# Roadmap to Health Care Safety for Massachusetts

APRIL 2023

BETSY LEHMAN CENTER for Patient Safety

MASSACHUSETTS HEALTH CARE SAFETY & QUALITY CONSORTIUM


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## PREFACE AND ACKNOWLEDGMENTS

### ABOUT THE CONSORTIUM

The Massachusetts Health Care Safety and Quality Consortium is an unprecedented public-private undertaking that recognizes the potential for major breakthroughs in reducing preventable harm through a sustained multi-stakeholder effort to drive transformative, systemic change. The Consortium draws upon the deep expertise of the Commonwealth's health care community, bringing together over 35 organizations, including providers, patients, government agencies, and others, who play a role in the delivery, payment, or oversight of health care.

Recognizing Massachusetts' long history of successful collaboration and leadership around urgent health policy issues, the Consortium's first decision was to set a bold aim: a health care system in which providers — in partnership with patients, policymakers, payers and other experts — continuously strive to eliminate preventable patient harm and improve the safety of staff in and across all settings where care is delivered in the Commonwealth.

The *Roadmap to Health Care Safety for Massachusetts* outlines a set of goals and specific strategies and action steps to propel investment and improvement across the Commonwealth's health care continuum. Its purpose is to guide and sustain progress toward these goals over time. Like any strategic plan, it will help stakeholders set priorities, invest in high-impact initiatives, and avoid low-yield distractions.

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The *Roadmap* is a product of thousands of hours of work on the part of Consortium members and more than 115 individuals who contributed their knowledge and expertise to the Consortium's four task forces. Task force members met regularly and in a series of smaller work groups to review existing literature on patient safety topics, deliberate on strategies, identify resources and lay out a series of potential action steps that will help Massachusetts meet the *Roadmap*'s five ambitious goals.

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*An asterisk denotes a former representative on one of the Task Forces or the Massachusetts Health Care Safety and Quality Consortium who contributed to the development of the *Roadmap to Health Care Safety,* but has since moved on in role or organization.

## TABLE OF CONTENTS

# I. BACKGROUND

## THE PERSISTENT CHALLENGE OF ELIMINATING PREVENTABLE HARM IN HEALTH CARE

In recent decades, the United States health care system has made unprecedented strides in improving and extending the lives of patients through research and innovation. These achievements, however, have been accompanied by forces that have made health care delivery more complex, time-pressured, insufficiently coordinated, and, ultimately, more prone to error.

Betsy Lehman's death from an overdose of chemotherapy at a leading Massachusetts hospital[1] and the publication of seminal research revealing the high incidence of preventable medical harm events in the early 1990s[2,3] combined to catalyze a national movement to improve patient safety.[4]

Since then, considerable gains have been made, particularly by hospitals[5] whose leaders have established cultures of safety and invested in processes and structures known to support safe operations.[6,7] Because of these efforts, we now have a much better understanding of how to reduce risks of harm and have amassed a body of evidence-informed approaches for improving certain safety outcomes.[8,9]

Yet despite more than two decades of work to improve safety at the state, national, and international levels — much of it led by institutions and experts based in Massachusetts — efforts are stalled.[10] Health care across the entire continuum of care is still not nearly as safe as it could be.[11,12]

Massachusetts has a long history of breakthroughs on intractable health system challenges. Through public-private partnership, we are well positioned to chart a new course by leveraging proven strategies that will advance not only safety but also progress on other priorities, including health equity, workforce well-being, improved patient experience, and operational efficiencies that reduce delays in patient care and lower costs.

### WHAT DO WE MEAN BY HEALTH CARE SAFETY?

- Enabling conditions that foster safe practices and prevent harm to tens of thousands of people each year across the Massachusetts continuum of care
- Eliminating disparities in safety outcomes, including those related to race, ethnicity, age, disability, sex, and gender

## THE CURRENT HEALTH CARE SAFETY LANDSCAPE IN MASSACHUSETTS

Insufficient data makes it impossible to get a clear view of the incidence of preventable harm events, the main contributors to those events, and what progress provider organizations and others are making to reduce the risk of harm.[13] Here is what we do know:

- Research by the Betsy Lehman Center, shortly before the start of the COVID-19 pandemic, identified almost 62,000 cases of preventable harm to Massachusetts patients in a single year. These incidents resulted in over $617 million in excess health insurance claims — over one percent of total health care spending that year.[14] They occurred in health care settings across the state's continuum of care, demonstrating that unsafe care is not confined to particular settings and that it is not a problem that can be solved by weeding out individual "bad apples."
- Concurrent research by the Center revealed that at least 1 in 5 Massachusetts residents had experienced a medical error in their own care or in the care of a household or close family member in the previous five years. Many of these events exacted long-lasting physical, emotional, and financial tolls, including loss of trust in health care providers and avoidance of health care.[15]
- A recently published study of 11 Massachusetts hospitals using 2018 data found that 7 percent of patient admissions involved a preventable adverse event.[16]
- Disparities in safety outcomes based on race, ethnicity, age, disability, sex, gender, and more are well documented.[17,18] Today, no patient — no matter how well-informed or -resourced — is free from the risk of preventable harm. But, as is the case nationally,[19] whenever data are available, they almost always show worse health care safety outcomes among historically underserved and underrepresented populations.[20,21]
- Health care workers experience the highest rates of injuries from workplace violence of any occupation,[22] and incidents of assault, verbal abuse, and threats have consistently risen since 2020.[23] They also are at risk of workplace injuries from clinical and nonclinical job duties such as manually lifting and transferring patients and handling hazardous materials.[24,25]

## IMPACT OF THE PANDEMIC ON HEALTH CARE SAFETY

Although the challenges of delivering reliably safe health care long predate COVID-19, the pandemic has exacerbated preexisting weaknesses in the culture and operations of provider organizations across the care

continuum.[26] In the years leading up to the pandemic, progress had been made in the reduction of certain preventable patient harm events, particularly health care-associated infections targeted by government pay-for-performance programs.[27] However, the more recent erosion of many of these gains[28] underscores the need for continuous attention to safety culture and resilient infrastructures.[29]

Increased workplace stress and violence during the pandemic also have had deleterious effects on the Massachusetts health care workforce. A recent state study documents a vicious cycle in which difficult working conditions have led to premature nurse departures from hospital employment, resulting in staffing shortages and disruptions that worsen continuity of care[30] — a known contributor to patient harm events.[31,32] Low levels of workforce well-being and high levels of burnout are associated with poor patient safety outcomes, including medical errors.[33,34]

Hospitals are where most of the attention and progress on safety has been to date. Yet as more care shifts from hospitals to ambulatory and long-term care settings — including people's homes — evidence points to specific risks[35,36] and a growing incidence of serious harm events in locations that have less experience and capacity to recognize and address the risks.[37,38]

## II. THE ROAD AHEAD

### WHAT'S HOLDING BACK PROGRESS ON HEALTH CARE SAFETY?

The availability of proven approaches for improving safety culture and operations means that there is now enormous potential for progress not only on health care safety but also on other organizational and statewide health care priorities that will benefit from these interventions. To achieve these gains, however, Massachusetts will need to address a combination of low awareness and expectations, implementation and change management hurdles, and misaligned incentives.

The preventable harm events suffered by tens of thousands of Massachusetts patients and health care workers each year rarely become known to anyone beyond the immediate circles of those directly involved. Low visibility has led to a widespread belief that these are isolated incidents that can be addressed through the medical malpractice system or that they are simply random, unavoidable byproducts of health care. Most people reasonably assume that essential safeguards already are in place and are unaware of the weak points in safety culture and operations behind many harm events.[39,40]

Low awareness and expectations are two reasons why health care safety has not made it to the top of the list of priorities for most providers, payers, and policymakers. But beyond vision and attention, the work that leaders must do to change their organizations' culture and operations to enable continuous improvement is not easy, and improvement within organizations without the right contextual support is unlikely to succeed.[41] Resources such as technical assistance and collaborative peer learning activities, among other implementation components, have been shown to help organizations operationalize improvements — and get better results[42,43] — but they are not widely available.

Finally, our payment and regulatory incentive structures do not consistently promote accountability for safety across the continuum of care.

### WHAT WILL IT TAKE TO BREAK THROUGH?

It is said that "everyone plays a role in safety" within health care provider organizations. Big gains will require sustained, collective action at the state level, with many critical roles to be played beyond the walls of those organizations.

Only those who deliver health care services can implement the safety improvements needed. But payers and policymakers can both allocate resources to support providers and better align incentives with safety goals. They can fund or sponsor technical assistance programs, collaborative peer learning opportunities, and other resources to support provider organizations in building safety culture and implementing continuous improvement systems that engage all staff in seeing and solving problems as part of their daily work. They can recognize and reward provider organization investments and performance on safety as they do on other priorities like cost containment, improvement on key quality metrics, patient experience, and health equity. They also can establish accountability structures for safety through safety education standards as well as better-designed and appropriately resourced state systems for measurement and transparency.

In addition, patients and families are reliable, but underutilized, observers of safety risks and errors.[44] With support from their health care teams, patients and families representing the diversity of the communities served by provider organizations can contribute to the work of safety improvement.[45]

## THE TIME IS RIGHT FOR MASSACHUSETTS TO TAKE BOLD ACTION ON SAFETY

Given the pressures on the health care system exacerbated by the pandemic, the time is right to put safety on the Massachusetts health policy agenda.

Safety improvement can be a gateway to workforce well-being and retention, positive patient experience, equity, operational excellence, and quality. The capacities that provider organizations need to deliver reliably safe care are identical to the human and operational capacities they need to succeed on these other priorities and include:

- High-functioning teams that have the awareness, training, and psychological safety they need to carry out their respective roles;
- Timely, actionable information about performance from diverse sources, including those on the frontlines — clinicians and staff, and patients and families;
- Operational capacity to routinely and continuously recognize and solve problems; and
- Leadership committed to engaging frontline staff and patients in the work within a culture of safety.

With respect to workforce burnout and attrition, those problems will not be solved until provider organizations and their leaders address both the human and operational dimensions of health care safety. Frontline workers do not quit health care because the work is hard. Some cite the moral distress that comes from an inability to do their jobs the way they should be done. This disconnect stems from low value administrative burdens and the sense that they have little input or influence over workplace culture and structures.[46]

### The Human and Operational Drivers of Health Care Safety


## MASSACHUSETTS CAN LEAD THE WAY

The following *Roadmap to Health Care Safety* takes to the next level the learnings from over two decades of pioneering work. It defines a set of goals, strategies, and action steps to support and motivate progress through:

- Public-private investment in a coordinated set of learning resources and tools to help provider organizations implement and sustain appropriately scaled continuous improvement systems that prevent harm through routine identification and action on safety issues; and
- Accountability structures that, through measurement and transparency, incentivize leaders of provider organizations to prioritize and act upon safety and reward them when they do.

Real progress will require all Massachusetts health care provider organizations to rethink not only the fundamentals of their care delivery models, but how they prioritize safety for their patients, clinicians, and staff. It also will require a sustained and coordinated statewide policy approach that encourages provider initiative on safety, holds health care leaders accountable, and supports patients, families, clinicians, and staff in preventing and responding appropriately to harm events.

## III. *ROADMAP TO HEALTH CARE SAFETY FOR MASSACHUSETTS*

The *Roadmap to Health Care Safety* is a statewide strategic plan that sets forth a vision and goals to propel investment, action, and transformative change on safety across the Commonwealth's health care continuum. Like any strategic plan, the *Roadmap* helps Massachusetts set priorities, invest in high-impact initiatives, and avoid low-yield distractions. It also aligns the state's work with promising initiatives and resources beyond our borders, including the *National Action Plan to Advance Patient Safety*.[47]

### APPROACH AND THEORY OF CHANGE

The *Roadmap* lays out a long-term, phased approach aimed at breaking through the barriers that have stood in the way of progress for decades. It recognizes that everyone plays a role in health care safety, and that health care settings across the state's continuum of care must prioritize safety as a core value and act to operationalize it, supported by appropriate resources and incentives from payers and policymakers.

The *Roadmap*'s goals, strategies, and action steps are aligned with three dimensions of change:

**Inform:** Build essential awareness, knowledge, and skills to enable everyone to recognize and fulfill their roles in health care safety

**Why** Leaders, managers, and frontline staff need a shared understanding of the foundations of safety to work as a team

**Implement:** Provide tools, peer learning opportunities, and other resources to support provider organizations in advancing safety

**Why** Knowledge alone is not enough to build a safety culture and improve outcomes

**Incentivize:** Motivate everyone to prioritize and invest in safety improvement with particular focus on those in leadership roles

**Why** Accountability structures and incentives that reward leadership engagement will accelerate change

The *Roadmap* is structured around five statewide goals related to:

1. Leadership and Culture
2. Operations and Engagement
3. Patient and Family Support
4. Workforce Well-being
5. Measurement and Transparency

Associated with each goal are strategies to drive steady progress. The Consortium and its task forces deliberated on an array of specific action steps for executing these strategies, taking into account the wide variations in complexity, readiness, and other characteristics and capacities of diverse provider organizations. Tactical, programmatic, and policy approaches to achieve these strategies will be shared separately and will iterate as the work progresses.

### GUIDING PRINCIPLES

*Roadmap* strategies and actions will:

1. Move the health care system toward a mindset of zero tolerance for defects that can result in physical or emotional harm to patients, families, and staff;
2. Support approaches to continuous, proactive safety improvement that break down silos and enable all stakeholders to carry out their respective roles;
3. Promote a "just culture" by adopting a fair and consistent approach to safety improvement that fosters psychological safety in the health care workforce and holds leadership accountable for breakdowns and shortfalls;
4. Advance health equity through the elimination of disparities in safety and quality outcomes on the basis of race, ethnicity, age, disability, sex, gender, language, and economic factors;
5. Encourage an approach to health care and safety that maximizes the benefits of co-production, recognizing that patients and families provide expertise essential to person-centered care;
6. Reduce low-value administrative burdens; and
7. Remove all forms of waste from work, making it easier to do the right thing.

# GOAL 1: Leadership and Culture

**All leaders of health care provider organizations across the continuum of care make safety a core value and enduring priority, continuously act to advance safety culture and operations, and are accountable for safety performance.**

## WHY THIS IS IMPORTANT

All provider organizations have leaders — from the owners of small office practices and clinics to the chief executive officers and board members of large hospitals — who set the priorities, drive the culture, and are ultimately responsible for safety outcomes at their organizations.[48] Reliably safe health care will be realized only when all leaders embrace safety as a preeminent core value and make it an enduring priority visible in everyday operations and interactions at the highest level of an organization's leadership.[49]

This goal is rooted in evidence that provider organizations whose leaders demonstrate a commitment to safety perform better on measures of safety and quality than their peers.[50,51]

## CHALLENGES

Leadership proficiency and engagement in health care safety varies across the continuum of care, and the role of governing bodies, executive leaders, and practice owners in fostering a culture of safety is not consistently understood or practiced.

For provider organizations with governing bodies, board members may not be aware of their role on safety or have what they need to assess safety performance and oversee improvement.

Change management is difficult work that requires leaders to simultaneously address the human and operational drivers of safety improvement. During this period of pandemic recovery, leaders are being called upon to address an array of challenges, including workforce staffing issues, that demand new thinking and approaches.

## STRATEGIES

**1.1** Increase the proficiency of board members, executive leaders, and owners on leading and sustaining safety culture and continuous improvement systems through curricula, peer learning opportunities, toolkits, and other resources.

**1.2** Establish educational standards on safety for leaders and governing bodies.

**1.3** Recognize board members, executive leaders, and owners who achieve high levels of competence and commitment to safety for patients, families, and the workforce.

**1.4** Reward exemplary performance and progress on continuous safety improvement through reduced liability insurance premiums and higher reimbursement rates.

## WHAT SUCCESS LOOKS LIKE

Leaders and governing bodies of Massachusetts health care provider organizations across the care continuum:

- Study, understand and embrace safety principles, systems thinking, and improvement science.
- Strive to eliminate preventable harm to their patients, clinicians and staff.
- Stay informed about their own organization's safety performance.
- Model and reward behaviors that advance safety culture, operations, and outcomes.
- Regularly communicate and demonstrate leadership support for the organization's safety goals to all staff.
- Foster psychological safety and a fair and just culture, eliminating fear that staff will be treated unfairly for speaking up about safety events or risks.
- Actively support and facilitate patient and family participation in safety improvement initiatives.
- Allocate adequate resources to support and sustain safety improvement.
- Ensure that their organizations are fulfilling their safety reporting and transparency obligations.
- Are accountable for organizational expectations and results.

## SAFETY CULTURE

A strong safety culture enables an organization to anticipate, detect, and mitigate risks to prevent staff and patient harm and to learn from adverse events when they do happen. It is achieved only through the unequivocal commitment of the organization's leadership, a commitment that is modeled consistently and permeates the organization at every level.

Massachusetts Health Care Safety and Quality Consortium members deliberated extensively on the hallmarks of provider organizations with strong safety cultures and determined that such organizations:

1. Prioritize safety by:
   - Identifying patient and staff safety as a preeminent core value
   - Communicating and demonstrating the primacy of safety through the actions of their leaders
2. Acknowledge the high-risk nature of their organization's work by:
   - Recognizing the potential for human error and its contributing factors, including cognitive biases
   - Anticipating the potential for harm
   - Maintaining a "preoccupation with failure"[52]
3. Strive toward consistently safe operations by:
   - Adopting and adhering to known safety principles
   - Promoting structured and effective communication among team members
   - Proactively addressing structural or systems issues that contribute to errors and events with safety implications
   - Engaging all staff in seeking solutions to patient safety risks and in continuous process improvement to address those risks
   - Committing sufficient resources to support and accelerate safety improvement
4. Foster psychological safety and a fair and just culture by:
   - Acknowledging that ultimate accountability for organizational culture, systems, and processes necessary to prevent adverse events or near misses rests with organizational leaders
   - Ensuring that clinicians and staff are trained and supported in carrying out safety protocols and policies, are backed up when they raise safety concerns, and are held to appropriate and proportionate levels of accountability if they engage in unsafe behaviors
   - Instituting programs and incentives to formally recognize and reward transparency and other behaviors that improve safety
5. Put patients first by:
   - Including patient and family representatives in meaningful positions in governance structures
   - Facilitating and encouraging the reporting of adverse events, near misses, and other safety concerns by patients and families, and responding in a timely and appropriate manner with promised follow-up and action
   - Recognizing that patient choice and person-centered care are important values that should be taken into account while maintaining a safe environment for all patients and staff
6. Monitor and learn from their safety performance and progress by:
   - Maintaining robust, efficient systems for assessing risk and supporting continuous improvement that collect, analyze, and share feedback on internal reporting of near misses, adverse events, and safety concerns by clinicians, staff, patients, and families
   - Regularly assessing and improving safety culture
   - Identifying disparities in safety outcomes among vulnerable patient populations (e.g., race, ethnicity, age, disability, sex, gender, language, and economic factors), and prioritizing and taking steps to promote equity
7. Embrace transparency by:
   - Communicating openly with patients and families and clinicians and staff about safety issues on a routine basis and after an adverse event
   - Regularly sharing patient and staff safety data and analyses with their own governing bodies
   - Complying with mandated safety/quality reporting to regulatory agencies and payers

# GOAL 2: Operations and Engagement

**All provider organizations have systems in place that enable leaders, managers, clinicians, and staff to continuously identify safety issues, resolve problems, integrate their operations with safety strategy and plans, and engage patients and families as partners in the work.**

## WHY THIS IS IMPORTANT

Health care providers in all care settings face persistent and emerging risks to safety. While some provider organizations excel at discrete aspects of safety, few have developed the operational capacity to routinely and proactively identify and address safety risks as they arise and to engage frontline staff and patients in improvement.

To be sustainable, the work of safety improvement must be woven into routine operations and integrated with other organizational priorities such as patient experience, health equity, workforce well-being, and operational effectiveness.

Progress on these interrelated priorities comes together through right-sized Continuous Improvement Systems that remove unnecessary tasks from workflows, promote teamwork and innovation, and activate staff to "see and say" concerns about operations and culture, "solve" problems, and "spread" solutions.

Everyone in a provider organization plays a role in safety[53,54] but needs a shared understanding of safety culture and operations, and the tools and support to contribute. Patients and families also are reliable observers of safety risks who, if effectively engaged, can make important contributions to organizational improvement efforts.

An extensive body of evidence-informed practices for operationalizing safety improvement has been developed over the past two decades. Uptake of these strategies is neither consistent nor widespread, however. Collaborative learning activities through which peer organizations set improvement goals and exchange safety data and strategies have been proven to advance progress among participating organizations.[55]

## CHALLENGES

Integrating safety practices into day-to-day operations represents a new way of thinking about and doing work. This level of change requires careful management and attention and does not come easily, especially in this high-demand environment.

Most clinicians and staff do not come to their roles with strong backgrounds in safety culture and operations. Informational resources that would allow them to gain the foundation they need to contribute to continuous improvement are not readily available for most roles in health care.

Provider organizations rarely include patient and family representatives in their improvement activities. Successful patient and family engagement requires provider organizations to manage skepticism about the value of these perspectives and to find ways to involve participants who represent the diversity of the community.

## STRATEGIES

- **2.1** Support provider organizations as they implement appropriately scaled Continuous Improvement Systems within a culture of safety through a coordinated program of education, technical assistance, and experiential learning.
- **2.2** Establish standardized measure sets and self-assessment tools for use by provider organizations across the continuum of care in tracking their own safety outcomes and the effectiveness of their safety processes and structures.
- **2.3** Leverage new technologies, such as automated electronic health records surveillance, to detect and enable a nimble response to safety risks and events, inform improvement work, and reduce future harm.
- **2.4** Strengthen Patient and Family Advisory Councils (PFACs) to foster diverse representation, more patient and family involvement, and deeper partnership with the community on safety improvement.
- **2.5** Establish educational standards on safety for managers, clinicians, and staff in clinical and nonclinical roles.

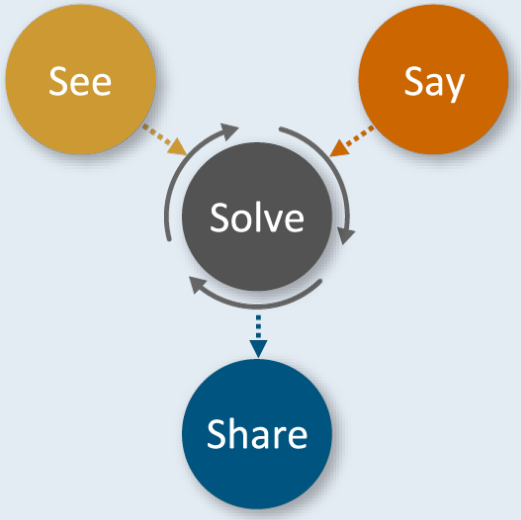
**2.6** Create an accessible statewide health care safety curriculum that fosters a shared understanding of fundamental principles and practices across diverse roles and care settings and enables greater engagement in improvement work by all members of the health care workforce.

**2.7** Advocate for health care safety to be integrated into the curricula of training programs for the health professions.

## WHAT SUCCESS LOOKS LIKE

- All health care provider organizations are learning organizations with appropriately scaled Continuous Improvement Systems that integrate safety with other priorities and allow them to routinely identify and address safety risks and sustain improvement.
- Continuous Improvement Systems are designed to eliminate disparities in safety outcomes based on race, ethnicity, age, disability, sex, gender, and other characteristics.
- Leaders, managers, clinicians, and staff at every level take ownership of the unique roles they play in safety vigilance and improvement, recognize the difference that their participation can make, and have the information and knowledge they need to proactively address safety risks within a culture of safety.
- Provider organizations acknowledge the essential role of patients and families as partners in safety improvement and ensure that they are represented and supported in related institutional activities, with a special focus on encouraging participation by members of underrepresented groups.
- Massachusetts offers a strong array of educational resources and experiential learning opportunities to advance statewide health care safety priorities and goals.

### A CONTINUOUS IMPROVEMENT SYSTEM




An organizing principle for the *Roadmap to Health Care Safety* is that every provider organization has a Continuous Improvement System within a culture of safety. The system needn't be technologically complex; it should be scaled to match the organization's scope and size. The system distills proven strategies into four essential parts to embed safety improvement in the daily cadence of work.

***See problems: Gather and process information***
Help workforce members spot meaningful safety issues quickly to trigger real-time problem solving.

***Say something: Connect improvement with culture***
Encourage everyone — including patients and family members — to say something about a safety concern, reinforcing the social norm of open communication characteristic of a culture of safety.

***Solve problems: Feed the engine of continuous improvement***
Center improvement on standardizing approaches to solving discrete and complex problems and applying them to all operational problems — safety issues first.

***Share something: Complete the cycle by spreading and learning***
Create channels to share successes and best ideas so peers and other teams can adapt them to fit their operations and spread improvement. Seeing, saying, and solving without sharing leads to localized and limited improvement.

# GOAL 3: Patient and Family Support

**All patients and families are engaged and supported to avoid preventable harm in their own care, and receive timely, transparent, and continuing communication and support when things go wrong.**

## WHY THIS IS IMPORTANT

Patient engagement and support can reduce the risk of harm.[56] This is best achieved through a true partnership between patients and their providers that does not shift the ultimate responsibility for safety onto patients. It involves eliciting what matters to patients and families, supporting shared and informed decision-making, and understanding patients' goals and preferences.

Patients and families who experience medical error often suffer long-lasting physical, emotional, and financial harms.[57,58] Among the most concerning is a loss of trust by patients in their providers and the health care system in general. This can lead people to avoid health care altogether.[59]

In the aftermath of adverse events or unexpected outcomes, transparent, structured, culturally competent communication and support can improve the well-being of patients, families, and members of the care team alike.[60,61]

## CHALLENGES

Patients and their families seldom communicate with providers about safety in their care for a variety of reasons. One explanation is low public awareness of safety as an ongoing challenge in health care or the role that patients can play in contributing to safety in their own care. Another is general health literacy that has not kept pace with the complexity of the health care system.

Significant structural and cultural barriers also inhibit patients and their representatives from speaking up about safety observations and concerns. Only about half of people who experience an error report it to their health care providers, government agencies, or others, in large part because they believe it will not do any good. They also worry about offending or causing trouble for providers upon whose care they depend.[62] These barriers are especially pronounced for historically underserved or marginalized populations.[63]

After adverse or traumatic events, open communication by leaders, clinicians, and staff is known to significantly alleviate long-term emotional harm to patients and families.[64] But effective communication in these circumstances requires great care and skills that few providers have developed.

## STRATEGIES

- **3.1** Raise public awareness of health care safety challenges and initiatives.
- **3.2** Boost health care literacy to enable patients, including members of historically underserved or marginalized communities, to avoid preventable harm in their own care and to participate in the safety improvement work of provider organizations.
- **3.3** Assist patients and families who experience error, harm, or trauma in their care through programs offering culturally competent emotional support and communication, apology, and resolution as appropriate.
- **3.4** Build the skills of health care professionals to communicate openly and effectively with diverse patients and families, especially in instances of medical error or harm.

## WHAT SUCCESS LOOKS LIKE

- Patients and family members are supported in communicating effectively with clinicians and medical staff about their care, including any concerns they might have about safety.
- Clinicians and staff invite, and are prepared to receive and respond to, questions or concerns raised by patients and families.
- Patients and families receive ongoing, culturally competent support and compassion in the aftermath of harm or unexpected care outcomes.
- All provider organizations support in-depth event investigation and analysis after patient harm events and facilitate communication with patients and expedited resolution when appropriate.
- All patient and family engagement and support programs, policies, and resources are planned, developed, and carried out in partnership with patients and families, and designed to meet the needs of diverse populations, especially those that face the greatest barriers to participation.

# GOAL 4: Workforce Well-being

**All provider organizations strive to eliminate undue workplace stresses and conditions that impact patient safety and the safety and well-being of the workforce, and clinicians and staff have the psychological safety and support they need to continuously engage in safety improvement.**

## WHY THIS IS IMPORTANT

Healthy work environments and cultures of safety promote not only the delivery of safe and reliable care but also contribute to workforce safety and well-being. By contrast, workplace stress — from poorly designed workflows, disrespect, unfair treatment, threats or acts of violence or bias — can impede an organization's ability to continuously improve.

High levels of burnout, characterized by emotional exhaustion, cynicism, and a low sense of personal accomplishment from work,[65,66] have been reported by health care professionals who encounter overwhelming demands exacerbated by insufficient resources and broken or inefficient processes.[67] These and similar conditions contribute to moral injury[68] and depression[69] as well. Patients and families are in turn impacted, which not only reduces satisfaction and confidence in the care experience[70] but also increases the risk of medical error.[71,72]

In addition, workplace stress is often a factor when clinicians and staff leave their jobs, intensifying staffing disruptions and shortages that impact safety.[73]

## CHALLENGES

Poorly designed care delivery systems frustrate clinicians and staff and add to their workload. Associated time pressures jeopardize their ability to deliver care in the way they know they should. This, too, is driving valued members of the health care workforce into other roles or professions.

Fear that they will be treated unfairly when things go wrong also impacts workforce burnout and attrition. Personal involvement in serious patient harm events is linked to moral injury symptoms that include, but are not limited to, shame, anxiety, and loss of professional confidence.[74]

Sustainable gains in workforce well-being and retention can be achieved only through advancements in safety culture and operational improvements that emphasize teamwork, problem solving, and the elimination of low value work.[75]

## STRATEGIES

**4.1** Through provider organizations' Continuous Improvement Systems, encourage routine clinician and staff observations and contributions to address patient and workforce safety risks including unsafe cultures and ineffective workflows.

**4.2** Support the development of a fair and just culture and psychological safety within a culture of safety to promote clinician and staff reporting of events and near misses.

**4.3** Expand programs that offer emotional support, learning, and well-being for clinicians and staff following safety or other traumatic events.

**4.4** Leverage current national and statewide health care workforce well-being efforts that advance a structured approach to reducing stress, moral injury, burnout, and compassion fatigue.

## WHAT SUCCESS LOOKS LIKE

- Provider organizations actively seek out and implement solutions to workplace conditions that challenge the ability of clinicians and staff to provide safe, quality care.
- Systems are improved in ways that reduce burnout, moral injury, and other workforce concerns, contributing to a more robust health care workforce.
- All provider organizations are committed to an empathetic, fair, equitable and just approach to medical errors.
- Clinicians and staff are aware of and can access resources to help them recover from unexpected, adverse, or traumatic events.

# GOAL 5: Measurement and Transparency

**The state's health care safety data systems are optimized and harmonized, and provide timely and useful information about providers' safety performance for providers, policymakers, and the public.**

## WHY THIS IS IMPORTANT

In Massachusetts, the narrow view of safety offered by existing data resources constrains the ability to identify and respond to health care safety risks. Efforts to achieve major gains at the state level will be successful only if combined with new approaches to information gathering and management. While information alone is not enough, it is an indispensable driver of improvement.

A more complete view into key aspects of the Massachusetts health care safety landscape will increase provider, policymaker, and public understanding of safety risks and trends and inform public-private investment in improvement. Access to timely, relevant data also will allow patients to make safety-informed decisions in their own care and take part in broader improvement initiatives.

## CHALLENGES

Measurement and transparency in health care safety must proceed from an understanding that no single set of measures will satisfy the needs of every stakeholder and that it is not feasible, or necessary, to measure every aspect of safety.[76]

Current statutory requirements for safety data have evolved independently, contributing to duplication, gaps, and burdens for providers and regulators alike. State, federal, and stakeholder safety reporting systems historically have focused on acute care hospitals, though scrutiny of safety in skilled nursing facilities and ambulatory surgery centers is growing. Little to no safety data is collected from many ambulatory settings that account for a rising share of health care encounters.[77] In addition, state systems that rely on hospitals to report safety events capture only a small fraction of medical harm.[78]

Reliable data on safety outcomes stratified by race, ethnicity, age, disability, sex, gender, and socioeconomic factors also can be hard to come by, thwarting health equity goals.

Few health care safety data systems were designed to meet the public's informational needs. This contributes to low consumer awareness about safety,[79] which, in turn, tamps down support for investments in improvement. Health care providers have resisted increased public transparency citing fear of unfair treatment[80] and limitations of current safety measures, such as reporting bias and inadequate risk adjustment.[81]

Finally, safety data are not always shared by their owners or custodians, in some cases owing to real or perceived legal impediments.[82] Providers, regulators, and policymakers may therefore be left without the information they need to identify and prioritize safety challenges, support continuous improvement, and, when appropriate, accept or impose accountability.

## STRATEGIES

- **5.1** Develop measure sets for benchmarking health care safety outcomes, processes, and structures in settings across the continuum of care.
- **5.2** Improve state health care safety data systems by streamlining reporting processes, addressing data duplication and gaps, ensuring that data can be stratified by race, ethnicity, and other characteristics, and promoting appropriate data analytics and sharing.
- **5.3** Publish dashboards containing timely, relevant, and actionable information about health care safety outcomes, processes, and structures in settings across the care continuum.
- **5.4** Report annually on the state of health care safety in Massachusetts, assessing progress toward the five *Roadmap to Health Care Safety* goals and identifying opportunities for continuous improvement at the state and provider levels.

## WHAT SUCCESS LOOKS LIKE

- Massachusetts has a coherent approach for collecting, synthesizing, and disseminating timely, actionable information about safety that supports consumer choice and continuous improvement in all health care settings, while minimizing administrative burden, and enables:
  - **Provider organizations** to benchmark their safety processes, structures, and outcomes against peer organizations in support of their internal continuous improvement goals;
  - **Payers** to align incentives with safety priorities and support continuous improvement by providers;
  - **Policymakers, regulators, accreditors** to consistently and reliably identify emerging and persistent trends in safety affecting diverse populations; and
  - **Members of the public** to reduce the risk of harm in their own or family members' care and to contribute to safety improvement more generally.
- All state measure sets adhere to the Principles for Measuring Safety.
- All provider organizations understand and comply with state and federal reporting requirements for health care safety.

### PRINCIPLES FOR MEASURING SAFETY*

1. Measures focus on information that matters to provider organizations, the public, policymakers, and payers and are dynamic enough to meet stakeholders' evolving informational needs;
2. Measures are designed to support and incentivize improvement while minimizing the possibility of ineffective actions and other unintended consequences that can impede patient care and progress on safety;
3. Measures are evidence-based when possible, but an inability to apply scientific methods should not prevent provider organizations from testing and adopting measures identified through their own experience;
4. Measures capture timely information that reflects current conditions and can be used proactively to prevent harm;
5. Measures exist for settings across the continuum of care and cover the entire trajectory of a patient's health experience;
6. Measures can be used to identify disparities in safety outcomes by key demographic characteristics so as to advance health equity;
7. Measures are appropriately scaled to different care settings, and resource and cost-effectiveness are considered when adding new measures, reducing the burden of measurement;
8. Members of the public are meaningfully engaged in the design of measures alongside providers and other stakeholders, and measures reflect a person-centered approach to care and safety; and
9. Measures and data collection systems continuously evolve and adapt to maintain relevance, reliability and efficiency.

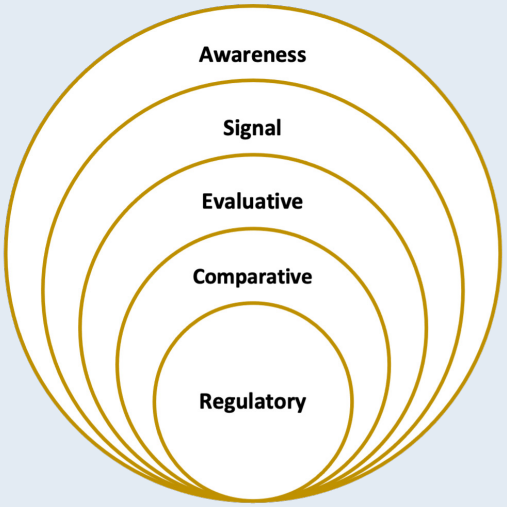
*Derived from *The Salzburg Statement on Moving Measurement into Action: Global Principles for Measuring Patient Safety (2019).*

## THE ROLE OF TRANSPARENCY IN SAFETY

Transparency about safety performance — both within and external to a provider organization — can inform and motivate investment and change normative expectations about health care safety.

### TRANSPARENCY CAN SERVE MULTIPLE PURPOSES …

- **Awareness:** To inform or educate external audiences about critical safety risks and health care safety in general
- **Signal:** To identify persistent or emerging safety risks at the health care system level
- **Evaluative:** To assess a provider organization's performance on certain safety metrics at one or more points in time
- **Comparative:** To facilitate benchmarking and other comparisons of peer organizations' performance on key safety metrics
- **Regulatory:** To enable public agencies to carry out their oversight responsibilities




### … AND MEET THE NEEDS OF MULTIPLE AUDIENCES

| Audience | Purposes | Valuable for: |
|---|---|---|
| Patients and public | • Awareness<br>• Comparative | • Choosing a provider<br>• Asking informed questions<br>• Contributing to organizations' safety improvement work |
| Payers and liability carriers | • Signal<br>• Evaluative<br>• Comparative | • Devising underwriting or incentive programs<br>• Investing in provider education and support activities |
| Peer provider organizations | • Awareness<br>• Signal<br>• Comparative | • Assessing systemwide risks<br>• Benchmarking<br>• Informing improvement foci |
| Regulators and licensing authorities | • Signal<br>• Evaluative<br>• Comparative<br>• Regulatory | • Assessing systemwide risks<br>• Benchmarking<br>• Informing improvement foci |
| Policymakers | • Awareness<br>• Signal | • Assessing systemwide risks<br>• Benchmarking<br>• Informing improvement foci |

## IV. CONCLUSION

The *Roadmap to Health Care Safety for Massachusetts* is an ambitious long-term plan. Its strategies and associated action steps leverage more than two decades of work by state and national health care providers, patient advocates, and other experts dedicated to a safer health care system, and explicitly address the barriers that have hampered progress.

There are no simple or quick fixes. But the *Roadmap* offers new ways of thinking about how continuous improvement can be operationalized within a culture of safety to achieve care that is reliably safe and equitable. Sustained focus and investment in these approaches will accelerate meaningful improvement in outcomes for patients and families and support the health care workforce across the state's continuum of care.

Over the past three years, the COVID-19 pandemic has challenged all who provide and receive health care. Now, there is an opportunity to emerge from these experiences with a shared sense of purpose to improve health care for all.

Massachusetts has a long history of leading the way in solving intractable health policy challenges through multisector collaboration and is home to unparalleled knowledge and experience on health care safety. Through steadfast progress on the *Roadmap*, Massachusetts will achieve a health care system that routinely and equitably delivers safe, quality care upon which everyone can depend.

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## **APPENDIX I:** GLOSSARY OF TERMS

| TERM | DEFINITION |
|---|---|
| Adverse event | An injury to a patient resulting from a medical intervention and not the underlying condition of the patient that requires additional care or leads to temporary or permanent physical or emotional impairment (M.G.L. c. 12C §15(a)); can also be referred to as safety outcomes (Greenberg et al., 2009). Examples include prescription and medication dosing errors, healthcare-associated infections, and retained foreign objects, among others (Bates et al., 2023). |
| Burnout | A syndrome characterized by a high degree of emotional exhaustion and depersonalization (i.e., cynicism) and a low sense of personal accomplishment at work (National Academies of Medicine, 2019). |
| Communication and Resolution Program (CRP) | Program that enables health professionals, health care facilities, and liability insurers to communicate openly with patients and families about adverse events, investigate their causes, explain what happened, apologize, and offer compensation if substandard care caused patient harm (Mello, et al., 2017). |
| Compassion fatigue | "A state of exhaustion and dysfunction — biologically, physically, and socially — as a result of prolonged exposure to compassion stress and all that it evokes" (Figley, 1995). |
| Harm | An impairment of structure or function of the body and/or any deleterious effect arising therefrom, including disease, injury, suffering, disability, and death. Harm may be physical, social, or psychological, and either temporary or permanent (AHRQ, 2019). |
| Health care provider | An individual, licensed health professional who provides clinical health care services to patients, including but not limited to physicians, advanced practice clinicians, nurses, dentists, and pharmacists. |
| Health care safety | Enabling conditions that foster safe practices, prevent harm to patients and members of the health care workforce, and eliminate disparities in safety outcomes related to race, ethnicity, age, disability, sex, gender, economic status, language spoken, and other characteristics (Massachusetts Health Care Safety and Quality Consortium, 2023). |
| Health equity | Achieving "the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors that affect access to care and health outcomes" (CMS, 2022). |
| Just culture | "A culture that recognizes that individual practitioners should not be held accountable for system failings over which they have no control. A just culture also recognizes that many individual or 'active' errors represent predictable interactions between human operators and the systems in which they work. However, in contrast to a culture that touts 'no blame' as its governing principle, a just culture does not tolerate blameworthy behavior such as conscious disregard of clear risks to patients or gross misconduct (e.g., falsifying a record, performing professional duties while intoxicated)" (American College of Healthcare Executives and IHI, 2017). |
| Leader | "Any individual in a leadership role within [a health care provider] organization, regardless of job title" (National Steering Committee for Patient Safety, 2020). |
| Learning collaborative | Shared learning teams formed by organizations to achieve sustainable change within a specific topic area and to implement changes that lead to lasting improvement (IHI, 2019). |
| Learning system/learning health system | A health system in which internal data and experience are systematically integrated with external evidence, and that knowledge is put into practice. The system continuously improves through a systematic and sustained effort to improve patient care and quality (AHRQ, 2019). |
| Medical error | An act of commission or omission leading to an undesirable outcome or significant potential for such an outcome (AHRQ, 2019); defined in state law as "the failure of medical management of a planned action to be completed as intended or the use of a wrong plan to achieve an outcome" (M.G.L. c. 12C §15[a]). |
| Moral injury | "A deep sense of transgression including feelings of shame, grief, meaninglessness, and remorse from having violated core moral beliefs" (Brock and Letitini, 2012). |
| Near miss | Any event that could have had adverse consequences but did not and was indistinguishable from fully fledged adverse events in all but outcome (AHRQ, 2019). |
| Patients and families | People seeking or receiving health care services and their family members who participate in their care, including other caregivers who have a close relationship with a patient and play a supporting role in that person's interactions with health care providers (IHI, 2020). |
| Patient and family engagement | Combines patients and families' health care knowledge and skills with activities designed to increase knowledge, skills, and ability to contribute and interact in their own care (James, 2013). |
| Patient safety | The avoidance, prevention, and amelioration of adverse outcomes or injuries stemming from the processes of health care. These events include "errors," "deviations," and "accidents." Safety emerges from the interaction of the components of the system; it does not reside in a person, device, or department. Improving safety depends on learning how safety emerges from the interactions of the components (NPSF, 2000); also defined as "freedom from accidental injury" (M.G.L. c. 12C §15[a]). |
| Payers | Organizations in the health care industry that determine rates, collect payments, and process and pay claims. Payers may include private health plans or government plans, such as Medicare and Medicaid (Collective Medical, 2023). |

## **APPENDIX I:** GLOSSARY OF TERMS, CONTINUED

| TERM | DEFINITION |
|---|---|
| Preventable harm | Injury that is avoidable unless the intervention would not be considered standard of care (AHRQ, 2019). |
| Provider organization | A licensed entity of any size that delivers health care services to patients, including but not limited to hospitals, ambulatory surgery centers, community health centers, long-term care facilities, home health agencies, and independent or solo health care practices. |
| Psychological safety | A component of safety culture where individuals believe that speaking up about concerns will not result in negative consequences. Health care teams with psychological safety help each member to feel accepted and respected (AHRQ, 2019). |
| Quality | The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (Mitchell, 2008). |
| Safety and quality improvement | The framework to systematically improve the ways care is delivered to patients; continuous efforts to achieve stable and predictable results/to reduce process variation and improve the outcomes of these processes both for patients and the health care organization and system (CMS, 2021). |
| Safety culture | "The extent to which an organization's culture supports and promotes patient [and workforce] safety. It refers to the values, beliefs, and norms that are shared by health care practitioners and other staff throughout the organization that influence their actions and behaviors" (AHRQ, 2022). |
| Safety reporting systems | Systems, both voluntary and mandated, that require reporting of medical errors or patient harm events to governmental agencies, health organization leadership, or other entities. This may include but is not limited to federal or state-mandated reporting of errors, institutional-level reporting of errors by providers or care teams, or voluntary patient or family error reporting systems. |
| Transparency | Health care information — including safety outcomes, quality reporting, consumer experience and more — is provided in an accessible and understandable way. This includes transparency at the individual patient level as well as the wider organizational level, for example with publicly reported data to national agencies (AHRQ, 2019). |
| Well-being | A combination of physical, mental, emotional, and environmental factors that lead clinicians and providers to feeling a sense of meaning and engagement in their work while also feeling satisfied and fulfilled (Mehta et al., 2021). |
| Workforce | Health professionals and all other workers employed in health service or other related occupations, including but not limited to clinicians, administrators, medical records personnel, and laboratory assistants (National Academy of Medicine, 2022). |
| Workforce safety | "Health care workforce safety refers to freedom from both physical and psychological harm for all those who work with patients as well as those who oversee or provide non-clinical support for those who work with patients" (American College of Healthcare Executives and IHI, 2017). |

## **APPENDIX II:** CONTINUOUS IMPROVEMENT SYSTEM

### BALANCING THE HUMAN AND OPERATIONAL DRIVERS OF HEALTH CARE SAFETY

The *Roadmap to Safety* strategies for provider organizations are presented through a strategic leadership approach that balances human dimensions of leadership and positive safety culture with operational dimensions of measurement and delivery systems. A Continuous Improvement System functionally engages both of these dimensions. For most organizations, this will represent a novel way of thinking about and doing their work.

A simultaneous, balanced focus on the human and operational drivers is necessary to become a high-functioning organization that reliably meets safety goals while advancing other priorities like equity, patient experience, workforce retention, financial health, and operational excellence.

To fully establish and sustain a safety culture, this model must be linked with other embedding mechanisms, including:

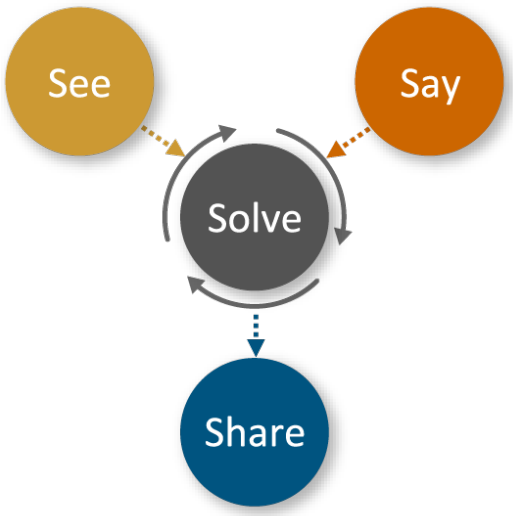
- what leaders pay attention to, measure, and control regularly;
- crisis management;
- resource allocation;
- methods for deliberate role modeling, teaching, and coaching;
- rewards allocation and status;
- staff recruitment, selection, promotion, and dismissal.

The Human and Operational Drivers of Health Care Safety


This approach is applicable to health care settings ranging from large, highly complex provider organizations to smaller, less complex provider organizations across the continuum of health care.

### WHAT IS A CONTINUOUS IMPROVEMENT SYSTEM?

An organizing principle for the *Roadmap to Health Care Safety* is that every provider organization has a "Continuous Improvement System" within a culture of safety. This system reduces many known approaches to improvement into four essential parts to embed and sustain safety improvement in the daily cadence of work: seeing information vital for improving safety, saying something about it, solving problems, and sharing learning. The system need not be technologically complex; it can be scaled to match the organization's scope and size. Doing continuous improvement through this whole-of-organization approach will be a novel way of thinking for most providers.




***Solving Problems: The Engine of Continuous Improvement***
Solving safety problems is at the heart of this process. Organizational improvement is short-lived without a systematic approach to solving problems. Continuous improvement is centered on solving discrete and complex problems, standardizing the approach, and applying it to all operational problems while putting safety first.

***Seeing Problems: Gathering and Processing Information***
Information about problems has limited value unless it gets into the hands of managers and strategic leaders who can exercise problem solving. Organizations must help staff and managers see meaningful safety information quickly, allowing it to trigger real-time problem solving.

***Saying Something: Connecting Improvement with Culture***
Safety performance flourishes when the culture encourages speaking up without fear of being ignored or experiencing repercussions. If a staff member, patient, or family member sees a safety concern, they should be able to easily say something about it, and managers and leaders should be receptive to hearing it and triggering problem solving. This reinforces the social norm of open communication characteristic of a culture of safety.

***Sharing Something: Completing the Improvement Cycle by Spreading, Learning, and Celebrating***
Seeing, saying, and solving are vital movements toward high-performance safety, but practicing these actions alone leads to localized and limited improvement. Organizations must incorporate solutions into daily work and create channels and modes to share successes and best ideas, allowing other teams to adapt those ideas to fit their operations and spread improvement. The culture of improvement is reinforced by recognizing and celebrating staff, patients, and families who raised an issue.

## **APPENDIX II:** CONTINUOUS IMPROVEMENT SYSTEM, CONTINUED

### RATIONALE FOR A CONTINUOUS IMPROVEMENT SYSTEM

Health care, whether at the level of individual, organization, or system, is complex and adaptive. Many safety challenges need to be solved at the level of an organization or the broader system — not at the level of individual clinicians or service lines. Yet quality improvement is often done through one-off projects, root cause analysis of an event, plan-do-study-act sprints to test a new way of doing things, and corrective action plans. These are tactics with specific use cases and do not embed and sustain change. The focus must be on organizational strengthening and learning from positive deviance.

While health care has made some localized and limited progress to improve patient safety in the last two decades, experts agree that the movement generated by the Institute of Medicine report *To Err is Human* has either plateaued or stalled. A fresh approach is necessary, one that disrupts the entire organization's culture, eschewing the common approaches of siloed subject matter experts and projects with limited results. The *Roadmap* proposes a Continuous Improvement Systems approach that is or does:

- based on a daily experience for every person that includes seeing, saying, solving, and sharing. In this fresh approach, organizations design structures and systems to make improvement via every person every day everywhere rather than as episodic or isolated projects or events.
- a strategy that includes programming, interventions, and high-priority funding, along with measuring current safety performance.
- an item for regular annual capital investment, not just a line item in the operational budget.
- influenced and driven by every person in the organization who manages or influences others, rather than led and managed by a limited number of highly specialized experts.
- nimble, getting potential problems placed at the appropriate level in the organization daily. Rather than just conducting a safety huddle, safety information travels via linked and aligned regular, often daily, meetings.
- rapidly tests changes to standards, adding a layer of agility to test changes broadly, enabling accelerated spread of positive changes.
- shifts the need for safety expertise alone, adding competency for managing continuous improvement. This change has performance payback across the spectrum of organizational operations.
- extends beyond permeating clinical operational interfaces to every operation. If a revenue cycle manager can generate sustainable improvement in their operation, they become highly valuable for all improvement, including clinical safety. By knowing how to make continuous improvement, managers can improve safety, quality, engagement, and productivity.
- applied across the board to all operational improvement, making safety improvement as normal as improving productivity or reducing costs.
- concrete and structured, rather than vague or abstract. For example, most know that teamwork is required to improve safety, but current structures rarely reinforce positive team dynamics and effectiveness. This approach structures work units into teams using the classical definition: a small group with complementary skills, committed to a common purpose, approach, and goals, all of which they hold themselves accountable for.
- considers emerging and novel factors that go beyond historical areas for safety improvement. Instead of focusing, for example, on falls and infections alone, this approach is curious about how to improve patient and family communication, employee well-being, health care inequities, and other developing factors.

A Continuous Improvement System breaks down silos by integrating patient and workforce safety with other organizational priorities including caring for the workforce, financial success, health equity, patient experience, and patient engagement. Critically, it brings to life a unified strategic leadership approach that balances *human* aspects of leadership and positive safety culture with *operational* aspects of measurement and continuous improvement.

Interlinking the human and operational drivers of organizational safety improvement embeds safety in the culture and the day-to-day work of clinicians and staff throughout the organization. A Continuous Improvement System helps provider organizations advance safety culture and make safety their operational norm. Strategic leaders can use the rhythm and structure of the Continuous Improvement System to practice safety culture embedding mechanisms, especially positive leadership approaches. With this system:

- The organization’s managers use leadership to promote safety as the top priority.
- The common core system elements enable the organization to see and solve safety problems.
- The system is operationalized on the frontlines of care, engaging clinical and nonclinical staff as well as patients and families in problem solving.
- Ownership and responsibility for safety are decentralized — everyone plays a role.
- Executives and managers, from senior to frontline, contribute regularly to the design of safety and Continuous Improvement Systems and are fully accountable for safety performance. They are also accountable for ensuring that the system provides strong feedback loops across the organization.
- Executives, managers, and staff commit to safety improvement that is a continuous process and that the work is never done.

The model is scalable to organizations large and small and at every level of complexity across the care continuum.

- Smaller, less complex organizations (e.g., clinician-owned office practices, independent nursing homes, smaller ambulatory surgery centers or clinics) will need less formal, lower tech systems and processes.
- More complex organizations (e.g., hospitals of any size, community health centers, or multi-specialty practices or clinics) may need more formal systems and processes for gathering and sharing information about safety risks and improvement strategies across multiple units or locations.

## **APPENDIX II:** CONTINUOUS IMPROVEMENT SYSTEM, CONTINUED

### ELEMENT DESCRIPTIONS AND OUTCOMES

| CORE ELEMENT | DESCRIPTION AND OUTCOME |
|---|---|
| **Solving Problems** | Solving problems is the central engine of continuous improvement. The range of activities in this element spans ongoing analysis, right-fit problem-solving methods, implementing sustainable changes, and assessing solution efficacy. The three general problem-solving methods are simple improvements, basic problem solving, and complex problem solving. Problem-solving methods are centered in finding root causes, not simply containing the effects of a problem. Problem-solving structures have roles for patients and families, clinical and non-clinical staff, and leadership.<br><br>Outcomes: Where feasible, teams are working on solving real-time problems daily. Over time, teams develop problem-solving "muscle memory." Teams prioritize problems that are strongly impacting safety performance. |
| **Seeing Problems** | Seeing problems casts a wide and fine net to gather safety information into problem-solving processes. It encapsulates an organization's ability and capacity to continuously accept safety information from various sources and channels to identify problems that can directly or indirectly impact safety and quality.<br><br>Outcomes: Safety problem information exists and can be collected throughout the organization. There are channels to escalate and de-escalate safety information, ensuring it moves into the organization's problem-solving engine. Teams feed active or potential safety information into their problem-solving processes daily. |
| **Saying Something** | Saying something engages people to speak up when they observe potential, ongoing, or historical risks, hazards, concerns, or problems. This element interlocks a human interface with the operational processes for seeing and solving problems.<br><br>Many staff members, patients, and families are reticent to say something about their safety observations. Thus, organizations must create fluid channels that allow safety information — events, incidents, near misses, and problems — to flow without structural or psychological resistance. These channels operate through a general culture of safety that leadership enables.<br><br>Outcomes: Rhythmic cadences are established for these touchpoints that encourage saying something, so the organization learns that saying something is not an episodic action. Standardized patterns — times, formats, signals, and triggers — give the organization and its patients and families confidence that saying something will lead to solving and sharing something. |
| **Sharing Something** | Sharing something completes the improvement cycleby spreading improved practices and completing a learning process. It involves the ability and capacity to spread successful safety and quality improvement practices across organizational units and sites of more complex organizations. Utilizing change-management principles, organizational learning emerges as teams share their best ideas.<br><br>Outcomes: Solutions to problems shape best ideas that others can use as patterns for improvement. Best ideas are cause for celebrations. Widespread standardization across shared processes enables the organization to focus on creative problem solving using novel ideas and innovation. |

Learn more at **BetsyLehmanCenterMA.gov/Roadmap**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