Transforming to a Culture of Safety Using TeamSTEPPS

Catherine Galla MSN, RN, CENP
Vice President Nursing Initiatives

Lily Thomas, Ph.D., RN, FAAN
Vice President System Nursing Research
Please note that the views expressed by the conference speakers do not necessarily reflect the views of the American Hospital Association and Health Forum.
Key Facts

- 16 hospitals (More than 6,000 hospital and long-term care beds)*
  - 5 tertiary
  - 7 community
  - 3 specialty
  - 1 affiliate
- 3 skilled nursing facilities
- Nearly 400 ambulatory and physician practices
- 34 nursing home/senior living affiliates
- The Feinstein Institute for Medical Research
- Comprehensive continuum of care
- Strategic alliances
  - CASAColumbia
  - Karolinska Institute
  - Cleveland Clinic
  - Montefiore Medical Center
  - Hackensack University Medical Center
- 7 million people served
- 4 million patient contacts
- 133,340 ambulatory surgeries
- 283,700 hospital discharges
- 25,600 births
- 640,000 emergency visits
- 505,207 home care visits
- 95,246 ambulance transports
- More than $6.7 billion in revenue
- 14th largest healthcare system in the US
- More than 46,000 employees
  - More than 9,440 physicians*
  - More than 10,000 nurses*
  - More than 1,500 medical residents and fellows
- More than $608.6 million (10.5 percent of operating expenses) contributed in community benefit by offering 2,185 programs serving 2 million people and training 16,425 health professionals
- Recipient of the National Quality Forum’s 2010 National Quality Healthcare Award
- Hofstra North Shore-LIJ School of Medicine

*Does not include affiliate organizations
The Problem / Needs

- Achieving quality, patient experience, and financial targets
- Reducing medical errors
- Optimizing and sustaining effectiveness of safety initiatives
- Effective implementation of ongoing changes
- Employee engagement
The Solution: Combining Evidence and Innovation

Building a culture of safety

• Use TeamSTEPPS, an evidence-based strategy

Creating infrastructure and process to enhance employee engagement

• Create an innovative infrastructure - Collaborative Care Councils
Why TeamSTEPPS?

TeamSTEPPS

Transformational Change:
Changing the Culture to a Culture of Safety

Incremental Change:
Continuous improvement - Problem Solving Using TeamSTEPPS Core Skills
Why TeamSTEPPS?

- Evidence-based Strategy
- Designed for healthcare providers to improve safety through effective communication and teamwork
- Addresses leading cause of medical errors
- Its Simplicity increases applicability
- Standardized multi-media curriculum
Our Journey

Team STEPPS + Collaborative Care Councils

Introduction to TeamSTEPPS
- July 2007

Pilot Hospital Implementation
- Sept 2007 - 2008

2009 – Current
- 16 Hospitals, 3 LTCs
- Ambulatory Care, EMS, Home Care

>35,000 Trained
Begin with the end in mind!
Collaborative Care Model©

Health Care Team

PATIENTS COME FIRST

Practice Environment (Structure)

Collaborative Care Councils

Care Delivery Model (Process)

TeamSTEPPS

Patience comes first

Health Care Team

Collaborative Care Councils

Care Delivery Model (Process)

Patient Experience
Financial Performance
Quality

Practice Environment (Structure)

Collaborative Care Councils

Care Delivery Model (Process)

TeamSTEPPS

Patience comes first

Health Care Team

Collaborative Care Councils

Care Delivery Model (Process)

TeamSTEPPS

Patience comes first

Health Care Team

Collaborative Care Councils

Care Delivery Model (Process)

TeamSTEPPS

Patience comes first

Health Care Team

Collaborative Care Councils

Care Delivery Model (Process)

TeamSTEPPS

Patience comes first
Infrastructure for Implementation

Organizational Level
Executive Sponsor Team

Service Level
Director Sponsor Team

Department/Unit Level
Collaborative Care Council

System Performance Improvement Coordinating Group (PICG)

Hospital PICG

Service PICG
Team Training & Implementation

Steps of Engagement

Executive Overview

Understanding the Culture

Customized Curriculum and Training

Toolkit Customized to Point of Care

Permanent Change Team: Collaborative Care Councils
Making It Real: Collaborative Care Councils

- Provides a networking infrastructure for interdisciplinary colleagues at all levels
- Address practice issues related to quality
- Improves care and service
- Develops leaders
- Taps into individual gifts and collective capacity
- Enhances relationships
- Facilitates meaningful conversations
- Achieves shared mission and vision
Council Impact Areas

What Councils Work On

- Staff Competency Improvements
- Use of Financial Resources
- Patient / Staff Satisfaction
- Recruitment and Retention
- Clinical Quality Improvement
- Patient Safety
1:1’s Critical to Sustainability and Growth

- Staff build relationships one person at a time
- Enhances interpersonal relationships
- Everyone feels connected & part of decisions
- Accountability increases - becomes “our decision”
>350 Collaborative Care Councils so far...

All Inpatient Units in
 16 Hospitals
 Outpatient Clinics
 3 LTC / Rehab

Center for Emergency Medical Services (CEMS)
North Shore-LIJ Medical Group
Home Care Network

All sites have a Central Council

System wide -
Behavioral Health Collaborative
Emergency Services Collaborative

Allied Health, Ancillary & Support Service Councils
✓ Social Work
✓ Food and Nutrition
✓ Radiology
✓ Laboratories
✓ Rehab Services
  In & Outpatient
✓ Respiratory
✓ Pharmacy
✓ Environmental
✓ Case Management
✓ Central Sterile & Supply
✓ HIM (Medical Records)
✓ Faculty Practice
✓ Admitting
✓ Security
✓ Engineering
✓ Telecommunications
RESULTS
## Pilot Site: Improvement in Hospital Survey of Patient Safety Culture (HSOPSC)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Improvement from 2007 to 2009</th>
<th>Improvement from 2009 to 2010</th>
<th>Improvement from 2007 to 2011</th>
<th>Improvement from 2007 to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication / Openness</td>
<td>+ 1%</td>
<td>+ 6.7%</td>
<td>+6.8%</td>
<td>+10.5%</td>
</tr>
<tr>
<td>Feedback and Communication about Error</td>
<td>+ 4%</td>
<td>+ 5.3%</td>
<td>+10.3%</td>
<td>+17.6%**</td>
</tr>
<tr>
<td>Frequency of Events Reported</td>
<td>- 1%</td>
<td>+ 3.6%</td>
<td>+11.7%</td>
<td>+19.5%**</td>
</tr>
<tr>
<td>Hospital Handoffs and Transitions</td>
<td>0%</td>
<td>+ 11.30%</td>
<td>+10.1%</td>
<td>+15.8%</td>
</tr>
<tr>
<td>Hospital Management Support for Patient Safety</td>
<td>+ 3%</td>
<td>+ 8%</td>
<td>+12.5%</td>
<td>+14.7%**</td>
</tr>
<tr>
<td>Non-punitive Response to Error</td>
<td>+ 3%</td>
<td>+ 12.9%</td>
<td>+13.5%</td>
<td>+14.3%</td>
</tr>
<tr>
<td>Dimension</td>
<td>Improvement from 2007 to 2009</td>
<td>Improvement from 2009 to 2010</td>
<td>Improvement from 2007 to 2011</td>
<td>Improvement from 2007 to 2013</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Organizational Learning – Continuous Improvement</td>
<td>-2%</td>
<td><strong>+13.7%</strong></td>
<td><strong>+14.2%</strong></td>
<td><strong>+16.8%</strong></td>
</tr>
<tr>
<td>Overall Perceptions of Safety</td>
<td>+6%</td>
<td>+5.8%</td>
<td>+12.8%</td>
<td>+17.5%</td>
</tr>
<tr>
<td>Staffing</td>
<td>+8%</td>
<td>+7.8%</td>
<td>+17.4%</td>
<td>+15.7%</td>
</tr>
<tr>
<td>Supervisor/Manager Expectations &amp; Actions Promoting Patient Safety</td>
<td>0%</td>
<td><strong>+10.9%</strong></td>
<td><strong>+11.9%</strong></td>
<td><strong>+15.4%</strong></td>
</tr>
<tr>
<td>Teamwork Across Hospital Units</td>
<td>+3%</td>
<td>+11.1%</td>
<td>+13.3%</td>
<td>+19.3%</td>
</tr>
<tr>
<td>Teamwork Within Units</td>
<td>-2%</td>
<td><strong>+13.9%</strong></td>
<td><strong>+9.2%</strong></td>
<td><strong>+8.4%</strong></td>
</tr>
</tbody>
</table>
# Health System: Improvement in HSOPSC 2009 - 2013

<table>
<thead>
<tr>
<th>AHRQ Question</th>
<th>Improvement 2009 - 2011</th>
<th>Improvement 2009 - 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Openness</td>
<td>3.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Feedback and Communication about Error</td>
<td>6.8%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Frequency of Events Reported</td>
<td>10.5%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Hospital Handoffs &amp; Transitions</td>
<td>8.0%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Hospital Management Support..</td>
<td>5.8%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Nonpunitive Response to Error</td>
<td>5.7%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Organizational Learning- Continuous Improvement</td>
<td>4.6%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Overall Perceptions of Safety</td>
<td>4.8%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Staffing</td>
<td>5.4%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Supervisor/Manager Expectations &amp; Actions...</td>
<td>3.8%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Teamwork Across Hospital Units</td>
<td>7.6%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Teamwork Within Units</td>
<td>2.2%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>
Reducing CLABS in Patients outside the ICU

**Interventions**
(Inpatient Med Surgical CCC)
Handoff used to communicate patients with CLs

Cross Monitoring using daily check backs on patients with CLs to ensure dressing changes and line care

Briefs discussing the number of infection free days

**Results**
Number of line days decreased by 50%; 43% reduction in the CLABS rate
Incremental Change – Continuous Improvement

Decreasing Bed Turn around Time

### Inpatient Med Surg CCC

<table>
<thead>
<tr>
<th></th>
<th>Press Ganey Scores</th>
<th>Percentile Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td><strong>Discharge</strong></td>
<td>82.4</td>
<td>90.6</td>
</tr>
<tr>
<td><strong>Likelihood to recommend</strong></td>
<td>82.7</td>
<td>91.7</td>
</tr>
</tbody>
</table>
Since 2011- Cost Avoidance => $40 MILLION

QUALITY

MALPRACTICE
Lessons Learned

- Ongoing executive leadership support is essential
- Standardized implementation: rapid, systematic and structured process
- Cohort units / departments according to planned rollout sequence

- Training approach: Inter-disciplinary, Story-telling, Re-dose as needed
- Transfer responsibility & accountability to the facility: Build the Bench!
- Physician involvement is crucial
Sustainment Strategies: Executive Leadership Role

- Driving and monitoring TeamSTEPPS implementation and sustainment
- Enabling accountability
- Participating in Collaborative Care Councils (CCCs)
- Physician job description to include participation in CCCs
- Reviewing outcomes and designing interventions (process and outcomes)
Celebrate Success: TeamSTEPPS Showcases
Success Factors Unique to North Shore-LIJ

Implementation across a broad and diverse care continuum

- Hospitals
  - Tertiary
  - Community
  - Specialty
  - Pediatrics
  - Behavioral Health
- Long Term Care / Rehab
- Ambulatory Care / Medical Offices
- Ambulance Services / Home Health Care Network
All Clinical Leaders / Dept Heads attend Master Training

All Clinical Leaders / Dept Heads become TS & CCC Coaches or Trainers

CCCs & TeamSTEPPS Tools & Strategies are anchored in daily practice

Built into System Policies, Procedure and Orientation

Success Factors Unique to North Shore-LIJ
Exemplar: Hardwiring...
Validation of Sustainment in Crisis
IMPACT: Hurricane Sandy

850 mb Wind Speed (kts) & MSLP (hPa) 00Z29OCT2012 fx: [24] hr --> Tue 00Z30OCT2012
ECMWF Global Deterministic Forecast Model T1279

Domain Max: 93.5 kt  Domain MinSLP: 945.4 hPa
Lenox Hill Hospital
Manhattan’s Upper East Side

LEGEND

- **Evacuation Centers/Shelters**
- **Zone A**
  Residents in Zone A face the highest risk of flooding from a hurricane’s storm surge.
- **Zone B**
  Residents in Zone B can expect a moderate likelihood of evacuation if a hurricane is expected to reach NYC.
- **Zone C**
  Residents in Zone C can expect a low likelihood of evacuation if a hurricane is expected to reach NYC.

Go to [NYC.gov](http://NYC.gov) for more information.
The Beginning ....
The Calm Before The Storm

- Emergency preparations began four days prior to the storm
- Hospital decanted to increase capacity
- Medical and Surgical Emergency teams established
- Emergency plans for housing, food, supplies etc.
- Redistribution of patients to empty out two units
- Command Center setup
- Transfer protocols activated

Transfers
  - 12 intubated critical care patients from SIUH Sunday
  - 10 pts transferred from outlying hospitals
• Seawalls breached, flooding to large sections of Lower Manhattan
• Power lost in Manhattan below 33rd Street
• Subways and road tunnels flooded
• Fire and flood devastation to Manhattan, Brooklyn, Staten Island, and Queens beach communities
IMPACT: NYC
IMPACT: NYC
(1) Patient brought in by ambulance from evacuated hospitals

(2) Patient handed off from EMS team to ED Frontline team, composed of MDs, RN and Bed Control
   - Three care teams established, each composed of 2 RNs, Patient Care Tech and MD
   - Care teams stabilized patients and completed triage
   - Appropriate consultations and admissions arranged

(3) After patient is stabilized, care handed off to appropriate specialty team. Patient’s transferred to unit accompanied by transport nurses and clinical staff.
TeamSTEPPS Tools Evidenced Across NSLIJ in the Face of Chaos & Disaster

• Flooding, Wind Damage, Intermittent Power, Challenges in Transportation and Communications
  • Subsequent Blizzard
  • Gas Shortages

• Failure of other facilities ability to continue to deliver care increased pressure on NSLIJ facilities

• NSLIJ staff remained on the job for days, dealing with:
  • Increased patient load
  • Knowledge of personal loss and tragedy
  • Intermittent reversions to paper documentation / downtime procedures

• TeamSTEPPS was evident in and across all care settings; both in the moment and in the stories!
From a point shortly after Sandy made landfall, through the next 48 hours, NSLIJ Health System accommodated ~ 300 patients from other hospitals, nursing homes and shelters without compromising operations. At Lenox Hill Hospital (LHH) alone, teamwork was remarkable and sustained:

**LHH provided appropriate services**
- For 2 months post storm, Lenox Hill Hospital occupancy rate was 120-150%, (up from 70%)
- ED went from 60,000 visits to 90,000 visits
- 40 additional beds created in units previously closed
- Operating rooms extended hours to offer 24/7 coverage

**LHH rapidly ensured staff coverage**
- 261 NYU physicians given disaster/emergency privileges
- 125 NYU residents and fellows added by GME
- 700 nurses credentialed
The Finish Line: Teamwork Prevails

86 NYU patients admitted to LHH from 3:00AM - 9:00AM
- 51 of these patients admitted between 3:00AM – 6:00AM
- 1 patient admission every 3-4 minutes
- 1 resuscitation
- All patients admitted to LHH physicians/teams

• No adverse outcomes!

When they tell the stories – LHH staff all speak from a TeamSTEPPS perspective; Briefs, Debriefs, Huddles, Situation Monitoring, Check-back and Handoffs are the way we did and do business.
Collaborative Care + TeamSTEPPS: The framework that binds it all together...