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## **Promoting a Culture of Safety: Use of the Hospital Survey on Patient Safety Culture in CAHs (Policy Brief #27)**

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# Promoting a Culture of Safety: Use of the Hospital Survey on Patient Safety Culture in Critical Access Hospitals

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*This brief is one in a series of policy briefs identifying and assessing evidence-based patient safety and quality improvement interventions appropriate for use by state Flex Programs and Critical Access Hospitals (CAH)s, and discusses the use of patient safety culture surveys as a means to promote organizational learning and build a culture of safety.*

## Introduction

Over a decade ago, the Institute of Medicine (IOM), in their landmark studies, *To Err is Human* and *Crossing the Quality Chasm*, urged health care organizations to adopt proven organizational models and strategies from other high-risk industries to minimize error and reduce harm to patients, and called for a consistent standard of patient safety.<sup>1-2</sup> To promote a culture of safety and ensure safer systems of care, the IOM emphasized the importance of developing clear, highly visible patient safety programs that focus organizational attention on safety; using non-punitive systems for reporting and analyzing errors; incorporating well-established safety principles such as standardized and simplified equipment, supplies, and work processes; and establishing proven interdisciplinary team training programs for providers.<sup>1</sup> These issues of patient safety and quality are still relevant today, and an organization's culture of safety provides the needed environment in which medical errors can be prevented and quality initiatives sustained.<sup>3-5</sup>

To inform our work, we reviewed the literature and convened a rural patient safety expert panel with representatives from federal and state government and academia to share their experiences and offer guidance to Critical Access Hospitals (CAHs). More detailed information on the Agency for Healthcare Research and Quality (AHRQ) Hospital Survey on Patient Safety Culture and practical suggestions on how to adapt it for rural hospitals is available in the associated April 2012 Flex Briefing Paper No. 30, available on the Flex website at: <http://flexmonitoring.org>. A listing of additional resources is provided at the end of this brief to aid hospitals in enhancing patient safety culture and improving the quality and safety of care.

## Organizational Safety Culture: What is it?

Hospital leaders face increasing pressure to cultivate an organizational culture of safety that protects patients from medical error. However, the definitional ambiguity and breadth of safety culture as a construct can make it difficult to operationalize. Reason and Hobbs<sup>6</sup> suggest that rather than attempt a single comprehensive definition of patient safety culture,

## Key Findings

- Establishing a culture of patient safety includes promoting a non-punitive environment of shared accountability (a just culture), encouragement to report errors (a reporting culture), and development of a learning culture.
- Research demonstrates a positive relationship between organizational culture and safety outcomes for both patients and employees.
- Use of the AHRQ Hospital Survey on Patient Safety Culture has been effective for planning, implementing, and evaluating targeted patient safety interventions in Critical Access Hospitals.

it is often more useful to think of safety culture in terms of three essential, interlocking components: (1) a just culture, (2) a reporting culture and (3) a learning culture. They note that culture is further defined by what an organization is (beliefs, attitudes and values), as well as what an organization does (structures, practices, policies and controls).

### **Is There Evidence that Safety Culture Affects Safety?**

A growing body of research demonstrates a positive relationship between organizational culture and safety outcomes for both patients and employees.

Examples from the literature show that:

- Hospitals with enhanced patient safety culture had lower AHRQ Patient Safety Indicator scores for in-hospital complications and adverse events.<sup>7</sup>
- Hospitals with higher levels of group culture (teamwork effectiveness) have experienced fewer patient falls resulting in injury.<sup>8</sup>
- Hospital intensive care units (ICUs) with positive organizational climates had lower rates of occupational injury and blood/body fluid exposure.<sup>9</sup>
- ICU staff perceptions of safety climate were found to be associated with hospital mortality and length of stay (LOS); lower safety climate perceptions were significantly associated with increased hospital LOS.<sup>10</sup>
- Hospitals with poorer safety climates had higher readmission rates for acute myocardial infarction (AMI) and heart failure.<sup>11</sup>
- Hospitals with poor organizational climate and high nurse workloads were associated with a higher (2-fold) risk of needle-stick injuries to nurses.<sup>12</sup>
- Perceptions of organizational safety culture differ by management level and professional discipline, with senior managers and physicians perceiving better safety culture than frontline staff and nurses.<sup>13-17</sup>

### **Patient Safety Culture Surveys**

The use of safety culture surveys to diagnose problem areas and effectively target interventions to improve patient safety culture has been well documented. Through administration of a survey, organizations can establish baseline measures, identify

areas in need of improvement, and monitor the impact of patient safety initiatives over time.<sup>18-21</sup>

As safety culture has become increasingly recognized as a critical factor in hospital quality and safety improvement efforts, culture surveys have also gained prominence, the most well-established and rigorously tested being the AHRQ Hospital Survey on Patient Safety Culture (Culture Survey) (Flin, 2007).<sup>22</sup>

### **Use of the AHRQ Hospital Survey on Patient Safety Culture in Critical Access Hospitals**

The Tennessee Rural Hospital Patient Safety Demonstration project used the AHRQ Culture Survey in tandem with two other patient safety interventions as part of a multi-organizational effort to strengthen patient safety in eight small rural hospitals. In response to preliminary results, all participating hospitals sought to develop non-blame, anonymous error reporting systems and adopted a variety of continuous quality improvement techniques including root cause analysis, forced function, and surgical pause.<sup>23</sup> Composite hospital results from successive rounds of the survey showed improvement in nine of the survey's twelve dimensions, with the largest improvements in communication openness, feedback and communication about errors, teamwork within areas, frequency of events reported, and non-punitive response to errors.<sup>23-24</sup>

The effectiveness of the AHRQ Culture Survey in planning, executing and evaluating targeted patient safety interventions was also demonstrated by Jones and colleagues who conducted a rural-adapted Culture Survey in 24 CAHs to obtain baseline assessments of their cultures of safety and stimulate dialogue about safety culture.<sup>25</sup> The rural-adapted version of the Culture Survey is available from the Nebraska Center for Rural Health Research website (<http://www.unmc.edu/rural/patient-safety/culture%20survey/culture-survey.htm>).

The results were used to develop benchmarks and plan safety culture educational interventions to address areas in need of improvement. Upon reassessment, the average scores on the 12 dimensions of the Culture Survey increased for 17 of the 21 CAHs that participated in follow-up safety culture educational activities; conversely, scores decreased among the four CAHs that chose not to participate. The authors' findings are consistent

with other research showing that perceptions of safety culture vary by work area and position, with non-clinician management reporting more positive assessments than nurses and providers actively engaged in patient care.

### **Promoting a Culture of Safety in Rural Hospitals**

Rural hospitals often face technological, staffing, financial and other organizational constraints that may inhibit implementation of patient safety interventions.<sup>26</sup> Tupper<sup>24</sup> and Klinger<sup>23</sup> note that the lower census and limited service mix of rural hospitals often results in a low volume of measurable events, making it difficult to reliably assess the safety environment prior to and following patient safety interventions. However, these challenges are not insurmountable, and despite — resource constraints on rural hospitals, the Culture Survey has demonstrated its value to patient safety initiatives in CAHs (see above).

Additionally, it is important that CAHs pursue a diversified strategy for improving patient safety. Coburn and colleagues<sup>27</sup> recommend that rural hospitals adopt a comprehensive patient safety program that includes measurable objectives, patient safety educational opportunities for employees, and a system for reporting and responding to errors.

### **How Can Flex Programs Help Impact Patient Safety Culture?**

State Flex Programs and Flex Coordinators can play a critical role in providing the leadership and assistance needed by CAHs interested in the Culture Survey. In addition to providing financial support, State Flex Programs can encourage the use of evidence-based patient safety programs; offer technical assistance and training; facilitate administration and analysis of the Culture Survey; assist with external benchmarking; and share findings across CAHs.

*For more information on this study, please contact Zach Croll at [zgagecroll@usm.maine.edu](mailto:zgagecroll@usm.maine.edu)*

## **RESOURCE LIST**

**The following resources from the Agency for Healthcare Research and Quality (AHRQ), the Institute for Healthcare Improvement (IHI), the Joint Commission, and others can be used to enhance hospital patient safety culture and improve the quality and safety of care.**

***2012 Hospital Survey on Patient Safety Culture User Comparative Database Report:***  
<http://www.ahrq.gov/qual/hospsurvey12/>

***AHRQ Health Care Innovations Exchange:***  
<http://www.innovations.ahrq.gov/index.aspx>

***AHRQ Hospital Survey on Patient Safety Culture Adapted for Critical Access Hospitals:***  
<http://www.unmc.edu/rural/patient-safety/culture%20survey/AHRQ%20HSOPSC%20Rural%201107.pdf>

***AHRQ Quality Indicators Toolkit for Hospitals:*** <http://www.ahrq.gov/qual/qitoolkit>

***Improving Patient Safety in Hospitals- A Resource List for Users of the AHRQ Hospital Survey on Patient Safety Culture:***  
<http://www.ahrq.gov/qual/patientsafetyculture/hospimpptsaf.htm>

***IHI Knowledge Center:***  
<http://www.ihl.org/knowledge/Pages/default.aspx>  
*Patient Safety* direct link: <http://www.ihl.org/explore/PatientSafety/Pages/default.aspx>  
*Developing a Culture of Safety* direct link: <http://www.ihl.org/knowledge/Pages/Changes/DevelopaCultureofSafety.aspx>

***Joint Commission Resources, The Essential Guide for Patient Safety Officers:***  
<http://www.jcrinc.com/Books-and-E-books/PATIENT-SAFETY-OFFICERS-HANDBOOK/447/>

***Nebraska Center for Rural Health Research:***  
<http://www.unmc.edu/rural/default.htm>  
<http://www.unmc.edu/rural/patient-safety/default.htm>

## References

1. Kohn LT, Corrigan JM, Donaldson MS, Eds. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 2000.
2. Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001.
3. Institute of Medicine. *Committee on the Future of Rural Health Care Quality. Quality Through Collaboration: The Future of Rural Health Care*. Washington, DC: National Academies Press; 2005.
4. Vogelsmeier A, Scott-Cawiezell J, Miller B, Griffith S. Influencing Leadership Perceptions of Patient Safety Through Just Culture Training. *J Nurs Care Qual*. 2010; 25(4): 288-94.
5. Sammer CE, Lykens K, Singh KP, Mains DA, Lackan NA. What Is Patient Safety Culture? A Review of the Literature. *J Nurs Scholarsh*. 2010; 42(2): 156-65.
6. Reason J, Hobbs A. *Managing Maintenance Error: A Practical Guide*. Surrey, UK: Ashgate Pub Ltd ; 2003.
7. Mardon RE, Khanna K, Sorra J, Dyer N, Famolaro T. Exploring Relationships Between Hospital Patient Safety Culture and Adverse Events. *J Patient Saf*. 2010; 6(4): 226-32.
8. Brewer BB. Relationships Among Teams, Culture, Safety, and Cost Outcomes. *West J Nurs Res*. 2006; 28(6): 641-653.
9. Stone PW, Gershon RRM. Nurse Work Environments and Occupational Safety in Intensive Care Units. *Policy Polit Nurs Pract*. 2006; 7(4): 240-247.
10. Huang DT, Clermont G, Kong L, et al. Intensive Care Unit Safety Culture and Outcomes: A US Multicenter Study. *Int J Qual Health Care*. 2010; 22(3): 151-161.
11. Hansen LO, Williams MV, Singer SJ. Perceptions of Hospital Safety Climate and Incidence of Readmission. *Health Serv Res*. 2011; 46(2): 596-616.
12. Clarke SP, Rockett JL, Sloane DM, Aiken LH. Organizational Climate, Staffing, and Safety Equipment As Predictors of Needlestick Injuries and Near-Misses in Hospital Nurses. *Am J Infect Control*. 2002; 30(4): 207-216.
13. Singer SJ, Gaba DM, Geppert J. K., et al. The Culture of Safety: Results of an Organization-Wide Survey in 15 California Hospitals. *Qual Saf Health Care*. 2003; 12(2): 112-118.
14. Singer SJ, Falwell A, Gaba DM, Baker LC. Patient Safety Climate in US Hospitals: Variation by Management Level. *Med Care*. 2008; 46(11):1149-56.
15. Hannah KL, Schade CP, Lomely DR, et al. Hospital Administrative Staff vs. Nursing Staff Responses to the AHRQ Hospital Survey on Patient Safety Culture. In: Henriksen K, Battles JB, Keyes MA, et al., Editors. *Advances in Patient Safety: New Directions and Alternative Approaches*. Vol. 2. Culture and Redesign. Rockville, MD: Agency for Healthcare Research and Quality; 2008.
16. Wagner LM, Capezuti E, Rice JC. Nurses' Perceptions of Safety Culture in Long-Term Care Settings. *J Nurs Scholarsh*. 2009; 41(2): 184-92.
17. Huang DT, Clermont G, Sexton JB, et al. Perceptions of Safety Culture Vary Across the Intensive Care Units of a Single Institution. *Crit Care Med*. 2007; 35(1): 165-176.
18. Edwards PJ, Scott T, Richardson P, et al. Using Staff Perceptions on Patient Safety As a Tool for Improving Safety Culture in a Pediatric Hospital System. *J Patient Safety*. 2008; 4(2): 113-118.
19. Weaver SJ, Rosen MA, DiazGranados D, et al. Does Teamwork Improve Performance in the Operating Room? A Multilevel Evaluation. *Jt Comm J Qual Patient Saf*. 2010; 36(3): 133-42.
20. Nieva VF, Sorra J. Safety Culture Assessment: A Tool for Improving Patient Safety in Healthcare Organizations. *Qual and Saf Health Care*. 2003; 12(Suppl II): ii17-ii23.
21. Pronovost PJ, Weast B, Holzmuller CG, et al. Evaluation of the Culture of Safety: Survey of Clinicians and Managers in an Academic Medical Center. *Qual Saf Health Care*. 2003; 12(6): 405-410.
22. Flin R. Measuring Safety Culture in Healthcare: A Case for Accurate Diagnosis. *Safety Science*. 2007; 45(6): 653-667.
23. Klingner J, Moscovice I, Tupper J, Coburn A, Wakefield M. Implementing Patient Safety Initiatives in Rural Hospitals. *J Rural Health*. 2009; 25(4): 352-357.
24. Tupper J, Coburn A, Loux S, et al. Strategies for Improving Patient Safety in Small Rural Hospitals. In: Henriksen K, Battles JB, Keyes MA, et al., Eds. *Advances in Patient Safety: New Directions and Alternative Approaches*. Vol. 2. Culture and Redesign. Rockville, MD: Agency for Healthcare Research and Quality; 2008:303-313.
25. Jones KJ, Skinner A, Xu L, et al. The AHRQ Hospital Survey on Patient Safety Culture: A tool to plan and evaluate patient safety programs. In: Henriksen K, Battles JB, Keyes MA, et al., Eds. *Advances in Patient Safety: New Directions and Alternative Approaches*. Vol. 2. Culture and Redesign. Rockville, MD: Agency for Healthcare Research and Quality; 2008.
26. Wakefield M. Patient Safety and Medical Errors. Implications for Rural Health Care. *J Leg Med*. 2002 ; 23(1): 43-56.
27. Coburn AF, Wakefield M, Casey M, et al. Assuring Rural Hospital Patient Safety: What Should Be the Priorities? *J Rural Health*. 2004; 20(4): 314-26.