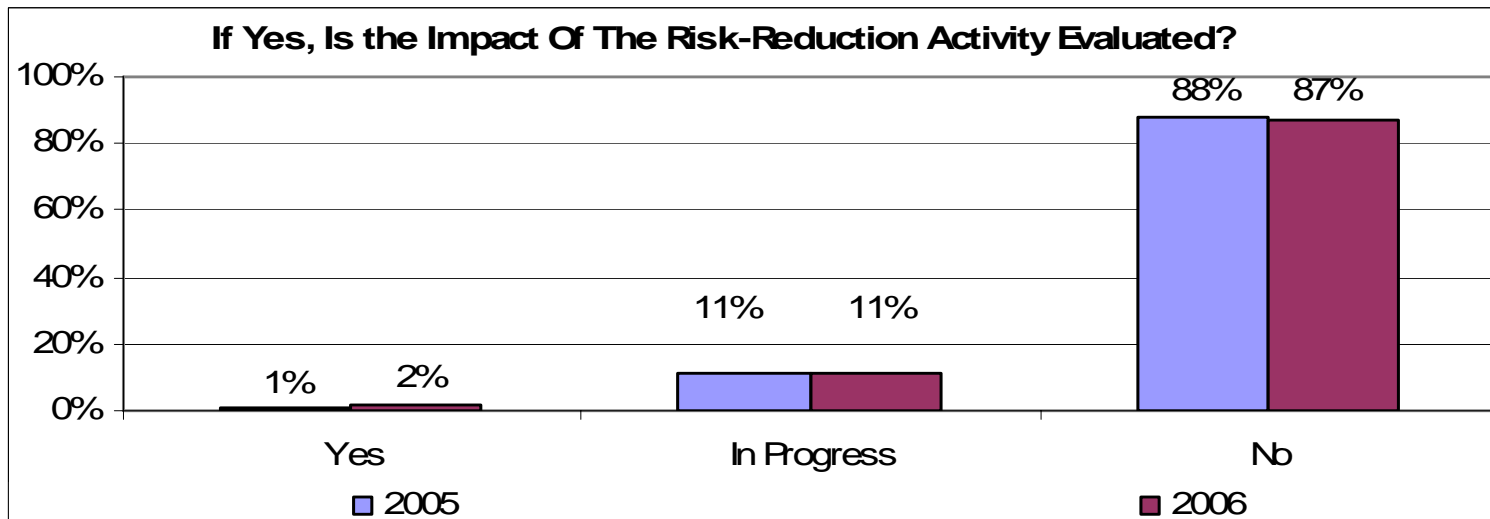
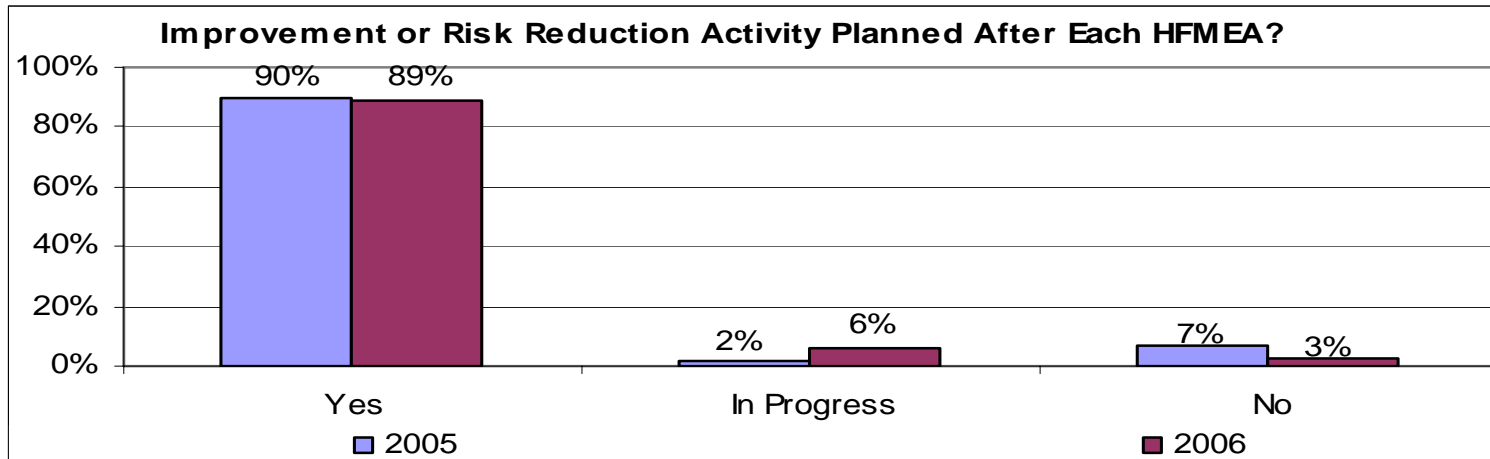


# Healthcare Failure Mode and Effect Analysis (HFMEA)





# Activity Implementation and Evaluation After HFMEA





# Conclusions

- The use of RCA has increased from 2005 – 2006 for every sentinel event (86%), adverse event (14%), and specified event (70%)
- For 97% of the RCAs an improvement activity is implemented that is evaluated by 86% of the hospitals
- Most HFMEAs used to ‘mistake proof’ a process or system, typically taking place about 1-3 / yr due to resources needed
- 89% of the HFMEAs lead to a risk-reduction activity and 86% of the HFMEAs are evaluated



# MH&SC 2006 Survey Summary Comments About Patient Safety Activities



# Type of Activities Mentioned in Comments

Patient Safety Activities Mentioned (Total n=564)	Percentage
Participation in national / regional initiatives, such as Keystone ICU, NSQIP, core measures	30.9%
Practice related changes (guidelines, etc.)	26.4%
Adherence to and implementation of JCAHO, NQF, CMS guidelines and goals	14.0%
HFMEA / RCA - risk related activities	10.8%
Quality Improvement activities, project involvement for improvement purposes, implementation of initiatives	8.9%
Using data; indicating review of data, discussion of data	7.8%
Mission, vision, descriptions of hospital	1.2%
<b>Total Number of Activities*</b>	<b>100%</b>

\*Multiple responses from a hospital were allowed



# Summary

- A wide variety of practices are listed by the hospitals; a number of practices are well known (ICU Keystone, core measures), others are less common or are fairly new (MASCOT stroke, NSQIP program)
- Many hospitals mention implementation of the NQF / JCAHO patient safety goals and are in various stages of implementation
- Small and rural hospitals are very active with the implementation of patient safety activities and have list initiatives that are very pertinent for small hospitals
- The comments provide further directions for MH&SC and items listed may be appropriate to collect through checking boxes



## 2007: New Direction for MH&SC



# MH&SC New Direction 2007

- Re-deploy resources to develop and implement initiatives that will improve patient safety in Michigan
  - Act on the data we have collected
  - Rely on national guidelines, rather than updating and developing our own.
  - Decision about the MH&SC survey will be determined based on needs of the new direction and activities



# MH&SC New Direction 2007

- Support for The Leapfrog Group Survey
  - Support administration of Leapfrog Group survey, but discontinue the Joint Hospital Survey in 2007
  - Revisit this decision for 2008?
  - MH&SC to obtain data from Leapfrog and other national organizations about hospital performance for use on its website.



# MH&SC New Direction 2007

## New Initiatives

- **MH&SC Hospital Survey Results:**
  - **Esophagectomy**
  - **Abdominal Aortic Aneurysm (AAA)**
  - **Carotid Endarterectomy (CEA)**
  - **NICU**
  - **ICU Staffing**
  - **RCA and HFMEA**
- Interest in workgroups: interest highest among hospitals meeting guidelines; hospitals not meeting volume stands not as interested in participating



# MH&SC New Direction 2007

## New Initiatives

- NQF Survey Results and BCBSM PHA Incentive Program.
  - **Safe Practice 11: document resuscitation /end of life directives**
  - **Safe Practice 14: wrong-site, wrong-patient prevention**
  - **Safe Practice 25: hand washing**
  - **Other areas in need of improvement in Michigan may surface and will be reviewed as a foci of safety, especially those with applicability to small or rural hospitals**



# MH&SC New Direction 2007

## New Initiatives

- Other frequently-identified topics
  - **Hospital report on infection rates**
  - **Transfer issue to rural hospitals**
  - **Infection control in ICUs**
  - **Hospital report on culture of safety survey results**



# MH&SC New Direction 2007

## New Initiatives

- Next steps
  - Determine priority of topics and resources available
  - Convene workgroups specific for each topic
  - Determine the type of initiative or project that is appropriate
  - Implement
  - Measure, monitor and evaluate



# For More Information

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# **APPENDIX**

## **definitions**



# MH&SC Hospital Survey BCSM Peer Groups

- **Peer Group 1** Hospitals with large teaching programs
  - 325 or more licensed beds
- **Peer Groups 2 – 4** Other acute care hospitals
  - Peer Group 2 - 325 or more licensed beds
  - Peer Group 3 Meet one of the following two groups of criteria:
    - Non-rural hospital - less than 325 licensed beds
    - Rural hospital - more than 150 licensed beds
  - Peer Group 4 - Rural hospital - 150 or less licensed beds
- **Peer Group 5** Rural hospital - 100 or less licensed beds
  - Total annual admissions of less than 2,000\*

(\* Total acute care, psychiatric and rehabilitation admissions)



# Leapfrog Group Definition of Urban and Rural Hospitals

- Leapfrog has relied on Medicare's inpatient prospective payment system (IPPS) to distinguish between urban and rural areas
- Medicare designates a hospital based on the county in which the hospital is located. It has used metropolitan areas to classify counties as urban or rural
- Leapfrog has followed Medicare's approach for urban hospitals if it is located in a county that is:
  - Part of a Metropolitan Statistical Area (MSA), or
  - Part of a Consolidated Statistical Area (CSA) if it includes at least one MSA



# MH&SC Survey: Categories Scoring Methodology

- Non-volume activities are related to three content areas:
  - Medical Appropriateness (50%)
    - Does your hospital's medical staff have appropriateness criteria for determining the medical necessity of <this procedure>?
    - Does your hospital require the medical staff to use the appropriateness criteria for clinical case reviews of <this procedure>?
  - Structure, Process, Outcome Measures (50%)
    - Does your hospital have a risk-adjustment system for <this procedure>?
      - Does your hospital collect risk-adjusted **mortality** data for <this procedure>?
      - Does your hospital collect risk-adjusted **morbidity** indicators for <this procedure>?
    - Does your hospital and/or its <specialty> surgeons willing to submit clinical data related to <this procedure> to a comprehensive statewide data base?
- Each guideline is scored separately. The maximum score is 100%



# **APPENDIX**

## **Examples of Open-Ended Comments from 2006 Survey**



# Sample Comments

## Mission, Vision, Descriptions

- We currently have a "Hospitalist" program, that includes 3 - 4 Board Certified Internal Medicine physicians. Because we are a Critical Access Hospital - we have a very small ICU - 4 beds only - and do not treat patients with extreme illness (we transfer them), do ventilator patients.
- Healthcare That is Safe is a part of Ascension Health's Call to Action and is the foundation for the 2006-2007 Patient Safety Plan at St. John Hospital and Medical Center.
- Establishment of Quality/Patient Safety Committee. Commitment of Executive Leadership outlined in Strategic and Hospital Plan.
- The Patient Safety Committee is an interdisciplinary committee and has membership from Nursing, Medicine, Laboratory, Pharmacy, Radiology, Nursing Education, and Administration.



# Sample Comments

## Participation in regional and national initiatives

- IHI 100,000 Lives Campaign: All six interventions 2) Keystone ICU and Regular Medical / Surgical units; O.R. implementation in 2006 3) JCAHO Patient Safety Goals 4) Patient Safety Survey 5) Patient Safety Rounds 6) Patient Safety Townhall meetings.
- Participation in Michigan STS BMC2 initiative - Attendance at State Meetings - Use of National Quality Forum and BMC2 indicators for the CQI process - CVA chart audits and reviews at Michigan STS meetings - Phase of Care Mortality Analysis 2005
- Working with MASCOTS Stroke Initiative and Quality Review to decrease the threat of post-operative complications
- 1) Incorporate wide “Culture of Safety” Survey, 2) On-line incident reporting system, 3) Rapid response team, 4) ICU Keystone, 5) IHI 100,000 Lives Saved, 6) Medication reconciliation, 7) Implementing Genesis – Electronic medical records.



# Sample Comments

## Using data, indicating review and discussion of data

- Outcome measures and morbidity/mortality data shared with the Dept of Surgery and individual surgeons. 100% review of all cases, ongoing.
- End of day QA check of available equipment ready to use in Cath Lab. Working with Wayne County to pursue wireless transmission of EKG from ambulance to our Emergency Room. Appropriated parking spaces in front of the hospital for on-call team.
- The Quality and Patient Safety Committee track and monitor recommendations until implemented.
- The Emergency Center / Cardiology interdisciplinary work group meets on a regular basis to review care provided to patients with AMI and PCI. Aspirin at discharge and door to balloon time are two of the metrics that are used to measure quality of care.



# Sample Comments

## Failure Mode Effects Analysis (FMEA) / Root Cause Analyses (RCA) - risk related activities

- We use the VA National Center for Patient Safety Healthcare FMEA model
- We performed a HFMEA that included multidisciplinary inpatient departments and a home health care provider as a method of insuring continuity of patient safety after discharge
- We are passionately committed to resolving risks identified in our RCA's and conducting Patient Safety Rounding in affected areas until work plan is implemented and risk is eliminated
- RCA information is shared at our Administration Safety Council and our Board Quality Council as well as with the Patient Safety Council which is comprised of all clinical directors and other leadership involved with patient safety.



# Sample Comments

## Quality Improvement activities, implementation of improvement initiatives

- LEAN / Six Sigma Pilot program participant through a grant from Gov. Granholm. Nine staff members trained as LEAN Champions or Six Sigma Black Belts. LEAN Kaizen events held quarterly have improved ED flow and throughput, Laboratory turn around time. JCAHO preparedness / Patient Safety Initiatives (Speak up Campaign)
- We are also “doing a deep dive” into our Vermont Oxford reports to identify additional quality improvement opportunities. Our current strategic plan identifies quality improvements in all of our core medical / surgical activities of which our ED, critical care units, and high risk services play a major part.
- Fall Prevention Initiative



# Sample Comments

## Adherence to and implementation of JCAHO, NQF, CMS guidelines and goals

- Medication reconciliation, labeling of solutions and medications, hand-off communication. Communication of critical results. Development of a customer service and safety enhancement team.
- Good Catch Program. Annual Patient Safety Week. JCAHO's Safety Goal Questions (weekly).
- Bar coded patient arm bands. Telehealth in home care. 1-hour rounding to decrease patient falls.
- Beginning computerized medication management program. Patient safety survey. Speak up brochure – patient education.
- Universal protocol. Patient identification. Medication error reduction. Safety culture survey. VTE prophylaxis. SCIP. Rapid response team. Birth trauma bundle. Keystone ICU. Medication reconciliation.



# Sample Comments

## Practice related changes (i.e., guidelines)

- The medical intensive unit meets all criteria for ICU. Surgical intensive care is currently interviewing for intensivist coverage. Both ICU's have FCCS trained staff available. SICU is participating in NSQIP.
- Excellence in Cardiac Care Project. The project focuses on reducing racial and ethnic disparities in the care of targeted diseases, such as cardiovascular disease.
- Yes, we have used the tool kit and have CCU nursing staff leading this initiative. We have also employed a full time intensivist who is certified in critical care medicine and has challenged nursing staff to become ICU certified.
- Tracking the use of intra aortic balloon pump usage in the cardiac cath lab. Hired a quality specialist for the cardiovascular services area. This individual will oversee all of the data collection and add consistency to the entry and review of all data submissions.