

Improving Culture of Safety by Increasing Communication and Teamwork Knowledge and Skills and Measured Using SOPS

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Salem Hospital

A part of Salem Health

Track:	SOPS Patient Safety Improvement Initiatives
Session:	Improving Patient Safety Culture Through Teamwork
Date & Time:	April 20, 2010, 9:30 am
Track Number:	SOPS T2 – S1

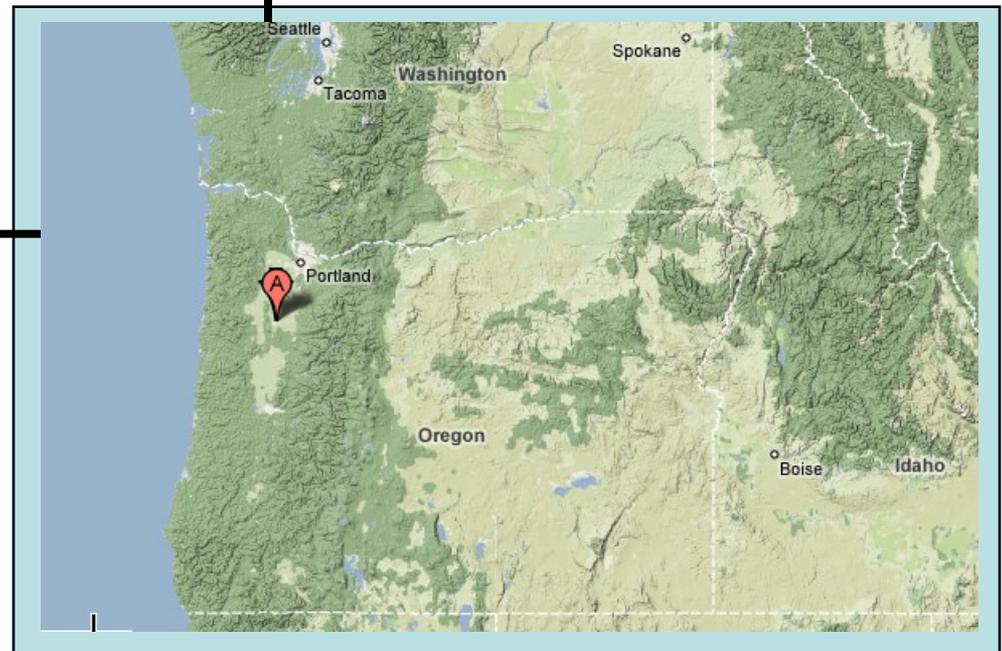
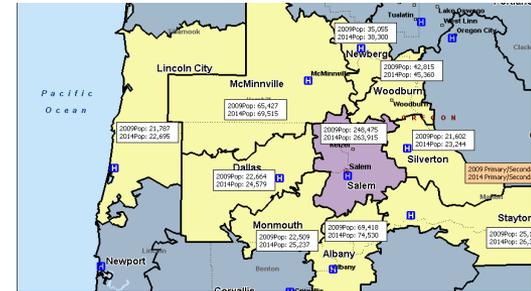
Presentation Goals

- Tell Salem Hospital's story related to improving safe care for our perinatal patients and families
- Show how we have used the SOPS to evaluate our culture of safety as part of that work
 - Assumption: audience is familiar with SOPS
 - Big part of our story related to Communication and Teamwork training and work
- A little about out other clinical outcomes related to patient safety
- Lessons learned
- Future plans related to spread across entire organization

Salem Hospital-2009

- 454-bed acute-care hospital
- 20,945 inpatient admissions
- 12,532 inpatient/outpatient surgeries
- 3274 births
- 77,910 ED Visits
- 2,996 FTE's

Source: 12 mo. Ending Sep 2009 OAHHS Data Bank Report



Perinatal Patient Demographics

- About 25-30% Hispanic
- Other common populations include Russian immigrants and Pacific Islanders
- Sizeable number of undocumented workers related to agriculture
- Increasing number of maternal and neonatal transports



Salem Hospital

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Perinatal Care Chronology



- Before 2003
 - Deliveries in main hospital by community OBs, FPs, Midwives
 - Resuscitations by community OBs, FPs, Pediatricians, hospital nursing staff
 - No in-house Anesthesiologists
 - No NICU
 - Multiple OB risk events and law suits
 - Hospital leadership concern about Safety and Quality

Perinatal Care Chronology-2

- 2003-2007
 - Opened Family Birth Center (FBC)
 - Triage, Antenatal unit, LDRs, Mother Baby Unit
 - 24/7 in-house OB Hospitalists, 24/7 FBC anesthesiologists in 2005
 - Level 3 NICU
 - Neonatologists + Medical Director
 - Dedicated nursing staff and respiratory therapists
 - Adding Neonatal Nurse Practitioners
 - Responsible for Resuscitation and stabilization



Perinatal Care Chronology-3

- 2005-2007
 - Developed and implemented rules for OB consultation, transfer of care
 - Revoked one physician's OB privileges
 - Opened indigent prenatal clinic
 - Monthly Perinatal Case Review meetings
 - Implemented IHI OB bundles for Induction and Augmentation
 - Mandatory education and standardized language related to Fetal Heart Rate monitoring/interpretation
 - Videotaping and review of resuscitations
 - NICU participation in national QI collaborative work with Vermont Oxford Network
 - Microsystem training
 - Evolving Multidisciplinary QI infrastructure in the FBC

Hospital Chronology

- 2003-2007
 - New building
 - New CEO and complete turnover of senior leadership
 - Development of Center for Patient Safety and Clinical Effectiveness
 - Patient Safety Officer (2005)
 - More Hospital Board member involvement in patient safety and quality
 - Participation in IHI Patient Safety initiatives

Hospital Chronology- 2

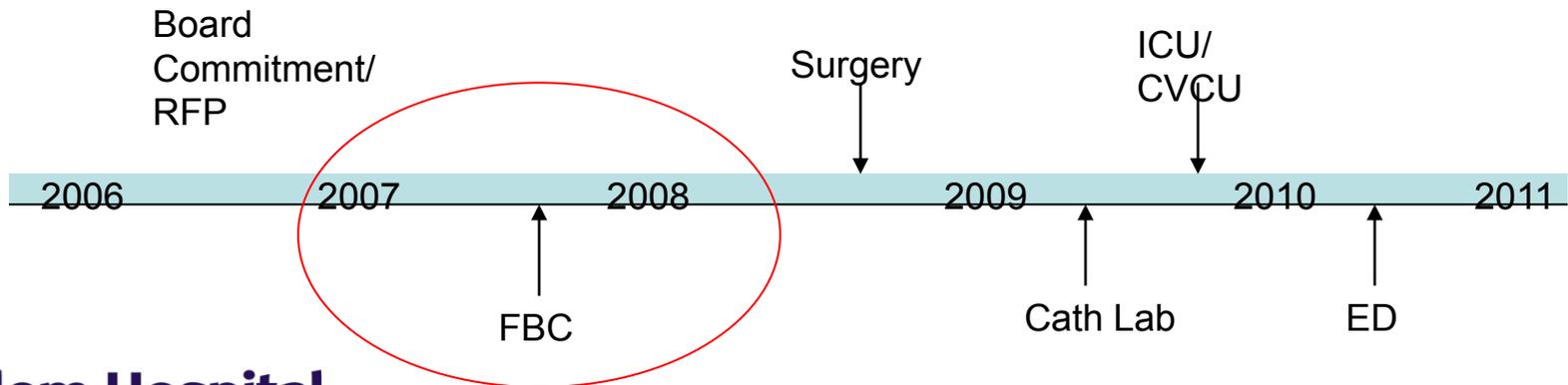
- Ongoing safety and quality concerns in our Family Birth Center
- 2006 Board Retreat
- Request for Proposal related to Communication and Teamwork Training
 - Contracted with Lifewings
- Program started in late 2007



**Salem Hospital
Communication and Teamwork RFP
Fall 2006**

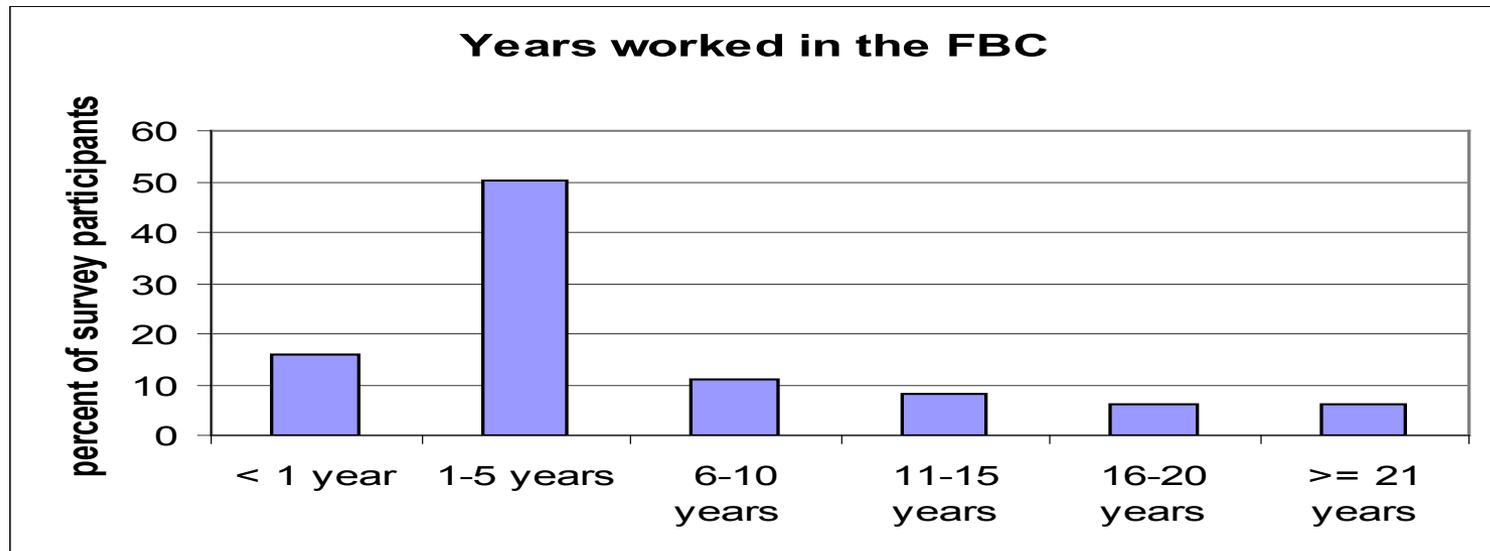
For each item below, please assign a score from 1 to 10, with 1 being not meeting expectations and 10 being exceeding expectations.

General	Safer Healthcare	Life Wings	Team Performance Plus
1. Executive Summary, Qualifications, Experience			
Services Required			
1. What would your plan and approach be to working with us here at Salem Hospital?			
2. What kind of up front diagnostic services do you provide? a. How would your approach change based on your diagnostic findings?			
3. Please list other community based, non-teaching hospitals (with independent practitioners) that you have worked with. a. How successful were they? b. How did you measure their success? c. How would you measure our success?			
4. What do you have to offer in helping us achieve 100% physician involvement in the program? a. How have other institutions you have worked with gotten 100% physician involvement? b. How successful have the other places been and what are the factors that drove that success? c. What has your involvement been in that success?			

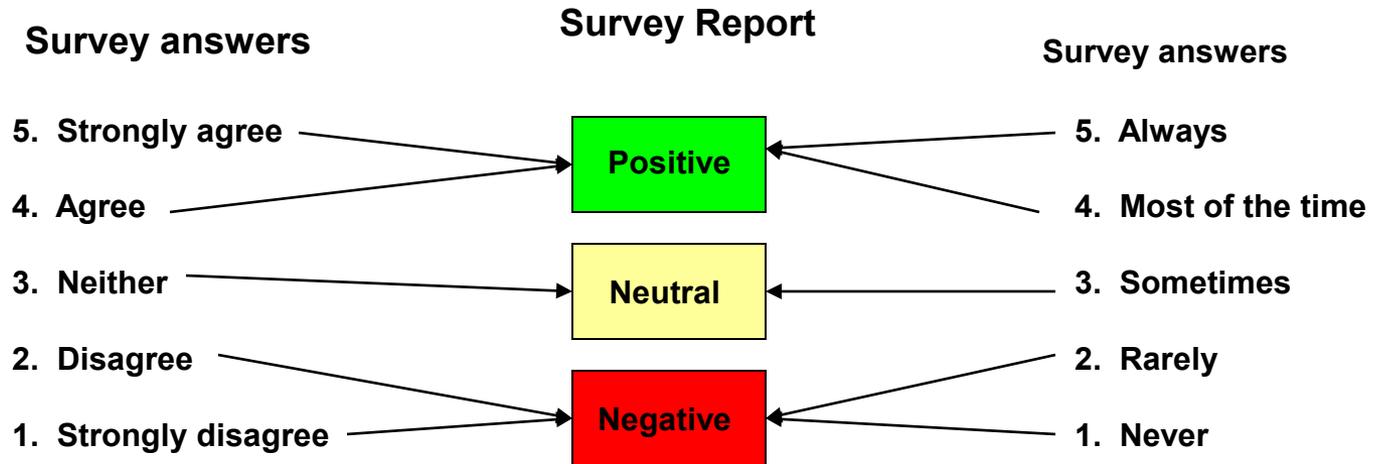


SOPS survey #1 in the FBC-2007

- Done prior to starting Communication and Teamwork Training
- 246 surveys sent out and 238 returned
 - Processed using Premier Tool
- 138 nurses, 21 physicians, 17 Unit clerks, and various other groups in very small numbers
- 90% direct patient care contact

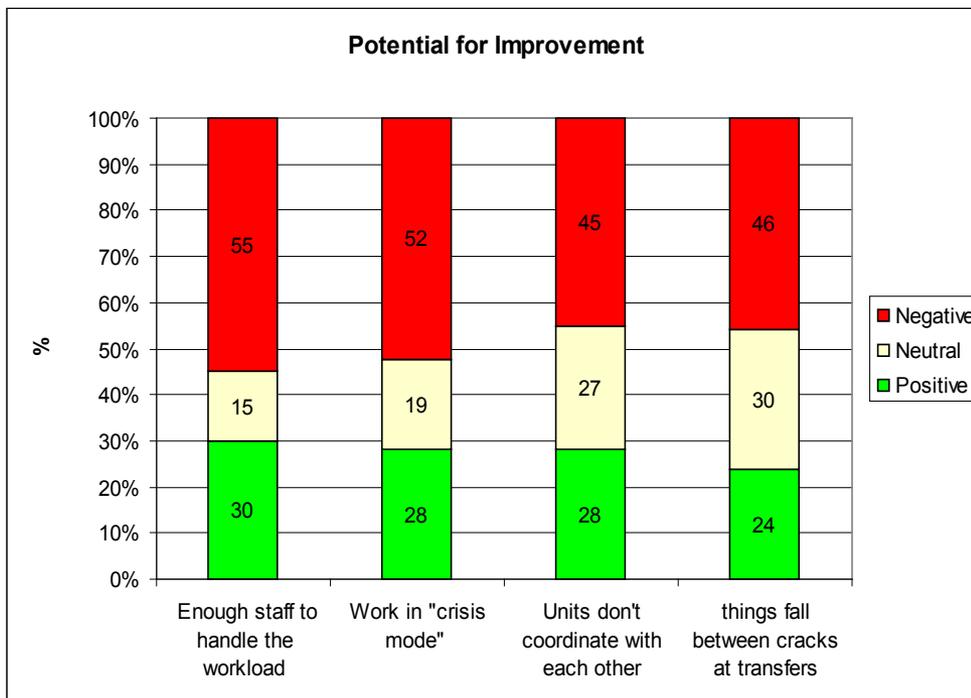
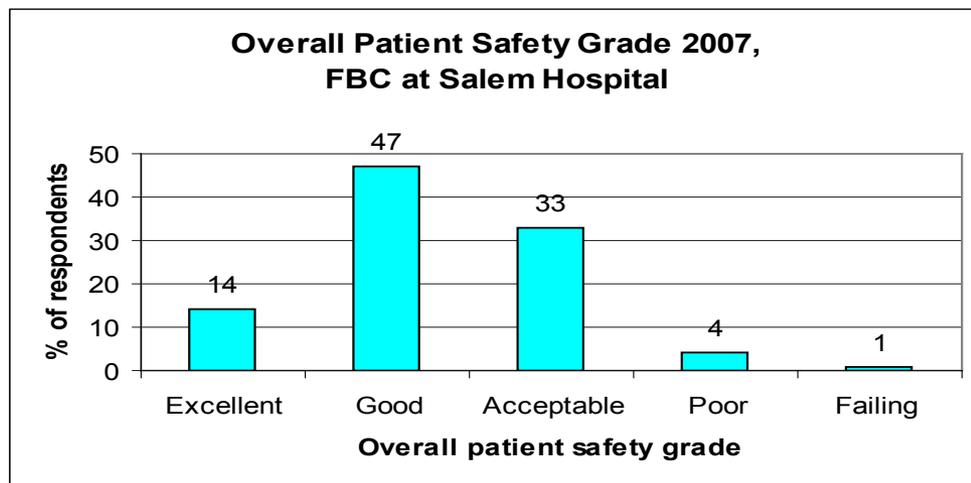


Understanding the Report



2007 Survey: composite Scores

Safety Culture Composites	Your Hospital's
Overall Perceptions of Safety (4 items--% Agree/Strongly Agree)	46%
Frequency of Events Reported (3 items--% Most of the time/Always)	56%
Supervisor/Manager Expectations & Actions Promoting Patient Safety (4 items--% Agree/Strongly Agree)	66%
Organizational Learning--Continuous Improvement (3 items--% Agree/Strongly Agree)	69%
Teamwork Within Units (4 items--% Agree/Strongly Agree)	72%
Communication Openness (3 items--% Most of the time/Always)	55%
Feedback & Communication About Error (3 items--% Most of the time/Always)	50%
Nonpunitive Response to Error (3 items--% Agree/Strongly Agree)	32%
Staffing (4 survey items--% Agree/Strongly Agree)	36%
Hospital Management Support for Patient Safety (3 items--% Agree/Strongly Agree)	57%
Teamwork Across Hospital Units (4 survey items--% Agree/Strongly Agree)	44%
Hospital Handoffs & Transitions (4 survey items--% Agree/Strongly Agree)	36%



Communication and Teamwork Work

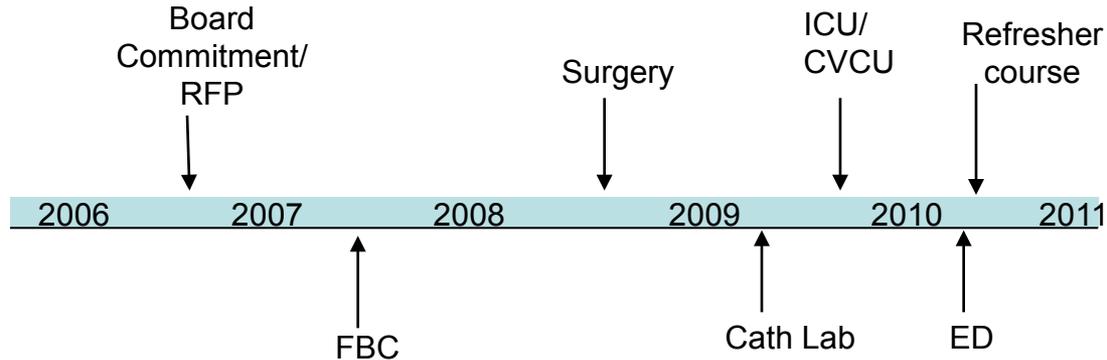
- Communication and Teamwork steering committee to oversee work
 - CMO, CNO, physician champion, Quality Improvement Director, Perinatal Nursing Director
- Initial FBC + Pediatric Unit training late 2007 and early 2008
 - 4 hour training courses using Life Wings instructors
 - All FBC staff, voluntary for medical staff
- Development and implementation of communication tools to support work
 - Information aids, check lists, shift huddles, debriefing tools
 - Expectation that tools would be used 99+%
 - Continuous measurement
 - Monthly reporting to steering committee
 - Work plan if expectation not met

Process Dashboard FBC

FBC Communication and Teamwork	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	1/3-1/9/10	1/10-1/16/10	1/17-1/23/10	Jan-10
FBC Initiatives															
Outcomes															
Adverse Outcome Index # See below		18.96			21.0			31.0							
W/ADS (weighted adverse outcome score)		0.71			0.72			0.73							
AOI (adverse outcome index - %)		3.74%			4.50%			3.96%							
SI (severity index)		18.96			16.85			18.33							
Apgar < 7 @ 5 Minutes		1%			~0.7%			~0.8%							
Patient Harm															
Perinatal Injury Tool															
Harms per 20 charts (N=20)	30%	10%	5%	20%	20%	15%	5%	10%	10%	25%					
Sentinel Events- Days Between	683	614	645	676	707	737	768	799	829	860	10				41
Root Cause Analysis- Days Between	268	299	330	361	662	14	46	76	106	137	10				41
Intense Analysis - Days Between	36	47	78	109	140	26	57	9	39	70	100				131
Newborn Stabilization															
Glucose Protocol Followed (All)	98%	98%	98%	99%	98%	100%	98%	98%	99% (n=380)	98% (n=266)	99% (n=231)	**	**	**	**
Labor and Delivery % followed									99%	100%	99%	**	**	**	**
Mother Baby Unit % followed									100%	98%	99%	**	**	**	**
Neonatal Intensive Care Unit % follow									100%	100%	100%	**	**	**	**
HB SAG Protocol Followed (All)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	**	**	**	**
Newborn Assessment Protocol Followed	88%	81%	73%	88%	94%	92%	94%	95%	99% (n=380)	98% (n=741)	98% (n=380)	**	**	**	**
Labor and Delivery % followed									100%	99%	100%	**	**	**	**
Mother Baby Unit % followed									99%	99%	98%	**	**	**	**
Neonatal Intensive Care Unit % follow									100%	100%	99%	**	**	**	**
Group B Strep Protocol Followed (All)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	**	**	**	**
Patient Satisfaction															
Mean Score (Goal 85%)		87%			86%			88%				**	**	**	**
National Rank (Goal 75%)		98%			80%			84%				**	**	**	**
Process															
Debriefings (Needed)	32	24	34	28	22	15	23	20	12	13	24	3	1	4	
% of Debriefings Completed	94%	89%	91%	100%	100%	100%	100%	95%	100%	100%	100%	87%	100%	100%	
Universal Protocol (Audits performed)	68	100	106	27	102	103	86	89	66	87	79	24	24	13	
Surgical Cases / % Compliance	97%	100%	96%	100%	97%	100%	99%	97%	98%	98%	100%	96%	100%	100%	
Universal Protocol (Audits performed)	110	139	158	56	101	138	106	130	133	161	147	34	33	31	
Procedural Cases / % Compliance	100%	100%	100%	98%	96%	93%	98%	100%	100%	99%	100%	94%	100%	100%	
Huddles (Audits performed)	48	46	64	48	47	34	13	12	8	2	2				2
Audit Compliance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
Anesthesia - % Adjusted Attendance	98%	98%	97%	100%	100%	94%	100%	100%	100%	100%	100%	*	*	*	100%
OB Hospitalist - % Adjusted Attendance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
MB Nurse - % Adjusted Attendance	73%	98%	95%	100%	96%	91%	100%	100%	100%	100%	100%	*	*	*	100%
NICU - % Adjusted Attendance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
FBC Report (# of Forms)	241	248	320	250	255	321	245	294	250	221	261	73	73	50	
% Top Portion Completed	100%	99%	99%	99%	98%	98%	98%	99%	98%	100%	100%	97%	99%	98%	
% Bottom Portion Completed	99%	98%	98%	99%	98%	95%	98%	95%	89%	100%	99%	100%	99%	100%	
MBU Report															
# of Forms	1576	1244	2037	1489	1614	1955	1470	1822	1421	1385	1415	374	463	372	
% Compliance Pain Control	98%	99%	98%	99%	99%	99%	99%	100%	99%	99%	100%	98%	100%	1200%	
% Compliance with Protocol Criteria	99%	99%	99%	99%	100%	100%	100%	100%	99%	99%	100%	100%	100%	99%	
Gimme 5 (# Documented)	69	92	153	119	125	129	128	26	20	36	21				21
Gimme 5 Documented Compliance Rate	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
Priority 1&2 Delivery Calls Documented	26	55	139	105	93	104	99	15	20	31	18				21
Priority Delivery Calls % Documentation	38%	60%	91%	100%	100%	99%	100%	100%	100%	100%	100%	*	*	*	100%
NICU Huddle	64	42	70	56	56	70	56	14	14	14	14				14
# of Sheets Received Rate	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
Top Portion Completion Rate	100%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
Bottom Portion Completion Rate	100%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	*	*	*	100%
Peds Report															

Hospital Chronology

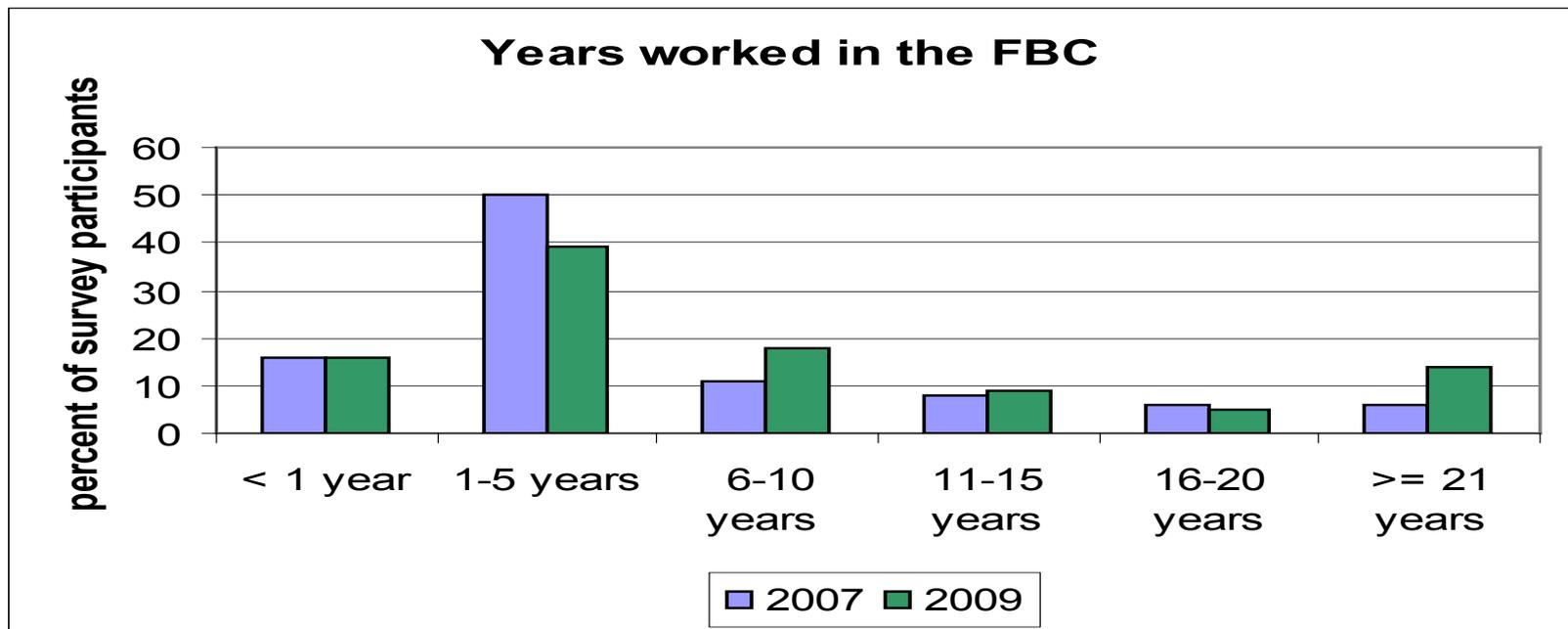
- 2008-2010
 - Communication and Teamwork training changed from voluntary to mandatory for professional staff
 - Starting Refresher courses
 - 2 hours, focus on fatigue, Teamwork, Red flags, Communication and Debriefing
 - Ongoing 4 hour curriculum for new employees and physicians
 - spread



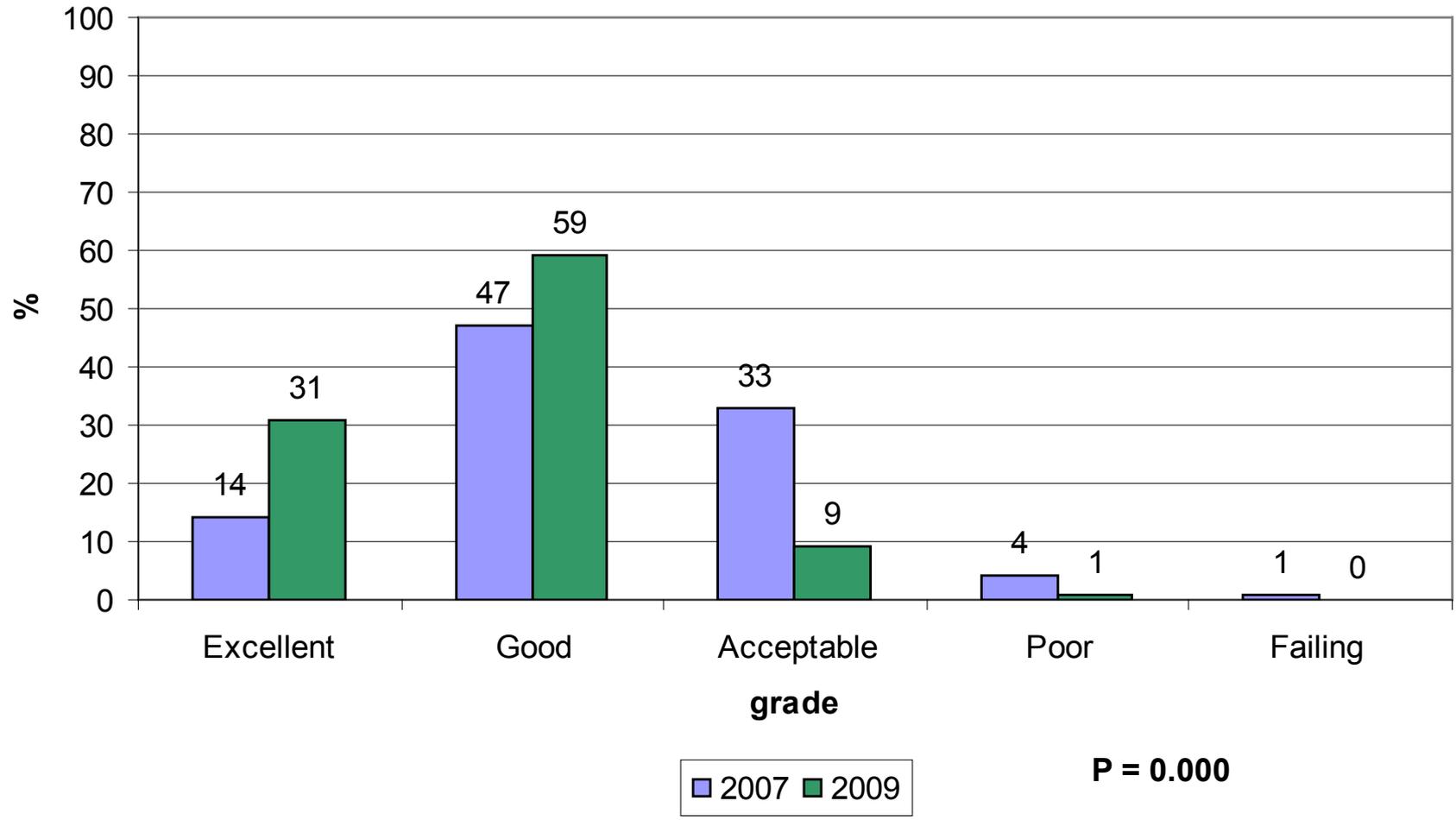
- Increasing Hospital Board involvement in safety and quality
- Patient Safety Department has four employees
 - Full time person focused on Communication and Teamwork training
 - Working on internalizing the Communication/ Teamwork training and managing the SOPS survey process beyond survey administration
- Electronic Medical Record (started in 2007)
- Computer Physician Order Management

SOPS survey #2 in the FBC-2009

- Done in July-August
- 250 surveys sent out, 171 (68%) returned
 - 120 nurses, 15 physicians, 12 unit clerks and various others.
 - 94% direct patient care contact



Overall Patient Safety Grade FBC at Salem Hospital



FBC: Overall Perceptions of Safety

Safety Culture Composites	2007 composite score	2007 range	2009 Composite Score	2009 range	2009 composite score range is above 2007 composite score range
Overall Perceptions of Safety (4 items--% Agree/Strongly Agree)	46%	43-50%	66%	63-70%	yes

Range = margin of error; Composite score range = score +/- margin of error = 95% CI

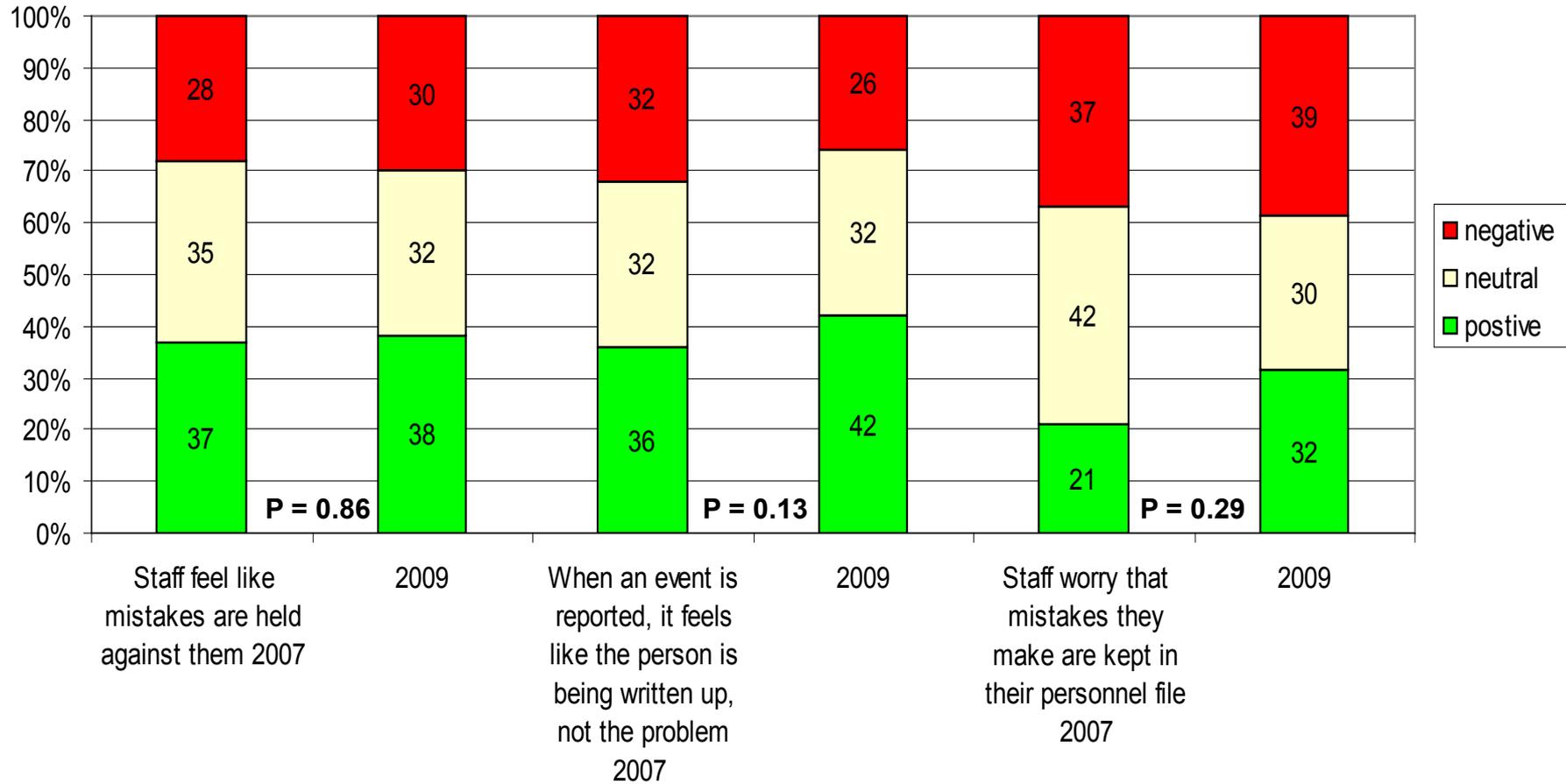
FBC: Overall Perception Questions



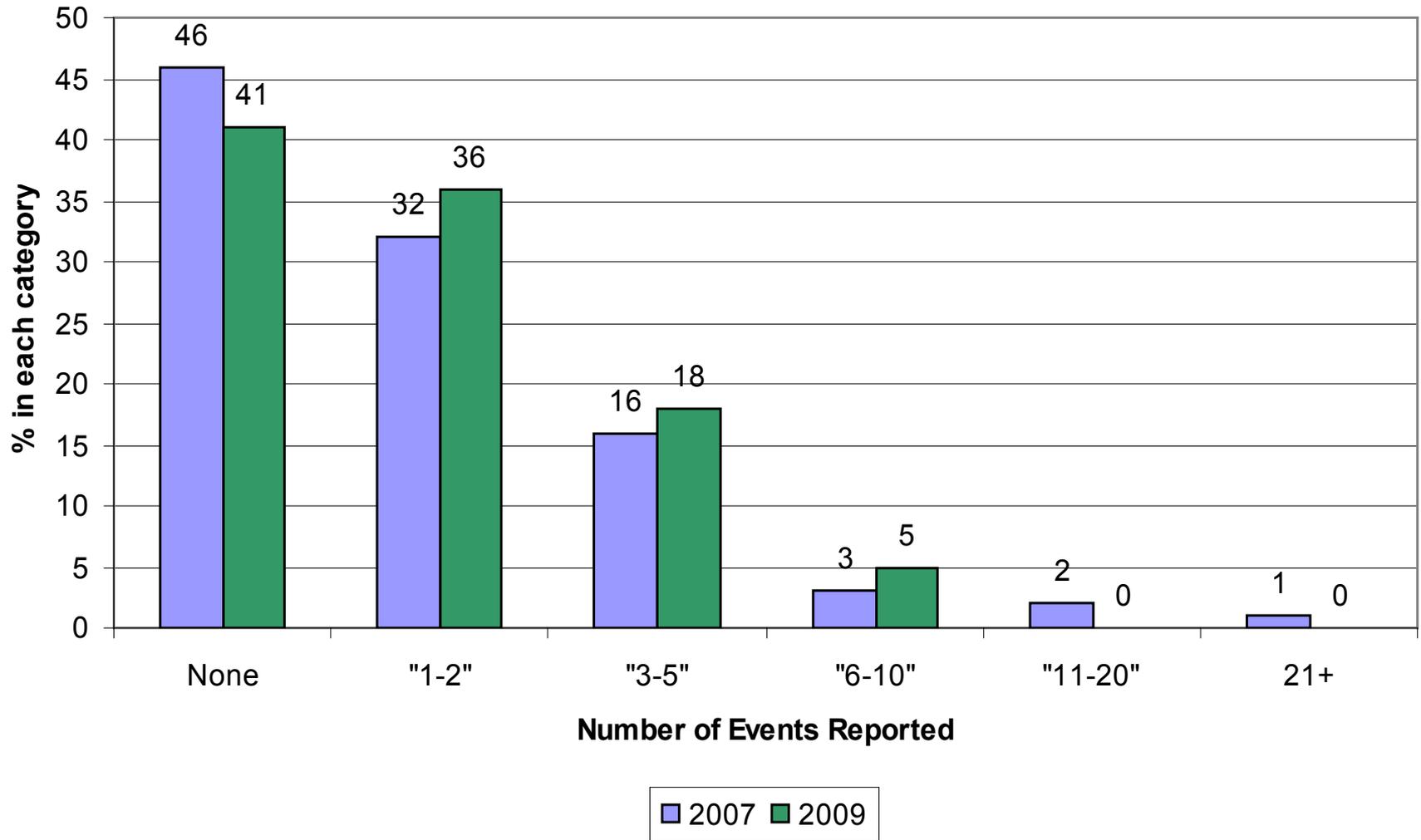
FBC Overall: frequency of errors reported

Safety Culture Composites	2007 composite score	2007 range	2009 Composite Score	2009 range	2009 composite score range is above 2007 composite score range
Frequency of Events Reported (3 items--% Most of the time/Always)	56%	53-60%	63%	59-68%	no

FBC: Non punitive response to error



FBC: Number of Events Reported Last 12 Months



FBC: Composite Score Comparisons

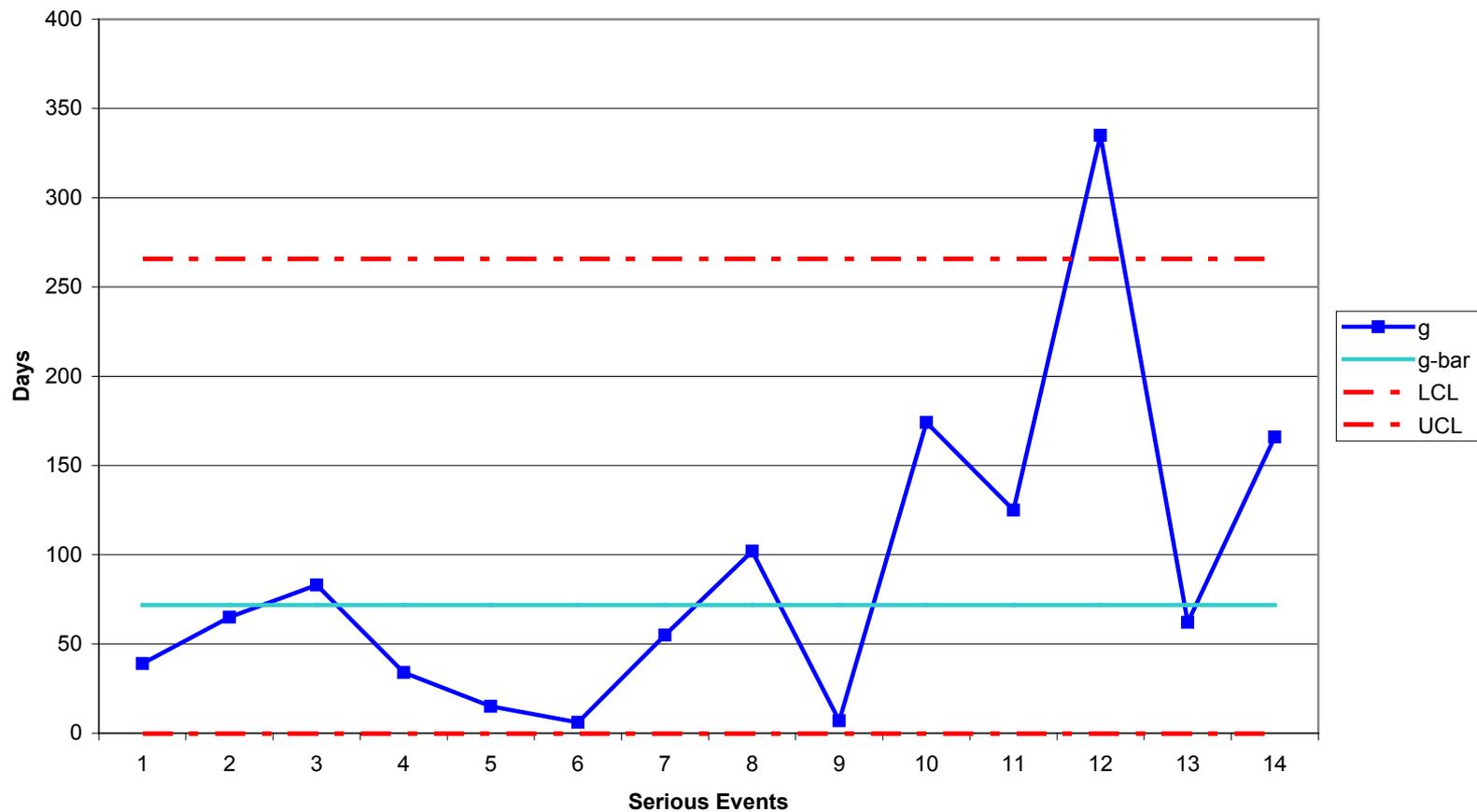
Ten Dimensions of Safety

Safety Culture Composites	2007 composite score	2007 range	2009 Composite Score	2009 range	2009 composite score range is above 2007 composite score range
Supervisor/Manager Expectations & Actions Promoting Patient Safety (4 items--% Agree/Strongly Agree)	66%	63-69%	78%	74-81%	yes
Organizational Learning--Continuous Improvement (3 items--% Agree/Strongly Agree)	69%	65-72%	79%	75-82%	yes
Teamwork Within Units (4 items--% Agree/Strongly Agree)	72%	69-75%	78%	75-81%	no
Communication Openness (3 items--% Most of the time/Always)	55%	51-58%	65%	60-69%	yes
Feedback & Communication About Error (3 items--% Most of the time/Always)	50%	46-54%	70%	66-74%	yes
Nonpunitive Response to Error (3 items--% Agree/Strongly Agree)	32%	28-35%	37%	33-41%	no
Staffing (4 survey items--% Agree/Strongly Agree)	36%	33-39%	64%	61-68%	yes
Hospital Management Support for Patient Safety (3 items--% Agree/Strongly Agree)	57%	53-61%	78%	74-82%	yes
Teamwork Across Hospital Units (4 survey items--% Agree/Strongly Agree)	44%	41-47%	52%	49-56%	yes
Hospital Handoffs & Transitions (4 survey items--% Agree/Strongly Agree)	36%	33-39%	51%	48-55%	yes

Range = margin of error; Composite score range = score +/- margin of error = 95% CI

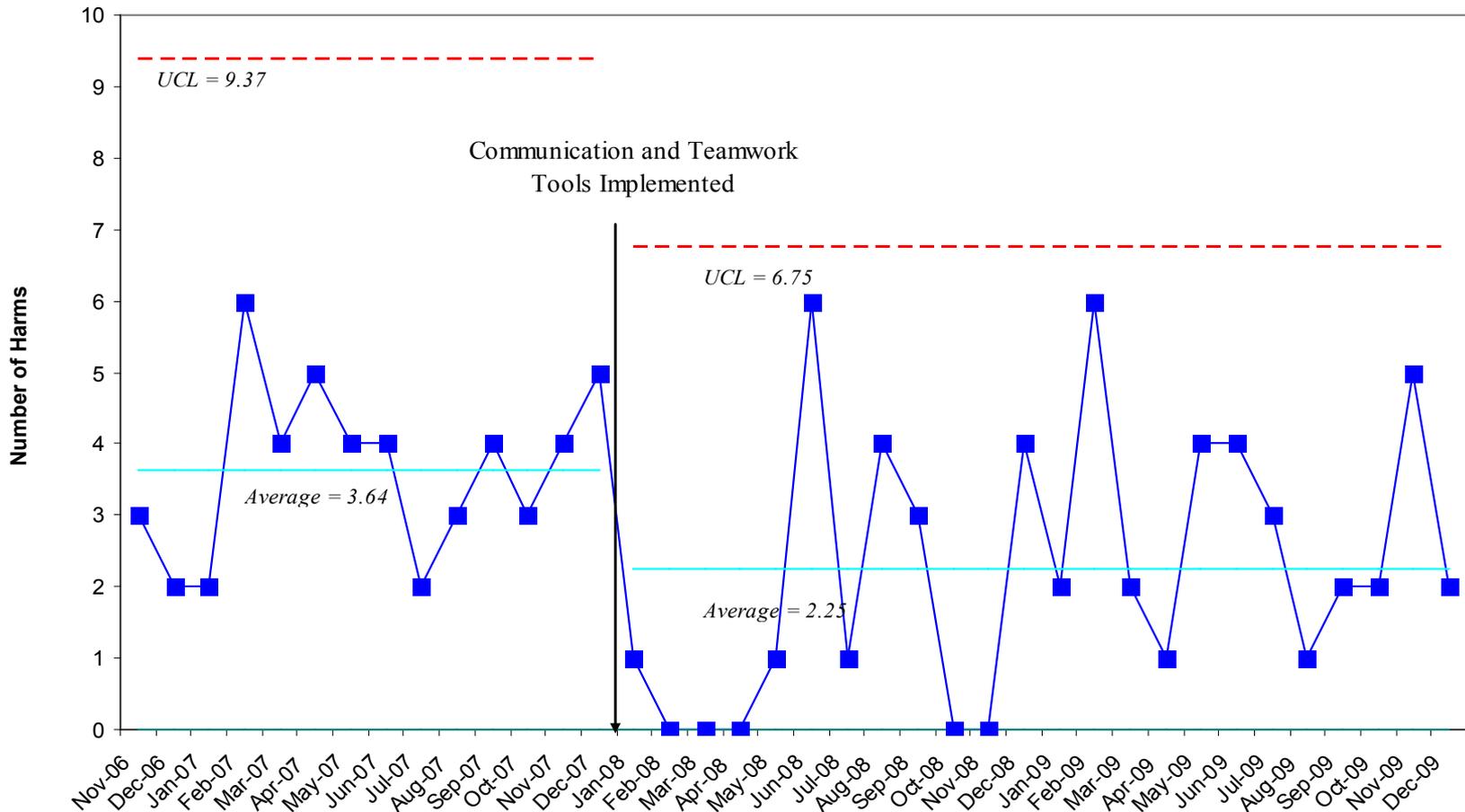
Days Between Serious Events

Salem Hospital Family Birth Center
Days between Serious Events
January 1, 2007 - November 19, 2009



Perinatal Trigger Tool Results

Perinatal Trigger Tool Control Chart
2006-2009



Lessons Learned

- Culture can change
 - Leadership ongoing commitment
 - Clear ongoing Expectations and Accountability
- Training + Translating Knowledge into Action
 - Credibility of Trainers
 - Locally developed and owned tools
- Dedicated Resources are needed
- Sharing results important and we could have done better
- “Mandatory” works in Salem, Oregon
- Refresher Course—transition to local capability

Using SOPS Survey: Lessons Learned

- Important to chase down surveys to get broader participation
- Useful to be able to process the survey results locally
 - Quicker
 - Potentially more statistical information
 - More flexible ways to assess results

Communication and Teamwork: Future Plans

- Continue to introduce two new areas each year
 - Inpatient and ambulatory
 - 4 hour course + developing tools
- Expectation for new organizational and professional staff
- Two hour refresher course every two years
 - For professional staff, tied to credentialing process
- SOPS every 18-24 months
 - Internal processing capability

Other Hospital Future Plans

- 2010
 - Patient Safety M and M conferences
 - More transparency around our serious adverse events
 - Active work on Just Culture and Safety Reporting
 - Clearer policy, more broadly implemented
 - Working on process for how physician clinical practice and behavioral issues are managed
 - Improved integration of Patient Safety and Quality Work