HIGH RELIABILITY AND SAFETY IN HEALTHCARE

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OBJECTIVES

1. Define High Reliability in healthcare and trace its evolution from high-risk industries to modern clinical practice.
2. Explain the five core principles of High Reliability Organizations (HROs) and how they guide leadership and operational safety.
3. Recognize the role of human performance and human factors engineering in preventing errors and designing safer systems.
4. Describe the importance of Psychological Safety and Just Culture in fostering open communication and continuous learning.
5. Apply universal skills and leadership behaviors that support a culture of safety and High Reliability in clinical teams.

WHAT IS HIGH RELIABILITY?

High reliability refers to the **consistent performance** of **safe operations** in complex, high-risk environments.

- Originated from industries like aviation and nuclear power.
- Goal: Minimize adverse events despite inherent risks.
- In healthcare: Applies to clinical operations, patient handoffs, communication, and systems design.

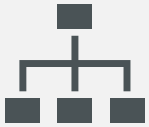
HISTORY OF HIGH RELIABILITY ORGANIZING

1980s

First studied in high-risk industries (e.g., nuclear submarines, air traffic control).

2000s

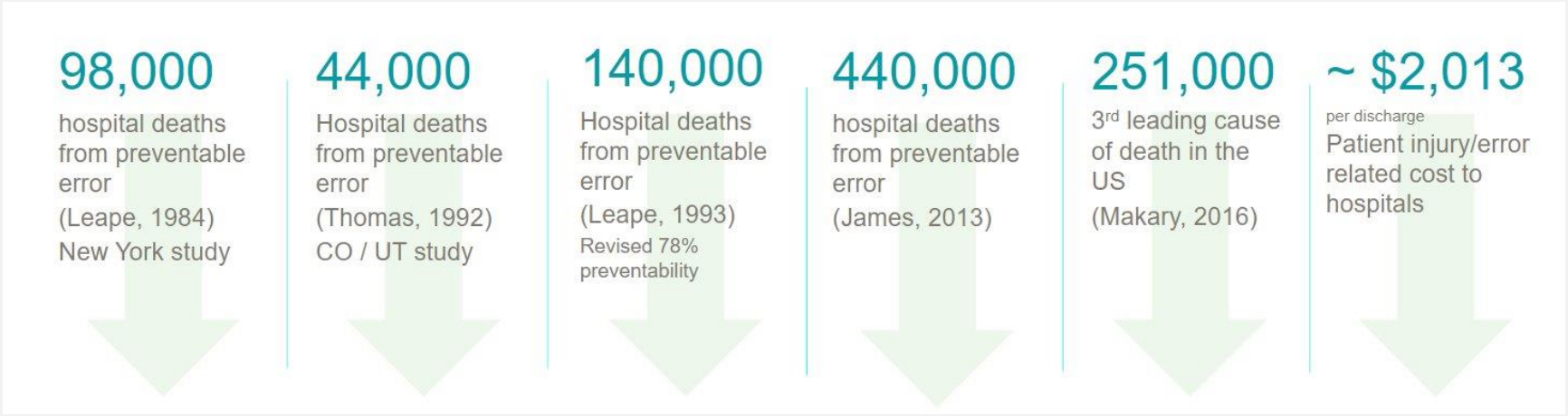
Healthcare begins adopting HRO principles following patient safety studies.



Today

HRO frameworks guide leadership, operations, and safety culture in some hospitals.

EVOLUTION OF PATIENT SAFETY (PAST 3 DECADES)



HISTORY OF PATIENT SAFETY

*Credit Press Ganey

CURRENT STATE OF PATIENT SAFETY

2023 Analysis of the PA Patient Safety Reporting System, largest in the US, evaluated 287,997 events.

REPORTS OF SERIOUS EVENTS INCREASED BY 20.6% FROM 2022

REPORTS OF HIGH HARM EVENTS INCREASED BY 25% FROM 2022

OF THE REPORTED EVENTS IN 2023, 4.1% (11,807) WERE SERIOUS SAFETY EVENTS

WHY DO WE STILL STRUGGLE WITH PATIENT SAFETY?

Complex Coordination of Care: 1/3 of Medicare beneficiaries see 5 or more physicians each year (Qaseem & Mustafa, 2022).

Culture of Silence: Data shows 41% of clinicians in the ambulatory setting remained silent about a patient safety concern (Niederhauser & Schwappach, 2022).

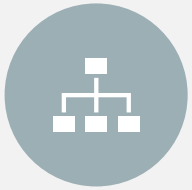
Patients have more control over their health interventions in the ambulatory setting vs the hospital setting.

Disconnect with leadership's role in creating an environment and culture of safety.

Communication Failures: The Joint Commission links communication issues to over 65% of sentinel events annually.

BECOMING A HRO

How does an organization become highly reliable and improve safety?



ENSURE SAFETY IS A CORE VALUE: ENGAGEMENT FROM THE BOARD LEVEL ALL THE WAY THROUGH THE ORGANIZATION

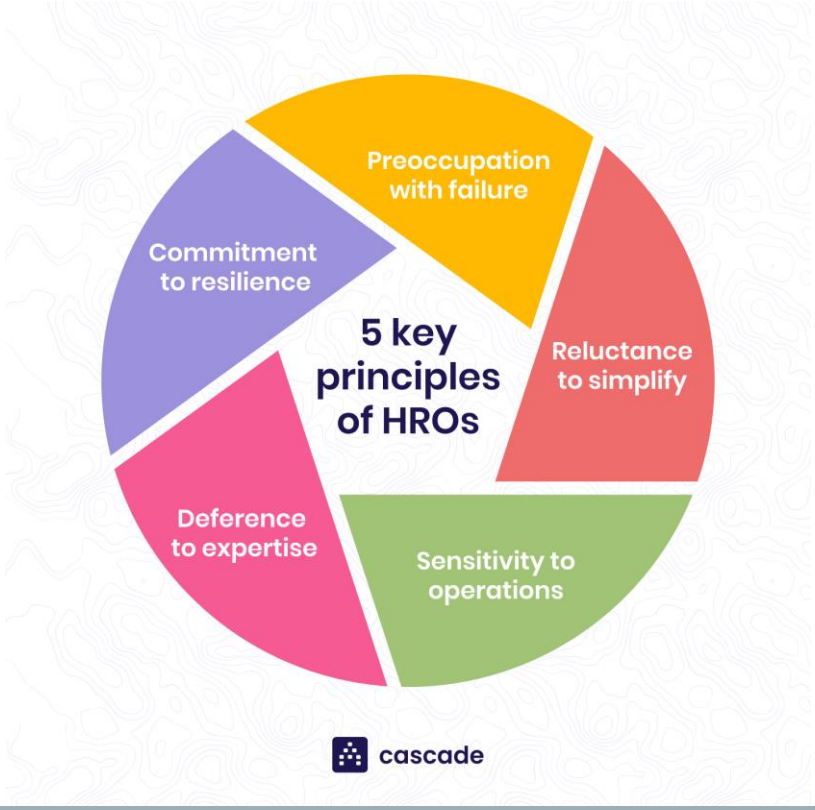
INCLUDE THE 5 CORE PRINCIPLES OF HRO INTO A SAFETY MANAGEMENT SYSTEM

CREATE AN ENVIRONMENT OF PSYCHOLOGICAL SAFETY

TRAIN, ROLE MODEL AND PRACTICE UNIVERSAL SKILLS AT ALL LEVELS

ENSURE A FAIR AND JUST CULTURE

CORE PRINCIPLES OF HRO IN HEALTHCARE



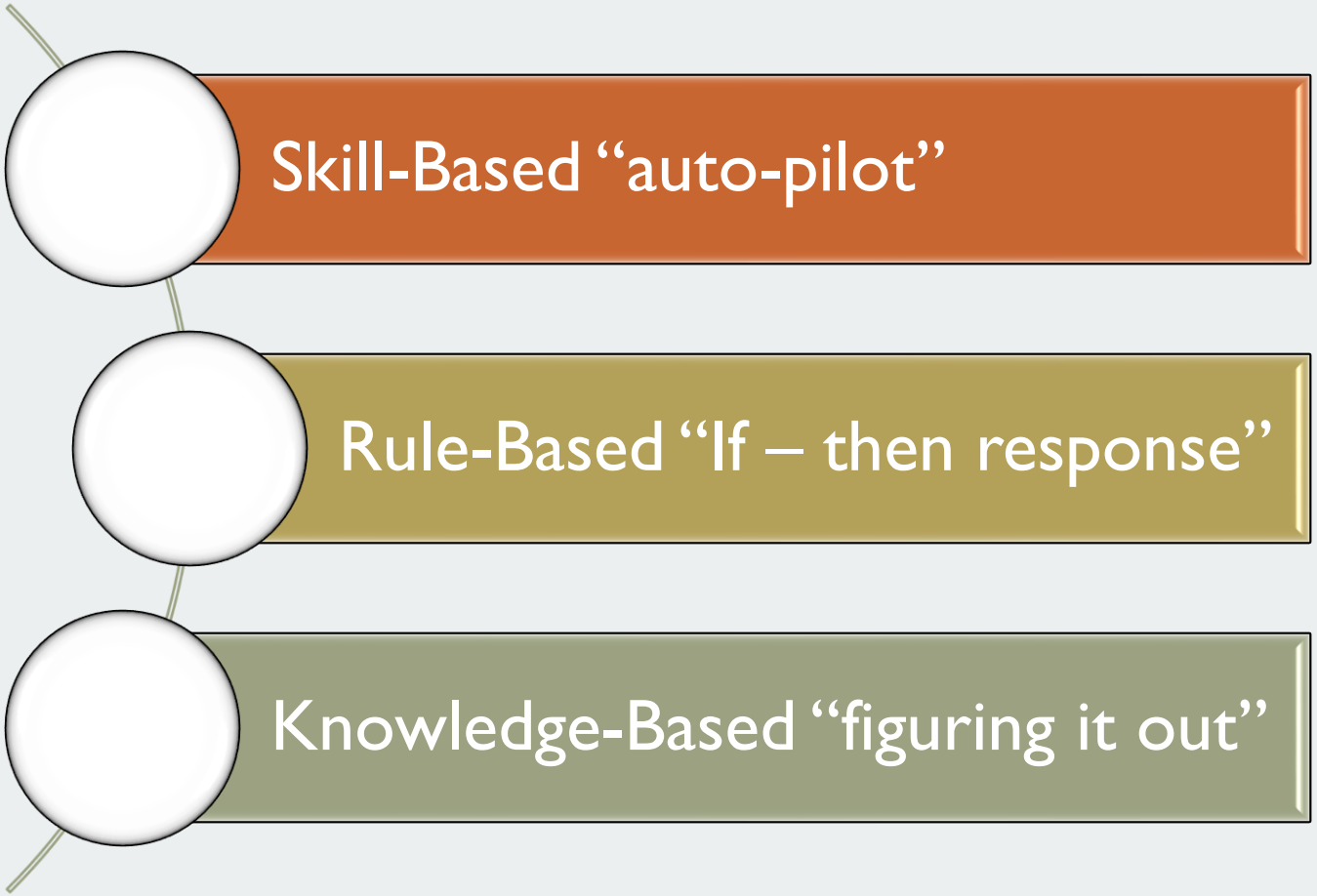
5 PRINCIPLES OF HRO

HRO Principle	Organizational Level Concern	Leadership Actions
1. Pre-occupation with Failure	• Encourage error and good catch reporting • Accept human error is inevitable • Obsession with avoiding overconfidence	• Bi-directional safety huddles (look back, look ahead, key safety issues) • Event reporting system

2. Reluctance to Simplify	• Unwillingness to simplify a situation
	• Create more complete pictures of situations
	• Encourage spanning of boundaries, negotiating, skepticism and differences in opinions
		• Cause analysis work
		  • RCA: root cause analysis
		  • SCA: success cause analysis
		  • BCA: barrier cause analysis
		• Interdisciplinary review

3. Sensitivity to Operations	• Daily Safety huddles • Rounding to influence • Observing	• 4C Rounding: Connect Can do Concerns Commitment
4. Commitment to Resilience	• Ability to identify, control, and recover from errors • Errors and failures kept small • Practice worse case scenarios • Develop strategies to expect and react to the unexpected	• Safety drills • FMEA • Anticipate the unexpected • Recognize and support second victim
5. Deference to Expertise	• Encourages communication of expertise at all levels • Decisions made on the front line • Migrate decision-making to it's lowest possible level • Cultivate diversity	• Visual Management Safety Boards • Huddles • Rounding

3 TYPES OF HUMAN PERFORMANCE



3 TYPES OF HUMAN PERFORMANCE

Skill-Based	Rule-Based	Knowledge-Based
• Slip: do the wrong thing • Lapse: do not do what was intended • Fumble: mishandle an action or word	• Use the incorrect rule • Misapply a rule • Non-compliance	• Came up with the incorrect answer

HUMAN PERFORMANCE

HUMAN FACTORS

Human Factors Engineering (HFE):

Science of designing systems to align with human capabilities and limitations.

- Goal: Reduce risk of error by designing better tools, workflows, and environments.

- Example: Standardized medication and supply labels reduce visual confusion.

Human and Organizational Performance (HOP):

Recognizes that error is normal and **systems**, not individuals, are typically at fault.

- Focuses on learning, system design, and leadership accountability.

- Principles include: error is predictable, blame fixes nothing, learning is vital.

Why This Matters:

- Foundational to safety because it shifts focus from individual perfection to system resilience.

- Encourages leaders to build safety into process design—not rely on vigilance alone.

PSYCHOLOGICAL SAFETY IN NURSING TEAMS

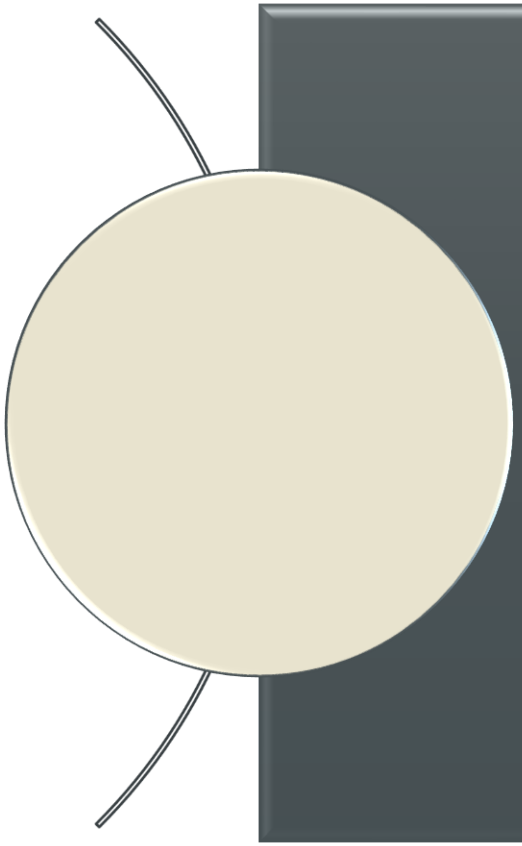
Psychological Safety is the belief that the workplace is safe for interpersonal risk-taking.

Dr. Amy Edmondson's research at Harvard shows that teams with high psychological safety:

- Can ask questions without feeling or looking stupid
- Can ask for feedback without looking incompetent
- Can respectfully dissent or disagree without being seen as negative
- Report more errors (which leads to learning, not more mistakes).
- Demonstrate higher innovation and engagement.

Associates who feel safe are more likely to speak up about safety issues

PSYCHOLOGICAL SAFETY

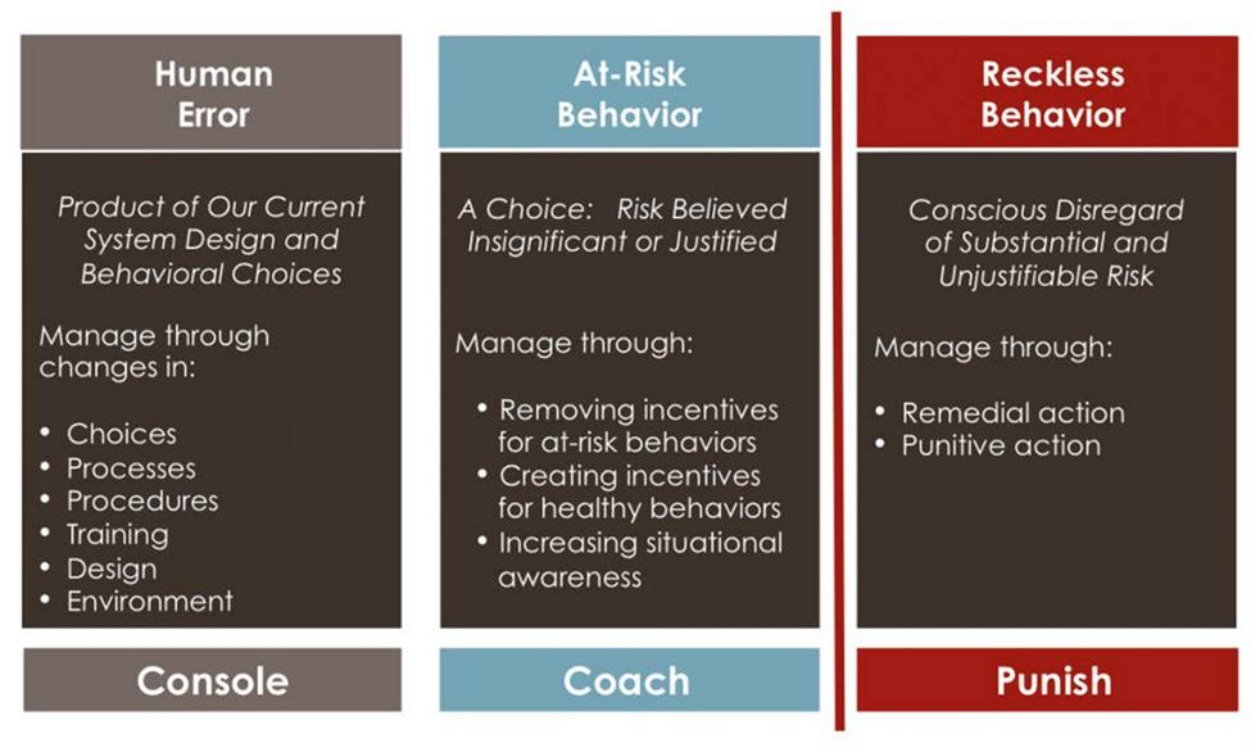


Psychological Safety Statistics from American Psychological Association:

- Overall job satisfaction: 95% (85%)
- Satisfaction with manager relationship: 97% (78%)
- Satisfaction with compensation: 89% (68%)
- Engagement at work: 94% (77%)
- Confidence in executive leadership: 89% (66%)
- They matter to their employer: 93% (61%)
- Overall mental health is excellent or good: 84% (67%)
- Opportunities to give feedback: 62% (39%)
- Opportunities to be involved in decision making, problem solving, goal setting: 50% (29%)
- Departments with strong psychological safety have 27% lower turnover (IHI, 2022).

HUMAN FACTORS AND JUST CULTURE

"Just Culture refers to a system of shared accountability in which organizations are accountable for the systems they have designed and for responding to the behaviors of their employees in a fair and just manner. Employees are accountable for the quality of their choices and for reporting errors and system vulnerabilities."



ANNIE'S STORY

UNIVERSAL SKILLS IN HIGH RELIABILITY TEAMS

Situational awareness

STAR (stop, think, act, review)

Cross / Peer check

Critical Thinking

QVV (qualify, validate, verify)

Communication

Repeat & Read Back

Phonetic & Numeric Clarification

SBAR (situation, background, assessment, recommendation)

Speaking Up

ARCC (ask a clarifying question, request a change, voice a concern, chain of command)

UNIVERSAL SKILLS

LEADERSHIP BEHAVIORS THAT PROMOTE SAFETY

- Model vulnerability: share lessons learned.
- Actively listen
- Invite and offer feedback and multiple perspectives.
- Address incivility and microaggressions.
- Recognize and reinforce safety-focused behaviors.
- Close the loop on escalated issues

“Train until you can’t get it wrong!”

FINAL THOUGHT FOR TRAINING & EDUCATION

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