

# PATIENT SAFETY ADOPTION FRAMEWORK & GUIDANCE



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# Forward

Health care providers make patients and their families the center of what they do. They are the reason we show up to work every day, aiming to provide safe, compassionate, and effective health care. But despite our best efforts and intentions, preventable mistakes still happen, causing harm to not only patients and those who love them, but the providers who care for them.

Since our founding, Ariadne Labs has focused on closing what we call "know-do gaps"—gaps between what we know should be done in theory, and what actually takes place in clinical practice. To address these gaps in safety over the years we've successfully developed process-driven innovations—checklists, coaching, data feedback—that have dramatically reduced suffering, and ultimately saved lives. But even well-intentioned and optimally designed tools are rendered meaningless if not properly implemented and sustained in the systems within which they are used.

At CRICO, we leverage our national database of medical malpractice claims to identify key areas of risk for health care providers and deliver data informed solutions to improve patient safety within our member organizations and clients. For more than four decades, we've encouraged use of this data to identify contributing factors that lead to medical error and supported the implementation of patient safety initiatives that offer the broadest impact across systems.

What does it take to implement sustainable change in health care? Effective implementation that stewards meaningful change doesn't just happen. It requires strategy and structure, both of which this framework provides. It requires careful attunement to the context in which change will happen. But perhaps most importantly, it requires endurance and meaningful investment of leadership attention, time, and resources. Implementation initiatives either thrive or perish at the hands of engaged leadership.

Our charge to you as you embark on your organization's implementation journey toward better, safer care is simple. As leaders, catalyze change by being present from the beginning, showing up with the curiosity to ask the right questions and the courage to tackle the really hard problems. Use parsimonious measurement to guide your teams on their improvement journey without creating unnecessary burdens. And finally, take the necessary time to understand culture and context for change, and listen carefully and openly to what patients and frontline colleagues tell you about how to best do the work. They almost always have the answers, if only we are ready and willing to listen.

*Asaf Bitton and Mark E. Reynolds*

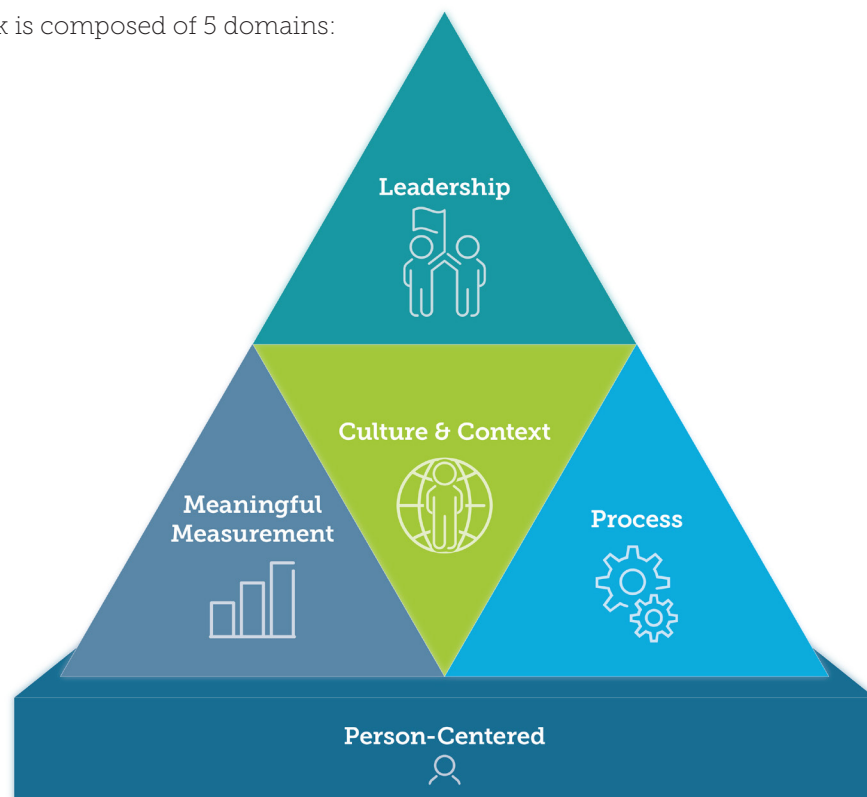


# Executive Summary

There is a growing movement to increase focus on patient safety, with the aim of eliminating preventable harm. Many patient safety initiatives have successfully reduced harm in individual facilities and organizations, but the implementation, sustainment, and spread of these initiatives continues to lag across the healthcare system generally. Effectively integrating patient safety initiatives into the day-to-day work of a hospital or office practice requires a clear, simple, and structured implementation approach supported by leadership and the necessary resources.

To address this implementation gap, we created the Patient Safety Adoption framework, identifying and providing guidance for achieving the key elements of implementation. Each triangle represents a specific element of implementation (called a domain), with the smaller, nested triangles representing subdomains. The framework is grounded in the principles of human-centered design and evidence from a literature review and qualitative interviews as well as extensive stakeholder engagement in face validity testing.

This framework is composed of 5 domains:





## LEADERSHIP

### GOVERNANCE

Through governance, patient safety goals and objectives are translated into concrete aims and metrics that are tracked, measured, and communicated internally and externally to ensure learning is shared.

### ACCOUNTABILITY

The responsibility for patient safety is shared among everyone. Each individual—physicians, staff, payors, organizations, and leaders—is accountable to others for acting in ways that reflect organizational values and are committed, responsible, competent, and ethical. Developing a shared and transparent measurement strategy within a single facility and across organizations helps spread awareness of everyone’s role in maintaining and improving patient safety.

### PRIORITIZATION

All stakeholders (CRICO, members, patients and families, clinicians, and others) are unified in a shared aim to collaborate on and prioritize patient safety initiatives. Board governance demonstrates a commitment to achieve this goal through the dedication of resources and continued engagement in initiative development, implementation, and sustainability.



## CULTURE & CONTEXT

### CULTURE

CRICO and its member organizations embrace and exemplify safety culture in all of their work. Leadership sets norms and expectations that create an atmosphere in which everyone feels responsible for safety and pursues it on a daily basis. The values in the safety culture ecosystem are embraced and demonstrated in daily practice.

### CONTEXT

Patient safety initiatives are flexible and adaptable to account for differences among member organizations; organizations adjust implementation to fit their local context. Organizations assess and optimize readiness—the local capability and capacity to start implementing a new implementation—through context assessment tools and targeted coaching.



## PROCESS

### ENGAGEMENT

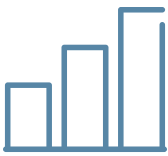
All stakeholders are fully involved and participate throughout the implementation process and on into long-term sustaining. Everyone is aligned and working toward a single goal. There is collaboration, negotiation, and cohesion among CRICO and its member organizations. Leadership facilitates and champions the implementation of the patient safety initiative and addresses any challenges that are encountered.

### HIGH RELIABILITY PRINCIPLES

The development and implementation of patient safety initiatives integrate high reliability principles in order to support care that is safe, timely, effective, efficient, equitable, and person-centered. High reliability principles lead to processes that reduce system failures and/or respond effectively when failures occur.<sup>1</sup>

### CO-CREATION

Patient safety initiatives are co-created with patients, families, frontline staff, and leaders with supporting input and skills from others such as content experts and skilled facilitators. A strong governance presence and communication strategy helps to overcome any perceived and real barriers to make this collaborative effort successful.



## MEANINGFUL MEASUREMENT

Organizations use measurement to identify opportunities for improvement, demonstrate change in key areas, and as a mechanism for accountability. Leadership, clinicians, and data analysts collaborate to select measures. Measures are streamlined, meaningful to the end-user, and transparent, and leadership communicates successes to staff and stakeholders.



## PERSON-CENTERED

Patient safety initiatives include the principles of person-centered care, with mutually beneficial partnerships between patients, their families and those delivering healthcare services. There is respect for individual needs and values, compassion, continuity, clear communication and shared decision making.<sup>1</sup>

Together, these domains and subdomains describe what is necessary for successfully implementing and sustaining patient safety initiatives. The Patient Safety Adoption Framework can be used to help guide implementation by ensuring that all of these key elements are addressed; by providing leadership, implementation teams, and others with a shared language and understanding of implementation for communicating and planning together; and by assessing readiness for implementation and targeting areas needing improvement with the accompanying implementation readiness questions. The framework also contains elements that have been found to be key factors to sustain patient safety initiatives.<sup>2</sup> Implementation can make or break a patient safety initiative, this framework provides a strategy for implementation success.

# Introduction

In its 1999 report *To Err is Human*, the Institute of Medicine heightened awareness of patient safety issues by estimating that 98,000 people died in the U.S. each year from preventable medical errors.<sup>3</sup> Subsequent studies quantifying the number of deaths related to medical errors have produced varied results,<sup>4,5</sup> but all agree that tens of thousands of people die every year due to these events. Moreover, approximately 10% of hospitalized patients suffer from some sort of adverse event, with half of these events being preventable.<sup>6</sup> Medical errors are not limited to hospitals, and the high volume of outpatient care increases the potential for error. An analysis of malpractice claims found that 43% of claims were for events in an outpatient setting.<sup>7</sup>

In response to these disheartening estimates, the patient safety movement has successfully created many initiatives, including the CLABSI bundle,<sup>8</sup> the Surgical Safety Checklist,<sup>9</sup> and I-PASS handoffs.<sup>10</sup> These and other programs have spread across the globe, greatly benefiting the care and safety of millions of patients. Despite this significant progress, healthcare still has much work to do in order to achieve The Patient Safety Institute's goal of zero preventable deaths from medical errors.<sup>11</sup>

The successes of the patient safety movement have resulted, in part, from the inclusion of simple yet effective implementation strategies. Patient safety practitioners (and others) have long recognized the difficulty in creating meaningful change in healthcare delivery and helped develop the science and practice of implementation to improve the use, sustainability, and spread of patient safety initiatives.<sup>12</sup> Systematic, structured implementation efforts can not only improve uptake of patient safety initiatives, but also aid in the spread of knowledge about those initiatives and their implementation.

CRICO has commissioned this framework and guidance to better spread successful initiatives across its member organizations by offering a structured approach to implementation. CRICO is owned by and serves the Harvard medical community. The insurance program provides medical professional liability coverage to 32 hospitals and over 15,800 providers. CRICO uses data to drive improvement by reducing medical error through analysis of malpractice claims. They are committed to patient safety and have funded many successful initiatives.

CRICO's member organizations have the potential to leverage the power of networks by participating in open-sourced learning exchanges and collaboratives, which provide an opportunity for exchange of best practices between individual systems seeking to achieve results. Successful collaborative networks contain the following attributes:<sup>13</sup>

1. Partnering with patients and families.
2. A clear purpose across the network driven by motivated people.
3. An understanding that the network is primarily a social construct, where relationships matter. It is critical to build upon and manage relationships.
4. Transparency around successes, failures, and the open sharing of data, which reinforces the belief that the network can achieve its goals more effectively together than alone.
5. Agreement to compete on execution, not ideas.
6. Senior leadership support to provide the sponsorship, communications platform, and influence necessary for the implementation process.
7. Management agreement to mobilize these efforts with initial and ongoing funding while helping to garner additional resources over time.
8. Commitment to and investment in building a culture of safety and improvement using strategies from other high-reliability, high-performing organizations.
9. A strong, effective infrastructure to gather, enter, and report data.
10. A range of scientific methods, including improvement and reliability science, to measure progress.

## CREATING THE FRAMEWORK AND GUIDANCE

To create the framework and guidance, we used a structured approach based on evidence and grounded in the principles of human-centered design. The process began with a thorough literature search to determine published best practices of patient safety frameworks, implementation, and sustainment of patient safety initiatives. Next, we conducted qualitative interviews with leaders and stakeholders at CRICO member organizations using a semi-structured interview guide to determine implementation barriers and facilitators at their organization. We used inductive thematic analysis to extract themes from the interview transcripts. These themes, along with the findings from the literature review, informed the development of the framework domains.

The draft framework domains, the framework, and this guidance underwent multiple rounds of face validity testing and we iterated all three components based on the feedback we received. We engaged stakeholders throughout the process, with regular guidance from CRICO leadership and an ad hoc committee made up of leaders representing all member organizations. We also engaged patient advocates, subject matter experts, and quality improvement professionals at every stage of face validity testing.





## CASE STUDY IN PATIENT SAFETY: CLOSING THE LOOP

Diagnostic errors in an outpatient setting occur in approximately 12 million adults in the U.S. every year, with half of these being potentially harmful.<sup>14</sup> In an analysis of closed malpractice cases, CRICO found that most diagnostic failures occur in the ambulatory setting, with missed cancer making up 45% of those failures.<sup>15</sup> Many diagnostic errors are related to clinical judgment, however, a significant proportion (37%) involves communication breakdown among providers and between providers and their patients.<sup>16</sup>

One way of addressing diagnostic errors due to communication breakdowns is through “*closed loop communication*.” A closed loop communication process is when “all patient data and information that require action are communicated to the right individuals at the right time through the right mode of communication to allow for review, action, acknowledgment, and documentation.”<sup>17</sup> The closing-the-loop process is complex and is affected by technical factors, such as electronic health record (EHR) capability, and non-technical factors including staffing, organizational factors, workflow, EHR usage, workplace culture, policies, and training.<sup>18</sup>

There is extensive literature on closing the loop with most publications focused on describing common failures. Fewer publications focus on successes, leaving a problematic gap for those seeking to implement solutions. CRICO’s stakeholders have all agreed that closed loop communication is an important patient safety issue, and CRICO has previously funded successful initiatives related to closing the loop on missed and delayed cancer diagnosis.<sup>19,20</sup>

This framework and related guidance provides a foundation to build upon these successes with an implementation strategy for spread to all CRICO member organizations. Closing the loop is used throughout the guidance as a case study to demonstrate the application of each domain with real examples. Addressing failures in closing the loop has the potential to significantly impact patient safety.

## THE ROLE OF IMPLEMENTATION IN ADDRESSING HEALTH INEQUITIES

Health inequities represent the unjust access to care, quality outcomes, and use of health care among populations. Racial/ethnic minorities, socioeconomically disadvantaged populations, indigenous groups, and sexual/gender minorities are disproportionately affected by health inequities.<sup>21</sup> Inequities are pervasive in our healthcare system.

**The implementation of patient safety initiatives has the potential to increase or decrease inequities.**

The implementation process offers several opportunities to evaluate the existing systems and structures and address health inequities:<sup>19</sup>

- » Focus on reaching vulnerable populations from the beginning.
- » Design the initiative with vulnerable populations in mind, including accounting for differences in health literacy, access to services, and mistrust in the health care system. This step can be facilitated by engaging in [co-creation](#) with a diverse group of patient and family advisors.
- » Evaluate outcomes with an equity lens. Stratify process and outcome measures by race/ethnicity and socioeconomic status to evaluate for disparities.

# Recommendations for Use of the Framework and Guidance

Implementation is not a static or linear process but can involve overlapping elements as well as iterative cycles through various stages. Implementation need not be complicated, but it does require combining several key elements together throughout the process. Describing these crucial elements (domains) in a general format leaves room to supplement the framework with details that are specific to the problem that is being addressed and the local context and culture.

**This framework is not meant to be followed in a specific order, and you may need to move through each domain multiple times.**

The leadership, governance structure, and prioritization of the initiative occur early in the process; thus, it is located at the top of the pyramid. Every step of developing and implementing an initiative is rooted in person-centeredness; therefore, it forms the foundation of the framework. Culture and context is the center domain because it can affect the other domains throughout the implementation process.

This framework and guidance is generalizable to any patient safety initiative. Regardless of the details of the intervention, location, and other contextual factors—which all affect the specific implementation strategy—these domains used together cover the essential elements of successful implementation.

In this guide,

- » the term “*facility*” refers to a single hospital or office practice;
- » “*organization*” includes the ambulatory and inpatient setting, and
- » “*integrated system*” includes affiliate hospitals.



## USING THE READINESS QUESTIONS

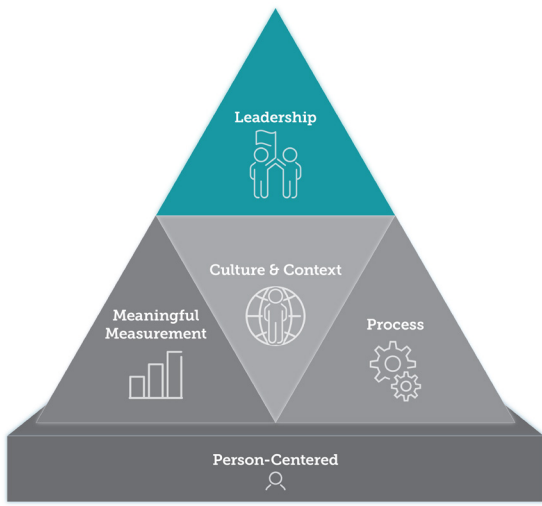
The questions listed at the bottom of each domain overview page are from Atlas, a series of context assessment surveys developed by Ariadne Labs. These questions can help implementers and leaders to reflect on the facility's, organization's, or integrated system's readiness to implement *in that domain*.

Each question is identified by its intended respondent (leader, implementation team, frontline staff) in the column to the left of the questions. When the question uses "I," it references the role of the person the question is intended for (leader, implementation team, frontline staff). Depending on the setting and scale of the initiative, "we" refers to the facility, organization, or integrated system. Readiness questions are not meant to produce a "score" but to allow implementers and leaders to reflect on readiness and to foster focused conversation around implementation readiness.

We suggest two options for utilizing the readiness questions:

- » The first is to review and reflect upon the questions associated with each domain when reading each section of the guide.
- » The second is to use the full [list of readiness questions](#) (organized by domain) as a pre-assessment, then determine which area(s) of the framework and guidance would provide the greatest opportunity to improve your facility's, organization's, or integrated system's readiness.

**We strongly encourage teams to use the information produced by their readiness assessment to start a conversation focusing on potential strengths and opportunities for improvement prior to implementation.**



# Leadership for Improvement and Implementation

“True leaders enable the people around them to shine and be their best. To do so means you help set a vision and purpose that people can get behind. That requires being an attentive listener and actually hearing what people are trying to say. It means you are not bound by fear and have a certain appetite for risk to do the right thing. A leader helps people connect to what matters most for all of us in and around health care.”

—Asaf Bitton

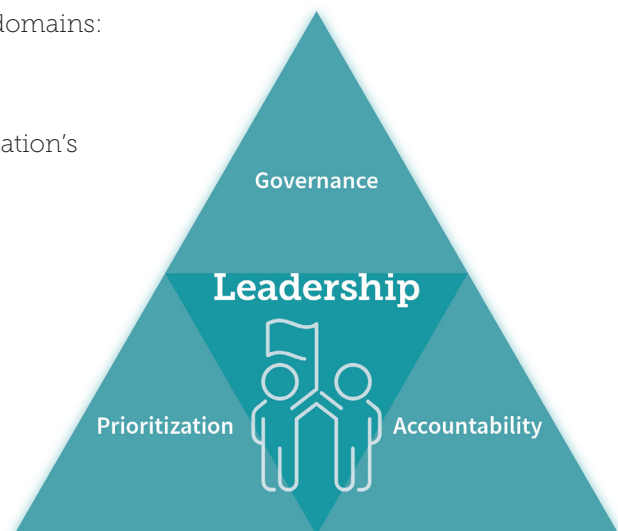
Health care leaders, starting at the board and executive level, are mindful of improving the current state of the nation’s health care systems for all stakeholders, including patients and families, administrators, clinicians, point of service staff, and communities at large. Properly planned, implementation of patient safety initiatives can create energy and excitement, encourage active involvement from all stakeholders, and motivate participation and sustainability of the program.

An effective leadership system will succeed in 3 subdomains:

- » A strong **governance** structure
- » The ability to identify and articulate the organization’s **priorities** for patient safety goals and initiatives
- » **Accountability** for achieving goals

## THE ROLE OF LEADERS

Leadership plays a key role in promoting quality care. **Support from leadership is crucial for any implementation effort and occurs at multiple levels**, including the Board of Trustee level, and with different types of leaders from across the facility, organization, and/or integrated system.



The role of leaders in implementation includes:

- » Being **responsive and knowledgeable about external influences** such as payors, professional liability insurers, medical risk managers, and policies at the state and federal level.
- » Clearly articulating roles and responsibilities, and establishing **lines of accountability**.
- » Providing a **governance structure** that serves as the platform to set the vision and ensure everyone has the capacity and the capability for improvement.
- » Giving support and direction to staff across the continuum of care. Leaders are **visible at all phases** of implementation, **build trust** with staff, and send a clear message that quality is everyone's job.
- » **Building relationships** among all stakeholders to support implementation and focus on person-centered care.
- » Developing a **clear and measurable strategic plan** with milestones.
- » Agreeing on **stretch goals** that push people beyond the status quo while also balancing what is feasible.
- » Collecting **real-time data that is meaningful** and accessible to everyone.
- » Developing a strong **communication plan** that centers on transparency for learning and improving.
- » Building a culture that values **diversity, participation, and inclusion**.



## LEADERSHIP READINESS

Check your readiness in the leadership domain:

Leader	Leader with a frontline role	Frontline	Implementation	
<b>GOVERNANCE</b>				
■		▲		<input type="checkbox"/> There is a clear goal for <i>[intervention name]</i>
	◆	▲		<input type="checkbox"/> I know who to go to on my clinical team when I need something for patient care.
<b>ACCOUNTABILITY</b>				
■				<input type="checkbox"/> Staff will have the supplies, medicines and equipment they need to be able to do <i>[intervention name]</i>
■				<input type="checkbox"/> In general, leaders are held accountable for the success of practice changes.
■				<input type="checkbox"/> In general, staff are held accountable (formally or informally) for doing practice changes.
			●	<input type="checkbox"/> The implementation team for <i>[intervention name]</i> has a leader who moves the work forward.
			●	<input type="checkbox"/> The implementation team meets at frequent intervals to discuss progress towards goals.
	◆	▲		<input type="checkbox"/> I am clear about my role on my clinical team.
<b>PRIORITIZATION</b>				
■		▲		<input type="checkbox"/> The problem being addressed by <i>[intervention name]</i> is one of our top priorities.
■				<input type="checkbox"/> <i>[Intervention name]</i> aligns with other goals we are working toward in our organization.
■				<input type="checkbox"/> We do not have other changes underway or planned that will compete with <i>[intervention name]</i> for resources, time or personnel.
■				<input type="checkbox"/> Staffing issues (turnover, too few staff) will not impact implementation of <i>[intervention name]</i> .
■				<input type="checkbox"/> I will prioritize my time for <i>[intervention name]</i> .
■				<input type="checkbox"/> Staff will have dedicated time to work on implementing <i>[intervention name]</i> .
■				<input type="checkbox"/> Staff will have dedicated time to participate in training for <i>[intervention name]</i> .
■				<input type="checkbox"/> A staff member will have dedicated time to support the implementation team with administrative tasks for <i>[intervention name]</i> .
			●	<input type="checkbox"/> I have enough time to work on implementing <i>[intervention name]</i> .
		▲		<input type="checkbox"/> I typically receive the help I need when our <i>[unit]</i> implements a change.



# Leadership: Governance

“A good clinician will make consistently good clinical decisions, but having a system of effective clinical governance means there is a structure to ensure that this is not by chance but follows from good recruitment, continuing professional education, and clinical audit. Such a system will enable good performance to be sustainable and to be spread across the organisation.”<sup>22</sup>

—D. Owens



## GOAL

Through governance, patient safety goals and objectives are translated into concrete aims and metrics that are tracked, measured, and communicated internally and externally to ensure learning is shared.

## WHAT IS GOVERNANCE AND WHY IS IT IMPORTANT?

The primary function of governance is to establish the organizational and system level structures and networks, including the processes of decision making, communication, and flow of information. Effective governance will set up leaders to make the right decisions through prioritization and to establish accountability with a shared understanding of goals and behaviors.

Governance in organizations that provide health care is complex, adaptive, and encompasses more than the walls of the facility. In health care, governance is a clear reflection of the guidance of Boards and their responsibility to provide oversight of the quality of care and patient safety. Responsibility to the communities they serve results in shared goals across organizations.

## HOW HAVE OTHERS EVALUATED AND IMPROVED THEIR GOVERNANCE STRUCTURES AND PROCESSES?

Health care systems are constantly changing, making it difficult to determine simple cause and effect between governance structures and patient outcomes. However, by tracking an initiative starting with the board, it is possible to learn if the system is designed to achieve the best outcomes or where

opportunities to improve may exist. **Evaluating the current governance structure can provide insight into areas that can be improved.** From the board room to the patient room, do the structures and processes deliver the outcome that is intended from the patient's view?

**Questions used by others to evaluate their governance structure include:**

- Where does the quality and patient safety report fall on the Board Agenda? Is it a clear priority at the beginning of the agenda?
- Is there a Quality and Safety Committee? Who is on it? Is there multidisciplinary representation? Are patients on this committee? What is the reporting structure, and is it transparent?
- How is performance improvement represented across the organization? Are different levels of data shared, and is there a strategy to support knowledge sharing?
- How is senior leadership widely publicizing the ways patients and family can give feedback, make comments, and share concerns. Is support available to them?
- How is senior leadership developing positive care experiences? How do they share them?
- How is patient safety data transparent and publicly reported?



**RESOURCE:  
QUALITY ASSESSMENT**

Consider using the Governance of Quality Assessment (GQA) Tool developed by the IHI Lucian Leape Institute. This tool organizes the health system board's quality oversight role into six categories that include a total of 30 core processes a board with fiduciary oversight should perform to effectively oversee quality. These six categories are:

1. Prioritize Quality: Board Quality and Culture Commitment
2. Keep Me Safe: Safe Care
3. Provide Me with the Right Care: Effective Care
4. Treat Me with Respect: Equitable and Patient-Centered Care
5. Help Me Navigate My Care: Timely and Efficient Care
6. Help Me Stay Well: Community and Population Health Wellness



**CASE STUDY: CLOSING THE LOOP**

Governance within and across organizations plays a key role in supporting the establishment of a network and its focus on achieving results. Developing an interorganizational collaborative for closing the loop promotes sharing of information and coordination of referrals and resources. Organizations addressing this problem together will be much more effective due to the reality that patients move between organizations for their care.

CRICO has connected member organizations through multi-organizational convenings to promote the sharing of knowledge, establish guidelines, and to reach a consensus on defining problems and processes. An example of this is when CRICO used this power of convening to lead a technology task force that created a referral management lifecycle. Malpractice claims were then mapped to the referral management lifecycle to identify areas of breakdown in the referral process. This work has been a foundation for other studies on closing the loop.<sup>23</sup>

Forming networks and bringing organizations together was also successful in the ambulatory safety net work, in which Atrius and Brigham and Women's Hospital were brought together by CRICO to develop and implement the safety nets.





# Leadership: Accountability

“It would be better if everyone worked together as a system, with the aim for everybody to win.”

—Dr. W. Edwards Deming



## GOAL

The responsibility for patient safety is shared among everyone. Each individual—physicians, staff, payors, organizations, and leaders—is accountable to others for acting in ways that reflect organizational values and are committed, responsible, competent, and ethical. Developing a shared and transparent measurement strategy within a single facility and across organizations helps spread awareness of everyone’s role in maintaining and improving patient safety.

## WHAT IS ACCOUNTABILITY AND WHY IS IT IMPORTANT?

Leaders at every level are accountable for achieving results. They build a cascade of goals for an initiative and assign leaders at every level and across facilities to meet those goals, clearly spelling out measurable results. Leaders facilitate a shared model for understanding how everyone’s contribution matters.

**Everyone in the system works together, and leaders focus on supporting members to be successful by ensuring access to resources, knowledge, and meaningful data.** *People cannot be held accountable for results they cannot influence or have control over.*

External accountability to payors, policy, influencers (malpractice insurers and risk managers), and the community often influences what leaders are responsible for and how. Examples of joint accountability include joint collaboratives, public reporting, contractual benchmarks, and payment incentives. When everyone is aligned with driving improvement at the level of patient care, all internal and external accountability measures will guide opportunities for improvement.

## HOW HAVE OTHERS DESIGNED INITIATIVES THAT HOLD EVERYONE ACCOUNTABLE?

As with any strategic design, accountability starts during prioritization, with setting goals and ensuring the alignment and assignment of those goals. Designing and implementing a process for integrating knowledge from all stakeholders, both within and across facilities and organizations, supports appropriate accountability.

An example of improving system level results:<sup>24</sup>

### 1. SET GOALS

Set breakthrough performance goals. New integration across multiple facilities may be required in patient safety initiatives. This requires agreement across the organization on appropriate measures, with a portfolio of projects to achieve their shared goal. **The conversation needs to be centered on the patient and their journey across all parts of the system** in order to continue to drive for breakthrough results. Keep the aim ambitious and ensure the right resources are identified to achieve results (rather than dropping the level of the aim when the going gets tough).

### 2. DEVELOP A PORTFOLIO TO SUPPORT GOALS

Develop a portfolio of projects to support the goals. Communicate the method to achieve the goal; communicating *only* the goal may lead to institutions achieving the target without being mindful of the consequences. The project may be top down or bottom up, but leadership at every level is involved and is accountable for results that have been shared and agreed upon. Testing before full implementation occurs, so unintended consequences are identified and managed. Develop a cascade to identify accountability at every level:

- » Executive Team - drive to the goal.
- » Secondary Leaders (mid) - break the goal down into multiple work projects and support the timing and resources needed.
- » Frontline Leaders - ensure the ground level processes are occurring that are linked to the goals.
- » Everyone is accountable in the cascade for their share of the work.

### 3. DEPLOY RESOURCES

Deploy resources to the projects that are appropriate for the aim. Identify and support human resources to support the goal and at every cascading level. Assess skill levels needed, identify project leaders, and assign executive sponsors. Successful integrators and drivers of the work are curious, are capable of moving between conceptual thinking and execution, have quantitative measurement skills, can work at all levels of the workforce and professional disciplines, are confident in working with senior executives, and are good communicators.

### 4. ESTABLISH AN OVERSIGHT AND LEARNING SYSTEM

Establish an oversight and learning system to increase the chance of producing the intended result. **Have a well-developed process for executive review** in order to troubleshoot or celebrate, to provide support and recognition for all the team is learning, and to share learning across the organization.



## CASE STUDY: CLOSING THE LOOP

Shared accountability between leadership, the improvement team, and frontline staff is especially important given the complexity of closing the loop. Accountability and regular meetings with an [executive review of projects](#) is one strategy.

- » Reviewing the project plan, progress, and chosen metrics, such as the number of closed referrals, creates accountability for advancement of the initiative.
- » Reviews occur at least monthly with the executive sponsor of the project, and quarterly with an executive team that is accountable for execution of the strategic plan.
- » The best reviews function as high-level problem-solving sessions, encourage [deference to expertise](#), and are based on the belief that everyone brings knowledge and experience. Sessions end with agreement on next steps, determining who will be responsible to drive the work, and evaluating if the project is on track and creating a shared action plan if it is not.

Another way to build accountability is through the work of a collaborative. In the Primary Care Collaborative to improve diagnosis and screening for colorectal cancer,<sup>25</sup> the collaborative model contained several mechanisms for accountability:

- » Monthly leadership check-ins
- » Monthly coaching calls to review measures
- » Monthly submission of measures and PDSA cycles monthly with feedback on the PDSA cycles
- » Organizational contribution of funds to participate in the collaborative

Individual accountability and accountability for results and referrals has been a significant issue in closing-the-loop failures. Addressing these accountability issues can include:

- » Providing clear roles and responsibilities for test results. A [care compact](#) can be used to clearly outline the responsibilities of the primary care provider and specialist.
- » Assigning an owner to every step of the referral process.
- » Reviewing cases of failures to close the loop and identify failure points to address areas that require accountability.



## RESOURCES: MORE ON ACCOUNTABILITY

For more information on accountability:

- » [Shared Measurement and Joint Accountability Across Health Care and Non-Health Care Sectors: State Opportunities to Address Population Health Goals](#)
- » [How Leaders Create a Culture of Accountability in Health Care](#)
- » [Execution of Strategic Improvement Initiatives to Produce System-Level Results](#)



# Leadership: Prioritization

“We have become increasingly cognizant of the importance of really prioritizing things and making it clear to people what the institutional quality and safety goals are...I think it's imperative on leadership to make it clear what those goals are so people have a sense of what to work on because there is more work than there is time to do it. Prioritization is key.”

—Emily Aaronson



## GOAL

All stakeholders (CRICO, members, patients and families, clinicians, and others) are unified in a shared aim to collaborate on and prioritize patient safety initiatives. Board governance demonstrates a commitment to achieve this goal through the dedication of resources and continued engagement in initiative development, implementation, and sustainability.

## HOW HAVE OTHERS EFFECTIVELY PRIORITIZED PATIENT SAFETY INITIATIVES?

### IDENTIFY HIGH-LEVEL OPPORTUNITIES FOR IMPROVEMENT

Identify the organization’s high-level opportunities for outcomes improvement with qualitative and quantitative data. Common methods include utilizing your organization’s safety event reporting databases, malpractice data, and/or the CRICO risk assessment tool.

- Identify the current state.
- Learn from how previous major safety events and near misses were successfully addressed.
- Listen to frontline staff and patients about what keeps them up at night and what they perceive to be the most important areas of focus.



## RESOURCE: SUSTAINABILITY

Consider utilizing the [IHI Sustainability Planning Worksheet](#) as you prioritize, and throughout the initiative.

## ALIGN THE INITIATIVE'S AIM

Align the initiative's aim with other major initiatives at your organization .

A key process analysis (KPA) tool or (modified) impact vs. effort matrix can help generate insights into improvement opportunities by combining clinical and financial data to determine need, impact, and cost savings potential.

## DEDICATE TIME, RESOURCES, AND MONEY

Dedicate the appropriate level of time, resources, and money to ensure the initiative remains a priority.

## BUILD AWARENESS

Build awareness by intentionally engaging with individuals at all levels of the organization and with patients and families who will be impacted by the initiative.

## CONDUCT A READINESS ASSESSMENT

Conduct a readiness assessment of frontline staff and the implementation team to **determine your facility's strengths** for this initiative and where you will need to dedicate more time and attention in order to meet a prioritized initiative's goals.

## ESTABLISH PROJECT MANAGEMENT OVERSIGHT

To maintain the initiative as a priority, establish a project management oversight system to revisit the progress of the initiative on a **regular, set schedule with leadership** and the implementation team.

- Schedule updates from the implementation team, utilizing agreed upon meaningful measures.
- Provide an opportunity to discuss barriers and identify next steps.
- Address identified barriers as quickly as possible. Commit to solutions that involve resource allocation adjustments and communication plan enhancements.



### TIP: TRAITS FOR SUCCESS

Patient safety initiatives that are important, feasible, and align with the quadruple aim (better outcomes, improved clinical experience, improved patient experience, and smarter spending) have the potential to be more successful.



### RESOURCE: ACCURACY

Consider reading "Why The Impact/Effort Prioritization Matrix Doesn't Work" on LinkedIn to get simple tips on how to increase the accuracy of the results.



### TIP: INITIATIVE ALIGNMENT

Through alignment with other major initiatives, other organizations have assigned portfolios of projects to staff; allowing for continued alignment throughout the initiative.



## CASE STUDY: CLOSING THE LOOP

In interviews, many member organizations' leaders recognized closing the loop on missed and delayed diagnoses is an important problem in patient safety. However, many did not name it as a strategic priority. Closing the loop projects have relied on the support of leadership through prioritization in the following ways:

### DEDICATE RESOURCES FOR SUCCESS

Dedicate resources for successful implementation and sustainment. Making the initiative part of the fiscal year planning process can ensure that the resources are set aside for the initiative.

### RAISE AWARENESS OF VULNERABILITIES

Raising awareness of the patient safety vulnerabilities in ambulatory care, such as missed and delayed cancer diagnosis was cited as a critical aspect of the ambulatory safety nets at Brigham and Women's Hospital.

### PRESENT DATA TO EXPAND ON SUCCESS

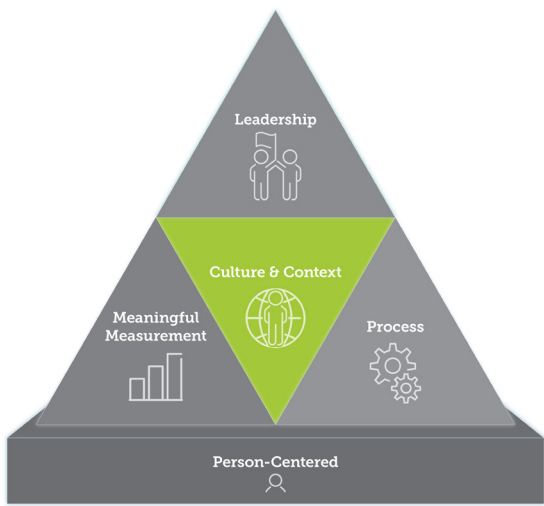
Present data to build and expand on success, such as presenting the number of cases of cancer caught by the ambulatory safety nets. This data will provide motivation to continue to prioritize and expand the program.

### ENGAGE LEADERS WITH UPDATES

Keep leaders engaged with frequent updates and by sharing stories from patients who were positively affected by the initiative, so closing the loop remains a priority.

### PROVIDE RESOURCES AND INCENTIVES

In an interorganizational collaborative, prioritization can be facilitated by providing centralized resources (project manager, data repository, funding for protected time for staff) and by using financial incentives (malpractice premium adjustment) for participation in the initiative.



# Culture and Context for Improvement and Implementation

“Culture eats strategy for breakfast.”

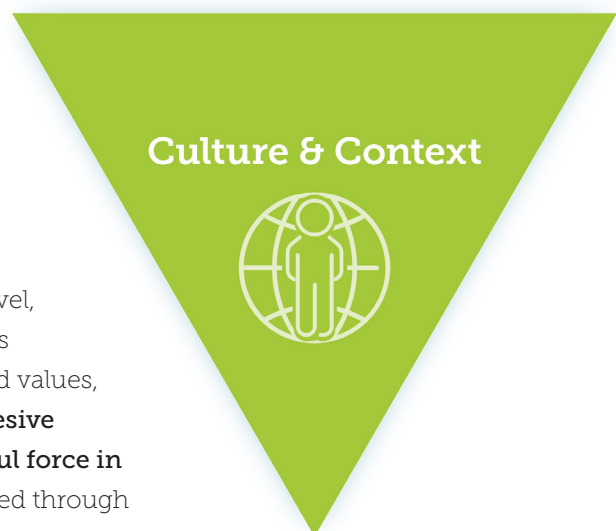
—Peter Drucker

Implementation in complex systems like health care is difficult; the average time from the generation of new knowledge to implementation is 17 years.<sup>26</sup> Understanding culture and context may help close that significant implementation time gap from research to impact.

**Culture and context can either facilitate or hinder successful implementation** of patient safety initiatives. Leaders should **be aware of their local culture and context by evaluating both for any existing opportunities for improvement** at each level. Leaders need to constantly seek to improve the local culture and account for context during the implementation process. The benefits of attending to culture and context extend beyond specific implementation efforts, generally increasing situational awareness and improving safety and communication on multiple levels.

At the level of the clinical team, relationships between team members can impact the culture and context and can ultimately influence implementation. **Teams that have positive relationships, trust, and good communication can effectively collaborate to develop innovative solutions and successful implementation.**

Cohesion on teams takes collaboration to the next level, with the members of the team being committed to its goals, supporting one another, having pride in shared values, and solidarity in their pursuit of patient safety.<sup>27</sup> **Cohesive teams can enable culture change and are a powerful force in implementation.** These team traits can be encouraged through team training and monitoring, specifying safety goals, measurement transparency, and providing support.





## CULTURE AND CONTEXT READINESS

Check your readiness in the culture and context domain:

Leader	Leader with a frontline role	Frontline	Implementation	
CULTURE				
■		▲		<input type="checkbox"/> In the past, I have seen <i>doctors</i> in our <i>[unit]</i> take the lead on promoting changes to improve patient care.
■		▲		<input type="checkbox"/> In the past, I have seen <i>nurses</i> in our <i>[unit]</i> take the lead on promoting changes to improve patient care.
■		▲		<input type="checkbox"/> In our <i>[unit]</i> , staff in the <i>same</i> role work well together.
■		▲		<input type="checkbox"/> In our <i>[unit]</i> , staff in <i>different</i> roles work well together.
■				<input type="checkbox"/> Our leaders stick with practice changes through the ups and downs of implementation.
■		▲		<input type="checkbox"/> I am comfortable asking for help at work.
■		▲		<input type="checkbox"/> I am comfortable speaking up when I have a concern at work.
	◆	▲		<input type="checkbox"/> In our <i>[unit]</i> , my clinical team works well together.
	◆	▲		<input type="checkbox"/> Members of my clinical team share key information as it becomes available.
	◆	▲		<input type="checkbox"/> Members of my clinical team listen to each other.
CONTEXT				
■				<input type="checkbox"/> Staff have the skills and knowledge needed to do <i>[intervention name]</i> .



## Culture & Context



# Culture and Context

“Implementing a change at its core requires an underlying culture of improvement. It requires buy-in from people from various disciplines...it requires energy, there has to be a will to stop what we're doing. It requires creativity, a solution that's going to get people's attention, that's going to be not slapping them on the wrist harder to try to get change.”

—Jonathan Finkelstein



## GOAL

CRICO and its member organizations embrace and exemplify safety culture in all of their work. Leadership sets norms and expectations that create an atmosphere in which everyone feels responsible for safety and pursues it on a daily basis. The values in the safety culture ecosystem are embraced and demonstrated in daily practice.



Adapted from Tan KH, Pang NL, Siau C, Foo Z, Fong KY. Building an organizational culture of patient safety. *Journal of Patient Safety and Risk Management*. 2019;24(6):253-261.

## WHY IS SAFETY CULTURE IMPORTANT?

Learning how we cause harm to patients and families, clinicians, and all system users is key to actually changing the system to deliver the best results. An optimal safety culture has shown to **reduce adverse events**,<sup>28,29</sup> **reduce mortality**,<sup>30</sup> and improve error reporting.<sup>31</sup> **A strong safety culture ecosystem provides a firm foundation for the implementation of patient safety initiatives.**

## WHAT CULTURE SHOULD WE STRIVE FOR WHEN IMPLEMENTING PATIENT SAFETY INITIATIVES?

The safety culture ecosystem contains components of other culture elements that together form the ideal culture for patient and staff safety.

### SAFETY CULTURE

Safety Culture acknowledges that healthcare is high risk and commits to achieve consistently safe operations. There is a blame-free environment and reporting of safety events is encouraged by all, including patients and families. Collaboration across disciplines is encouraged, and the organization is committed to and provides resources for addressing patient safety concerns.<sup>32</sup>

### JUST CULTURE

Just Culture promotes joint accountability between the person and system when errors are made. Reporting is encouraged as a learning opportunity to identify flaws in the system. It recognizes that many errors are influenced by system factors, but when someone intentionally violates the policies that improve safety or exhibits unprofessional behavior, they are held accountable.

### TRANSPARENCY

Transparency is when information flows freely and is open to review by others. Transparency is a principle of safe, patient-centered care and is important to patient safety. Patients benefit when leaders and team members share information freely, without fear, and learn from one another. This facilitates collaboration and trust at all levels of the organization.

### PSYCHOLOGICAL SAFETY

Psychological Safety is the degree to which team members feel that their environment is supportive of asking for help, trying new ways of doing things, and learning from mistakes.<sup>33</sup> Everyone feels comfortable speaking up with safety concerns or ideas to improve patient care, regardless of their position.

### ORGANIZATIONAL LEARNING

Organizational learning includes proactive and real-time identification and prevention of defects and harm. Learning is continuous and can arise from the experiences of others. It requires feedback loops to share the data and information that generate insights.

### KNOWLEDGE SHARING

Knowledge sharing is a systematically planned and managed activity in which individuals share resources, insights, and experiences.<sup>34</sup> This activity overlaps with organizational learning and includes problem solving and peer support through collaborations and communities of practice.

### CONTINUOUS IMPROVEMENT

Staff are empowered and engaged in making improvements in existing systems. People are trained in quality improvement and are encouraged to engage in problem solving. Data is visible to everyone, and small wins are celebrated.

## HOW HAVE OTHERS EVALUATED THEIR SAFETY CULTURE?

There are a [number](#) of quantitative methods to measure organizational culture in healthcare; the most popular is the [AHRQ Surveys on Patient Safety Culture](#).

## HOW HAVE OTHERS IMPROVED THEIR SAFETY CULTURE?

Improving culture requires time and persistence. Here are some practical steps leaders can take to promote the safety culture ecosystem:

### ESTABLISH A CLEAR VISION

Establish a clear vision and plan to prioritize patient safety, including the dedication of resources, staff training, and system improvement. **Publicly commit** to this vision so all staff and patients are aware that patient safety is the top priority.

### COMMUNICATE FREQUENTLY

Communicate frequently with all staff and stakeholders to encourage, engage, and empower them in the quest to improve patient safety. Communication should be **clear, transparent, frequent, reliable, and bidirectional**.

### FACILITATE COLLABORATION

Facilitate collaboration by including staff in the design, planning, and implementation of patient safety initiatives. This will enhance engagement and buy-in and generate enthusiasm around patient safety. (See [Co-creation](#))

### CHAMPION INITIATIVES

Champion patient safety initiatives by helping implementation teams overcome challenges and resolve conflicts and by recruiting other leaders to champion the initiative.

### PROVIDE TRAINING

Provide opportunities for learning and training in quality improvement methods, such as training in the [Model for Improvement](#), [Lean](#), and [Six Sigma](#). Offer protected time for training and improvement projects to demonstrate their status as high priority for all staff.



### TIPS: PSYCHOLOGICAL SAFETY AND HIGH-RELIABILITY PRINCIPLES

**Host listening sessions, town halls, and have regular leadership walking rounds** to provide an opportunity for frontline staff to voice concerns and other feedback. Invite everyone to contribute to create an atmosphere of psychological safety.

**Consider some [high-reliability principles](#)** on how you can help your implementation teams using a structured and consistent method.



### EXAMPLE: INSTRUCTION AND HANDS-ON EXPERIENCE

Dana-Farber Cancer Institute's [Projects in Practice \(PiP\)](#) program offers six days of instruction and coaching to employees while bridging classroom content with hands-on experience. It is open to all Dana-Farber employees and supports the philosophy that everyone should participate in improving their job.



## CASE STUDY: CLOSING THE LOOP

Safety culture can influence clinical communication; organizations with a less robust safety culture may have more breakdowns in processes of care. One study found that offices with a lower safety culture had more problems—such as accessing diagnostic test results—and more breakdowns in their communication to the patient.<sup>35</sup>

Closing the loop centers around communication, collaboration, and transparency.

- » Efforts to encourage collaboration between clinical units with team training, for example, can foster a culture of safety and create team cohesion, which, in turn, can enhance collaboration. Team training that requires few resources can be found at [The American Hospital Association: Video-Triggered Team Training](#).
- » An inter-organizational collaborative for closing the loop encouraged knowledge sharing among organizations, which is particularly important in closing the loop as patients move between systems.
- » The ambulatory safety net initiative at Brigham and Women’s Hospital utilized a just-culture framework and found it to be critical to successful implementation.
- » Baystate Health created a culture of diagnostic safety by overcoming the lack of transparency and shame around diagnostic errors and fostering teamwork, encouraging non-hierarchical teams, improving communication, and including patients in the diagnostic process.<sup>36</sup>
- » Kaiser Permanente actively worked to improve its culture of safety and physician trust in its ambulatory safety nets. This encouraged physicians to propose new safety nets and expand the program.<sup>37</sup>

Culture & Context



# Culture and Context

“Almost nothing about effective action is “installable” without constant, recursive adjustments to ever-changing local context. Researchers who wish to understand how improvement works, and why and when it fails, will never succeed if they regard context as experimental noise and the control of context as a useful design principle.”<sup>38</sup>

—Donald Berwick



## GOAL

Patient safety initiatives are flexible and adaptable to account for differences among member organizations; organizations adjust implementation to fit their local context. Organizations assess and optimize readiness—the local capability and capacity to start implementing a new implementation—through context assessment tools and targeted coaching.

## WHAT IS CONTEXT AND WHY IS IT IMPORTANT IN IMPLEMENTATION?

Context is often interchanged with the terms “setting” and “environment,” including the physical environment and the environment of relationships and networks. Healthcare organizations are non-linear systems composed of multiple feedback loops impacting people’s behavior. Understanding context during implementation, which includes behavior and process changes, requires dedicated resources.

**Context is one of the strongest influences on implementation and can be the difference between an implementation success or failure.** Assessing local context, actively working to improve gaps and leverage strengths while keeping context in mind throughout the implementation process is key to effective implementation. Recent studies have identified system, organizational, and team level contextual factors that influence the implementation of patient safety initiatives.<sup>39</sup> **Patient level factors also influence the implementation of evidence-based research.** Patient level factors include health beliefs, motivation, personality traits,<sup>40</sup> and patients’ level of trust in medical practices and the health system. This is why the domain of person-centered care is paramount to the implementation of patient safety initiatives.

## WHAT CONTEXTUAL FACTORS CONTRIBUTE TO THE SUCCESS OF A PATIENT SAFETY INITIATIVE?<sup>41</sup>

- » Leaders with a clear strategy and vision and communicate new expectations.
- » CEO participation in patient safety and improvement projects
- » Culture that is supportive of learning, non-hierarchical, and supports creativity, risk taking, and collectivism.
- » A robust data infrastructure to manage data with performance comparisons, benchmarking, analysis, and the use of organization-level data.
- » Experience and capability in quality improvement, with organizational knowledge, adequate time, funding, and general resources.
- » A strong quality improvement team that has an effective leader and understands one another's strengths and weaknesses, expresses opinions freely, and has mutual respect for one another.



### CASE STUDY: CLOSING THE LOOP

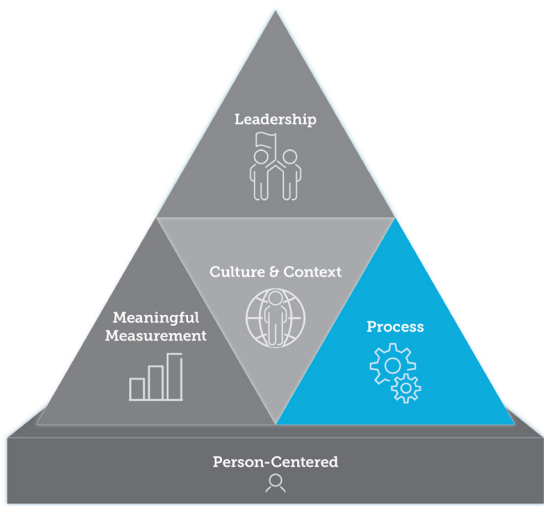
Context is a critical component of implementation, but few tools exist to measure and account for context. Adapting the initiative to the local context is especially important in an initiative as complex as closing the loop. Ariadne Labs built the Atlas surveys to assess context and organizational readiness, and the features published above are evident in the surveys. The assessment:

- » Provides a standardized, low-burden way of assessing context to inform planning and managing the introduction of changes in daily practice.
- » Informs decisions about whether a facility or organization is “ready” to implement the identified solution.
- » Identifies a facility or organization’s strengths and opportunities to inform the implementation strategy.
- » Provides rapid insight into issues that could delay or derail an ongoing or new initiative.
- » Incorporates multiple perspectives from the facility, with surveys completed by leaders, healthcare workers, and implementers.

The Atlas surveys measure the following areas:

	<b>Commitment &amp; motivation</b>	<b>Ability to implement</b>	<b>Internal culture</b>	<b>Clinical team functionality</b>	<b>Knowledge &amp; ability to do the intervention</b>
<i>Sample Factors</i>	Leadership Commitment Motivation/support by frontline staff for the intervention	Experience doing QI Alignment of intervention with priorities Resources & infrastructure Competing priorities Patient view of intervention	Stability of staff Beliefs/norms about (interdisciplinary) teamwork Learning culture	Team communication Clarity of roles and responsibilities Team culture	Intervention-specific knowledge and skills Resources to do the new behavior

The questions in the Atlas foundation survey are mapped to the domains in this framework and are included in the [readiness questions](#) for reflection in each domain. The Atlas surveys offer a more detailed assessment, with a scale for the answer choices of: *agree, somewhat agree, somewhat disagree, disagree, don't know, and n/a*. The surveys do not result in a score but provide a report that identifies potential strengths and challenges as well as discordance between leadership and frontline staff. This report can be used for focused coaching and sparking conversations on the most relevant aspects of context for that facility.



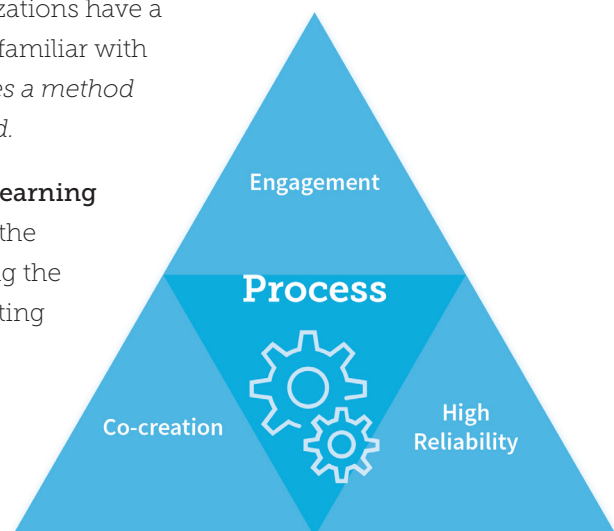
# Process for Improvement and Implementation

“There's value in empowering staff and teaching them the tools for small tests of change. When you see that there's an improvement, it's rewarding and it spurs you to go on. Look for early wins, even if they are small, because it keeps people motivated.”

—Yvonne Cheung

Process addresses the actions taken in the health care system: by clinicians, patients, implementers, and others. Process concerns the components of implementation that happen on the ground, the practices and workflows that exist before and change during implementation. These **interrelated actions are vital to transform ideas into a tangible solution. This domain spans each stage of implementation and is very specific to the chosen initiative. Knowledge of current practices is key** to identifying what needs to be improved and how to enact positive change. **Evaluating the current state** can highlight the need for change at the local or system level, with each level requiring a different set of tools. Methods that provide a system for evaluation and continuous quality improvement include in-depth information on tools needed for different phases of the improvement process. Popular methods include the [Model for Improvement](#), [Lean](#), and [Six Sigma](#). Many organizations have a preferred method that quality improvement staff are familiar with and trained on. *It is more important that a system uses a method systematically and reliably than which method is used.*

The **role of leaders** in this domain is to **support the learning system** that drives understanding of how to achieve the agreed-upon improvement, then focus on supporting the implementation process in a variety of settings. Creating an environment and system that diminishes fear, motivates people, and encourages collaboration will result in a **highly reliable system supported and driven by the people who are part of it.**



An effective implementation process will have components of these 3 subdomains:

- » **Engagement** of leaders, staff, and patients.
- » **High reliability principles** embedded into evaluation, development, and implementation.
- » Initiatives **co-created** with patients, families, staff, and frontline clinicians.

All of these are important pieces of the implementation process and need to be customized to the local context by taking into account resources, setting, and the patient safety problem being addressed.

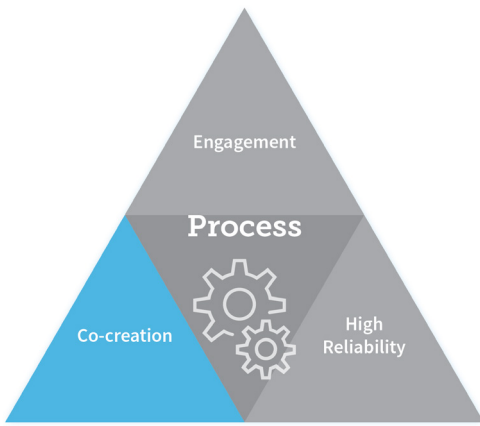


## PROCESS READINESS

Check your readiness in the process domain:

Leader	Leader with a frontline role	Frontline	Implementation	
<b>CO-CREATION</b>				
		▲		<input type="checkbox"/> Leaders in our <i>[unit]</i> ask me for my input.
<b>HIGH RELIABILITY</b>				
■				<input type="checkbox"/> Staffing issues (turnover, too few staff) will not impact implementation of <i>[intervention name]</i> .
■				<input type="checkbox"/> When we introduce changes they become part of the usual way we do our work.
■				<input type="checkbox"/> I make sure that staff receive the help they need when our <i>[unit]</i> implements a change.
			●	<input type="checkbox"/> The implementation team has a plan for how to implement <i>[intervention name]</i> .
			●	<input type="checkbox"/> The staffing on our implementation team has not changed.
<b>ENGAGEMENT</b>				
■				<input type="checkbox"/> I know why we are introducing <i>[intervention name]</i> .
■				<input type="checkbox"/> <i>[Intervention name]</i> is the right solution to address the problem.
■		▲		<input type="checkbox"/> Senior leadership is committed to <i>[intervention name]</i> .
■		▲		<input type="checkbox"/> Our <i>[unit]</i> leadership is committed to <i>[intervention name]</i> .
■				<input type="checkbox"/> I am committed to <i>[intervention name]</i> .
■		▲		<input type="checkbox"/> I can identify <i>doctors</i> in our <i>[unit]</i> who will take the lead on promoting <i>[intervention name]</i> .
■		▲		<input type="checkbox"/> I can identify <i>nurses</i> in our <i>[unit]</i> who will take the lead on promoting <i>[intervention name]</i> .





# Process: Co-creation

“Health care professionals can identify with the power of a patient story. They nearly always tug at their heartstrings, reminding people why they went into healthcare to begin with and inspiring everyone to do even better. Patients, their families, and caregivers bring critical insight and a lived experience. They have earned the right to share their perspective and to be “at the table.” My experience has been that the powerful partnership that will result from inviting patients and families into the patient-safety initiative process will be rewarding and productive for both parties and produce a better outcome.”

—Beth Honan



## GOAL

Patient safety initiatives are co-created with patients, families, frontline staff, and leaders with supporting input and skills from others such as content experts and skilled facilitators. A strong governance presence and communication strategy helps to overcome any perceived and real barriers to make this collaborative effort successful.

## WHAT IS CO-CREATION?

Co-creation centers on partnering with patients, families, and front-line staff throughout the improvement process including prioritization of issues and face validity testing, implementation, and sustainment of solutions. Co-creation embodies a bottom-up approach by involving those directly impacted by the initiative from its development. The co-creation process exemplifies deference to all forms of expertise—input from individuals with lived experience is equally as valued as input from those in leadership positions.

## WHY IS CO-CREATION IMPORTANT?

The co-creation process amplifies the voices from those who are the closest to the identified problem. These voices include those of patient and family members, as well as frontline clinicians and staff.

## PATIENT ENGAGEMENT CONTINUUM

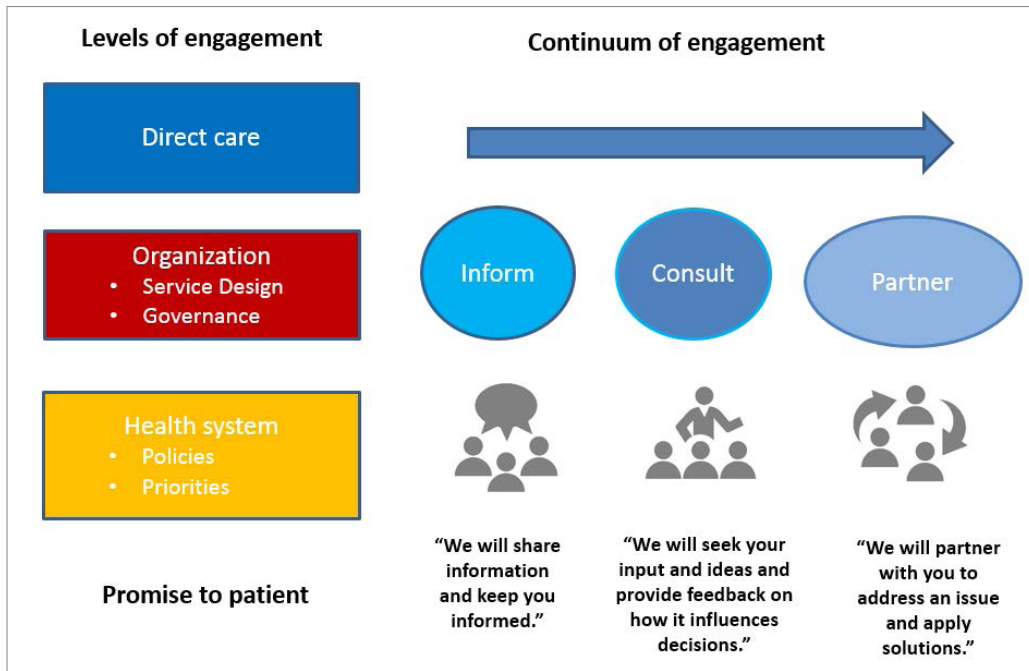


Figure from Patient Engagement Action Team. 2017. Engaging Patients in Patient Safety – a Canadian Guide. Canadian Patient Safety Institute. Available at: [www.patientsafetyinstitute.ca/engagingpatients](http://www.patientsafetyinstitute.ca/engagingpatients)

Partnering with patients and families brings a unique perspective that can lead to more **innovative solutions**.<sup>42</sup> In addition, patient and family advisors **provide cultural context and identify potential barriers** that would not otherwise be recognized in the development phase. Co-creation also engages staff who will be impacted by the initiative directly, which can **enhance buy-in and create invested champions**. They can provide valuable input on the current workflow to facilitate **embedding the initiative** to make the work easier, automated, and/or intuitive.

## HOW HAVE OTHERS CO-CREATED PATIENT SAFETY INITIATIVES WITH PATIENTS AND FAMILIES?

Partnering with patient and family advisors can be done at the level of the facility, organization, or integrated system. The resources and infrastructure to support the engagement may vary at different levels, but research demonstrates that successful partnerships rely on mutual **respect**, a willingness from all involved to **learn from each other**, and **leadership support and advocacy** for new ways of working.



### EXAMPLES: BUY-IN AND INPUT ON WORKFLOW

**Including those that schedule tests on our team will provide insight** on current barriers and opportunities from their perspective. In turn, they will have the opportunity to influence the initiative and be more likely to be willing to make changes in the future.

**Patients and families can inform you of their preference** for when and how to schedule tests, providing examples from their experiences with your organization on what has worked well and what needs to be improved.

Specific strategies include:

## □ CREATING AN INFRASTRUCTURE

- Form a permanent advisory council made up of patient advisors; this council can act as a pool of trained patient partners who can be assigned to various roles, including developing educational materials, incident analysis, and embedding on patient safety teams.
- Designate staff liaisons to connect with and manage patient advisors on their projects.
- Determine payment structures, training schedules, scope, and feedback mechanisms.

## □ RECRUITING AND TRAINING PATIENT AND FAMILY ADVISORS

- Develop a structured process for recruiting and interviewing patient advisors.
- Assess the diversity of the advisory council based on the patients and families served by your system. If your advisory council does not reflect your patient population, consider recruiting for lived experience of the patients and families you are missing by removing barriers to participation (time of meetings, cost, location, childcare) and actively targeting specific groups through various messaging approaches.
- Develop and provide orientation and education on confidentiality, quality improvement, patient safety, and clinical information concerning the patient safety initiative. Provide this education and overview to the entire implementation team, including frontline and clinical staff, at the same time. This will help to ensure everyone has the same level of knowledge and are using the same terms throughout the initiative.
- Partner new patient advisors with more experienced patient advisors for mentoring and coaching.



### TIPS: INFRASTRUCTURE

**Connect with your systems Patient Family Advisory Council**, if applicable, to engage these advisors in patient safety initiatives.

**For more on how to implement a process of involving patient advisors** at all levels of your organization check out: [Patient Advisors: How to implement a process for involvement at all levels of governance in a healthcare organization](#).



### TIPS: FAMILY ADVISORS

**Begin by reaching out to clinicians** and ask them for patients and family members they would recommend on the area you are working to improve. Be specific. Ask for patient and family members who have experience in this area and show interest in improvement. While they do not need any healthcare experience, it is important they do not have an alternative motive.

**Assess the full diversity of your implementation team**, including those on your advisory council based on the patients and families you serve. See below for ways to embed patient and family advisors in different levels of your organization.

**Most advisors do not work in healthcare and may have questions** about the process. In addition, most are current patients and may need to focus on their physical or mental well-being at times. Having a dedicated individual for an advisor to connect with can help answer any questions and provide any accommodations.

## □ EMBEDDING IN DIFFERENT LEVELS OF THE ORGANIZATION

Patient and family advisors can participate in multiple roles within an organization and across organizational partnerships. Their level of engagement varies, depending on the project and resources. It is best practice to have a minimum of 2-3 advisors on each panel or project. Some examples of patient advisor roles include:<sup>45</sup>

### » **Developing educational and communication materials**

- » Identify information needs or gaps in materials
- » Co-design format, and evaluate language level and clarity of materials
- » Reach out to other patients for their opinions

### » **Incident analysis**

- » Participate in information gathering, discussion, and analysis of findings
- » Assist in developing action plans and assigning accountability
- » Identify confusing or missing information

### » **Quality, safety, and process improvement teams**

- » Bring the patient and family perspective to the team
- » Help interpret and analyze patient experience information
- » Provide input on process mapping of patient movement through the healthcare system
- » Question provider assumptions that differ from the patient and family experience

## HOW HAVE OTHERS CO-CREATED PATIENT SAFETY INITIATIVES WITH FRONTLINE CLINICIANS AND SUPPORT STAFF?

### □ ENGAGE FRONT LINE STAFF FROM THE START

Engage frontline staff from the beginning of the initiative. Involve them in the development process, especially workflow mapping, and encourage and validate participation.

### □ PROVIDE ACCESS TO TRAINING

Provide access to training in quality improvement and patient safety. Examples include LEAN and the Clinical Process Improvement Leadership Program (CPIP).

### □ BUILD ENTHUSIASM OVER TIME

Build enthusiasm over time by driving engagement and active participation, so people know that their voice and experience matters.



### **TIP: ACTIVE PARTICIPATION**

Face validity sessions is one way to gather feedback from frontline clinicians and staff throughout the process. Solicit feedback on proposed work, potential changes, and initial results individually or in a small group. This helps build an interactive process and requires minimal time from frontline clinicians and staff.

## □ REMOVE POTENTIAL BARRIERS TO PARTICIPATING

Remove potential barriers to participating by providing protected time for frontline clinicians and/or staff members to work on the project and by providing flexible meeting times. Having dedicated frontline clinicians and/or staff members as part of the implementation team helps to build confidence among other frontline clinicians and staff, allows dedicated time for engagement among colleagues, and expedites clinical decision making.



### CASE STUDY: CLOSING THE LOOP

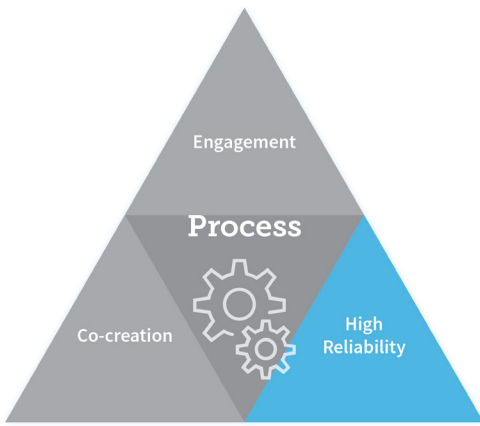
- » Partnering with patients, families, and caregivers by inviting evaluation of the patient portal, display, and methods of communication.
- » Train patient family advisors in quality improvement and embed them on the implementation team.
- » To improve colorectal cancer diagnosis in the primary care collaborative, patient partners participated in co-designing processes, developed patient education material, and provided valuable insight into the barriers patients experience.<sup>44</sup>
- » Primary care providers and specialists worked together to overhaul the referral process. One initiative was successful at increasing the percentage of closed referrals by pairing primary care providers with specialists to form a champion dyad.<sup>45</sup>
- » Radiology partnered with primary care to build communication systems. The RADAR (Radiology Result Alert and Development of Automated Resolution) is an electronic communication tool used to close the loop with primary care providers for incidental pulmonary nodules. This intervention used multidisciplinary working groups to design and iterate workflows.<sup>46</sup>
- » Nurses identified ways to communicate results with patients that eased the workload of the primary care provider.<sup>47</sup>
- » IT designed systems with the implementation team for registries, results notification, and screening alerts.
- » Small multidisciplinary working groups contributed to workflow redesign, patient outreach, and patient tracking, which was key to the implementation of Ambulatory Safety Nets at Brigham and Women's Hospital.<sup>48</sup>



### RESOURCES: MORE ON CO-CREATION WITH PATIENTS

For more information on co-creation with patients:

- » [Partnering to Improve Quality and Safety: A Framework for Working with Patient and Family Advisors](#)
- » [Institute for Patient-and-Family Centered Care Resources](#)
- » [Canadian Patient Safety Institute: Engaging Patients in Patient Safety - a Canadian Guide](#)



# Process: High Reliability Principles

“Medicine has become the art of managing extreme complexity—and a test of whether such complexity can, in fact, be humanly mastered.”<sup>49</sup>

—Atul Gawande

## ★ GOAL

The development and implementation of patient safety initiatives integrate high reliability principles in order to support care that is safe, timely, effective, efficient, equitable, and patient centered. High reliability principles lead to processes that reduce system failures and/or respond effectively when failures occur.<sup>1</sup>

## WHY ARE HIGH RELIABILITY PRINCIPLES IMPORTANT?

Organizations, such as healthcare, air traffic control, and nuclear power operations, that follow high reliability principles avoid catastrophes in environments where normal accidents can be expected due to risk factors and complexity. While many organizations adopt some of these principles, high reliability organizations adhere to them all simultaneously. Therefore, it is important for leaders to say what you will do, and do it, for every patient, every single time.

## INTEGRATING HIGH RELIABILITY PRINCIPLES INTO PRACTICE

### SENSITIVITY TO OPERATIONS

Everyone in the organization is always mindful of factors that impact the safe care of patients. There is a collective belief that everything can always be improved, and leaders ensure staff have the resources needed to eliminate distractions and system variation that can contribute to failures.

## 📖 EXAMPLES: IN ACTION

High Reliability Principles in action include:

- » Create standardized templates for referrals and handoffs
- » Implement bundles of care and standardized order sets when possible
- » Frequent check-ins (pre-procedure briefings, huddles)
- » Leadership Walk Rounds
- » Analyze safety events and near misses to find common causes, and share learning across the organization
- » Ensure the safety reporting system is easy to use and encouraged for learning not judgment

## RELUCTANCE TO SIMPLIFY

There is acceptance of the complexity of health care and its potential to fail on a systems level in multiple ways, recognizing that there is not a single, simple cause of failure.

- Use standard improvement methods across the organization and ensure they are used by everyone. Examples of improvement methods include the model for improvement (MFI), Lean, and Six Sigma.
- Each improvement method is accompanied by tools; examples include: Failure Mode and Effect Analysis (FMEA), Driver Diagram, Gap Analysis, Fishbone, Plan, Do, Study, Act (PDSA), Team Charter, and Define Measure Analyze Improve Control (DMAIC).
- Identify process workarounds to ensure process reliability with minimal waste.

## PREOCCUPATION WITH FAILURE

There is an organizational focus on predicting and eliminating failures instead of only reacting to them and a commitment to manage the unexpected. Transparency in the learnings from failures and near misses is visible to all—leaders, staff, patients and families, and communities.

- Ensure that the culture of the organization centers on the patient and emphasizes transparency, reward, and recognition.
- Promote transparency in data throughout the organization and in public.
- Use “simple” data that includes actual patient numbers versus rates or statistics to persuade stakeholders.
- Use a visual management board to track data and implement learning boards.
- Create team simulation exercises (ex: mock codes).

## DEFERENCE TO EXPERTISE

The organization values insights from those with the most pertinent knowledge in addition to those in positions of seniority. Staff feels safe to share ideas, information, and concerns; they speak up for safety. Deference to expertise is also about communication, teamwork, accountability, and a flat hierarchy.

- Psychological safety allows everyone to ask questions, share concerns, and provide ideas without fear of punishment or humiliation.
- Provide protected time for clinicians and staff to be involved in patient safety initiatives.
- Make time to get feedback from frontline staff (huddles, listening sessions, informal feedback).
- Use structured communication tools such as Situation, Background, Assessment Recommendation (SBAR).

## RESILIENCE

Resilience is developed as a result of a high performing system that holds staff [accountable](#) for their actions, but not for flaws in processes or systems. The organization studies human factors and builds the system to make the right thing easy to do (and the wrong thing hard to do).

- Design processes that reduce complexity and make them easy to follow by everyone. Standardization enables learning from failures.
- Develop a learning system that understands and studies deviations from practice and informs the reliability of care to patients. Provide support to clinicians who experience an adverse event.
- Use visual and cognitive aids, when possible, to avoid reliance on memory.
- Include [patients and families](#) in the learning system every time, every way.



### CASE STUDY: CLOSING THE LOOP

The complex processes involved in closing the loop heighten the importance of integrating high reliability principles into the development and implementation of any related initiative. Some specific examples include:

- » To improve screening and diagnosis of colorectal cancer in the Primary Care Collaborative, improvement teams at each facility used detailed process mapping and a driver diagram to assess failure points and prioritize areas for improvement.<sup>50</sup> They created an action plan with clear goals based on the process maps (sensitivity to operations, reluctance to simplify, preoccupation with failure).
- » Improvement teams included schedulers, medical assistants, nurses, and patients in the development and implementation of the initiative (deference to expertise).
- » Teams developed internal systems to report failures in closing the loop, which included a system for a root cause analysis (RCA) on the failures. Maine Medical Center developed a new process for RCAs related to diagnostic error. The center used a tailored approach, performing an RCA fishbone based on the common cause of diagnostic errors. In addition, the center developed a diagnostic error reporting system, with anonymous reporting of diagnostic errors, which highlighted opportunities for improvement<sup>51</sup> (preoccupation with failure).
- » Teams embedded referral systems, clinical decision support tools, and results notifications into existing workflows and EHR systems. RADAR, an automated results notification system from radiologists to the referring provider's EHR inbox requiring acknowledgement and cosigning, was one example<sup>52</sup> (sensitivity to operations).
- » Safety nets linked EHRs to patient reports and registries, which tracked patients that needed follow up for an abnormal result (sensitivity to operations).
- » Regular check ins during the implementation process quickly identified and addressed any problems (resilience).
- » One health system increased colorectal screening rates by training multiple non-clinician delegates to manage referrals in addition to a referral system<sup>53</sup> (resilience).

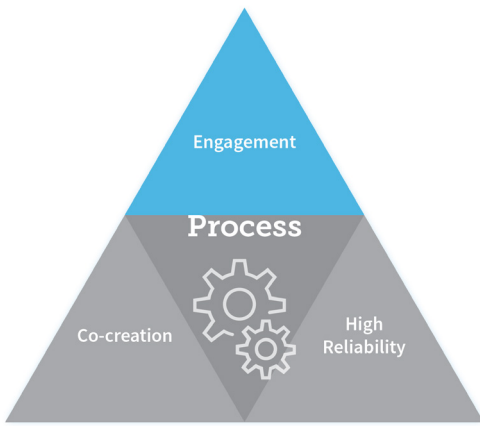


### RESOURCE: MORE ON HIGH-RELIABILITY PRINCIPLES

For more information on high-reliability principles:

- » [Michigan Hospital Association Online toolkit](#)





# Process: Engagement

“Staff engagement is really important. They have to trust the leadership of the organization to know that we’re not just asking them to do one more thing, where we explain the ‘why’ really well...when they really understand why it is important and the patient safety implications, they are compelled to do the right thing.”

—Lindsay Gainer



## GOAL

All stakeholders are fully involved and participate throughout the implementation process and on into long-term sustaining. Everyone is aligned and working toward a single goal. There is collaboration, negotiation, and cohesion among CRICO and its member organizations. Leadership facilitates and champions the implementation of the patient safety initiative and addresses any challenges that are encountered.

## HOW HAVE OTHERS ENGAGED THEIR COLLEAGUES IN PATIENT SAFETY INITIATIVES?

Key drivers to build awareness and engage everyone about the patient safety initiative include:

### BUILDING CONSENSUS AMONG STAKEHOLDERS

Building consensus among stakeholders to select a patient safety problem to address before an initiative is finalized. One approach is through convenings and allowing for voting on which initiative to pursue.

### SHARING PATIENT STORIES

Sharing patient stories is an effective way to communicate a powerful message about the initiative. It can make the patient safety issue more personal and memorable, especially if real patients and families share their stories.



**Engaging patients in patient safety is crucial.**

Please see [co-creation](#) for strategies to engage with patients.

#### USING MESSAGING TO HIGHLIGHT THE INITIATIVE

Using frequent, clear, and consistent messaging to keep the initiative in the forefront. Leaders can model this approach by regularly bringing up the initiative in communications and meetings.

#### MAINTAINING TRANSPARENCY ABOUT PATIENT SAFETY EVENTS

Maintaining transparency about the patient safety events that led to prioritization of the issue to strengthen the “why” and motivate others to make the change. This also reinforces a culture of safety, embodies an organization's commitment to improvement, and fosters a blame-free environment.

#### PROVIDING ACCESS AND INCENTIVES

Providing access to resources and incentivizing participation in the initiative creates shared responsibility and accountability.

#### MAKING THE INITIATIVE IMPORTANT

Making the initiative too important to fail. This can be achieved by tying it to financial reimbursement, through public commitment, and/or through transparency with patients and families that a past failure will not happen to others.

## HOW HAVE OTHERS SUCCESSFULLY ENGAGED PHYSICIANS IN PATIENT SAFETY INITIATIVES?

Key drivers to engage physicians<sup>54</sup> and mitigate barriers include:

#### ENGAGING LEADERSHIP ON SHARED GOALS

Engaging leadership in promoting quality and safety as a shared goal.

#### SETTING EXPECTATIONS

Considering a physician compact that sets expectations between the physician and the organization about their role in patient safety initiatives.

#### COMPENSATING APPROPRIATELY

Compensating appropriately for time spent on quality and patient safety initiatives (protected time, bonuses).

#### REALIGNING FINANCIAL INCENTIVES

Realigning financial incentives with patient safety initiatives through bonuses for improvement in process and/or outcome measures.

#### USING DATA TO CONVINCING OTHERS

Using data to help convince others of existing gaps, provide a tangible goal for improvement, and promote healthy competition.

#### CONSIDERING ACADEMIC STANDING

Considering academic standing by including quality and safety engagement as a criterion or qualifying activity for promotion.

## HOW HAVE OTHERS KEPT EVERYONE ENGAGED THROUGHOUT THE IMPLEMENTATION PROCESS?

### RECRUIT CHAMPIONS

Identify and recruit champions from multiple disciplines, at both the leadership and frontline levels. Their investment in and ownership of the initiative will not only promote engagement with others but will motivate continual improvement and accountability.



### TIP: IDEAL CHAMPIONS

Ideal champions are dynamic and enthusiastic, and are able to communicate, educate, and negotiate when needed.

### DEVELOP A COMMUNICATION STRATEGY

Develop a strong communication strategy that keeps the initiative top of mind and engages everyone for the long haul. Include it as a standing item on every patient safety agenda at the executive and unit levels. Follow the “eight times, eight different ways” mantra for repeated communication.

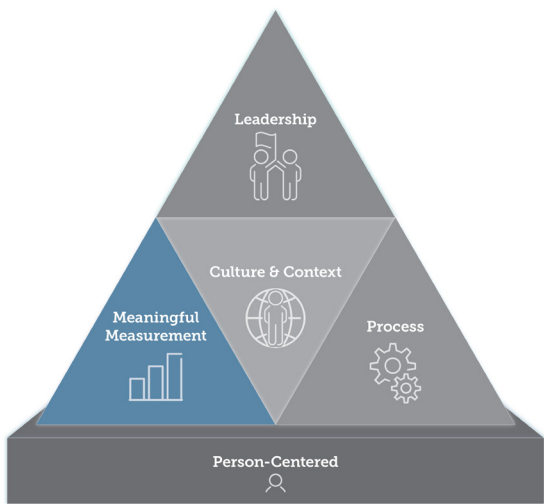
### SHARE AND CELEBRATE SUCCESSES

Share and celebrate successes with staff and leadership or hospital-wide through the hospital newsletter or email. This positive reinforcement will demonstrate to staff the positive impact of the initiative and keep people invested in its long-term success. Sharing failures and lessons learned can also help to support a continuous learning system.



## CASE STUDY: CLOSING THE LOOP

- » CRICO shared real patient stories from closed medical malpractice cases along with data on patient harm from missed and delayed diagnoses to create awareness of the patient safety problem being addressed.
- » During a learning session with primary care providers participating in the initiative, the Primary Care Collaborative had a patient share their story of a delayed diagnosis of colorectal cancer.
- » The ambulatory safety net team proposed critical parts of the project to a primary care advisory committee before moving forward with implementation.
- » Atrius Health identified superusers of their referral management tool as implementation champions to build on their engagement.



# Meaningful Measurement for Improvement and Implementation

“Data and data visibility allows for everyone to see tangible information about the project and how it's progressing and then share that with key stakeholders to drive improvement.”

—Anthony Weiss

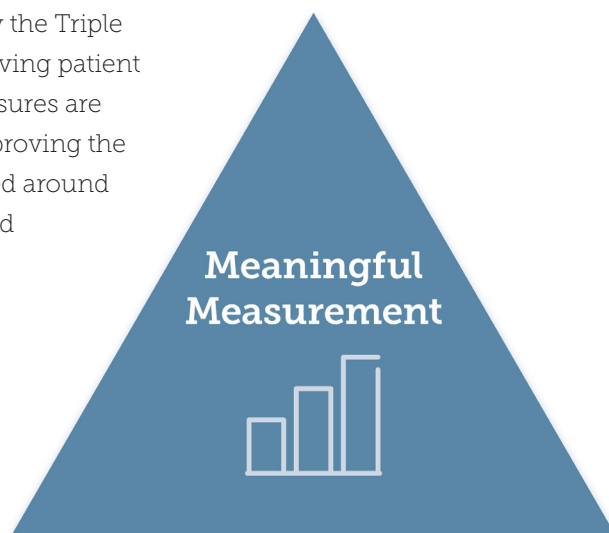


## GOAL

Organizations use measurement to identify opportunities for improvement, demonstrate change in key areas, and as a mechanism for accountability. Leadership, clinicians, and data analysts collaborate to select measures. Measures are streamlined, meaningful to the end-user, and transparent, and leadership communicates successes to staff and stakeholders.

Meaningful measures are parsimonious and embody the Triple Aim<sup>55</sup> of improving the health of a population, improving patient experience, and lowering per capita cost. These measures are actionable, feasible, streamlined, and focused on improving the most crucial aspects of patient care. They are centered around what is meaningful to the patient and/or clinician and incorporate patient-reported outcome measures when possible.

At a recent global meeting in Salzburg, the *Moving Measurement into Action*<sup>56</sup> group agreed that there is no single measure that allows all stakeholders in all settings to assess the past, current, and future safety of their system.



When selecting measures, they suggested that all measures must be selected with three guiding principles:

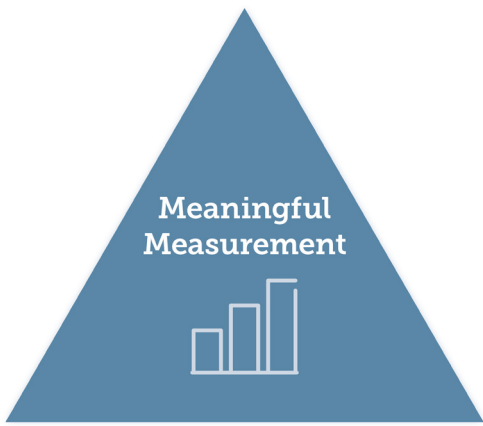
- » The perspectives of patients and other key stakeholders
- » The context in which care is provided and received
- » Safety's strong connection to other domains of quality, particularly equitable care



## MEANINGFUL MEASUREMENT READINESS

Check your readiness in the meaningful measurement domain:

Leader	Leader with a frontline role	Frontline	Implementation	
■		▲		<input type="checkbox"/> I am able to view our <i>[unit]</i> 's patient outcome data (for example, total number of falls or infections, vaccination rates, patient feedback).
■		▲		<input type="checkbox"/> We use our <i>[unit]</i> 's patient outcome data (for example, total number of falls or infections, vaccination rates, patient feedback) to change how we provide patient care.
■		▲		<input type="checkbox"/> In general, our <i>[unit]</i> collects data about patient outcomes (for example, total number of falls or infections, vaccination rates, patient feedback).



# Meaningful Measurement

## HOW HAVE OTHERS SELECTED MEANINGFUL MEASURES AND PLANNED FOR MEASUREMENT?

### CO-CREATE WITH KEY STAKEHOLDERS

Co-create with key stakeholders, including patients, families, clinicians, and hospital leadership, to select and develop measures that are meaningful to patients, clinical practice, and the health system.

### CLASSIFY DESIRED CHANGE WITH THE DONNABEDIAN MODEL

Classify the desired change and possible measures using the Donnabedian Model of quality measures (**structure, process, outcome**). Search for already validated measures at the National Quality Forum.

### DEFINE EACH MEASURE

Define each measure to ensure that it is specific, meaningful, actionable, relevant, and time-bound (SMART). In the definition, include the target population (inclusion and exclusion criteria) and a timeframe for how long it will take to see a change in the measure.

When developing measures for an initiative consider:<sup>57</sup>

- Alignment with clinically collected data
- Importance of the issue for patients and clinicians
- Quality of evidence given the intervention (for example: screening mammography if you are measuring screening rates)
- Patient-centeredness (evaluate if any appropriate patient reported outcome measures exist for the topic)
- Measurability, feasibility, interpretability



### TIP: PROCESS MEASURES

If the outcome is mortality but that measure would take years, a process measure might be a better fit. Measure success by evaluating the patients view of their health or experience of care. Using these measures keep the patient at the center of the initiative and success is determined by what matters to patients.

## COLLABORATE WITH COLLEAGUES

Collaborate with colleagues in IT and/or Clinical Informatics from the beginning to determine how to effectively and efficiently collect, manage, and share data to meet the initiative aims.

## DEVELOP DASHBOARDS, RUN CHARTS, AND OTHER VISUALS

Develop dashboards, run charts, and other visuals to effectively stratify and display the measures to various stakeholder groups. Using a dashboard is a visual way to display the data and allows regular review of the data by multiple users. Use [Run charts](#) to monitor change over time and assess how changes in the implementation affect the success of the initiative.



### TIP: STRATIFYING MEASURES

Possibilities for stratifying the measures is through risk adjustment for complexity and by race, ethnicity, primary language, payer type and zip code. Some of these methods can monitor for disparities in care.

## FOCUS ON DATA FOR LEARNING AND IMPROVEMENT

Focus on data for learning and improvement, not for fear and blame. Transparency in the measurement collection strategy, a strong aim for improvement, and defining key actions from a system perspective will support a shift from human failure and error to systems thinking.



### RESOURCE: RUN CHARTS

For more information and examples of run charts visit the [NHS Improvement Online library of Quality, Service Improvement and Redesign tools: Run Charts](#).

## HOW HAVE OTHERS EFFECTIVELY UTILIZED MEASURES FOR CHANGE?

### CONDUCT A BASELINE ASSESSMENT

Conduct a baseline assessment. Measurement at baseline reveals the current state, opportunities for improvement, and potential change. However, if the data will take too long to collect, move forward with alternate proxy baselines.

### USE MEASURES DURING ALL STAGES OF THE CYCLE

Use the measures during all appropriate stages of the improvement cycle, no matter what method you choose to use for “testing a change.” For instance, in a **Plan-Do-Study-Act (PDSA)** cycle, use the data during the plan stage to collect a baseline and during the study stage to observe, analyze, and learn from the test. The data also inform the act stage by determining what modifications, if any, to make for the next cycle.

### SHARE MEASURES TRANSPARENTLY

Share measures transparently to provide **feedback** to care teams and implementation teams, to celebrate successes, and to provide an avenue for [accountability](#).



### TIP: SHARING MEASURES

Measures can be shared at the individual or unit level. Consider posting run charts in a shared area, such as a hallway, where it is visible to clinicians, staff, and patients.

## □ FACILITATE ENGAGEMENT OF STAKEHOLDERS

Facilitate the [engagement](#) of stakeholders through the collection of data, the presentation of data, comparison to similar organizations, or through collaboration on measurement selection.

## □ CONTINUE MONITORING

Continue monitoring to ensure that improvement efforts have been sustained and to identify areas where opportunities remain for improvement. While organizations may be able to reduce resources dedicated to measurement during the sustainment phase, appropriate measurement is still necessary to ensure the system does not move back to the old way of operating. Operational support including resource alignment, ongoing capability monitoring, and assigned [accountability](#) to ensure the change remains part of the system over time are integral to sustainability.



### EXAMPLES: SUSTAINABILITY

Examples include working with Human Resources to update job descriptions and evaluations, onboarding new staff, ensuring the voice of patients and families is continuously recognized as new learning may emerge over time.



## CASE STUDY: CLOSING THE LOOP

Closing the loop and the larger problem of diagnostic error have been difficult to measure and are not routinely measured at many health systems. The main problem is in the step of defining the measure. Many definitions exist for diagnostic error and it can be easier to find the “numerator,” or the number of cases in which harm resulted, rather than the “denominator,” or all times in which there was a failure in closing the loop. The [National Quality Forum](#) has held two gatherings to further define measurement in diagnostic errors.

Potential measures for closing the loop focus on process measures: completion of visits and communication of test results and treatment plans to the patient and back to the referring team.

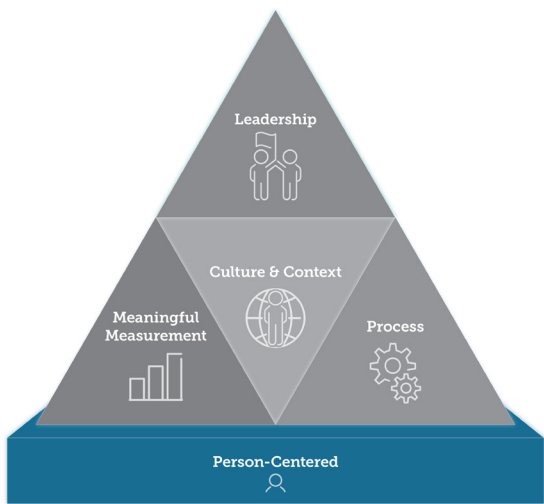
Examples of potential process measures for closing the loop:

- » Proportion of patients who log on to patient portals to see test results electronically (versus those who sign up for portals but do not log in)
- » Proportion of abnormal diagnostic test results returned but not acted upon within an appropriate time window
- » [CollaboRATE Shared Decision Making Score](#)

Measures used by BIDMC when piloting a system of managing high risk referrals included:

- » Proportion of referral/return appointments made/kept within requested time intervals
- » Proportion of referral notes acknowledged by the referring provider
- » Proportion of patients for whom the loop is closed
- » Proportion of lost referral/return appointments with documented outreach and acknowledgement by referring provider
- » Number of referrals initiated (number of documented referrals complete plus number of documented referrals lost.)





# Person-Centered Care for Improvement and Implementation

“It is the client who knows what hurts, what directions to go, what problems are crucial, what experiences have been deeply buried.”

—Carl Rogers



## GOAL

Patient safety initiatives include the principles of person-centered care, with mutually beneficial partnerships between patients, their families and those delivering healthcare services. There is respect for individual needs and values, compassion, continuity, clear communication and shared decision making.<sup>1</sup>

Providing person-centered care benefits clinicians, the health care system, and everyone who interacts with the system. Benefits of providing person-centered care include:

- » **Increased trust in the health care system** from engaging people as equal partners in their health
- » Supported patients who make **informed choices** about their care
- » Optimized **clinical outcomes** and value within the system due to **improved patient safety from the perspective of the patients, families, and carers.**
- » Improved **job satisfaction** of the health workforce
- » Greater efficiency and **cost effectiveness** in health service delivery

Person-Centered





## PERSON-CENTERED CARE READINESS

Check your readiness in the person-centered care domain:

Leader	Leader with a frontline role	Frontline	Implementation
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> I would feel safe receiving care in my <i>[unit]</i> as a patient.
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> Our <i>[unit]</i> has the bandwidth to take on a patient improvement project at this time.
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> There are systems or processes in place to ensure that patients are empowered in their care and engaged in the planning of their health systems.
<input type="checkbox"/>			<input type="checkbox"/> We collect patient-reported outcome measures, including perceptions of care.
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> There are defined standards for person-centered care that are built into quality assurance programs and are monitored and acted upon.
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> Leaders and staff receive training in person-centered care.
<input type="checkbox"/>			<input type="checkbox"/> Health literacy and cultural competency are considered in all initiatives, and educational support is provided for patients to make informed decisions about their care.

Person-Centered



# Person-Centered Care

## WHY PERSON CENTERED-CARE IS IMPORTANT

### EQUITY

Health equity is achieved when each person has the opportunity to achieve their full health potential. Person-centered care supports patients to make informed decisions and actively participate in their own care in order to reach their full health potential.

### PATIENT AND WORKFORCE SATISFACTION

Person-centeredness is an important function for improving system performance from the perspective of the user. Person-centered care also benefits job satisfaction among the health workforce.

### IMPROVED HEALTH AND CLINICAL OUTCOMES

Person-centered care improves health, enhances the patient experience of care, and reduces the cost of care (Triple Aim).

## HOW HAVE OTHERS MADE PATIENT SAFETY INITIATIVES PERSON-CENTERED?<sup>58</sup>

### USE THE 'MUST DO WITH ME' PRINCIPLES

Use the five key "Must Do With Me" principles that help ensure all interactions between people using the services and the staff delivering those services are characterized by listening, dignity, compassion, and respect:

1. What matters to you?
2. Who matters to you?
3. What information do you need?
4. Nothing about me without me.
5. Service flexibility.<sup>59</sup>

## CREATE AN ENABLING ENVIRONMENT

Create an enabling environment by bringing all stakeholders together to transform these strategies into an **operational** reality through the co-creation process. Include approaches such as **incentives to promote supportive care** and tools for facilitation of person-centered care.

- Leaders **collaborate** with patients and families and clinical staff in setting priorities (prioritization) for policy and program development, implementation and evaluation, facility design, shared education, and delivery of care.
- Follow the patient, and consider their longitudinal care.** Think beyond the individual facility's walls, and determine how patients move between facilities, organizations, and integrated systems. Use process mapping through the patients' eyes to improve coordination across systems.

## COORDINATE SERVICES WITHIN AND ACROSS ORGANIZATIONS

Coordinate services within and across organizations to make it easy for patients to access care. Coordinate visits so patients do not have to make multiple appointments and trips. Provide bundled services, such as laboratory diagnostics and imaging, in the same visit.

- Use practical **tools to facilitate communication** to encourage the free flow and accessibility of information between patient and provider.

## EMPOWER AND ENGAGE PEOPLE AND COMMUNITIES

Empower and engage people and communities through public education and patient engagement, enabling patients and families to be full participants in care.

- Consider **health literacy** in patient-facing materials to allow all people to participate in their or their loved ones' care, regardless of their medical knowledge or level of education.



### TIP: GROUPS AT RISK

Studies have demonstrated that patients from minority cultural and language backgrounds are at a greater risk of experiencing preventable adverse events. Patient safety initiatives need to consider and adjust for patient language and culture. Efforts should be made to have culturally competent communication and language services available.

## STRENGTHEN GOVERNANCE AND ACCOUNTABILITY

Strengthen governance and accountability through a **variety of mechanisms**.

- Leadership, development, and quality improvement training
- Reporting of standardized patient-centered measures
- Systematic feedback
- Accreditation or certification requirements
- Patient-centered policies

## REORIENT THE MODEL OF CARE

Reorient the model of care by designing and delivering efficient and effective services that are **holistic, comprehensive, and sensitive** to social and cultural needs and preferences.



## CASE STUDY: CLOSING THE LOOP

Closing the loop can embody person-centeredness by emphasizing patient, family, and caregiver empowerment and shared decision making.

- » Support patients so they have the confidence, knowledge, and skills needed to understand the information they are given about their health and to navigate healthcare systems.<sup>59</sup> In a study led by Gordon Schiff, MD, primary care providers used a decision aid and script to discuss uncertainty in the diagnosis of prostate cancer to facilitate shared decision making.
- » Make sure that people are aware of the patient portal and are able to access it, and that results are presented in a format appropriate to health literacy levels.
  - » Provide easy access to clinicians for questions about results in the portal
  - » Provide educational opportunities for people to learn how to use the patient portal
- » Referral coordinators and navigators use multiple modes of communication to contact the patient and facilitate the patient moving through the complexities of the health care system.
- » Utilize [patient decision aids](#) for shared decision making.
- » Support patients and families in what matters most to them through collaborative care and support planning.<sup>59</sup>



## RESOURCES: PATIENT-REPORTED OUTCOME MEASURES

Examples of patient-reported outcome measures that can be used in closing the loop:

- » CollaboRATE shared decision making score
- » [Patient Activation Measure](#)

# Resource:

## Readiness checklist

### (Atlas questions by domain)

Use this checklist to reflect on your readiness, it includes the readiness questions that are listed at the end of each domain overview, as well as who should respond to which questions. Each question is labeled by its domain so you can go back to that section of the guidance for some insight if you identify an area that needs improvement. We encourage teams to use the information that is produced to start a conversation amongst yourselves, focusing on the similarities, differences, strengths, and opportunities for improvement.

## LEADERSHIP

Leader	Leader with a frontline role	Frontline	Implementation		Agree	Disagree	Don't Know
<b>GOVERNANCE</b>							
■		▲		There is a clear goal for <i>[intervention name]</i>			
	◆	▲		I know who to go to on my clinical team when I need something for patient care.			
<b>ACCOUNTABILITY</b>							
■				Staff will have the supplies, medicines and equipment they need to be able to do <i>[intervention name]</i>			
■				In general, leaders are held accountable for the success of practice changes.			
■				In general, staff are held accountable (formally or informally) for doing practice changes.			
			●	The implementation team for <i>[intervention name]</i> has a leader who moves the work forward.			
			●	The implementation team meets at frequent intervals to discuss progress towards goals.			
	◆	▲		I am clear about my role on my clinical team.			
<b>PRIORITIZATION</b>							
■		▲		The problem being addressed by <i>[intervention name]</i> is one of our top priorities.			
■				<i>[Intervention name]</i> aligns with other goals we are working toward in our organization.			
■				We do not have other changes underway or planned that will compete with <i>[intervention name]</i> for resources, time or personnel.			
■				Staffing issues (turnover, too few staff) will not impact implementation of <i>[intervention name]</i> .			
■				I will prioritize my time for <i>[intervention name]</i> .			
■				Staff will have dedicated time to work on implementing <i>[intervention name]</i> .			
■				Staff will have dedicated time to participate in training for <i>[intervention name]</i> .			
■				A staff member will have dedicated time to support the implementation team with administrative tasks for <i>[intervention name]</i> .			
			●	I have enough time to work on implementing <i>[intervention name]</i> .			
		▲		I typically receive the help I need when our <i>[unit]</i> implements a change.			

## CULTURE AND CONTEXT

Leader	Leader with a frontline role	Frontline	Implementation		Agree	Disagree	Don't Know
CULTURE							
■		▲	In the past, I have seen <i>doctors</i> in our <i>[unit]</i> take the lead on promoting changes to improve patient care.				
■		▲	In the past, I have seen <i>nurses</i> in our <i>[unit]</i> take the lead on promoting changes to improve patient care.				
■		▲	In our <i>[unit]</i> , staff in the <i>same</i> role work well together.				
■		▲	In our <i>[unit]</i> , staff in <i>different</i> roles work well together.				
■			Our leaders stick with practice changes through the ups and downs of implementation.				
■		▲	I am comfortable asking for help at work.				
■		▲	I am comfortable speaking up when I have a concern at work.				
	◆	▲	In our <i>[unit]</i> , my clinical team works well together.				
	◆	▲	Members of my clinical team share key information as it becomes available.				
	◆	▲	Members of my clinical team listen to each other.				
CONTEXT							
■			Staff have the skills and knowledge needed to do <i>[intervention name]</i> .				



## PROCESS

Leader	Leader with a frontline role	Frontline	Implementation		Agree	Disagree	Don't Know
				<b>CO-CREATION</b>			
		▲		Leaders in our <i>[unit]</i> ask me for my input.			
				<b>HIGH RELIABILITY</b>			
■				Staffing issues (turnover, too few staff) will not impact implementation of <i>[intervention name]</i> .			
■				When we introduce changes they become part of the usual way we do our work.			
■				I make sure that staff receive the help they need when our <i>[unit]</i> implements a change.			
			●	The implementation team has a plan for how to implement <i>[intervention name]</i> .			
			●	The staffing on our implementation team has not changed.			
				<b>ENGAGEMENT</b>			
■				I know why we are introducing <i>[intervention name]</i> .			
■				<i>[Intervention name]</i> is the right solution to address the problem.			
■		▲		Senior leadership is committed to <i>[intervention name]</i> .			
■		▲		Our <i>[unit]</i> leadership is committed to <i>[intervention name]</i> .			
■				I am committed to <i>[intervention name]</i> .			
■		▲		I can identify <i>doctors</i> in our <i>[unit]</i> who will take the lead on promoting <i>[intervention name]</i> .			
■		▲		I can identify <i>nurses</i> in our <i>[unit]</i> who will take the lead on promoting <i>[intervention name]</i> .			

## MEANINGFUL MEASUREMENT

Leader	Leader with a frontline role	Frontline	Implementation		Agree	Disagree	Don't Know
■		▲		I am able to view our <i>[unit]</i> 's patient outcome data (for example, total number of falls or infections, vaccination rates, patient feedback).			
■		▲		We use our <i>[unit]</i> 's patient outcome data (for example, total number of falls or infections, vaccination rates, patient feedback) to change how we provide patient care.			
■		▲		In general, our <i>[unit]</i> collects data about patient outcomes (for example, total number of falls or infections, vaccination rates, patient feedback).			

## PERSON-CENTERED CARE

Leader	Leader with a frontline role	Frontline	Implementation		Agree	Disagree	Don't Know
■		▲		I would feel safe receiving care in my [unit] as a patient.			
■		▲		Our [unit] has the bandwidth to take on a patient improvement project at this time.			
■		▲		There are systems or processes in place to ensure that patients are empowered in their care and engaged in the planning of their health systems.			
■				We collect patient-reported outcome measures, including perceptions of care.			
■		▲		There are defined standards for person-centered care that are built into quality assurance programs and are monitored and acted upon.			
■		▲		Leaders and staff receive training in person-centered care.			
■				Health literacy and cultural competency are considered in all initiatives, and educational support is provided for patients to make informed decisions about their care.			

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