HRET
HEALTH RESEARCH & EDUCATIONAL TRUST

2017 UPDATE

CULTURE OF SAFETY

>>>

FOSTERING A CULTURE THAT FULLY INTEGRATES PATIENT AND WORKFORCE SAFETY *CHANGE PACKAGE*

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How to Use this Change Package

This change package is intended for hospitals participating in the Hospital Improvement Innovation Network (HIIN) project led by the Centers for Medicare & Medicaid Services (CMS) and Partnership for Patients (PFP). It is meant to be a tool to help you make patient care safer and improve care transitions. This change package is a summary of themes from the successful practices of high performing health organizations across the country. It was developed through clinical practice sharing, organization site visits and subject matter expert contributions. This change package includes a menu of strategies, change concepts and specific actionable items that any hospital can choose to implement based on need or for purposes of improving patient quality of life and care. This change package is intended to be complementary to literature reviews and other evidence-based tools and resources.

PART 1: DEFINITION AND SCOPE

CURRENT DEFINITION OF TOPIC: The World Health Organization (WHO) defines patient safety as the prevention of errors and adverse effects to patients associated with health care. In patient safety theory and practice, emphasis is placed on the system of care that prevents errors, learns from any errors that may occur, and is built on a culture of safety. Since the Institute of Medicine report in 1999, *To Err is Human: Building a Safer Health Care System*[1], patient safety has become a national priority.

Closely related to patient safety, workforce safety is defined as having an environment free of physical and psychological harm. It involves hazard identification and control, as well as the provision of ongoing safety training for employees. The American Nurses Association (ANA) describes a healthy work environment as one that is "safe, empowering and satisfying," and goes beyond the absence of real and perceived threats to health, but creates a place of "physical, mental and social well-being." While workforce safety comprises several areas, this change package emphasizes three: safe from workplace violence, safe patient handling, and psychological safety.

Workplace violence is any act or threat of physical violence, harassment, intimidation or other threatening disruptive behavior that occurs at the work site. Violence ranges from threats and verbal abuse to physical assaults and even homicide. It can affect and involve employees, patients, clients, customers and visitors.[2]

Safe patient handling and movement (SPHM) is addressed in this change package as a key component of workforce safety. The single greatest risk factor for overexertion injuries in health care workers is the manual lifting, moving and repositioning of patients, residents or clients (i.e., manual patient handling).[3] Rates of musculoskeletal injuries from overexertion in health care settings are among the highest of all occupations in the U.S. In fact, data from the Bureau of Labor Statistics (BLS) demonstrate that the rate of overexertion injuries in hospital workers (68 per 10,000) is twice the average rate in workers across all industries (33 per 10,000).[4] The Occupational Safety and Health Administration (OSHA) cites that in 2010, nursing aides, orderlies and attendants had the highest rates of all musculoskeletal disorders (MSDs), more than seven times the average of all industries.[5]

Psychological safety, as defined by Amy Edmondson, is "a shared belief held by members of a team that the team is safe for interpersonal risk taking."[6] Workers who have a high degree of psychological safety believe that they will not be punished or belittled for speaking up with questions, concerns or mistakes. The antithesis of psychological safety is psychological harm, which is common in health care organizations. Such harm results from disrespect, emotional abuse, bullying, learning by humiliation and other hallmarks of a culture of fear and intimidation.[7]

Many organizations pursue a workforce safety agenda or initiatives separately from patient safety, when in fact the two are very much intertwined. Health care organizations may find significant overlap in the necessary structures, processes as well as outcomes tracked to ensure both patient and worker safety.

> The *structure* of environment of care safety committees, workforce safety and patient safety committees overlap in many organizations, both in membership (e.g., infection control, quality and risk staff) and in reporting structure.

> In addition, the *processes* to improve patient and workforce safety are also often connected. For example, strategies to achieve safe patient handling and movement often include provisions around patient lifting equipment, no-lift policies and specialized lift teams. These strategies lead to increased patient satisfaction, progressive patient mobility, fewer falls and improved patient outcomes – all positive outcomes for patient safety. They also increase workforce satisfaction and decrease musculoskeletal injuries.[8]

> Workforce and patient safety *outcomes* are also closely linked. In a 2011 study, patient satisfaction levels were lower in hospitals with lower nurse satisfaction.[9] A 2012 study found that lower staff perceptions of teamwork and safety among nurses are correlated with higher odds of pressure ulcers/injuries in patients and increased nurse injury.[10] In addition to structures, processes and outcomes being interrelated for patient and worker safety, both workforce and patient safety efforts require a commitment to an organizational safety culture as a foundation for success.

A culture of safety is one where everyone feels responsible for safety, pursues it on a daily basis and is comfortable reporting unsafe conditions and behaviors. An organization that has a strong safety culture experiences fewer high risk behaviors, and consequently, they also experience lower incident rates of harm, lower voluntary staff turnover, lower absenteeism and higher productivity.[11] To improve safety outcomes, organizations should cultivate a culture of safety that integrates patient safety with workforce safety. This change package provides change ideas both to cultivate a culture of safety and also to specifically reduce workplace violence and promote safe patient handling, while enhancing psychological safety.

Magnitude of the Problem and Why this Matters

Both patients and health care workers sustain injuries at relatively high rates. U.S. hospitals recorded 6.8 work related injuries and illnesses for every 100 full-time employees in 2011. In addition to being harmful to employees, these injuries can also impact a hospital financially. On average, hospitals pay $0.78 in workers compensation losses for every $100 of payroll, totaling a national annual expense of two billion dollars.[12] Nearly half of workplace injuries are caused by overexertion of bodily reaction such as lifting, bending and reaching.[13] Additionally, assaults comprise 10-11 percent of workplace injuries involving days away from work. These assaults result primarily from violent behavior of patients, clients or residents.[14]

> Reduce rate of worker harm events per 100 FTEs related to patient handling by 20 percent by September 27, 2018.

> Reduce rate of worker harm events per 100 FTEs related to workplace violence by 20 percent by September 2018.

PART 2: MEASUREMENT

A key component to making patient care and workplace conditions safer in your hospital is to track your progress toward improvement. This section outlines the nationally recognized process and outcome measures that you will be collecting and submitting as part of the HRET HIIN initiative. Collecting these monthly data points at your hospital will guide your quality improvement efforts as part of the Plan-Do-Study-Act (PDSA) process. Tracking your data in this manner will provide valuable information needed to study your data across time and will help determine the impact of your improvement strategies. Furthermore, collecting these standardized metrics will allow the HRET HIIN to aggregate, analyze and report its progress toward reaching the project's reduction goals across all adverse event areas by September 2018.

Nationally Recognized Measures: Process and Outcome

Please download and reference the encyclopedia of measures (EOM) on the HRET HIIN website for additional measure specifications and for any updates after publication at:

> HIIN Evaluation Measures

- Number of worker harm events related to patient handling
- Number of worker harm events related to workplace violence

> Suggested Process Measures

- Percent positive response by dimension for annual AHRQ HSOPS survey results

In addition to these measures related specifically to workplace violence and safe patient handling, the HRET HIIN project promotes the organizational assessment and administration of the Agency for Healthcare Research and Quality (AHRQ) Surveys on Patient Safety Culture. These surveys enable hospitals, medical offices, nursing homes, community pharmacies and ambulatory surgery centers to examine their staff perception of patient safety culture. The survey can be used to assess various aspects of patient safety culture within an organization. We encourage all HIIN hospitals to administer the AHRQ Hospital Survey on Patient Safety Culture and develop action plans based on your facilities' data. Benchmark data are also available in the AHRQ databases available at: http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/index.html. Hospitals are encouraged to simultaneously pursue interventions related to culture change that promote a safety workplace and also to implement discrete interventions related to workplace violence and safe patient handling, as outlined in the change package below.

> Suggested Bundles and Toolkits:

- Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation. Retrieved at: http://www.jointcommission.org/assets/1/18/tjc-improvingpatientandworkersafety-monograph.pdf
- OSHA's Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers. Retrieved at: https://www.osha.gov/Publications/osha3148.pdf
- The Joint Commission. Workplace Violence Prevention Resources. Retrieved at: https://www.jointcommission.org/workplace_violence.aspx. Last accessed March 17, 2017.
- AONE/ENA Tool Kit for Mitigating Violence in the Workplace. Retrieved at: http://www.aone.org/resources/mitigating-workplace-violence-Tool%20Kit
- Beyond Getting Started: A Resource Guide for Implementing a Safe Patient Handling Program in an Acute Care Setting, 3rd edition (2014). Retrieved at: https://aohp.org/aohp/TOOLSFORYOURWORK/PublicationsforYourPractice/BeyondGettingStarted.aspx
- Beyond Getting Started: Workplace Violence in the Healthcare Setting Web Resources Guide (2012). Retrieved at: https://aohp.org/aohp/TOOLSFORYOURWORK/PublicationsforYourPractice/BeyondGettingStarted.aspx
- Hospital Survey on Patient Safety Culture. Retrieved at: http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/hospital/index.html
- Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS). Retrieved at: http://www.teamsteppsportal.org/
- Action Planning Tool for the AHRQ Surveys on Patient Safety Culture. Retrieved at: http://www.ahrq.gov/sites/default/files/publications/files/planningtool_0.pdf
- ASHRM Healthcare Facility Workplace Violence Risk Assessment Tool. Retrieved at: http://www.ashrm.org/resources/workplace_violence/index.dhtml
- NIOSH Workplace Violence Prevention for Nurses (CDC course No. WB1865) Retrieved at: https://www.cdc.gov/niosh/topics/violence/training_nurses.html
- Johns Hopkins University and Health System. Safe at Hopkins website: http://www.safeathopkins.org/
- Active Shooter Planning and Response in a Healthcare Setting. Retrieved at: https://www.fbi.gov/file-repository/active_shooter_planning_and_response_in_a_healthcare_setting.pdf/view
- Patient and Family Engagement Resource Compendium. Retrieved at: http://www.hret-hiin.org/resources/display/patient-and-family-engagement-resource-compendium
- For key tools and resources related to creating a culture of safety, visit www.hret-hiin.org

Investigate Your Problem and Implement Best Practices

DRIVER DIAGRAMS: A driver diagram visually demonstrates the causal relationship between your change ideas, secondary drivers, primary drivers and your overall aim. A description of each of these components is outlined in the table below. This change package reviews the components of the driver diagram to help you and your care team identify potential change ideas to implement at your facility and to show how this quality improvement tool can be used by your team to tackle new process problems.

AIM	PRIMARY DRIVER	SECONDARY DRIVER	**Change Idea**
		SECONDARY DRIVER	**Change Idea**
	PRIMARY DRIVER	SECONDARY DRIVER	**Change Idea**

AIM: *A clearly articulated goal or objective describing the desired outcome. It should be specific, measurable and time-bound.*

PRIMARY DRIVER: *System components or factors that contribute directly to achieving the aim.*

SECONDARY DRIVER: *Action, interventions or lower-level components necessary to achieve the primary driver.*

CHANGE IDEAS: *Specific change ideas which will support or achieve the secondary driver.*

Drivers in This Change Package

FURTHER A CULTURE OF SAFETY THAT FULLY INTEGRATES PATIENT SAFETY WITH WORKFORCE SAFETY	COMMIT AND COMMUNICATE THE PRIORITY OF PATIENT AND WORKFORCE SAFETY	DEMONSTRATE THE COMMITMENT TO SAFETY AT ALL LEVELS OF THE ORGANIZATION	**Change Idea**
		BUILD SYSTEMS AND PROCESSES THAT INTEGRATE PATIENT AND WORKFORCE SAFETY	**Change Idea**
		ENGAGE ALL TEAM MEMBERS IN THE COMMITMENT TO SAFETY, INCLUDING PATIENTS AND THEIR FAMILIES	**Change Idea**
	FOSTER A CULTURE OF TRUST, REPORTING AND LEARNING	SUPPORT A CULTURE THAT BALANCES A SYSTEMS APPROACH AND INDIVIDUAL ACCOUNTABILITY	**Change Idea**
		CREATE A REPORTING MECHANISM THAT IS EASY TO USE, MEANINGFUL AND HAS A BUILT IN FEEDBACK PROCESS	**Change Idea**
		PROMOTE REFLECTIVE LEARNING AND IMPROVEMENT	**Change Idea**
	BUILD A WORK ENVIRONMENT TO ENABLE STAFF TO PROVIDE SAFE, QUALITY CARE	DESIGN AND ENSURE A SAFE WORK ENVIRONMENT	**Change Idea**
		PROVIDE TRAINING ON PROCESSES TO SUPPORT AND IMPROVE PATIENT AND WORKFORCE SAFETY	**Change Idea**
		FURNISH STAFF WITH NECESSARY EQUIPMENT AND SUPPLIES	**Change Idea**

Primary Driver:

COMMIT AND COMMUNICATE THE PRIORITY OF PATIENT AND WORKFORCE SAFETY

In effective safety cultures, there is a shared commitment to safety. Behaviors that promote safety are encouraged and reinforced by leaders and peers and near-misses are valued as opportunities for learning and improvement.[15] An Institute for Healthcare Improvement white paper entitled, A Framework for Safe, Reliable, and Effective Care, outlines a framework with the overarching domains of culture and the learning system, connected through leadership to advance patient and family engagement.[16] The commitment to safety must be visible, communicated at all levels and reinforced through processes and systems such as safety huddles, open and transparent communication, and rewarding "good catches."

Secondary Driver > DEMONSTRATE THE COMMITMENT TO SAFETY AT ALL LEVELS OF THE ORGANIZATION

A culture of safety requires leadership commitment and participation of physicians and staff at all levels, particularly front-line staff. Incorporating patient and workforce safety goals into performance evaluations elevates the commitment to safety and highlights the importance each staff member has in furthering a culture of safety. When organizations promote transparency in reporting of events and near-misses, they acknowledge the role of human factors and systems in errors; blame is not fully placed on individuals. Transparency is important to ensure that errors and potential problems are exposed and handled before they endanger others.[17]

Change Ideas

> Include patient and workforce safety in the organizational strategic plan and goals.

> Embed patient and workforce safety goals into performance appraisals.

> Include patient and workforce safety in physician contracts and ongoing professional practice evaluation (OPPE), including systems for addressing unprofessional behaviors.

> Incorporate patient and workforce safety in operational performance and service line reporting.

> Tie financial compensation of senior leaders, i.e., bonuses, to meeting quality and safety goals.

> Embed patient and worker safety data transparency into meetings at all levels, including meetings with front-line staff members, as well as the board.

> Maintain a constant focus on why improvements are necessary. Link changes in processes to patient and workforce safety. Encourage questions from the front lines to promote clarity on why changes are occurring to create a shared mental model.

> Implement daily leadership safety briefings and Patient Safety Leadership WalkRounds™ [18] with modifications to include workforce safety outcomes and prevention discussions, in addition to a focus on patient safety.

> Actively seek out feedback from the front-line staff about barriers they encounter when implementing new workflows and as working conditions fluctuate. Balance feedback to harvest wins so that positive behaviors and outcomes can be recognized and appreciated.

> Promote transparency in data and operations through sharing patient and workforce data internally and externally, and disclosing incidents to patients and family. Leaders hold themselves responsible for the success of the staff reporting to them by taking accountability for both actions and results.

Suggested Process Measures for Your Test of Change

- Percent of performance appraisals that include patient and workforce safety goals
- Percent of physician contracts that include patient and workforce safety goals
- Percent of senior leaders' financial bonuses and incentives that are tied to meeting patient and workforce safety goals

- Percent of board meetings where patient and workforce safety metrics are reported and discussed with other quality metrics
- Percent of units rounded on by senior leaders per quarter
- Percent aggregate positive response to AHRQ HSOPS dimension measuring Management Support for Patient Safety

Secondary Driver > BUILD SYSTEMS AND PROCESSES THAT INTEGRATE PATIENT AND WORKFORCE SAFETY

Achieving a culture of safety is a continuous journey that requires processes to keep safety as the chief priority. Linking structures and processes aimed at improving patient and workforce safety will more efficiently attain a safety culture. Using safety culture surveys can help your organization determine the extent to which the organizational culture helps or hinders patient safety. It is important to also remember that there is not a single organizational culture; culture is local and can differ from unit to unit. Therefore, efforts to improve safety culture should be both organizational-wide and unit-specific.

Change Ideas

> Execute safety huddles, briefings and debriefings at both the organizational and unit level.[19]

> Improve teamwork and communication through the implementation of TeamSTEPPS, standardized communication tools, e.g., situation-background-assessment-recommendation (SBAR) and standardized handoff communication.

> Train unit managers, peer leaders and department directors in peer-to-peer communications to identify and address disruptive or unprofessional behaviors.

> Establish a reporting and escalation process for staff so that disruptive or unprofessional behaviors can be extinguished immediately.

> Consider changes to work environment and schedules that promote workforce well-being, including structured programs for managing and mitigating stress and fatigue.[20]

> Establish linkages between patient safety, workforce/environment of care safety committees.

> Create a system to capture patient and workforce safety best practices from within and outside the organization.

> Conduct safety climate survey, e.g., AHRQ Culture of Safety Survey[21] and analyze survey data in conjunction with patient and workforce safety outcomes.

> Implement Comprehensive Unit-Based Safety Programs (CUSP).[22]

Suggested Process Measures for Your Test of Change

- Percent of days per month with daily unit or leadership safety briefing/huddle
- Percent of issues identified on rounds or during safety briefings that are resolved within the expected time frame
- Percent of units that have created action plans to address unit-specific safety culture survey results
- Percent of action plans in response to survey results that are on target with respect to dates and results

Secondary Driver > ENGAGE ALL TEAM MEMBERS IN THE COMMITMENT TO SAFETY, INCLUDING PATIENTS AND THEIR FAMILIES

A key feature of a culture of safety is collaboration across ranks and disciplines to seek solutions to patient safety problems.[23] Hospitals with a teamwork culture have better patient safety climates.[24] Employees across the organization should be recognized for not only their technical expertise, but also their ability to work effectively within a team.[25] In addition, research shows that when patients are engaged in their health care it can lead to measurable improvements in safety and quality.[26]

Change Ideas

> Proactively look for potential failures by conducting Failure Mode and Affects Analyses (FMEA) and creating reporting structures and opportunities.

> Reward staff for "Good Catch" moments and involve patients in identification and celebration.

> Engage patients and family in safety efforts through use of a patient and family advisory council.

> Utilize shared governance structures to support front-line staff engagement in decision making. Embed patient safety and workforce safety into the charter.

> Engage patients on patient safety and quality improvement teams.

> Employ nurse bedside change of shift report to engage and learn from the patient.

> Conduct interprofessional clinical rounds at the bedside to include patients and families.

> Train interprofessional teams utilizing simulation and group activities to foster collaborative practice.

Suggested Process Measures for Your Test of Change

- Number of "good catch" awards
- Percent of shift reports that occur at the bedside by unit
- Percent of interprofessional rounds by unit that include patients and families
- Percent of workers participating in readiness simulations

Hardwire the Process

Incorporate patient and workforce safety goals into performance appraisal templates to aid in accountability. Include staff in annual goal setting around patient and worker safety. Establish unit-based workforce and patient safety goals.

Primary Driver:

FOSTER A CULTURE OF TRUST, REPORTING AND LEARNING

An organization with a safety culture prevents adverse events and learns from them when they do occur. A culture of trust allows providers to talk about errors, near misses and actual harm without fear of reprisal.

Secondary Driver > SUPPORT A CULTURE THAT BALANCES A SYSTEMS APPROACH AND INDIVIDUAL ACCOUNTABILITY

An organization with a fair and just culture does not quickly assign blame for medical errors, but encourages employees to report unsafe conditions and adverse events. It also allows an organization to seek an understanding of the underlying cause of variability.[27] James Reason defines a "just culture" as "an agreed upon set of principles for drawing the line between acceptable and unacceptable actions."[28] Human errors and many at-risk behavior errors result from system design (latent errors) and will not be eliminated by punitive measures. It is important to console the caregiver in these instances. James Reason's Unsafe Acts Algorithm (Appendix II) is often used to help determine accountability when an adverse event occurs. This tool helps to distinguish between individual negligence and systemic failure.[29]

Change Ideas

> Institute daily safety briefings, led by the chief executive officer and including all departmental leaders. Create expectation of daily participation and mutual support for prompt resolution of patient safety and workforce safety risks. Track resolution of system vulnerabilities and failures.

> Evaluate processes and systems in addition to personnel when investigating adverse events and near misses.

> Use a standard approach to distinguish human errors and at-risk behaviors from reckless behavior. Include the human resources department in the development and implementation of this approach.

> Create a process to quickly attend to the emotional needs of health care workers involved in an adverse event or victimized by bullying or workplace violence episode.[30]

> Identify behavioral choices and the underlying system issues that drive them and contribute to near misses or safety events and then create action plans to address findings.

> Identify process errors, equipment absence or other system failures that lead to at-risk behavioral choices and create action plans to address findings, incorporating leadership accountability for follow up with staff.

> Track and display system vulnerabilities on a unit-based daily management board or "glitch sheet."

> Share organization and unit/department level safety data transparently. Look for signals that a unit or department needs support or a leadership intervention to contain and correct any latent vulnurabilities.

Suggested Process Measures for Your Test of Change

- Percent of adverse events where caregivers involved received emotional support
- Percent of adverse events and near misses that utilized a standardized algorithm to determine level of individual and system accountability
- Percent of system failures or vulnerabilities identified in daily management briefing that are resolved within expected time frame

Secondary Driver > CREATE A REPORTING MECHANISM THAT IS EASY TO USE, MEANINGFUL AND HAS A BUILT-IN FEEDBACK PROCESS

Building on a culture of trust, an organization must learn from its mistakes and makes changes to unsafe conditions. The organization must actively seek out information on the current state of performance and use this information to guide improvements and develop a culture of learning and improvement. Anonymous reporting mechanisms have been shown to increase reporting and resulting improvements.[31] In many cases, units with the highest level of reporting events, system failures and near misses demonstrate the value of learning from failures and often demonstrate the highest levels of safe performance.

Change Ideas

> Build systems of communication and reporting that encourage and enable all staff, physicians, patients and families to speak up if they have a patient safety or workplace safety concern, without fear of retribution.

> Feedback information about adverse events and near-misses.

> Include staff in the development and testing of changes considered in response to reported events.

> Reward reporting of adverse events, near misses, workplace safety concerns and behaviors that impact the climate of safety and teamwork.

Suggested Process Measure for Your Test of Change

- Percent of adverse events and near misses that resulted in completed action plans
- Number of events, near misses and safety concerns reported by month by category
- Number of errors and near misses reported (as an organization encourages increased reporting the number of events reported should initially increase)

Secondary Driver > PROMOTE REFLECTIVE LEARNING AND IMPROVEMENT (LEARNING LOOP)

Incident reports, near misses and observations of unsafe conditions provide valuable information to help understand the boundaries of safe performance and to guide implementation of corrective actions. To be effective, an incident reporting system must be accessible and easy to use. The value of reporting is reinforced through improvement actions, dissemination of lessons learned and direct feedback to the reporter.

Change Ideas

> Encourage reporting errors and near misses to enable early identification of system issues.

> Identify, reduce and learn from patient safety incidents identified through trigger tools, adverse events and incident reporting.

> Analyze adverse events and near misses for common causes.

> Disseminate learnings from adverse events, root cause analyses and aggregate or common cause analyses.

> Provide mechanisms for regular reporting of workplace safety concerns, risks, events and near misses to leadership.

Suggested Process Measures for Your Test of Change

- Percent of events and near misses analyzed and aggregated to determine common behavior, process or systems issues

Hardwire the Process

Leaders' actions prior to, during and after an adverse event are critical to hardwiring a culture of trust and teamwork. Organizations that acknowledge at-risk behavior in a non-punitive way and seek to prevent those behaviors in the future and create employees who will do the same for one another. 'Closing the loop' is an essential ingredient to effectively hardwiring a learning culture. Dissemination of findings, the creation of action plans and following through with those action plans must occur.

Primary Driver:

BUILD A WORK ENVIRONMENT TO ENABLE STAFF TO PROVIDE SAFE, QUALITY CARE

A key factor of successfully establishing a culture of safety is the organizational commitment of resources to address safety concerns.[32]

Secondary Driver > DESIGN AND ENSURE A SAFE WORK ENVIRONMENT

Integrating workforce and patient safety means creating an environment free of physical and psychological harm and reducing workplace violence and injury. Harm can result from hazards such as blood borne pathogens and needle sticks, patient handling, disrespectful or bullying behavior, staff-to-staff violence and patient-to-staff violence. Clinicians and staff cannot make the environment safer for patients if they do not feel safe and valued. Worker safety issues also contribute to turnover, litigation and lost work hours.

Change Ideas

> Provide a work environment with adequate lighting and security and that is free from hazards.

> Regularly conduct a hazard assessment for conditions that might contribute to slips, trips and falls as well as needle stick injuries, musculoskeletal injuries and workplace violence.

> Conduct team-based simulations to train staff in alert systems and de-escalation techniques to prepare them for handling aggressive and/or violent patients, family members and visitors.[33,34,35]

> Prepare for response to active threat to workplace safety in all health care settings, specifically related to active shooter/threat readiness. Implement recommended "Run, Hide, Fight" terminology and action plans.[36]

> Implement policies to identify, manage and mitigate workforce fatigue. Consider contracts with staff and physicians related to individual accountability for fatigue management and agreements to self-monitor work hours. Implement tools to assess individuals and teams for factors that might make them unsafe to work, such as TeamSTEPPS "I'M SAFE."

> Establish a safe patient handling and movement program.

> Offer a confidential reporting mechanism for concerns of workplace bullying and disrespectful behavior.

> Review overtime polices to ensure that mandatory overtime is only used for extraordinary circumstances.

Suggested Process Measures for Your Test of Change

- Percent of hazards identified through regular assessment that were addressed in a timely fashion
- Percent of nursing shifts that were greater than 12 hours[37]
- Monthly tracking of mandatory overtime for all employees

Secondary Driver > PROVIDE TRAINING ON PROCESSES TO SUPPORT AND IMPROVE PATIENT AND WORKER SAFETY

When modifying or implementing processes, allow ample time to train staff, address needed process changes or workarounds, clarify any questions and make adjustments. Staff competency in safety knowledge and skills creates a workforce more likely to recognize potential hazards before they occur. Educate staff on techniques to develop shared mental models, anticipatory thinking, and situation awareness.

Change Ideas

> Convey the importance of a new process by linking it to patient and worker safety.

> Embed new processes into an improved work flow instead of adding it to existing work flow.

> Utilize interprofessional team-based simulation training to improve technical skills and communication.

> Confirm adequate training and orientation of temporary staff, including registry, travelers and physicians. Ensure training is both workplace- and job-specific.

> Evaluate staff safety knowledge, skills and attitudes related to patient safety and workforce safety improvement.

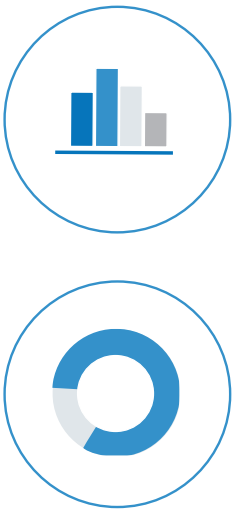
> Train staff on risk factors for violence in the health care setting and control measures available to prevent violent incidents, particularly in areas of high vulnerability (e.g., ED).

> Integrate team-based simulations to enhance readiness training and ensure prompt response to threats of workplace violence.

> Train and develop staff and leaders in techniques to address disruptive or unprofessional behavior and bullying, as well as escalation expectations.

Suggested Process Measure for Your Test of Change

- Percent of staff that attend at least one team-based simulation training annually
- Percentage of clinical staff that completed safe patient handling training



Secondary Driver > FURNISH STAFF WITH NECESSARY EQUIPMENT AND SUPPLIES

Many interventions to improve patient and worker safety require equipment and supplies. For example, prevention of health care infections requires personal protective equipment (PPE) and immediate access to hand soap or gel. If PPE is not readily available and conveniently located, it will not be used. Likewise, safe patient handling equipment will not be utilized if there is a perception that securing the equipment is time consuming or difficult.

Change Ideas

> Include front-line staff in product and equipment evaluation prior to acquisition (e.g., patient lifts).

> Ensure equipment and supplies are accessible when needed. Move supplies and equipment to the bedside or as close to the work as possible.

> Provide equipment training for use, cleaning and disinfection.

> Follow-up with staff to confirm equipment and personal protective gear is being used, and if not, understand why.

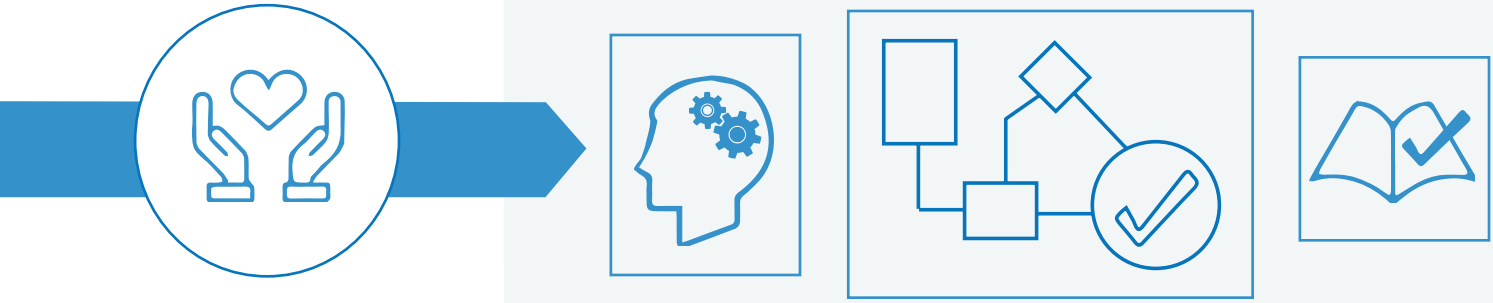
> Monitor adherence to use of equipment and supplies when required, including gloves and gowns for contact precautions and lifting equipment for patient transfers.

Suggested Process Measures for Your Test of Change

- Percent of providers using PPE (personal protective equipment) when warranted
- Percent of providers using safe patient handling equipment when warranted

Hardwire the Process

Establish processes to regularly observe staff implementation of safe practices and use of equipment and PPE in addition to assessing for hazards. Use these opportunities to educate staff when recommended practices are not followed and to elicit reasons for the 'at-risk behavior.' Aggregate information and implement action plans to address findings.



IMPLEMENT SMALL TESTS OF CHANGE

	Example: Implement safety huddles to increase safety awareness	Example: Begin leadership rounds on safe patient handling
PLAN	Begin testing a safety huddle on one unit, on one shift.	Focused, leadership rounds will occur on one unit, one shift.
DO	Direct care providers test the safety huddle, discussing recent situations where patient or staff safety was threatened, the causes, potential solutions and a follow-up plan.	One nursing leader and one senior leader test focused leadership rounds, engaging front-line staff in discussions about safe patient handling, any barriers and suggestions for improvement.
STUDY	After the safety huddle, the team debriefs to ask questions, such as: > "Were there any challenges with the safety huddle?" > "Did everyone feel comfortable bringing up safety concerns?" > "How much time did it take to complete safety huddle?" > "Are there any suggestions for modifications to the safety huddle process?"	After the leadership rounds, the team debriefs to ask questions of both the nursing leader and staff that participated. > To the nursing leader: • "Were there any challenges with conducting the focused leadership rounds?" • "Do you feel staff were engaged, open and honest?" > To the front-line staff: • "Did you feel comfortable discussing issues around safe patient handling?" > To all: • "Was an action or follow-up plan established?" • "How can these focused leadership rounds be improved?"
ACT	Make any recommended changes and retest to determine if the changes led to an improvement. If no changes are suggested, plan additional testing with another shift the following day.	Make any recommended changes and retest with another shift the following day to determine if the changes lead to an improvement. If no changes are suggested, plan additional testing with another unit.

Identify Potential Barriers

- Changing behavior is difficult because people have very strong patterns that they follow from habit. Staff will resist change unless the change is framed with positive outcomes.
- The lack of an effective communication structure from the top to the front lines of the organization can hinder improvement.
- Management styles may differ between departments, creating inconsistencies in the message and response to incidents.
- Systems and structures are not always designed to support teamwork.
- Work environments where staff lack psychological safety may exhibit symptoms of fear-based responses, including workers who are reluctant to speak up with patient safety or workforce safety concerns.

Enlist administrative leadership as sponsors to help remove or mitigate barriers

- Make patient and worker safety the number one goal of the organization and provide adequate staffing and resources.
- Assign a senior leader to lead safety culture efforts.
- Demonstrate commitment to a culture of safety through visible behaviors of all senior leaders.
- Conduct broad-based education and team-based simulation to promote mindfulness and situation awareness related to identifying risks of harm to patients and staff with targeted strategies to promote safety.

Change not only the practice, but also the culture

- Promoting changes in culture can be very challenging. After nearly two decades of a national focus on patient safety, this focus has shifted to integrating worker safety with patient safety. Incorporating worker safety into existing practices, e.g., safety huddles and leadership rounds, will streamline this change.
- Leadership's commitment and actions are crucial to furthering a culture of safety. It also requires staff participation at all levels. An organization must foster a culture where everyone feels responsible for staff and patient safety.

PART 4: CONCLUSION AND ACTION PLANNING

Implementing and achieving a culture of safety that integrates patient safety with worker safety requires changes in attitudes, beliefs and behaviors. It is not quickly nor easily accomplished. Understanding the key components of a safety culture that integrates patient safety with worker safety and assessing the current organizational culture are integral steps to achieving a culture of safety. Leadership and employee commitment are the hallmark of a true safety culture where safety is an integral part of daily operations.

PART 5: APPENDICES

APPENDIX I: CULTURE OF SAFETY TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current interventions or initiate new ones to ensure a culture of safety in your facility.

Reference: www.hret-hiin.org

Culture of Safety Top Ten Checklist

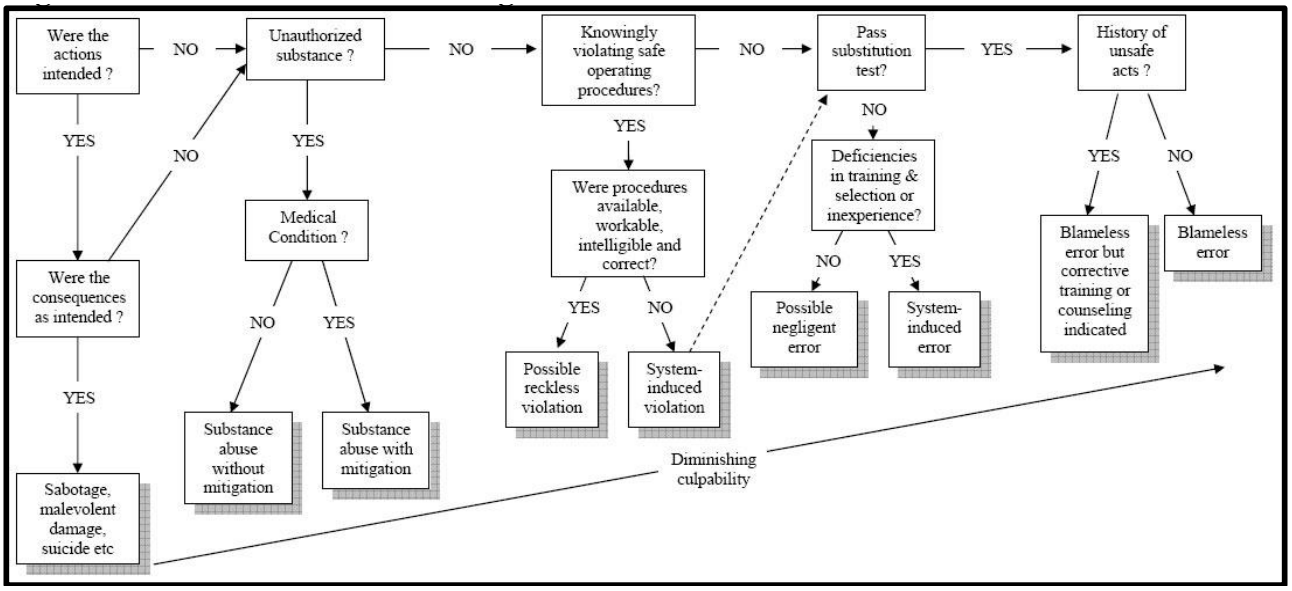
1. Include patient and workforce safety data and improvement activities in presentations to the board, as well as in unit level and organization quality and safety meetings.
2. Implement daily leadership safety briefings to create shared understanding of patient and workforce safety vulnerabilities, foster mutual support and disseminate information about safety events.
3. Institute Leadership WalkRoundsTM, integrating both patient safety and workforce safety issues. Effective rounds give leaders the opportunity to observe processes and actively listen to the front lines, patients and families about their barriers and concerns, and to gather ideas for improvement.
4. Encourage reporting of patient safety events, near misses and work conditions that present physical hazards or psychological safety risks. Make reporting easy and ensure that processes exist for confidential and anonymous reporting, if needed. Reward reporting and celebrate "good catches."
5. Establish reporting, peer intervention and escalation processes to quickly extinguish disruptive, unprofessional and disrespectful behaviors.
6. Appreciate and acknowledge small wins and positive behaviors. Schedule team celebrations and integrate storytelling to prioritize joy and meaning in work and foster well-being.
7. Implement a safe patient handling and movement program. Involve front-line teams in choosing equipment and developing and implementing training programs.
8. Conduct a hazard assessment for conditions that contribute to unsafe work conditions, including risks for needle stick injuries, infection transmission, musculoskeletal injuries, disrespectful behavior, bullying and workplace violence.
9. Utilize simulation training with interprofessional teams to promote effective team behaviors, situational awareness, mutual support and anticipatory critical thinking. Use handoff communication training and process design as an opportunity to develop improved team communications.
10. Use a standard approach to balance individual accountability with leadership accountability for systems issues when addressing adverse events. Integrate support for care team members involved in an adverse patient event or workplace violence event as part of the response.

APPENDIX II: UNSAFE ACTS ALGORITHM

Associated Hospital/Organization: James Reason

Purpose of Tool: To help determine accountability when an adverse event occurs, distinguishing between individual negligence and systemic failure.

Reference: https://www.patientsafety.va.gov/docs/joe/just_culture_2013_tagged.pdf

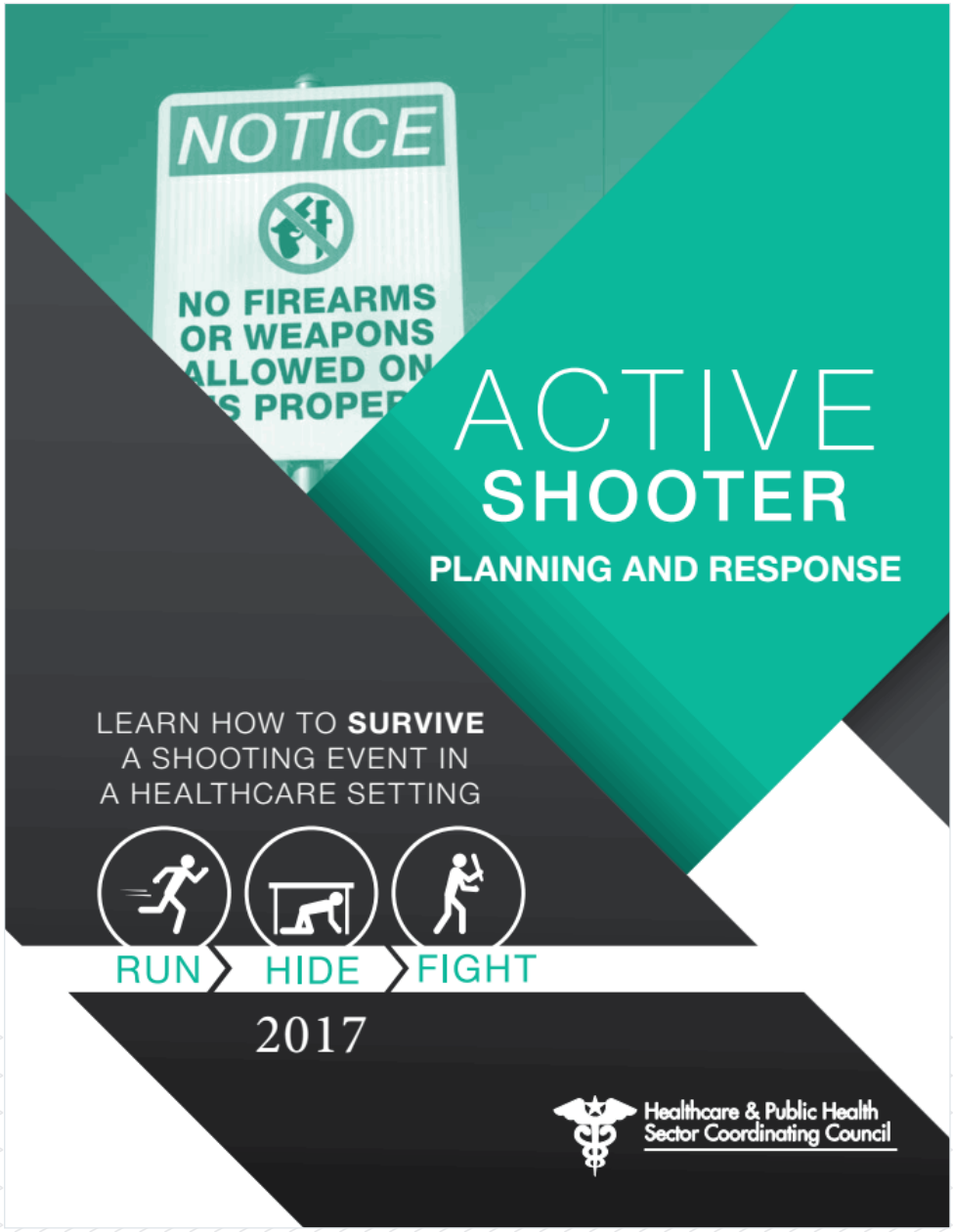


APPENDIX III: ACTIVE SHOOTER PLANNING AND RESPONSE: LEARN HOW TO SURVIVE A SHOOTING EVENT IN A HEALTHCARE SETTING (2017)

Associated Hospital/Organization: Healthcare & Public Health Sector Coordinating Council

Purpose of Tool: To provide national consensus guidance from leaders in government and business regarding how health care workers can plan and train for key strategies to protect themselves during an active threat situation, so that they may focus on their mission of saving lives.

Reference: https://www.fbi.gov/file-repository/active_shooter_planning_and_response_in_a_healthcare_setting.pdf/view



APPENDIX IV: "MESH COALITION RESPONDING TO AN ACTIVE SHOOTER IN A HEALTHCARE SETTING" VIDEO

Associated Hospital/Organization: MESH Coalition, Marion County, Indianapolis, Indiana

Purpose of Tool: To provide training for central Indiana health care workers on how to respond if an active shooter enters their workplace.

Reference: https://vimeo.com/112455575

APPENDIX V: WORKPLACE-VIOLENCE-PREVENTION GAP ANALYSIS

Associated Hospital/Organization: Minnesota Department of Health

Purpose of Tool: To identify gaps in policies and procedures to prevent workplace violence

Reference: http://www.health.state.mn.us/patientsafety/preventionofviolence/preventingviolenceinhealthcaregapanalysis.pdf

APPENDIX VI: SAFE PATIENT HANDLING SELF-ASSESSMENT

Associated Hospital/Organization: US Department of Labor/OSH

Purpose of Tool: To identify opportunities for improvement related to safe patient handling

Reference: https://www.osha.gov/dsg/hospitals/documents/3.8_SPH_self-assessment_508.pdf

Safe Patient Handing

A Self-Assessment

Patient lifting, repositioning, and transfers represent some of the most common—and most preventable—sources of injury for employees in the healthcare industry, particularly musculoskeletal disorders (MSDs). Use this brief questionnaire to examine the number and nature of patient handling injuries in your hospital, identify what you are already doing well, and identify opportunities for improvement. You can review data for the most recent year, or you can review three or more years of data to look for trends over time.

Step A: Understand the magnitude of the problem.

Review your hospital's OSHA-recordable injury log, check workers' compensation records, and consult with human resources to quantify employee MSDs from patient handling events and the associated costs.

1. How many OSHA-recordable injuries resulted from patient handling activities such as lifting, repositioning, or lateral transfers?
2. What percentage of our total OSHA-recordable injuries resulted from patient handling activities?
3. How many days away, restricted, or transferred (e.g., lost-time or light-duty days) resulted from patient handling injuries?
4. What was the total cost of all our workers' compensation claims associated with patient handling injuries (medical cost, wage replacement, etc.)?
5. What was the average cost of each patient handling-related workers' compensation claim?
6. If our hospital tracks "near misses," precursor events, or other non-OSHA-recordable incidents, how many of these incidents are related to patient handling?
7. How many employees left the hospital (including early retirement, career change, and permanent disability) at least in part due to injuries associated with patient handling?

For reference, in 2011,32.7 percent of recorded hospital worker injuries nationwide that resulted in days away from work were associated with patient interactions, and nearly three-quarters of these patient-related injuries were classified as MSDs. Hospitals that have focused on safe patient handling have MSD rates below the national average.

Step B: Find out who is getting hurt, where, and how.

By identifying the occupations or root causes of activities with the highest risk of injury, you can target interventions effectively.

8. Which occupations (registered nurses, nursing assistants, etc.) experience the highest rates of patient handling injuries in our hospital?

Associated Hospital/Organization: US Department of Labor/OSH

Purpose of Tool: To identify opportunities for improvement related to safe patient handling

Reference: https://www.osha.gov/dsg/hospitals/documents/3.8_SPH_self-assessment_508.pdf

Safe Patient Handling: A Self-Assessment

9. Which units (departments, floors, wards) have the highest rates of worker injuries associated with handling patients?

10. Which activities (lifting, repositioning in bed, lateral transfers, etc.) account for the highest number or severity of injuries?

Step C: Explore the effects on patient care.

Explore how your current patient handling policies and procedures might affect patient care. Manual lifting, repositioning, or transfer can increase patients' risk of falls, fractures, bruises, and skin tears (pressure ulcers). Safe patient handling with mechanical equipment has been shown to reduce this risk.

11. What was our rate of hospital-acquired pressure ulcers (Stage III and IV) per 1,000 patients?

12. What was our rate of patient falls with injury per 1,000 patient days?

13. How many patient injuries are known to have occurred during a manual lift, repositioning, or transfer?

To learn more about how to calculate the pressure ulcer incidence rate for your hospital, see http://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec.aspx.

Step D: Identify existing strengths and opportunities for improvement.

Use the questions below to identify good programs and practices in place in your own hospital and to initiate conversations about opportunities to do better.

14. Do we have a written safe patient handling policy or program? If yes, are all employees aware of this program and its contents?

15. Does our program minimize the use of manual lifting, repositioning, or transfers (e.g., through a "minimal lift" policy)?

16. Do we provide our caregivers with easy access to equipment (e.g., slide sheets, portable or ceiling-mounted lifts) to assist with patient handling tasks?

17. Which units or activities in particular could benefit from an increased emphasis on safe patient handling programs, policies, and equipment? For example, which units and activities stood out in Step B? Does the hospital have special accommodations for bariatric (obese) patients?

18. Are we planning any renovation or new construction projects that could integrate patient handling considerations in the design (e.g., installing or providing storage for patient handling equipment)?

19. How many safe patient handling best practices do we currently have in place?

Take the next step!

Visit OSHA's website at www.osha.gov/dsg/hospitals for best practices, case studies, resources, and tools to help you protect your employees and patients through a safe patient handling program.

This document is advisory in nature and informational in content. It is not a standard or regulation, and it neither creates new legal obligations nor alters existing obligations created by OSHA standards or the Occupational Safety and Health Act.

APPENDIX VII: GAP ANALYSIS FOR SAFE PATIENT HANDLING

Associated Hospital/Organization: Minnesota Hospital Association

Purpose of Tool: To identify gaps is safe patient handling practices.

Reference: http://www.mnhospitals.org/quality-patient-safety/quality-patient-safety-initiatives/patient-handling

APPENDIX VIII: SAFE PATIENT HANDLING CHECKLIST

Associated Hospital/Organization: US Department of Labor/OSHA

Purpose of Tool: To identify opportunities for improvement related to safe patient handling

Reference: https://www.osha.gov/dsg/hospitals/documents/3.2_SPH_checklist_508.pdf

https://www.osha.gov/dsg/hospitals/patient_handling.html

PART 6: REFERENCES

1. IOM (Institute of Medicine). 1999. *To Err is Human: Building a Safer Health System.* Washington, DC: The National Academies Press.
2. Occupational Safety and Health Administration. Workplace Violence. Retrieved at: https://www.osha.gov/SLTC/workplaceviolence/. Last accessed March 6, 2017.
3. Centers for Disease Control and Prevention. Safe Patient Handling. Retrieved at: http://www.cdc.gov/niosh/topics/safepatient/. Last accessed March 17, 2017.
4. BLS Table R8. Incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 full-time workers by industry and selected events or exposures leading to injury or illness, private industry, 2014. Retrieved at: https://www.bls.gov/iif/oshwc/osh/case/ostb4374.pdf. Last accessed March 6, 2017.
5. United States Department of Labor. Occupational Safety and Health Administration website. Retrieved at: https://www.osha.gov/SLTC/healthcarefacilities/safepatienthandling.html. Last accessed March 13, 2017.
6. Edmondson, A. (1999). *Psychological safety and learning behavior in work teams.* Administrative Science Quarterly. Jun; 44(2): 350-383. Retrieved at: http://www.iacmr.org/v2/Conferences/WS2011/Submission_XM/Participant/Readings/Lecture9B_Jing/Edmondson,%20ASQ%201999.pdf. Last accessed March 6, 2017.
7. Lucian Leape Institute (LLI). (2013). *Through the Eyes of the Workforce: Creating Joy, Meaning, and Safer Health Care.* Boston, MA: National Patient Safety Foundation. Retrieved at: https://c.ymcdn.com/sites/npsf.site-ym.com/resource/resmgr/LLI/Through-Eyes-of-the-Workforc.pdf. Last accessed March 6, 2017.
8. Joint Commission (2012). *Improving Patient and Worker Safety, Opportunities for Synergy, Collaboration and Innovation.* Retrieved at:http://www.jointcommission.org/assets/1/18/tjc-improvingpatientandworkersafety-monograph.pdf. Last accessed March 6, 2017.
9. McHugh, M.D., et al. (2011). Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs* (Milwood). Feb; 30(2): 202-210.
10. Taylor, J.A., et al. (2012) Do nurse and patient injuries share common antecedents? An analysis of associations with safety climate and working conditions. *British Medical Journal, Quality & Safety.* Feb; 21(2):101-111.
11. Occupational Safety and Health Administration. *Creating a Safety Culture.* Retrieved at: https://www.osha.gov/SLTC/etools/safetyhealth/mod4_factsheets_culture.html
12. United States Department of Labor, Occupational Safety and Health Administration (2013). *Worker Safety in Your Hospital.* Retrieved at: https://www.osha.gov/dsg/hospitals/documents/1.1_Data_highlights_508.pdf.
13. United States Department of Labor, Occupational Safety and Health Administration (2013). *Facts about Hospital Workers Safety.* Retrieved at: https://www.osha.gov/dsg/hospitals/documents/1.2_Factbook_508.pdf.
14. U.S. Department of Labor, Occupational Safety and Health Administration (2015). *Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers.* Retrieved at: https://www.osha.gov/Publications/osha3148.pdf.
15. Weaver, S.J., Dy, S., Lubomski, L.H., Wilson, R. Chapter 33 Promoting a Culture of Safety. Making Health Care Safer II: An Updated Critical Analysis of the Evidence for Patient Safety Practices. Rockville (ND): Agency for Healthcare Research and Quality; 2013 Mar.
16. Frankel A, Haraden C, Federico F, Lenoci-Edwards J. *A Framework for Safe, Reliable, and Effective Care.* White Paper. Cambridge, MA: Institute for Healthcare Improvement and Safe & Reliable Healthcare; 2017. Retrieved at: http://www.ihi.org/resources/Pages/IHIWhitePapers/Framework-Safe-Reliable-Effective-Care.aspx. Last accessed March 17, 2017.
17. Duke University School of Medicine. *Patient Safety – Quality Improvement Education* (2016). Retrieved at: http://patientsafetyed.duhs.duke.edu/index.html. Last accessed March 17, 2017.
18. Institute for Healthcare Improvement. *Patient Safety Leadership WalkRounds™*. Retrieved at: http://www.ihi.org/resources/pages/tools/patientsafetyleadershipwalkrounds.aspx.
19. Agency for Healthcare Research and Quality. *Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS ™)*. Retrieved at: https://www.ahrq.gov/teamstepps/index.html. Last accessed March 13, 2017.

20. Dubeck, D. *Healthcare worker fatigue: current strategies for prevention.* Pa Patient Saf Advis 2014 Jun;11(2):53-60. Retrieved at: http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2014/Jun;11(2)/Pages/53.aspx. Last accessed March 17, 2017.
21. Agency for Healthcare Research and Quality. *Hospital Survey on Patient Safety Culture*. Retrieved at: http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/hospital/index.html
22. *Comprehensive Unit-based Safety Program*. Retrieved at: www.ahrq.gov/professionals/quaity-patient-safety/cusp/index.html
23. Agency for Healthcare Research and Quality. (Updated July 2014). *Patient Safety Primer: Safety Culture.* Retrieved at: https://psnet.ahrq.gov/primers/primer/5/safety-culture
24. *Hospitals with a teamwork culture have better patient safety climates: Research Activities,* July 2011, No. 371. July 2011. Agency for Healthcare Research and Quality. Retrieved at: http://archive.ahrq.gov/news/newsletters/research-activities/jul11/0711RA7.html
25. Frankel, A.S., Leonard, M.W., and Denham, C.R. (2006). *Fair and just culture, team behavior, and leadership engagement: The tools to achieve high reliability.* Health Services Research, 41(4 Pt 2), 1690–1709. Retrieved at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1955339/
26. Agency for Healthcare Research and Quality. *Guide to Patient and Family Engagement in Hospital Quality and Safety.* Retrievedat: http://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html
27. Sculli, G. and Hemphill, R. (2013). *Culture of Safety and Just Culture.* Washington, DC: VHA National Center for Patient Safety. Retrieved at: http://www.patientsafety.va.gov/docs/joe/just_culture_2013_tagged.pdf
28. Reason, J.T. *Managing the risks of organizational accidents* (1997). Aldershot, Hampshire, England: Ashgate.
29. Ibid.
30. *When Things Go Wrong: Responding to Adverse Events.* (2006). A Consensus Statement of the Harvard Hospitals. Burlington: Massachusetts Coalition for the Prevention of Medical Errors. Retrieved at: https://psnet.ahrq.gov/resources/resource/3474. Last accessed March 14, 2017.
31. Conlon, P. Havlisch, R., Kini, N, Porter, C. *"Using an Anonymous Web-based Incident Reporting Tool to Embed the Principles of a High-Reliability Organization"*. Retrieved at: www.ahrq.gov/downloads/pub/advances2/vol1/Advances-Conlon_50.pdf
32. Agency for Healthcare Research and Quality. (Updated July 2014). *Patient Safety Primer: Safety Culture.* Retrieved at: https://psnet.ahrq.gov/primers/primer/5/safety-culture
33. Petit, J.R. Management of the acutely violent patient. Psychiatry Clin N Amer. 2005 Sep;28(3):701-11, 710. Retrieved at: https://www.ncbi.nlm.nih.gov/pubmed/16122575. Last accessed March 17, 2017.
34. The Joint Commission. Preventing violent and criminal events. Quick Safety (2014, Aug; Addendum 2017, Feb). Issue Five. Retrieved at: https://www.jointcommission.org/assets/1/23/Quick_Safety_Issue_Five_August_2014_add.pdf. Last accessed March 17, 2017.
35. Richmond, JS, et. al. Verbal De-escalation of the Agitated Patient: Consensus Statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup. Western Journal of Emergency Medicine. 2012;13(1):17-25. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3298202/pdf/wjem-13-01-17.pdf. Last accessed March 17, 2017.
36. Department of Homeland Security, Healthcare & Public Health Sector Coordinating Council. *Active Shooter Planning and Response, 3rd Ed.* (2017). Retrieved at: https://www.fbi.gov/file-repository/active_shooter_planning_and_response_in_a_healthcare_setting.pdf/view. Last accessed March 13, 2017.
37. Joint Commission (2012). *Improving Patient and Worker Safety, Opportunities for Synergy, Collaboration and Innovation.* Retrieved at:http://www.jointcommission.org/assets/1/18/tjc-improvingpatientandworkersafety-monograph.pdf