National investigations how do we drive system change

Deinniol Owens, Dr Laura Pickup and Dr Clare Crowley
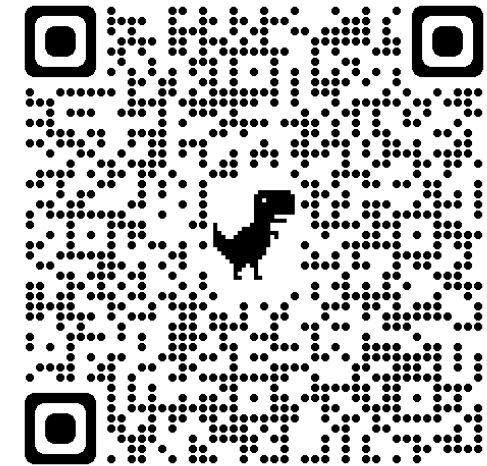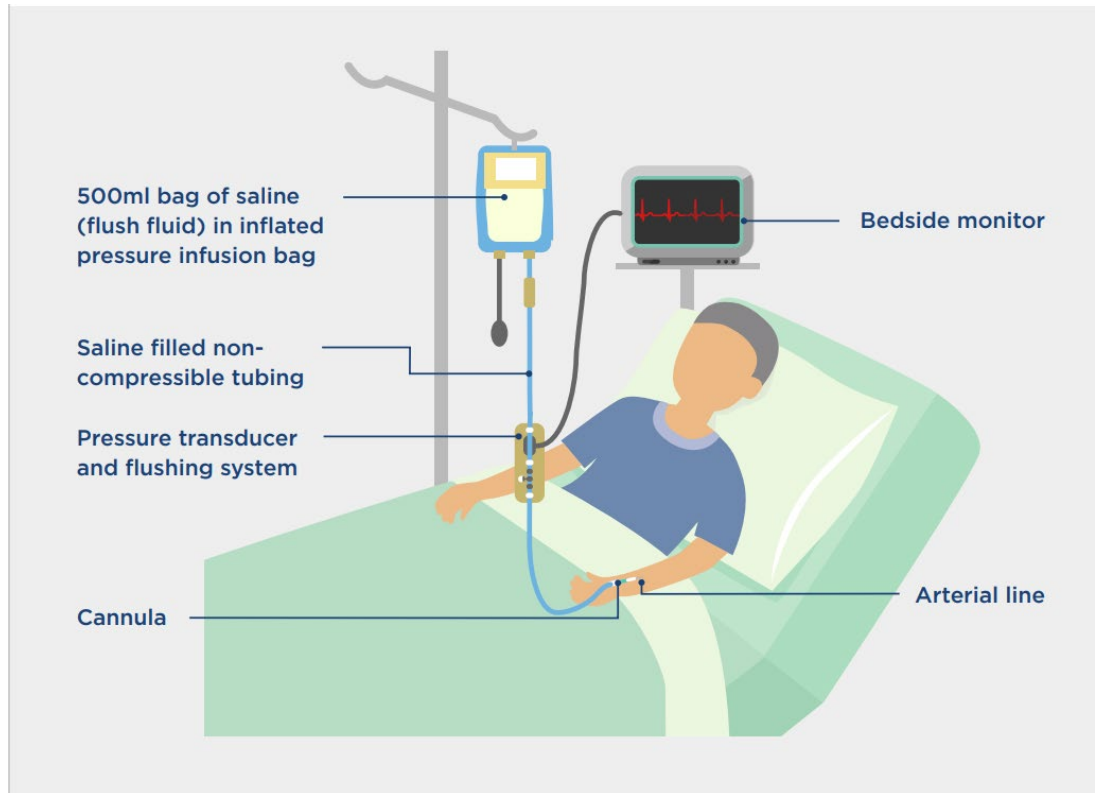
21 September 2022

Background

- Where did this investigation come from?

- Aim: to understand the system issues around use of arterial lines within adult critical care

- Initial local investigation within NHS Trust

- National investigation with wider system stakeholders

Keith's story

Arterial lines

500ml bag of saline (flush fluid) in inflated pressure infusion bag

Saline filled non-compressible tubing

Pressure transducer and flushing system
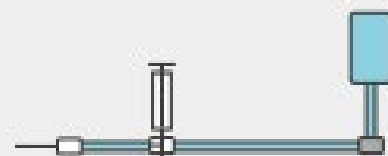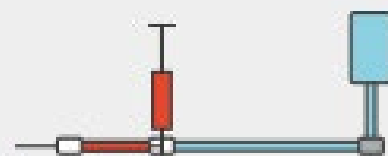
Cannula

Bedside monitor

Arterial line

https://www.hsib.org.uk/investigations-and-reports/the-use-of-an-appropriate-flush-fluid-with-arterial-lines/

Open systems
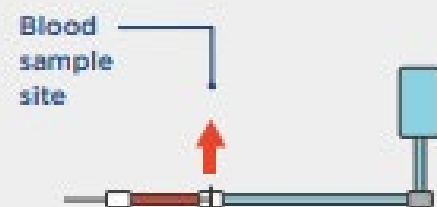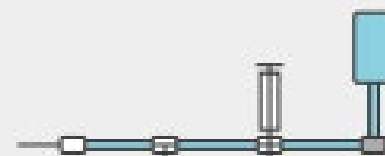
1. Attach a syringe to port

2. Draw back blood 3 times the volume of dead space. Discard blood safely

Blood sample site

3. Withdraw a sample of blood for testing from the blood sample site

Closed systems

1. Attach a syringe to port furthest from cannula site
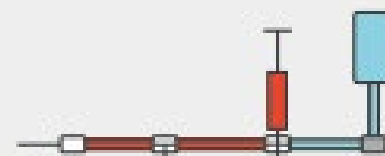
2. Draw back blood 3 times the volume of dead space. Conserve the patient's blood
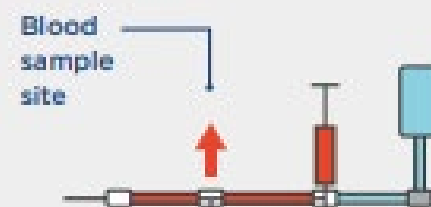
Blood sample site

3. Withdraw a sample of blood for testing from the blood sample site

4. Replace the conserved blood back into the closed system

Key

Flush fluid   Blood   Port   Syringe   Cannula

Inflated pressure infusion bag   Dead space – remaining fluid between cannula and blood sample site

Scale of the problem

National data

- Incidents reported via National Reporting and Learning System (NRLS)
  - High level review (1.09.16 – 31.08.20) = 447 reports
  - In-depth review (1.09.20 – 31.08.21) = 141 reports
  - Confusion with a wide variety of different infusion solutions, some which contained glucose.

- Medication and medical device 'yellow card' reports to the Medication and Healthcare products Regulatory Agency (MHRA)

- Survey of members of professional bodies (BACCN, CODP)
  - Majority been involved with or aware of issue
  - Not a common occurrence but acknowledged risk

Planning

Work system — Process — Outcome

External environment

Organisation   Environment

People

Task   Equipment

Process:
• Care process
• Other processes

Patient outcomes:
• Quality of care
• Patient safety

Employee and organisational outcomes

Holden, R.J., Carayon,P., Gurses,A.P., Hoonakker,P., Schoofs Hundt, A., Ant Ozok,A and Rivera-Rodriguez,A.J (2013). SEIPS 2.0: a human factors framework for studying and improving the work of healthcare professionals and patients. Ergonomics, 2013, DOI:10.1080/00140139.2013.838643.

Actor Map

HSIB

Government policy and budgeting		NHSE	DHSC	NHS Resolution		
Regulatory bodies and associations	CQC	Professional Bodies	MHRA	CIEHF	NHS Supply	Industry Reps
Trust/organisation management	Medical	Nursing	Pharmacy	Procurement	Estates	Education
Operational management	NHSP	Medical	Nursing	Education		
Healthcare processes and staff activities	Housekeeping	Medical	Nursing			
Equipment and surroundings	AITU	Medication storage	Arterial line storage			
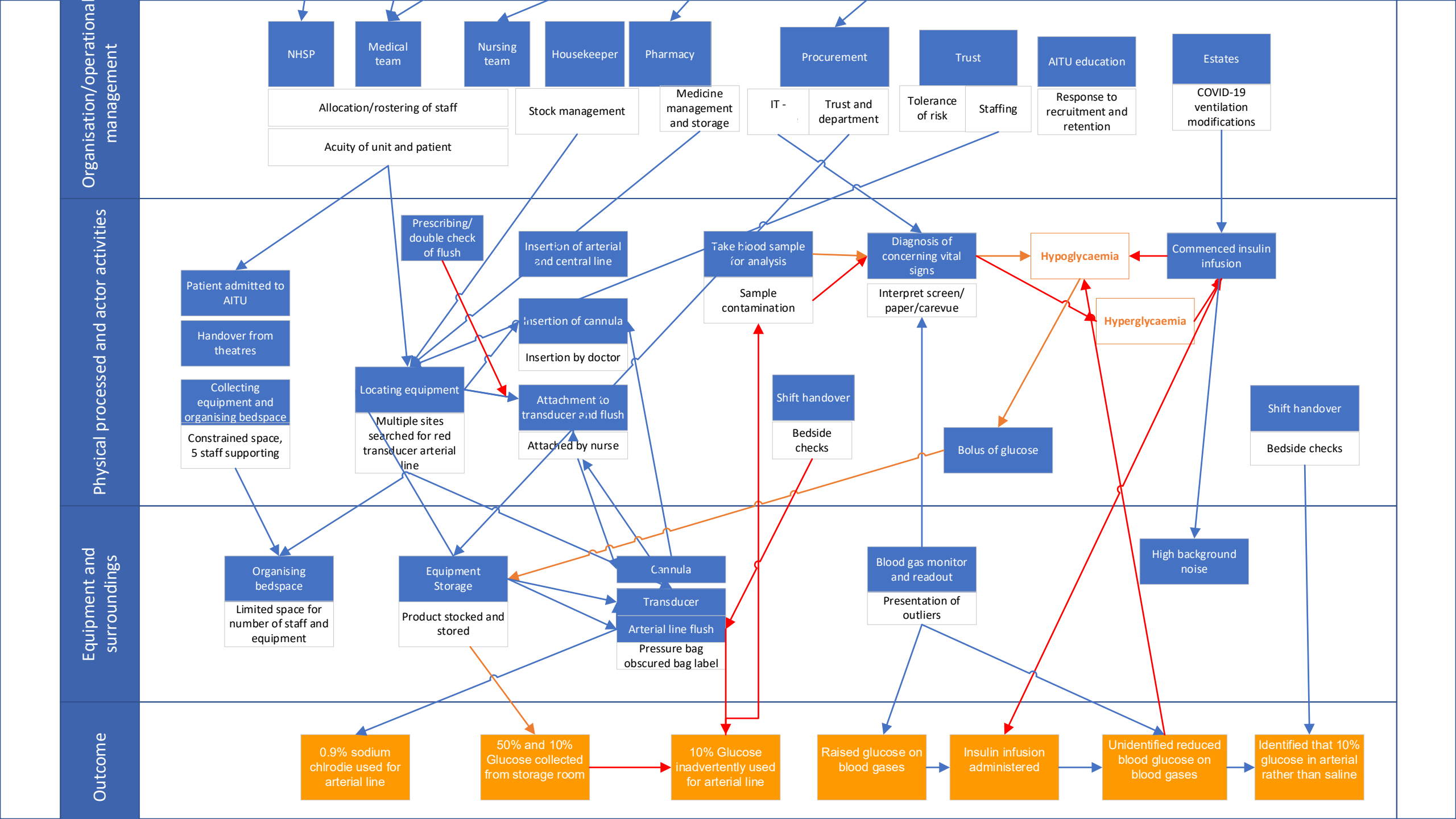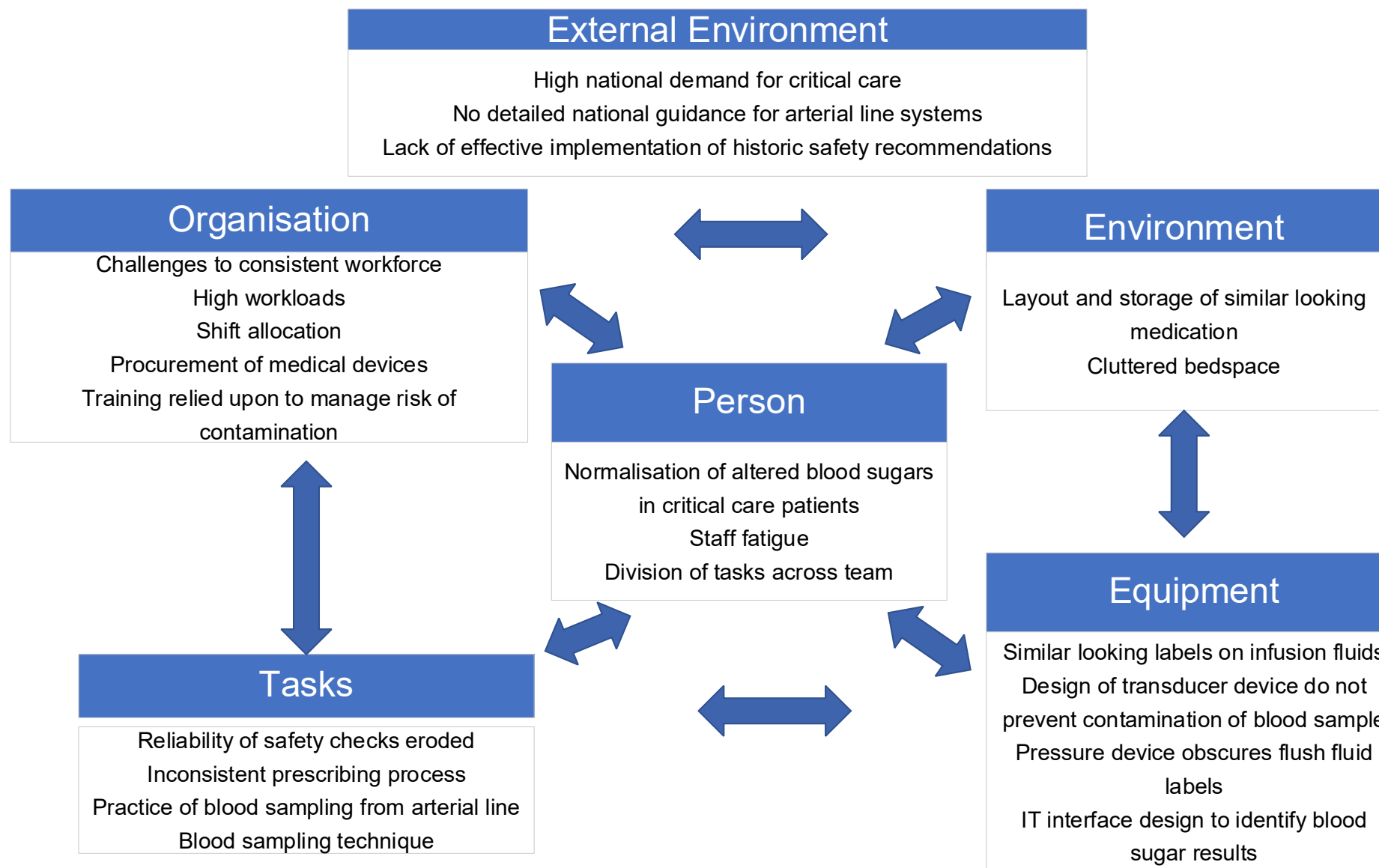
Impact on performance

HSIB

Appendix 4 A sample of information from the Systemic Human Error Reduction and Prediction Approach (SHERPA) (Embrey, 2014)

Representatives from the following organisations took part in the investigation's workshops.

	Task type	Failure type	Failure description	Consequence	Existing safety controls	Performance influencing factors
Gather equipment						
Collect 0.9% sodium chloride (500ml) from storage location (IV trolley, fluid storeroom, bedside?)	Selection	Incorrect selection	• Incorrect content • Incorrect volume • Incorrect strength (%)	Glucose selected instead of 0.9% sodium chloride	Subsequent double check	Time-critical task Design of label Storage layout Organisation – policy Fatigue Workload Motivation – priorities
Check collected correct fluid – double/single checking policy	Checking	Check	• Inadequate attention to check • No check	Control for selection of double check ineffective	Double check and signature in record system	Motivation – priorities Perceived risk Time pressure Fatigue Workload
Sign in record	Recording	Action omitted	• Omitted second signature? • May not be prescribed in records to add signature to	Lack of accountability for second check	None at time of incident – no forcing function in IT system for signature	Motivation – priorities Perceived risk Time pressure Fatigue Workload
Complete checks						
Type of fluid	Check	Check omitted	• No check • Inadequate check	Missed incorrect fluid	Next shift handover check	Memory Time pressure Culture Workload
Perform blood sampling						
Withdraw estimated volume equivalent to x3 to x5 of dead space	Action	Amount too little	• Inadequate amount of blood withdrawn to reduce the risk associated with the contamination of blood sample to be tested	Inaccurate analysis of blood gas sample, which implies hyperglycaemia in the event of a glucose based flush fluid incorrectly used Incorrect clinical conclusion and subsequent treatment with insulin and potential for neurological harm or death	Waste sample – x3 to x5 dead space Medical review to consider risk of flush fluid prior to treatment with insulin Closed systems, which control volume of waste sample and return blood back to patient's system, may reduce risk of sample contamination	Motivation – priorities Perceived risk of flush Time pressure Fatigue Workload Reliability of staff to correctly recall and estimate the volume of dead space required

Stakeholder engagement

Workshop 1

Pharmaceutical

Commercial

Procurement

MHRA

Workshop 2

Clinical

Commercial

Procurement

MHRA

Workshop 3

National Bodies

Pharmaceutical

Clinical

Commercial

Procurement

Evaluation of safety controls

Safety controls - prevention

Incorrect collection and set-up of fluid

Label | Flush package | Pressure cuff | Procurement | Storage | Guidelines/ policies | Checklists

Lack of effective design to reduce use error

Packaging and labelling design | Pressure cuff design (Opaque) | Standards

Variability in storage of fluids

Storage design | Storage location | Storage of similar fluids | Roles and responsibility | Local policy | Aligned national guidelines

Reliability of the checks due to work context

Guidelines/ policies | Checklists | Double checks | Handover checks

Flush fluid contains glucose

WWW.HSIB.ORG.UK

Developing recommendations

- Do we need to do this, can we eliminate it?
- Can we substitute and achieve the same outcome with less risk?
- Can we design an alternative (process/equipment)?

If these aren't possible…
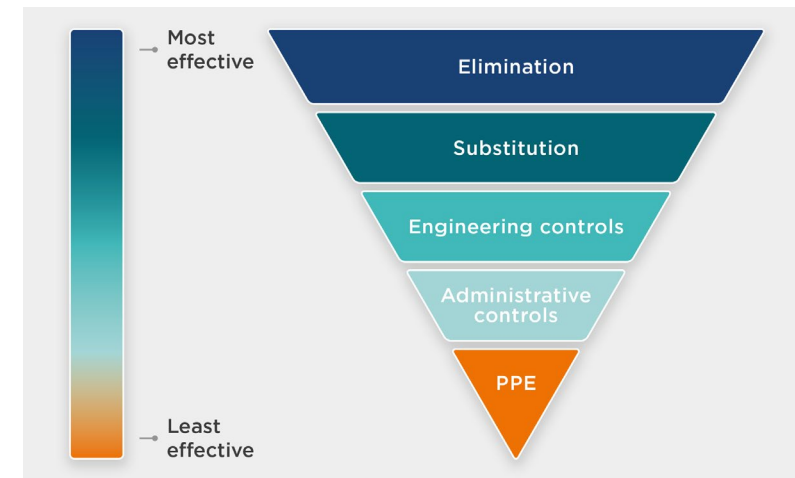
- Can we make existing controls stronger?

Most effective

Elimination

Substitution

Engineering controls

Administrative controls

PPE

Least effective

Summary

- Listening to the system to identify safety risks

- Independent approach to investigation utilising system based methods to understand the risks

- Collaborative approach to developing effective recommendations to improve safety

Questions?

Maternity Investigation Programme: Making a difference in maternity care

HEALTHCARE SAFETY INVESTIGATION BRANCH

Ensuring inclusivity in investigations

Fiona Allen, Jo Winter-Wake, Jane Bentley

Maternity Investigators

What is inclusivity?

The practice or policy of providing equal access to opportunities and resources for people who might otherwise be excluded or marginalised

"Diversity is being invited to the party;

inclusion is being asked to dance."

Verna Myers

Family inclusivity toolkit (F.I.T)

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Purpose

To develop a strategy that ensures all families are enabled to fully participate in an HSIB investigation irrespective of their social, cultural, environmental, physical, or mental health circumstances.

- To support investigators with how family needs are identified and responded.

- Identify where additional or alternative approaches are required.

- Collect, review and learn to direct further activity.

How did we get here?

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3-month pilot of 22 investigations
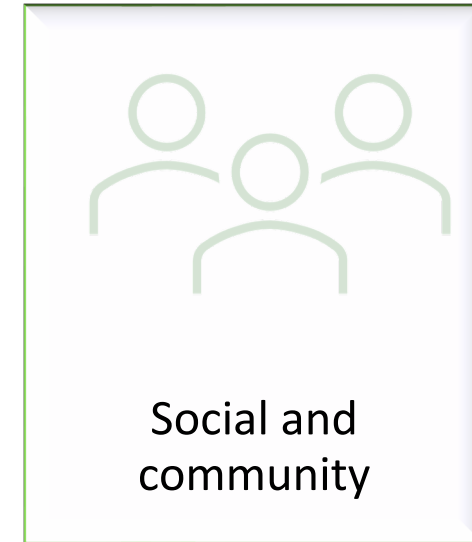
59% of investigations identified needs

Emerging themes identified

- "They didn't want to trouble anyone at the hospital"
- "They didn't want to be an inconvenience to the investigators"
- "Their English was not sufficient for them to relay what they wanted to say"
- "They didn't want to be perceived as complaining"
- "They didn't think they would be listened to or treated fairly"

Family inclusivity toolkit

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HEALTHCARE SAFETY
INVESTIGATION BRANCH

Family needs assessments

Discuss need

Communication

Health and wellbeing

Social and community

Family inclusivity toolkit

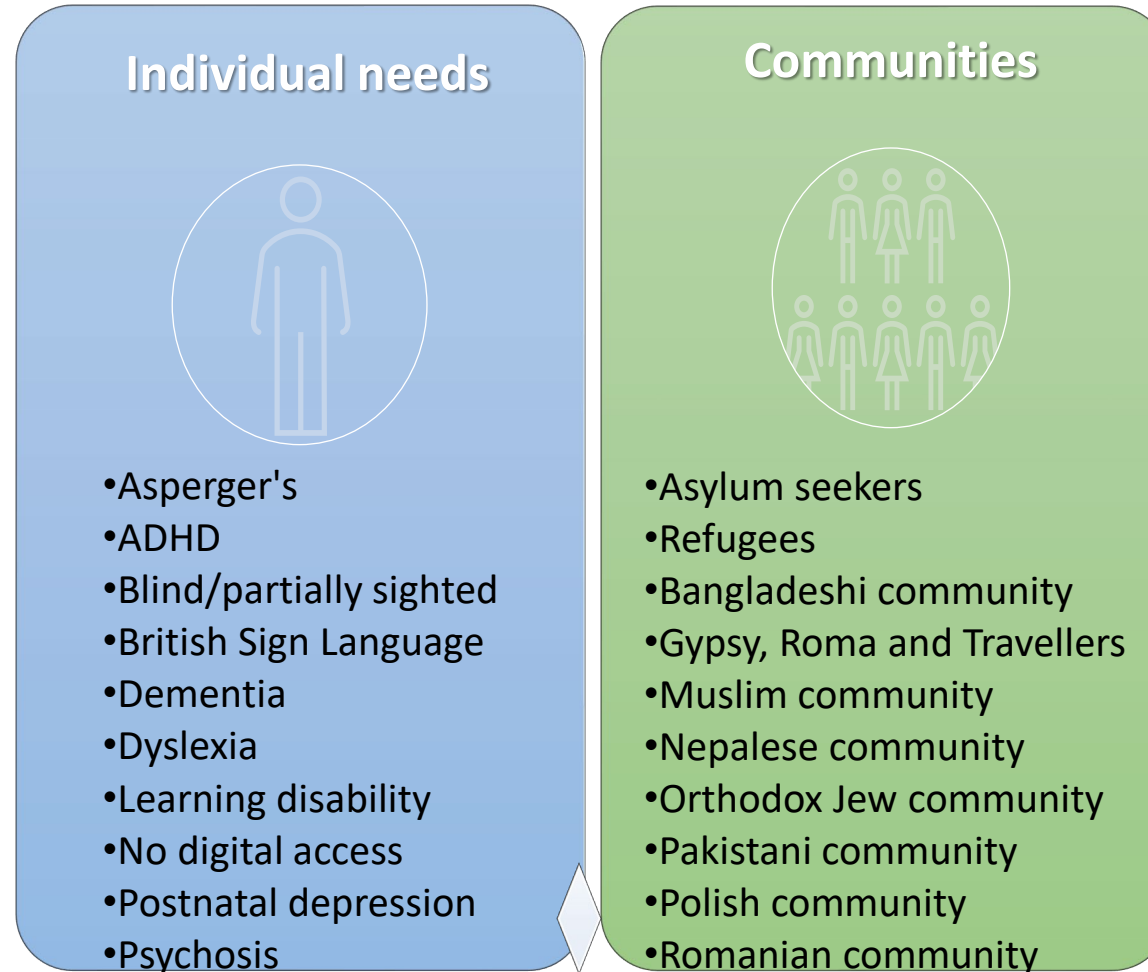**HSIB**
HEALTHCARE SAFETY
INVESTIGATION BRANCH

Information sheets

Keep records

Identify adjustments

Keep records

Take action

Individual needs

- Asperger's
- ADHD
- Blind/partially sighted
- British Sign Language
- Dementia
- Dyslexia
- Learning disability
- No digital access
- Postnatal depression
- Psychosis

Communities

- Asylum seekers
- Refugees
- Bangladeshi community
- Gypsy, Roma and Travellers
- Muslim community
- Nepalese community
- Orthodox Jew community
- Pakistani community
- Polish community
- Romanian community

Family needs assessments Q1 2022

Q1 2022 (327)

- Assessment in progress 1%
- Families with needs 30%
- Families without needs 69%
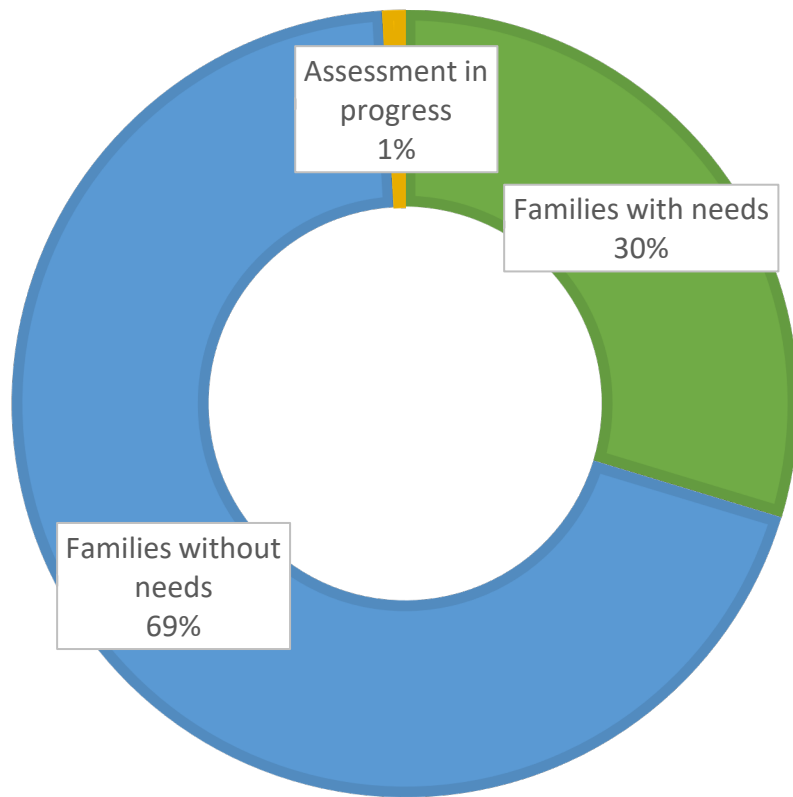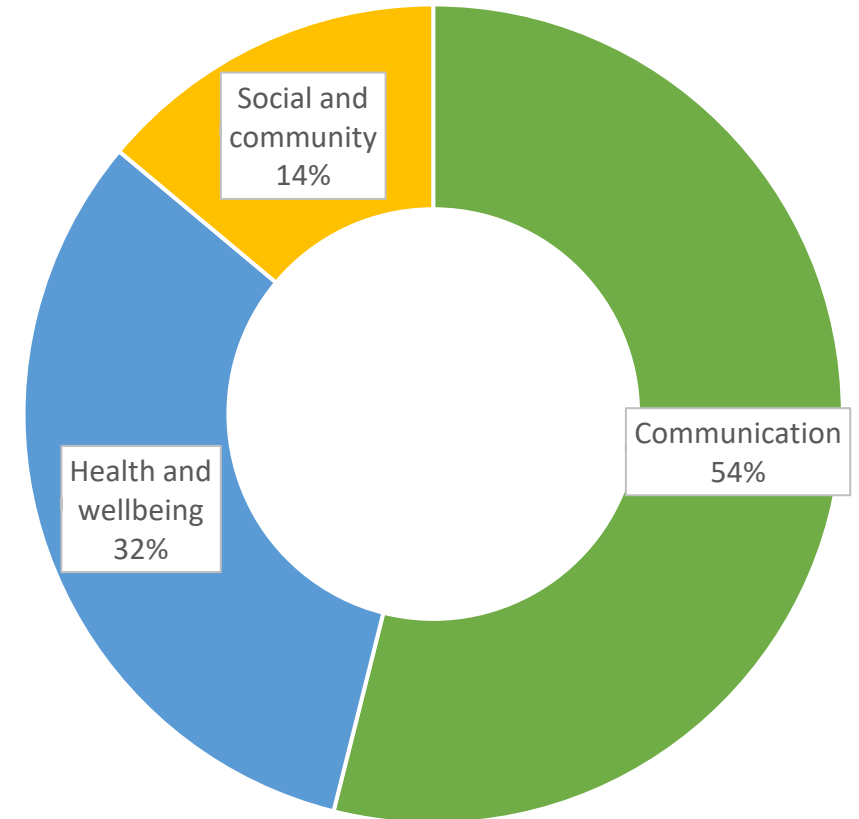
12/97 families with more than one need

Q1 2022

- Social and community 14%
- Communication 54%
- Health and wellbeing 32%

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INVESTIGATION BRANCH

WWW.HSIB.ORG.UK

Why is this work important?

Every family / individual is different.

Recognising different skills/interventions are required for different family situations.

Medical records give some information, not all.

Dynamic situation

Best practice

Method for documentation and sharing

Transferable practice

HSIB next steps

What it means to families

"xx took into account the additional needs with kindness.
We were so impressed by the continuum of support.
The whole process was sensitively personalised."

"We have been so impressed by the empathic and inclusive manner we were contacted and the openness of communication lines"

"Many thanks for sending them … the blue highlighted areas were ideal so that was appreciated."

HSIB: Race and ethnic disparities

Kuldip Bharj, Maternity Investigator &
Louise Page, Deputy Clinical Director

Rationale

- The Equality Act 2010

- Public Sector Equality Duty

- NHS Constitution

- HSIB Directions

Race and health disparities

- MBRRACE-UK
- NHS Race and Health Observatory
- The APPG on Muslim Women
- Maternity Disparities Taskforce
- Voluntary and community organisations
  - Birthrights
  - Muslim Women's Network UK
  - Five X More
- Professional organisations : RCOG Race Equality Taskforce
- Race Disparity Unit
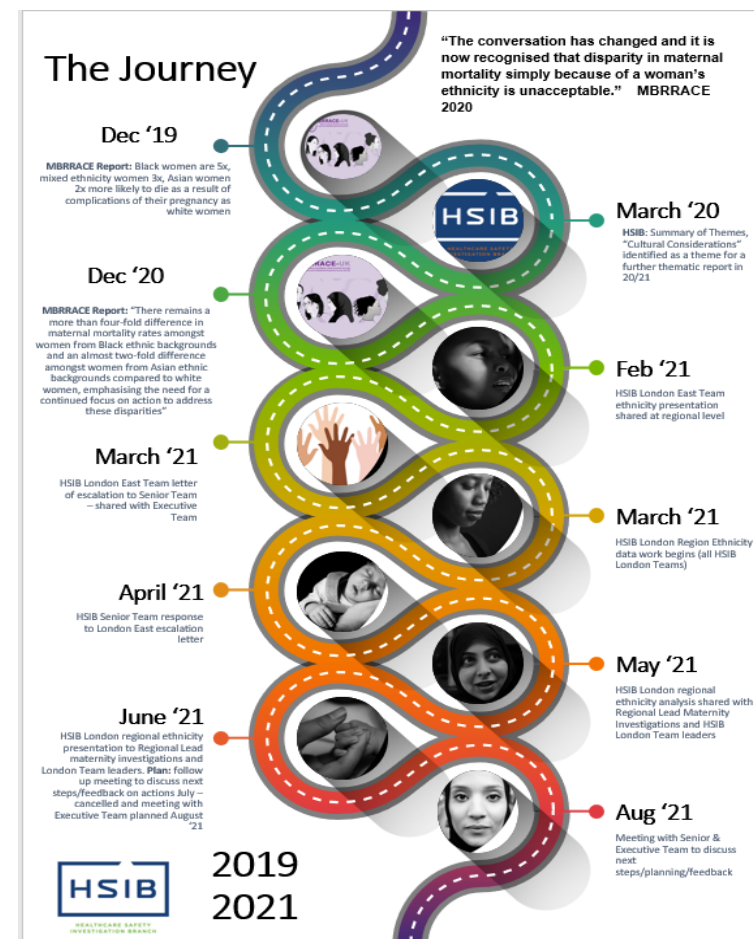- Equality and Human Rights Commission

HSIB Race equality task & finish group

To understand how HSIB investigations can contribute to the understanding of race inequalities in healthcare.

To understand the impact of race on peoples' lives with a focus on and not exclusive to healthcare.

The Journey

"The conversation has changed and it is now recognised that disparity in maternal mortality simply because of a woman's ethnicity is unacceptable." MBRRACE 2020

Dec '19
MBRRACE Report: Black women are 5x, mixed ethnicity women 3x, Asian women 2x more likely to die as a result of complications of their pregnancy as white women

March '20
HSIB: Summary of Themes, "Cultural Considerations" identified as a theme for a further thematic report in 20/21

Dec '20
MBRRACE Report: "There remains a more than four-fold difference in maternal mortality rates amongst women from Black ethnic backgrounds and an almost two-fold difference amongst women from Asian ethnic backgrounds compared to white women, emphasising the need for a continued focus on action to address these disparities"

Feb '21
HSIB London East Team ethnicity presentation shared at regional level

March '21
HSIB London East Team letter of escalation to Senior Team – shared with Executive Team

March '21
HSIB London Region Ethnicity data work begins (all HSIB London Teams)

April '21
HSIB Senior Team response to London East escalation letter

May '21
HSIB London regional ethnicity analysis shared with Regional Lead Maternity Investigations and HSIB London Team leaders

June '21
HSIB London regional ethnicity presentation to Regional Lead maternity investigations and London Team leaders. Plan: follow up meeting to discuss next steps/feedback on actions July – cancelled and meeting with Executive Team planned August '21

Aug '21
Meeting with Senior & Executive Team to discuss next steps/planning/feedback

2019
2021

HSIB: Developments

a. Improvements in data accuracy of a mother's and baby's ethnicity.

b. Indicate a mother's ethnicity in every HSIB maternity investigation report

c. Safety Intelligence Research framework

Project aim

To understand how structural racism affects families' healthcare outcomes and their access to and experience of maternity care where HSIB/MNSI investigations have been conducted

Collaboration

- Academic institution with expertise in the topic area and/or methodology.

- Developmental opportunities:
    - Research project and engage postgraduate students
    - Post doctoral opportunity

- If you are interested in finding out more please email maternity@hsib.org.uk

Maternity and Newborn Safety Investigations Special Health Authority (MNSI)

What will the HSIB maternity programme transition into and what is the vision?

Maternity and Newborn Safety Investigations Special Health Authority (MNSI)

'Advancing maternity safety: Fostering trust, leading investigative excellence, reducing harm'

What does this mean?

- HSIB is transitioning into two organisations from April 2023, ongoing sharing of central functions and expertise will remain

- The HSIB maternity programme will be moved into the Maternity and Newborn Safety Investigations Special Health Authority (MNSI)

- The MNSI will be a Special Health Authority operating under secondary legislation and associated directions.

- MNSI will have its own executive board and is [currently advertising for the Chair position](#)

- There are no immediate plans to change the criteria for referrals to MNSI

- Overseeing the transition of both organisations is Dr Rosie Benneyworth – Interim Chief Investigator

Investigation Education

Andrew Murphy-Pittock and Paul Bowie

Our Aims

01
Support a professional approach to healthcare safety investigations

02
Improve local patient safety investigations

03
Encourage the adoption of a just culture approach

04
Enabling learning from patient safety incidents

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HSIB education courses

Introduction to patient safety investigations

Level 1

A systems approach to learning from patient safety incidents

Level 2

Level 3
(investigation practitioner)
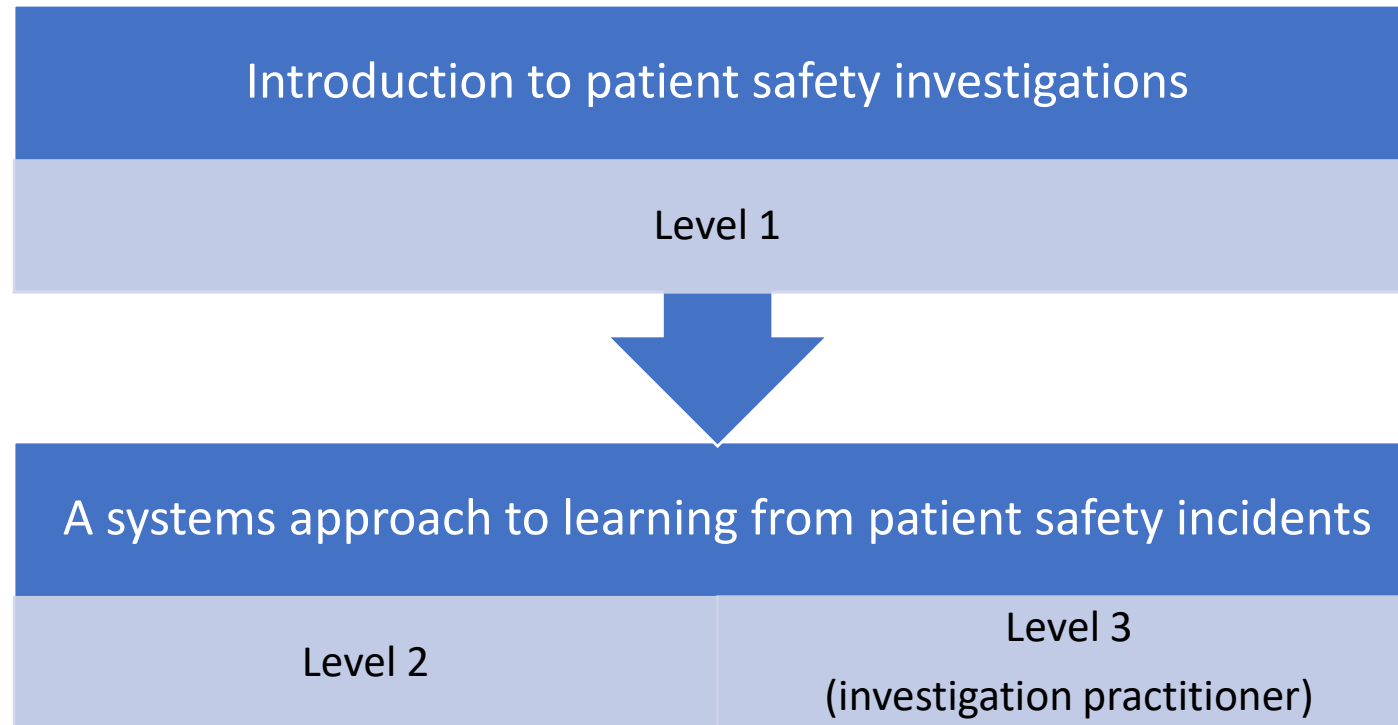
Stand-alone courses

Involving those affected by patient safety incidents in the learning process

Investigative interviewing

Strategic decision makers

Thematic analysis

SEIPS in Action

Oversight

Why do things go wrong

Self-directed, self-registered e-learning, 30 hours

6 months to complete – flexible learning to accommodate busy staff

Weekly drop-in Q&A sessions

Quizzes to embed learning, ratify completion and generate certificate

- 40 minutes each:

  - Investigative Interviewing
  - Why do things go wrong?
  - Thematic Analysis
  - Learning response report review & improvement tool
  - Level 2 overview and our Learning Management System
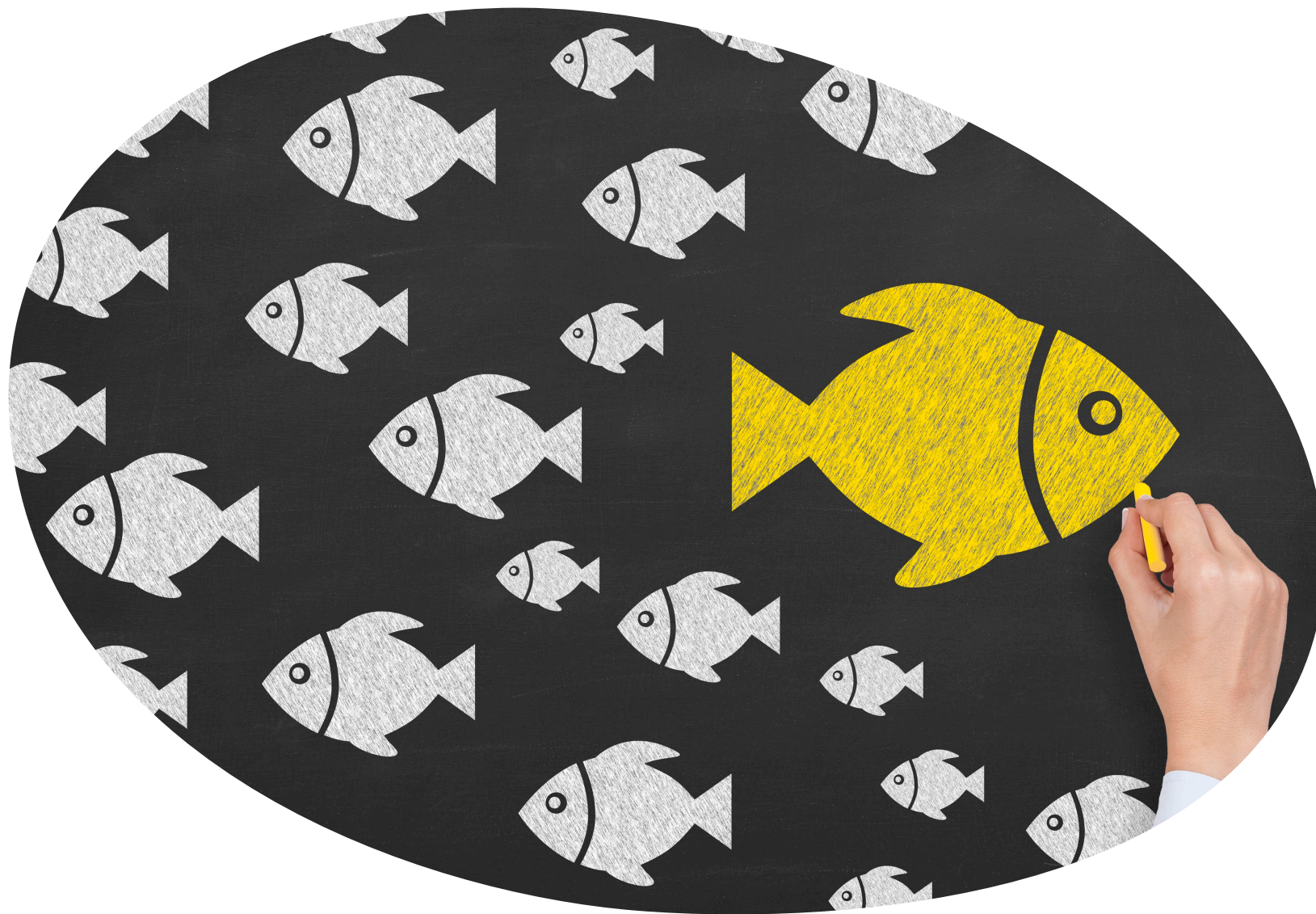
Strategic Decision Makers

The big Idea…

You gain an early understanding of systems thinking and safety science applied to the practice of investigation and learning.

You start to explore how to create the strategic conditions to support the development of meaningful learning through investigating safety across the organisation.

Strategic Decision Makers

HSIB EDUCATION

Investigation Science for strategic decision makers and senior leaders in healthcare

"...the patient safety movement itself has gotten things wrong. Its understandings ... of concepts such as safety, harm, risks and hazards are incomplete and simplistic and, as a result, its work has been grounded in assumptions and generalisations that are either wrong or lacking in context'

(Still not Safe by Wears & Sutcliffe, 2020)

What do you think of this quote?

Principle No.1

Adopt a recognised systems approach to investigation, learning and improvement

Holden, R.J., Carayon,P., Gurses,A.P., Hoonakker,P., Schoofs Hundt, A., Ant Ozok,A and Rivera-Rodriguez,A.J (2013). SEIPS 2.0: a human factors framework for studying and improving the work of healthcare professionals and patients. Ergonomics, 2013, DOI:10.1080/00140139.2013.838643.
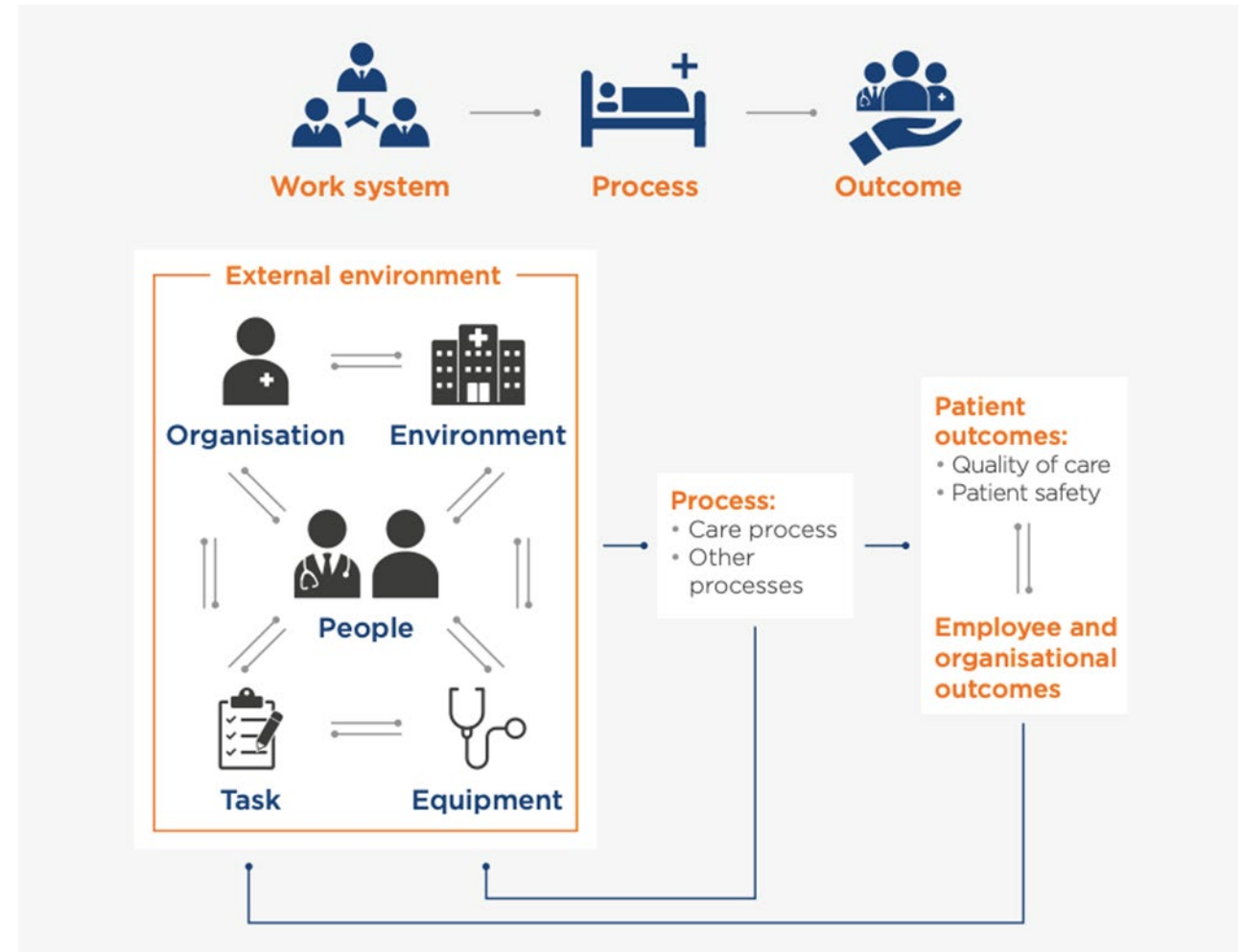
Principle 2.

Avoid blaming individuals (departments & organisations), focus learning at the system level

Principle No.3

Consider Local Rationality when learning from previous safety incidents

Understanding Local Rationality

People do things that make sense to **them**, given their goals, understanding of the situation and focus of attention **at that time.**
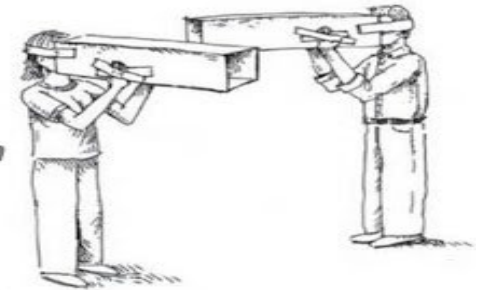
...and avoiding counterfactual reasoning!

The WOULDA, COULDA, SHOULDA Effect

"Counterfactual thinking is a concept that involves the human tendency to create possible alternatives to life events that have already occurred; something that is contrary to what actually happened. Counterfactual thinking is, as it states: "counter to the facts".

Principle No.4

Consider 'human error' as a symptom of a system problem, not its cause

Copyrighted Material

The Field Guide to Understanding 'Human Error'

Sidney Dekker

VERDICT: HUMAN ERROR

An Ashgate Book

THIRD EDITION
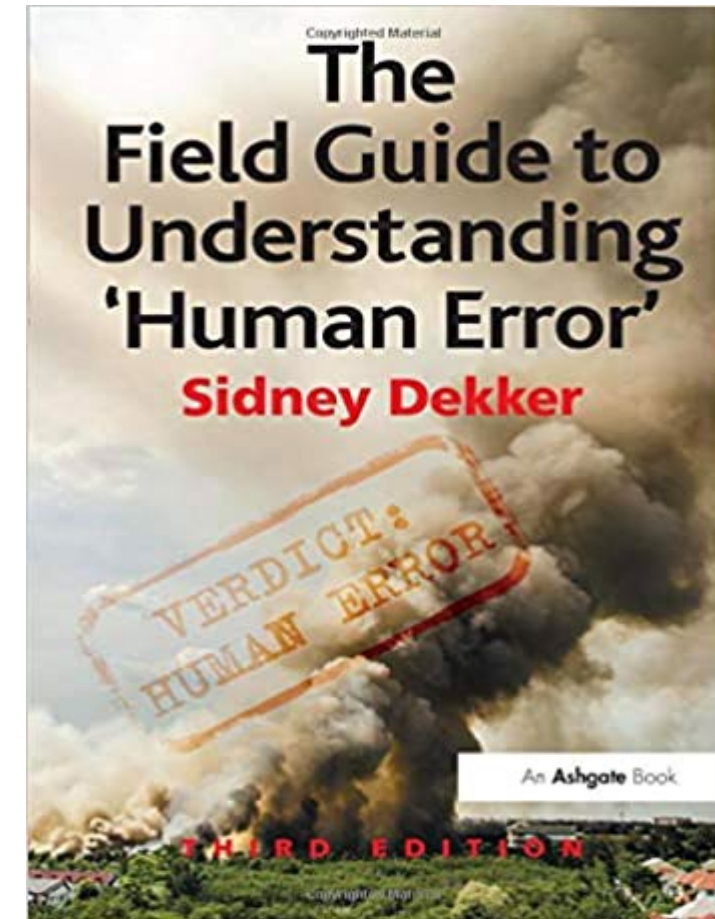
Principle No.5

It is critical to explore and reconcile 'work-as-imagined' and 'work-as-done'

Work-as-Imagined

Work-as-Done
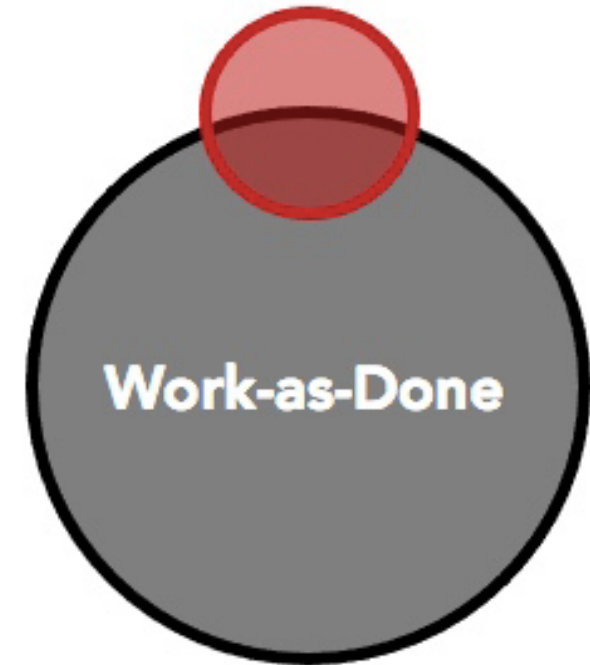
Principle No.6

Recommendations for improvement should focus on systemic change and redesign, rather than individual performance
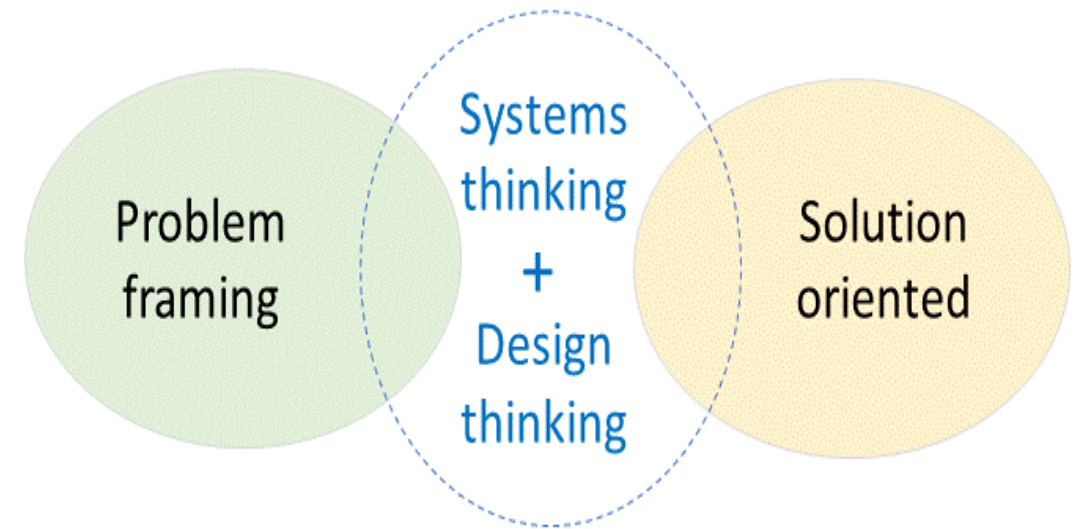
Further information for all courses

Jump to:
Aims | Curriculum | Who can attend | Our team

Tell us about a patient safety concern

In this section:

Investigation education

Upcoming courses

HSIB EDUCATION

Book a course

HSIB EDUCATION

4th October 2022 - Strategic Decision Makers

This course is designed to give strategic decision makers, in healthcare, an overview of the philosophical and methodological principles which sit behind modern healthcare safety investigations.

HSIB EDUCATION

Starts Oct 4, 2022

www.hsib.org.uk/hsib-investigation-education/investigation-education/

Questions?

HSIB EDUCATION

Why do things go wrong?

Presented by

Dr Mark Sujan & Dr Richard McMaster

Session content

1. Brief (and selective) tour of popular accident causation models

2. Critical reflection on their relevance to practise and to the Patient Safety Incident Response Framework (PSIRF)
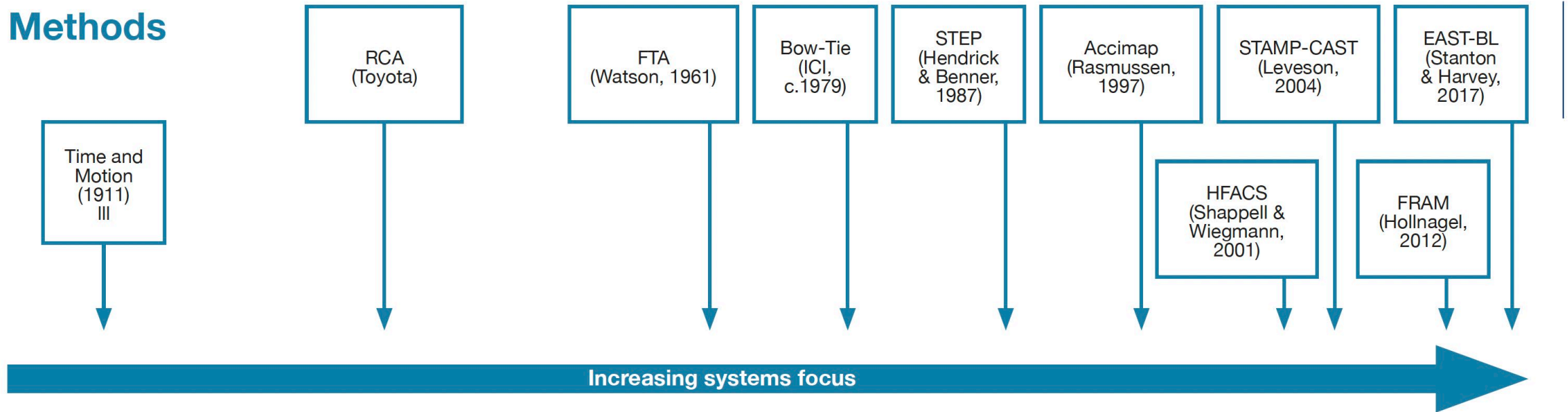
PSIRF – A new approach to incident response

- PSIRF focuses on learning and improvement

- Systems-based approach (replacing Root Cause Analysis)

- What are the theoretical antecedents?

Historical perception of safety

- Early: understanding of accidents as divine or chance intervention

- Enlightenment, scientific method and industrial revolution

- Belief that humans can control their environment – engineer safe systems

- Understanding of accidents as human failing

- Regulation: Factories Act 1833, Rail Regulation Act 1840, Coal Mines Inspection Act 1850
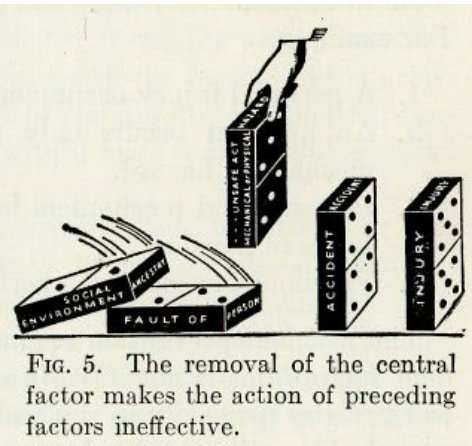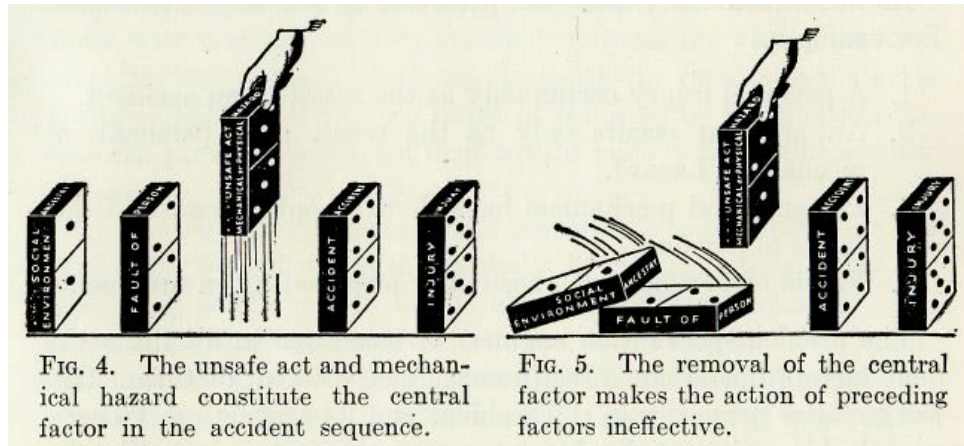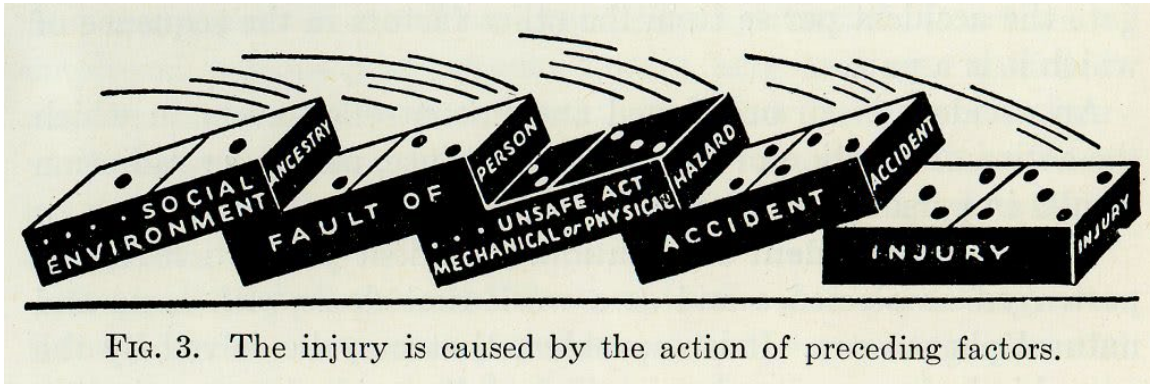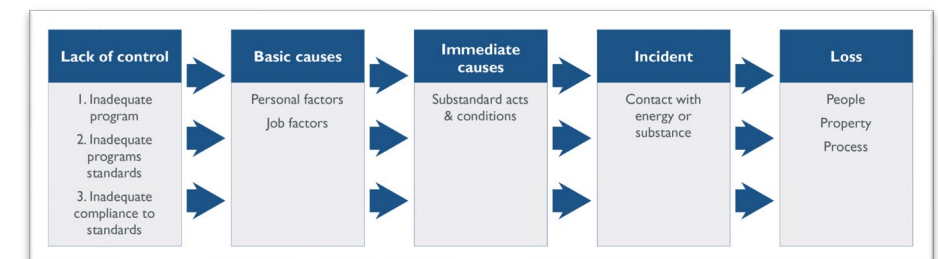
Methods

	RCA (Toyota)	FTA (Watson, 1961)	Bow-Tie (ICI, c.1979)	STEP (Hendrick & Benner, 1987)	Accimap (Rasmussen, 1997)	STAMP-CAST (Leveson, 2004)	EAST-BL (Stanton & Harvey, 2017)

Time and Motion (1911) Ill

HFACS (Shappell & Wiegmann, 2001)

FRAM (Hollnagel, 2012)

Increasing systems focus

1900   **2018**

Scientific Management (Taylor, 1911)

Domino Model (Heinrich, 1931)

Safety Management Systems (Kysor, 1973)

Swiss Cheese Model (Reason, 1990)

Resilience Engineering (Hollnagel, Woods & Leveson, 2006)

Accident Proneness (Greenwoods & Woods, 1919)

General Systems Theory (Von Bertalanffy, 1950)

Sociotechnical Systems Theory (Trist & Bamforth, 1951)

Soft Systems (Checkland, 1981)

Risk Management Framework (Rasmussen, 1997)

STAMP (Leveson, 2004)

Systems Engineering Initiative for Patient Safety SEIPS (Carayon et al 2006)

Normal Accident Theory (Perrow, 1984)

Models

(Adapted from Stanton et al, 2018)

Domino Model of Accident Causation

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FIG. 3. The injury is caused by the action of preceding factors.

FIG. 4. The unsafe act and mechanical hazard constitute the central factor in the accident sequence.

FIG. 5. The removal of the central factor makes the action of preceding factors ineffective.

88% "man failures"
10% mechanical hazards

Lack of control	Basic causes	Immediate causes	Incident	Loss
1. Inadequate program	Personal factors	Substandard acts & conditions	Contact with energy or substance	People
2. Inadequate programs standards	Job factors			Property
3. Inadequate compliance to standards				Process

Swiss Cheese Model

Some holes due to active failures

Hazards

Other holes due to latent conditions

Losses

Successive layers of defences, barriers, & safeguards

Reason, 2000

Berkeley group: High Reliability Organisations

- Preoccupation with failure

- Reluctance to simplify

- Sensitivity to operations

- Commitment to resilience

- Deference to expertise

HRO in Healthcare

Hollnagel: Functional Resonance & Safety-II
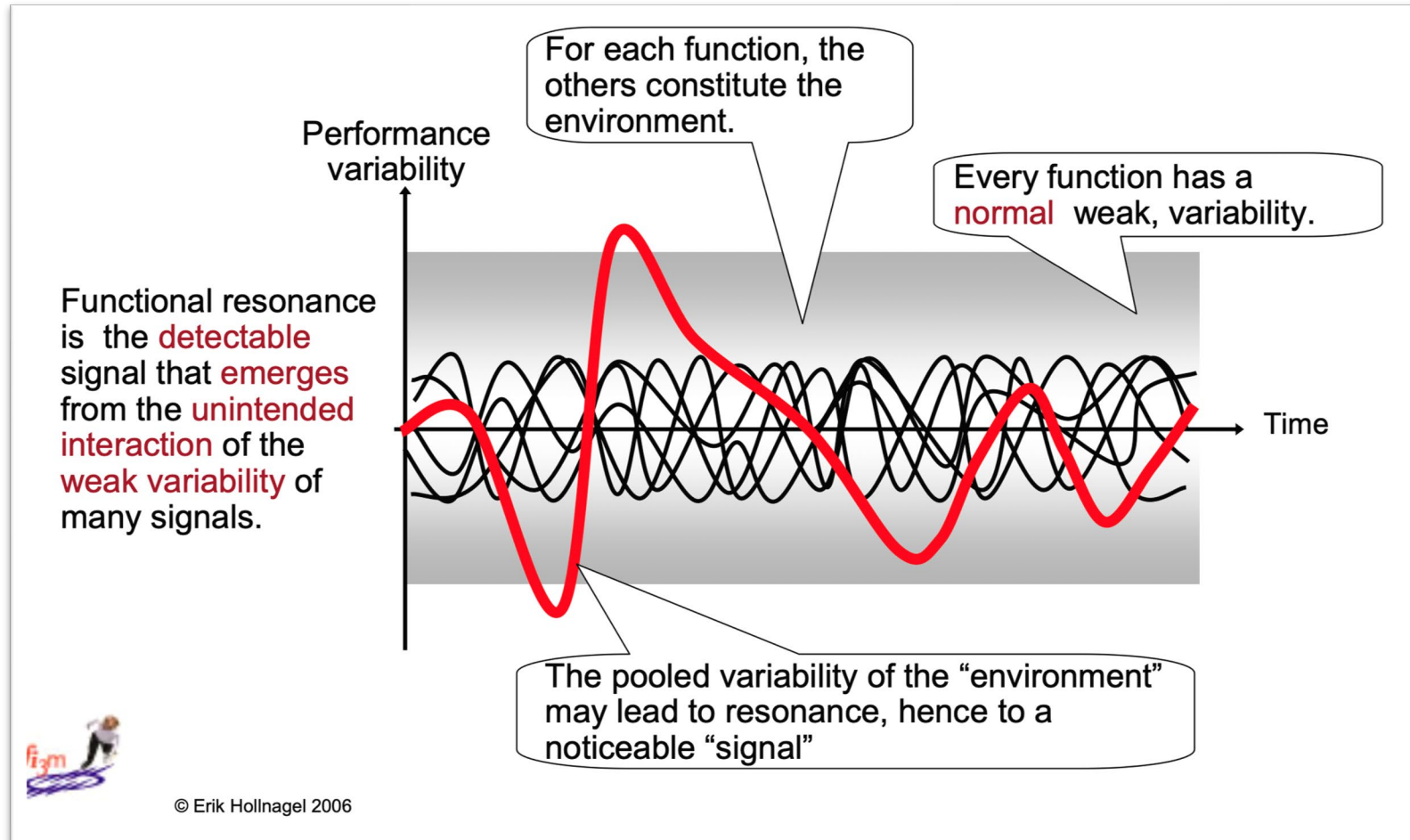
Safety-I & Safety-II

Table 1

Comparison of key aspects of Safety-I and Safety-II (based on (Hollnagel, 2014).

Aspect	Safety-I	Safety-II
Definition of safety	Absence of adverse outcomes, absence of unacceptable levels of risk	Things going right, presence of resilience abilities
Safety management principle	Reactive following incidents, risk-based, control of risk through barriers	Proactive, continuously anticipating changes, achieving success through trade-offs and adaptation
Learning from experience	Learning from incidents and adverse outcomes, focus on root causes and contributory factors	Learning from everyday clinical work, focus on understanding work-as-done and trade-offs
Performance variability	Potentially harmful, constraining performance variability through standardisation and procedures	Inevitable and useful, source of success and failure

What you look for is what you find

- Different models of accident causation are not necessarily right / wrong or better / worse -> they provide different and often complementary perspectives / lenses

- The models reflect the focus of the discipline from which they originate, e.g.,

  - Psychology: how humans behave as individuals and teams, and how their behaviour is shaped by organisational and environmental factors

  - Sociology: how the political oversight, the organisation and administration of work leads to systems that are vulnerable

  - Complexity science: how interactions and feedback loops lead to emergent forms of system behaviour

Summary

- A quick tour of some different ways of thinking

- Your reflections

- What does this mean for your investigations?
  - You can apply multiple perspectives
  - What attitudes do you bring with you?
  - What can you do about it?

Healthcare Safety Investigations Conference
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Head of Relations and Learning, Quality Improvement and Implementation

Session content

- About Ukom
- Our investigations
- Sharing of learning
    - Maintaining patient safety with new surgical and invasive methods
    - Investigation after the drowning tragedy in Tromsø. What can we learn about integration and refugee health?
- Q &A

The Norwegian healthcare investigation board: Ukom

- Established in 2019

- Team of 24 with a broad range of expertise:
  - Safety science
  - Improvement science
  - Patient and user experience
  - Health service science
  - Medicine and nursing
  - Organizational psychology
  - Clinical psychology
  - Health economics
  - Health law
  - Political science
  - Sociology
  - Journalism

- 6 part time employees (alle health personnel) who have their main occupation in trusts and local health service
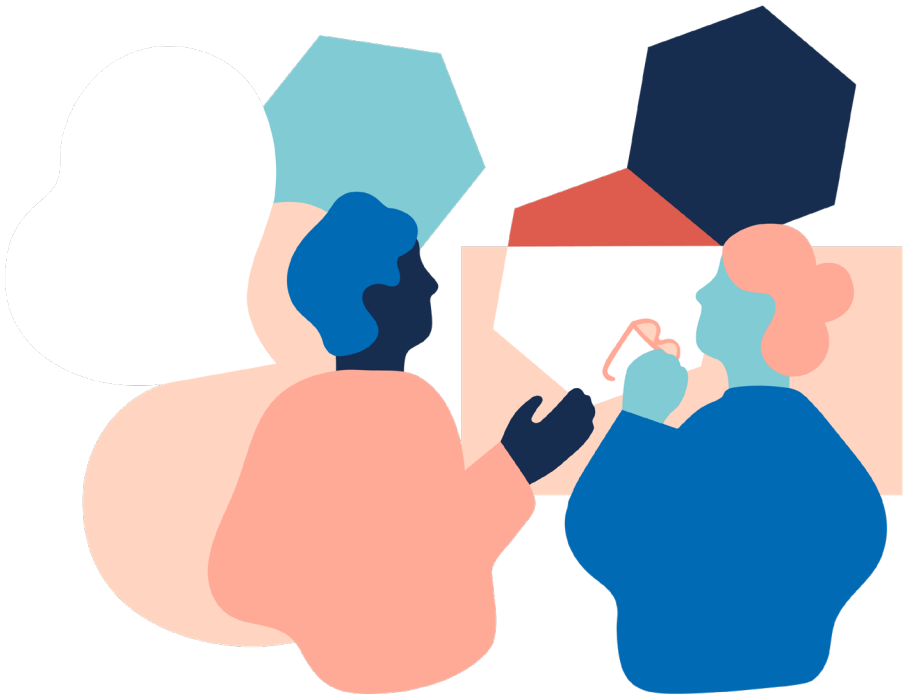
Reflection panel

The reflection panel consists of 16 people
who represent a broad range of perspectives:

- Patient and user experience

- Health care services

- Health management

- Research

- International perspective

- Health economy

- Health and welfare technology

- Ethics

- Health law

Mandate

- Investigate serious incidents and other serious concerns in the Norwegian healthcare services

- Our investigations address the sequence of events, contributary factors and causal relationship

- Our purpose is to improve patient safety by **learning** and taking action to **prevent future serious incidents**

Where do our cases come from?

- The national reporting system

- Serious concerns about patient safety
  - reported via our website

- Media, the public debate, input from professional communities and patient communities

- Theme and trend monitoring

Framework conditions, overall strucutres

Institutions

Individuals
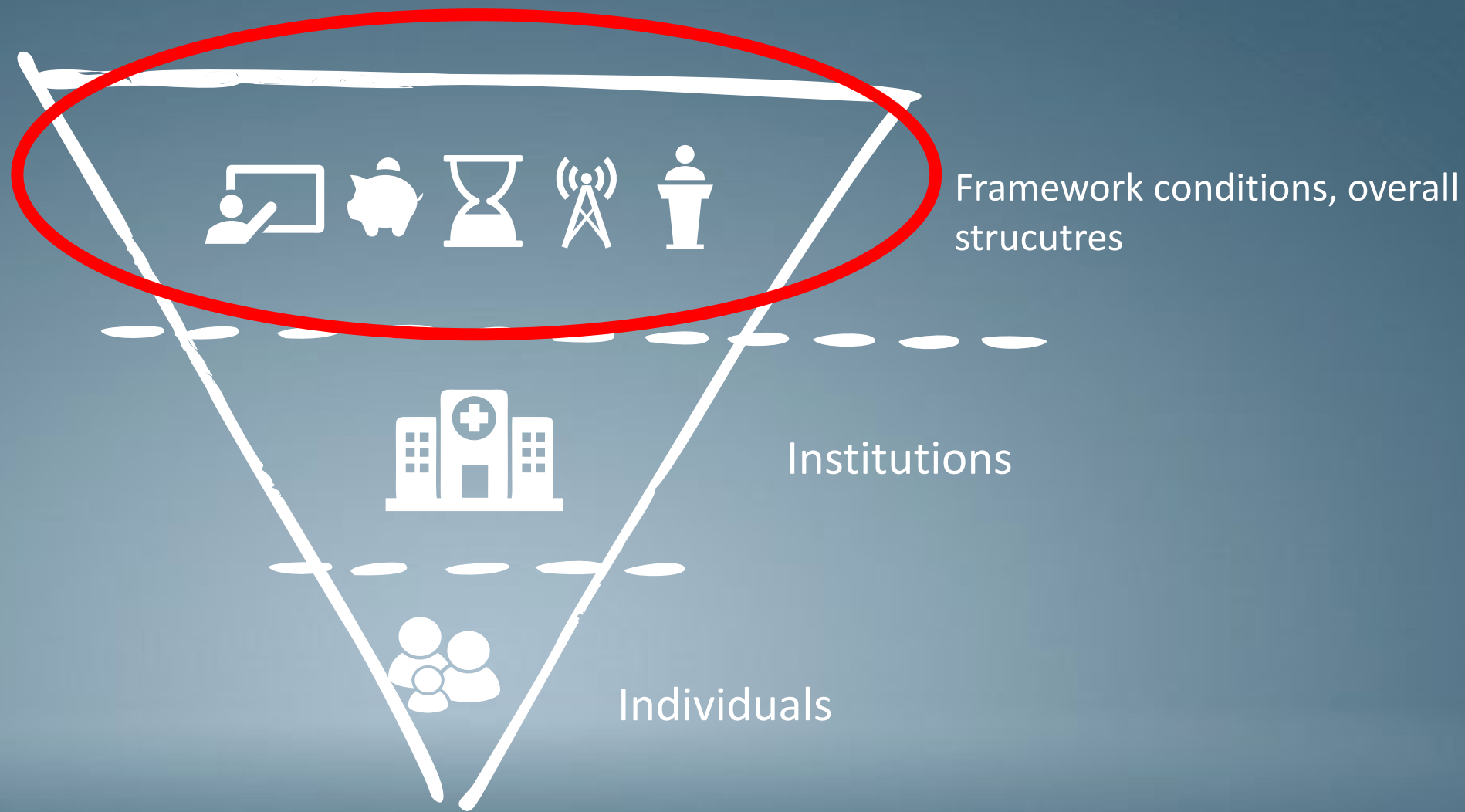
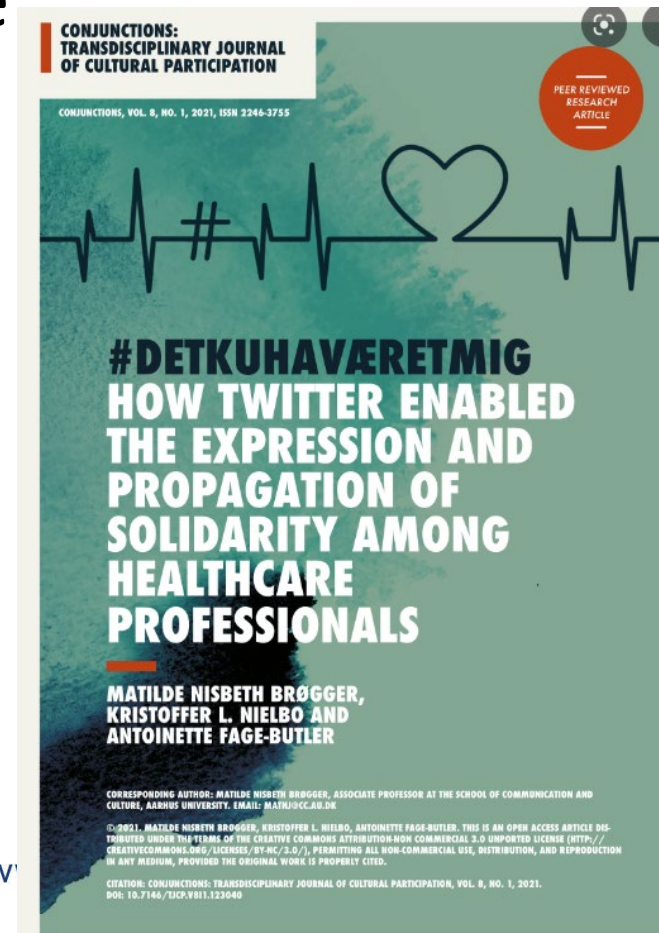# #Itcouldhavebeenme

- **What** happened?
- **Why** did it make sense in the situation to act as one did?

- Not: **who** is to blame?
- Not: **where** it happened?

Our method

- Interviews
- Observations
- Written information
- Analyses (STEP, Accimap, Bow Tie, FRAM,SEIPS, etc)
- Dialogue phase - stakeholders
- Report – recommendations
- Dissemination of learning points

Our reports

- Early diagnosis and treatment of serious illness in the febrile child

- Death at a psychiatric intensive care ward – risk factors in conjunction with seclusions

- Falls from windows and balconies in healthcare institutions

- Adolescences with undefined mental health issues

- Children and adolescences during Covid, I and II

- Safe patient rooms in mental healthcare services

- Investigation following the tragic drowning in Tromsø

- Safe insertion of nasogastric tubes

- When psychotic patients commit murders

- Maintaining patient safety with new surgical and invasive methods, the case of TaTME

- The price of specialization - interaction in the event of unclear conditions

- Payment difficulties – a patient safety risk

Ukom

Sharing of learning
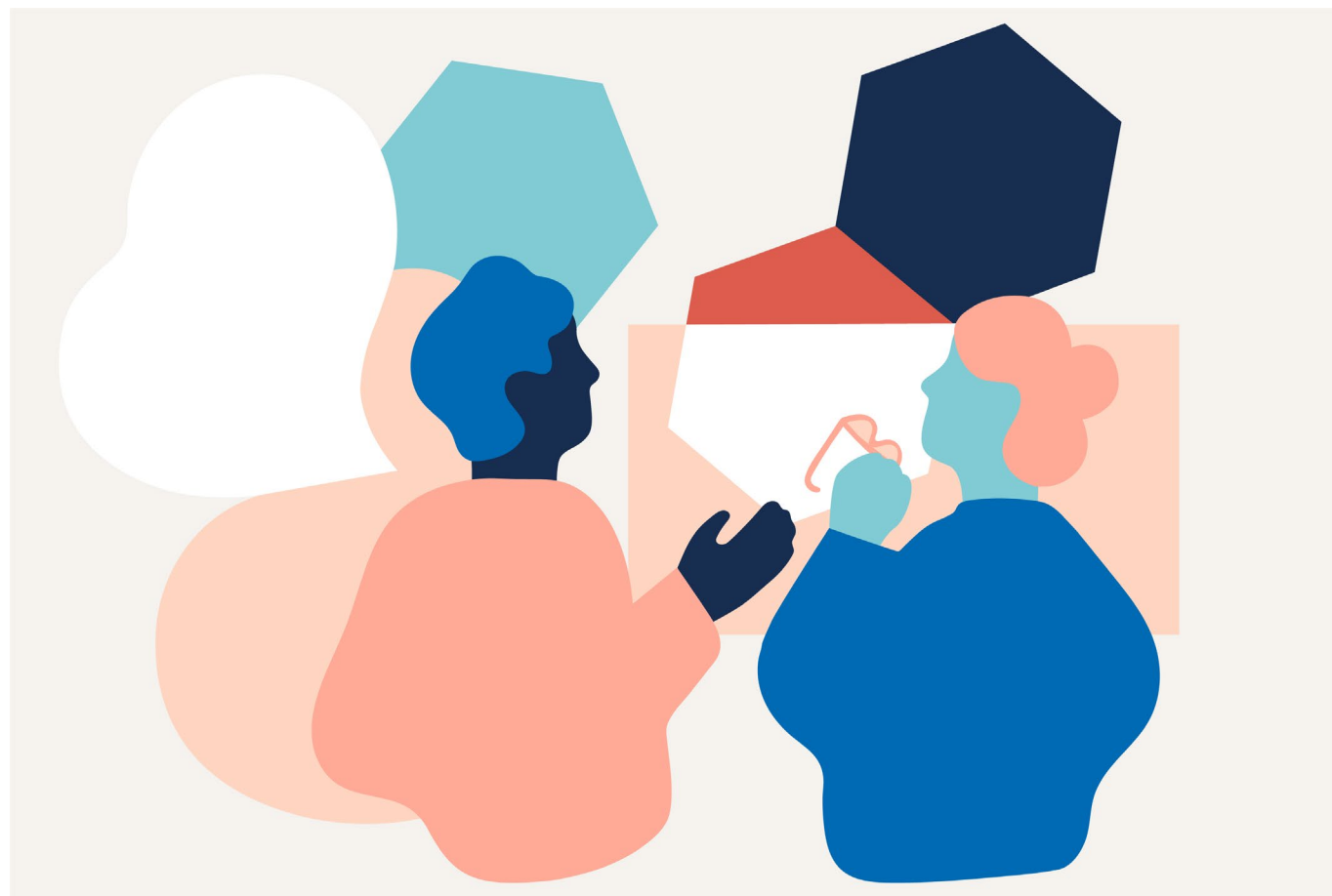
Maintaining patient safety with new surgical and invasive methods

The story about a new surgical technique implemented in Norway

- New surgical method for rectal cancer: transanal total mesorectal excision (taTME) introduced internationally in 2010 at 7 hospitals in Norway 2014 to 2018

- Coincidentally it was discovered much higher complication and recurrence rates compared to standard procedure (total mesorectal excision, TME) in 2018.

- This was confirmed by a national audit in 2019.

The investigation revealed

- Cultural difference between medical tradition and surgical tradition: Introduction of new surgical methods traditionally less systematic than e.g. new drug treatments

- Surgical tradition developing the profession with adjustments to ensure better treatment

- New methods typically introduced as local initiative by individual surgeons based on special interests. This prevents national health authorities to have sufficient oversight

- Lack of awareness of difference between standard treatment and development of new method

- Poor patient information and involvement

Learning points
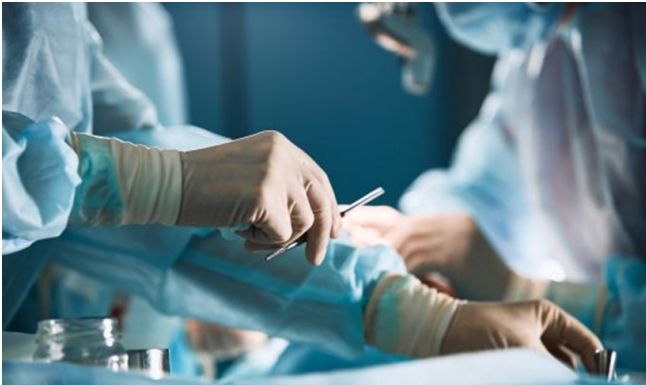
- Low threshold to acknowledge changes with a procedure as new method and secure implementation

- In general, new surgical or invasive methods should adhere to national guidelines, clinical research principles, legal and ethical regulations
    - especially when debate or uncertain knowledge base

- Benefits, drawbacks and uncertainties regarding the methods must be clearly communicated to the patients and documented in medical records

Investigation after the drowning tragedy in Tromsø

What can we learn about integration and refugee health?

December 2, 2019

A south Sudanese woman took her three daughters with her into the sea– left the pram as in this picture.

The emergency services were notified. All four found lifeless. Only the youngest survived but was seriously injured.

The woman had been granted residence in Norway by family reunification. She had lived in Norway for a little over two years.
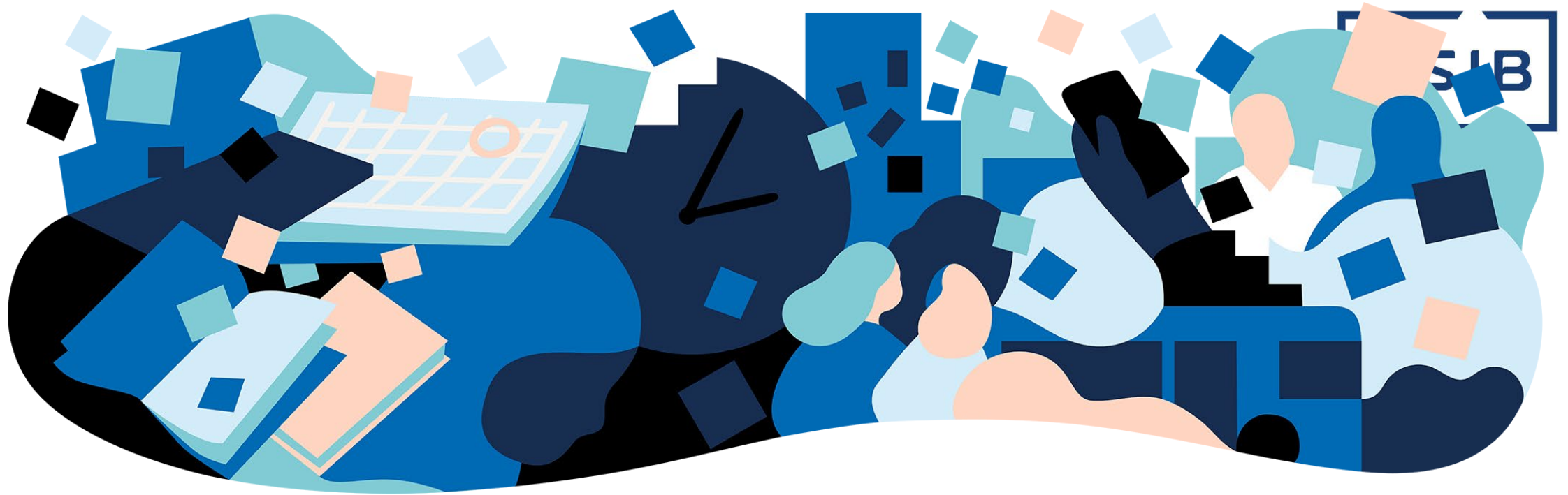
The local health authorities: «We have no traces of this woman in our system, we could not have foreseen this tragedy"

This investigation does not explain the woman's behavior, but it showcases that new refugees may have special psychosocial difficulties that are not always easy to identify and deal with.
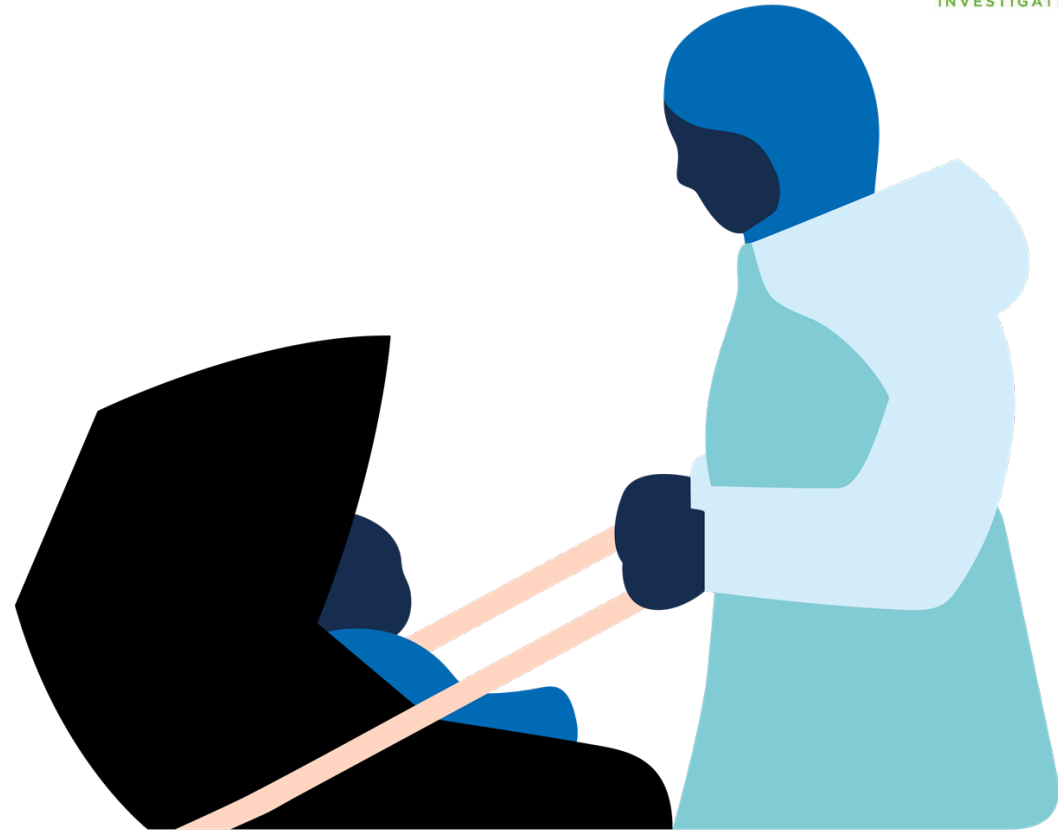
Five important issues were highlighted in the report

- inadequate municipal overview of refugees who are granted residence with family reunification
- underestimation of the significance of culture shock
- the introduction program to the Norwegian society is inflexible
- difficulty for the refugees to seek help
- lack of knowledge of their own rights

Recommendations:

The national authorities should:

• systematically inform local authorities of refugees who are granted residence with family reunification

• set down requirements concerning health and social care expertise for the introduction programme

• allow for refugees' participation in the introduction programme to be adapted to the individual's state of health and care situation

• assess clearer standardization in the field of migrant health.

How can Ukom contribute to learning?

- Be close to the knowledge environments

- Be close to the clinicians

- Join existing networks and interest groups

- Use existing channels

- Sharpened message towards different target groups

Ukom Statens undersøkelseskommisjon
for helse- og omsorgstjenesten

Our reports are welcome

- The professional environments embrace our reports and arrange meetings and conferences based on them

- Used as basis for legal work in the health services

- Our recommendations are included in national health registers

- Used as basis for professional development, normative papers and professional guidelines

- Patients and user organizations

Thank you!

www.ukom.no

Typical Ukom cases

- Work on framework conditions, organization, systems approach

- Go across institutions and levels

- Affect many patients

- Representative for the healthcare system
  - "It could have been me - it could have happened to me"

We prioritize cases:

- ✓ With severe damage and large extent

- ✓ Potential for learning and improvement

- ✓ Representing patterns

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How do we select events for investigation

- Serious
- Representative
- National significance
- Learning potential

What themes do the individual events represent?

HEALTHCARE SAFETY
INVESTIGATION BRANCH

14:50 HSIB Thematic learning around medication safety

Speaker: Dr Jonathan Back, Intelligence Analyst

Introduction

- The WHO Global Patient Safety Challenge: Medication Without Harm suggests that "multiple interventions to address the frequency and impact of medication errors have already been developed, yet their implementation is varied."

- HSIB have completed 15 national investigations on medication safety.
  - In this this session we provide an overview of the learning from these investigations.
  - We demonstrate why many safety risks have yet to be mitigated, despite some of these risks being known for decades.
  - Implementing interventions is not "**plug & play**" it requires an improved understanding of medication systems and how they can be better designed.

Thickening the 'safety rule book' does not adequately support staff in mitigating harm

HSIB
HEALTHCARE SAFETY
INVESTIGATION BRANCH

"it's time to stop thickening the rule book...
...and to do *something* more sophisticated"

Braithwaite, J (2018): Changing how we think about healthcare improvement. In BMJ (Clinical research ed.) 361, k2014.

10:30 National Investigations:

How do we drive system level change? Safety investigations and recommendations in practice

Speakers: Deinniol Owens, Acting Associate Director of National Investigations; Dr Laura Pickup, National Investigator

12:10 Investigation Education:

An introduction to HSIB education and an overview of systems thinking

Speakers: Andrew Murphy-Pittock, Head of Investigation Education and Professor Paul Bowie, Senior Investigation Science Educator

Checking at the point of care

- Many routine activities require healthcare workers to check that the intended treatment is being prescribed and administered correctly.

- The aim should be to reduce the reliance on checking by developing procedures that mitigate against known risks by design.
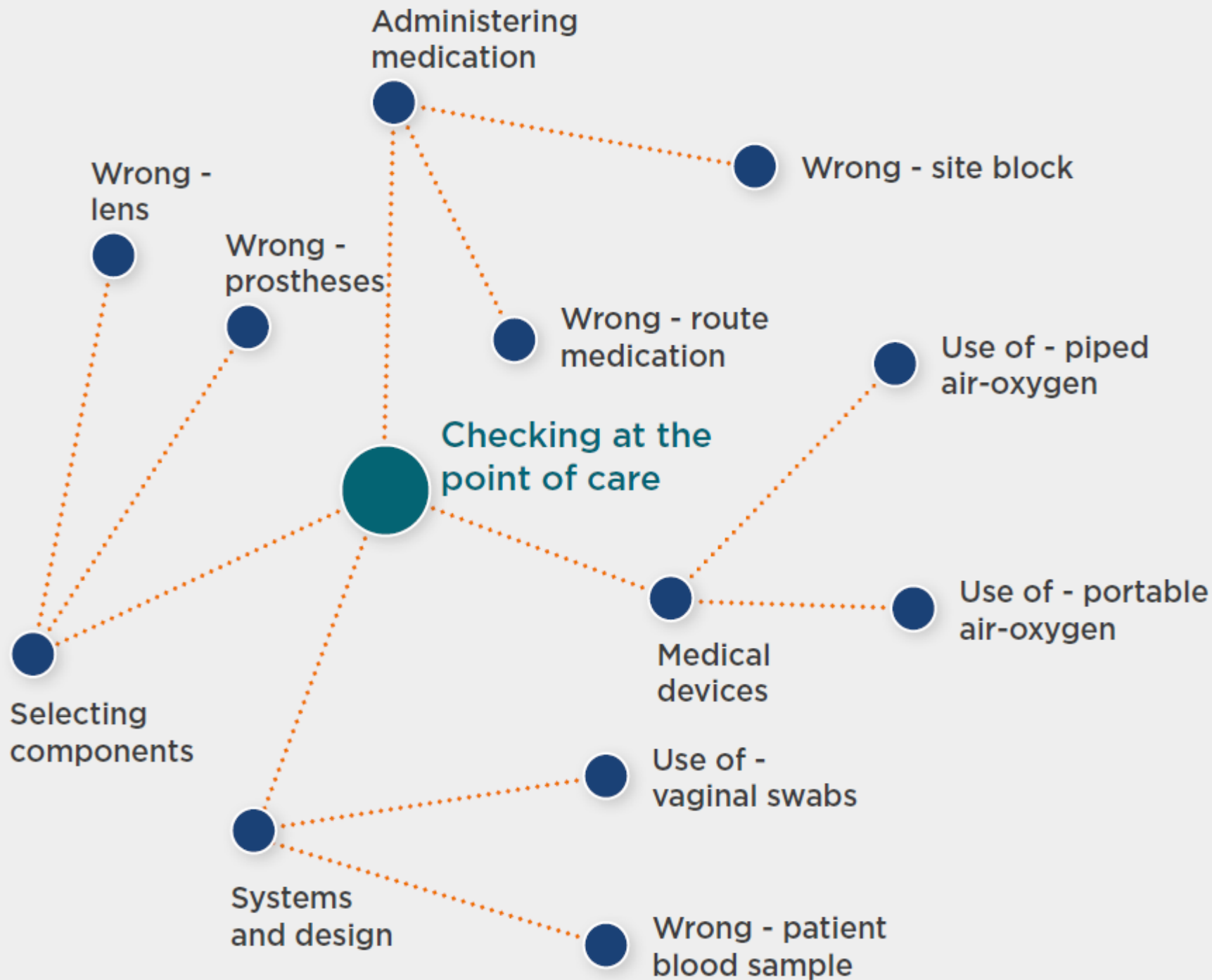
Shifting safety away from the 'rule book'

Ownership of responsibility for implementation

User
Clinical responsibility, work flow, workload

Training

Responsibility after 'go-live'

?

Manufacturer
Technology, engineering, usability

Safety case

Trust
Governance, performance, safety
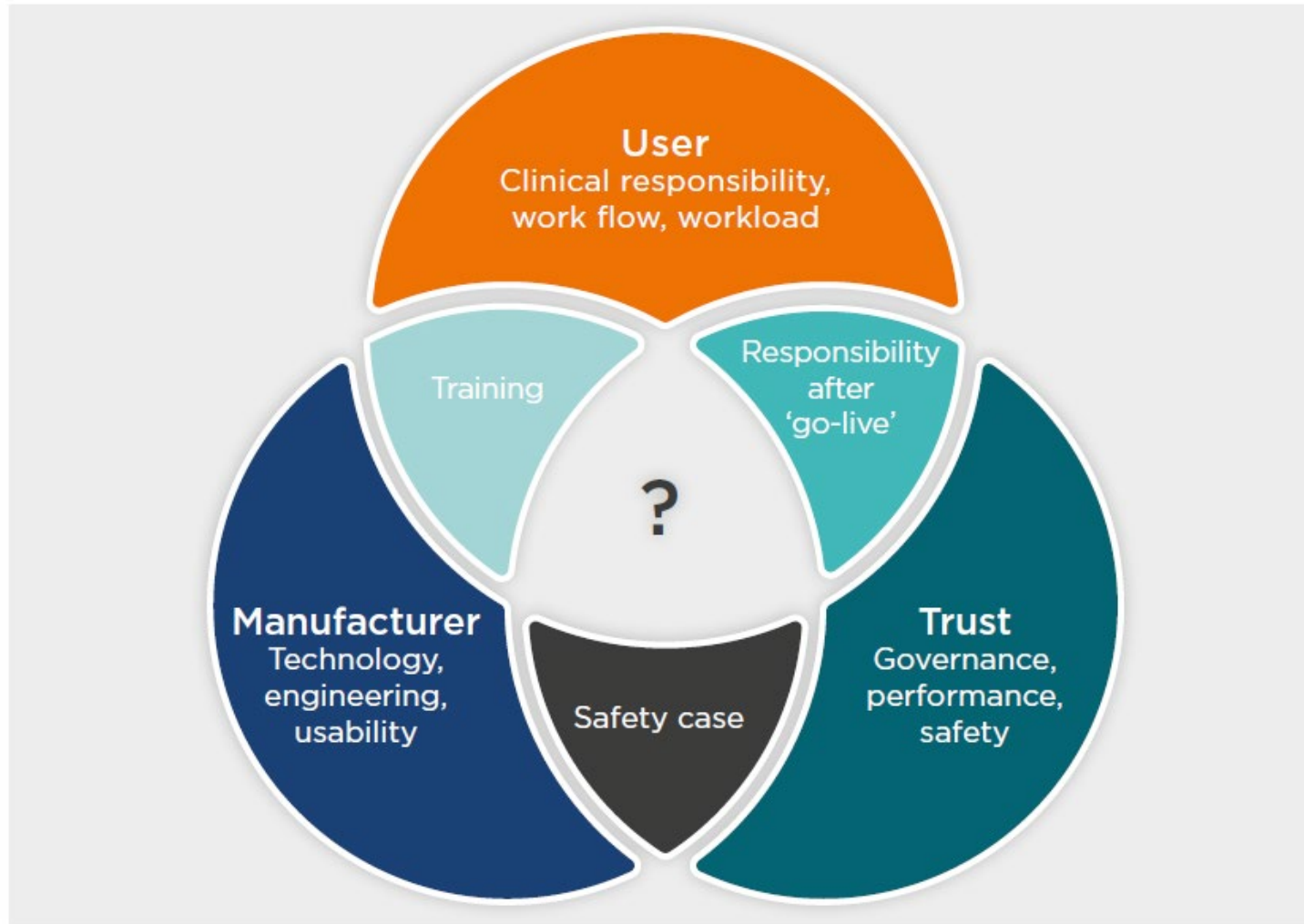
A system level understanding:
Actor & Artefact Map for the procurement, usability and adoption of smart pumps

International and National Regulators and National Stakeholders

- NHS England
- FDA (US)
- Medical Devices Directive (EU)
- NHS X
- NHS E/I Safety Alerts
- MHRA
- Injectable Medicines Guidelines (Various)

NHS Trust / Device Manufacturer

- Business Case
- Safety Case
- Manufacturer's User Profiles
- Medication Safety Committee
- Trust's IV Drug Guide

Management (operational)

- Medical Engineering Led Evaluation
- Usability Testing
- Drug Library Implementation Group
- Training and Implementation Plans
- Policies and Protocols

Process and actor activities

- Elicitation of Work-As-Done Expertise
- Post-Procurement Surveillance
- Elicitation of Specialist Medicines Expertise
- Error Reporting
- Device Training
- IT Infrastructure Work
- Intravenous Medication System

Work, equipment and surroundings

- Nurses IV Administration
- Doctors IV Administration
- Smart Pump Use

Thematic learning across investigations

The status quo

o Safety controls reliant on staff checking can be eroded by organisational workforce and workload pressures

Equipment and IT

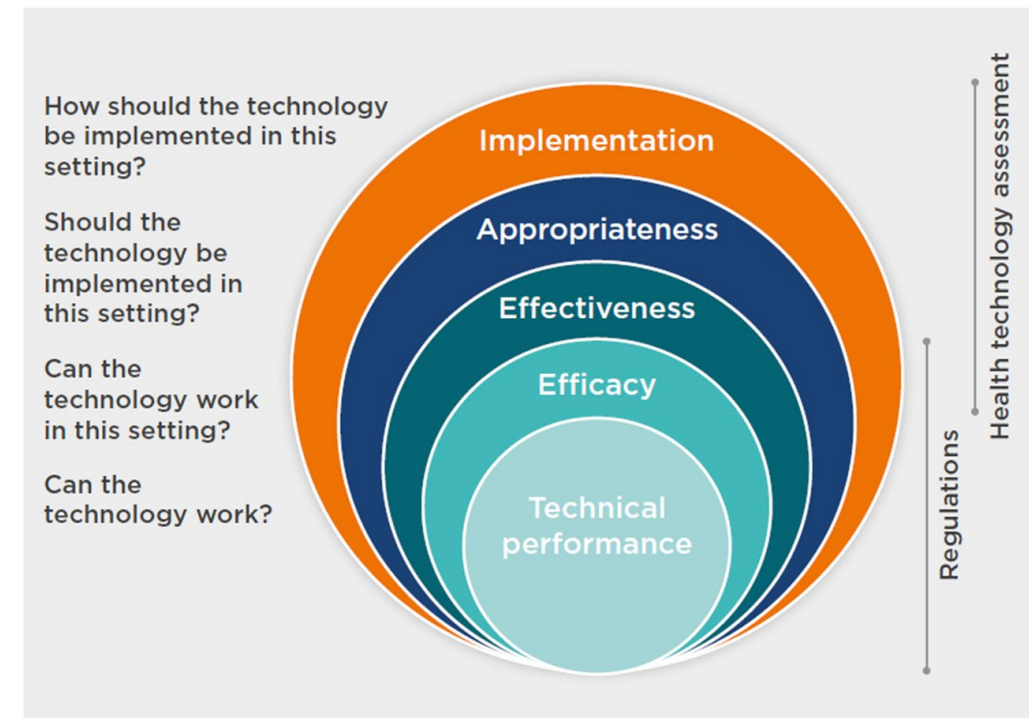o The procurement of medical equipment and IT does not always facilitate staff in reducing risks - even when available to the NHS

o The design of medical equipment and IT does not always facilitate staff in reducing risks - despite many risks persisting over decades and patient harm

Health technology assessment (World Health Organization, 2011)

How should the technology be implemented in this setting?

Should the technology be implemented in this setting?

Can the technology work in this setting?

Can the technology work?

Implementation

Appropriateness

Effectiveness

Efficacy

Technical performance

Health technology assessment

Regulations

Thematic learning across investigations

HSIB
HEALTHCARE SAFETY
INVESTIGATION BRANCH

Regulation

○ Regulators are not always proactive in acting on available evidence to reduce risks – moving to assure safety rather than proving something is unsafe and then reacting

○ Overarching regulatory and assurance frameworks needed to coordinate the management of risks are sometimes lacking or non-existent

"…a shift from proving that something can be dangerous, to proving that things are safe".

Leary, A. (2021) Why does healthcare reject the precautionary principle? BMJ Opinion, 12 March [Online]

Standardisation and skills

○ There is sometimes a lack of standardisation of approaches to medication prescribing and administration - including the roles and responsibilities of staff

○ More support is sometimes needed in the education and training of clinical practitioners that can facilitate the development of decision-making skills

What would organised safety look like?

- It may be beneficial for the NHS to explore how the application of safety management principles could build on the foundations developed by the NHS Patient Safety Strategy

- It is unlikely that having one single safety management system would be feasible and that a more integrated approach of multiple systems, as seen in other high-risk industries, may be necessary

- A greater adoption of the principles of a safety management system in the NHS may support more effective responses to safety recommendations

ICAO SMS MODEL
International Civil Aviation Organization (ICAO)

SAFETY POLICIES & OBJECTIVES

SAFETY RISK MANAGEMENT

SAFETY ASSURANCE

SAFETY PROMOTION

Conclusions

Ownership of responsibility for implementation

User Clinical responsibility, work flow, workload

Training

Responsibility after 'go-live'

?

Manufacturer Technology, engineering, usability

Safety case

Trust Governance, performance, safety