



High Reliability Principles I



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What does it take?

- ▶ Buy in from CEO
- ▶ Determine senior leader participants
- ▶ Self-Assessment
 1. Pre-meeting: participants take the assessment (20 minutes)
 2. Consensus meeting, ideally with a facilitator: senior leaders meet and take assessment as a group (2 hours)
 3. Post-meeting: time commitment varies. Review of results, strategic action planning

BUILD THE TEAM: Ideal group to take the Assessment

- ▶ CEO participation is essential
- ▶ Clinical leaders (e.g. CMO, CNO, VP Medical Affairs)
- ▶ Administrative leaders (COO, CFO)
- ▶ Board chair/Board Quality Committee Chair
- ▶ Quality and Patient Safety leaders (e.g. VP PI, Patient Safety Office, Risk Management)

Ideal participant group size is no more than 15 to allow in-depth conversation and high level perspective

Oro™ 2.0

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Joint Commission Center for Transforming Healthcare



Is Health Care Different?

- ▶ Healthcare professionals care for patients not machines
- ▶ Often little is known about the patient and the patient's condition and behavior varies over time
- ▶ Errors in health care usually only affect one patient at a time
- ▶ Higher workforce mobility and team member changes
- ▶ Distinguishing between iatrogenic injury and normal disease progression not always easy

High Reliability Organizations

**Crisis
Systems
Culture**

What is your next crisis?

- ▶ Hepatitis C outbreak due to unsafe injection practices
- ▶ Medical staff sexually assaulting a patient
- ▶ Unnecessary cardiac procedures
- ▶ Hurricane requiring evacuation

High Reliability Organizations (HROs):

Keep most important, the most important

Pinnacle Event

MOST IMPORTANT

an event that results in major consequences that the organization has control over, that could shut the site down for an indeterminate period of time.

Plateau Event

IMPORTANT

an event that implies loss of control of the system, process, or operation and results in loss of confidence of management and/or the customer.

Prioritize resources to prevent undesired consequences.

Who is at risk?



- ▶ Patient

- ▶ Staff

- ▶ Organization

HRO: End state definition

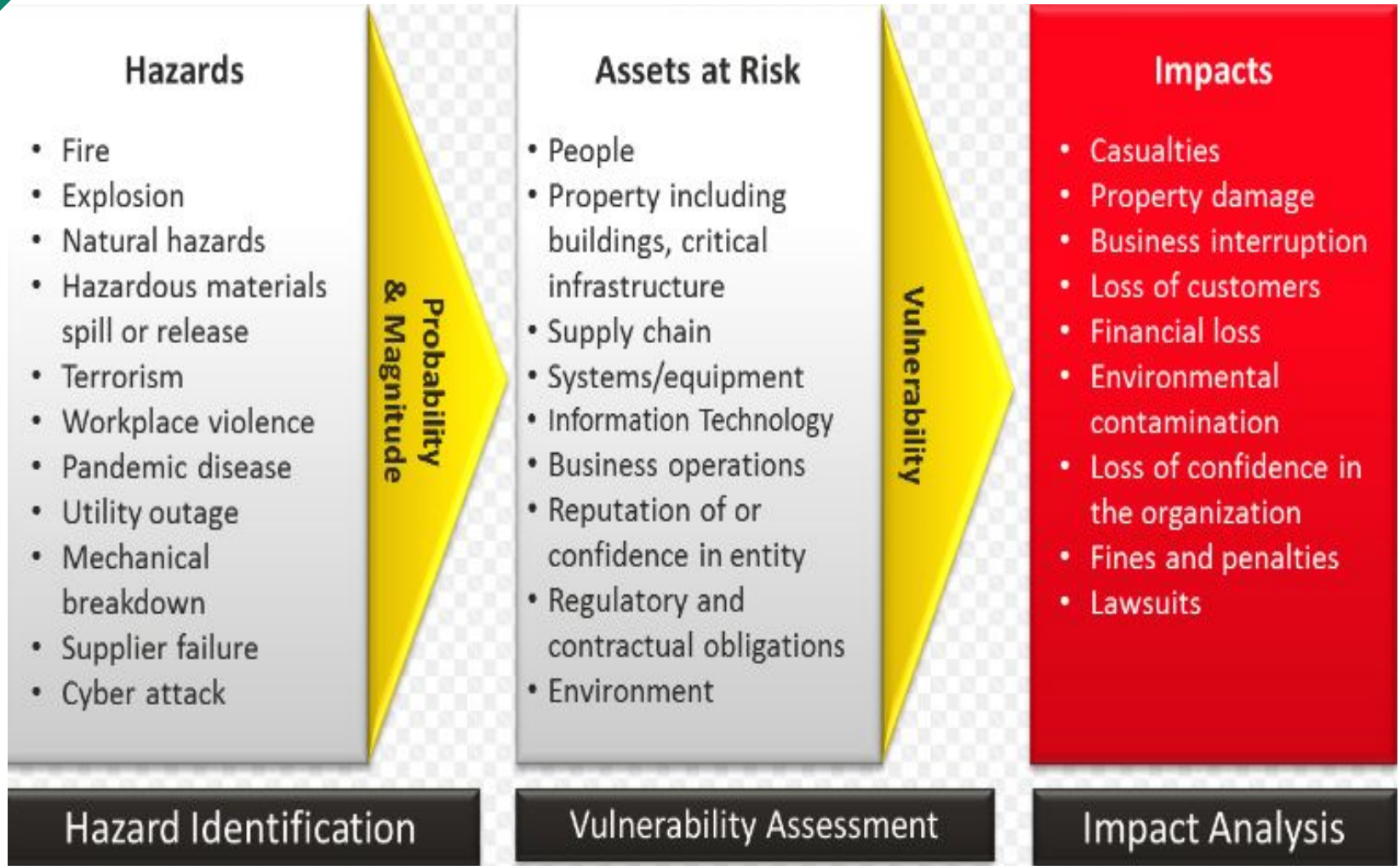
- ▶ Organizations that perform remarkably well day after day under trying conditions and persistently have fewer than their fair share of crises

- ▶ They manage the complex and unexpected very well

HROs and the Unexpected

- ▶ The surprise, or crisis, starts with an expectation
- ▶ You look for evidence that confirms the expectation
- ▶ You are in control, you know what's up, and that you are safe
- ▶ Postpones your realization that something unexpected is developing

Hazards & Risks



Healthcare's Reliability Gap

- ▶ World-class manufacturing dictates defect rates in the 5-6 sigma range.
- ▶ The airlines are achieving better than 6-sigma range with 0.43 deaths/million.
- ▶ Health care measures generally fall into the 2-4 sigma range.

Merry & Brown, 2002

High Reliability Organizations

**Crisis
Systems
Culture**

Introduction to Systems Thinking

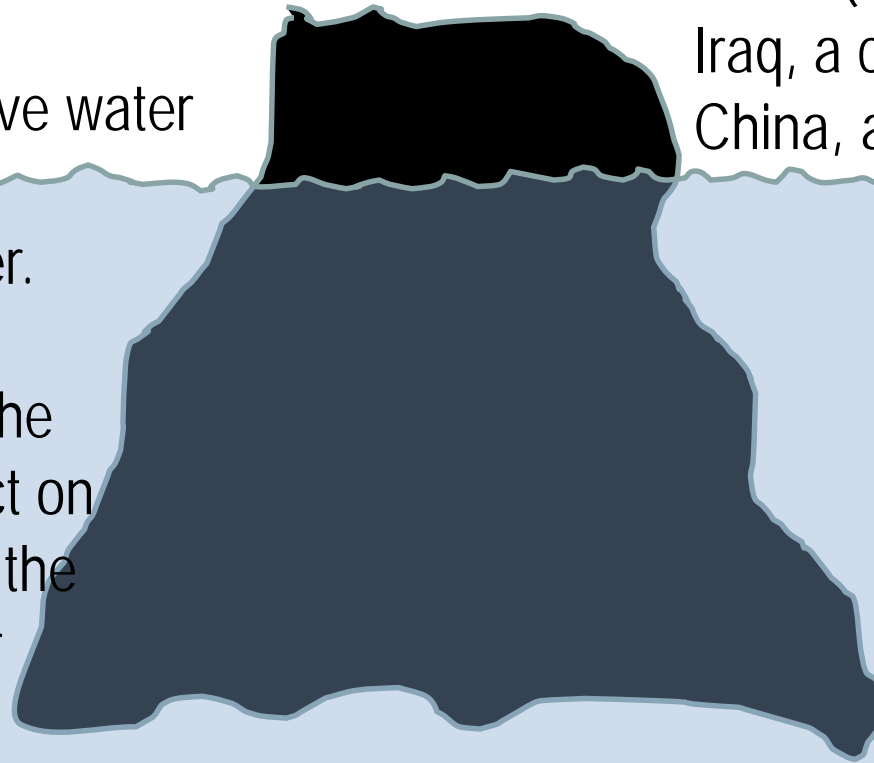
Iceberg Model

Above water, are *events*, or things that we see or hear about (e.g. a bomb blast in Iraq, a catastrophic flood in China, a terrorist attack).

10% of mass above water

90% is underwater.

But 90% is what the ocean currents act on and what creates the icebergs behavior at its tip.



HRO: Process Definition

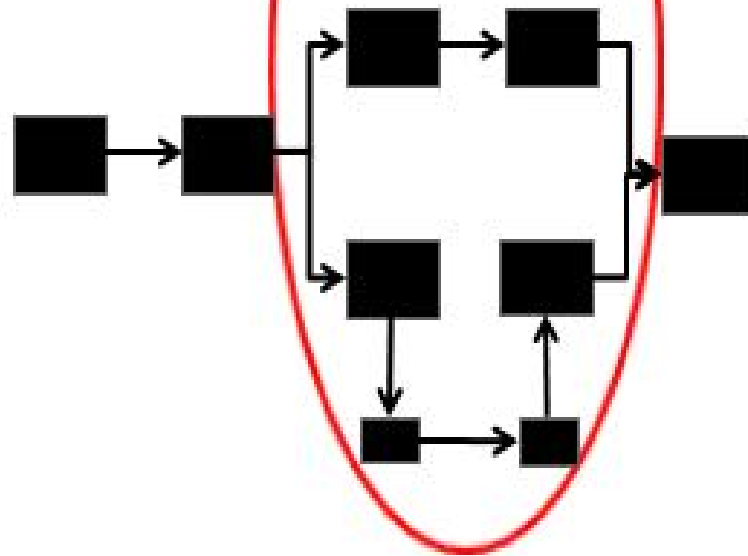
- ▶ Realistically defines a work-as-planned framework that produces the desired products while being lean, achievable, and sustainable in terms of the bigger system
- ▶ Drives every system and process to attain and maintain the gap between work-as-planned and work-as-done as small as achievable with the available resources

HRO Practices: Reduce Variation

Work-as-Planned



Work-as-Done



Your Systems

Examples

- ▶ Infection prevention
- ▶ Medication management
- ▶ Information management
- ▶ Patient Safety

To Become an HRO

Manage the System, Not the Parts



Work-as-Planned
Work-as-Done

Ensure System is Defined

If it is not written down:

- **Can't be communicated**
- **Can't be reviewed**
- **Can't be understood**
- **Can't build trust**

You cannot manage what you cannot see.

Make systems visible.

High Reliability Organizations

**Crisis
Systems
Culture**

Culture

The Work Environment	The Culture
I get docked for every mistake	I don't report my mistakes
I have more work than can be done in a day and they keep piling on more	I cut corners
I want to get home to see my kids soccer games once in a while	I take the easiest path to every assignment
The procedures don't work and no one will help get them changed	I don't follow procedures
If I followed the system, nothing would get done. If I don't produce, I get yelled at. Besides, nothing bad ever happens here.	I work around the system whenever and wherever I can.

Safety Organizing Scale (SOS)

- Q1 We have a good “map” of each other’s talents and skills
- Q2 We talk about mistakes and ways to learn from them
- Q3 We discuss our unique skills with each other so we know who on the unit has relevant specialized skills and knowledge
- Q4 We discuss alternatives as to how to go about our normal work activities
- Q5 When giving report to an oncoming nurse, we usually discuss what to look out for
- Q6 When attempting to resolve a problem, we take advantage of the unique skills of our colleagues
- Q7 We spend time identifying activities we do not want to go wrong
- Q8 When errors happen, we discuss how we could have prevented them
- Q9 When a patient crisis occurs, we rapidly pool our collective expertise to attempt to resolve it.

Vogus TJ, Sutcliffe KM. (2007). “The Safety Organizing Scale: Development and validation of a Behavioral Measure of Safety Culture in Hospital Nursing Units.” *Medical Care* 45(1):46-54.

Managing by Mindful Organizing

- ▶ Mindfulness: preservation of capability to see the significance of weak signals and to respond vigorously
- ▶ Organizing: coordination
- ▶ What is hazardous is continually refreshed
- ▶ HROs accumulate unnoticed events at odds with the expected

WaMu and HRO

- ▶ Washington Mutual Bank collapse
- ▶ Values: dynamic & driven
- ▶ Higher risk strategy
- ▶ 270 loans reviewed by compliance had a 40% error rate
- ▶ Loosened underwriting standards

FSORE

- Failure
- Simplification
- Operations
- Resilience
- Expertise

Weick KE, Sutcliffe KM. *Managing the Unexpected*. (Hoboken, NJ: Wiley 2015).

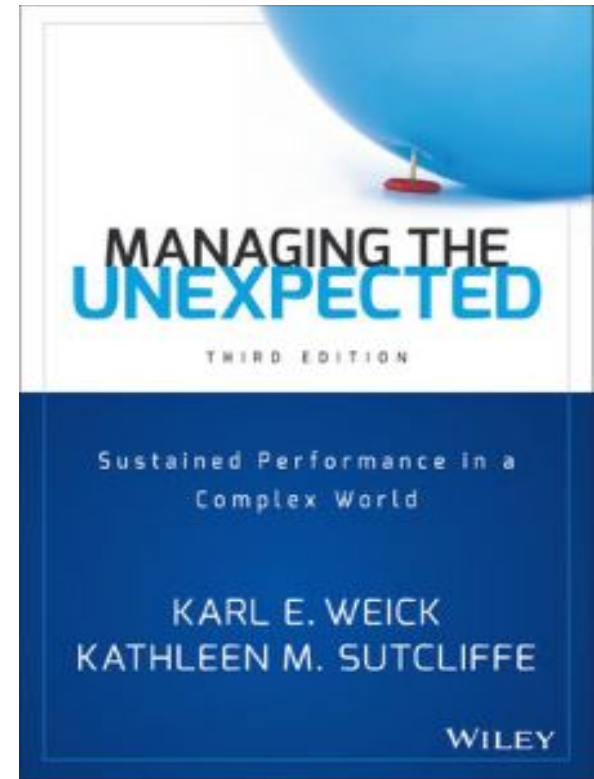
Five Characteristics of High Reliability Organizations

Anticipation - “Stay Out of Trouble”

- 1. *Preoccupation with failure*
- 2. *Reluctance to simplify*
- 3. *Sensitivity to operations*

Containment - “Get Out of Trouble”

- 4. *Commitment to resilience*
- 5. *Deference to expertise*



Preoccupation with Failure

- ▶ CEO: “I don’t like to hear bad news”
- ▶ Risk officer: “It’s my job to deliver bad news” but the CEO was out the door before the sentence was finished.

Preoccupation with failure

- ▶ WaMu: The Office of Investor Relations
- ▶ At your organization: patient complaints

Preoccupation with Failure

- ▶ HROs have a relentless pursuit of perfection and constantly search for what might go wrong.
 - HROs focus on predicting and eliminating errors rather than reacting to them.
 - Proactive (failure mode effects analysis) search for what might go wrong.
 - Near misses are not viewed as proof the system has enough checks to prevent errors (complacency), but rather as opportunities to improve systems.
 - Adverse events are similarly intently studied and corrective actions lead to significant improvement in systems.

Preoccupation with Failure

Example:

- Respiratory therapy tubing looks identical to iv tubing.
- RN suggested to manager that respiratory tubing should be a different color.
- Manufacturer adopted this change.

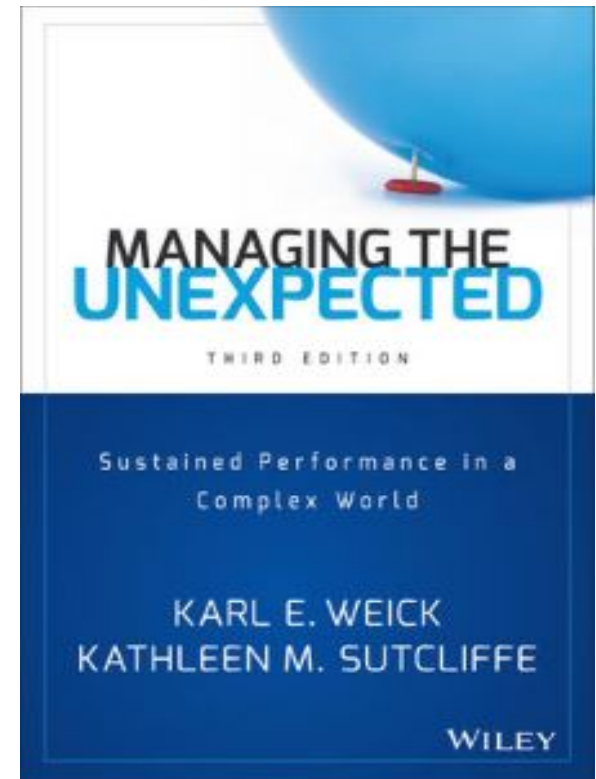
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Reluctance to Simplify

- ▶ WaMu: treated all borrowers as similar and failed to realize that some are different
- ▶ Do you treat all patients the same?

Reluctance to Simplify

- ▶ Systems and processes are made as simple as possible, but ...the HRO rigorously pursues an explanation and understanding for all failures.
 - Management and staff understand that they work in a complex environment, where many things can go wrong, including things that have never happened or were not anticipated.
 - When problems occur, they do not accept simplistic explanations, but pursue full understanding and appropriate solutions.



Reluctance to Simplify



Example:

- RN administers the wrong medication to a patient.
- Human error (?) or something more complicated (?)



Root Cause Analysis:

- Pharmacy students were stocking medications
- Look alike medications stored in close proximity in pharmacy
- Pharmacist busy/unavailable, so double check step was skipped
- Pharmacy label was placed over manufacturer's label
- Delivery area where RN worked was too dark to optimally read labels

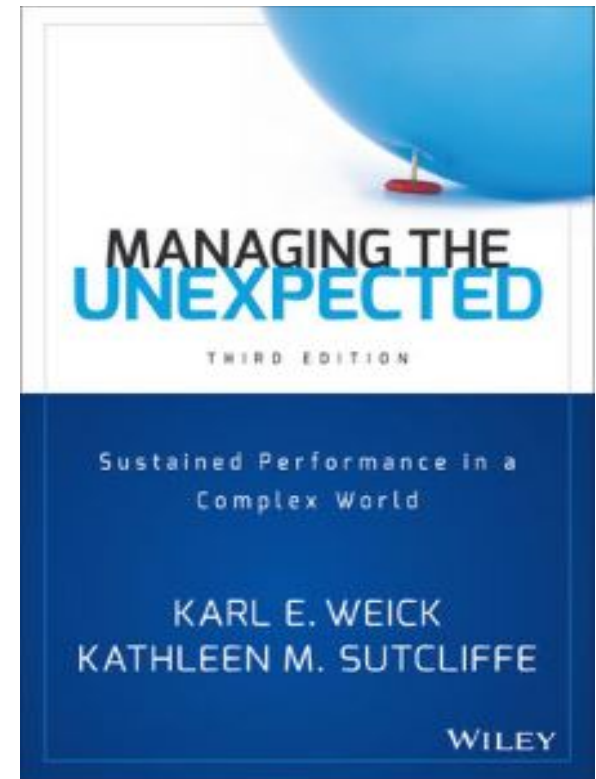
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Sensitivity to Operations

- ▶ Seeing what we are doing regardless of intention, designs, and plans
- ▶ Close calls are a sign of danger, not a sign of safety
- ▶ What is the highest priority at the front lines?
- ▶ What is your turnover rate? Especially in quality, safety, compliance, risk?

Sensitivity to Operations

- ▶ HROs focus on how systems and processes are functioning.
 - Management and staff understand how their systems and processes are supposed to work.
 - Management and staff are constantly aware of how their systems are performing (and how they are affecting patient care).
 - All staff constantly maintain situational awareness.
 - HROs constantly detect problems with their systems and make corrections to prevent potential errors.

Sensitivity to Operations

Example of a Problem:

- 14 bed critical care area in ED, staffed with 4 nurses.
- 25 patients admitted to the unit.
- No reaction to bring additional resources to the unit.

Examples of Solutions:

- Senior Management making Safety Rounds.
- Safety Huddles for Staff and Management.

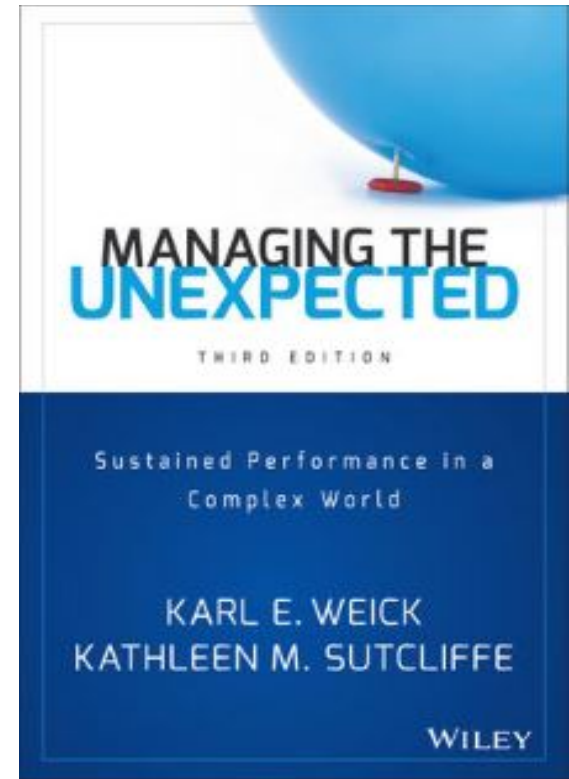
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Commitment to Resilience

- ▶ An HRO is not error-free
- ▶ But errors do not disable it
- ▶ 3 modes of operating:
 - Normal
 - Up-tempo
 - Crisis
- ▶ Is there agreement as to what mode you are operating in?

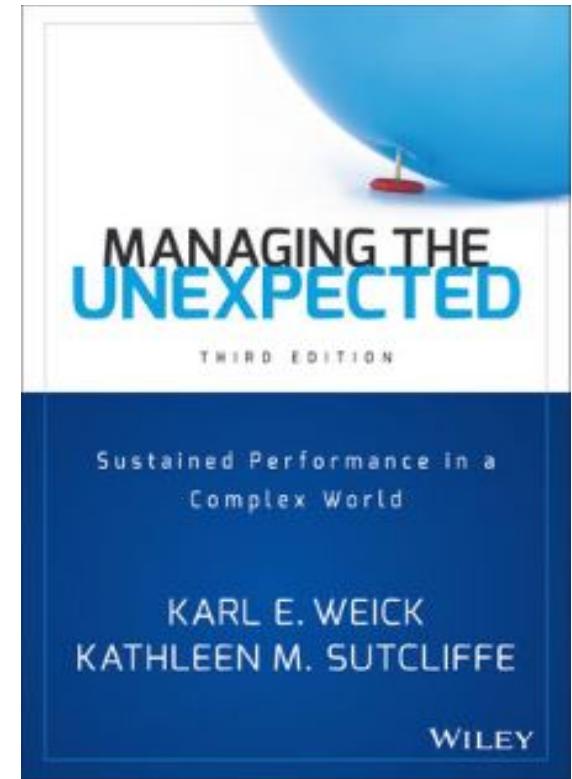
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Deference to Expertise

- ▶ Decisions are made on the front line
- ▶ Authority migrates to people with the most expertise, regardless of rank
- ▶ WaMu: no one listened to the risk officers

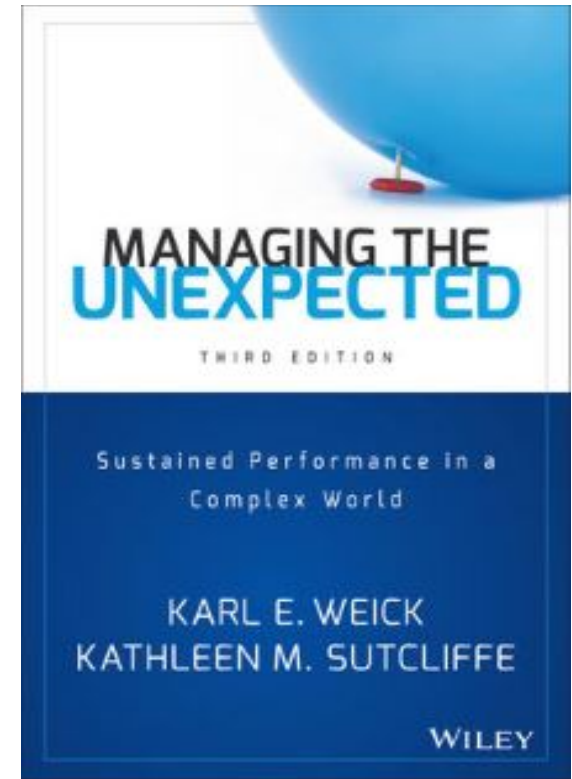
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Hypotheses

- ▶ The conceptual frameworks for high reliability and risk management are one and the same.
 - Ever safer and more effective care
 - Protection of system from miscreants
- ▶ The current legal processes impacting the healthcare industry undermine the industry's ability to develop high reliability and subvert risk management efforts.
 - Legal process diminishes feedback, transparency and communication
 - Promotes the qualities of acquisition and attachments
- ▶ Culture trumps all. Appropriate attitudes will confer safety, enhanced by technology.

To Become an HRO Tell People What is Important

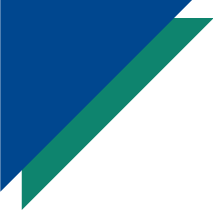
*The most important thing,
is to keep the most important thing,
the most important thing.*

Steven Covey, 8th Habit

Leadership's Role

High Reliability Organizations

**Crisis
Systems
Culture**



**Excellence in patient care for
every patient, every time**



THANK YOU

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