Becoming a High-Reliability Organization

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Managing risks and striving to keep patients safe is utmost for healthcare organizations. Despite serious and widespread efforts to improve healthcare quality, however, preventable harm to patients occurs every day.

Healthcare organizations face very difficult and risky situations every day that can end catastrophically as a result of mistakes and errors, so they put processes and procedures in place to avoid these events.

Taking this a step further, many healthcare organizations strive to become high-reliability organization (HROs). Healthcare organizations can adapt and apply the lessons of high-reliability science, which is the study of organizations in industries like nuclear power and commercial aviation that operate under hazardous conditions while maintaining safety levels. Healthcare organizations can also implement specific organizational change initiatives to reach levels of quality and safety that are comparable to HROs.

Definition of a High-Reliability Organization

An HRO is an organization that experiences fewer than anticipated accidents or events of harm despite operating in highly complex, high-risk environments.[1] HROs achieve safety, quality, and efficiency goals because their team members are constantly and persistently mindful of errors. This creates "an environment in which potential problems are anticipated, detected early, and virtually always responded to early enough to prevent catastrophic consequences."[2]

Processes and systems are in place in HROs that are highly consistent in meeting their goals and avoiding catastrophic errors. They create a culture of safety and enhance their quality through improved teamwork and communication, increased ability to speak up, and higher employee satisfaction.

Five Central Principles

Maintaining five central principles is critical to HROs avoiding catastrophes in an environment where accidents are likely because of risk factors and complexity of operations. These principles include the following five:

1. **Sensitivity to operations.** HROs reject assumptions, and team members closely evaluate what works well and what does not in relation to operations. They scan for anomalies or potential problems. "This steady and constant concentration on processes leads to observations that inform decision-making and new operational initiatives."[3]

   To apply this vigilance, HRO team members use communication tools such as the TeamSTEPPS® SBAR (**S**ituation, **B**ackground, **A**ssessment, **R**ecommendation and Request) and situation monitoring, which is the process of continually scanning and assessing a situation to gain and maintain an understanding of what's going on.

2. **Preoccupation with failure.** HROs expect failures and near-failures, but they use them to garner insight into their strengths and weaknesses and create opportunities for change. Failures will occur, but if reviewed when they occur, HROs pinpoint opportunities to improve and ensure it happens. They are also alert to failure by paying attention to small, even inconsequential errors that may indicate something is wrong.

   HROs conduct brief sessions before the start of a new program or process, meet in huddles, and debrief staff. All these meetings provide a chance to share the plan, discuss the team formation, assign responsibilities, establish expectations, reinforce the game plan, and review the team's performance.

3. **Deference to frontline expertise.** HROs value the insights from those on the frontlines with the most pertinent safety knowledge over those with greater seniority. Deferring to the team member with the most knowledge of the issue as opposed to the one with most seniority is paramount. Team members must listen and respond to the experts in their field, regardless of rank, position, and title.

   HROs encourage their team members to speak up about safety issues with assertive statements, such as the TeamSTEPPS CUS method (I am **C**oncerned, I am

Uncomfortable, this is a **S**afety issue). Additionally, the culture in the HRO ensures all team members feel comfortable speaking up, regardless of their role or status.

4. **Reluctance to simplify.** HROs embrace the complexity of operations. They never oversimplify explanations for (or disregard) problems, and they understand that the work is complex and that not every problem can be anticipated. HROs stay attuned to the frontline work, while being mindful of the complexity of organizational systems.

   To enhance information exchange during handoffs, team members often use the TeamSTEPPS I-PASS tool (**I**llness severity, **P**atient summary, **A**ction list, **S**ituation awareness & contingency planning, **S**ynthesis by receiver). HROs have more success in achieving sustainable change through approaching team members with the opportunity to take "ownership" of a change rather than reaching for team member buy-in.

5. **Commitment to resilience**. HROs cultivate resilience by "relentlessly prioritizing safety over other performance pressures."[4] Employees at HROs are willing to offer each other constructive feedback, talk about mishaps, and collaborate to pinpoint ways to solve problems. They often practice response for emergencies and system failures, and then devise processes to detect, control, and bounce back from errors.

   Team members often use the TeamSTEPPS I'M SAFE Checklist (**I**llness, **M**edication, **S**tress, **A**lcohol and Drugs, **F**atigue, **E**ating and Elimination) as they are responsible for assessing their own safety status. As a constructive approach for managing and resolving conflict, they also often use the TeamSTEPPS DESC Script (**D**escribe the specific situation or behavior [providing concrete data], **E**xpress how the situation makes you feel/what your concerns are, **S**uggest other alternatives and seek agreement, **C**onsequences should be stated in terms of impact on established team goals [strive for consensus]).[5]

Implementation Strategies

To perpetuate these five central principles, HROs employ some key implementation strategies:

- **Develop leadership.** Secure a leadership commitment that it is evident and influencing throughout all levels of the organization.

- **Support a culture of safety.** Promote accountability. Reward reporting of events and near misses. Refrain from assigning blame to team members who make mistakes.

- **Build and use data systems to measure progress.** Standardize coding and reporting of all adverse events and near misses. Also standardize metrics and tools for monitoring progress.

- **Invest in staff development and staff self-efficacy.** Provide training and learning opportunities for providers and staff.

- **Implement quality improvement interventions to address specific patient safety issues.** Maintain a patient-centric focus, and be transparent about patient safety metrics. Aim for zero harm in patient safety goals.[6]

Complementary Practices for Strengthening Implementation

Here are some recommended approaches that healthcare organizations can take to strengthen the implementation of their HRO efforts:

- **Incorporate justice, equity, and patient-centeredness.** Examples include hiring a diverse workforce or prioritizing quality improvement initiatives that address safety issues that disproportionately affect patients form racial/ethnic minority groups.

- **Involve a variety of stakeholders, including patients and family.** Ways to do so include creating patient and family advisory councils, assessing patient perspectives of culture of safety, and inviting patients to serve on HRO leadership committees.

- **Assemble interdisciplinary teams.** These teams may evolve from (1) inviting providers from different specialties to attend daily safety huddles or (2) having nurses, providers, and staff all attend the same HRO training sessions together, among other activities.

- **Use change management strategies, such as Lean Six Sigma, to promote change.** Train staff on Lean Six Sigma or apply Lean thinking to root cause to identify what is contributing to patient safety events and identifying and implementing solutions.[7]

HRO Models and Assessment Tool

To guide their implementation of processes to become an HRO, healthcare organizations can follow these models that are widely applicable to them:

- The Joint Commission's High Reliability Health Care Maturity Model (HRHCM)

- Institute for Healthcare Improvement's A Framework for Safe, Reliable, and Effective Care

The Joint Commission has also developed a tool, Facilitated High Reliability Maturity Assessment/Oro® 2.0, to evaluate a healthcare organization's process on becoming an HRO.

In Summary

The principles of HROs reach beyond processes and standardization; team members need to be persistently mindful. It is an ongoing journey rather than a specific structure. To sustain focus, HROs "must remain diligent and resilient as new threats will always arise, and leading problems and challenges will always change."[8]

Resources

- Agency for Healthcare Research and Quality: Patient Safety Primer: High Reliability

- Agency for Healthcare Research and Quality: Pocket Guide: TeamSTEPPS® 3.0

- Agency for Healthcare Research and Quality: TeamSTEPPS®

- The Joint Commission Resources: High Reliability in Health Care is Possible

- Wolters Kluwer: Using Technology to Become a High-Reliability Healthcare Organization

Endnotes

[1] Veazie, S., Peterson, K., & Bourne, D. (2019, May). *Evidence brief: Implementation of high reliability organization principles.* Washington, DC: Department of Veterans Affairs. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK542883/

[2] Agency for Healthcare Research and Quality. (2019, September 7). *Patient safety primer: High reliability.* Patient Safety Network. Retrieved from https://psnet.ahrq.gov/primer/high-reliability

[3] Gamble, M. (2013, April 29). 5 traits of high reliability organizations: How to hardwire each in your organization. *Becker's Hospital Review.* Retrieved from www.beckershospitalreview.com/hospital-management-administration/5-traits-of-high-reliability-organizations-how-to-hardwire-each-in-your-organization.html

[4] Ibid.

[5] Veazie, et al., *Evidence brief: Implementation of high reliability organization principles;* Gamble, 5 traits of high reliability organizations: How to hardwire each in your organization; American Hospital Association. (2017, October 19). Demystifying HROs with TeamSTEPPS®. AHA Team Training Monthly Webinar. Retrieved from www.aha.org/education-events/demystifying-hros-teamstepps

[6] Veazie, et al., Evidence brief: Implementation of high reliability organization principles.

[7] Ibid.

[8] Sparkman, L. (2019, November 11). Is high reliability here to stay? Why it's a "yes." *Relias*. Retrieved from www.relias.com/blog/high-reliability-is-here-to-stay