



Agency for Healthcare Research and Quality
Advancing Excellence in Health Care



SECRETARY'S ADVISORY COMMITTEE ON INFANT MORTALITY (SACIM)

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OBJECTIVES

- Update SACIM on the current AHRQ and DoD collaboration and projects to improve maternal and fetal morbidity and mortality
- Understand the critical importance of Patient Safety on the Labor and Delivery unit



PATIENT SAFETY IN OB

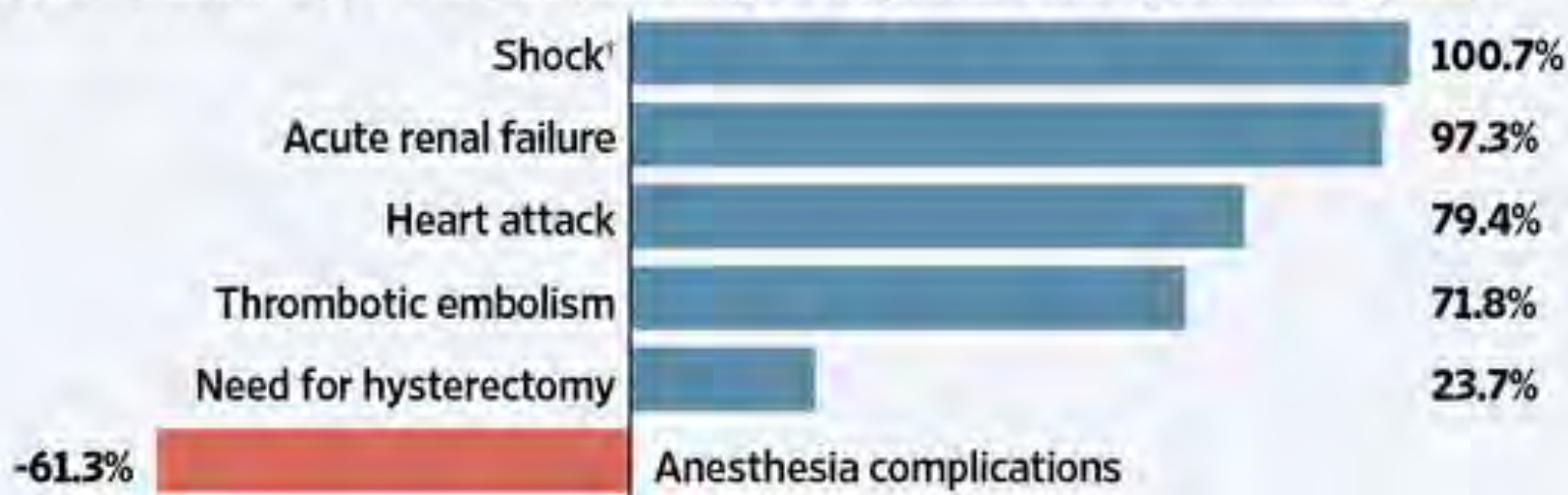
- Childbirth in the United States accounts for 4 million hospitalizations per year
- Two patients may potentially be injured with every case
- Perinatal adverse outcomes affect women, children, and families, and can have ***lifelong consequences for survivors or lead to premature death.***



INCIDENCE OF SEVERE MATERNAL MORBIDITY TRENDS

Dangerous Deliveries

Major complications for mothers giving birth in U.S. hospitals increased 75% in the decade ended in 2009*. Here are percentage changes for some specific emergencies:



*latest data available †sudden decrease in blood flow to vital organs

Source: Centers for Disease Control and Prevention

The Wall Street Journal





American Academy
of Pediatrics



Quality Patient Care in Labor and Delivery: A Call to Action

- **Structured systems help to optimize communication about and response to rapid changes in patient status**
- **Communication tools and training in principles of crew resource management are critical to ensuring best outcomes**
- **Drills and simulations are necessary to prepare for emergencies**



OPPORTUNITY

- Labor and Delivery is the **Unit of Change**
- Improving intrapartum care improves outcomes for mothers and babies
- Mistakes during labor last a lifetime
- Multiple evidence-based strategies are now available to accomplish goals



CURRENT EVIDENCE

OVERVIEW

- Simulation:
 - Decrease brachial plexus injuries 4-fold
 - Shorten time to delivery for cord prolapse cases by nearly 10 minutes
 - Better care with eclampsia cases
- OR Safety Checklists
 - Decrease morbidity and mortality by 30-40%
- Teamwork training
 - Improved AOI by 37% (when combined with sim)
 - Decrease in medication and transfusion errors
- Malpractice payments
 - Significant decrease in amount paid and number of Sentinel Events



DoD Initiatives

- Mobile OB Emergencies Simulator
- Safe Cesarean Section Checklist
- TeamSTEPPS & Simulation training



Connecting The Pieces For Patient Safety

3 In Simple Steps

 PreOp Brief

 Time Out

 Sign Out



Safe Cesarean Section Checklist

TEAMSTEPPS & SIMULATION IN THE AMEDD

- TeamSTEPPS implemented in Combat Support Hospital
 - Significant decrease in Medical Errors/Communication Errors
(Deering, 2011)
- Simulation/TeamSTEPPS now included in Joint Trauma course for physicians prior to deployment
- TeamSTEPPS now mandatory for all Army Hospitals





Comprehensive OB Patient Safety Programs

- New focus on implementing patient safety programs in a comprehensive manner
- Includes all programs under one umbrella
- Improved oversight and efficacy



COMPREHENSIVE OB PATIENT SAFETY PROGRAM COMPONENTS

COMPREHENSIVE OBSTETRIC PATIENT SAFETY PROGRAM COMPONENTS

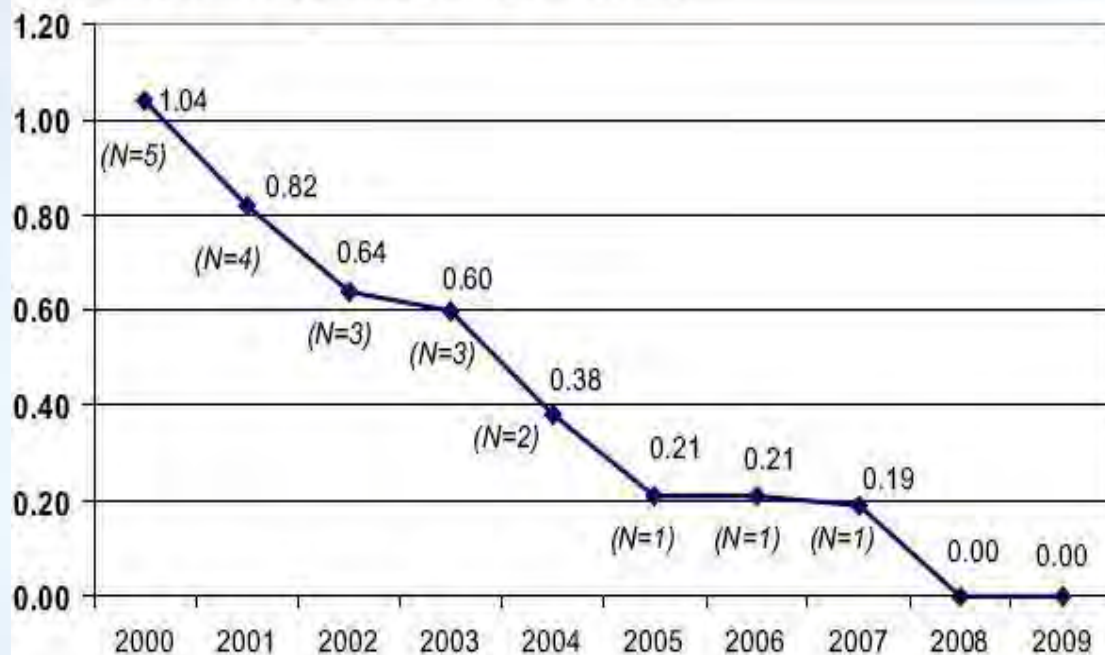
Education and Training	Teamwork & Communications	Outcomes & Evaluations	Systems Eval and Improvement
EFM Monitoring Course	Teamwork Training	Morbidity & Mortality conferences	Obstetric rapid response team
Combined Patient Safety Didactics (Physicians & Nurses)	Patient-focused involvement program	Real time tracking of Near-Miss events and Adverse Outcomes	Standardized SOPs (Oxytocin/IOL/Mag/etc)
Obstetric Emergencies Simulation Course (Annual Training)	Team debriefing after actual cases	Safety Culture Surveys	Cesarean Section Checklist (WHO Model)
Obstetric Emergency Simulation Drills			

***Components addressed by simulation**



Comprehensive OB Patient Safety Programs

Sentinel events by year (per 1000 deliveries)



Grunebaum. *Obstetric patient safety measures and compensation payments. Am J Obstet Gynecol* 2011.

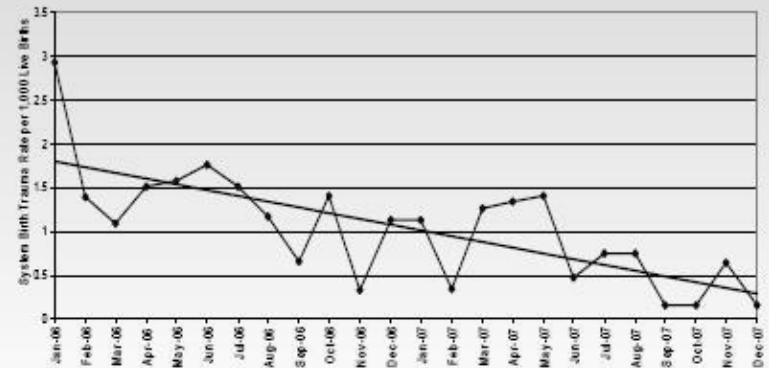
- Reported a significant decrease in mean annual malpractice payments
 - **27 million to 2.5 million**
- Sentinel events decreased
 - 1.04 per 1,000 deliveries to 0.0 per 1,000 deliveries



AHRQ Patient Safety and Medical Liability Grant

- Ascension Health Care System
 - Implemented IHI Perinatal Care Bundles and Simulation training
 - Elective inductions < 39wks decreased to 0%
 - Operative delivery rate fell from 7.4% to 4.8%
 - Birth trauma rate fell from 0.2% to 0.03%
 - Primary cesarean rate remained unchanged at 22.5%
 - No medical liability cases so far in participating hospitals

Ascension Health Birth Trauma





AHRQ Patient Safety and Medical Liability Grant

- Fairview Health Services and Premier
 - Combines 1) perinatal “care bundles,” 2) TeamSTEPPS®
 - 3) In situ simulation
 - A 23% reduction, on average, in preventable birth traumas across all 14 hospitals. (The two participating Fairview hospitals report a 76% reduction in preventable birth traumas.)
 - A 38% reduction in preventable newborn intensive care unit admissions of full term babies at the two Fairview hospitals (data are not yet available for the remaining 12 intervention hospitals).
 - A 12% reported reduction in the rate of preventable birth-related maternal complications at term for the two Fairview intervention hospitals (data are not yet available for the remaining 12 intervention hospitals).



Perinatal Safety Intervention Program (PSIP)

- Take lessons learned from AHRQ & DoD efforts to spread nationwide
- Geared toward hospital-based L&D healthcare teams
- Designed for use by perinatal teams across various hospital types, geographic locations, and staffing and resource levels.
- Training and implementation support provided





PSIP IMPLEMENTATION

**1. Build
Core
Team**

**2. Provide Teamwork,
Communication, and
Safety Training**

3. Select PSIP Components

General Obstetrical Care for:

- Electronic Fetal Monitoring
- Oxytocin and Magnesium Sulfate Administration
- Safe Performance of C-section

Obstetrical Emergency Prevention and Response for:

- Shoulder dystocia
- Obstetrical hemorrhage
- Tachysystole
- Seizure
- Umbilical cord prolapse

**IV. Implement
PSIP**

**V. Evaluate and
Learn**

Outcomes

- Adopted best practices
- Reduced adverse obstetrical events and injuries
- Improved unit teamwork and communication
- Increased patient and family satisfaction
- Reduced malpractice costs



FUTURE DIRECTION

- PSIP fielding begins Summer 2013
 - Will include DoD institutions
- Currently recruiting institutions, states, health systems, HENs to participate
- Anticipated PSIP tool kit availability via the web early 2014



SUMMARY

- AHRQ and the DoD are working together to improve outcomes for mothers and babies
- Focusing on the Labor and Delivery Units will produce the largest return on investment in many areas



Healthy Mom = Health Baby



Department of Defense

MFM Network

Duty ♦ Education ♦ Research



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