USING SURVEYS ON PATIENT SAFETY CULTURE TO EVALUATE AND IMPROVE SAFETY CULTURE

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NCPS
Nebraska Coalition for Patient Safety

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NCPS

WELCOME!

- This webinar will be recorded and available on the members-only page of the NCPS website (www.nepatientsafety.org).
- CEUs will only be available for participants who attend the live webinar. CEUs are not available for viewing the webinar recording.
- Participants are in listen-only mode.
  - If you have questions, please type them in the question box.
  - If we are unable to answer your question during the webinar, we will do our best to provide answers via email after the webinar.
- If we experience technical difficulties, and our connection to attendees is lost, we will make one attempt to reconnect and will continue the program.
- If we are unsuccessful with reconnecting, the date of the rescheduled program will be communicated to you via email as soon as it is made available.

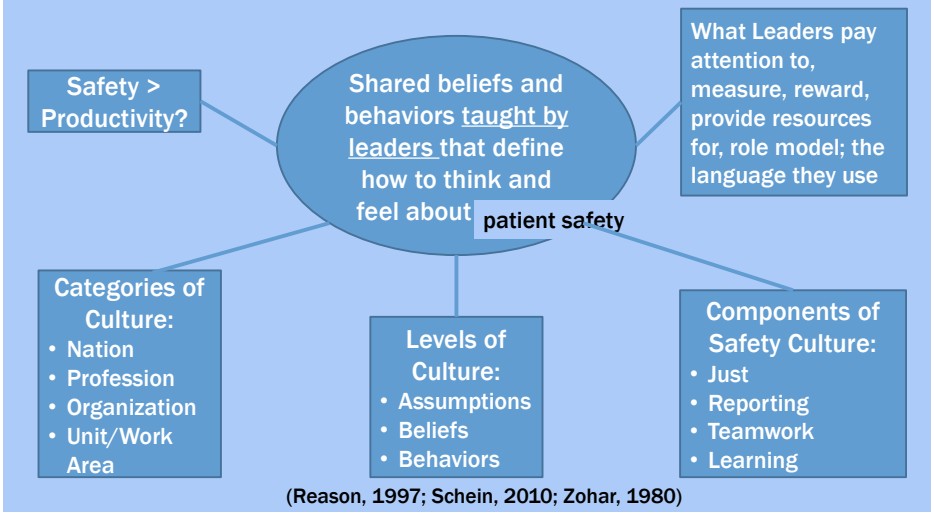
CONTINUING EDUCATION CREDIT

- This program has been approved to award 1.0 hour of continuing education for nurses.
- Continuing Education Contact Hours awarded by Iowa Western Community College, Iowa Board of Nursing Provider #6.
- Participants must attend the whole event to get CE credit.
- All attendees will be emailed a link to an online program evaluation that we ask you to complete by August 31 to receive continuing education credit.
- In order to receive continuing education, attendees will also be required to complete an on-line post-test.
  - An email will be sent to all attendees following this program that will have a link to the post-test.
  - Please complete the post-test by Monday, August 31st.
- Nurse attendees who desire continuing education credit are required to register and create a personal profile on Iowa Western Community College's web site.
  - The email that is sent with a link to the post-test will contain a pdf attachment with instructions.
  - Completed profile and CE registration need to be submitted by Monday, August 31st to receive continuing education.

COURSE OBJECTIVES

1. Explain how conducting a survey on patient safety culture (SOPS) can be used to improve safety culture.
2. Analyze how SOPS composite measures relate to the 4 key components of safety culture.
3. Identify the healthcare settings for which surveys on patient safety culture are available and the purposes of additional survey modules.
4. In the hospital setting, evaluate whether to use the original Hospital Survey on Patient Safety Culture (HSOPS 1.0) or whether to use HSOPS 2.0.
5. Evaluate whether to conduct SOPS using internal as compared to external resources.

SAFETY CULTURE: A TYPE OF ORGANIZATIONAL CULTURE



(Reason, 1997; Schein, 2010; Zohar, 1980)

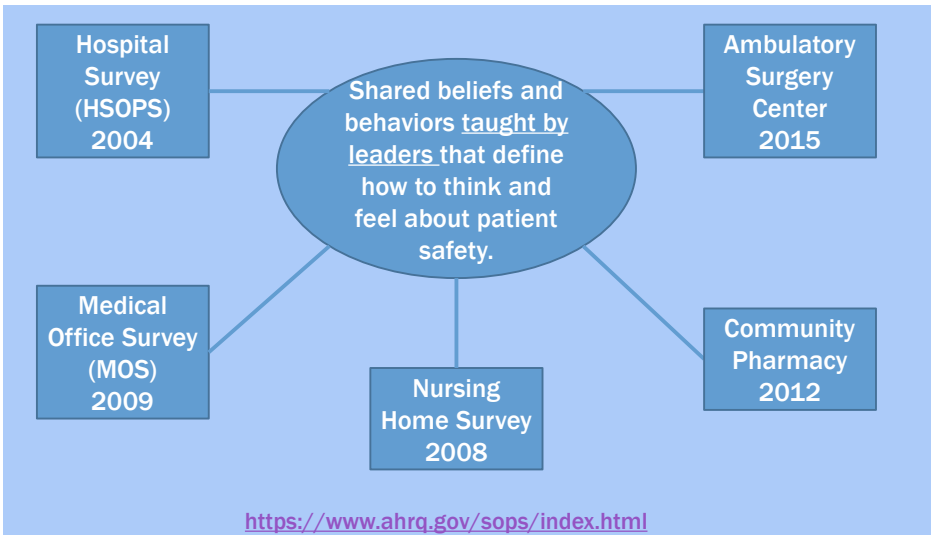
WHY CONDUCT A SURVEY?

We cannot improve what we do not measure!

1. Increase staff awareness about patient safety
2. Identify areas of culture in need of improvement
3. Evaluate effectiveness of patient safety interventions over time
4. Conduct internal and external benchmarking
   https://www.ahrq.gov/sops/databases/index.html
5. Meet regulatory requirements
   https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/sea_57_safety_culture_leadership_0317pdf.pdf
6. Identify gaps between espoused beliefs and observed behaviors within different departments and job titles

(Jones et al, 2008; Nieva et al., 2003; Schein, 2010)

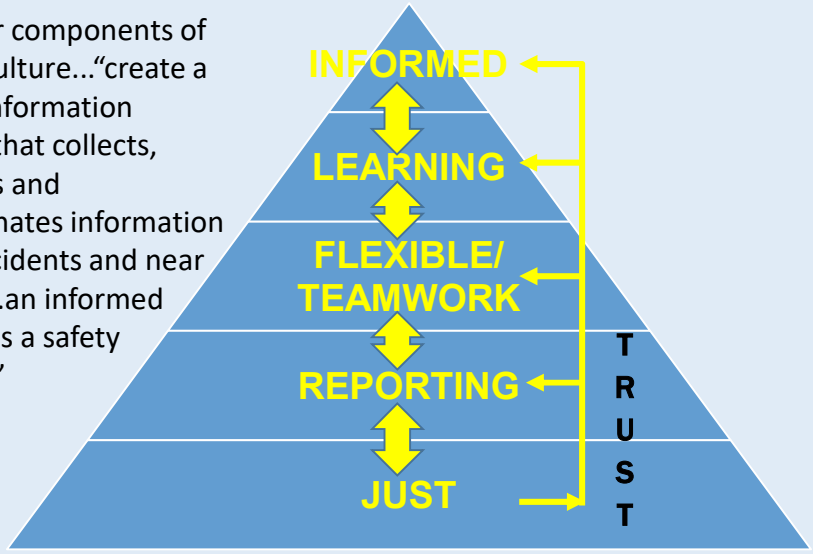
SURVEYS ON PATIENT SAFETY CULTURE (SOPS)



https://www.ahrq.gov/sops/index.html

4 COMPONENTS OF SAFETY CULTURE

The four components of safety culture..."create a safety information system that collects, analyses and disseminates information from incidents and near misses...an informed culture is a safety culture."



(Reason, 1997)

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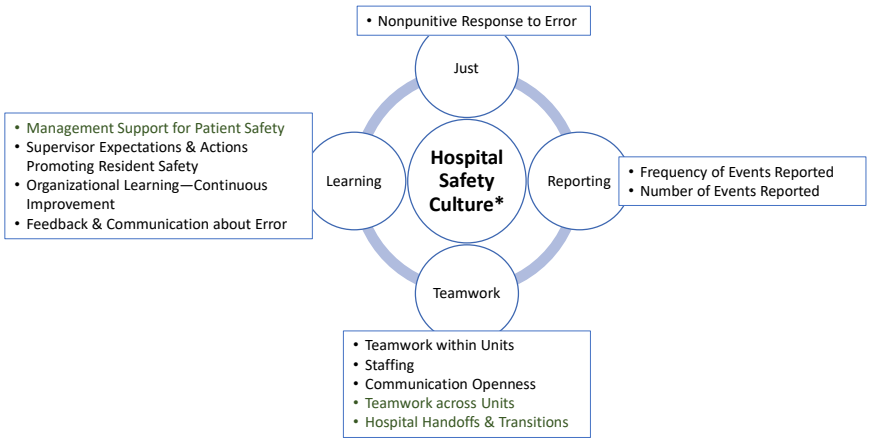
HSOPS

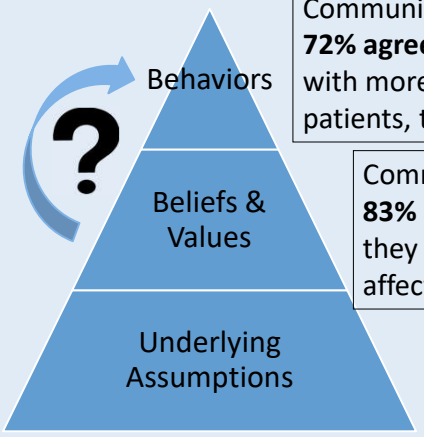
https://www.ahrq.gov/sops/surveys/hospital/index.html



*One composite and one outcome measure provide an overall perception of hospital safety culture:
- Overall Perceptions of Patient Safety
- Patient Safety Grade

HSOPS 1.0

3 LEVELS OF CULTURE REVEAL GAP



Communication Openness Behavior:
72% agree, "When staff in this unit see someone with more authority doing something unsafe for patients, they speak up."*

Communication Openness Belief:
83% agree, "In this unit, staff speak up if they see something that may negatively affect patient care."*

Assumption: Safety is a system property. Thus, we should voice our concerns about patient safety.

"…in many organizations, values reflect ***desired*** behavior but are not reflected in ***observed*** behavior." (Schein, 2010, pp. 24, 27)

***Average positive response for 4,345 respondents from 25 hospitals in 2019 HSOPS 2.0 Pilot Study**

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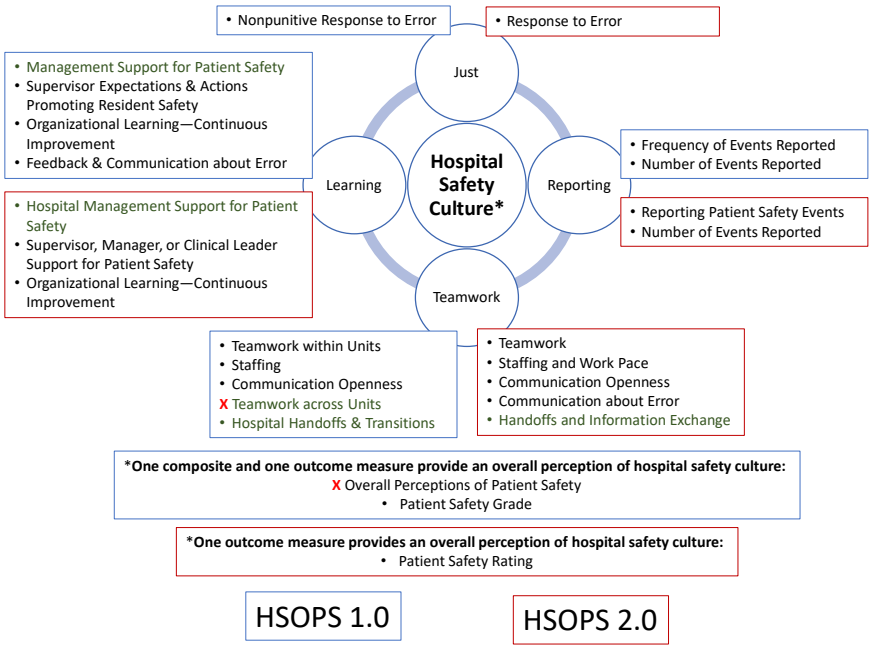
HSOPS https://www.ahrq.gov/sops/surveys/hospital/index.html



HSOPS 2.0 VS. 1.0

HSOPS 2.0 is ...

- Shorter (10 composites/40 items vs.12 composites/51 items)
- Easier to understand
- Expands choices for staff positions and work areas (fewer respondents will mark other)
- Uses a Just Culture framework to assess Response to Error vs. Nonpunitive Response to Error
- Adds Don't Know/Not Applicable as a response; increases aggregate percent positive by 2%

HSOPS 2.0 VS. 1.0

- Unchanged item: "The actions of hospital management show that patient safety is a top priority."
- Reworded item:
  - HSOPS 1.0: "Staff feel free to question the decisions or actions of those with more authority."
  - HSOPS 2.0: "When staff in this unit see someone with more authority doing something unsafe for patients, they speak up."
- Just Culture Framework new items:
  - "When staff make errors, this unit focuses on learning rather than blaming individuals."
  - "In this unit, there is a lack of support for staff involved in patient safety errors. "
- Responding Don't Know/Not Applicable is treated as missing and removed from the denominator, which increases the overall percent positive score for an item

WHICH TO CHOOSE?

- In 2020, hospitals can submit data to the national database from HSOPS 1.0 and 2.0. After 2020, only 2.0 data will be accepted.
  - Submit HSOPS data to national database Oct 1 -30, 2020
- Consider using 1.0 if you have previous action plans based on 1.0 data
- Consider using 2.0 if...
  - You do not have previous HSOPS results
  - It has been more than 2 years since your previous results
  - You want to benchmark to other hospitals past 2020
- NCPS will continue to conduct HSOPS 1.0 and 2.0 to meet the preferences of member hospitals

HSOPS AND PATIENT SAFETY EVENTS

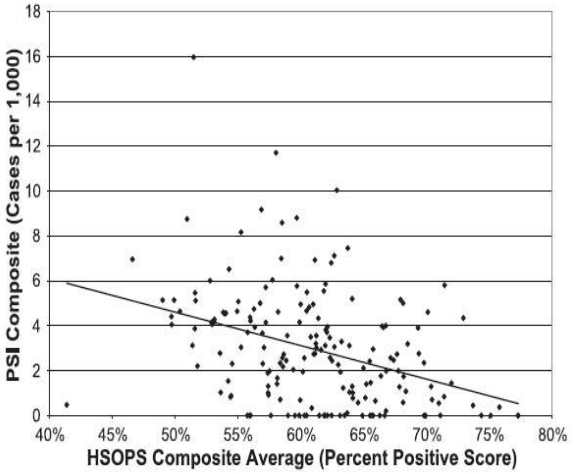


FIGURE 1. Scatter plot of PSI composite versus HSOPS composite average (N = 179).

(Mardon, et al., 2010)

Higher HSOPS scores are associated with fewer adverse events, which validates patient safety culture assessment as a meaningful indication of the safety of patients.

HSOPS AND PATIENT SATISFACTION6

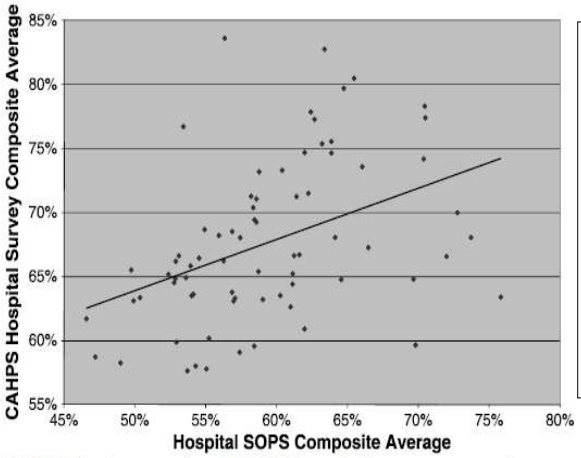


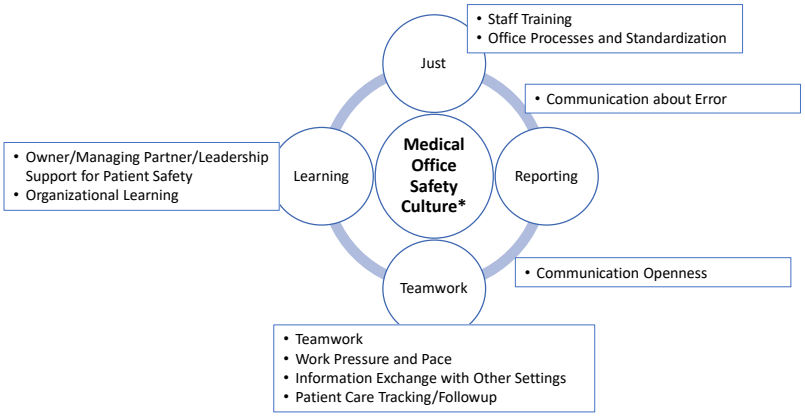
FIGURE 1. Scatter plot of CAHPS hospital survey composite average score and Hospital SOPS composite average score (N = 73 hospitals; $r = 0.41$, $P < 0.01$) exploring relationships between patient safety culture and patients' assessments of hospital care.

"….behaviors and attitudes [of hospital employees] can directly affect the pain, discomfort, health, and recovery of patients."

(Sorra et al, 2012)

MOS

https://www.ahrq.gov/sops/surveys/medical-office/index.html



***One composite and two additional measures are outcome measures of safety and quality of care within a clinic:**

- Overall Perceptions of Patient Safety and Quality
- List of Patient Safety and Quality Issues
  - ✓ Access to Care
  - ✓ Patient Identification
  - ✓ Charts/Medical Records
  - ✓ Medical Equipment
  - ✓ Medication
  - ✓ Diagnostics and Tests
- Overall Ratings on Quality
  - ✓ Patient-Centered
  - ✓ Effective
  - ✓ Timely
  - ✓ Efficient
  - ✓ Equitable

SOPS SUPPLEMENTAL ITEMS

- Developed by Westat for AHRQ
  - Hospital Health Information Technology Patient Safety
    https://www.ahrq.gov/sops/surveys/hospital/supplemental-items/health-it.html
  - Hospital Value and Efficiency
    https://www.ahrq.gov/sops/surveys/hospital/supplemental-items/value-efficiency.html
  - Medical Office Diagnostic Safety
    - **Items under development by Technical Expert Panel (we have completed two reviews)**
- Developed in the context of my research at UNMC
  - TeamSTEPPS training, knowledge, adoption
  - Just Culture training, knowledge, adoption
  - Maslach Burnout Inventory (using 2 items)
  - Coding Open-Ended Comments

HOSPITAL HEALTH INFORMATION TECHNOLOGY PATIENT SAFETY

- EHR Patient Safety and Quality (5 Items)
  - How often is information incomplete/inaccurate, hard to find, entered into wrong record, incorrectly copied/pasted?
- EHR System Training (3 Items)
  - Enough training? Customized training? Training when system down?
- EHR and Workflow/Work Process (3 Items)
  - Enough work stations? enter info in too many places? too many alerts and flags?
- EHR System Support and Communication (3 Items)
  - Timely problem resolution, provide input, know issues that lead to error
- Overall EHR System Rating (1 Item)
  - How satisfied or dissatisfied are you with your hospital's EHR system?
    - **Very Dissatisfied to Very Satisfied**

HOSPITAL VALUE AND EFFICIENCY

- Empowerment To Improve Efficiency (3 Items)
  - Encouraged to come up with ideas, involved in decisions
- Efficiency and Waste Reduction (3 Items)
  - Try to reduce waste, improve patient flow
- Patient Centeredness and Efficiency (3 Items)
  - Decrease wait time, ask for patient/family input
- Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste (4 Items)
  - Recognizes our ideas, provides information, takes action
- Experience With Activities To Improve Efficiency (8 Items)
- Overall rating of whether care is patient centered, effective, timely, and efficient

TEAMSTEPPS TRAINING, KNOWLEDGE, ADOPTION

- Experience in teamwork training
  a. No formal team training experience
  b. Some experience in team skills but not with the TeamSTEPPS program
  c. Completed SOME training in the TeamSTEPPS Modules
  d. Completed training in ALL of the TeamSTEPPS Fundamental modules
  e. TeamSTEPPS Master Trainer
- 4 items assess TeamSTEPPS Knowledge: define brief, SBAR, CUS, STEP
- 5 items assess TeamSTEPPS Adoption: use of SBAR, advocacy for patients, structured handoff tool, huddle to adjust plans, and debriefs to learn from experience

JUST CULTURE TRAINING, KNOWLEDGE, ADOPTION

- Experience in just culture training
  a. No formal just culture training experience
  b. Some experience in just culture but not as a result of formal education
  c. Completed SOME formal training in Just Culture
  d. Completed extensive formal training in just culture
  e. Certified Just Culture Champion
  f. Received training on how to use Just Culture Algorithm
- 4 items assess Just Culture Knowledge: 3 behavioral choices, 3 duties, management response, perspectives used during investigation
- 5 items assess Just Culture Adoption: consider more than staff actions, learning is emphasized, understand factors that lead to errors, staff are treated fairly, review of policies/procedures

BURNOUT

Two items that assess emotional exhaustion and depersonalization are valid relative to the complete Maslach Burnout Inventory for measuring associations between burnout and patient outcomes.

1. I feel burned out from my work.
2. I have become more callous toward patients.

(West et al., 2012)

CODING OPEN-ENDED COMMENTS

- NCPS uses patient safety themes to code open-ended comments and relate these comments to survey results
- On average 15% to 17% of respondents provide an open-ended comment
- Themes
  - Evidence of Protective Functions
  - Impaired Communication and Teamwork
  - Lack of a Fair and Just Culture
  - Not a Learning Organization
  - Patient Safety Systems Feedback
  - Production Pressure
  - Safety Concerns: general, staffing, EMR, Lack of training/competence

ADVANTAGES OF USING EXTERNAL RESOURCES

- Knowledge and resources to conduct the survey using survey research principles that result in an acceptable response rate > 50%
  - Dillman (2000) tailored-design method used to contact each respondent up to four times to maximize response rate
- Ensure respondent confidentiality
- Correctly score reverse-worded items
- Analyze open-ended comments
- Summarize results in tools and reports that facilitate effective action planning

SOPS RESOURCES

- Nebraska Coalition for Patient Safety
  https://www.nepatientsafety.org/resources
  - Sample Survey Forms
  - Crosswalk of HSOPS 1.0 to 2.0
  - Supplemental Survey Items
  - Letters of Intent to conduct the survey using NCPS
- Agency for Healthcare Research and Quality
  https://www.ahrq.gov/sops/index.html
  - Survey Forms
  - Survey User Guides
  - National Databases
  - Educational Webinars

NCPS SOPS INTERPRETATION TOOLS

Tool	Purpose
Excel Tool	ANALYSIS - Contains raw data Generates spreadsheet to upload for national database Instructions for interpretation Demographics of respondents Contains composite and item level results in the aggregate, by department, position, direct patient care, action planning worksheet identifies gaps between beliefs and behaviors
Benchmark Graphs	COMMUNICATION Compare aggregate results to peers and nationally (ext. benchmark) Compare aggregate results over time Compare results by work area and job title to the aggregate
Comments Coded by Theme	CONTEXT Open ended comments coded by culture-related themes Provides respondents' direct feedback
Action Planning Tool	PLAN - A structured approach to identifying strengths and opportunities for improvement and developing SMART Goals

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NCPS SOPS INTERPRETATION TOOLS

Tool	Purpose
Results Interpretation	BACKGROUND Provides an overview of safety culture Identifies the survey items that provide information about the four key components of safety culture.
Inventory of Safe Culture Practices	PLAN A checklist of key practices that support the four key components of safety culture.
Executive Summary	Summary of results and recommendations for improvement for organizational leaders.

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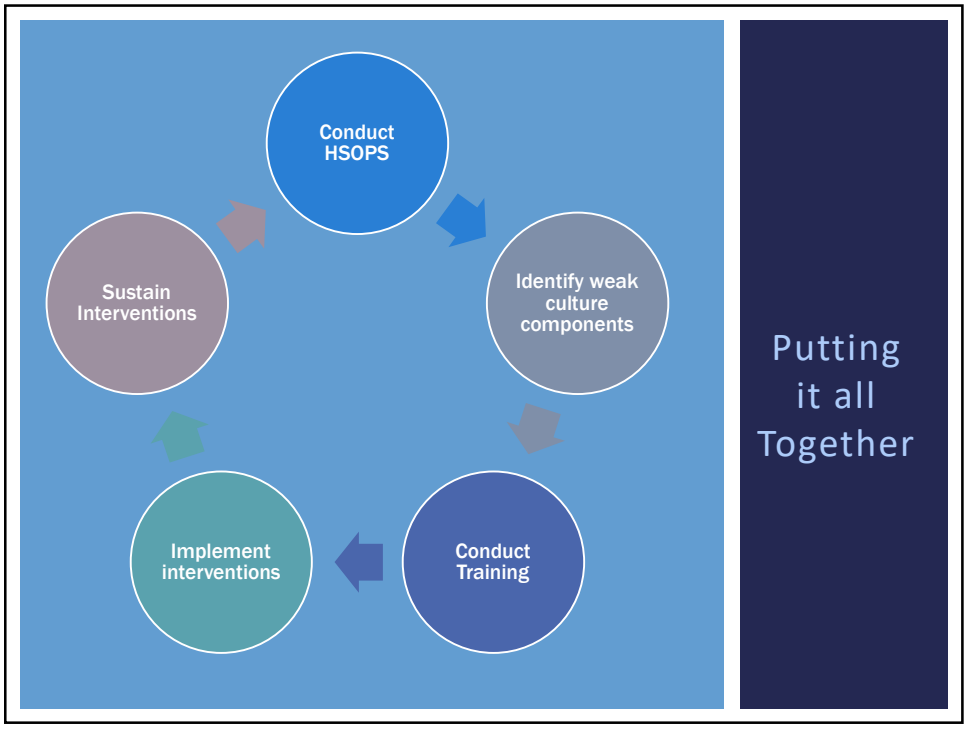
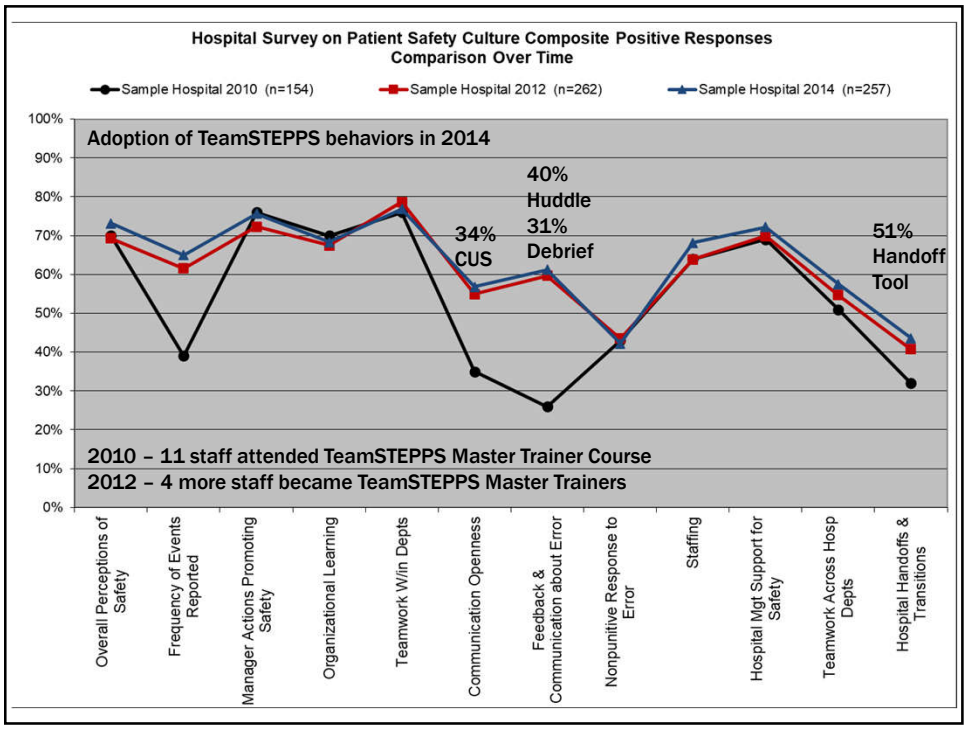
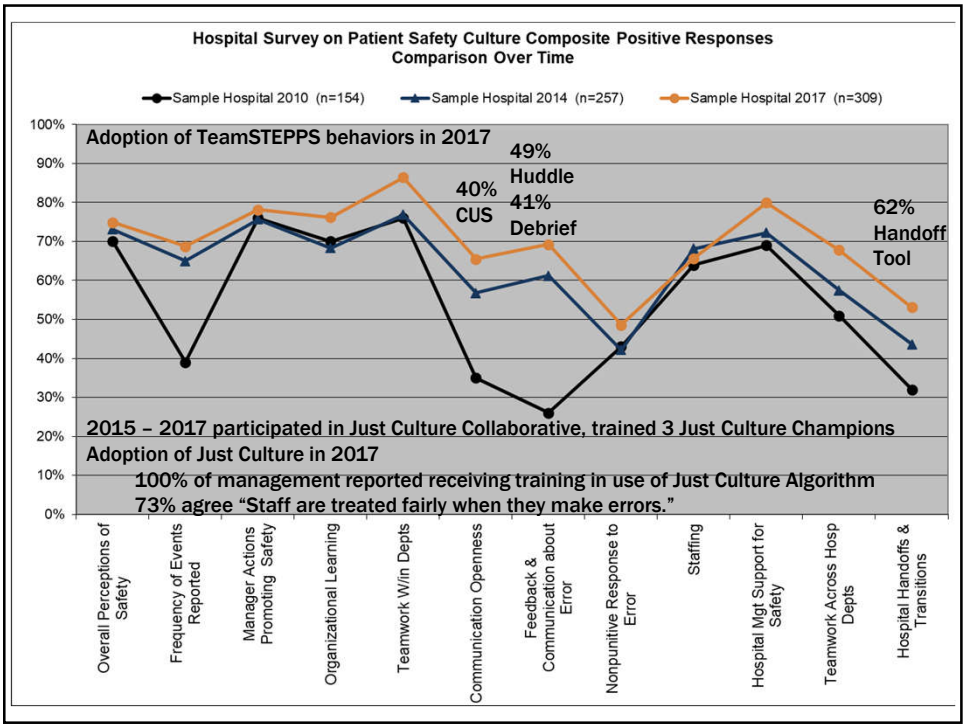

Conduct HSOPS
Identify weak culture components
Conduct Training
Implement interventions
Sustain Interventions
Putting it all Together


Hospital Survey on Patient Safety Culture Composite Positive Responses
Comparison Over Time
Sample Hospital 2010 (n=154)
Sample Hospital 2012 (n=262)
Sample Hospital 2014 (n=257)
Adoption of TeamSTEPPS behaviors in 2014
40% Huddle
31% Debrief
34% CUS
51% Handoff Tool
2010 – 11 staff attended TeamSTEPPS Master Trainer Course
2012 – 4 more staff became TeamSTEPPS Master Trainers
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Overall Perceptions of Safety
Frequency of Events Reported
Manager Actions Promoting Safety
Organizational Learning
Teamwork W/in Depts
Communication Openness
Feedback & Communication about Error
Nonpunitive Response to Error
Staffing
Hospital Mgt Support for Safety
Teamwork Across Hosp Depts
Hospital Handoffs & Transitions



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SUMMARY

- Safety culture is the shared beliefs and behaviors taught by leaders that define how to think and feel about patient safety
- Measuring safety culture using AHRQ's SOPS increases awareness of patient safety in hospital, medical office, nursing home, community pharmacy, and ambulatory surgery centers
- SOPS use multiple items within composites to identify gaps between beliefs and behaviors and assesses the effectiveness of the four components of our safety information system: just, reporting, teamwork, and learning practices
- Use HSOPS 2.0 if you are new to safety culture assessment or your previous results are more than 2 years old
- Use an external vendor such as NCPS to ensure your results are confidential, accurate, representative of your setting, and lead to effective action planning

REFERENCES

Dillman DA. Mail and internet surveys: The tailored design method. New York: John Wiley & Sons; 2000.

Jones, Skinner, Xu, Sun, Mueller. (2008). The AHRQ Hospital Survey on Patient Safety Culture: a tool to plan and evaluate patient safety programs. Advances in Patient Safety: New Directions and Alternative Approaches http://www.ncbi.nlm.nih.gov/books/NBK43699/ .

Mardon et al. Exploring relationships between hospital patient safety culture and adverse events. J Patient Saf 2010;6: 226-232.

Nieva VF, Sorra J. Safety culture assessment: A tool for improving patient safety in healthcare organizations. Qual Saf Health Care 2003; 12(Suppl II): ii17-ii23.

Reason, J. Managing the Risks of Organizational Accidents. Hampshire, England: Ashgate Publishing Limited; 1997.

Schein, E.H. Organizational Leadership and Culture 4th ed. San Francisco: John Wiley & Sons; 2010.

Sorra J, Khanna K, Dyer N, Mardon R, Famolaro T. Exploring relationships between patient safety culture and patients' assessments of hospital care. J Patient Saf 2012;8: 131-139.

The Joint Commission. Sentinel event alert 57: The essential role of leadership in developing a safety culture. https://www.jointcommission.org/sea_issue_57/.

West CP, Dyrbye LN, Satele DV, Sloan JA, Shanafelt TD. Concurrent validity of single-item measures of emotional exhaustion and depersonalization in burnout assessment. J Gen Intern Med. 2012;27(11):1445-1452.

Zohar D. Safety climate in industrial organizations: Theoretical and implied implications. Journal of Applied Psychology. 1980;65(1):96-102.

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