

# From risk to safety Moving to safety driven healthcare

#### Peter Lachman

Inspiring and driving improvement in the quality and safety of healthcare worldwide through education and knowledge sharing, external evaluation, supporting health systems and connecting people through global networks.



# We harm 10-15% of patients

http://www.health.org.uk/sites/health/files/LevelsOfHarm\_0.pdf



Table 2: estimated levels of harm in the community

Research	Context	Country	Approximate harm rate	% preventable
McGlynn (2003)	All healthcare for adults	USA	Adults only receive 55% of appropriate or indicated care for their conditions	Unknown
Baker et al (2004)	Community and acute hospital	Canada	8%	37%
Mangione-Smith (2007)	All healthcare for children	USA	Children only receive 47% of recommended care	Unknown
de Wet and Bowie (2009)	General practice	UK	9% of records or 2% of consultations list harm experienced in primary care or hospital	42%
Tsang et al (2009)	General practice	UK	Injuries due to surgical and medical care: 0.7 cases of per 1,000 consultations; adverse drug reactions: 1.3 reactions per 1,000 consultations	Unknown
Smits et al (2010)	Out of hours	The Netherlands	3%	Unknown
Hug et al (2010)	Medication in community hospitals	USA	15% adverse drug events	75% adverse drug events
Vincent et al (2001)	Hospital	UK	11% or 12% when multiple adverse events were accounted for	About half

Note: the date of publication does not reflect when data were collected, which could be five-10 years earlier. The harm rate is rounded to whole figures.



# Why should we understand the harm we can cause?



## Causes to explore

Human factors

Clinical complexity factors

- System failures
- Safety by design



## Safety Culture

Increasing informedness or mindfulness

**Generative**Safety is how we do business here

#### **Proactive**

We work on problems we still find

#### **Calculative**

we have systems in place to manage all hazards

#### Reactive

Safety is important - we do a lot when something happens

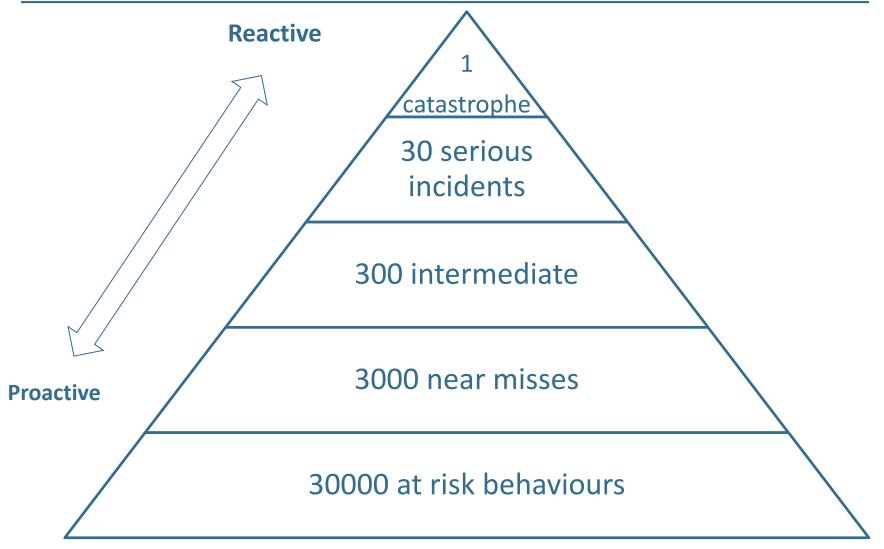
**Increasing information** 

Pathological
It is ok as long as nothing happens

Hudson P. Applying the lessons of high risk industries to health care Qual Saf Health Care 2003



# Heinrich Accident Pyramid



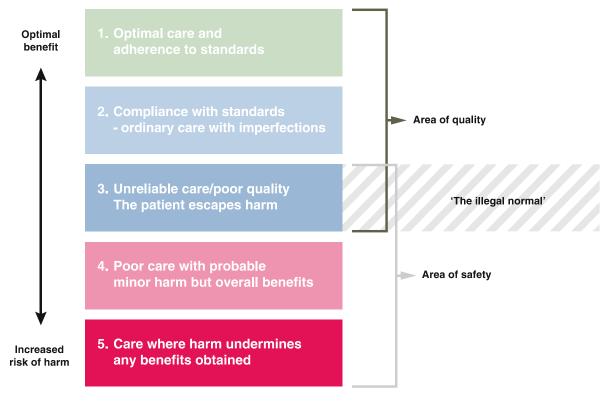


# Safety is heanweats 4545 the state of the st





#### 5 levels of care



**Fig. 2.1** Five levels of care

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Why do we accept our inability to deliver the right care at the right time every time?



Why do highly percorming individuals accept unsafe Care in a under our Poor medical records Incomplete handover Own Clinical Control Not following agreed protocols

Etc.



# Safety and harm must be viewed from the eyes of the patient



# What really matters for people

### Standardised and safe but for me

Coordinated around my needs

SAFE and enabling with compassion



# We need both individual and system action



## A framework for quality and safety





### A framework for the measurement and monitoring of safety









# System thinking

Understand the system in which we work

Study the Variation in the system

Examine the way people think – beliefs and attitudes

Have a theory and method of change





#### **Box 6.1 Five Safety Strategies**

**Safety as best practice: aspire to standards –** Reducing specific harms and improving clinical processes

**Improving healthcare processes and system –** Intervening to support individuals and teams, improve working conditions and organisational practices

**Risk control** – Placing restrictions on performance, demand or working conditions

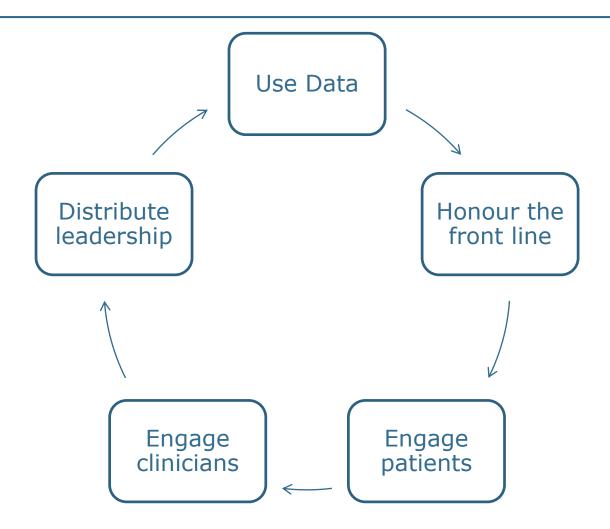
Improving capacity for monitoring, adaptation and response.

**Mitigation** – Planning for potential harm and recovery.

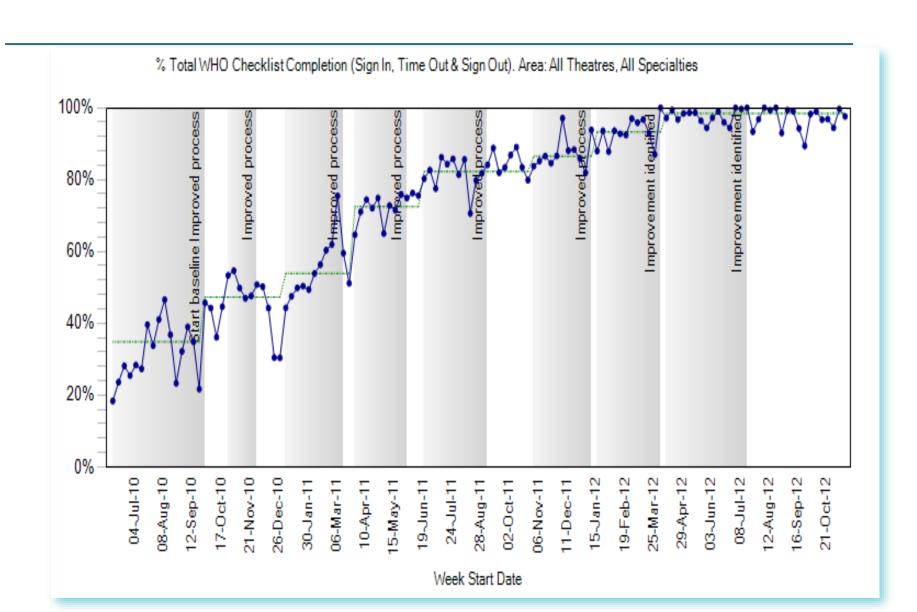
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### **Transform**









# Fundamental Safety Principles

Prevention

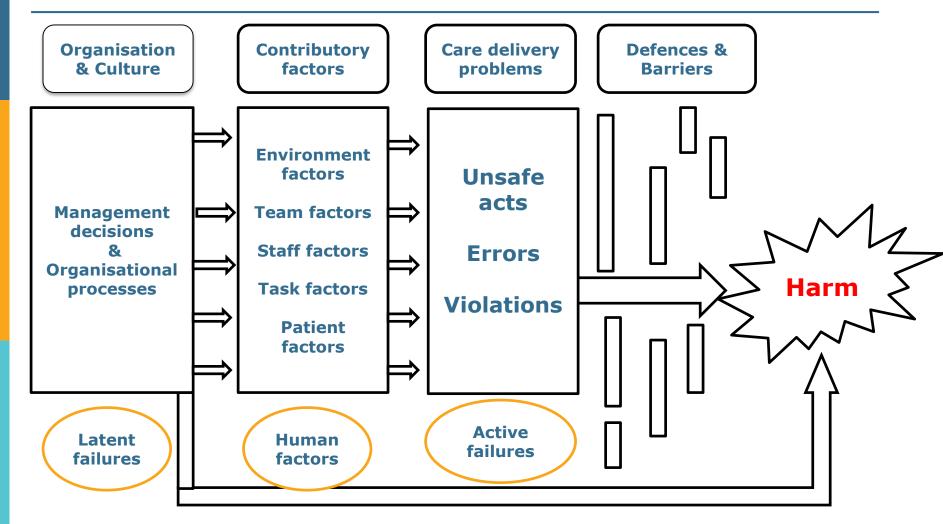
Detection

Mitigation

Escalation



## Understanding why harm happens





# Aiming for reliability

 Regarding small errors as a symptom that something is wrong

Preoccupation with failure

Sensitivity to operations

 Paying attention to what's happening on the front-line  Encouraging diversity in experience, perspective, and opinion

Reluctance to simplify

**Contain** 

Commitment to resilience

 Capabilities to detect, contain, and bounceback from events  Pushing decision making down to the front line

Deference to expertise

**Anticipate** 





### Move to Ultra safe care

- Acceptance of limitations on maximum performance
- Abandonment of professional autonomy
- Transition from the mindset of craftsman to that of an equivalent actor
- Need for system-level arbitration to optimize safety strategies
- The need to simplify professional rules and regulations

PATTENT SAFETY AND THE RELIABILITY OF HEALTH CARE SYSTEMS

Series Editors: Paul Barach, MD, MPH, and Donald M. Berwick, MD, MPP IMPROVING PATIENT CARE

#### Five System Barriers to Achieving Ultrasafe Health Care

René Amalberti, MD, PhD; Yves Auroy, MD; Don Berwick, MD, MPP; and Paul Barach, MD, MPH

Although debate continues over estimates of the amount of preventable medical harm that occurs in health care, there seems to be a consensus that health care is not as safe and reliable as it might be. It is often assumed that copying and adapting the success stories of nonmedical industries, such as civil aviation and nuclear power, will make medicine as safe as these industries. However, the solution is not that simple. This article explains why a benchmarking approach to safety in high-risk industries is needed to help translate lessons so that they are usable and long lasting in health care. The most important difference among industries lies not so much in the pertinent safety toolkit, which is similar for most industries, but in an industry's willingness to abandon historical and cultural precedents and beliefs that are linked to performance and autonomy, in a constant drive toward a culture of safety. Five successive systemic barriers currently prevent health care from becoming an ultrasafe industrial system: the

need to limit the discretion of workers, the need to reduce worker autonomy, the need to make the transition from a craftsmanship mindset to that of equivalent actors, the need for system-level (senior leadership) arbitration to optimize safety strategies, and the need for simplification. Finally, health care must overcome 3 unique problems: a wide range of risk among medical specialties, difficulty in defining medical error, and various structural constraints (such as public demand, teaching role, and chronic shortage of staff). Without such a framework to guide development, ongoing efforts to improve safety by adopting the safety strategies of other industries may yield reduced dividends. Rapid progress is possible only if the health care industry is willing to address these structural constraints needed to overcome the 5 barriers to ultrasafe performance.

Ann Intern Med. 2005;142:756-764. For author affiliations, see end of text. WWW.annais.org



#### Resilience

"Safety" is the ability of a system to sustain required operations under both expected and unexpected conditions.

Safety is not a commodity that can be counted; it is what we do every day



## Look at safety differently

Focus is on what goes right.

Use that to understand normal performance, to do better and to be safer.

Safety and core business help each other.

Learning uses most of the data available



10-4 := 9.999 non- failures in 10.000 events

0-4 := 1 failure in 10.000 events



### **Know what works**

- 1. Preoperative checklist
- Bundles such as CLABSI
- 3. Interventions to decrease urinary catheter use
- 4. VAP bundle
- 5. Hand hygiene
- 6. "Do not" list for hazardous abbreviations
- 7. Barrier precautions for HAI
- 8. Pressure ulcer intervention
- Real time ultrasonography for CVL placement
- 10. VTE prophylaxis



#### **Know what works**

- Falls prevention
- 2. Clinical pharmacists to decrease ADE
- Informed consent
- 4. Team training
- 5. Medication reconciliation
- 6. Rapid response teams
- 7. Surgical outcome report cards
- 8. CPOE or improved medical records
- Simulation
- 10. Decrease exposure to investigations e.g. CT and fluroscopy
- 11. Methods to measure adverse events



### Daily questions to ask at all levels

- What did we do well?
  - So we can replicate
- Past harm
  - Has patient care been safe in the past?
- Reliability
  - Are our clinical systems and processes reliable?
- Sensitivity to operations
  - Is care safe today?
- Anticipation and preparedness
  - Will care be safe in the future?
- Integration and learning
  - Are we responding and improving?



"Quality and Safety are never an accident; they are always the result of high intention, sincere effort, intelligent direction and skillful execution; they represents the wise choice of many alternatives"

Adapted from William A. Foster





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