

Implementation, Spread and Next Steps at UNC Health Care



Presenters:

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2009 TeamSTEPPS Collaborative

Omaha, Nebraska

June 3, 2009

UNC Health Care System Details

- Public Academic Teaching Health Care System
- 6,000 employees
- 700 residents
- 1,000 faculty physicians
- 700 beds
- 22,000 surgeries/yr
- 32,000 discharges/yr
- 67,000 ER visits/yr
- Located in Chapel Hill, NC

Background

- September 2007 – UNCHCS in partnership with RTI International was awarded an AHRQ contract called “TeamSTEPPS; Adoption in Action”
- Began Implementation in PICU and SICU
 - High intensity/complexity environments
 - Key MD leader champions at the unit level
 - Multidisciplinary Leadership and Unit Management Support and Champions
 - Respiratory Therapy Dept Championing from leadership to frontline staff
- Initially targeted two complex, intense team events:
 - ECMO and RRT
 - Eventually included all PICU & SICU team events
- In June 2008 decided to implement & evaluate *TeamSTEPPS* in the ED
- *TeamSTEPPS* now spread to multiple other departments

Intervention Aims

- **Process aim:** Train all PICU, SICU, RT and ED staff in *TeamSTEPPS*
- **Team outcome aim:** Improved team behavior and communication within one year
 - Assessed by observations (e.g., observation of a clear leader, observed check backs)
 - Also assessed via staff perceptions collected via interviews, surveys and meetings
- **Clinical outcome aim:** several including decrease in time to team deployment, decrease in time to incision

Implementation Strategy

- Action Plans for the PICU, SICU and ED included training all staff in almost all of the *TeamSTEPPS* tools and strategies
- All PICU, SICU, and RT staff received training
 - 1-hour online module providing an overview of *TeamSTEPPS*, plus 2 short articles to read
 - 1-hour interactive instructor-led group training session, led by a cadre of PICU, SICU and RT Master Trainers
 - Training sessions built around a customized PowerPoint presentation and included role play
 - Sessions purposely designed to be cross-disciplinary





Implementation Strategy (cont.)

- More than 40 training sessions were held over the course of 8 weeks to train all PICU, SICU and RT staff
- The ED had a fewer Master Trainers and adopted a Train-the-Trainers approach, encountered barriers and shifted to providing training in “doses”, still used the online module
- *TeamSTEPPS* pocket guide provided to all trained staff, included a list of coaches at UNC
- The Change Team meets periodically to discuss progress, concerns and ideas for improvement



June 2008		0500-0600	1300-1400	1800-1900	0100-0200
Monday	9			Kathy S./Neil/Christa	
Tuesday	10	Tina/Doreen			
Wednesday	11		Celeste/Doreen		
Thursday	12				Tina/Christa
Friday	13				
Saturday	14				
Sunday	15			Christa/Renae	
Monday	16				
Tuesday	17			Kathy S./Roger	
Wednesday	18				Celeste/Neil
Thursday	19	Holly/Roger			
Friday	20		Celeste/ Kathy S		

Staff Trained

- Master Trainers
 - 50 trained at AIR sponsored Master Training held at Duke University
 - Includes MDs/RNs/RTs from SICU, PICU, Main ED, Pediatric ED, Neonatal Critical Care, L&D, Oncology, Residency Program
 - All of these Master Trainers are designated as “TeamSTEPPS Coaches”

Trained for AHRQ funded work

- Staff completed training (“TeamSTEPPS Ready”)
 - 90 Respiratory Therapists
 - 150 SICU staff (RN & MD)
 - 20 SICU residents
 - 150 PICU staff (RN & MD)
 - 10 Pediatric ECMO staff
 - 7 OR anesthesia & perfusionists for Women’s & Children’s OR
 - 2 Pediatric cardiothoracic surgeons and 2 NPs
 - 7 Pediatric surgeons
 - 10 Pediatric RRT Committee members
 - 10 Pediatric Sedation Committee members
 - 20 Emergency Medicine staff (RN & MD)
 - 10 Emergency residents

Staff To-Be Trained

- Oncology Service (nearing completion)
- ED (nearing completion)
- Neonatal Critical Care Center (in progress)
- Labor & Delivery (in progress)
- Radiology Department (in progress)
- Incoming Residents (in progress)

Reinforcement after Training

- Relied on Change Team and *TeamSTEPPS* Coaches to model the behaviors
- Distributed “*TeamSTEPPS* Coach” and “*TeamSTEPPS* Ready” badges to help identify trained staff
- Encouraged coaches to positively reinforce staff when they observed *TeamSTEPPS* language and behaviors (provided chocolates and note cards to facilitate this reinforcement)

Reinforcement Tools



The diagram is a large green triangle with a white border. Inside, a smaller green triangle contains a central figure with four colored boxes: Leadership (orange), Communication (purple), Mutual Support (yellow), and Situation Monitoring (blue). Red arrows point from these boxes to the vertices of the outer triangle, labeled PERFORMANCE (top), KNOWLEDGE (bottom-left), and ATTITUDES (bottom-right). A red arrow also points from the central figure to the top vertex. At the bottom of the inner triangle, the text "PATIENT CARE TASKS" is written.

TeamSTEPPS
COACH

TeamSTEPPS
COACH

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TeamSTEPPS
READY

TeamSTEPPS
READY

Pocket Guide

TeamSTEPPS™

Strategies & Tools to Enhance Performance and Patient Safety

TRICARE

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Agency for Healthcare Research and Quality
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PATIENT SAFETY

Strategies for Sustainment

- Started forwarding weekly '*TeamSTEPPS* Tips' to staff
- <http://cce.med.unc.edu/pmwiki.php?n=Programs-TeamSTEPPS/HomePage>
- Coach training classes May '09
- Increased visibility of the initiative with articles in the monthly newsletter
- Created 2 pager – TeamSTEPPS quick facts
- Piloting TeamSTEPPS information brochure for patients in SICU



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System is now in place. pharmacists who suspect substances to see where receiving these drugs. Of prescription, as well as apply for system privilege own Paul Chelminski, MPH served on the governing system, and have been and passage of the legislation also been appointed to Committee to assist in the procedures related to the

Dr. Celeste Mayer, Performance Improvement Division have just received ACTION research award for Research and Quality. The Care, in partnership with plan, implement, and evaluate utilizing AHRQ's TeamSTEPPS the Pediatric and Surgeon staff, and physicians in be supportive of our team to already in the works and training provided by this improve how we work to lead to many improvements. Dr. Mayer and the rest of securing this award.



TeamSTEPPS™

TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) is an evidence-based framework to optimize team performance across the healthcare delivery system.

The core of the TeamSTEPPS framework is comprised of four skills: **Leadership, Situation Monitoring, Mutual Support, and Communication.** These skills must interplay with the Team Competency Outcomes: **Knowledge, Attitudes, and Performance.**

LEADERSHIP

There are two types of leaders: 1) Designated and 2) Situational. In effective teams, any member of the team with the skills to best manage the situation can assume the leadership role.

An effective team leader: organizes the team; articulates clear goals; makes decisions through collective input of members; empowers members to speak up and challenge, when appropriate; actively promotes and facilitates good teamwork; and skillfully resolves conflicts.

Team Events

- **Brief:** This is a short session for planning prior to start to discuss team formation; assign essential roles; establish expectations and climate; and anticipate outcomes and likely contingencies
- **Huddle:** When problem solving is needed, this ad hoc planning is used to reestablish situation awareness; reinforce plans already in place; and assess the need to adjust the plan.
- **Debrief:** This informal information exchange session is designed to improve team performance and effectiveness. Feedback from the team drives future process improvement.

SITUATION MONITORING

Situation monitoring is the process of continually scanning and assessing what's going on around you to maintain situation awareness. (STEP = Status of the patient, Team members, Environment, Progress towards goal)

Situation awareness is "knowing what is going on around you" and knowing the conditions that affect your work.

Shared mental models result from each team member maintaining his or her situation awareness and sharing relevant facts with the entire team. Doing so helps ensure that everyone on the team is "on the same page."

Cross Monitoring: an error reduction strategy that involves monitoring actions of other team members; providing a safety net within the team; ensuring mistakes or oversights are caught quickly and easily; and "watching each other's back"

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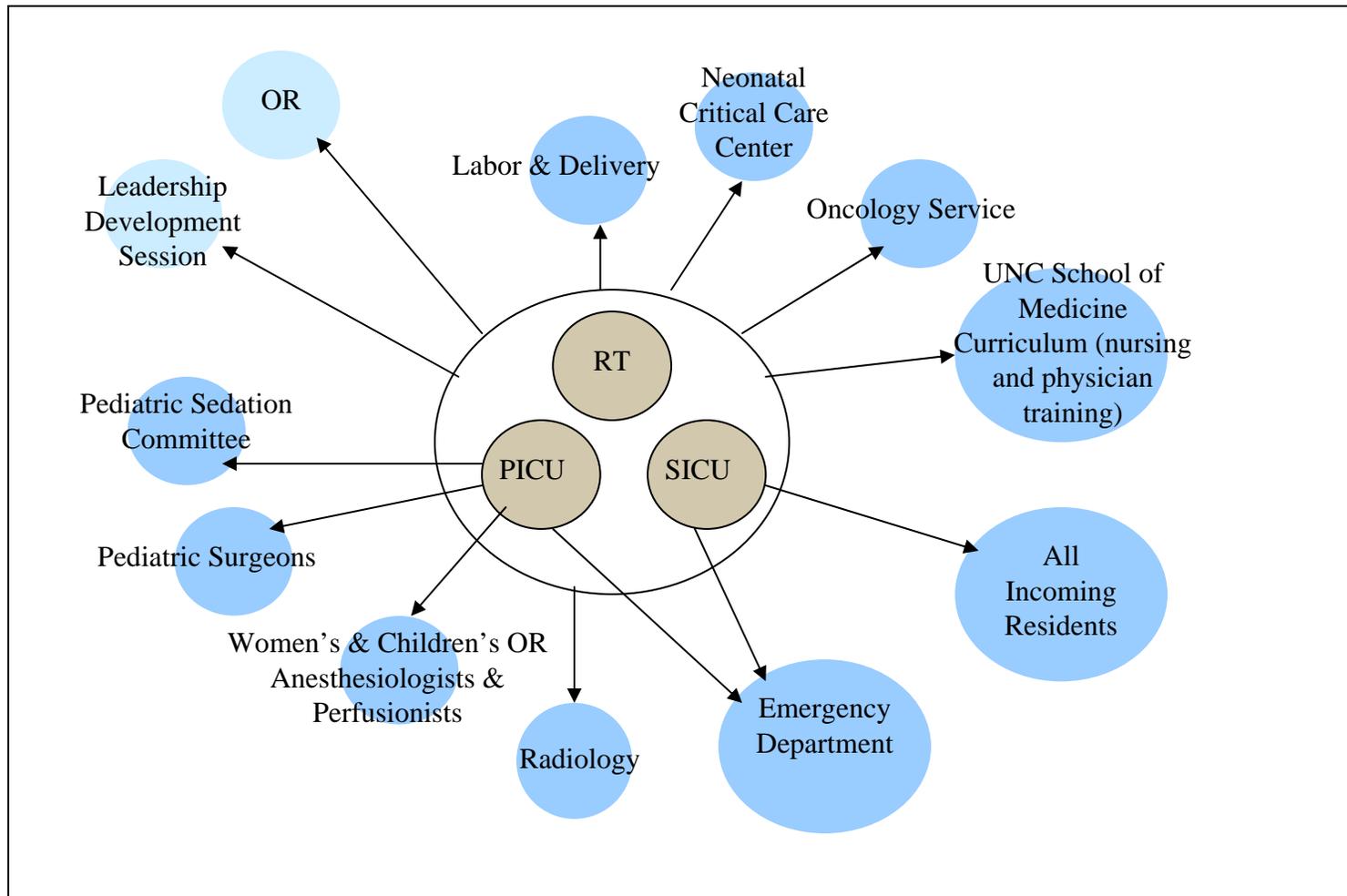
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Implementation Successes

- **Process Aim Met**
 - Staff trained & to-be trained (Master Trainers & other staff)
 - Additionally, the program spread to other departments resulting in more staff trained
- **Early Evidence for Team Outcome Aim Met**
 - Improved team functioning observed
 - Team leaders approach events differently
 - Improved communication during emergent events
- **Clinical Outcome Aims still in data collection**

Program Spread



Evaluation Study Design

- Mixed methods, pre-/post-implementation study design, with heavy emphasis on process evaluation
- Baseline data:
 - Key informant interviews with PICU, SICU, RT and ED staff
 - Survey data (e.g., Hospital Survey on Patient Safety Culture, NDNQI Survey, and Employee Opinion Survey)
 - Select clinical measures (e.g., time to incision)
- Ongoing data collection (baseline to end of study):
 - Clinical observations by nurse observer
- Post-implementation data:
 - Key informant interviews
 - Survey data
 - Select clinical measures



Early Findings: Leadership & Communication

- Leaders approach emergent situations differently, using TeamSTEPPS tools
- Better communication (e.g., use of check backs, CUS, two challenge rule) & avoiding near misses
- Fun TeamSTEPPS interactions build morale and reinforce usage of the tools

What We're Hearing from Staff

- *“The TeamSTEPPS training has taught me to effectively coach others; it’s taught me to recognize what we’re doing poorly and what team members are doing an outstanding job. It’s taught me that feedback is good. It’s taught me to involve patients and families, not just talk over the patient but speak to the patient.”*
- *“A year ago, I would have been looking for someone to yell at, but instead, I said, ‘I think we need to debrief this.’”*
- *“We now will think ahead to do a time out and put a sign on the door that says ‘sterile procedure in progress’ whereas before TS, we wouldn’t have done that. It would’ve been more of a physician responsibility and now nurses feel more empowered to do that.”*

What Contributed to Success?

- Physician & frontline champions (overcome resistance, build momentum, model behaviors)
- Central organizer/program owner at UNC (PSO)
- Visibility & recognition (badges, recognition cards)
- Engagement of upper management (resources, champions)

What Contributed to Success? (cont.)

- Integration of tools and behaviors into existing practices (giving a common language to and reinforcing what many were already doing)
- Success generates interest
- Large cadre of Master Trainers were able to attend the Master Training sessions at Duke and start the action planning while together and immersed in TeamSTEPPS/away from the hospital
- Partnership with RTI

Challenges

- Budgetary concerns
- Some staff resistance
- One improvement initiative among many

Lessons Learned

- **Keeping it a grassroots effort**
 - Change Team agreed that if *TeamSTEPPS* were institutionalized, it would risk becoming a marginal part of orientation
 - Change Team has been approached by other departments who requested help with implementation. They agreed that they would assist departments that meet “implementation readiness” criteria

Next Steps

- Continue phased rollout to areas that request and meet “implementation readiness” criteria
- Evaluate the effectiveness of coach training and continue coach training
- Focus on sustainment in intervention areas
 - Ownership/program team support
 - Hardwire systems (training, hiring)
 - Ongoing, simple measurement
 - Involvement of senior leadership
- When possible implement with research plan and IRB approval

Questions?

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