Glossary

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High-reliability principles
Weick and Sutcliffe Managing the Unexpected: Sustained Performance in a Complex World 3rd Edition

Preoccupation with failure: Captures the need for continuous attention to anomalies that could be symptoms of larger problems in the system.

Reluctance to simplify: Mindful organizing is generated by a reluctance to simplify because simplification obscures unwanted, unanticipated and unexplainable details, and in doing so, increases the likelihood of unreliable performance.

Sensitivity to operations: Means that HROs are sensitive to expectable interactions with a complicated and often opaque system or watchfulness about the moment-to-moment changes in conditions.

Commitment to resilience: The signature of an HRO is not that it is error-free but that errors don't disable it. It is a commitment to act in ways to improve one's generalized capacity to learn and the ability to mitigate without losing adaptability.

Deference to expertise: HROs rely not on hierarchy but on knowledge, with the person relying not only on gained knowledge and experience over time but also on knowledge specific to the unanticipated event.

ARCC: **A**sk a question. **M**ake a request. **R**aise a concern. Utilize the **C**hain of command. A method for escalating concern.
Virtua Health, Speak Up for Safety

Attention to detail: Thorough and comprehensive review of all aspects of a project or a task.
Chicago State University, Attention to Detail

Clarify: Asking clarifying questions can help challenge a situation without escalating the emotions involved. "Can you clarify" or "Can I ask a clarifying question" allows the speaker to cross-check their interpretation of the statement made.
Psychology Today, Clarifying Questions Will Help You Be a Better Listener

Clinical disciplines' use of high reliability: Anesthesiology is arguably the safest medical specialty. But they want to be safer.
Anesthesia Patient Safety: Next Steps to Improve Worldwide Perioperative Safety by 2030

Cross-check: To check something, such as data or reports, from various angles or sources to determine validity or accuracy.
Webster's Online Dictionary

CUS: **C**oncern, **U**ncomfortable, **S**afety issue. Some add **S**top **(CUSS).** A method for escalating concern, from TeamSTEPPS.
AHRQ, Tool: CUS

High-reliability organizations: Organizations that operate in complex, high-hazard domains for extended periods without serious accidents or catastrophic failures.
AHRQ PSNet, High Reliability

High-reliability organizing: A set of principles that enable organizations to focus attention on emergent problems and to deploy the right set of resources to address those problems.
Critical Care, Becoming a High-Reliability Organization

Incident report: All injuries and accidents, including near misses, are reported so that the causes can be determined and the risk eliminated. Reporting hazards helps prevent additional injuries and increases safety. These are also called adverse event reports or safety reports.
FAA, Mandatory and Voluntary Incident Reporting
AHRQ PSNet, Reporting Patient Safety Events

Industries where HRO is embedded: Aviation, naval aviation, nuclear power and firefighting.

Just culture: A culture where the focus is not on the outcome but the accountability. Responding to intent as classified into five categories: human error; at-risk behavior; reckless behavior; knowledge toward virtually certain harm; and deliberately seeking to cause harm.
NIH, Patient Safety and Just Culture

Near miss: A potential hazard or incident in which no property was damaged and no personal injury was sustained, but where, given a slight shift in time or position, damage or injury easily could have occurred.
Occupational Safety and Health Administration

Numeric clarification: Specifying numbers so that there is no possibility of confusing them, e.g., 1-5 as opposed to 5-0.

Phonetic clarification: Specifying words so that there is no confusion, e.g., using the ICAO phonetic alphabet, the 26 code words are assigned to the 26 letters of the English alphabet in alphabetical order.

Read back: A type of closed-loop communication used to ensure the listener has documented and repeated the information to ensure its accuracy.
AHRQ Tool: Closed-Loop Communication

Repeat back: A type of oral closed-loop communication used to ensure the listener repeats the information to ensure its accuracy. Also called check-back.
AHRQ *Tool: Check-Back (or Repeat Back)*

Resiliency engineering: When a complex system is affected by a crisis, there are three possibilities: the system will break (fragile), it will endure without change (robust) or it will improve (antifragile). A fragile system does not do well under stress and responds to change with a breakdown. A robust system responds to stress without breaking but also without any change, which limits its acceptable exposure to stress factors. If the stress continues, robust systems will break. Resilient systems respond to stress with change and adapt up to a certain point. They are designed with stress-response mechanisms in mind but they do not benefit nor improve from these situations. After a while, when stressors minimize, resilient systems return to their original form. Antifragility is the capacity of a system to produce a response that leads to more benefit than harm (so-called convex response). Antifragile systems thrive in stressful conditions and continually benefit from change in response to stress factors.
Hollnagel, E. (2009). The four cornerstones of resilience engineering. In: Nemeth C., Hollnagel E. and Dekker S. (Eds.), Resilience Engineering Perspectives, vol. 2, Preparation and Restoration. Ashgate, Aldershot, UK.

Safety I: Defines safety as a state in which as few things as possible go wrong and focuses on minimizing adverse outcomes.
AHRQ PSNet, Resilient Healthcare and the Safety-I and Safety-II Frameworks

Safety II: A novel outlook that inverts the Safety-I paradigm and seeks to understand what is going well, as opposed to what went wrong. Safety occurs when as many things as possible go right. As opposed to Safety I, Safety II focuses on understanding why most healthcare delivery processes are successful and how they are performed correctly in high-performing units rather than why they fail.
AHRQ PSNet, Resilient Healthcare and the Safety-I and Safety-II Frameworks

SBAR: Situation, Background, Assessment and Recommendation or Request. A structured communication framework that can help teams share information about the condition of a patient or team member or about another issue your team needs to address.
AHRQ Tool: SBAR

Serious safety event: An SSE, in any healthcare setting, is a deviation from generally accepted practice or process that reaches the patient and causes severe harm or death.
ASHRM, Serious Safety Events: Getting to Zero

STAR: Stop, Think, Act and Review. Reputed to be developed by California schools to address students' difficulty staying focused on standardized tests, STAR adds a brief a period of mindfulness to tasks that may become mundane.
When Complexity Science Meets Implementation Science: A Theoretical and Empirical Analysis of Systems Change

System complexity: A complex system has many components, which may interact with each other. The behavior of complex systems is intrinsically difficult to model due to the dependencies, competitions, relationships or other types of interactions between their parts or between a given system and its environment. A complexity science view implies that essential managerial strategies for high-performing health care organizations include meaningful conversations, enhanced relationships, and a learning culture.
Health Care Huddles: Managing Complexity to Achieve High Reliability

Validate and verify: To recognize, establish or illustrate the worthiness (validate) as opposed to establish the truth, accuracy or reality (verify). Used as engineering controls for device manufacture, software and coding installs, etc., and adopted by healthcare to ensure accurate information transfer.
Science Direct, An Approach For Design Verification and Validation Planning and Optimization For New Product Reliability Improvement

WAD/WAP and WAI: Work as Done/Work as Performed and Work as Imagined/Work as Intended. Stemming from Safety II and resilience engineering, these compare the ideal state (WAI) with actual observations of processes (WAP).
Routledge, Resilient Health Care, Volume 3: Reconciling Work-as-Imagined and Work-as-Done