Issue Brief 5

Leadership To Improve Diagnosis: A Call to Action

Agency for Healthcare Research and Quality

PATIENT SAFETY

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Leadership To Improve Diagnosis: A Call to Action

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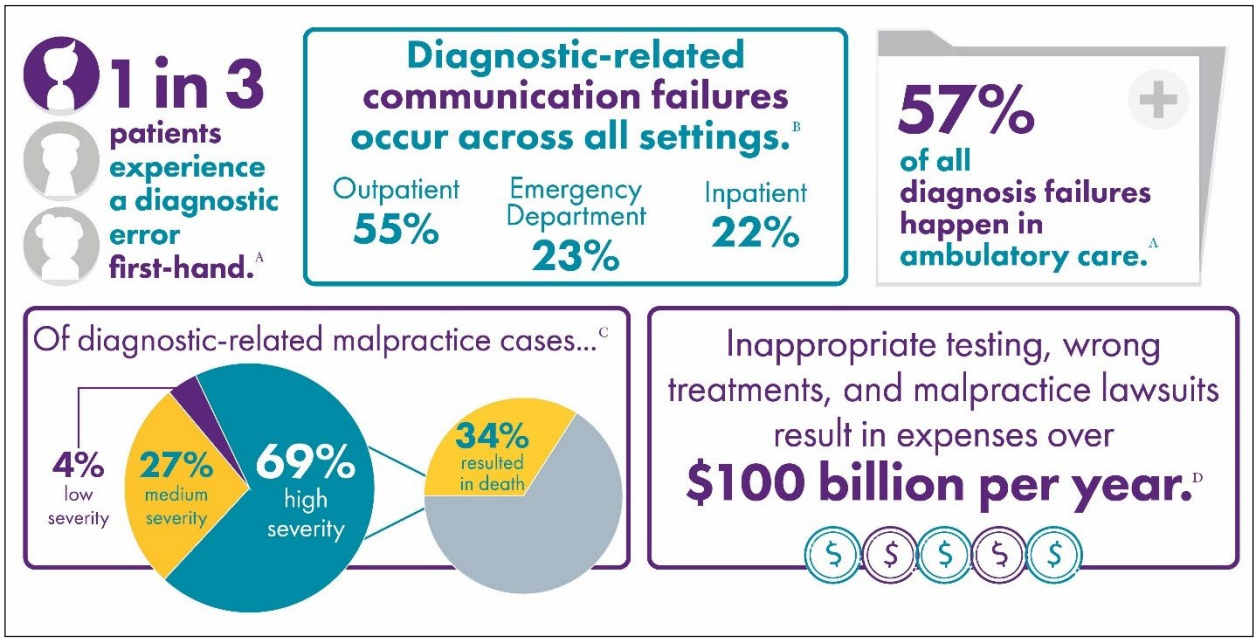
Diagnostic Safety as a Challenge for Healthcare Leadership

All members of healthcare organizations play a vital role in patient safety and quality, but healthcare leaders have a unique responsibility for ensuring that all patients receive patient-centered, safe, effective, efficient, equitable, and timely care. This care includes addressing both established and emerging safety concerns, such as diagnostic errors, which can involve up to 12 million patients annually in U.S. ambulatory settings alone and contribute to death for up to 80,000 patients in U.S. hospitals annually.[1]

Evidence suggests failures in diagnosis plague the general patient population across all settings of care. Errors involve common conditions and nearly half of them have potential for patient harm. This staggering estimate is not surprising, given that the diagnostic process is complex, and diagnostic accuracy and timeliness are not solely the domain of clinicians,[2] but also depend on system-level factors. Leaders occupying roles ranging from individual shift or practice managers to members of the executive team will be critical in meeting the challenge of improving diagnostic safety.

The nature and magnitude of diagnostic errors and their tangible associated costs are drawing the attention of regulators, payers, and patients. Similar to other patient safety issues (e.g., healthcare-associated infections, or HAIs),[3] in addition to the moral imperative for preventing diagnostic errors, a strong case can be made for return on investment for improvement efforts, as illustrated in Figure 1.

Figure 1. Location and Impact of Diagnostic Failures



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Healthcare organizations will undoubtedly face increasing scrutiny and accountability to address this urgent healthcare problem. Federal agencies are actively developing standardized ways to capture diagnostic safety events to guide improvement efforts. Public health advocates such as The Leapfrog Group and Hospital Compare are working on ways to represent organizational commitments to and capabilities in achieving diagnostic excellence[4] and to convey this information in a meaningful way to patients and payers. Coalitions and researchers dedicated to improving diagnosis have created resources to address common organizational needs such as measuring diagnostic improvement opportunities.[5,6]

Meeting the diverse system-level challenges of diagnostic safety requires transformational leadership rooted in a growth mindset—a belief that individual and organizational capabilities can be improved with effort, effective strategies, and input from others.[7] Confronting the challenge of diagnostic errors offers healthcare leaders the potential to improve patient care, enhance the work environment for providers, reduce costs associated with malpractice insurance and litigation, and position their organization as a market and industry leader. This brief provides an overview of how healthcare leaders can start to carry out the responsibility of improving diagnosis.

Why Are Leaders Essential to Diagnostic Safety?

Although slower than expected, progress in addressing patient safety issues has been made since publication of the Institute of Medicine's seminal report *To Err Is Human: Building a Safer Health System* more than 20 years ago.[8] National attention by quality and safety improvement organizations, Federal agencies, safety scientists, and scholars led to efforts to facilitate collaboration and coordination, disseminate evidence-based practices, and foster leadership commitment to the creation of learning health systems.[9,10]

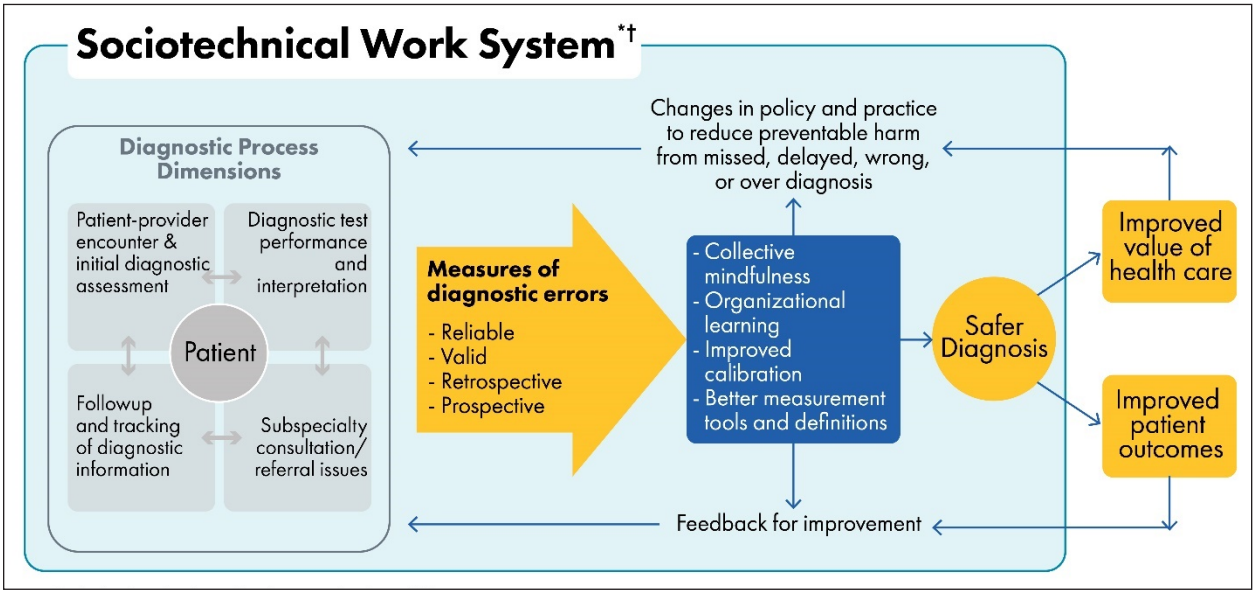
Two decades of patient safety research have shown that improvement efforts work when they span multiple levels and roles within an organization,[11] including healthcare leaders, clinicians, patients, regulators, policymakers, and purchasers. These lessons tell us that healthcare leaders need to play an essential role in preventing diagnostic errors, as they have with progress made in addressing other forms of preventable patient harm.

Leadership engagement is a critical driver of safety and quality improvement initiative success,[12–17] such as mitigating HAIs, implementing patient safety teams, improving structured communication strategies, and normalizing the use of teamwork tools. Leadership contributes[18] to both a learning system and local culture and consistently[19] is essential to both staff engagement and successful patient outcomes.

Knowledge of the harms associated with missed, delayed, or inaccurate diagnoses is emerging. The science of diagnostic safety is maturing, and a more standard and pragmatic foundation for diagnostic improvement is beginning to take shape. Figure 2 (Safer Diagnosis Framework) illustrates how key leadership and management functions such as collective mindfulness, organizational learning, improved collaboration, and better measurement tools and definitions are central to diagnostic safety.

Despite the need, healthcare leaders have not been the target audience for much of the diagnostic safety improvement work to date, despite their central role in past safety and quality improvement successes. Therefore, the gap in leadership recognition, prioritization, and investment to address diagnostic safety is not surprising. Best in class diagnostic performance requires both clinical and administrative leadership,[20] but clear guidance for leaders on this topic has been elusive.

Figure 2. Safer Diagnosis Framework for Measurement and Reduction of Diagnostic Errors19 (Sociotechnical Work System)



* Includes eight technological and nontechnological dimensions.

† Includes external factors affecting diagnostic performance and measurement, such as payment systems, legal factors, national quality measurement initiatives, accreditation, and other policy and regulatory requirements.

How Can Leaders Drive Improvements in Diagnostic Safety?

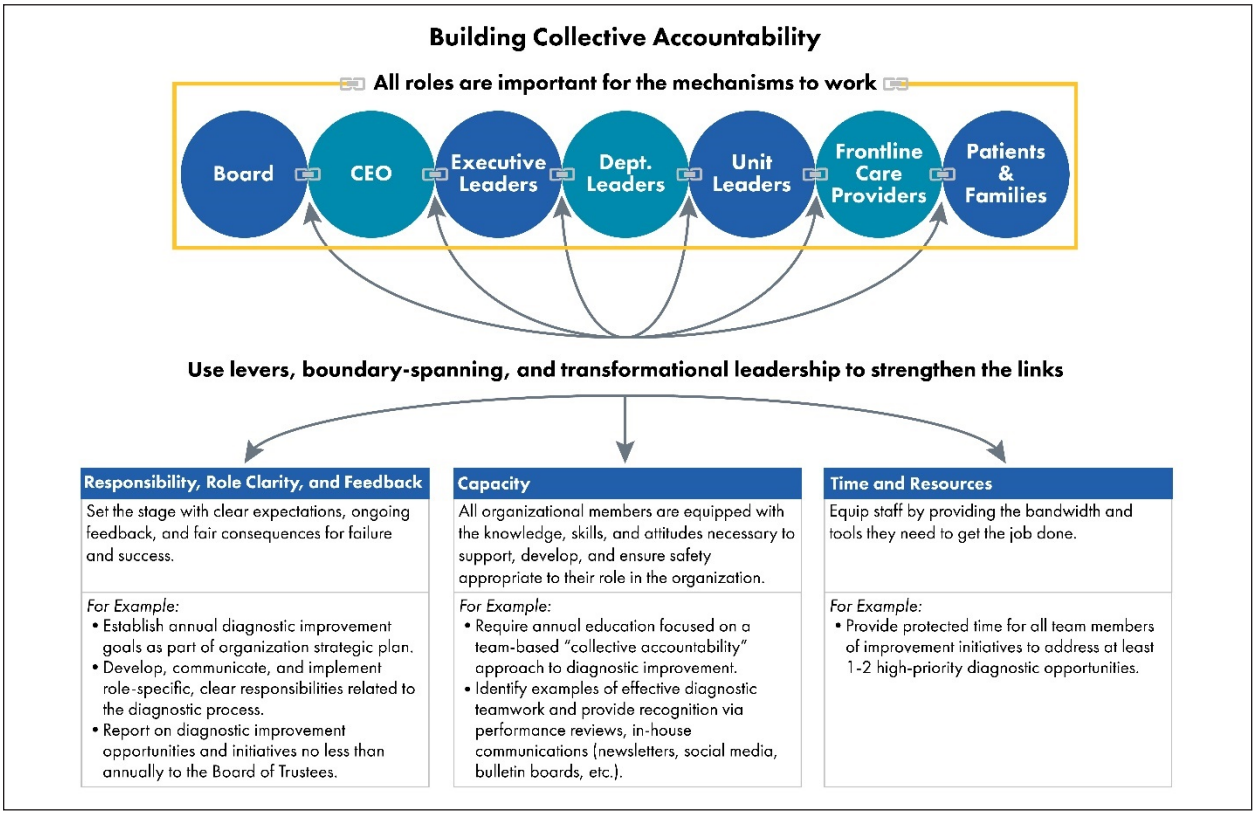
To solve the problems posed by the new challenge of diagnostic safety, leaders cannot rely on physician skill alone. Organizations need infrastructure and processes in place to support the entire diagnostic team as they work with patients and caregivers and as they do the difficult work of understanding and improving current diagnostic practices. Transformational leaders with a growth mindset—a belief that improvement is possible with effort, good strategy, and broad input[21]—can help improve diagnostic safety. To that end, leaders must create a sense of collective accountability for diagnostic safety.

Collective accountability involves cultivating a shared sense of responsibility, contribution, and control for diagnostic safety improvement among all formal and informal leaders. The Collective Accountability Framework depicted in Figure 3 was developed by the Armstrong Institute while working with the CMS Hospital Engagement Networks. This practical framework can be used to engage and coach hospital executives on their role in patient safety and quality improvement efforts. The framework is rooted in the organizational sciences and has been field tested in numerous initiatives and organizations over the past decade.

First, all staff in the organization need to understand their responsibility for diagnostic safety. It is a critical part of their job and they are expected to participate fully in diagnosis and diagnostic safety improvement efforts as appropriate. Second, they need to feel that they can meaningfully contribute to those efforts. Their perspective is valued, and they have the skills to meet the demands of diagnostic safety improvement. Third, they have the autonomy or support (control) to make the changes in the workplace needed to address deficient diagnostic processes.

The success of any quality improvement effort relies on leadership support and buy-in.[22] Staff need to know that once they identify a problem and develop a solution, leaders will work with them to make the needed changes and communicate them accordingly. Strong collective accountability can lead to robust progress in diagnostic safety without which improvement efforts may struggle. We describe several strategies[5,23] below to cultivate collective accountability for diagnostic safety.

Figure 3. Building Collective Accountability



Using the levers of collective accountability to drive diagnostic safety improvement. Levers are a means to an end and a way to move one's organization toward its goals. Developing collective accountability for any organizational priority is complex, and, once developed, it is prone to slip away unless mindfully and reliably tended.[24] Use of management approaches can ensure the necessary conditions are in place for the emergence of collective accountability and key leadership behaviors can focus and engage staff in diagnostic safety improvement efforts. These management and leadership tactics are the levers of collective accountability.

First, leaders can promote a shared sense of responsibility for diagnostic safety through *role clarity, responsibility, and feedback mechanisms.* These include setting and communicating diagnostic improvement goals that are meaningful for everyone in the organization. People need to understand the goal, but also what they can do on a daily basis to help reach that goal. In addition, people need feedback on the organization's progress toward those goals and to understand what will happen if they do or do not meet those goals. Effective leaders maintain and use different approaches to recognize and celebrate successes, and they support staff who may be struggling to meet organizational goals.

Second, leaders use *formal and informal learning strategies* to build capacity. Improving quality and safety requires a skill set above and beyond that of a frontline clinician. Whether in process improvement methods, evaluation skills, or coaching, team members need opportunities to develop as professionals. By fostering key individual competencies, organizations should improve the likelihood of meeting their diagnostic safety goals. Staff in different areas of the organization should be sharing diagnostic-related experiences and learning from one another. This process rarely happens organically, and leaders need to create the capacity for these interactions.

Third, leaders use *transparent and formal processes* for allocating resources to priorities. All staff should know that they are positioned for success when they undertake diagnostic safety improvement efforts and that the organization is aligning its resources with its priorities.

Fourth, leaders lead, and they do so with *a hands-on and transformational style*[25] across professional and other organizational boundaries. The aforementioned levers are largely management tactics, which are necessary but not sufficient to improve diagnostic safety. Leaders must engage people intellectually and motivationally in diagnostic safety and do so by building strong relationships in the organization. Table 1 provides mechanisms and strategies to establish collective accountability for safe diagnosis. Table 2 provides questions healthcare leaders should consider when building collective accountability for diagnostic safety.

Table 1. Implementing a Collective Accountability Framework for Safe Diagnosis

Shared Responsibility			
Definition	**Benefit**	**Mechanisms**	**Strategies for Transformational Leadership**
Mutual sense of joint obligation related to care improvement goals and processes shared among leadership and members of a team.	Potential gains for diagnostic safety and improvement, patient safety improvement, organizational return on investment in quality, improved clinical outcomes, increased patient satisfaction, regulatory adherence to high-quality care, and value-based care for payers.	Clearly define: 1. Responsibilities. 2. Roles. 3. Feedback mechanisms. Use existing facilitators to further your goals: 1. Staff safety champions 2. Infrastructure (e.g., electronic medical records, event reporting systems) 3. Resources in use (e.g., safety protocols, checklists) 4. Improvement programs (e.g., quality improvement initiatives, safety tools, teamwork tools, high-reliability organization principles)	Ask and address pertinent questions: Are all players on the same page concerning roles, responsibilities, and feedback mechanisms (i.e., do we have shared mental models about these things)? Do we have the knowledge, skills, and attitudes necessary to make the changes we are collectively considering? Are we aligning time and resources for this work that sends signals that it is valuable and worthy of investment? Am I, and fellow leaders, communicating a compelling vision for this work and how it aligns with our mission, values, and other work?

Continued

Shared Contribution			
Definition	**Benefit**	**Mechanisms**	**Strategies for Transformational Leadership**
Collective sense that organizations have the knowledge, skills, and attitudes necessary to engage in continuous improvement work and understand leadership and team interdependencies.	Boundary spanning supports the development of shared mental models about the collective system-level goals and strategies for coordinating action and resources across the leaders of the multiple teams working together.	Ensure capacity building among staff through: 1. Formal learning opportunities for developing critical competencies for diagnostic safety improvement. 2. Informal learning strategies to connect across the organization working to improve diagnosis. 3. Meeting opportunities to cultivate a shared mindset among all staff on their role in improving diagnostic safety.	Facilitate the emergence of collective accountability by: 1. Participating in meetings. 2. Taking on secondary roles as part of a coordinating team specifically tasked with aligning efforts across teams. 3. Monitoring collective progress. 4. Synchronizing the pace of work across multiple teams. 5. Recognizing the need for adaptation.
Shared Control			
Definition	**Benefit**	**Mechanisms**	**Strategies for Transformational Leadership**
Shared ownership, coupled with clear linkages between collective effort and collective outcomes, as well as individual effort and collective outcomes.	Motivation by encouraging employees to achieve beyond expectations, setting high but realistic standards, transmitting these standards through interpersonal interactions, instilling confidence in team members, and fostering resilience and self-efficacy.	Align organization priorities and actions through structured and transparent processes to: 1. Allot time to complete the work. 2. Ensure resources are available to undertake the work. 3. Determine how to evaluate and monitor progress using new or existing evaluation strategies. Couple staff behavior with feedback by providing feedback on: 1. Organizational outcomes. 2. Local team-level performance. This approach can strengthen a sense of shared control, and the team's contribution to local and system-level goals, which can improve patient outcomes.	Proactively: 1. Solicit team members for suggestions and ideas, encouraging creativity. 2. Empower frontline care providers to develop their own problem-solving strategies, and encourage team members to question their own commonly held assumptions. 3. Foster individual mentorship to build capacity. 4. Recognize team member achievements and progress. 5. Provide caring, empathetic emotional support, and establish relationships with care providers.

Table 2. Considerations for Building Collective Accountability for Diagnostic Safety

Shared Responsibility	Goal setting • What top-down goals can we set for the entire organization? • How can we use participatory goal setting to engage staff in the diagnostic safety improvement process? Goal communication • How will people know what is important and what we are trying to achieve? Feedback on performance • How do people know how they are performing relative to standards and goals? Contingencies • What happens if goals are or are not met?
Shared Contribution	Formal learning strategies • What type of development opportunities are needed and available? Informal learning strategies • How are we encouraging learning, innovation, and spread of ideas across organizational boundaries? Process for allocating resources to priorities • Is there a structured and transparent process in place?
Shared Control	Boundary spanning • What professional, organizational, or geographic boundaries do the problem and solution cross? Do we have leaders capable of working across these boundaries? Transformational leadership • How are we engaging staff and building strong relationships?

What Can Leaders Achieve by Prioritizing Diagnostic Safety?

Diagnostic safety is vital to learning health systems committed to eliminating preventable harm. There is an **ethical, business**, and **community case** for addressing diagnostic safety.

Ethical case: One in three patients has firsthand experience with a diagnostic error. One-third of malpractice cases that result in death or permanent disability stem from an inaccurate or delayed diagnosis, making it the number one cause of serious harm among medical errors.[26] Diagnostic safety is a patient safety issue that affects millions of patients in the United States each year, and the time to act is now. Good patient outcomes hinge on having an accurate and timely diagnosis. Therefore, building capacity for diagnostic excellence is critical to more fully realizing the ethical imperative for healthcare organizations to do no harm.

Business case: Improving diagnosis can reduce costs. It is estimated that at least $200 billion is wasted annually on excessive testing and treatment.[27] This overutilization contributes to harm, with aggressive testing mistakes and injuries believed to cause 30,000 deaths each year.[27] Even more specifically, data from autopsies indicate that approximately 10 percent of patients had missed or incorrect diagnoses.[2] Getting accurate diagnoses in a timely fashion is a crucial component of healthcare. It provides an explanation of a patient's health problem and informs every subsequent healthcare decision. It is essential that every healthcare encounter is safe and free from harm.

Community case: Implications of an unhealthy population are increasingly recognized, and the complexity of addressing health challenges requires that healthcare leaders collaborate with other public and private community-oriented groups to improve health. Promotion of community health is an important strategy in combating preventable harm of all types, including diagnostic errors.

Building health-literate healthcare organizations, that is, healthcare organizations that make it easier for people to navigate, understand, and use information and services to take care of their health[28] serves as a means to more meaningfully engage patients in diagnostic processes, as well as enabling broader patient activation in health. The community case for diagnostic safety is represented in the interdependent recommendations from the National Action Plan to Advance Patient Safety (NAP).[9] The NAP highlights the need for a total system approach across the entire healthcare continuum that promotes robust collaboration among all stakeholders to prevent harm.[9]

An integral part of delivering high-quality healthcare is understanding the social determinants of health of patients and communities in which healthcare is provided.[29] Historically in the United States, health outcomes have not been equal for all patients. Disparities in diagnosis occur by race, color, ethnicity, disability, sex, gender expression, gender identity, and sexual orientation. Disparities are a safety issue that should be owned by a health system's leadership and a focus of its safety efforts.[30]

Leaders that consider the **ethical, business**, and **community** cases as part of their diagnostic safety efforts are better positioned to advance the well-being of their communities and staff and improve patient outcomes.[31]

A Path Forward for Diagnostic Safety Improvement Leadership

Despite the enormous financial cost and patient harm resulting from diagnostic error, many leaders have not addressed this growing patient safety problem.[32] Healthcare leaders must create a climate that helps diverse, dynamic, sometimes geographically dispersed diagnostic teams to provide accurate, timely, and fully communicated diagnoses. Leaders with a growth mindset take on challenges, persist through obstacles, learn from criticism, and seek inspiration in others' success. This is no small challenge in the face of competing priorities, but now is the time to begin the journey.

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