Becoming a High Reliability Organization (HRO)

Leading from the frontline

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TEXAS DEPARTMENT OF AGRICULTURE
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- **Each webinar is approved for 1 Continuing Nursing Education credit**
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- **For those watching in groups:**
- **Only one email will be sent with evaluation if only one person is registered Make sure you each go in and actually register for the series**

Learning Objectives

- Define high reliability in healthcare
- Identify three ways in which frontline staff exhibit high reliability
- Identify ways to assess for system issues that increase risk of error
- Describe measures facilities can take to move toward high reliability as an organization

Why High Reliability

Why Patient Safety?

- Medical errors are considered the 3rd leading cause of death in the United States
  - 1 in 4-6 US patients are harmed while in hospital
  - Studies suggest as much as 50-60% of medical errors are preventable
  - Misdiagnosis and medication are leading causes of error
- Healthcare organizations and professionals have a duty and responsibility to provide safe, reliable, patient-centered care.

Doctor/Patient Dialogue Graphic. Digital Image. 2020. https://answers.childrenshospital.org/language-barriers-medical-errors/.

Consider this...

- Research shows humans:
  - make 35,000 decisions *everyday*!
  - experience 3-6 errors every hour in “normal” conditions
  - can experience 11-15 errors per hour in “stressful, emergent, or unusual” conditions

High Reliability

What is a High Reliability Organization?

- Organizations that operate in complex, high-risk environments with consistently safe and effective outcomes
- Examples: aviation, nuclear power, healthcare
- Key feature: minimize errors despite high-risk situations

High Reliability in Healthcare

Joint Commission Center for Transforming Healthcare: “High reliability means consistent excellence in quality and safety across all services maintained over long periods of time.”

HRO Diagram. Digital Image. (n.d.) https://www.dotankdo.com/healthcare/.

Five Core Principles of HROs

1. Preoccupation with failure
2. Reluctance to simplify
3. Sensitivity to operations
4. Commitment to resilience
5. Deference to expertise

Preoccupation with Failure

Consider	Constantly consider what could go wrong
Encourage	Encourage reporting of near misses and errors
View	View small problems as early warning signs

Reluctance to Simplify

Avoid	Avoid oversimplifying explanations for problems
Dig	Dig deeper to understand root causes
Use	Use multiple perspectives in problem-solving

Sensitivity to Operations

- Maintain awareness of the frontline conditions
- Leaders and staff should communicate openly
- Real-time monitoring of systems

Commitment to Resilience

- Ability to respond to unexpected events
- Learn from past mistakes
- Continuous improvement mindset

Deference to Expertise

Decision-making by those with the most knowledge, not just authority

Encourage speaking up regardless of rank

Promote interdisciplinary collaboration

Characteristics of Highly Reliable Organizations

- **Preoccupation with Failure**
  - Standardization
  - Checklists
  - Reporting – errors and near misses
- **Reluctance to simplify**
  - Human Factors and System Engineering
- **Sensitivity to Operations**
  - Reporting – errors and near misses
  - Fair and Just
- **Deference to Expertise**
  - Team
  - Flexibility
- **Commitment to Resilience**
  - Willingness to learn and grow
  - Continually striving for improvement

Culture of Safety / Human Factors / System Engineering

Culture of Safety

What is Culture of Safety?

- **Culture of Safety:**

- “The term "safety culture" has been defined by various organizations. Generally, a safety culture is viewed as an **organization's shared perceptions, beliefs, values, and attitudes that combine to create a commitment to safety and an effort to minimize harm** (Weaver et al.). In the simplest of terms, a safety culture is the combination of attitudes and behaviors toward patient safety that are conveyed when walking into a health facility” (ECRI, 2019).

- Weaver, et al, (2013) states “**culture influences one’s motivation to engage in safe behaviors.”**

Culture of Safety in Organizational Practice

- Acknowledgement of the high-risk nature of healthcare
- Blame-free environment; Just Culture
- Collaboration across ranks and disciplines, including the board
- Organizational commitment of resources

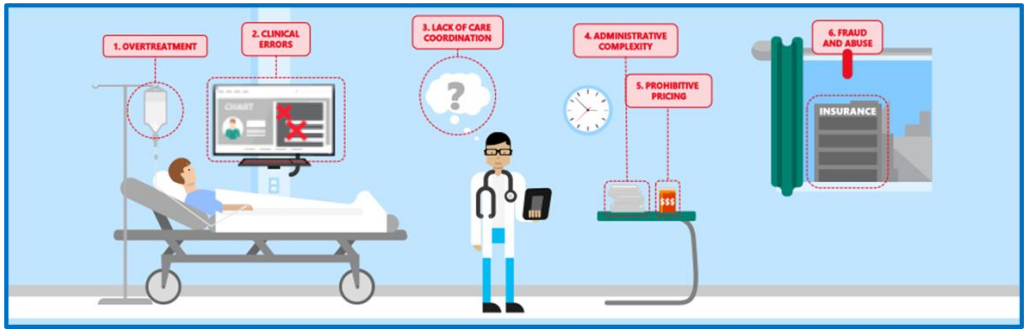
All Hands In Graphic. Digital Image. 2020. https://rms.rdale.org/discover/news/article/~board/robbinsdale-middle-news/post/rms-student-affinity-groups.


Human Factors

Human Factors Definition

Johns Hopkins Medicine Institute for Patient Safety and Quality:

- "…the focus of human factors, a scientific discipline that aims to help people do their best work, improve resilience and overall system performance, and minimize errors. Human factors-based solutions make it "easy to do things right and hard to do things wrong." When errors do occur, they are less likely to lead to patient harm."



Medical Errors Consequences. Digital Image. 2017. https://cloudblogs.microsoft.com/industry-blog/health/2017/03/28/diagnosing-healthcare-spending-the-top-6-ways-to-increase-efficiency-in-healthcare/.

Human Factors

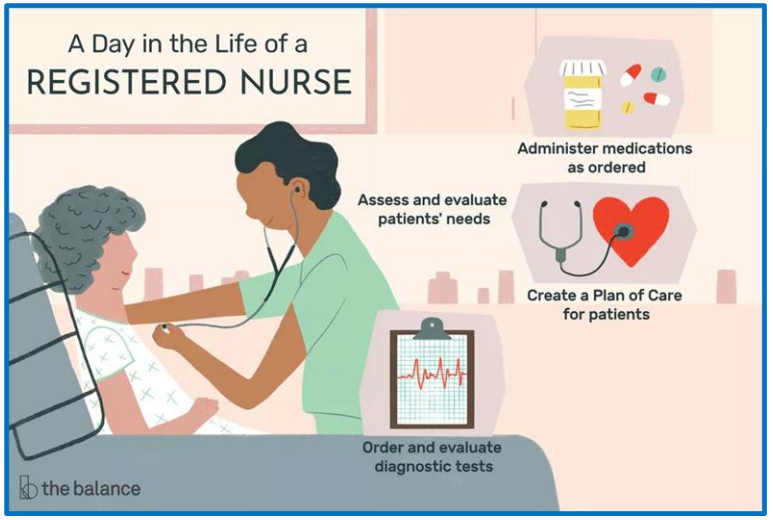
- How do humans interact with their work environment?
- Often, hospital equipment, procedures, processes, and layout do not account for this unique interaction – which can lead to unintended medical errors.

Nurse working with Doctor looking on. Graphic Digital Image. 2021. https://www.healthstream.com/resource/blog/work-life-balance-in-a-nursing-career.

System Engineering

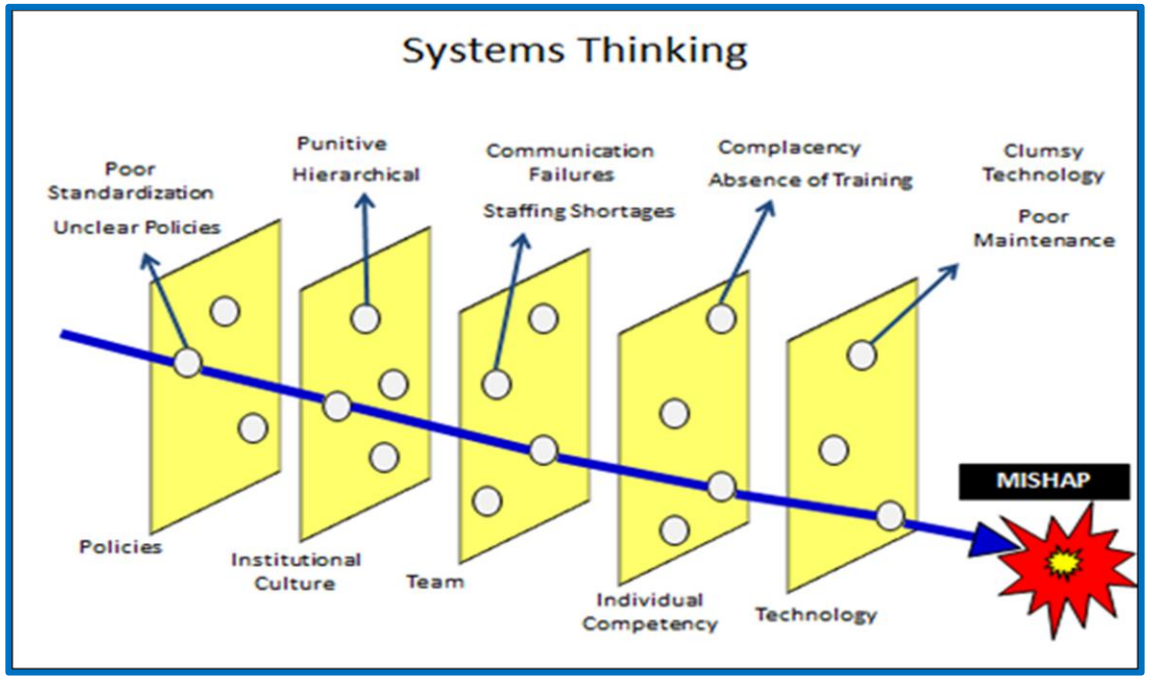
Systems Engineering Definition

- System: "…a set of components that interact to accomplish a common goal."
- System Engineering: "…the design of the overall system…effectively designing and integrating the components of a system proactively…"



RN working with a patient in the healthcare system. Digital Image. 2019. https://www.thebalancecareers.com/registered-nurse-526062.

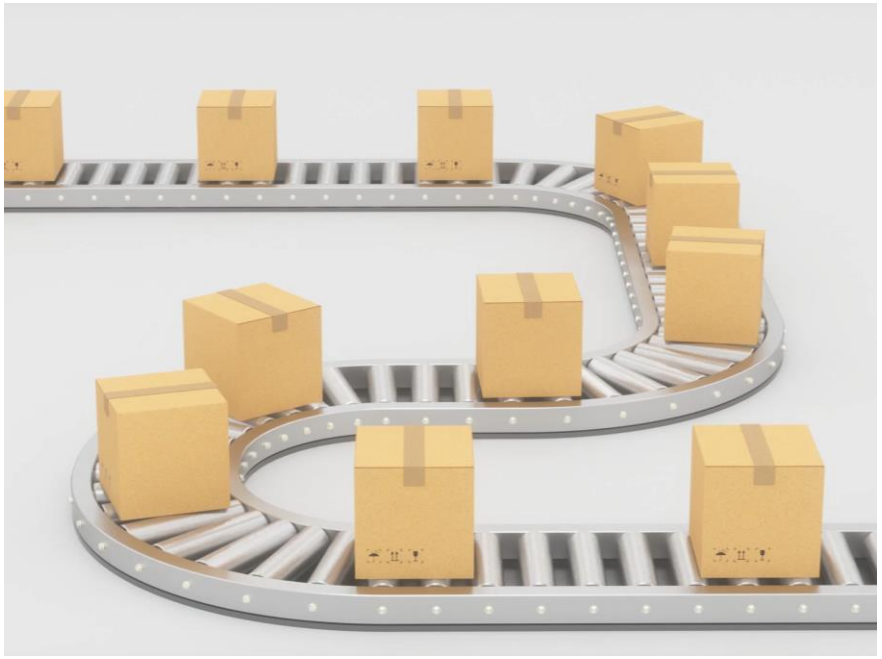
Systems Engineering and Systems Thinking



Intensive Care Unit

What could possibly go wrong?

- Nurse working in ICU. Digital Image. 2021. https://www.abc.net.au/news/2021-09-19/ballarat-covid-delta-outbreak-victoria-small-towns-worried/100471902.

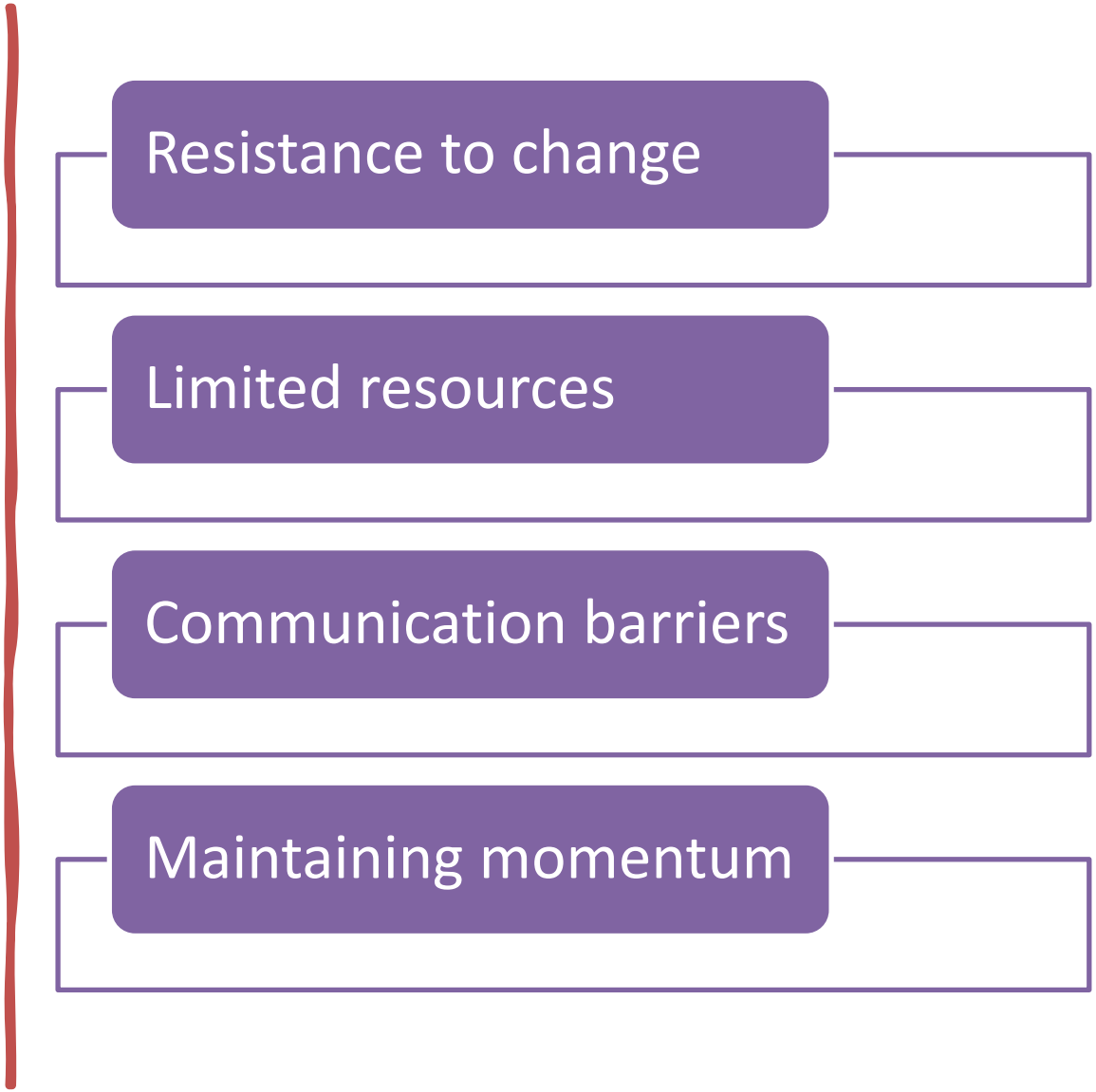


Moving to High Reliability

Steps to Becoming an HRO in Healthcare

- Leadership commitment
- Safety culture development
- Robust process improvement
- Learning systems
- Empowered frontline staff

Challenges in Becoming an HRO



Overcoming Challenges

Foster open communication

Get adequate training

Celebrate small wins

Ensure leadership visibility

Measuring Progress

- Patient safety metrics
- Staff engagement scores
- Incident reporting trends
- Process improvement outcomes

How Frontline Staff Exhibit High Reliability

1. Vigilance and Early Problem Detection – Actively identifying and reporting near misses, unsafe conditions, and small process failures.

2. Speaking Up and Deference to Expertise – Raising concerns regardless of hierarchy when safety is at risk, and listening to those with the most relevant knowledge.

3. Adapting Quickly to the Unexpected – Remaining flexible and resourceful during unplanned events while maintaining patient safety.

How do YOU make it happen?

Your Role as Frontline Staff

Engage	Actively engage in safety practices
Report	Report hazards and near misses
Participate	Participate in improvement initiatives
Support	Support colleagues in high-stress situations

What you can do….

1. Report Near Misses and Unsafe Conditions

Document and share incidents where an error almost occurred.

Near misses often highlight flaws in workflow, equipment, or communication before harm happens.

2. Participate in Safety Huddles and Debriefs

Engage in short, daily or post-incident team discussions to flag operational issues and trends.

These quick conversations can reveal patterns that leadership may not see.

What you can do….

3. Provide Input in Root Cause Analyses (RCA)

Offer firsthand insight into what was happening at the time of an error.

This ensures investigations look beyond individual blame to underlying system causes.

4. Use Checklists and Audits to Spot Gaps

While completing checklists, note steps that are frequently missed, confusing, or create bottlenecks.

Share audit findings with process improvement teams.

5. Escalate Recurring Issues through Established Channels

Use reporting systems (incident reporting software, suggestion boxes, safety boards) to bring systemic issues to leadership's attention.

What you can do….

6. Share Feedback During Policy or Workflow Changes

Identify practical challenges when new processes are implemented.

Offer suggestions to make procedures more realistic for frontline conditions.

7. Collaborate in Process Mapping Exercises

Help map out the “real-world” workflow compared to the “intended” one.

Gaps between the two often reveal design flaws that create risk.

Your role in Patient Safety Culture

- Educate yourself to understand quality and safety and collaborate to implement changes
- To support leadership with data collection/interpretation and strategic planning
- Focus on systemic changes through conducting root causes analysis

Team Roles Graphic. Digital Image. n.d. https://www.proevolution.pro/en/support-for-transformations/change-management/.

How Your Organization Can Achieve HR

- **1. Leadership Commitment to Zero Harm**
- Leaders must set a clear, visible goal that **zero preventable harm** is the expectation, not just a target.
- Consistently model safety behaviors, prioritize resources for safety initiatives, and remain transparent about progress and setbacks.
- **2. Build and Sustain a Strong Safety Culture**
- Create an environment where staff feel psychologically safe to speak up about hazards or mistakes without fear of retaliation.
- Recognize and reward reporting of near misses and participation in improvement efforts.

How Your Organization Can Achieve HR

- **3. Apply the Five Principles of High Reliability**
- **Preoccupation with failure** – Always look for and address potential failures.
- **Reluctance to simplify** – Dig deeper into complex problems rather than accepting easy answers.
- **Sensitivity to operations** – Maintain real-time awareness of frontline conditions.
- **Commitment to resilience** – Prepare for and recover quickly from unexpected events.
- **Deference to expertise** – Empower the most knowledgeable person on the issue to lead, regardless of title.
- **4. Implement Robust Process Improvement (RPI) Methods**
- Use proven tools such as Lean, Six Sigma, and PDSA cycles to systematically remove variation and waste that create opportunities for error.

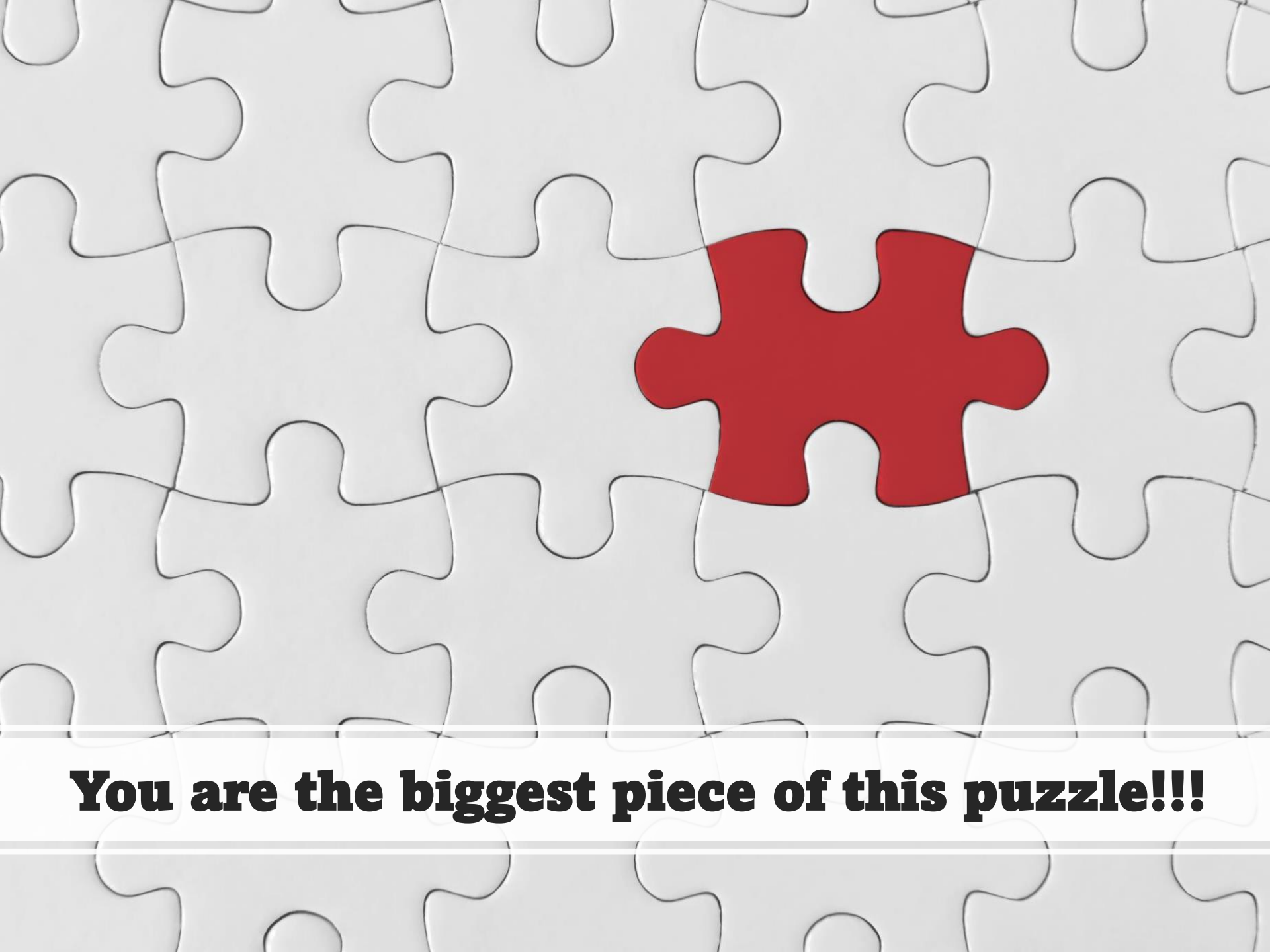
How Your Organization Can Achieve HR

- **5. Strengthen Learning Systems**
- Build mechanisms to collect, analyze, and share lessons learned from incidents, audits, and safety reports.
- Use data dashboards to track performance and drive action.
- **6. Engage and Empower Frontline Staff**
- Involve staff in designing safer workflows, equipment use, and patient care processes.
- Give teams the autonomy to act quickly when they detect safety threats.
- **7. Measure, Monitor, and Adapt Continuously**
- Track key patient safety metrics, such as infection rates, falls, medication errors, and patient harm events.
- Use trends to guide training, policy updates, and resource allocation.

Putting it all together

Key Takeaways

- HRO principles can improve safety and quality
- Frontline staff play a critical role
- Commitment, culture, and continuous learning are essential


You are the biggest piece of this puzzle!!!

Questions??

Join us for our last session!!!

- **August 19, 2025: AI in Healthcare – taking a look at the role AI is playing in healthcare, how things are changing, and how we can be ready for the future of AI in what we do**

Follow Up:

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THANK
YOU!

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