Creating a Culture of Quality and Safety

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Blue Ribbon I & II

In 2006 Sutter Health embarked on a mission to significantly enhance quality and safety. In 2006 and again in 2008, we sent multidisciplinary teams to multiple national top performing organizations seeking best practices to implement. This process lead to remarkable improvement in both quality and safety throughout Sutter Health.
Surprising Findings

Achieving top decile quality performance isn’t a matter of changing some of our patient care processes. **It requires a fundamental change in how we do business.** We must create a culture that is delivers continuous improvement in patient safety and quality as our core business.

Leading Organizations Create a Patient Centered Culture of Quality & Safety

- Leadership Commitment
- Clarity of Focus
- Empowerment
- Consistent Framework
- Physician Engagement
- Constant Improvement Using Continuous Feedback
Common Cultural Elements

- Patient Centeredness
- A Culture of Quality
- Clarity of Focus
- Physician Partnership Development
- Empowered Teams
- Continuous Improvement

Sutter Health Initial Goals Six in 2006

- Focus—eliminate non-dashboard priorities
- Deploy physician portal to enhance data access
- Provide real time quality data for continuous feedback
- Implement a nursing model for concurrent care management
- VPMA at each facility
- Communicate patient-centered perfect care focus across all levels of the organization
2007 and Beyond

- Expansion of 6 in 2006 recommendations by senior management
  - Establish measurement / definitions / tools / baseline data
  - Identify & implement improvement strategies
- Addition of 7th in 2007 –
  - ICU process & outcome measures
    - Ventilator Associated Pneumonia (VAP)
    - Stress Ulcer Prevention (SUP)
    - Deep Vein Thrombosis Prophylaxis (VTE)
    - Sepsis (Central Line Blood Stream Infection—CLBSI)
    - ICU Mortality

2008 Shift Focus to Ambulatory Settings

Identify best practices at top-performing integrated systems with strong multi-specialty physician groups to recommend for adoption within Sutter Health focusing on clinical quality, service quality, disease management and affordability.
First Surprising Finding

While we originally focused on *Ambulatory medical groups*, we observed what turned out to be a significant success factor during our first two visits:

Luther Mideifort and Park Nicollet had *dissolved organizational boundaries* between inpatient and outpatient services by putting focus where it belonged: *on the patient*. This led to improved overall performance.

Our immediate action: change our focus to the patient and the patient’s needs across the entire continuum of care.

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What does “Patient-Centered” look like?

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*Luther Mideifort Patient Centered System Map*

**CULTURE**

- Residues with perceived care needs
- Access to System Resources
- Treatment and intervention
- Follow-up maintenance
- Leadership Process
- Support Process
- Foundational Support

*© Copyright 2012 Luther Mideifort Patient Health System*
Common Characteristics of BRT II Sites

Operational Tactics
- Strategic Partnerships
- Standard Improvement Methodology

Cultural Characteristics
- Focus
- Integrated Services
- Financial Alignment
- Execution
- Phys-Admin Teams

Patient-Centered

Recommendations for Sutter Health

- Develop patient centered Organizational Compact
- Coordinate & Integrate Patient Care Services for patients with complex illness
- Establish Paired Administrative/Physician Leadership teams
- Embracing lean principles & eliminate waste
- Integrating Financial reporting
- Focus on quality & efficiency while eliminating harm
Implementation

1. Initiate the process of creating an organizational compact to deliver patient-focused care.
2. Create disease management registries to identify patients with specific needs:
   ~ Congestive Heart Failure (CHF)
   ~ Diabetes
   ~ Those needing end-of-life palliative care
3. Create patient-centered Hospitalist programs in all affiliates that are integrated with ambulatory services.
4. Identify and proactively train appropriate physicians and administrators for management and leadership roles using the concepts of team accountability and paired leadership.
5. Modify and expand internal Lean training based on patient-centered principles.

Prototype Programs

Patient-Centered Care
Ex: Hospitalist

Single Condition Disease Management Program
Ex: Heart Failure

Multiple Conditions Disease Management Program
Ex: End of Life Care (Inpatient Palliative Care, HH, AIM, Hospice)
BRT I → BRT II

- **Common Observations/Themes**
  - Patient-centeredness
  - Combination of vision and catalyzing event led to culture change
  - Focus and accountability
  - Effort on breaking down and eliminating organizational silos
  - Use of common language and approach to improvement

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Management & Clinical Excellence (MCE) Program

- **By the numbers:**
  - 8-day sessions held 2x/year since 1999
  - 26 sessions completed as of 12/12
  - 1443 alumni attending in interdisciplinary project teams, including
    - ~200 MDs, ~570 RNs
  - 569 improvement projects in database

- **Key Content Areas:**
  - Model for Improvement
  - Statistical Process Control
  - Reducing Variation
  - Team Process and Collaboration
  - Change Management
  - Patient and Family Centered Care
  - Evidenced Based Decision-Making

- **Featured Project:**
  - Advanced Illness Management (AIM®)
  - Personalized, compassionate care for patients with complex, chronic illnesses and their families across hospital, outpatient and home care settings
  - MCE project in 2002
  - Grew to systemwide program supported by a $13 million grant from Center for Medicare and Medicaid Innovation
Sutter Health’s Perinatal Patient Safety Program

A Systematic Approach to Process Improvement in Maternal & Children’s Services

Sutter Health Focus on Patient Safety

Implementation of Practice Guidelines
Decreasing Practice Variation

- First Pregnancy and Delivery
- VBAC Policy
- Oxytocin Administration and Checklists
- Electronic Fetal Monitoring Terminology and Interpretation
- Maternal Hemorrhage
- Elective Deliveries < 39 Weeks
First Pregnancy and Delivery

- 2001 clinical initiative focused on improving outcomes for women experiencing their first birth
  - More than 11,000 births
  - 21 birthing centers
- Identified a set of quality metrics
  - Cesarean Section
  - Cervical dilation > 3 cm on admission
  - 3rd and 4th degree laceration
  - Episiotomy
  - 5 minute Apgar < 7
- Developed a model for quality improvement that was replicated across the network

NTSV Episiotomy
Target <= 19%

Trend is significant, p < .0001
**NTSV 3rd/4th Degree Laceration**

**Target <= 6%**

Trend is significant, p < .0001

**Vaginal Birth After Cesarean Section**

- In 1999 ACOG released updated recommendations on Vaginal Births After Cesarean Section
- In 2001 Sutter Health OB Quality Committee recommended that all hospitals providing VBACs need the surgical team *immediately* available, including anesthesia
- With the support of Risk Management a standard VBAC policy was adopted

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**Sutter Health**

*With You. For Life.*
Electronic Fetal Monitoring

- Electronic Fetal Monitoring Terminology and Interpretation is very important in preventing birth injury
- In 2008 the National Institute of Child Health and Human Development (NICHD) updated the Electronic Fetal Monitoring guidelines and recommended a “Three-Tier FHR Interpretation System” for categorizing fetal heart rate patterns.
- Sutter Health implemented a standard protocol on Electronic Fetal Monitoring
- Educational resources and tools were developed for interdisciplinary, scenario-based education
Oxytocin Administration

- ISMP designated oxytocin as a high-risk medication and IHI released the oxytocin Bundles
- In 2009 Sutter Health launched a comprehensive initiative to standardize oxytocin administration
  - 40,000 births within Sutter Health (50-65% utilize oxytocin)
  - Developed a standard protocol, order sets, informed consent, provider and patient education
- Integrated protocol-based checklists to:
  - Ensure patients are appropriate candidates for oxytocin
  - Determine titration frequency and dose based on uterine contractions and FHR assessment every 30 minutes

Checklist Every 30 Minutes During Oxytocin Administration
All or None Bundle
Target >= 90%

Trend is significant, p < .0001
Elective Delivery < 39 Weeks

- Elective delivery prior to 39 weeks leads to increased newborn complications
  - NICU admissions, RDS, TTN, Ventilator support, sepsis
- Sutter Health developed a standard scheduling policy for cesarean sections and inductions.
  - Requires provider to document medical indication for scheduled deliveries before 39 weeks
  - Providers who request early deliveries without a medical indication need to consult with a physician champion
- Patient education continues to be an important component as patient preference drives elective deliveries
- The Elective Delivery < 39 week rate dropped from 18% to 2% over 5 quarters
Elective Delivery < 39 Weeks: Sutter Health System

*Benchmark is based on Leapfrog 2011 goal (P90) and 2010 50th percentile (P50)*
Elective Delivery < 39 Weeks: Sutter Health System

Benchmark is based on Leapfrog 2011 goal (P90) and 2010 50th percentile (P50)

NICU Admissions >= 37 Weeks

Trend is significant, p < .0005
Maternal Postpartum Hemorrhage

- Between 1996 and 2006, the rate of maternal deaths in California nearly tripled from 6-17/100,000
- In 2011 a statewide collaborative released a Maternal Hemorrhage Toolkit
- All 18 birthing centers adopted standard clinical guidelines:
  - Order set changes to allow early intervention in the event of postpartum hemorrhage
  - Maternal Hemorrhage Protocol utilizing Quantitative Blood Loss (QBL)
  - Adoption of a hemorrhage cart and medication kit to ensure supplies are readily available
- Implementation of in-situ hemorrhage drills and simulation

Perinatal Patient Safety Program

- Implement high reliability perinatal teams to improve recognition and response to emergencies
- Enhance the culture of safety through communication, training and team based simulation
  - Utilize TeamSTEPPS training and in-situ simulation
- Engage interdisciplinary teams including obstetricians, anesthesiologists, midwives, and nurses
- Evaluate impact on maternal and neonatal Adverse Events and Culture of Safety survey
Perinatal Patient Safety Program

- In 2012 after extensive evaluation the Board approved $3.5 million over 3 years to implement at all 18 birthing centers
- The Perinatal Patient Safety Program (PPSP) has four components
  - Perinatal Risk Assessment: onsite 2-3 days
  - Team and Communication Training
  - Simulation
  - Metrics

Team and Communication Training

- Dept. of Defense and AHRQ’s TeamSTEPPS
  - An evidence-based teamwork system to improve communication and teamwork skills among health care professionals
    - Increases team awareness and clarifies team roles and responsibilities
    - Resolves conflicts
  - Four hour interdisciplinary team training for all physicians, midwives, and nurses
Simulation

- Implement local, in-situ simulation at 18 birthing centers
- Samuel Merritt University Simulation Center to serve as content experts and program instructors
  - Train a core group of champions who will conduct local simulation
- Evaluate simulation equipment such as Pelvis, Noelle mannequin, Baby Hal

Provider Engagement

- Physician and nurse champions are critical
- Identify 2-3 physician champions per hospital
- Strategies to engage providers
  - Opportunities with insurers (NorCal, etc.)
  - Embed in Credentialing process
  - Link with medical foundation QI programs
Metrics

- Enterprise-wide OB Quality Council will evaluate potential outcome and process metrics. Potential metrics include:
  - The Adverse Outcome Index, Weighted Adverse Outcome score and the Severity Index
  - Outcome improvement by implementation of Practice Guidelines
  - Perinatal Claims
  - Culture of Safety Survey

Benefits

- Reduces harm improving mother and infant outcomes
- Clinical decisions “filtered” through Patient Safety perspective
- Reduces Perinatal liability claims
- Meets Leapfrog National Quality Forum Safe Practices
- Improves Culture of Safety Survey results
- Creates a model for other high-risk areas, such as ED, critical care