Safer Together

A National Action Plan to Advance Patient Safety

The **Institute for Healthcare Improvement** convened the **National Steering Committee for Patient Safety** as a collaboration among 27 national organizations committed to advancing patient safety.

Institute *for* Healthcare Improvement

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This National Action Plan is dedicated to all patients, families, and health care workers who have been impacted by preventable health care harm.

About the National Steering Committee for Patient Safety

The Institute for Healthcare Improvement convened the National Steering Committee for Patient Safety as a collaboration among 27 national organizations committed to advancing patient safety. IHI gratefully acknowledges the organizations and individual members who contributed their time, expertise, and insight to develop the National Action Plan to Advance Patient Safety and that have committed to advancing the recommendations outlined in this work.

For more than 25 years, the Institute for Healthcare Improvement (IHI) has used improvement science to advance and sustain better outcomes in health and health systems across the world. We bring awareness of safety and quality to millions, accelerate learning and the systematic improvement of care, develop solutions to previously intractable challenges, and mobilize health systems, communities, regions, and nations to reduce harm and deaths. We work in collaboration with the growing IHI community to spark bold, inventive ways to improve the health of individuals and populations. We generate optimism, harvest fresh ideas, and support anyone, anywhere who wants to profoundly change health and health care for the better. Learn more at ihi.org.

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Please see Appendix B for a glossary of terms used in this document.

Letter from the National Steering Committee Co-Chairs

Since the publication of the Institute of Medicine's seminal report *To Err Is Human: Building a Safer Health System*[1] more than 20 years ago, important progress has been made in the reduction of preventable harm, particularly in areas such as healthcare-acquired conditions. Working in the safety field, we have been impressed time and again by the commitment and ingenuity behind these successes.

At the same time, it's been impossible to ignore news and research that continue to show unacceptably high rates of preventable harm related to health care, for both patients and the workforce. And that was before the COVID-19 pandemic, which has highlighted even more the importance of focusing on patient and workforce safety and reducing preventable harm in every health care setting, including long-term care and care at home.

What can be done, then, to achieve and sustain widespread improvement in patient safety? We believe that broad and purposeful collaboration and coordination among key health care stakeholders can drive progress, not only within hospitals but also across the continuum of care.

"First, do no harm" is a fundamental tenet. We must ensure the safety of our patients. In addition, patients, families, and care partners have a unique and important perspective on care delivery. They are the one constant throughout the continuum of care. Their meaningful engagement and partnership is essential for improving safety.

Safe and quality care also requires a dedicated and committed workforce — the nurses, physicians, medical assistants, pharmacists, technicians, patient and family care partners, support staff, volunteers, and others who work tirelessly to care for patients amid a host of hazards. Yet, even in the absence of natural disasters and emergency situations, health care has one of the highest rates of illnesses and work-related injuries among industries. Ensuring the safety and well-being of the health care workforce is integral to any effort to advance patient safety.

The National Steering Committee for Patient Safety (NSC) was convened to leverage these assets and harness the knowledge of various stakeholders — influential federal agencies, leading health care delivery organizations and associations, patient and family advocates, and respected industry experts — into a set of actionable and effective recommendations.

The resulting plan, *Safer Together: A National Action Plan to Advance Patient Safety*, illuminates the collective insights of the 27 NSC members, who are united in their commitment to improve patient safety. In addition, two supplementary resources offer further guidance: a Self-Assessment Tool and an Implementation Resource Guide.

What distinguishes this plan and resources from other efforts? It was created based on the NSC members' unified determination to refuse to accept preventable harm and their eagerness to act. **Here and now, we stand with our fellow NSC members, invested and mobilized together to move forward. We ask all stakeholders to join us and take decisive action to advance these recommendations.**

Now more than ever, we must all work together to create the safest health care possible. Health care organizations are in different places on their respective paths, but we all have further to go and more to learn and share.

We offer sincere appreciation to the individuals and organizations that have collaborated to develop and enact the recommendations of this National Action Plan, and to all those who will join us to drive those actions forward. We look forward to working together with all of you to create a world where patients and those who care for them are free from harm.

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Executive Summary

Despite substantial effort over the past 20 years, preventable harm in health care remains a major concern in the United States. Though many evidence-based, effective best practices related to harm reduction have been identified, they are seldom shared nationally and implemented effectively across multiple organizations. Reducing preventable harm requires a concerted, persistent, coordinated effort by all stakeholders, and a total systems approach to safety.[1]

Total systems safety requires a shift from reactive, piecemeal interventions to a proactive strategy in which risks are anticipated and system-wide safety processes are established and applied across the entire health care continuum to address them.[2,3] It also requires coordination at many levels, which in turn necessitates robust collaboration among all stakeholders.

This report, *Safer Together: A National Action Plan to Advance Patient Safety*, illuminates the collective insights of the 27 organizations represented on the National Steering Committee for Patient Safety (NSC), united in their efforts to achieve safer care and reduce harm to patients and those who care for them. The National Action Plan centers on four foundational and interdependent areas, which the NSC prioritized as essential to create total systems safety.

- **Culture, Leadership, and Governance:** The imperative for leaders, governance bodies, and policymakers to demonstrate and foster our deeply held professional commitments to safety as a core value and promote the development of cultures of safety.
- **Patient and Family Engagement:** The spread of authentic patient and family engagement; the practice of co-designing and co-producing care with patients, families, and care partners to ensure their meaningful partnership in all aspects of care design, delivery, and operations.
- **Workforce Safety:** Ensuring the safety and resiliency of the organization and the workforce is a necessary precondition to advancing patient safety; we need to work toward a unified, total systems-based perspective and approach to eliminate harm to both patients and the workforce.
- **Learning System:** Establishing networked and continuous learning; forging learning systems within and across health care organizations at the local, regional, and national levels to encourage widespread sharing, learning, and improvement.

The NSC considers these areas to be foundational because they create the fertile soil that allows broader safety initiatives to take root and be cultivated. They are also interdependent because advancing in one area alone is difficult without advancing in all of them. And they each benefit from widespread collaboration and coordination. The resulting recommendations in these four areas build on the substantial body of experience, evidence, and lessons learned that the NSC has gathered and will test and implement together to allow for future refinements as our understanding, experience, and evidence evolve over time.

National Action Plan: 17 Recommendations to Advance Patient Safety

Culture, Leadership, and Governance

1. Ensure safety is a demonstrated core value.
2. Assess capabilities and commit resources to advance safety.
3. Widely share information about safety to promote transparency.
4. Implement competency-based governance and leadership.

Patient and Family Engagement

5. Establish competencies for all health care professionals for the engagement of patients, families, and care partners.
6. Engage patients, families, and care partners in the co-production of care.
7. Include patients, families, and care partners in leadership, governance, and safety and improvement efforts.
8. Ensure equitable engagement for all patients, families, and care partners.
9. Promote a culture of trust and respect for patients, families, and care partners.

Workforce Safety

10. Implement a systems approach to workforce safety.
11. Assume accountability for physical and psychological safety and a healthy work environment that fosters the joy of the health care workforce.
12. Develop, resource, and execute on priority programs that equitably foster workforce safety.

Learning System

13. Facilitate both intra- and inter-organizational learning.
14. Accelerate the development of the best possible safety learning networks.
15. Initiate and develop systems to facilitate interprofessional education and training on safety.
16. Develop shared goals for safety across the continuum of care.
17. Expedite industry-wide coordination, collaboration, and cooperation on safety.

Reflecting the NSC's vision to ensure that health care is safe, reliable, and free from harm, this National Action Plan provides clear direction and actions to make significant advances toward total systems safety and safer care across the continuum of care. Two supplementary resources offer further guidance: a Self-Assessment Tool assists leaders and organizations in deciding where to start, and an Implementation Resource Guide details tactics and supporting resources for implementing the National Action Plan recommendations.

NSC members are invested and mobilized together to implement the recommendations in this National Action Plan. We ask all stakeholders to join us and take decisive action to advance these recommendations.

Acknowledgments

The National Steering Committee for Patient Safety (NSC) gratefully acknowledges Jeffrey Brady, MD, MPH, and Tejal K. Gandhi, MD, MPH, CPPS, for their work as co-chairs; members of the NSC for their participation; NSC subcommittee co-chairs for their time and leadership; NSC subcommittee members for their time and dedication in developing recommendations; staff at the Institute for Healthcare Improvement (IHI) and the Agency for Healthcare Research and Quality (AHRQ) for project oversight and support; and Diane W. Shannon, MD, MPH, for lead authorship of this report. The NSC also gratefully acknowledges the initial funding support provided by the IHI Board of Directors, who made this initiative possible, and Derek Feeley, former CEO of IHI, for his unwavering support.

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**Denotes federal liaison member. Views and knowledge shared by federal liaisons to the NSC are limited to activities consistent with the missions of the respective federal agencies. Federal participants serving in their official capacity must not be interpreted as agency endorsement of NSC activities, business practices, or efforts to advocate or lobby for federal funds.*

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See Appendix A for a list of subcommittee members.

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- **Kathy Gerwig, MBA,** Retired Vice President, Employee Safety, Health and Wellness, and Environmental Stewardship Officer, Kaiser Permanente
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Learning System Subcommittee Co-Chairs

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The Current State of Patient Safety

Preventable harm is one of the most common causes of death in the United States and is associated with additional adverse consequences, disability, lost productivity, and unnecessary expenses.[4] While the estimates of preventable harm vary, we can all agree on this: Behind each number are people and a story. The people begin with the patient and family and extend to loved ones, the health professionals involved in their care, and society at large.

Preventable Harm

The definition of preventable harm caused by health care has expanded over recent years to include physical, psychological, emotional, moral, economic, and societal harm to patients and the workforce,[5,6,7] as well as harm caused by inequities and lack of care for patients, families, and the workforce.

Looking Back to Move Forward

Improving safety is a journey and the current state is rooted in the past and the paths previously taken. The publication of *To Err Is Human: Building a Safer Health System*[8] brought patient safety to the forefront and prompted meaningful improvements over the intervening decades. Many evidence-based, effective best practices related to harm reduction have been identified. However, these practices are seldom shared nationally or implemented effectively across multiple organizations. Further, many efforts to address preventable harm have focused on reducing specific harms rather than developing a systems-based approach that advances broader and sustainable improvement. Lack of robust safety cultures, effective teamwork, and meaningful patient engagement have also hindered progress.[9,10,11] As such, while considerable progress has been made, too much remains the same. It has become clear that reducing preventable harm is a complex endeavor that requires a concerted, persistent, coordinated effort by all stakeholders, and a total systems approach to safety.[12]

The Importance of Total Systems Safety

Total systems safety requires a shift from reactive, piecemeal interventions to a proactive strategy in which risks are anticipated and system-wide safety processes are established and applied across the entire health care continuum.[13,14] It necessitates greater leadership commitment and accountability, the development of strong safety cultures, the formation of meaningful partnerships with patients, families, and care partners, as well as establishing effective learning systems to enable stakeholders to collaborate and systematically learn how to best advance safety.

The prioritization of health care workforce safety and well-being is also an essential element in establishing total systems safety. Members of the health care workforce need support to fulfill their highest potential as healers. Unless workers are given the necessary respect, support, and resources they are more likely to fail to follow safe practices, not work well in teams, and make errors.[15]

The Need for Coordination and Collaboration

Total systems safety requires coordination at many levels, which in turn necessitates robust collaboration among all stakeholders. One of the most important recommendations in *To Err Is Human* urged greater coordination of patient safety efforts.[16] The failure to fulfill this recommendation contributes to the slow and restricted advancement in patient safety. Additionally, the continued lack of coordination between the many different groups working to improve safety creates inefficiencies and duplication, which further hinders progress and wastes resources.

IHI convened the National Steering Committee for Patient Safety (NSC) to address these areas of need and advance collective progress toward establishing total systems safety.

Clarification of Terms

While "total systems safety" includes a unified approach to both patient and workforce safety, the terms "patient safety" and "workforce safety" are both used to ensure clarity in the National Action Plan. Similarly, the NSC recognizes that the use of the term "patient" does not always resonate. Striving for *person*-centered care is the ultimate goal. However, in the National Action Plan, the narrower term "patient" is used for simplicity.

About the National Steering Committee for Patient Safety

In the face of continued unacceptably high rates of harm, the National Steering Committee for Patient Safety (NSC) was formed in May 2018 to encourage greater coordination of collective patient safety efforts. Organizations were purposefully selected for their demonstrated commitment to accelerating the improvement of safety, reducing harm, and working with others to spread best practices. Membership in the NSC is voluntary and includes leaders from 27 organizations representing the following groups:

- Health care organizations and health care systems
- Patients, families, and care partners
- Professional societies
- Safety and quality organizations
- Regulatory and accrediting bodies
- Federal agencies

Together, members developed a vision statement and core principles (see box below) to guide the work of the NSC and the creation of the National Action Plan. We encourage other stakeholders to embrace this vision and principles as they work to implement the National Action Plan recommendations and seek to collaborate with others to improve safety.

National Steering Committee (NSC) Vision and Principles

Working together to ensure that health care is safe, reliable, and free from harm.

NSC Core Principles
NSC member organizations committed to a voluntary partnership guided by the following core principles:

1. Work together to drive greater urgency to prevent harm to patients and those who care for them in all settings across the care continuum.

By joining together to focus attention on the current needs and gaps, the NSC can direct attention to reducing harm — and to improving patient safety across the entire spectrum of care settings and acuity.

2. Strengthen the foundation for eliminating harm by ensuring that leaders actively promote a culture of safety, the spread of learning systems, patient and family engagement, and workforce safety.

Although the engagement of all stakeholders is vital, organizational leaders play a critical role in establishing and maintaining improvement in these critical areas of focus. To make sustained improvement in patient safety, leaders must take on the responsibility of adopting a total systems approach.

3. Partner with patients, families, and care partners and commit to open, honest, and respectful communication to create safe, person-centered health care.

The NSC agrees that the active participation of patients, families, and care partners is essential to ensuring learning and the promotion of safety throughout the patient journey. Their active engagement is needed for their own care to be effective, to share valuable information pertaining to patients' values and preferences, and to provide feedback on the functioning of the system.

4. Coordinate and collaborate to achieve large-scale, sustainable improvement in safety.

NSC member organizations believe a central national plan is needed to coordinate the many disparate efforts to advance patient safety. The collaboration of the organizations is critical for reducing duplication of effort, streamlining activities, and presenting concurring messages about efforts to improve patient safety.

5. Transparently share successes and failures within and across organizations and industries to promote learning and improve outcomes for all.

NSC member organizations support the sharing of successful practices and lessons learned from failures within and across organizations so that all can learn and improve. Wherever possible, health care teams should strive to identify innovations, assess their effectiveness through many small tests of change, adopt effective innovations, and share the best practices that have potential for large-scale impact.

6. Advance health equity so that everyone has the safest care, and no one is disadvantaged due to demographic characteristics or social determinants.

Health inequities are systemic, avoidable, and unjust. NSC member organizations commit to ensuring safe care by supporting data collection and stratification, building awareness, and taking active steps to eliminate inequities in health care for all patients, families, and the workforce.

NSC Vision and Principles *(continued)*

7. Support policies and regulations that will improve patient safety.

Policies, incentives, and regulations have a substantial impact on patient and workforce safety. The NSC does not engage in policy development, but instead offers recommendations that can assist stakeholders throughout the health care system as they consider future policies, incentives, and regulations.

8. Advance the National Action Plan to Advance Patient Safety.

NSC members commit to implementing the National Action Plan. In addition to the commitment of member organizations, the active engagement of all stakeholders who interact with the health care system, including organizational leaders, policymakers, governance bodies, professional advocacy groups, and industry, is critical to successful implementation of the National Action Plan.

Developing the National Action Plan

This National Action Plan harnesses the knowledge and insights of the NSC members, including influential federal agencies, leading health care organizations, patient and family advocates, and respected industry experts, into a set of actionable and effective recommendations to advance patient safety. It provides clear direction that health care organizations nationwide can use to make significant advances toward safer care and reduced harm across the continuum of care.

Recognizing that there are many areas that need to change to accelerate and sustain improvement in patient safety, the NSC prioritized the following four foundational areas for developing a total systems approach to advance patient safety:

- **Culture, Leadership, and Governance:** The imperative for leaders, governance bodies, and policymakers to demonstrate and foster our deeply held professional commitments to safety as a core value and promote the development of cultures of safety.
- **Patient and Family Engagement:** The spread of authentic patient and family engagement; the practice of co-designing and co-producing care with patients, families, and care partners to ensure their meaningful partnership in all aspects of care design, delivery, and operations.
- **Workforce Safety:** Ensuring the safety and resiliency of the organization and the workforce is a necessary precondition to advancing patient safety; we need to work toward a unified, total systems-based perspective and approach to eliminate harm to both patients and the workforce.
- **Learning System:** Establishing networked and continuous learning; forging reliable learning systems within and across health care organizations at the local, regional, and national levels to encourage widespread sharing, learning, and improvement.

NSC members convened subcommittees of subject matter experts to establish specific recommendations, tactics, and identify related resources for the four foundational areas as well as the associated measurement

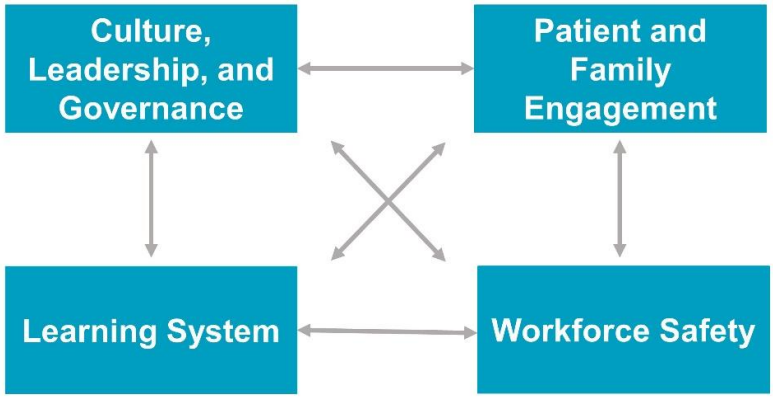
strategies (see Appendix C). Recommendations were based on peer-reviewed published literature wherever possible, or best practices and expert opinion when no such evidence existed at the time of consideration.

The NSC believes these foundational areas have a substantial, wide-ranging influence on many aspects of patient safety. They are relevant across boundaries of specialization, settings, organizational characteristics, and populations. Further, work in these areas will underpin and advance subsequent, more targeted patient safety initiatives.

The four foundational areas are highly interdependent (see Figure 1). NSC members strongly believe that improvement in each area will mutually support improvement in the others. Examples of relationships between the foundational areas include the following:

- Patient and family engagement and learning from their lived experiences can encourage leaders to foster safety as a core value.
- Culture change and the development of reliable learning systems can create a supportive work environment in which health care professionals can optimally improve patient safety.
- Workforce safety is integral to providing safe patient care and meaningful patient engagement.
- Learning systems can improve culture by demonstrating that transparency, useful data and information, and speaking up about safety concerns can lead to actual improvement.

Figure 1. National Action Plan Four Foundational Areas: Interdependent Relationships



NSC members also identified three cross-cutting themes that are integral to the four foundational areas and recommendations in the National Action Plan, as described below.

- **Person-centered care:** Patients, families, and care partners experience lifelong care journeys across the entire continuum of care. They have a unique and essential perspective on care delivery, and their insights on "what matters" are critical for creating safer care.
- **Care across the entire continuum:** Care is provided in locations outside of hospitals, including ambulatory, long-term care facilities, home, and other community-based settings. The recommendations in this National Action Plan are meant to be relevant to all settings across the care continuum.

- **The relationship between patient safety and health equity:** Health inequities are "linked to the complicated history and reality of racism, classism, sexism, ableism, ageism, and other forms of oppression."[17] Inequities result in a concentration of harm in specific population groups, based on characteristics such as race, ethnicity, sexual orientation, gender, age, disability, and income and must be considered when designing safety efforts to ensure that inequities are being addressed.[18]

Measurement Guidance

The goal of the measurement guidance is to provide a roadmap of how to best evaluate the structures, processes, and outcomes in relation to the NAP recommendations — not to provide a finite list of measures to accompany the NAP. Guiding principles for measuring patient safety are provided as a backdrop to this work, in addition to specific recommendations on the use of existing measures as well as the evaluation of structures and processes. Also highlighted are future considerations for potential development of comprehensive patient safety measures that are inclusive of diverse disciplines and care settings. See Appendix D for details.

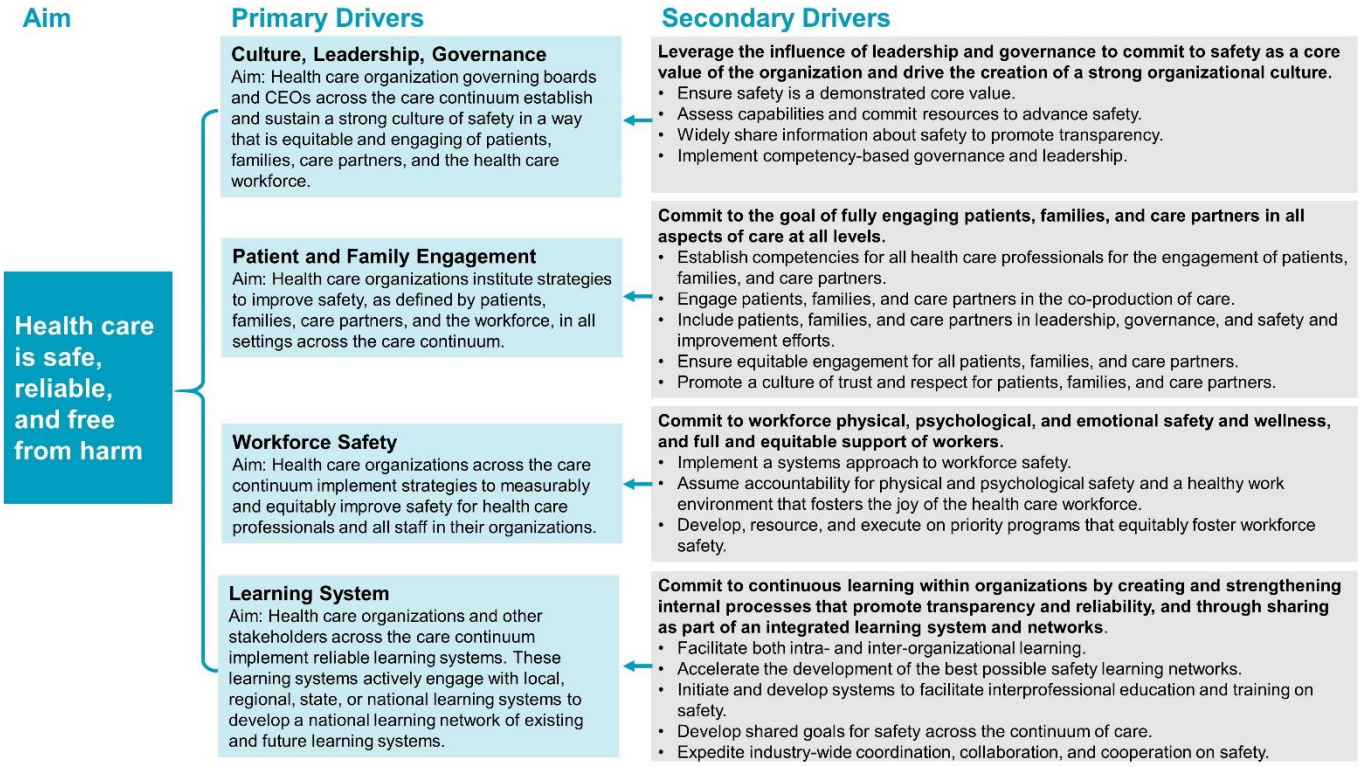
How to Use the National Action Plan

Reflecting the NSC's vision to ensure that health care is safe, reliable, and free from harm, this National Action Plan provides clear direction and actions to prompt significant advances toward total systems safety and safer care across the continuum of care. Two supplementary resources offer further, more detailed guidance: a Self-Assessment Tool[19] to assist leaders and organizations in deciding where to start, and an Implementation Resource Guide[20] details implementation tactics and supporting resources for implementing the National Action Plan recommendations. NSC members stand behind this plan and ask all health care stakeholders to join them in advancing these recommendations.

National Action Plan: Recommendations to Advance Patient Safety

Figure 2 is a driver diagram depicting the four foundational areas (primary drivers) of the National Action Plan to Advance Patient Safety and the recommendations (secondary drivers) for each of the four areas.

Figure 2. Driver Diagram: National Action Plan Foundational Areas and Recommendations



Culture, Leadership, and Governance

Aim: Health care organization governing boards and CEOs across the care continuum establish and sustain a strong culture of safety in a way that is equitable and engaging of patients, families, care partners, and the health care workforce.

While leadership and governance structures vary across health care organizations (e.g., not all organizations are governed by a board of directors), all leaders have an obligation to substantially advance patient and workforce safety by committing to safety and the elimination of harm.

Recommendations

Leverage the influence of leadership and governance to commit to safety as a core value of the organization and drive the creation of a strong organizational culture.

Recommendation 1. Ensure safety is a demonstrated core value. Senior leaders and governance bodies must prioritize safety as part of the organization's mission and values and hold themselves and their organizations accountable for engagement and improvement. They must take steps to build an organizational culture that encourages trust and transparency, provides physical and psychological safety for the workforce, and supports the workforce's joy in work.

Implementation tactic examples:

- Tactic 1a. Build a strong safety culture by implementing the practices of a just culture, ensuring that policies, procedures, and performance evaluations support a safety culture, regularly assessing culture, determining the root causes of culture issues, and continually taking steps to improve culture.
- Tactic 1b. Ensure physical and psychological safety of the workforce at all times, including times of crisis and natural disasters. Identify and address key contributors to workforce burnout, such as staffing shortages, cognitive distraction and overload, and the use of electronic health records.
- Tactic 1c. Allocate and evaluate the effectiveness of time spent in leadership meetings and all board meetings to address quality and safety and share patient and family experiences with staff, leaders, and board members.

Learn More

For the full list of implementation tactics and helpful resources, see the Implementation Resource Guide.

Recommendation 2. Assess capabilities and commit resources to advance safety. Governance bodies and senior leaders must regularly assess their personal and organizational capabilities, as well as the core competencies of everyone in the organization, to achieve sustained outcomes that are highly reliable and safe.

Implementation tactic examples:

- Tactic 2a. Ensure that leaders at all levels of the organization assess their organizational structure and allocation of resources to ensure patient and workforce safety and sustainable improvement during conventional, contingency, and crisis circumstances.
- Tactic 2b. Ensure that staff and leaders are competent to provide equitable, accountable, and safe care.
- Tactic 2c. Identify, mitigate, and address system problems that contribute to physical, psychological, and emotional workforce harm, including burnout, and provide appropriate resources.

Recommendation 3. Widely share information about safety to promote transparency. Governance bodies and senior leaders must ensure that their organizations develop, implement, and enforce standard processes to transparently share information and data about near misses, harm incidents, and lessons learned in a timely manner, within and across their organizations, as well as with patients,

families, and care partners. In addition, processes must be established to address resourcing needs and implement solutions to mitigate harm.

Implementation tactic examples:

- Tactic 3a. Share key patient and workforce safety data, stories, and contextually relevant information with board members, leaders, and all members of the care team, including health care professionals, patients, families, and care partners. Promptly inform key leaders and governance bodies of serious reportable events and the status of root cause analyses and action planning.
- Tactic 3b. Commit to sharing key safety information across the organization and with patients, families, care partners, and the public.
- Tactic 3c. Allocate resources to review and address patient and workforce near misses and harm events and, using a prioritization tool, determine which of these events require a higher level of investigation.

Recommendation 4. Implement competency-based governance and leadership. Senior leaders must ensure that quality and patient safety competencies are identified and assessed during onboarding and throughout the tenure of governance bodies and leaders. Competencies must include the knowledge, skills, and attributes needed to champion patient safety practices that lead to measurable improvement in safety.

Implementation tactic examples:

- Tactic 4a. Use a standardized assessment to ensure that board members and senior leaders demonstrate competencies in safety, equity, and data literacy. Track progress over time in their oversight of these areas and in their use of data. Ensure that ongoing education provides coordinated guidance, curriculum, and assessment for board members and leaders across governance-support organizations.
- Tactic 4b. Require board member competency in safety and completion of a minimal common annual board member assessment, allowing for comparison of core competencies across health systems and over time. The board chair and CEO should require this as a condition of board service.
- Tactic 4c. Provide board and leader education in safety, quality, and improvement concepts. Governance and leadership professional associations should visibly demonstrate the importance of board education by encouraging their own board members to complete an annual common board assessment and learning needs assessment.

Patient and Family Engagement

Aim: Health care organizations institute strategies to improve safety, as defined by patients, families, care partners, and the workforce, in all settings across the care continuum.

The authentic engagement of patients, families, and care partners is essential for improving safety, and there is a growing evidence base of innovations that are effective in improving patient and family engagement and improving patient outcomes.

Recommendations

Commit to the goal of fully engaging patients, families, and care partners in all aspects of care at all levels.

Recommendation 5. Establish competencies for all health care professionals for the engagement of patients, families, and care partners. Health care leaders in all care settings must ensure that health care professionals are prepared to form equitable and effective partnerships with patients, families, and care partners.

Implementation tactic examples:

- Tactic 5a. Create competencies for health care professionals for the engagement of all patients, families, and care partners.
- Tactic 5b. Ensure that health care professionals and staff are trained to recognize and prevent unconscious bias and are competent in equitable, effective communication strategies.
- Tactic 5c. In partnership with patients and literacy experts, select and implement effective communication and training tools and materials in all care settings, including home and community settings, to assist patients, families, and care partners in understanding and identifying risks, potential hazards, urgent or additional care needs and problems. Ensure that materials use plain language and are designed and validated for varying literacy levels and languages.

Learn More

For the full list of implementation tactics and helpful resources, see the Implementation Resource Guide.

Recommendation 6. Engage patients, families, and care partners in the co-production of care. Health care leaders and health care professionals need to fully engage with patients, families, and care partners in ongoing co-design and co-production of their care.

Implementation tactic examples:

- Tactic 6a. Seek to understand and address patient priorities by asking, “What matters to you?”
- Tactic 6b. Recognize patients, families, and care partners as full partners on the health care team, such as by:

    - Inviting patients, families, and care partners to actively engage in their care by encouraging them to ask questions, speak up at any time, pause care activities when they are worried something is not right, and mobilize rapid response teams.
    - Involving patients as equal partners in the diagnostic process and in decisions about their care using evidence-based patient decision aids and reporting tools for patient-reported outcomes.
    - Involving patients, families, and care partners in patient care such as by ensuring 24/7 visiting hours, family-centered rounds, bedside change of shift, and patient-activated rapid response teams.
- Tactic 6c. Ensure full transparency by ensuring that patients and authorized family or care partners have timely access to a patient's electronic health records, including visit notes, discharge summaries, and proxy access to patient portals to avoid errors, delayed diagnoses, or other safety risks.

Recommendation 7. Include patients, families, and care partners in leadership, governance, and safety and improvement efforts. Health care leaders and governance bodies need to involve patients, families, and care partners from all backgrounds in health care oversight, design, and improvement, as well as harm reduction efforts.

Implementation tactic examples:

- Tactic 7a. Ensure meaningful and equitable engagement of patients, families, and care partners in a variety of roles, including:
    - Serving as representatives on health system and health care organization governing boards and board quality committees
    - Serving on Patient and Family Advisory Councils
    - Serving on quality and safety committees
    - Serving as representatives on quality improvement teams and root cause analysis teams
    - Conducting routine interviewing of patients, families, and care partners after harm occurs
    - Reviewing patient reports and grievances to patient advocacy offices
    - Developing patient-reported safety outcomes measures
- Tactic 7b. Conduct organizational assessments of the availability and effectiveness of patient and family engagement strategies and address any identified gaps.
- Tactic 7c. Ensure that patient and family perspectives and experience data are systematically included in board discussions and planning work.

Recommendation 8. Ensure equitable engagement for all patients, families, and care partners. To ensure the ongoing engagement of patients, families, and care partners in safety, health care leaders must actively and equitably partner with all patients, families, care partners, and relevant community organizations.

Implementation tactic examples:

- Tactic 8a. Provide equitable and appropriate care and services for all patients. Stratify and analyze data to ensure equitable care for underserved populations and to address inequities.
- Tactic 8b. Establish systems to analyze safety data to identify and address gaps related to the social determinants of health, such as being at risk for housing or food insecurity, and to share community resources that can provide support.
- Tactic 8c. Apply practices of equity and trauma-informed care that are contextually appropriate for the unique needs of patients, families, and care partners.

Recommendation 9. Promote a culture of trust and respect for patients, families, and care partners. Health care leaders must ensure that health care professionals and all personnel interact respectfully and transparently with patients, families, and care partners and with each other.

Implementation tactic examples:

- Tactic 9a. Transparently provide information related to the organization's safety and quality performance with patients, families, and care partners during the informed consent process.
- Tactic 9b. Implement and maintain programs for providing appropriate ongoing support in the aftermath of harm. When preventable harm occurs, interview the patient and family and include them, as appropriate, in root cause analysis. Openly and honestly disclose when the standard of care is breached, apologize, address physical and psychological harm, and offer the opportunity to discuss appropriate remedies.
- Tactic 9c. Institute communication and resolution programs for patients, families, and care partners and encourage them to obtain and consult with their own legal counsel. Do not impose or permit gag and confidentiality clauses to be included in post-harm legal agreements with patients, families, and care partners.

Workforce Safety

Aim: Health care organizations across the care continuum implement strategies to measurably and equitably improve safety for health care professionals and all staff in their organizations.

The well-being and physical and psychological safety of the workforce are essential for patient safety. Health care workers who are safe are more likely to think, act, and practice in a safe way.

Recommendations

Commit to workforce physical, psychological, and emotional safety and wellness, and full and equitable support of workers.

Recommendation 10. Implement a systems approach to workforce safety. Ensure that every health care organization across the care continuum has comprehensive workforce safety programs in place. Senior leaders must develop and implement governance and oversight structures to support a systems approach to workforce safety, which includes leadership and engagement, safety management systems, risk reduction, and performance analytics and management.

Learn More

For the full list of implementation tactics and helpful resources, see the Implementation Resource Guide.

Implementation tactic examples:

- Tactic 10a. Educate leaders and governance bodies about the impact of workforce harm and the business case for prioritizing harm reduction.
- Tactic 10b. Develop a workforce safety strategy that aligns with the organizational mission, patient safety goals, responsiveness to workforce safety data, and resource allocation.
- Tactic 10c. Engage managers and staff in preparing standardized job hazard analytics to systematically assess the hazard risks of all job tasks. Risks include ergonomic, chemical, infectious pathogens, assaults, slippery surfaces, and other conditions or activities that could result in injury or illness.

Recommendation 11. Assume accountability for physical and psychological safety and a healthy work environment that fosters the joy of the health care workforce. Organizational governance bodies must ensure that leaders in clinical care and operations across all care settings collaborate and are jointly accountable for the effectiveness of workforce safety programs.

Implementation tactic examples:

- Tactic 11a. Establish a safety system and ensure that key safety practices, including safe patient handling, ergonomics, falls, exposure, violence prevention, and safe sharps practices, are embedded into systems, workflows, practices, and care protocols.
- Tactic 11b. Integrate workforce safety into job descriptions and management practices to role model and practice safety with huddles, rewards and recognition, storytelling, and rounding.
- Tactic 11c. Ensure the engagement of multidisciplinary personnel, including those in occupational health, infection prevention, human resources, security, loss prevention, legal, community services, and organizational development, as well as social scientists, industrial engineers, and infectious disease and human factors experts.

Recommendation 12. Develop, resource, and execute on priority programs that equitably foster and promote workforce safety. Governing bodies and senior leaders must establish and implement programs to prevent all workforce injuries. Special emphasis must be placed on the development of robust programs to prevent the injuries that are most prevalent and impactful, and programs that support psychological safety and joy in work.

Implementation tactic examples:

- Tactic 12a. Implement the following priority programs:
  - Safe patient handling: Review and implement guidance on safe patient handling.
  - Slips/trips/falls prevention: Review and implement guidance from National Institutes of Occupational Safety and Health.
  - Sharps and needlestick injuries
  - Exposures (pathogens, chemicals)
  - Violence prevention: Review and implement guidance related to current regulatory requirements for violence prevention in health care.
  - Psychological safety: Review and implement emerging science and practices related to improving psychological safety, joy in work, and reducing burnout.
- Tactic 12b. Promote worksite wellness behaviors through established national programs.
- Tactic 12c. Adopt metrics and performance dashboards that are reflective of physical and psychological safety and joy in work (e.g., turnover and absentee rates, safety culture ratings, requests to reduce hours, safety culture index, staff suicide rates, likelihood to recommend organization).

Learning System

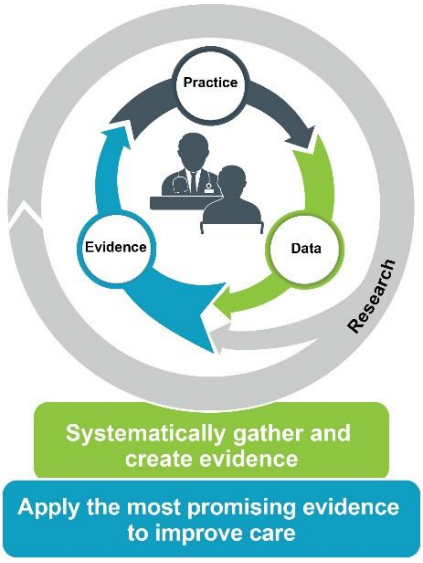
Aim: Health care organizations and other stakeholders across the care continuum implement reliable learning systems. These learning systems actively engage with local, regional, state, or national learning systems to develop a national learning network of existing and future learning systems.

Effective and reliable learning systems promote learning and action on numerous levels and will serve as key mechanisms for supporting the implementation of the recommendations and realizing the potential impact of the National Action Plan.

The Role of a Learning System

Learning systems are established organizational processes that integrate internal and external information, including patient and employee feedback and best practices, while leveraging technology to enable widespread learning and the implementation of changes to improve practices and promote safety. Most importantly, actions to improve practice are tightly and reliably linked with learning in these systems so that each — both learning and action — supports the other.

Learning systems can help improve culture, leadership, and governance; patient and family engagement; and workforce safety, ultimately creating total systems safety and preventing harm for all.



Adapted from AHRQ

Recommendations

Commit to continuous learning within organizations by creating and strengthening internal processes that promote transparency and reliability, and through sharing as part of an integrated learning system and networks.

Learn More

For the full list of implementation tactics and helpful resources, see the Implementation Resource Guide.

Recommendation 13. Facilitate both intra- and inter-organizational learning. All health care organizations must take steps to become collaborative learning organizations by using high-reliability principles, ensuring robust learning feedback loops, and engaging with established local, regional, state, or national learning systems.

Implementation tactic examples:

- Tactic 13a. Ensure that the elimination of risk and harm and sustained levels of safety over time are ultimate strategic goals of the learning system.
- Tactic 13b. Develop and implement processes to systematically learn from safety events, including input from patients, families, care partners, and health care professionals at the point of care. Integrate lessons learned into the process of setting goals and priorities for interventions to improve patient safety.
- Tactic 13c. Ensure that education about the importance and components of effective learning systems, including the appropriate use of data, occurs within and across organizations. Develop systems to engage all staff in continuous learning and use of data. Ensure that staff, health care professionals, managers, and leaders are trained and assessed on the principles and practices of a learning system.

Recommendation 14. Accelerate the development of the best possible safety learning networks. Leaders of existing safety learning networks must engage in the development of a network of networks to identify and increase adoption of best practices so that, working together, all can become the most effective learning networks possible.

Implementation tactic examples:

- Tactic 14a. Develop a national network of existing safety learning networks. Start by inviting leaders of safety learning networks to join with the aim of accelerating the pace of improvement. Through collaboration, existing networks can identify and adopt best practices for learning networks, use data analytics to identify opportunities for improvement, learn from variation across networks to improve all, and support the growth and development of network leaders and infrastructure.
- Tactic 14b. Spread greater awareness of federal and state legal protections to facilitate and accelerate sharing learning about patient safety that can be applied throughout the health care system.

- Tactic 14c. Solicit feedback from patients, families, and care partners, including people in higher risk communities and underserved populations, about what works and what needs improvement.

Recommendation 15. Initiate and develop systems to facilitate interprofessional education and training on safety. Academic institutions, professional educators, and leading patient safety and quality organizations must collaborate to better understand how to improve safety education and training for clinical and administrative staff. These organizations must identify and share openly all best practices on the creation, dissemination, and assessment of safety education and training methods and materials.

Implementation tactic examples:

- Tactic 15a. Create new multidisciplinary learning networks to better understand how to improve safety education and training for clinical and administrative staff. Identify and share best practices on the creation, dissemination, and assessment of education and training methods and materials.
- Tactic 15b. Create standards for safety education for all types of health care professionals and for relevant job descriptions.
- Tactic 15c. Create and evolve ongoing safety education and certification requirements for license renewal for all types of health care professionals.

Recommendation 16. Develop shared goals for safety across the continuum of care. Leaders of health care organizations, employers, and policymakers must collaborate with leaders of safety learning networks to adopt national-level goals to eliminate specific types of harm across the continuum of care, ultimately advancing the development and dissemination of methodologies and processes to improve safety.

Implementation tactic examples:

- Tactic 16a. Establish a national expert group to accomplish the following work:
  - Identify and prioritize specific safety issues for improvement, based on data and information from the providers of care
  - Establish goals
  - Identify data for measurement
  - Determine a means for measurement
  - Set time-bound targets for achieving them
- Tactic 16b. Ensure that this expert group works with the network of networks to share identified goals and partners with existing learning networks in working toward those goals.
  (See Recommendation 14)

Recommendation 17. Expedite industry-wide coordination, collaboration, and cooperation on safety. Modelling leaders in civil aviation, health care leaders representing all stakeholders must actively develop a public-private partnership to use the power of data sharing and cooperative learning to identify and solve the most urgent and emerging patient safety problems.

Implementation tactic examples:

- Tactic 17a. Identify existing partnerships and explore funding options from governmental and non-governmental sources to convene and conduct activities. Model efforts after other industries that have successful public-private partnerships related to safety (e.g., civil aviation, nuclear power).
- Tactic 17b. Seek out and include patient, family, care partner, and community perspectives to inform and guide all activities.

Prioritizing the Research Agenda

As with other domains in health care, an effective relationship between a robust research community and the needs of real-world practice and care delivery can help drive innovation, progress, and the achievement of desired patient outcomes. As we improve safety through the implementation of the recommendations in this National Action Plan, research agendas must continue to evolve and address operationally relevant questions. This new knowledge must be translated and effectively implemented in practice at all levels, from leaders to direct care providers to patients and families.

For the four foundational areas of the National Action Plan, the NSC and the associated subcommittees identified the following priorities for future research where additional evidence is warranted:

Culture, Leadership, and Governance

- Consider tactics for leaders to best balance multiple competing priorities while ensuring that safety is viewed and addressed as a core value.
- Establish the necessary competencies of leadership and governance to ensure effective and equitable impact on safety.
- Analyze gaps and opportunities for leadership and governance development and oversight of crisis standards of care.

Patient and Family Engagement

- Develop successful practices for increasing the input of diverse patients, including developing new tools and methods to meaningfully engage all patient populations and eliminate inequities.
- Establish ways to improve collective understanding and practices for effectively educating the public about safety and avoiding preventable health care harm.
- Determine the impact of physical and nonphysical harms for patients and families, the trajectory of harm, and implications for practice.

Workforce Safety

- Examine the incidence and impact of physical and nonphysical harm, the trajectory of harm, and how to sustainably address and reduce harm and improve joy in work.

- Identify inequities, their impact on physical and psychological workplace safety, and strategies to mitigate them.
- Identify solutions that address and mitigate the impact of traumatic events and crisis on the physical and mental health and well-being of the health care workforce.

Learning System

- Examine the necessary actions and elements for an organization to become a learning organization.
- Consider how to most effectively use learning systems to support operational management of health care organizations, including analysis of the business case for patient safety.
- Evaluate successful practices for rapid learning during conditions that activate contingency or crisis response such as mass casualties, natural disasters, or pandemics.

Research in these areas will help identify and deepen understanding of novel risks and harms, guide implementation work, and maximize the potential for improvement in patient safety.

Creating and Sustaining National Action

This National Action Plan sets bold yet essential aims for safety. By adopting them and working proactively together, the NSC members firmly believe we can create and sustain national action that will make substantial inroads in eliminating preventable health care harm.

Reflecting the NSC's vision to ensure that health care is safe, reliable, and free from harm, this National Action Plan provides clear direction and actions to make significant advances toward total systems safety and the provision of safer care across the continuum of care.

The health care community needs broad and meaningful collaboration and coordination among all stakeholders to improve safety. Every stakeholder can play a part in advancing some or all of the recommendations in the National Action Plan. By planning and investing together, mobilizing resources together, learning together, and sharing lessons learned, we can drive meaningful change and advance the goal of creating the safest health care for patients and those who care for them.

Appendix A: National Steering Committee for Patient Safety Subcommittee Members

Culture, Leadership, and Governance Subcommittee

Co-Chairs

- **Deborah J. Bowen, FACHE, CAE,** President and Chief Executive Officer, American College of Healthcare Executives
- **Sam R. Watson, MSA, MT (ASCP), CPPS,** Senior Vice President, Field Engagement, Michigan Health & Hospital Association

Members

- **Paul W. Abramowitz, PharmD, ScD (Hon), FASHP,** Chief Executive Officer, American Society of Health-System Pharmacists
- **Jay Bhatt, DO, MPH, MPA, FACP,** Former President, Health Research & Educational Trust; Senior Vice President and Chief Medical Officer, American Hospital Association
- **Catherine Carruth, CAE,** Executive Director, American Society for Health Care Human Resources Administration
- **Robert Connors, MD,** President, Helen DeVos Children's Hospital (Retired)
- **Paul L. Epner, MBA, MEd,** Chief Executive Officer and Co-Founder, Society to Improve Diagnosis in Medicine
- **Ernest J. Grant, PhD, RN, FAAN,** President, American Nurses Association
- **Ana Pujols McKee, MD,** Executive Vice President and Chief Medical Officer, The Joint Commission
- **Chris Power,** Chief Executive Officer, Canadian Patient Safety Institute
- **Marty B. Scott, MD, MBA,** Senior Vice President, Chief Quality and Patient Safety Officer, Grady Health System
- **Sara Singer, MBA, PhD,** Professor of Medicine, Stanford University School of Medicine, and Professor of Organizational Behavior (by courtesy), Stanford Graduate School of Business
- **Beth Daley Ullem,** President, Quality and Safety First; Faculty, Institute for Healthcare Improvement
- **Gary Yates, MD,** Partner, Strategic Consulting, Press Ganey Associates

Patient and Family Engagement Subcommittee

Co-Chairs

- **Susan Edgman-Levitan, PA,** Executive Director, John D. Stoeckle Center for Primary Care Innovation, Massachusetts General Hospital
- **Steve Littlejohn, MA, MBA,** Patient and Family Partner

Members

- **Sigall K. Bell, MD,** Associate Professor of Medicine, Harvard Medical School
- **Kate Conrad, FACHE,** Vice President, Delivery System Transformation, Children's Hospital Association
- **Kathy Day, RN,** Patient Safety Advocate, Patient Safety Action Network
- **Lisa Gersema, PharmD, MHA, FASHP,** Residency Program Director, United Hospital
- **Helen Haskell, MA,** President, Mothers Against Medical Error
- **Martin J. Hatlie, JD,** President and CEO, Project Patient Care
- **Daniel Hyman, MD, MMM,** Chief Medical and Patient Safety Officer, Children's Hospital Colorado
- **Susan C. Reinhard, RN, PhD, FAAN,** Senior Vice President and Director, AARP Public Policy Institute
- **Margie Shofer, BSN, MBA,** Director, Patient Safety Program, Center for Quality Improvement and Patient Safety, Agency for Healthcare Research and Quality
- **Deborah Washington, RN, PhD,** Director of Diversity for Nursing and Patient Care Services, Massachusetts General Hospital
- **Donna L. Washington, MD, MPH, FACP,** Director, VHA Office of Health Equity/QUERI National Partnered Evaluation Initiative; Director of Health Services Research, VA Greater Los Angeles Healthcare System Department of Medicine
- **Yanling Yu, PhD,** Co-Founder and President, Washington Advocates for Patient Safety

Workforce Safety Subcommittee

Co-Chairs

- **Kathy Gerwig, MBA,** Retired Vice President, Employee Safety, Health and Wellness, and Environmental Stewardship Officer, Kaiser Permanente
- **Mary Beth Kingston, MSN, RN, NEA-BC,** Chief Nursing Officer, Advocate Aurora Health

Members

- **Marie T. Brown, MD, MACP,** Professor, Rush University
- **Paul W. Bush, PharmD, MBA, FASHP,** Vice President, Global Resource Development and Consulting, American Society of Health-System Pharmacists
- **Stan Cobb,** AVP, Employee Safety and Workers' Compensation, HCA Healthcare
- **Michael J. Hodgson, MD, MPH,** Chief Medical Officer and Director, Occupational Medicine and Nursing, Directorate of Technical Support and Emergency Management, Occupational Safety and Health Administration
- **Linda K. Kenney,** Director of Peer Support Programs, Betsy Lehman Center for Patient Safety
- **Carol Keohane, MS, RN,** Vice President, Quality, Safety and Experience, Kaiser Permanente
- **Kendra McMillan, MPH, RN,** Senior Policy Advisor, American Nurses Association

- **Leslie Porth, PhD, RN,** Senior Vice President of Strategic Quality Initiatives, Missouri Hospital Association
- **Linsey M. Steege, PhD,** Associate Professor and Mary W. and Carl E. Gulbrandsen Chair in Health Informatics and Systems Innovation, School of Nursing, University of Wisconsin–Madison

Learning System Subcommittee

Co-Chairs

- **Regina M. Hoffman, MBA, RN,** Executive Director, Pennsylvania Patient Safety Authority
- **Stephen E. Muething, MD,** Chief Quality Officer, Cincinnati Children's Hospital Medical Center; Strategic Advisor, Children's Hospitals' Solutions for Patient Safety

Members

- **Richard C. Boothman, JD,** Owner, Boothman Consulting Group, LLC; Faculty, University of Michigan and Vanderbilt University
- **Teri Chenot, EdD, MS, MEd, MSN, RN, CCE(ACBE), FNAP, FAAN,** Associate Professor, Keigwin School of Nursing; Department Chair, Healthcare Quality and Safety Programs; Director, QSEN Institute Regional Center at Jacksonville University
- **Paula Distabile, RN, MSN, JD,** Health Scientist Administrator, Agency for Healthcare Research and Quality
- **Rollin J. Fairbanks, MD, MS, FACEP, CPPS,** Vice President, Quality and Safety, MedStar Health
- **Lorri Gibbons, RN, MSHL, CPHQ,** Research Nurse Coordinator, University of South Carolina School of Medicine
- **Thomas Granatir,** Senior Vice President, Policy and External Relations, American Board of Medical Specialties
- **John James, PhD,** Founder and CEO, Patient Safety America
- **Heidi King, MS, FACHE, BCC, CMC, CPPS,** Director, Department of Defense Patient Safety Program
- **Helen Macfie, PharmD, FABC,** System Chief Transformation Officer, MemorialCare; Executive Administrator, MemorialCare Clinically Integrated Network
- **David Mayer, MD,** Executive Director, MedStar Institute for Quality and Safety; CEO, Patient Safety Movement Foundation
- **Sharyl Nass, PhD,** Director of the Board on Health Care Services and Director of the National Cancer Policy Forum, National Academies of Sciences, Engineering, and Medicine
- **Bethany Robertson, DNP, CNM,** Clinical Associate Professor, Nell Hodgson Woodruff School of Nursing, Emory University
- **William R. Scharf, MD,** Director, Corporate Patient Safety, AdventHealth

- **Angela A. Shippy, MD,** SVP, Chief Medical and Quality Officer, Memorial Hermann Health System
- **Kevin B. Weiss, MD, MPH,** Chief Sponsoring Institution and Clinical Learning Environment Officer, Accreditation Council for Graduate Medical Education
- **Ronald Wyatt, MD, MHA,** Vice President and Patient Safety Officer, MCIC Vermont, LLC

Measurement Workgroup

Chair

- **Jeffrey Brady, MD, MPH,** Director, Center for Quality Improvement and Patient Safety, Agency for Healthcare Research and Quality

Members

- **Susan Edgman-Levitan, PA,** Executive Director, John D. Stoeckle Center for Primary Care Innovation, Massachusetts General Hospital
- **Paul L. Epner, MBA, MEd,** Chief Executive Officer and Co-Founder, Society to Improve Diagnosis in Medicine
- **Regina M. Hoffman, MBA, RN,** Executive Director, Pennsylvania Patient Safety Authority
- **Mary Beth Kingston, MSN, RN, NEA-BC,** Chief Nursing Officer, Advocate Aurora Health
- **Scott K. Winiecki, MD,** Supervisory Medical Officer, Safe Use Initiative, Center for Drug Evaluation and Research, US Food and Drug Administration

Appendix B: Glossary of Terms

Patient safety terms used in the National Action Plan are defined below.

- **Adverse event:** An incident that results in harm to a patient that may be physical, social, or psychological; harm incident.
- **Adverse drug event:** An adverse event involving medication use.
- **Care partner:** A person, often a family member or friend, who takes an active role in the care of a patient.
- **Co-design of care:** Active partnering between patients and care providers to reshape care delivery for improved quality, safety, and person-centeredness.
- **Co-production of care:** A collaborative relationship between patients and care providers in which patients are considered experts in their own circumstances rather than passive recipients of care.[21]
- **Error:** Failure to carry out a planned action as intended or application of an incorrect plan. An error is an act of commission (doing something wrong) or omission (failing to do the right thing) that leads to an undesirable outcome or the potential for such an outcome.
- **Governance body:** The board of directors, or in health care organizations without a board, the governing body that convenes to make strategic and operational decisions for the organization.
- **Harm:** Physical or psychological injury, inconvenience, monetary loss, or social impact suffered by a person.
- **Harm incident:** An incident that resulted in harm to a patient.
- **Healthcare-associated harm:** Harm that arises from or is associated with plans or actions taken during the provision of health care rather than due to an underlying disease or injury.
- **Health care organization:** An entity that delivers health care services such as a hospital, health system, free-standing surgical center, clinic, or other ambulatory care setting.
- **Health care disparity:** Racial or ethnic differences in the quality of health care that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention.[22]
- **Health disparity and inequity:** Health disparity is defined as the difference in health outcomes between groups within a population. While the terms may seem interchangeable, they are different. “Health disparity” denotes differences, whether unjust or not. “Health inequity,” on the other hand, denotes differences in health outcomes that are systematic, avoidable, and unjust.[23]
- **Health equity:** To define health equity, we turn to the work of Professor Margaret Whitehead, head of the WHO Collaborating Centre for Policy Research on the Social Determinants of Health. Most countries use the term “inequalities” to refer to socioeconomic differences in health — that is, health differences “which are unnecessary and avoidable but, in addition, are also considered unfair and unjust.” Whitehead goes on to state that, when there is equity in health, “ideally everyone should have a fair opportunity to attain their full health potential and, more

pragmatically, no one should be disadvantaged from achieving this potential, if it can be avoided."[24] This is the definition IHI uses to guide its work on improving health equity.

- **Just culture:** An organizational climate in which "both the organization and its people are held accountable while focusing on risk, systems design, human behavior, and patient safety… [balancing] the need for an open and honest reporting environment with the end of a quality learning environment and culture."[25]
- **Leader:** Any individual in a leadership role within an organization, regardless of job title.
- **Leadership:** The action of leading a group of people or an organization.
- **Learning network:** A regional or national organization that helps form local learning systems into a trusted social network designed to achieve a common goal. Together, they relentlessly improve in a continuous cycle by sharing data and information via multiple modes and converting the shared insights into actionable knowledge through collaborative improvement efforts.
- **Learning system:** A learning health system integrates internal and external information, including safety data, best practices, and patient and employee feedback while leveraging technology to generate change ideas, test those changes, and either implement or amend the changes as necessary to improve the safety of both patients and employees. Key characteristics of a learning health system include a pioneering spirit, leadership engagement and commitment to learning and improvement, inclusion of patients and frontline employees in the learning and improvement process, a culture that supports transparency and process change to improve safety, and active engagement in a regional or national learning system if one is available.
- **Patient:** A person receiving care within the health care system.
- **Person- and family-centered care:** Putting people and communities, not diseases, at the center of health systems, and empowering people to take charge of their own health rather than being passive recipients of services.[26]
- **Preventable harm:** A harm that is accepted by the relevant community as being avoidable in the particular set of circumstances that occurred.
- **Senior leader:** An individual within an organization who has decision-making responsibility for strategy and operations at the organizational level, often with a C-suite title (e.g., CEO, executive leader, clinical or administrative leaders, practice owner).
- **Total systems safety:** Safety principles that are systematic and uniformly applied (across the total process).[27]

Appendix C: Subcommittee Methodology

To embark on the development of the National Action Plan to Advance Patient Safety, at the inaugural in-person meeting, National Steering Committee (NSC) members reviewed the state of patient safety and the importance of foundational areas in safety, and then discussed a broad range of potential areas to channel collective efforts.

The NSC members then conducted a prioritization exercise to identify the top four areas of focus for the National Action Plan. The NSC created four interdisciplinary subcommittees of subject matter experts as well as patient and family representatives for the four foundational areas of the National Action Plan:

- Culture, Leadership, and Governance
- Patient and Family Engagement
- Workforce Safety
- Learning System

All subcommittees, as well as the NSC as a whole, considered three cross-cutting themes in their work, which were thought to be integral to the four foundational areas and recommendations:

- Person-centered care
- Care across the entire continuum
- The relationship between patient safety and health equity

The subcommittees identified key issues and needs and developed recommendations, tactics, and suggested resources for implementation and measurement of the recommendations. Recommendations were based on peer-reviewed published literature wherever possible or best practices when no such evidence existed at the time of consideration. The subcommittees met monthly over the course of 18 months and reported back to the NSC at regular intervals. The resulting recommendations and measurement strategies were refined through ongoing collaboration between the NSC and subcommittee members.

Appendix D: Measurement Guidance

Guiding Principles for Measuring Patient Safety

The NSC, along with its Measurement Workgroup, recognizes that there are several existing patient safety measurement systems and approaches that have immediate applicability in support of the National Action Plan. The process of considering a measurement approach for the NAP was substantially influenced by an international collaboration in 2019 to develop the *Salzburg Statement on Moving Measurement into Action: Global Principles for Measuring Patient Safety*.[28]

The Salzburg Statement identifies eight global principles for measuring patient safety, and recommends incorporation of these principles into existing and new tools to evaluate patient safety.

1. The purpose of measurement is to collect and disseminate knowledge that results in action and improvement.
2. Effective measurement requires the full involvement of patients, families, and communities within and across the health system.
3. Safety measurement must advance equity.
4. Selected measures must illuminate an integrated view of the health system across the continuum of care and the entire trajectory of the patient's health journey.
5. Data should be collected and analyzed in real time to proactively identify and prevent harm as often as possible.
6. Measurement systems, evidence, and practices must continuously evolve and adapt.
7. The burden of measures collected and analyzed must be reduced.
8. Stakeholders must intentionally foster a culture that is safe and just to fully optimize the value of measurement.

The Salzburg Statement cites the importance of standardization, asserting that to turn the tide, "the safety field needs to establish standard measures that span the entire care continuum. Processes and tools also need to be developed to identify risks and manage hazards proactively. Once standard measures are in place throughout the care continuum, the focus must be on further innovation and improvement."

As stakeholders engage with patient safety measurement and the recommendations in the NAP more broadly, the NSC also appreciates the value of setting targets for national performance as another associated activity to help drive improvement. This activity was judged to be most effective at a point in time when a sufficient proportion of stakeholders have engaged with the NAP and can further engage, coordinate, and collaborate to achieve feasible targets for performance. At that point, it will be more meaningful for the broader, engaged community to contribute to setting appropriate targets that are guided and informed by that engagement.

Measure Purposes and Types

The NSC considered a simple organizational scheme to describe various purposes and types of measures in relation to the National Action Plan.

Measure Purposes

- Track performance with respect to the NSC's vision to ensure that health care is safe, reliable, and free from harm
  - National performance
  - Performance at other levels (e.g., local, system, state)
- Evaluate the function and contribution of the National Action Plan
  - Measures such as the number of engaged stakeholders fit here

Ultimately, stakeholders care most about outcomes that reflect patient safety. However, patient safety improvement efforts to date have repeatedly confirmed the complexity of health care and the information that's often necessary to sufficiently understand and improve it. Our hope is that this background and the specific measures that follow will serve the important functions of supporting NAP recommendations and the overarching goals of harm reduction.

Types of Measures

Impact Measures and Harm Indicators: Some measures or metrics represent the outcomes that are most closely associated with the NSC's vision of harm-free health care, including not only a reduction in harm, but also an improvement in patient engagement and safety culture. These outcomes, such as a reduction in deaths and other measures of harm resulting from patient or workforce safety events, are the ultimate objective of the NAP.

Some national performance measures that can be used for such indicators include:

- Hospital-Acquired Condition Measures, part of the Centers for Medicare & Medicaid Services Hospital-Acquired Condition Reduction Program (HACRP)[29]
- Consumer Assessment of Healthcare Providers & Systems (CAHPS) Surveys[30]
- Agency for Healthcare Research and Quality (AHRQ) Surveys on Patient Safety Culture, part of SOPS Database Benchmarking Reports[31]
- Occupational Safety and Health Administration Recordable Events[32]

Measures of Capability and Competency: Other measures that align with recommendations in the NAP represent organizational capabilities and competencies that the NSC prioritized for action based on the relevance of these capabilities to improving patient safety. Often these include structural or process measures that represent important factors for patient safety improvement. The NSC Measurement Workgroup also collaborated to create a Self-Assessment Tool in conjunction with the NAP that serves as a

guide to assess an organization's current state of patient safety efforts and can also be used to assess progress over time.

Key Indicators or Proxy Measures: The subcommittee also identified the potential use of key indicators or proxy measures as "themes" to represent important associated topics among the full array of patient safety threats. These proxy measures, in some cases, better represent and may help serve the overarching objective of preventing harm. Examples include:

- Nurse-patient communications in CAHPS Surveys
- Supervisor/manager expectations and actions promoting patient safety in the AHRQ Hospital Survey on Patient Safety Culture

Future Considerations: Ongoing Improvement of Measurement Capability

The NSC appreciates the limitations of current measurement capabilities and envisions ongoing, robust activities that will rapidly expand and evolve patient safety measurement. This work will be required in order to fully implement the NAP, fill measurement gaps, and more completely address stakeholder needs.

The importance of a dynamically active measurement enterprise was described in the Salzburg Statement: "Measurement systems, evidence, and practices must continuously evolve and adapt. New technology and best practices should be adopted to make measurement simple, modern, and consistently relevant within changing systems of care. Measures and methods should be selected to include both quantitative and qualitative data that is applicable to the specific context in which care is provided."[33]

The NSC Measurement Workgroup has discussed diagnostic safety events and workforce safety events as examples of emerging topics and threats to patient safety, for which additional measure development is needed. New measures in these and other areas are needed to track and drive progress with patient safety improvement.

Therefore, while a "full and complete measurement plan" was beyond the scope of the NSC's work prior to release of the NAP, measurement was a recurring consideration throughout development of the NAP, and the NSC and its subcommittees identified several measurement opportunities and needs. Some questions to consider as we move forward to assess the overall impact of the NAP are:

- What other measures are needed to reflect a more comprehensive view of harm?
- What is the pace of implementation of new measures?

Ultimately, both activities — the immediate use of available measurement capabilities and intentional efforts to fill measurement gaps — need to be pursued in order to fully support the NAP's vision to ensure that health care is safe, reliable, and free of harm.

References

[1] Institute of Medicine. Committee on Quality of Health Care in America; Kohn LT, Corrigan JM, Donaldson MS (eds). *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academies Press; 2000.

[2] Institute for Healthcare Improvement / National Patient Safety Foundation. *Free from Harm: Accelerating Patient Safety Improvement Fifteen Years after To Err Is Human*. Boston: Institute for Healthcare Improvement; 2015. http://www.ihi.org/resources/Pages/Publications/Free-from-Harm-Accelerating-Patient-Safety-Improvement.aspx

[3] Pronovost P, Ravitz A, Stoll R, Kennedy S. *Transforming Patient Safety: A Sector-wide Systems Approach*. Report of the Wish Patient Safety Forum; 2015. https://www.wish.org.qa/wp-content/uploads/2018/01/WISH_PatientSafety_Forum_08.01.15_WEB-1.pdf

[4] Makary MA, Daniel M. Medical error — the third leading cause of death in the US. *British Medical Journal*. 2016;353:i2139.

[5] Ottosen MJ, Sedlock EW, Aigbe AO, Bell SK, Gallagher TH, Thomas EJ. Long-term impacts faced by patients and families after harmful healthcare events. *Journal of Patient Safety*. 2018 Jan 17;10.1097/PTS.0000000000000451. [Online ahead of print]

[6] Sokol-Hessner L, Folcarelli PH, Sands KE. Emotional harm from disrespect: The neglected preventable harm. *BMJ Quality and Safety*. 2015;24(9):550-553.

[7] Gandhi, TK, Feeley D, Schummers D. Zero harm in health care: How a comprehensive systems-focused approach can help to prevent all types of harm in health care. *NEJM Catalyst Innovations in Care Delivery*. 2020 Mar/Apr;1(2). https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1137

[8] Institute of Medicine. Committee on Quality of Health Care in America; Kohn LT, Corrigan JM, Donaldson MS (eds). *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academies Press; 2000.

[9] Institute for Healthcare Improvement / National Patient Safety Foundation. *Free from Harm: Accelerating Patient Safety Improvement Fifteen Years after To Err Is Human*. Boston: Institute for Healthcare Improvement; 2015.

[10] Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. *New England Journal of Medicine*. 2006;355(26):2725-2732.

[11] Urbach DR, Govindarajan A, Saskin R, Wilton AS, Baxter NN. Introduction of surgical safety checklists in Ontario, Canada. *New England Journal of Medicine*. 2014;370:1029-1038.

[12] "Call to Action: Preventable Health Care Harm Is a Public Health Crisis and Patient Safety Requires a Coordinated Public Health Response." Boston: Institute for Healthcare Improvement; 2017. http://www.ihi.org/Engage/Initiatives/National-Steering-Committee-Patient-Safety/Documents/IHI_NPSF_Call_to_Action.pdf

[13] Institute for Healthcare Improvement / National Patient Safety Foundation. *Free from Harm: Accelerating Patient Safety Improvement Fifteen Years after To Err Is Human*. Boston: Institute for Healthcare Improvement; 2015.

[14] Pronovost P, Ravitz A, Stoll R, Kennedy S. *Transforming Patient Safety: A Sector-wide Systems Approach*. Report of the Wish Patient Safety Forum; 2015.

[15] Lucian Leape Institute. *Through the Eyes of the Workforce: Creating Joy, Meaning, and Safer Health Care*. Boston: National Patient Safety Foundation; 2013. http://www.ihi.org/resources/Pages/Publications/Through-the-Eyes-of-the-Workforce-Creating-Joy-Meaning-and-Safer-Health-Care.aspx

[16] Institute of Medicine. Committee on Quality of Health Care in America; Kohn LT, Corrigan JM, Donaldson MS (eds). *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academies Press; 2000.

[17] Health Equity. Institute for Healthcare Improvement. http://www.ihi.org/Topics/Health-Equity/Pages/default.aspx

[18] Sivashanker K, Gandhi TK. Advancing safety and equity together. *New England Journal of Medicine*. 2020;382(4):301-303.

[19] National Steering Committee for Patient Safety. *Self-Assessment Tool: A National Action Plan to Advance Patient Safety*. Boston: Institute for Healthcare Improvement; 2020. http://www.ihi.org/SafetyActionPlan

[20] National Steering Committee for Patient Safety. *Implementation Resource Guide: A National Action Plan to Advance Patient Safety*. Boston: Institute for Healthcare Improvement; 2020. http://www.ihi.org/SafetyActionPlan

[21] Realpe A, Wallace LM. *What Is Co-Production?* The Health Foundation; 2010. https://improve.bmj.com/sites/default/files/resources/what_is_co-production.pdf

[22] Institute of Medicine; Smedley BD, Stith AY, Nelson AR (eds). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: National Academies Press; 2003.

[23] Wyatt R, Laderman M, Botwinick L, Mate K, Whittington J. *Achieving Health Equity: A Guide for Health Care Organizations*. IHI White Paper. Cambridge, MA: Institute for Healthcare Improvement; 2016. http://www.ihi.org/resources/Pages/IHIWhitePapers/Achieving-Health-Equity.aspx

[24] Whitehead M, Dahlgren G. *Concepts and Principles for Tackling Social Inequities in Health: Levelling Up, Part 1*. World Health Organization, Regional Office for Europe; 2006. www.euro.who.int/__data/assets/pdf_file/0010/74737/E89383.pdf

[25] Boysen PG 2nd. Just culture: A foundation for balanced accountability and patient safety. *Ochsner Journal*. 2013;13(3):400-406.

[26] What Are Integrated People-Centred Health Services? World Health Organization. https://www.who.int/servicedeliverysafety/areas/people-centred-care/ipchs-what/en/

[27] Pronovost P, Ravitz A, Stoll R, Kennedy S. *Transforming Patient Safety: A Sector-wide Systems Approach*. Report of the Wish Patient Safety Forum; 2015.

[28] "Statement: Salzburg Global Fellows Design New Global Principles for Measuring Patient Safety." Salzburg Global Seminar. December 9, 2019. https://www.salzburgglobal.org/news/statements/article/salzburg-global-fellows-design-new-global-principles-for-measuring-patient-safety.html

[29] Hospital-Acquired Condition (HAC) Reduction Program. Centers for Medicare & Medicaid Services. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/HAC/Hospital-Acquired-Conditions

[30] Consumer Assessment of Healthcare Providers & Systems (CAHPS). Centers for Medicare & Medicaid Services. https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS

[31] Surveys on Patient Safety Culture™ (SOPS®). Agency for Healthcare Research and Quality. https://www.ahrq.gov/sops/index.html

[32] OSHA Injury and Illness Recordkeeping and Reporting Requirements. Occupational Safety and Health Administration. https://www.osha.gov/recordkeeping/

[33] *The Salzburg Statement on Moving Measurement into Action: Global Principles for Measuring Patient Safety*. Institute for Healthcare Improvement and Salzburg Global Seminar; 2019. https://www.salzburgglobal.org/fileadmin/user_upload/Documents/2010-2019/2019/Session_622/SalzburgGlobal_Statement_622_Patient_Safety_01.pdf