Safety II: Translating Theory into Practice

Dr Carl Horsley
Critical Care Complex
Middlemore Hospital

Work-As-Imagined (WAI)

The Aim of Safety

That as few things as possible go ***wrong***

The Current View of Safety – Safety I

Normal functioning
(compliance)

→ Acceptable outcomes
(successes)

↓

Unwanted transition
(sudden or gradual)

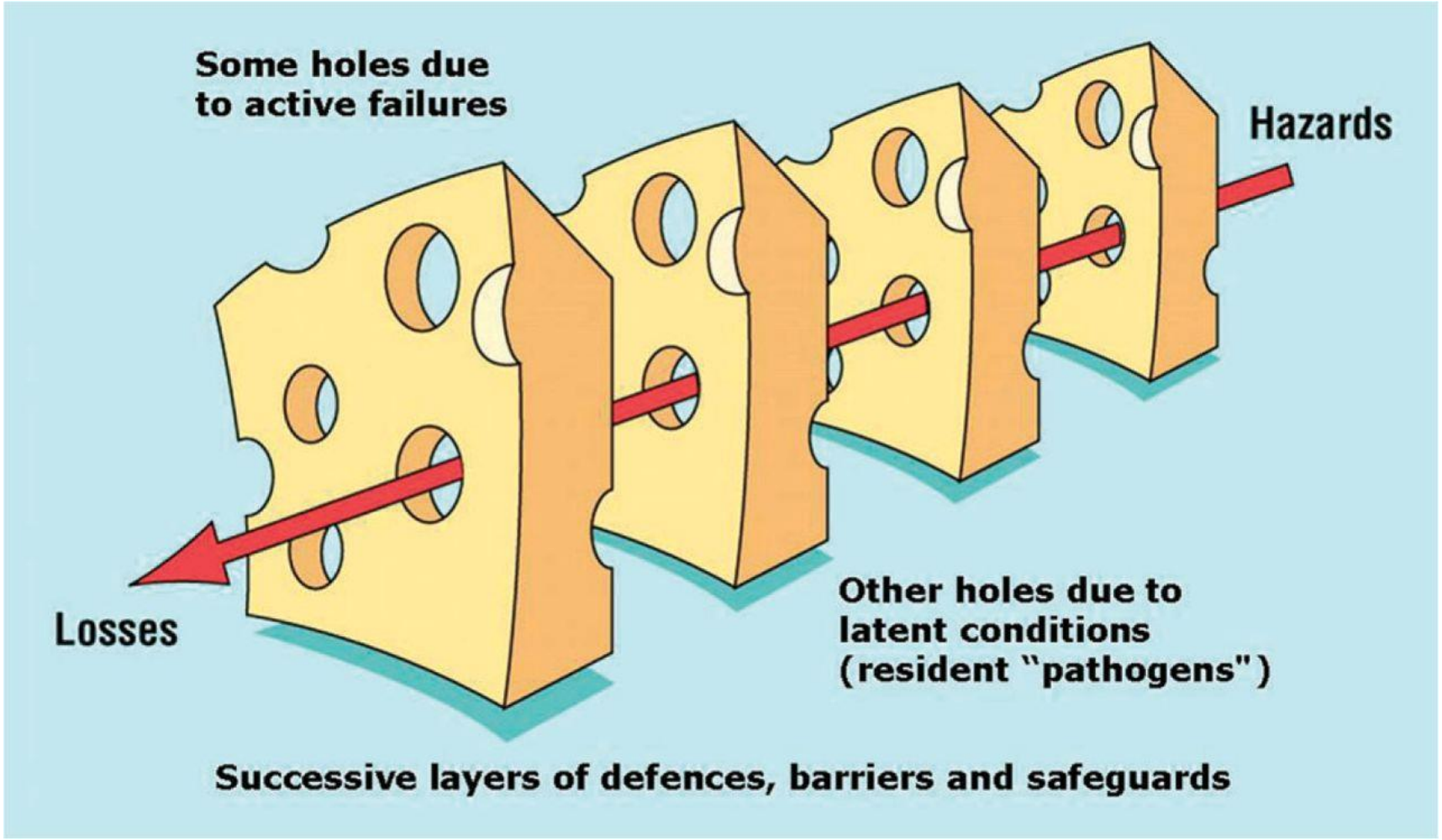
↓

Malfunctioning
(non-compliance)

→ Unacceptable outcomes
(failures)

Hollnagel E. *Safety-I and Safety-II; the past and future of safety management* 2014

The Swiss Cheese Model



Incident


Find and Fix

Compliance

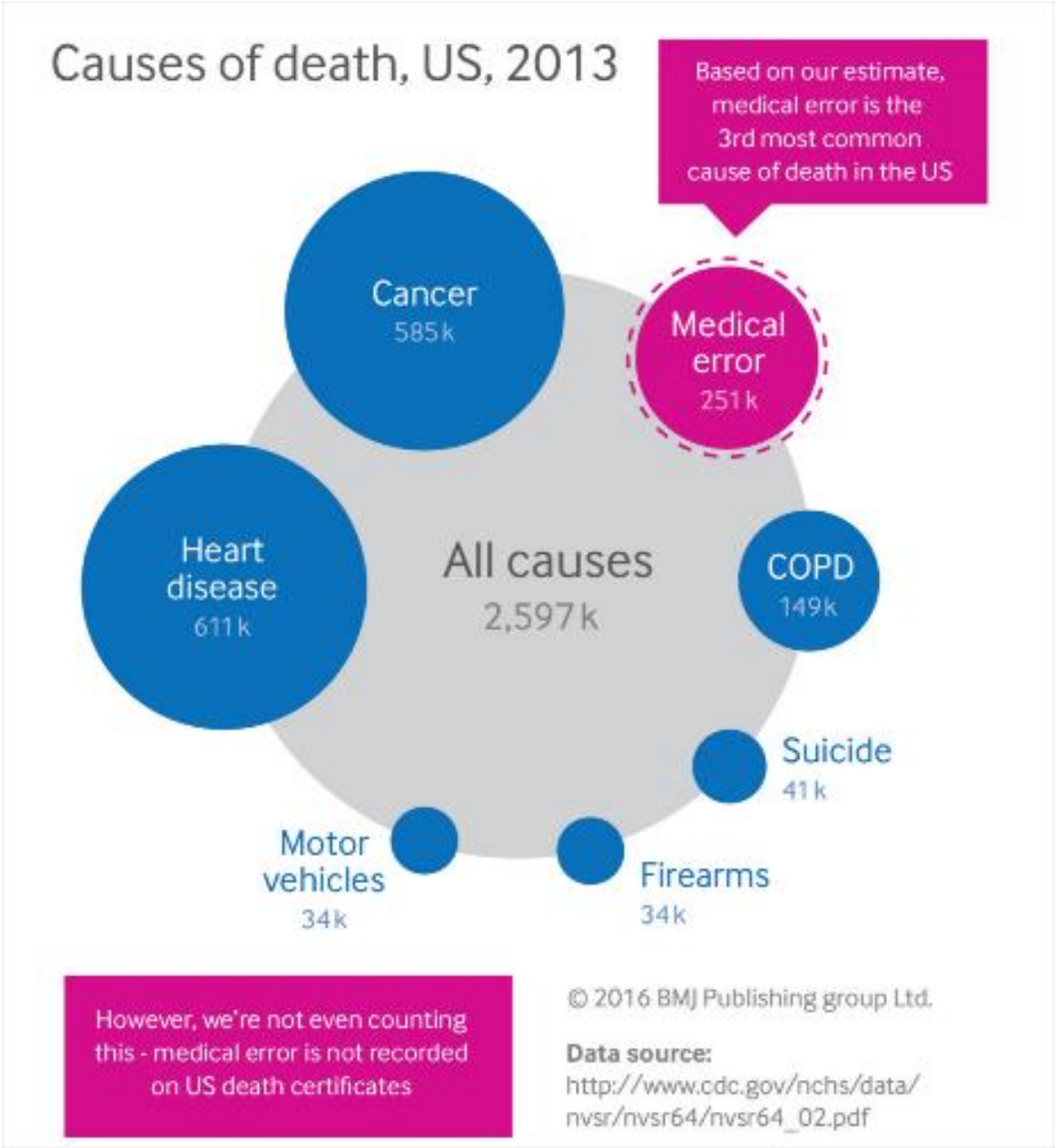
More Defenses

People are a liability

Safety - I

Definition of safety	That as few things as possible go wrong
Safety management principle	Reactive; responds when something happens or something is deemed an unacceptable risk
View of the human factor in safety	Humans are predominantly seen as a liability or hazard
Accident investigations	Accidents are caused by failures and malfunctions. The purpose of investigations is to identify the causes.
Risk Assessment	Accidents are caused by failures and malfunctions. The purpose of investigations is to identify the causes and contributory factors

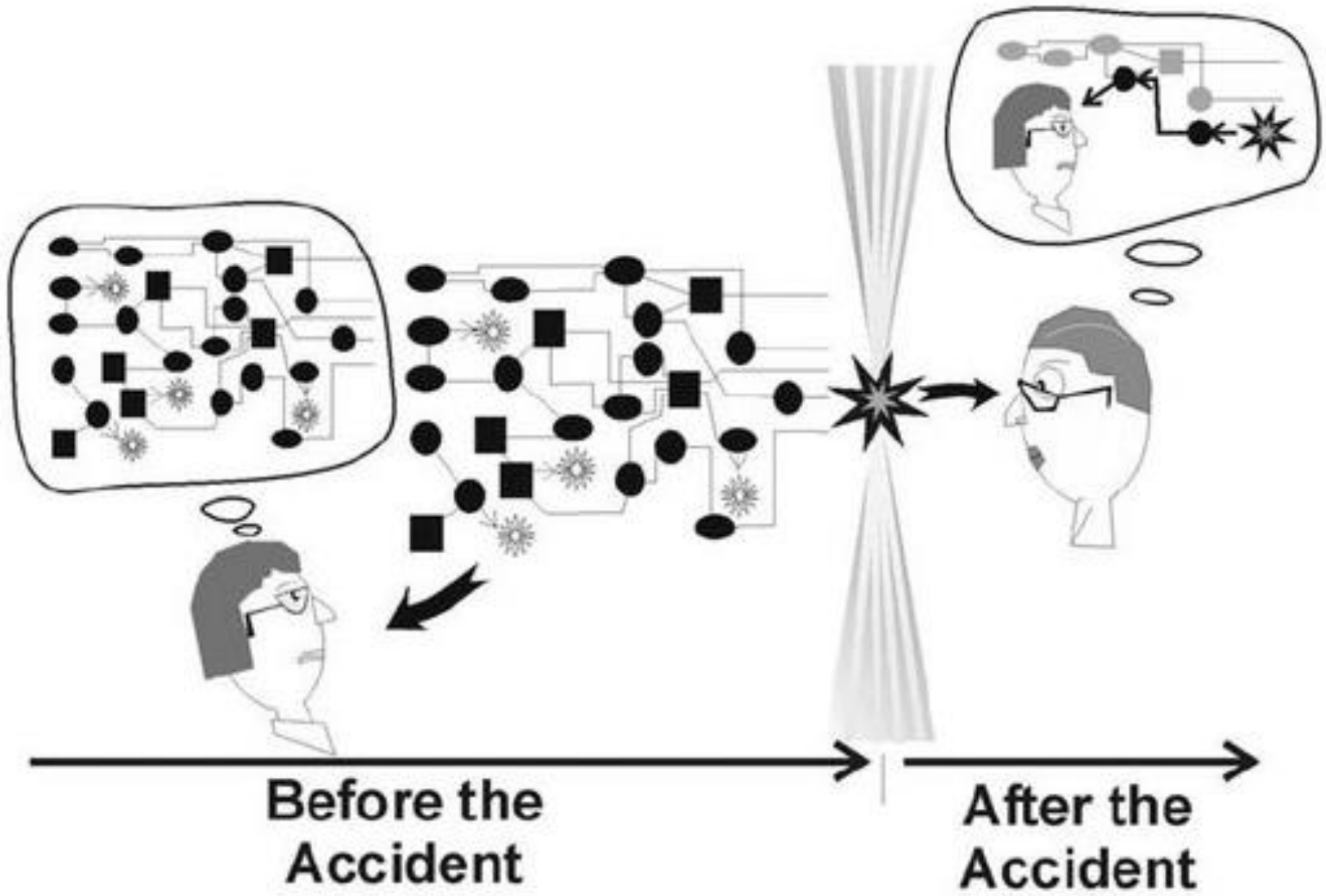
Progress?


Causes of death, US, 2013
Based on our estimate, medical error is the 3rd most common cause of death in the US
Cancer
585k
Medical error
251k
Heart disease
611k
All causes
2,597k
COPD
149k
Suicide
41k
Motor vehicles
34k
Firearms
34k
However, we're not even counting this - medical error is not recorded on US death certificates
© 2016 BMJ Publishing group Ltd.
Data source:
http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf

Why isn’t it working as hoped?

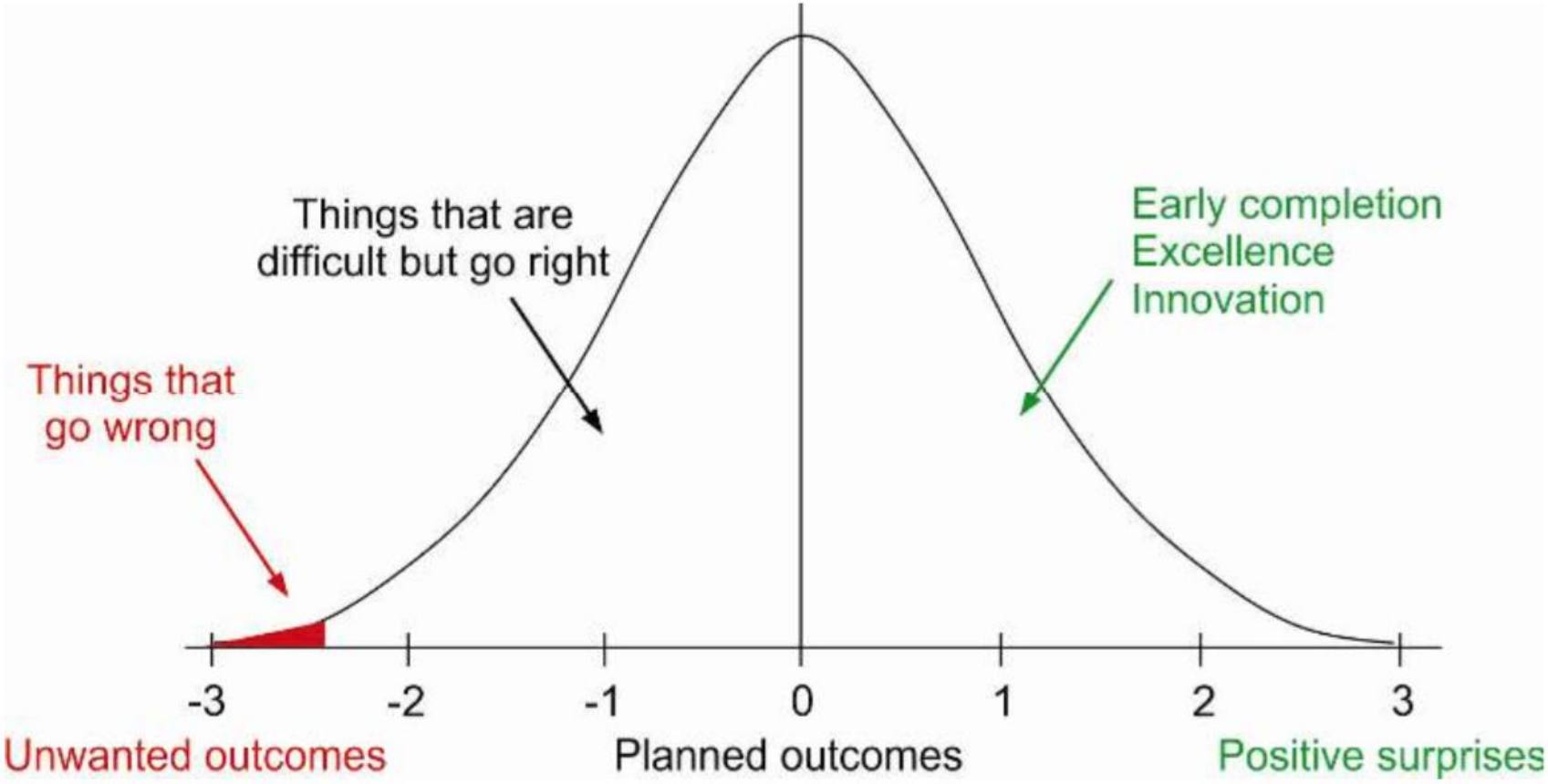
Reactive
Retrospective
Biased


Cause
Effect
The View After
An Incident




The View
Before an
Incident

Limits Learning About Our Systems



Trying to understand
safety
by only looking at
incidents…

…is like trying to
understand successful
marriage
by only looking at
divorces.

Marit de Vos 2018

Creates Brittleness

Hides the sources of
Adaptability
and
Innovation

We Design Our Systems Looking Back

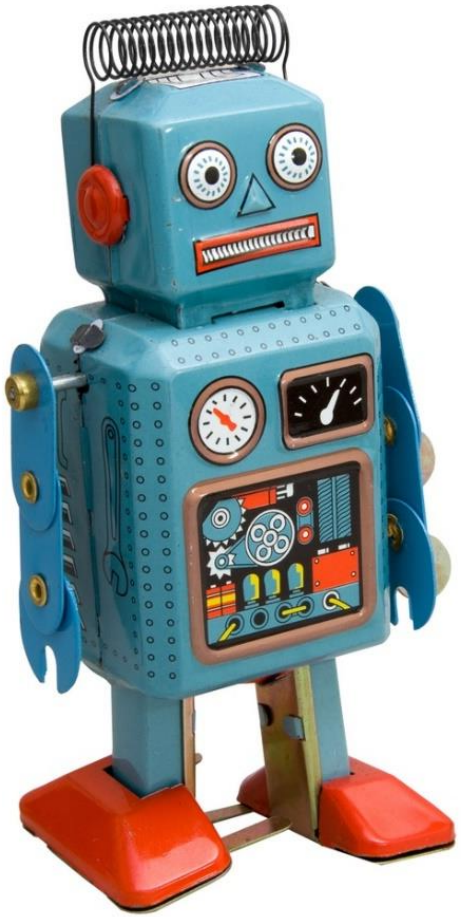
“Things that never happened before happen all the time”

Scott D. Sagan *“The Limits of Safety”*

Can Make Normal Work Harder

and More Complex

Changes the way we see ourselves



Healthcare Worker

Patient and family

Zero or -1 ?

Normal functioning
(compliance)

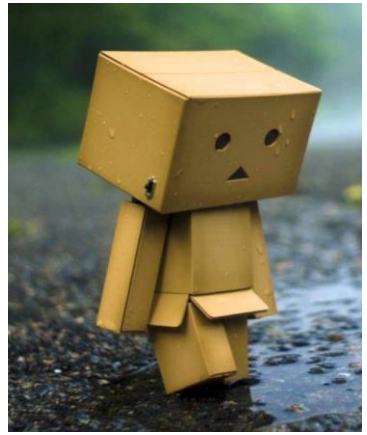
→ "Nothing to see here"

Unwanted transition
(sudden or gradual)

↓

Malfunctioning
(non-compliance)

→ "I can't believe you did that"



Apologies to Hollnagel E. *Safety-I and Safety-II; the past and future of safety management* 2014

Upgrade the Components

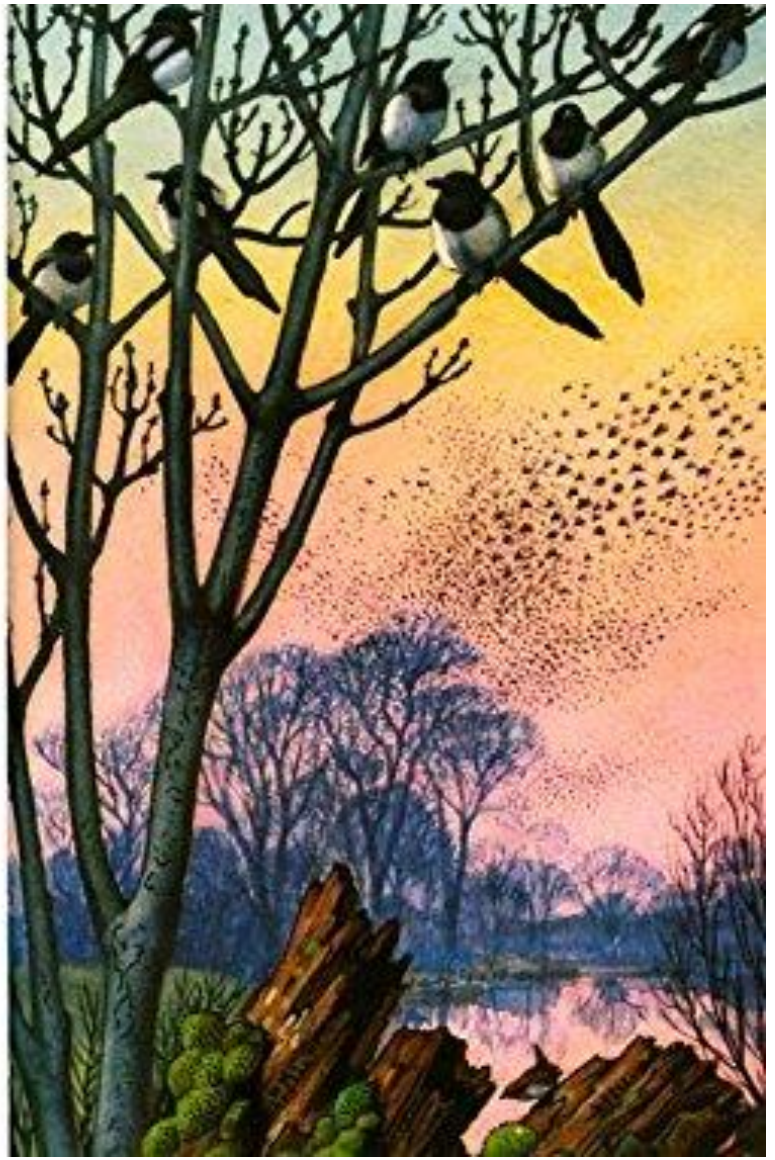
- Re-education
- Mindfulness
- Empathy training

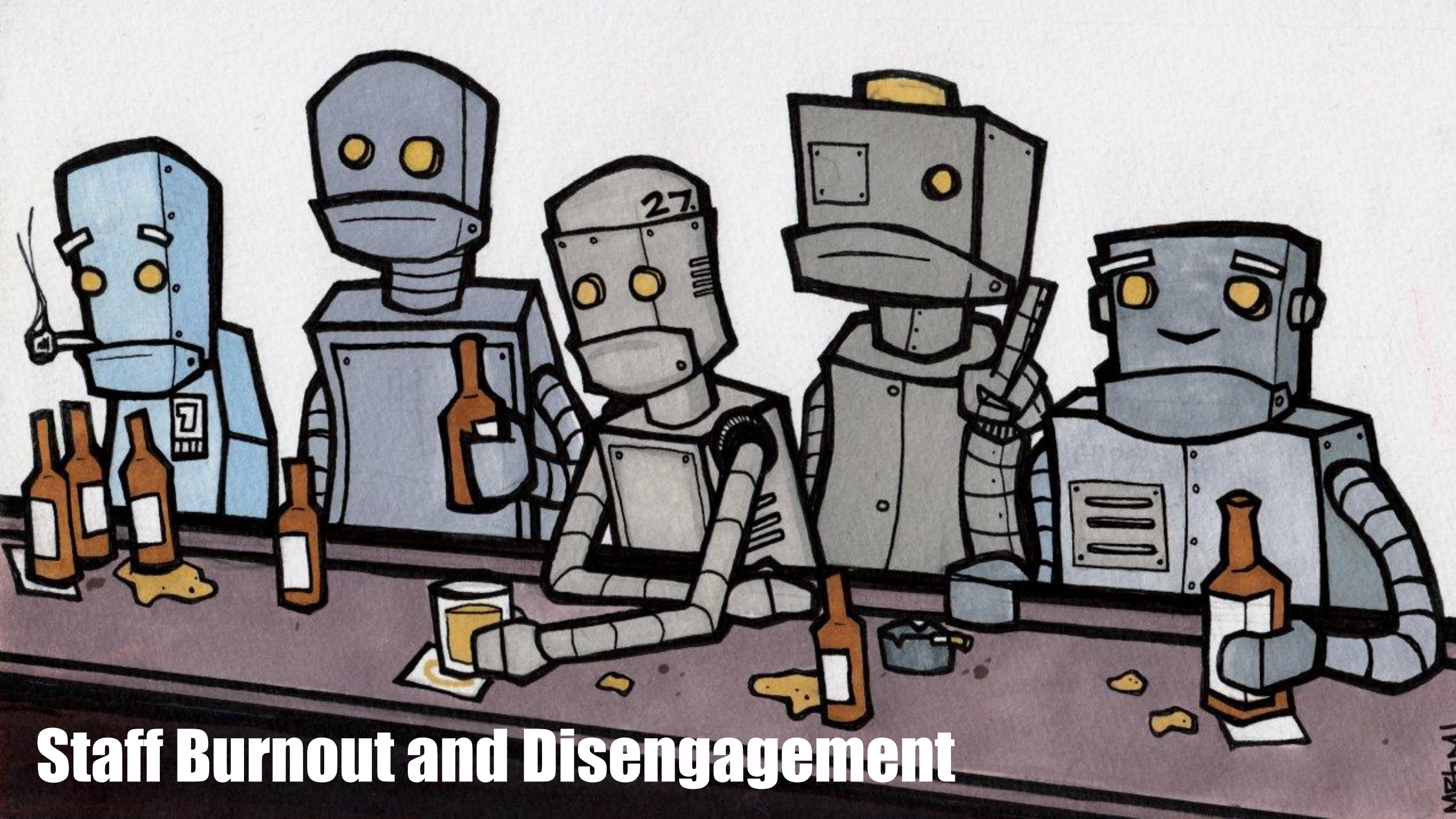
Leanne has been staring at this beautiful tree for five hours.

She was meant to be in the office. Tomorrow she will be fired.

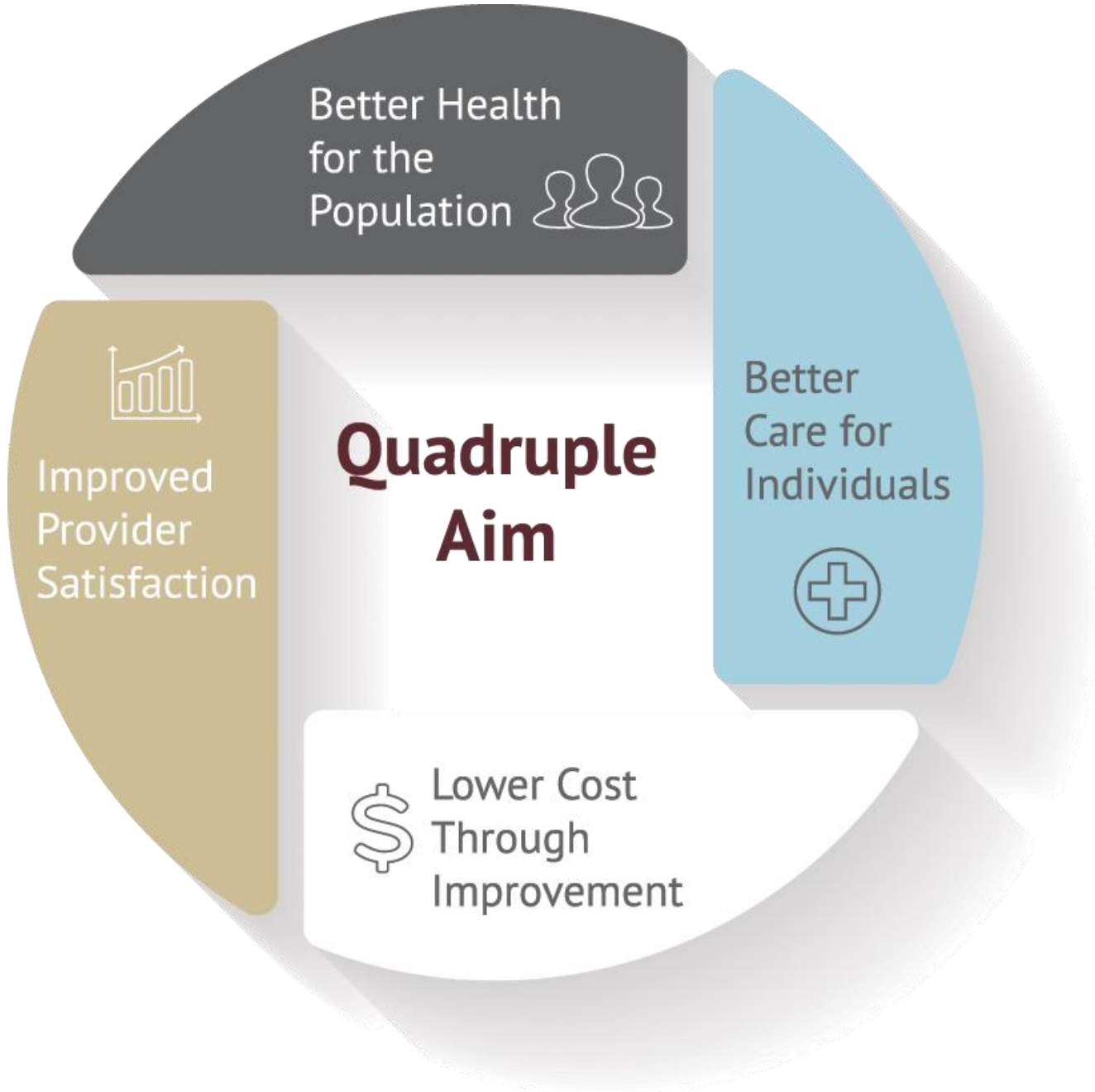
In this way, mindfulness has solved her work–related stress.

22





Staff Burnout and Disengagement


Better Health for the Population
Better Care for Individuals
Lower Cost Through Improvement
Improved Provider Satisfaction
Quadruple Aim

Many Problems

Safety
Productivity
Quality Improvement
Burnout
Bullying
Staff Engagement
Patient Experience

“When we fix the wrong thing for the wrong reason, the problems continue to happen.

It’s costly and demoralizing”

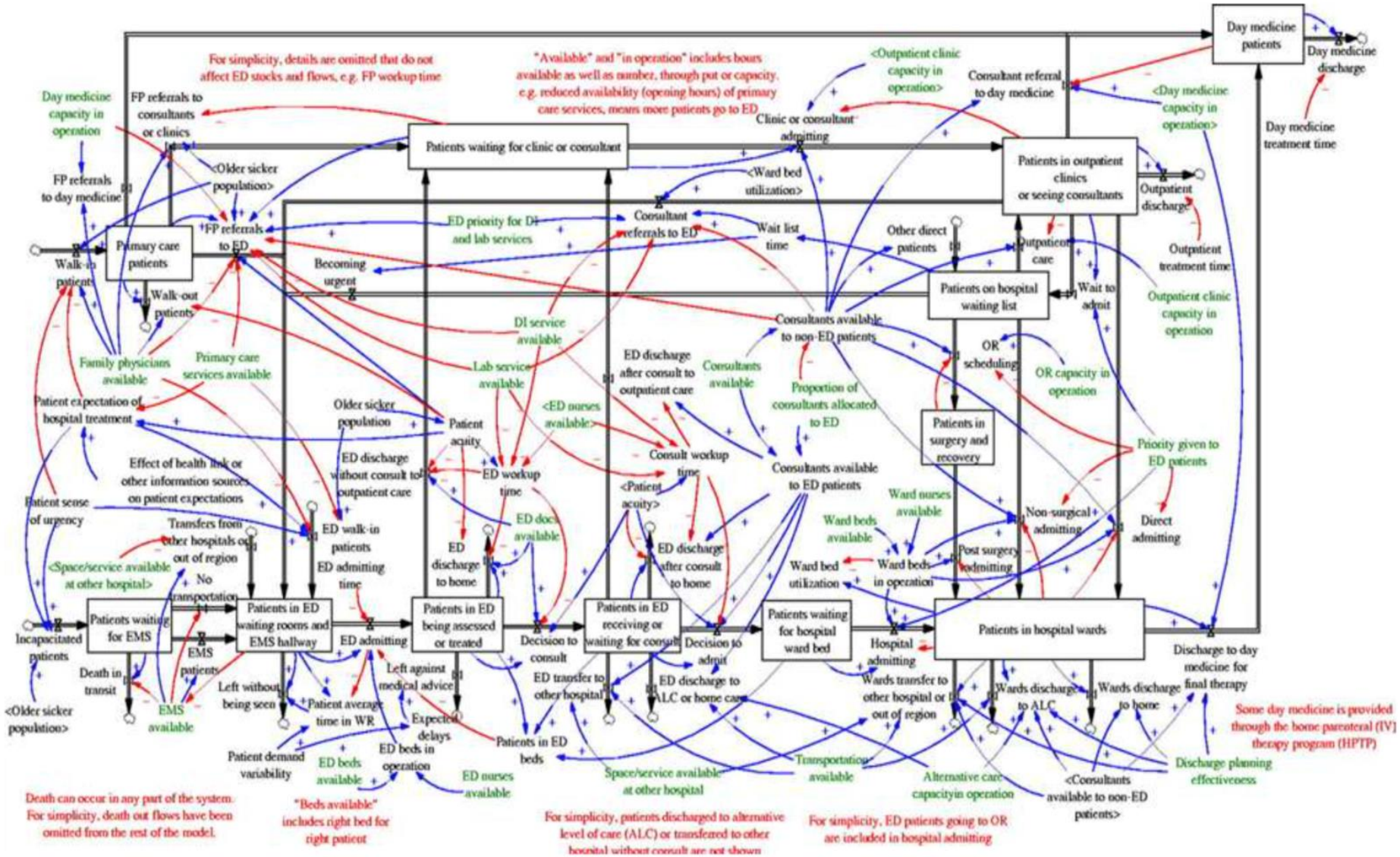
Brene Brown, **Dare to Lead**, 2018

A Model Can Only Take You So Far...

The Cheese Is ALIVE!

Starlings by Elbow 2008

Work-As-Done (WAD)




SAFETY
is our #1
PRIORITY!


SAFETY
is 1 of a # of
PRIORITIES!

Hollnagel *The ETTO Priciple: Efficiency Thoroughness Tradeoff* 2009

The New View – Safety II

Performance adjustments

Acceptable outcomes (successes)

Unacceptable outcomes (failures)

Hollnagel E. *Safety-I and Safety-II; the past and future of safety management* 2014

The system only succeeds
because *people/teams*
are able to adjust to meet the
conditions of work

Complexity is the problem…

People are the solution

The New Aim of Safety

*That as many things as possible go **right***

Safety - II

Definition of safety	That as many things as possible go right
Safety management principle	Proactive, continuously trying to anticipate developments and events
View of the human factor in safety	Humans are seen as a resource necessary for system flexibility and resilience
Accident investigations	The purpose of an investigation is to understand how things usually go right as a basis for explaining how things occasionally go wrong
Risk Assessment	To understand the conditions where performance variability can become difficult or impossible to monitor and control


It’s not...
Safety-I
vs
Safety -II

It’s About Which Model Matches Reality

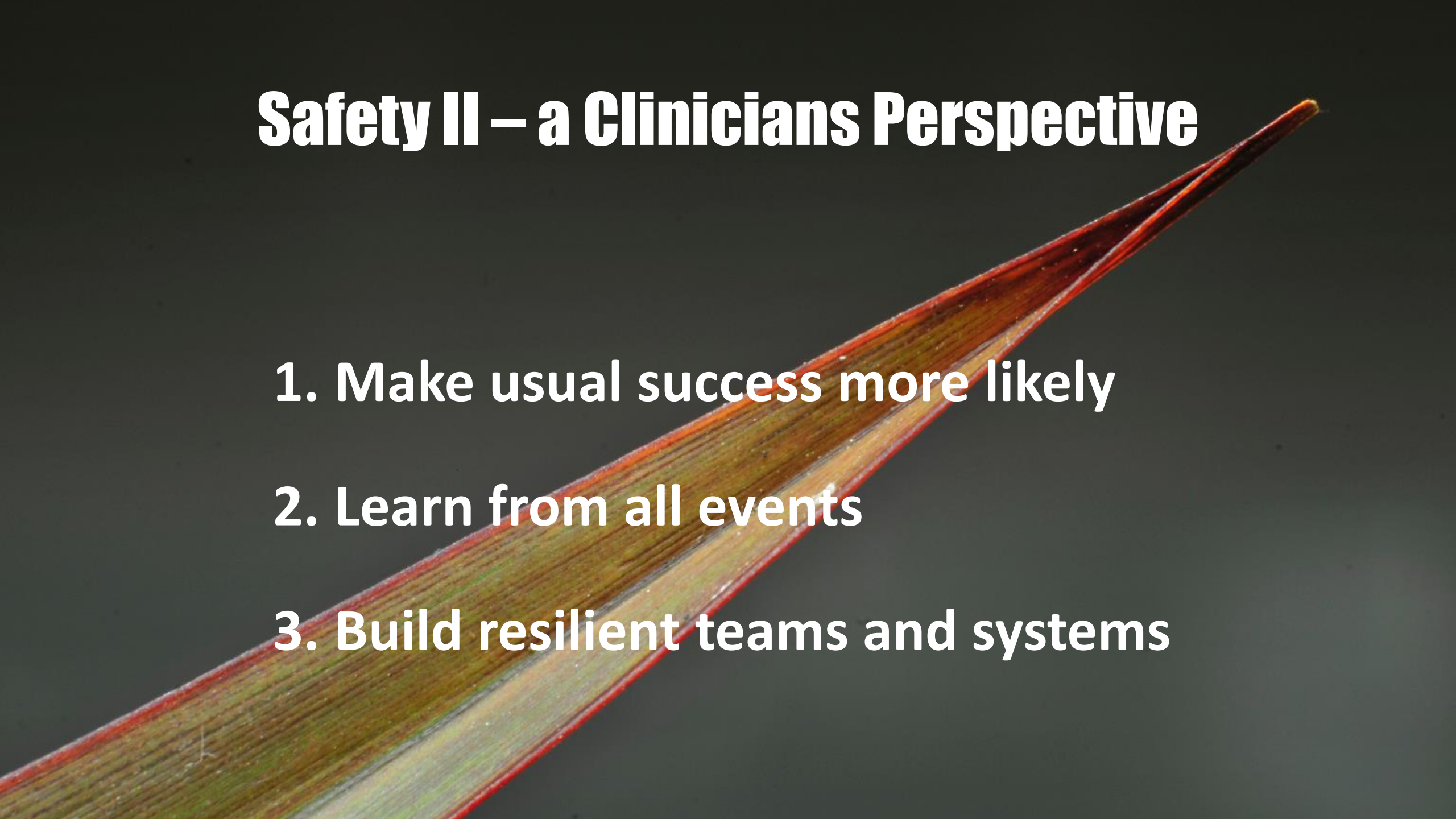

It’s a different way of looking at the world…
and everything will look different

There is nothing so practical as a good theory.

— Kurt Lewin —

Lewin, K. (1943). Psychology and the process of group living. Journal of Social Psychology, **17**, 113–131.

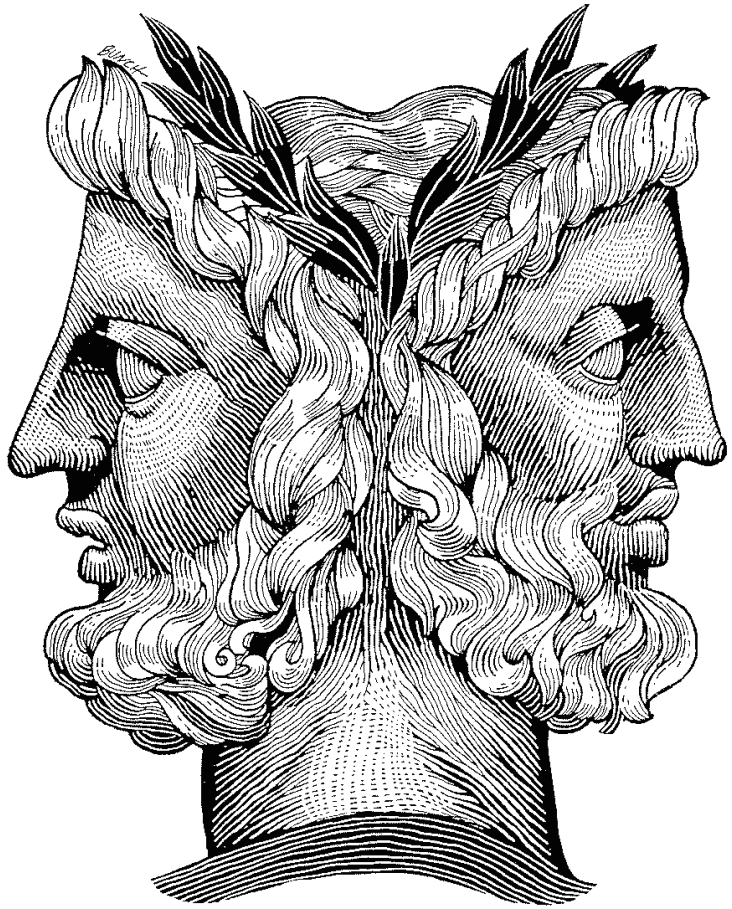
Safety II – a Clinicians Perspective



1. Make usual success more likely
2. Learn from all events
3. Build resilient teams and systems

1. Make Usual Success More Likely

Are you making **failure** less likely?

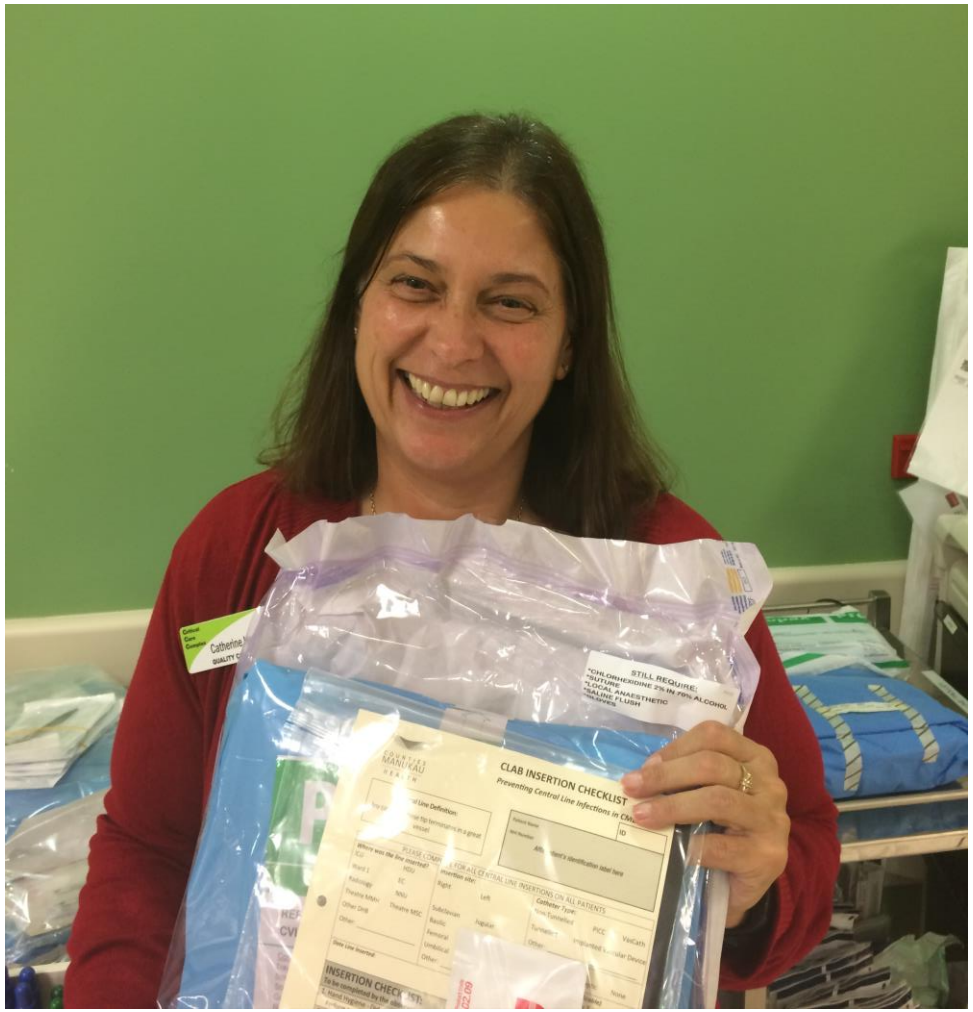


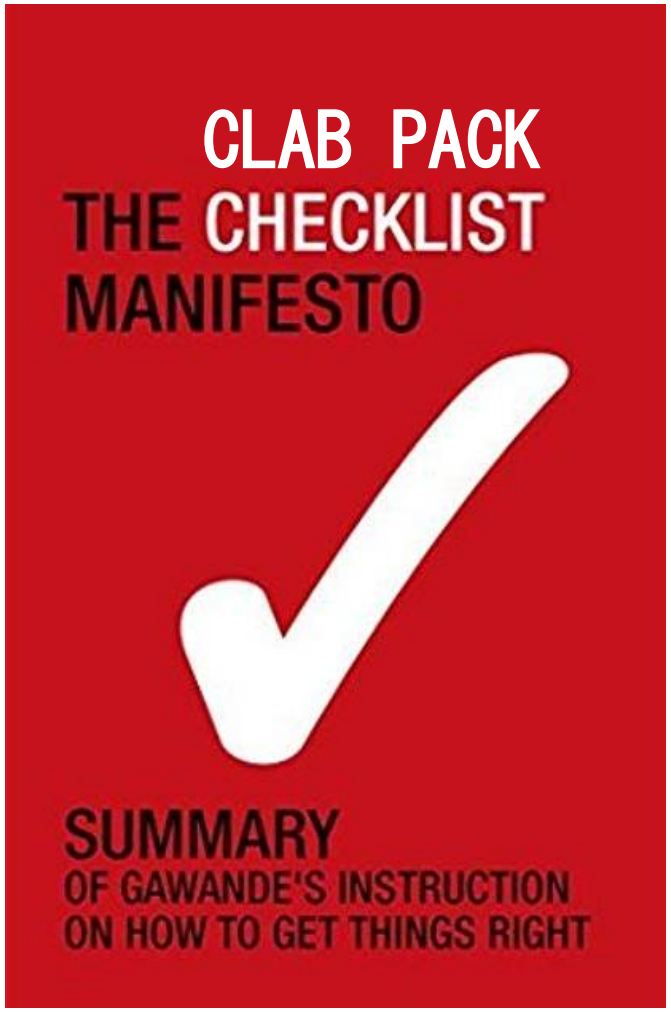
Or usual **success** more likely?

Human Factors

…the scientific discipline concerned with the understanding of interactions among humans and other elements of a system…

to optimize human well-being and overall system performance





See also Catchpole, K. Russ, S. The Problem with Checklists *BMJ Qual Saf* June, 2015

Quality Improvement

- Being curious about Work-as-Done
- Small and continuous reorganizing
- Changing upstream conditions

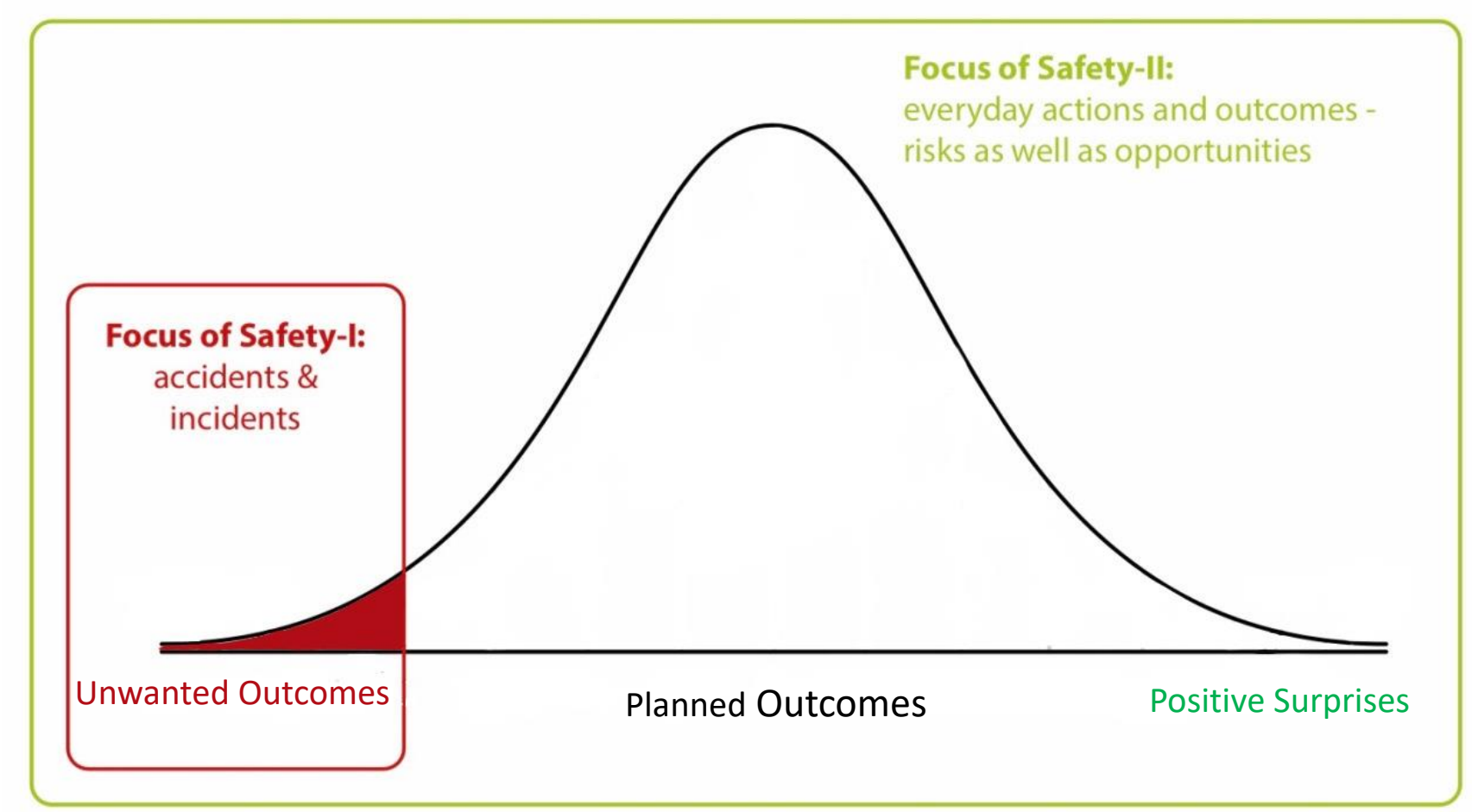
Clinicians are the only ones who have fundamental knowledge about the workflows that define their care. But they don't control the systems that set the context within which they work. The key question for a leader is, how do we make it easy for them to do it right?"

"If culture eats strategy for breakfast,

infrastructure eats culture for lunch"

Brent James, Chief Quality Officer
Intermountain Healthcare
NEJM Catalyst July 2017

2. Learn from all events



Focus on Learning

How did that seem the
right thing
to do at the time?

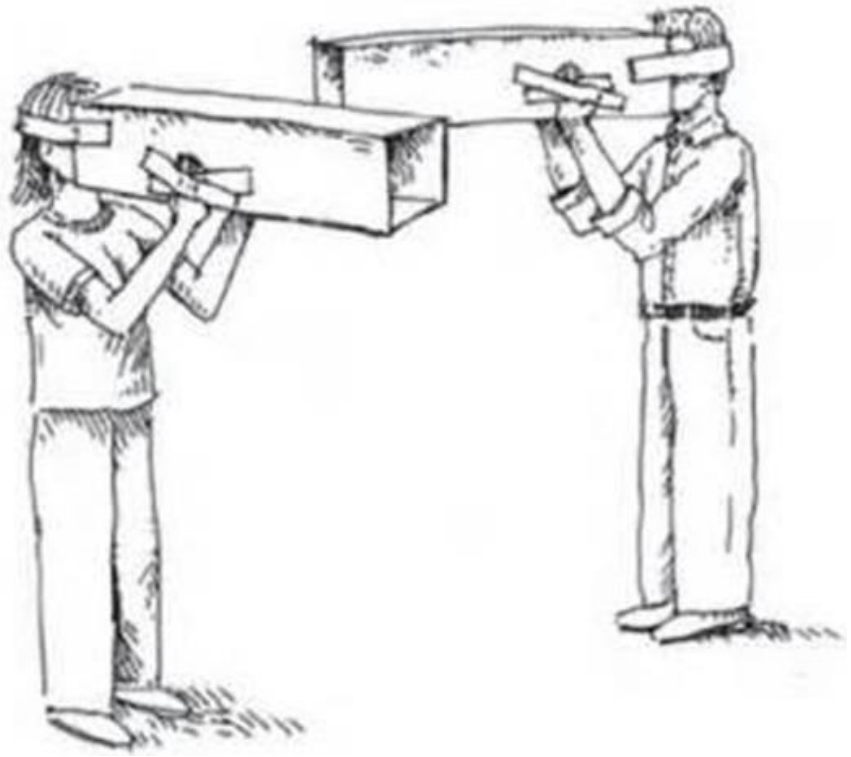
Dekker *A Field Guide to Understanding Human Error* 2014

Local Rationality

People do things that make sense to them, given

their goals,
understanding of the situation
and
focus of attention

at that time.



3. Build Resilience in Systems and Teams

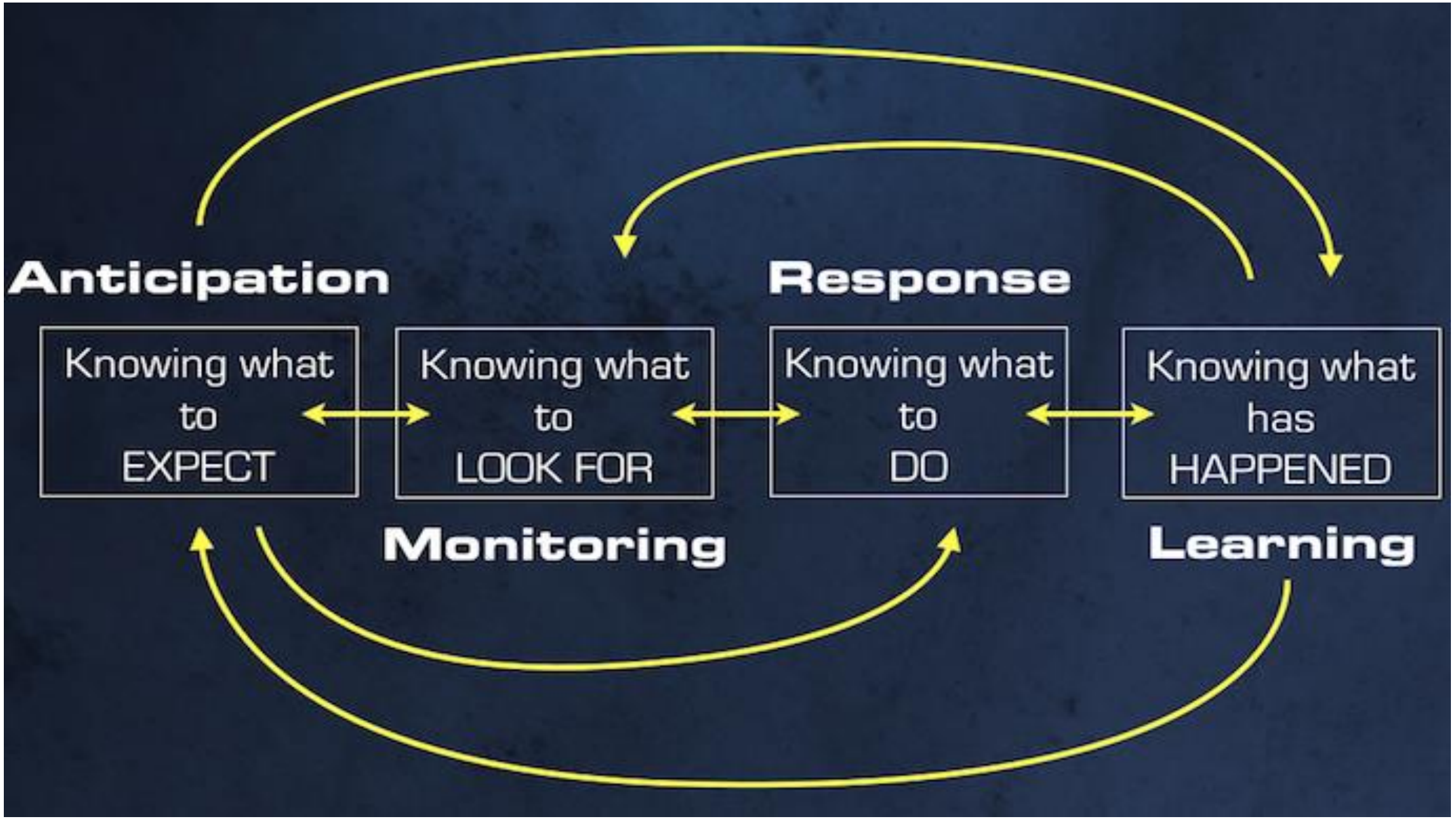
Resilience

is the ability of the team/system to

monitor and **adjust**

performance to achieve its goals,

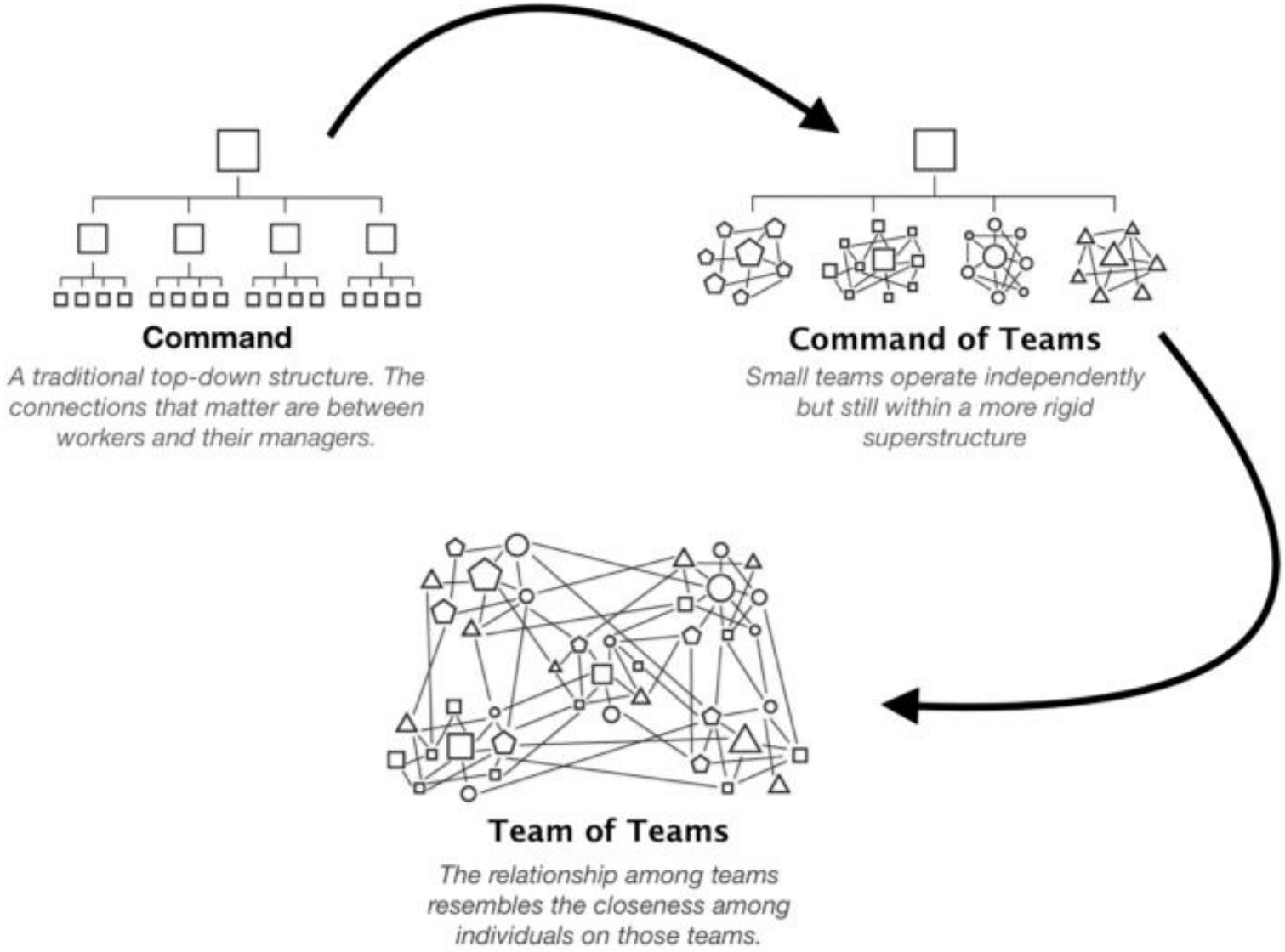
even when the unexpected happens.


Anticipation
Response
Knowing what to EXPECT
Knowing what to LOOK FOR
Knowing what to DO
Knowing what has HAPPENED
Monitoring
Learning

"In complex environments, resilience often spells success, while even the most brilliantly engineered fixed solutions are often insufficient or counterproductive."

Gen Stanley McChrystal *Team of Teams* 2015


Adaptable Teams



"In complex environments, resilience often spells success, while even the most brilliantly engineered fixed solutions are often insufficient or counterproductive."

Gen Stanley McChrystal *Team of Teams* 2015

A Change in Communication

Psychological safety

A shared belief held by the team

that the team is safe for

interpersonal risk taking

Google “Project Aristotle” (see rework.withgoogle.com)

Patients/ Whānau

- Part of the team, not passive recipients of care
- Co-design vs Individual needs

Leadership

- Goals, not tasks
- Creating the space for adaptive work
- Balancing creativity and constraint

Bridging Power Practices in Collective Leadership Carroll B, (in press)


Adaptable Systems

A Resilient System for Deteriorating Patients

ANTICIPATE	Advanced Care Planning and Goals of Care Building a shared understanding AMBER care bundle
MONITOR	NZEWS Korero Mai
RESPOND	Rapid response teams PAR/outreach
LEARN	Understanding Work-as-Done Making usual success easier

We Are All Part of the Context

CRITICAL CARE COMPLEX

COUNTIES MANUKAU HEALTH

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Coronial Services of New Zealand
Purongo O te Ao Kakarauri

Medical Council of New Zealand
Te Kaunihera Rata o Aotearoa

Te Kaunihera Tapuhi o Aotearoa
Nursing Council of New Zealand

Health Quality & Safety Commission New Zealand
Kupu Taurangi Hauora o Aotearoa

MINISTRY OF HEALTH
MANATŪ HAUORA

Public

Summary

- We work in a complex adaptive system, not a factory
- People and teams create safety every day
- Design your systems to make it easier for them

What does your world look like?

@HorsleyCarl chorsley@middlemore.co.nz