

Fixing Problems that Never Happened: how to enact safety-II?

Question 1: what's
your definition of
resilience, please?

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Australian Institute of Health Innovation's mission



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Our mission is to enhance local, institutional and international health system decision-making through evidence; and use systems sciences and translational approaches to provide innovative, evidence-based solutions to specified health care delivery problems.



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Background - the Centre



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*The Centre for Healthcare Resilience and Implementation Science (CHRIS) undertakes **strategic research, evaluations and research-based projects** of national and international standing with a core interest **to investigate health sector issues of policy, culture, systems, governance and leadership.***

www.aihi.mq.edu.au/chris



Preliminary ideas: resilience and patient safety



Resilience is...

...Bouncing back faster after stress, enduring greater stresses, and being disturbed less by a given amount of stress...

For an Object

...Maintaining system function in the event of a disturbance...

For a System

...The ability to withstand, recover from, and reorganize in response to crises...

For an Adaptive System

For Some People

Resilient Health Care



Another way of thinking about resilience:

“resilience is the intrinsic ability of a system to *adjust its functioning prior to, during or following changes/ disturbances in order to sustain required operations under expected or unexpected conditions*”

Here are some ideas from RHC thinking...

Safety Perspectives in RHC



Safety-I

- The (relative) absence of adverse events
- Reactive
- Assumes safety can be achieved by finding, and eliminating the causes of adverse events

Safety-II

- The ability to succeed under varying conditions
- Proactive
- Focuses on what goes right, so that the number of intended and acceptable outcomes is as high as possible every day

Typical understanding of Safety



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The 'find and fix' principle

Let's tackle *things that go wrong*

A focus on what goes right receives little encouragement

There is little demand from authorities and regulators to look at what works well, and if someone should, there is little help to be found

A Different Perspective – Safety-II



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A different way of looking at safety

A different way of applying many familiar methods and techniques

Asks us to identify *things that go right* and analyse why they work well

Requires proactive management of performance variability, not just constraints and avoidance

Safety-II: When Things Go Right



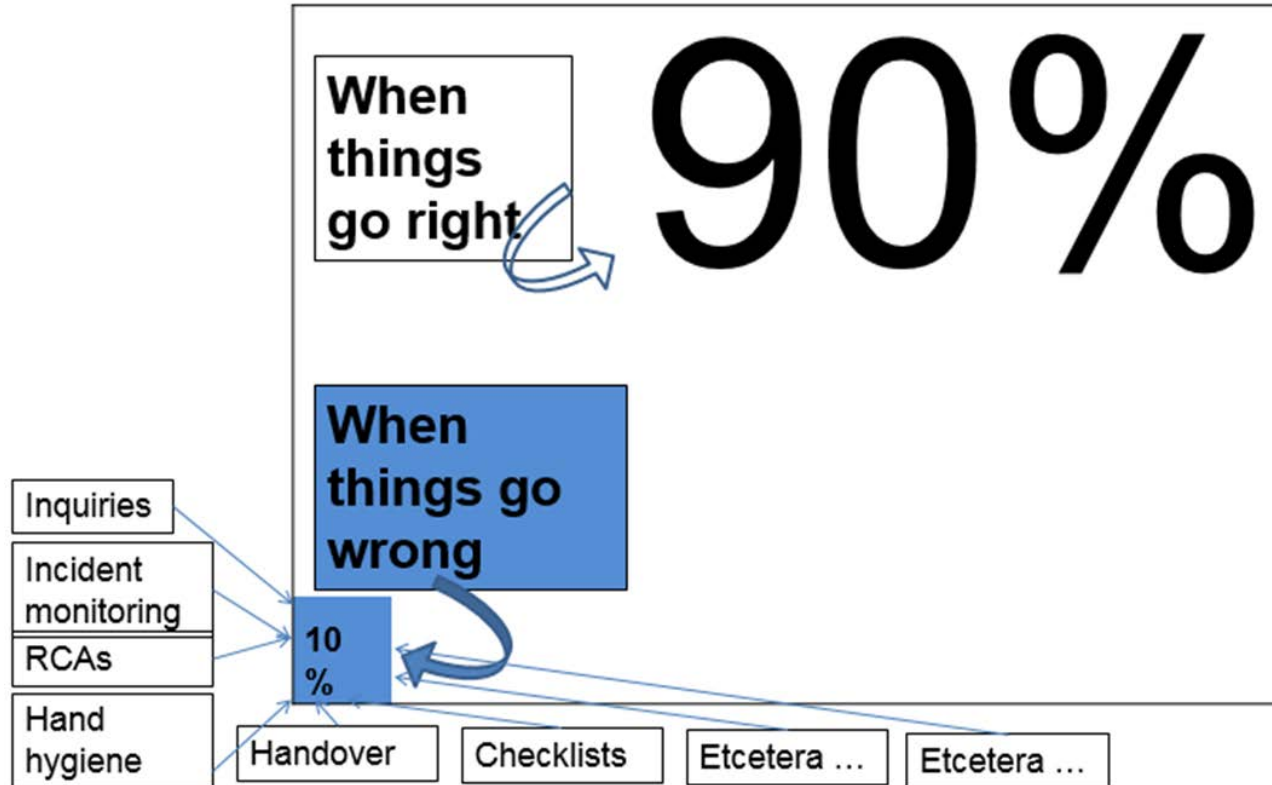
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What if we changed the definition of safety from ‘avoiding something that goes wrong’ to ‘ensuring that everything goes right’?

More precisely ‘ensuring that the number of intended and acceptable outcomes is as high as possible’

This requires a deep understanding of **everyday activities**

The 10% or the 90%?





Part 1: To begin

Everyday Clinical Work



- Resilient health care focuses on Everyday Clinical Work (ECW).
- ECW includes what happens at the front-line as well as every other level within health care systems.
- **Traditional sharp-end:** direct contact with patients.
- **Traditional blunt-end:** the way work is prepared, organised and managed.

Blunt-end versus sharp-end



Blunt-end workers apply performance targets, live in a political and bureaucratic world, and take policy decisions. These decisions affect entire populations over ***long sweeps of time***.

People working at the sharp-end, are focused on an individual and their family, ***in the moment***.

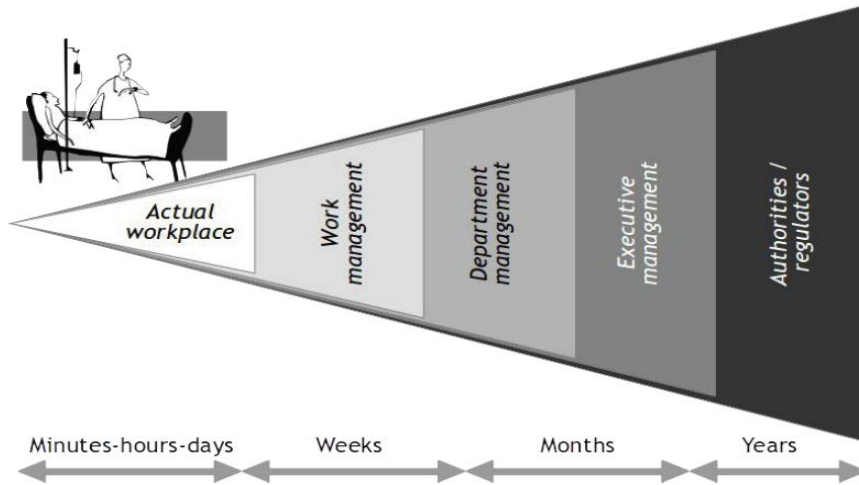


**Question: what creates
the resilience? WAI or WAD?
[Hint: 900 policies in
acute care in NSW]**



Part 2: Examining WAI—WAD

Work-as-imagined vs. Work-as-done



Work-as-imagined: The rules and standards outlining the way things *should* work—proposed by higher authorities and management at the blunt end.

Work-as-done: The work carried out by frontline employees at the sharp end e.g., clinicians, paramedics, nurses, at the sharp end.

WAI

Plan, design:
roles, equipment,
standards



[Hollnagel, 2015]

Manage work:
“lean” – quality –
guidelines



Manage safety:
investigations
and auditing



WAI—follow the rules!

Box 1: Professional bodies and national agencies who publish guidelines for anaesthetists

Association of Anaesthetists of Great Britain and Ireland
Academy of Medical Royal Colleges
Association of Cardiac Anaesthetists
Association of Paediatric Anaesthetists
British Association of Day Surgery
British National Formulary
British Pain Society
Department of Health
Difficult Airway Society
European Society of Anaesthesiology
Faculty of Pain Medicine
General Medical Council
Health and Safety Executive
Intensive Care Society
Medicines and Healthcare Products Regulation Authority
National Patient Safety Agency
National Institute for Health and Clinical Excellence
Obstetric Anaesthetists Association
Resuscitation Council (UK)
Royal College of Anaesthetists
Scottish Intercollegiate Guidelines Network

The Department of Health has over 3000 on its website and the National Institute for Health and Clinical Excellence has more than 1000.



The former NHS Library had a list of 152 publishers of guidelines and 17 references to guidelines about how to develop guidelines!

WAI—follow the rules!



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State Operations Manual Appendix A - Survey Protocol, Regulations and Interpretive Guidelines for Hospitals

Survey Protocol - Introduction

(Rev. 37, Issued: 10-17-08; Effective/Implementation Date: 10-17-08)

Hospitals are required to be in compliance with the Federal requirements set forth in The Medicare Conditions of Participation (CoP) in order to receive Medicare/Medicaid payment. The goal of a hospital survey is to determine if the hospital is in compliance with the CoP set forth at 42 CFR Part 482. Also, where appropriate, the hospital must be in compliance with the PPS exclusionary criteria at 42 CFR 412.20 Subpart B and the swing-bed requirements at 42 CFR 482.66.

Certification of hospital compliance with the CoP is accomplished through observations, interviews, and document/record reviews. The survey process focuses on a hospital's performance of patient - focused and organizational functions and processes. The hospital survey is the means used to assess compliance with Federal health, safety, and quality standards that will assure that the beneficiary receives safe, quality care and services.

This manual contains 1164 regulations and guidelines spread over 457 pages!

How does WAD cope with this?



Westbrook et al. (2010) observed forty doctors for 210 hours and found....

- Interruptions occurred 6.6 times per hour
- 11% of all tasks were interrupted (3.3% more than once)
- Doctors multitasked for 12.8% of time
- The average time spent on any one task was 1:26 min
- Interruptions were associated with a significant increase in time spent on tasks
- Doctors failed to return to approximately 18.5% of interrupted tasks

WAD—workarounds

Glove placed over a
smoke alarm, as it kept
going off due to
nebulisers in patients'
rooms



A leg strap holding an IV
to a pole, as the holding
clasp had broken

Plastic bags placed over
shoes to workaround the
problem a of gumboot
(welly) shortage



The mismatch between Work-as-imagined and Work-as-done



Work-as-done (sharp end)

- **Experience** health care delivery first hand
- In direct contact with patients and professional staff
- **Receive feedback** with little or no delay
- **Priorities** are related to the work at hand
- **Represents practice:**
 - Conditions are constantly changing and can be unpredictable
 - Work is underspecified, so guidelines must be interpreted within the context of changing conditions

Work-as-imagined (blunt end)

- **Experience** health care indirectly and are limited to selected and convenient measures and indicators
- **Receive** a considerable delay in feedback (months to years)
- **Feedback** is received in highly processed forms e.g., statistics and key indicators
- **Priorities** rely on interpreted and filtered information without precise knowledge and complete understanding of sharp end experiences
- **Represents ideas about practice:**
 - People can only imagine processes because they only gain access to selected information about outcomes (easily assessable)

Information delay

Information delay up the “chain of command” as well as delay in transferring policy down the chain, can result in information that is irrelevant to current circumstances.



Decision making

- WAD often involves quick decisions which can be perceived as unconsidered and in poor judgement.



WAI involves drawn-out decisions which can be perceived as a failure to care and listen.



Part 3: Aligning WAI—WAD

Jugglers

‘Jugglers’ are the people in the middle of the continuum between WAI and WAD. They translate, interpret, shield and deflect to hold things together and maintain relationships.



The other roles

- Cosmopolites
- Mavens
- Bridges
- Opinion leaders
- Liaisons
- Reticulates



The mismatch between Work-as-imagined and Work-as-done



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To ensure health care is resilient, there must be continuous realignment of the two perspectives.



Bridging Work-as-imagined and Work-as-done



- Regular dialogue
- Secondments across WAI-WAD settings
- Conferences like this
- A new kind of change agent



Part 4: An example

Example: The secret second handover



Emergency Departments (EDs): complex, time-critical, highly interactive, time-pressured. Ideal examples through which to explore gaps between WAI and WAD.

Example: Ambulance queues in EDs. The longer paramedics spend handing over patients, the longer their response time to other emergencies.

Example: The secret second handover



WAI: UK created 30 minute targets: ambulance crews have 15 minutes from arriving to hand over patients, and 15 minutes to finalise paperwork. There should be one single handover to nurse coordinators.

WAD: Paramedics engaged in a “second secret handover” in which they spoke to the cubicle nurse who would be directly responsible for the patient. This was against standardised protocols.



The secret second handover: reactions

Managerial staff (blunt end)

Nurse Coordinators: Disapproving of the second secret handover. Concerned with the department's workload, patient work-flow and availability of resources. They saw the SSH as an unnecessary process which slowed down the handover.



The secret second handover: reactions

Front-line staff (sharp end)

Cubicle Nurses: Appreciative of the SSH. Wanted all relevant information as they were directly responsible for the patient.

Paramedics: The best source for background information. Concerned with patient's psychological and social needs. They wanted to tell the whole story and make sure nothing was missed in the paperwork.



Effective relationships

The importance and challenges of both parts of the system need to be understood.



Judgements and stereotypes need to be avoided and mutual respect developed.



Part 5: Safety-I and Safety-II

Safety-I

- Traditional approach, Safety-I: focus on patient harm, errors and adverse events (the extraordinary).
- Safeguards are put in place to eliminate causes of harm and control risks, including standardisation, protocols, checklists and constraining behaviours.
- These interventions are examples of WAI—how work **SHOULD** be carried out.



Safety-II

- WAD cannot be improved through the analysis of adverse and harmful events alone.
- Performance adjustments and trade-offs need to be evaluated through a study of the ordinary, that is, through Safety-II.
- Safety-II focuses on what goes RIGHT in health care systems. How do people navigate and adjust to the complexity of health care systems to provide safe and high quality care?

Realigning WAI and WAD

Learning from the ordinary offers opportunities to realign WAI and WAD.

It provides rich information that managers do not usually have access to. Managers usually utilise outcome measures and process data that's been interpreted over time.



It also allows clinicians to reflect on ECW.



Part 6: Where to now?

Future Directions

- Aligning WAI and WAD completely is not possible.
- Future research should focus on *understanding* the gap between WAI and WAD.

Qualitative research

Qualitative measures: Describe links between WAI, WAD and outcomes through ethnographic studies. This requires considerable time in the field.



Five things to do now



1. Look for what goes right
2. Focus on frequent events
3. Remain sensitive to the possibility of failure
4. Be thorough as well as efficient
5. Investing in safety, the gains from safety

First story: linear thinking



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Things have gone wrong

Find out what happened

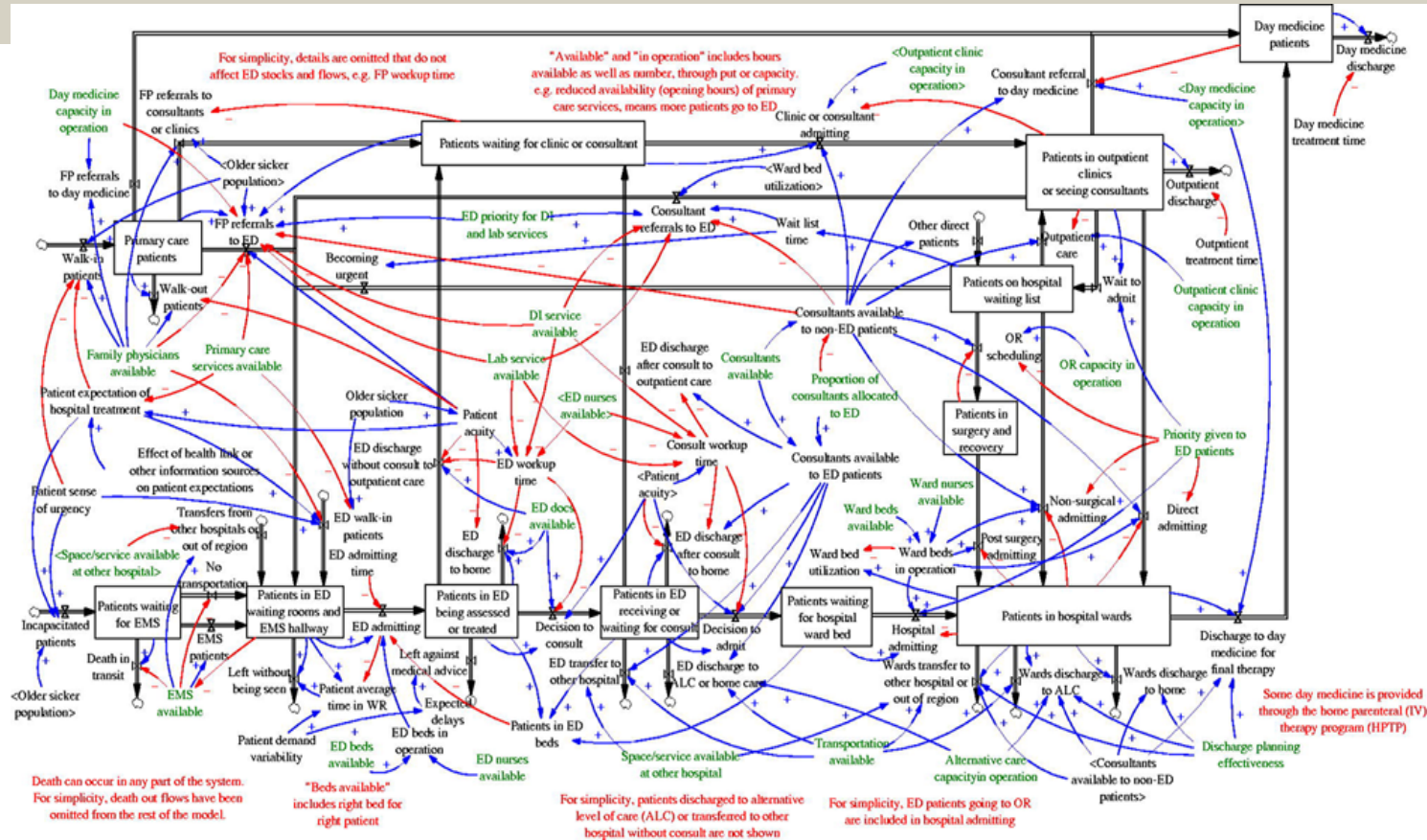
Attribute actions to people

Uncover the root causes

Fix the systems so this doesn't happen again

Sound familiar?

But healthcare really looks like this ...



Second story: complexity thinking



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It's more complex than the first story

It's not linear at all

Multiple interacting variables

Uncover ***how come we did this many times previously and things went right***

Strengthen the systems so we do more things well

Productive Insights into Safety



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Insights from the ‘second story’ lie behind the ‘first story’ of incidents and accidents

First stories are accounts of the ‘celebrated’ accidents which categorise them as both ***catastrophes*** and ***blunders***

Second stories tell how, ‘multiple interacting factors in complex systems can combine to produce systemic vulnerabilities to failure ... the system usually ... manages risk but sometimes fails.’

Resilience and the Second Story



Resilience:

- is a property of systems
- confers on systems the ability to remain intact and functional despite the presence of threats to their integrity and function
- is the opposite of brittleness and aspires to be a theory of systemic function



Implications of these alternative ways of thinking: fixing problems that never happened

So:



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Can we shift the emphasis to a more positive approach?

To make sure things will go right more often?



**Discussion: comments,
questions, observations?**

Contact details



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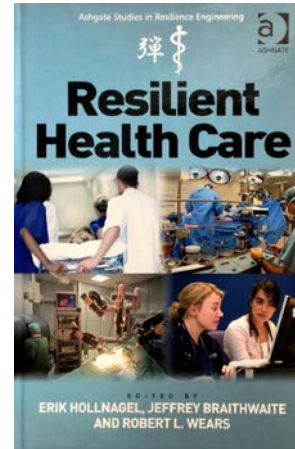
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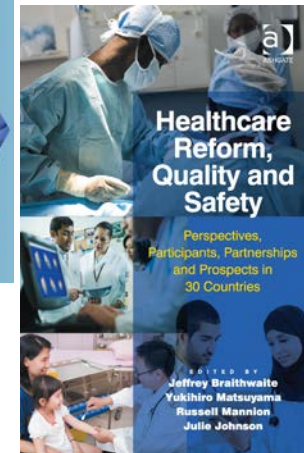
Wikipedia: http://en.wikipedia.org/wiki/Jeffrey_Braithwaite



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