



# EQUIPS

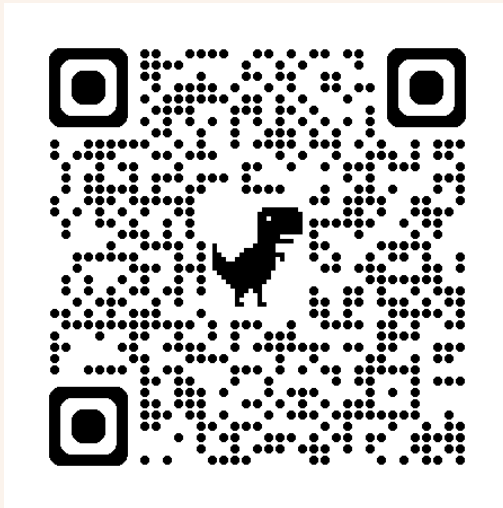
EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK

Dr Jill Poots  
Network Manager,  
EQUIPS Research  
Network

# Overview of the day

Today's aim:

To provide a unique opportunity for knowledge users, patient partners, and researchers interested in QPS research to connect, collaborate, and discuss QPS research in Ireland



Download a copy of the agenda using the QR code or at [tcd.ie/cihs/equips](http://tcd.ie/cihs/equips)

- 10am – Introduction to EQUIPS from Dr Jill Poots (Network Manager), Prof Sam Cromie (Principal Investigator), and Dr Orla Healy (Lead Knowledge User, HSE NQPSD)
- 10.30 – Keynote talk from Prof Paul Bowie (Staffordshire University)
- 11.05 – Comfort break
- 11.15 – Patient Partner Talk from Ms Anne Lawlor
- 11.40 – Interactive Networking Activity
- 12.30 – Q&A Panel on 'The practicalities of QPS research'
- 12.50 – Closing remarks
- 13.00 – Lunch

@EQUIPSIrI #EQUIPS



# Prof Sam Cromie

EQUIPS Principal Investigator

Centre for Innovative Human Systems

TCD



Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin



@EQUIPSIr #EQUIPS



PEOPLE  
PROCESS  
PERFORMANCE



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive



Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin



# EQUIPS

EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK

2023-2028



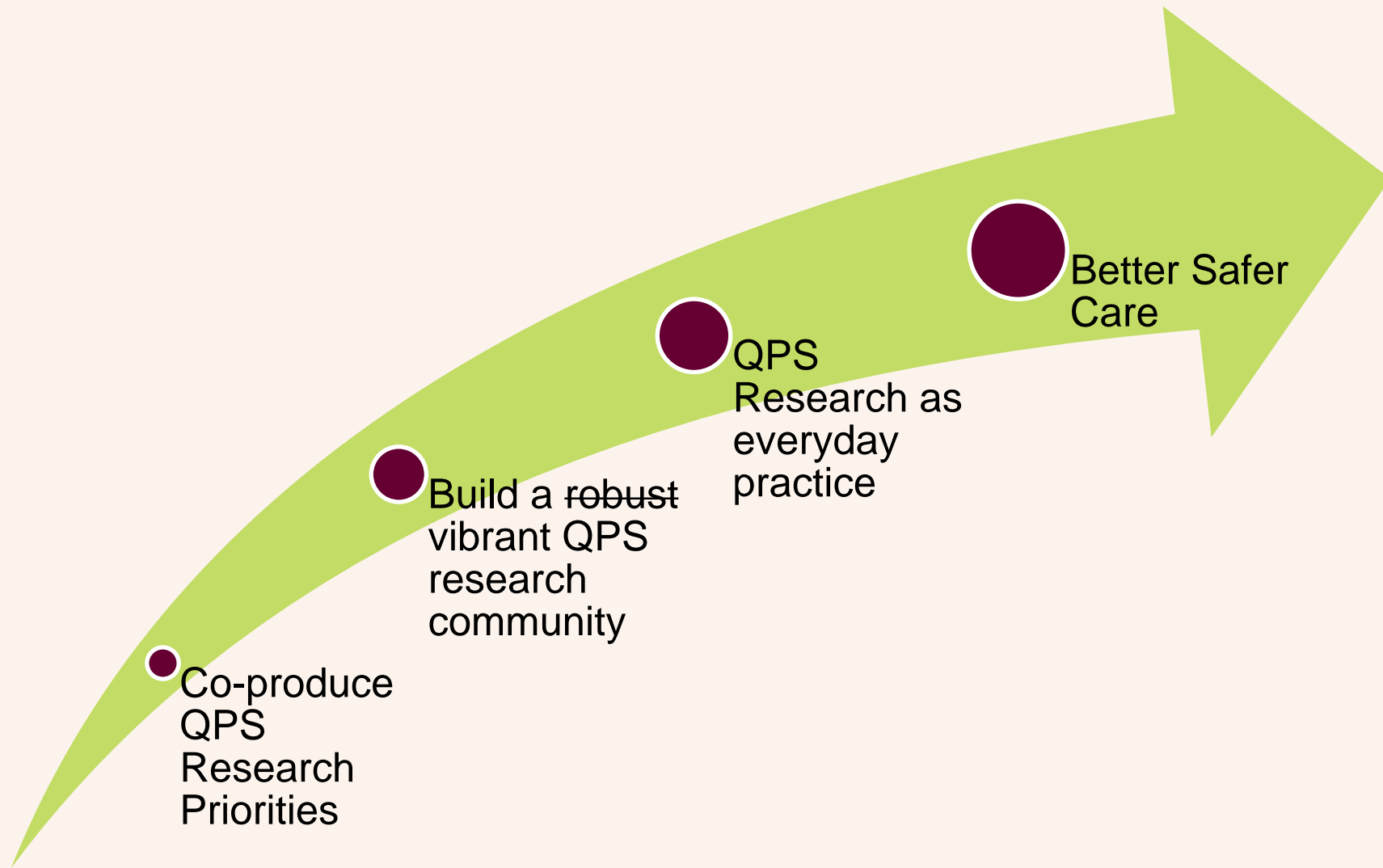
OLLSCOIL NA  
GAILLIMHE  
UNIVERSITY  
OF GALWAY



University College Dublin



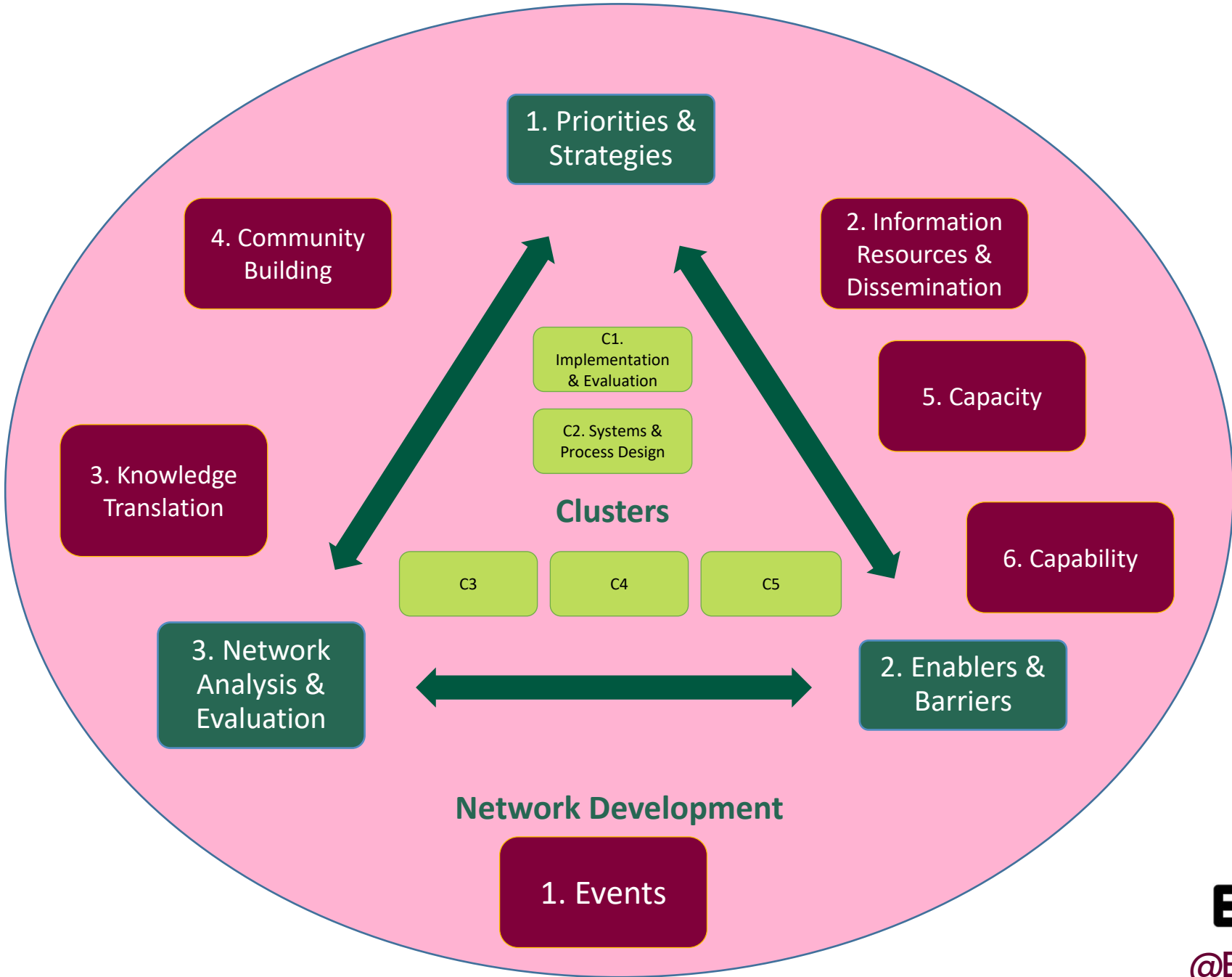
UNIVERSITY OF  
LIMERICK  
OLLSCOIL LUIMNIGH



1. Enabling

2. Understanding & Informing

3. Focussing











# EQUIPS

EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK



An Stiúirtheacht um Ardchaighdeán  
agus Sábhálteacht Othar  
Oifig an Phríomhoifigigh Cliniciúil

National Quality and  
Patient Safety Directorate  
Office of the Chief Clinical Officer

# Dr Orla Healy

National Clinical Director  
Quality and Patient Safety

EQUIPS Lead  
Knowledge User

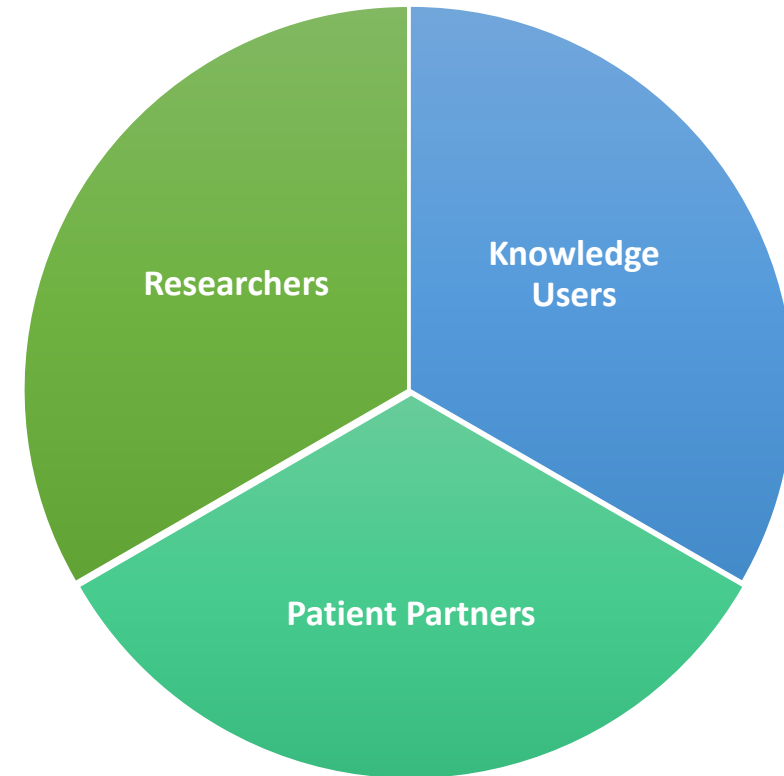




# 5 year joint NQPSD-HRB Funding Commitment

EQUIPS funded with the aim to:

- Bring together QPS research stakeholders including academic researchers, knowledge users and patient partners
- Focus research on national QPS priorities
- Better align research with service needs
- Promote and support evidence-based improvement interventions and evaluations of QPS initiatives
- Translate high quality QPS research into service improvements
- Foster QPS research and evaluation culture and build the capability and capacity within our health service
- Facilitate and support involvement of public, patients and carers in QPS research





# EQUIPS Knowledge Users

**Dr Orla Healy** National Clinical Director Quality and Patient Safety, NQSPD - EQUIPS Lead Knowledge User

**Dr Colm Henry** Chief Clinical Officer - EQUIPS Sponsor and Chair of Advisory Group

Strands	Knowledge User Leads		Knowledge User Collaborators	
Enabling	<ul style="list-style-type: none"> <li>• Veronica Hanlon</li> <li>• Maureen Flynn</li> <li>• Pat O’Boyle</li> <li>• Tom Foley</li> </ul>	<ul style="list-style-type: none"> <li>QPS Education, NQPSD</li> <li>ONMSD</li> <li>HR Capability &amp; Culture</li> <li>CHO 1/ CAHMS</li> </ul>	<ul style="list-style-type: none"> <li>• Ana Terres</li> <li>• JP NOLAN</li> <li>• Gerry Clerkin</li> <li>• Siobhan Ni Bhriain</li> <li>• Anne Gallen</li> </ul>	<ul style="list-style-type: none"> <li>HSE Research and Development</li> <li>Chief Operations Office</li> <li>HSE CHO 1 QPS Community</li> <li>HSE Integrated Care, OCCO</li> <li>ONMSD</li> </ul>
Understanding & Informing	<ul style="list-style-type: none"> <li>• Lorraine Schwanberg</li> <li>• John Fitzsimons</li> <li>• Iolo Eilian</li> <li>• John Brennan</li> </ul>	<ul style="list-style-type: none"> <li>QPS Incident Mgt</li> <li>RCPI/CHI</li> <li>Patient &amp; Service User Engagement</li> <li>GP &amp; ISQUA</li> </ul>	<ul style="list-style-type: none"> <li>• Deirdre Mulholland</li> <li>• Caroline Mason Mohan</li> <li>• Cora McCaughan</li> </ul>	<ul style="list-style-type: none"> <li>National Public Health Department</li> <li>National Screening Services</li> <li>HSE Internal Audit</li> </ul>
Focusing	<ul style="list-style-type: none"> <li>• Louise Hendrick</li> <li>• Gemma Moore</li> <li>• Dervla Hogan</li> <li>• Marie Ward</li> </ul>	<ul style="list-style-type: none"> <li>QPS Intelligence &amp; Education</li> <li>QPS Intelligence</li> <li>QPS Improvement</li> <li>St James's Hospital</li> </ul>	<ul style="list-style-type: none"> <li>• Aoife Lawton</li> <li>• Máirín Ryan</li> <li>• Mary McGeown</li> <li>• Cathal O’Keefe</li> </ul>	<ul style="list-style-type: none"> <li>Health Library Ireland</li> <li>HIQA</li> <li>NPSO DOH</li> <li>State Claims Agency</li> </ul>



# NQPSD Commitment to QPS Research

- Commissioning of collaborative research on emerging QPS issues of national priority
- Research Collaborative in Quality and Patient Safety (RCQPS) co-funded (with HRB) twenty one projects 2013-2022 totalling €4.5 million
- Conducting and publishing in-house research and evaluations of our work
- Funding a PhD and post-doctoral scholarship
- Receiving research grants to lead on QPS research projects
- Collaborating and participating as knowledge users in a variety of research projects

## Funded Research Projects

Development of a national quality and patient safety competency framework

QPS competencies informed by principles of Health Economics

Quality and Safety Signals – composite signal development and realist evaluation

Learning from incidents

Exploration of best practice in Human Factors Ergonomics implementation in healthcare

The measurement of patient experience in relation to Open Disclosure

Migrant women and ethnic minority group's experiences of maternity services



# NQPSD Research Priorities

## Patient Safety Commitments

- 1) Empower and Engage Patients to Improve Patient Safety
- 2) Empower Staff to Improve Patient Safety
- 3) Anticipate and Respond to risks to Patient Safety
- 4) Reduce Common Causes of Harm
- 5) Measure and Learn to Improve Patient Safety
- 6) Provide effective Leadership and Governance to Improve Patient Safety

Better Data  
for Better  
Safety

Integrated  
Health  
System

Strengthening  
QPS in new  
Health  
Regions

QPS in a  
Digital Health  
Service

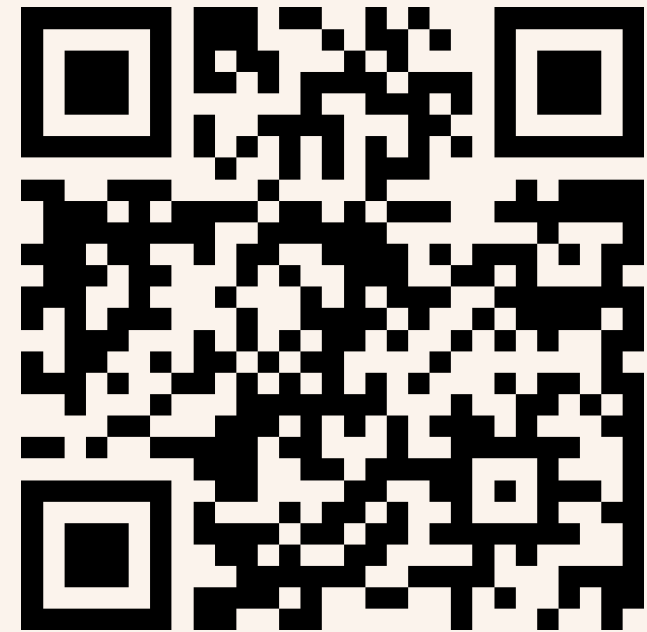
Partnering  
with  
Patients and  
Service User  
in QPS

Incident  
Management  
& Open  
Disclosure

Just Culture

Keynote:  
Prof Paul Bowie,  
Staffordshire  
University

Submit your questions for  
today's panel:



Join at [slido.com](https://slido.com)  
#4064335



# Healthcare Safety Research, Education, & Networking: *Experiences in Scotland*

**Paul Bowie**

PhD C.ErgHF FRCPEd (Hon) FRCGP (Hon)

Programme Director (Safety & Improvement)

X/Twitter: @pbnes @HFhealthcareUK

Email:

[humanfactors@nes.scot.nhs.uk](mailto:humanfactors@nes.scot.nhs.uk)



# Rapid Overview!

- Share our experiences over 2 decades
- Practical network development tips
- Challenge assumptions and fallacies around safety research and improvement
- Introduce Human Factors and systems-theoretic concepts and tools for research and practice
- Outline examples of related research outputs

# Our National Human Factors Learning & Development Network

(c1000 members)

- Research partnerships
- Network partnerships
- NHS partnerships
- Colleges and Professional bodies
- Distributed leadership
  
- Applied research
- Educational developments
- Building capacity & capability

Health Service  
Researchers

Safety, Risk,  
Governance &  
Improvement  
Advisors/Leaders

Doctors in Training

F2F Meetings

Online Meetings

MailChimp

Social Media

Engineers &  
Scientists

Academics &  
Educators

Senior Leaders

Clinicians

Online Hub

Taught Courses

Mentorship



## Human Factors Hub



All  Human Factors Hub

[Learn home](#) > [Human Factors Hub](#)

### Human Factors Hub

[Meet the Team](#)

[National Human Factors Network  
for Health and Care](#)

[Education & Development](#)

[Designing for People](#)

[Human Factors Tools](#)

[Safety Learning Reviews](#)

[Team Based Quality Reviews \(TBQR\)](#)

[★ Add to favourites](#)

Welcome to our evolving online Human Factors (HF) Hub containing a host of practical learning resources to support the integration of HF thinking and approaches at all levels of Health and Social care policy, practice, education and research to enhance organisational performance and the wellbeing of people.

### About Human Factors

Human Factors (also known as Ergonomics) is the science and profession which helps us to make things safe, effective and usable in the highly complex worlds of health and care.

Health and care settings are arguably the most complex work systems to ever exist. Human Factors is a discipline that is well suited to studying and understanding complex systems and improving them through joint application of a 'systems approach' and 'human-centred design thinking'. This is vital if we wish to further improve our own care systems and



# Distinguishing Features of Human Factors

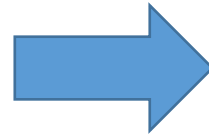
1. It **ALWAYS** takes a **Systems Approach** (holistic)
2. It is **ALWAYS Design Driven** (to take account of human characteristics, needs, capabilities and preferences)
3. It focuses **ALWAYS** on two closely related outcomes:  
**System Performance and Human Well-being**

**(“Twin Aims” = “Joint Optimisation”)**

# Human Factors Science is Design-Driven...

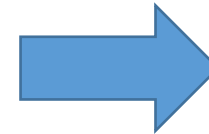
- **Draws on important principles derived from Human, Engineering & Management Sciences:**

- Anatomy
- Biomechanics
- Physiology
- Anthropometrics
- Engineering
- Psychology
- Sociology
- Interaction design
- Organisational management
- User experience



- **Human-Centred Design of:**

- Tasks
- Work systems
- Technology interfaces
- Products
- Services
- Physical environments



- **Organisational Performance**

- System safety
- Efficiency
- Effectiveness
- Reliability
- Productivity

- **Human Wellbeing**

- Health & Safety
- Satisfaction
- Experience
- Comfort
- Enjoyment

## Research - Context and Challenge

*“...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’*

(Wears & Sutcliffe, 2020)



## Healthcare Safety Research, Education and Practice: Challenging and Unlearning Common Assumptions

The Myth of the Safe  
Care System

The Myth of Linear  
Determinism

The Myth of Reliable  
Care Processes

The Myth of the  
'Hero'

The Myth of Zero  
Harm ('Never Events')

The Myth of  
Standardisation and  
Controlling Variation

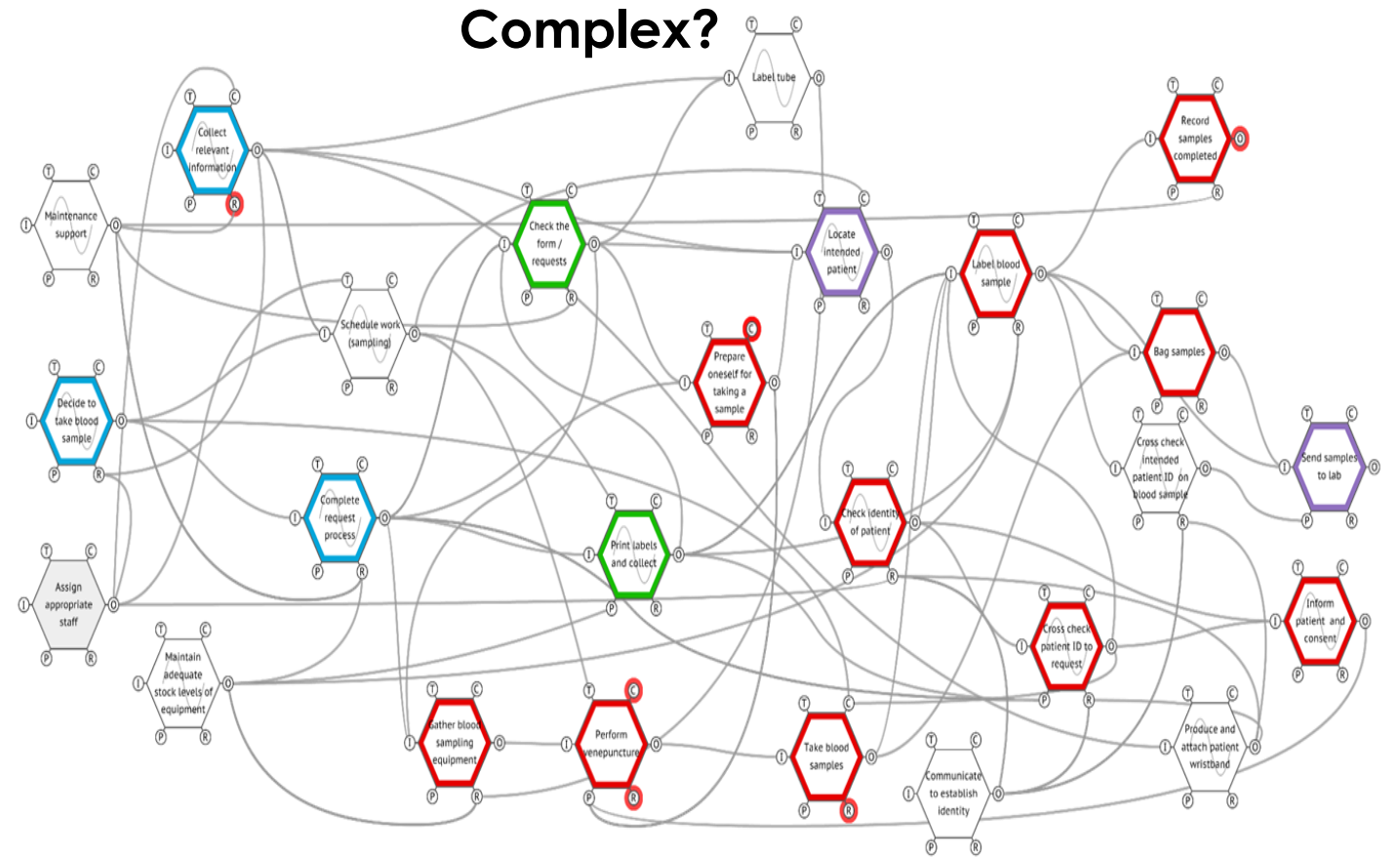
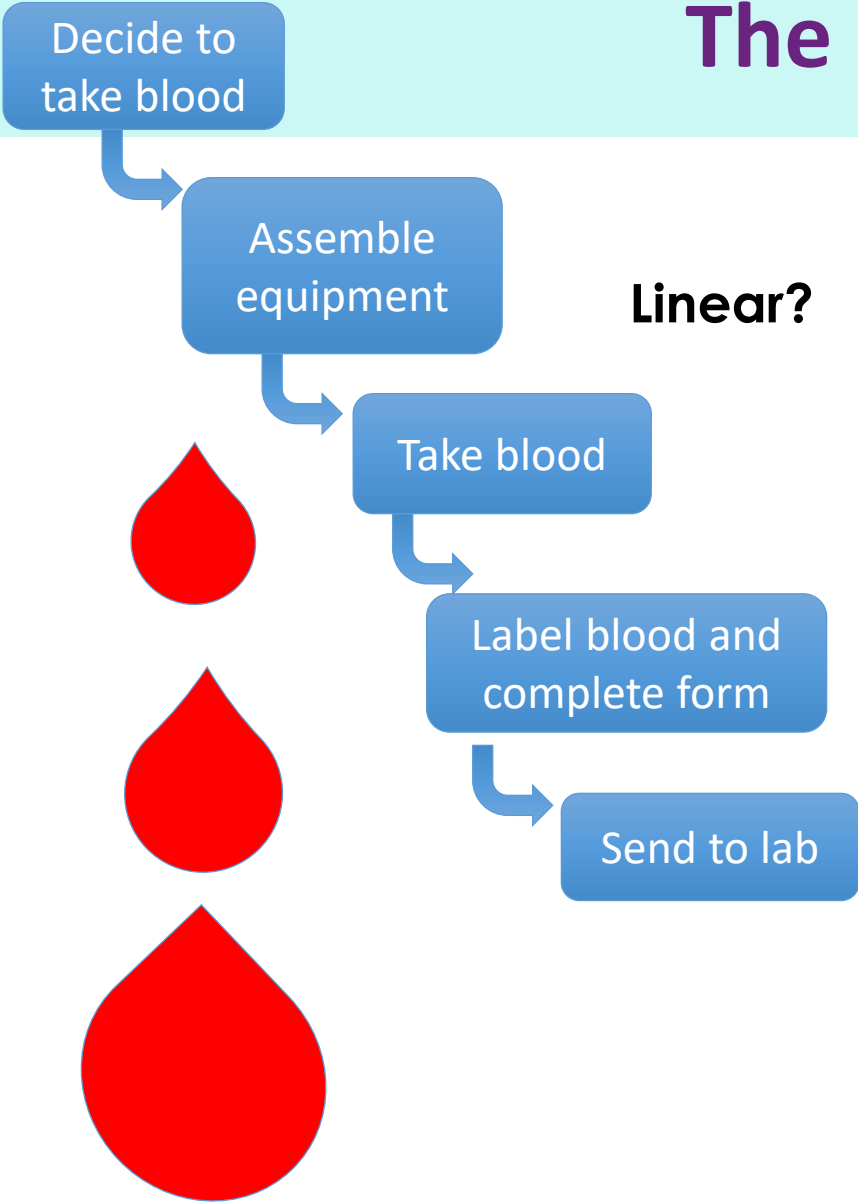
The Myth of 'Medical  
Error'

K Catchpole, P Bowie, S Fouquet et al (2021)

# Quality Improvement and Patient Safety Initiatives

**Do We Treat Healthcare as a Highly Complex System?**

# The “Simple” Act of Taking Blood



Pickup L, Hollnagel E, Bowie P *et al.* Blood sampling - Two sides to the story. *Applied Ergonomics*. 59. 2017; 234–242

# Considering *Safety Differently* in Healthcare Research



# Systems Thinking Principles for Health Services Researchers, Educators and Practitioners

**Understand  
Why Complex  
Systems  
Succeed and Fail**

**Embrace  
Complexity &  
Subjectivity**

**Apply the  
“Systems  
Approach”**

**Recognise that  
Outcomes are  
Emergent**

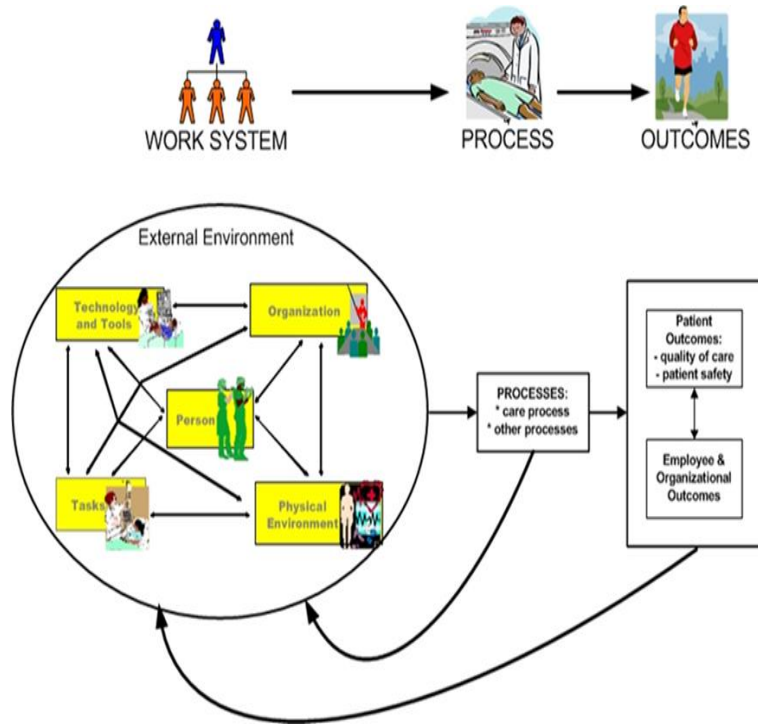
**Explore  
Work-as-  
Done**

**Explore Trade-  
Offs and  
Adaptations**

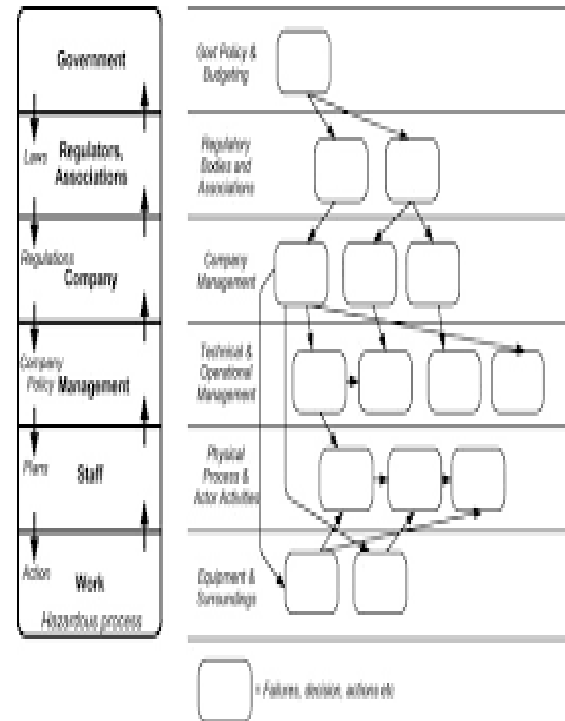
# Resilient Health Care / Safety-II



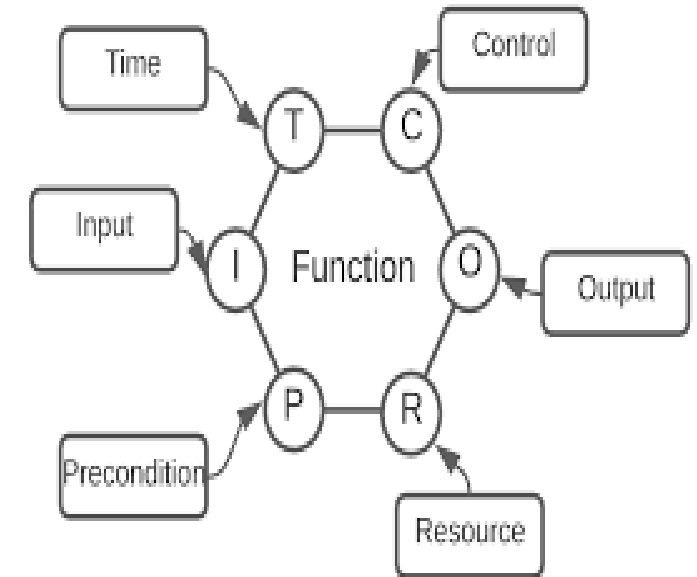
# The Systems Theoretic – Practical Application



Systems Engineering Initiative for Patient Safety










AcciMaps



FRAM – Functional Resonance Analysis Method

# FRAM – Research Application


## Blood sampling - Two sides to the story

Laura Pickup <sup>a</sup>  , Sarah Atkinson <sup>a</sup> , Erik Hollnagel <sup>b</sup> , Paul Bowie <sup>c d</sup> ,  
Sandra Gray <sup>e</sup> , Sam Rawlinson <sup>g 1</sup>, Kate Forrester <sup>f</sup> 



RESEARCH ARTICLE

Op

## Participatory design of an improvement intervention for the primary care management of possible sepsis using the Functional Resonance Analysis Method

Duncan McNab<sup>1,2,3\*</sup> , John Freestone<sup>2</sup>, Chris Black<sup>1,2</sup>, Andrew Carson-Stevens<sup>4,5,6</sup> and Paul Bowie<sup>1,3</sup>

PLOS ONE


 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

## A qualitative study of organisational resilience in care homes in Scotland

Alastair Ross , Janet E. Anderson , Santhani Selveindran , Tamsin MacBride , Paul Bowie , Andrea Sherriff ,  
Linda Young , Evie Fioratou , Edel Roddy , Heather Edwards , Belinda Dewar , Lorna M. Macpherson 

## Mapping Processes in the Emergency Department Using the Functional Resonance Analysis Method

Nathan Anderson, MB BCH, iBSc <sup>a</sup> · Rajesh G. Krishnan, MBA, FRCPC <sup>b</sup> · Maneesh Kumar, PhD <sup>c</sup> · ... ·  
Amith Vir Neelakantapuram, MBA <sup>c</sup> · Paul Bowie, PhD <sup>e</sup> · Andrew Carson-Stevens, PhD, MRCGP <sup>a</sup>  




Safety Science

Volume 146, February 2022, 105525



## A systems analysis of the COVID-19 pandemic response in the United Kingdom – Part 1 – The overall context

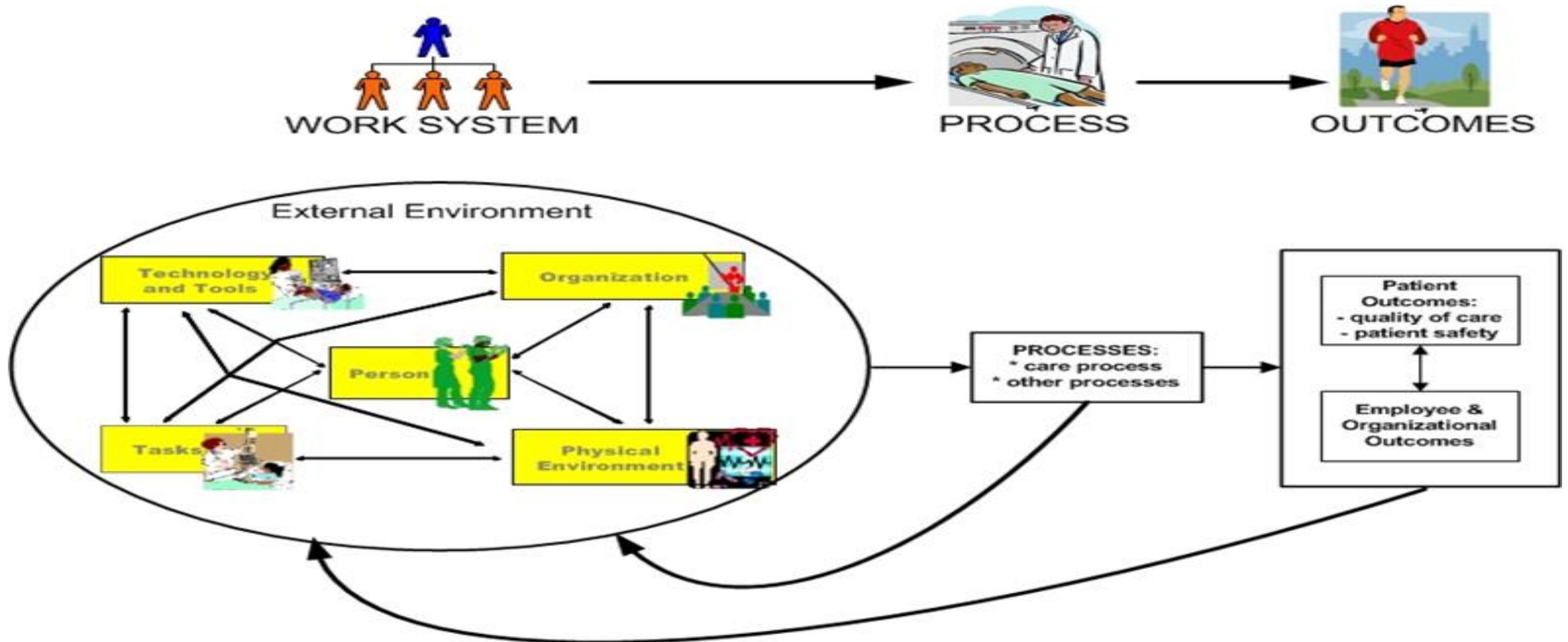
David Slater <sup>a</sup> , Erik Hollnagel <sup>b</sup>, Ralph MacKinnon <sup>c</sup>, Mark Sujan <sup>d</sup>,  
Andrew Carson-Stevens <sup>e</sup>, Alistair Ross <sup>f</sup>, Paul Bowie <sup>g</sup>

## Systematic review and meta-analysis of the effectiveness of pharmacist-led medication reconciliation in the community after hospital discharge

Duncan McNab <sup>1, 2</sup>, Paul Bowie <sup>1, 2</sup>, Alastair Ross <sup>3</sup>, Gordon MacWalter <sup>1</sup>, Martin Ryan <sup>1</sup>, Jill Morrison <sup>2</sup>






# Adopt a recognised “systems approach” to research & practice



# Examples of Research Outputs


# SEIPS – Research Applications

Which human factors design issues are influencing system performance in out-of-hours community palliative care? Integration of realist approaches with an established systems analysis framework to develop mid-range programme theory 

 Sarah Yardley<sup>1, 2</sup>, Huw Williams<sup>3</sup>, Paul Bowie<sup>4, 5, 6, 7</sup>,  Adrian Edwards<sup>3</sup>, Simon Noble<sup>8</sup>, Liam Donaldson<sup>9</sup>, Andrew Carson-Stevens<sup>3</sup>



## Evaluation of the Primary Care Patient Safety (PISA) Research Group taxonomy used to classify patient safety incidents related to the COVID-19 pandemic

Thomas Purchase (1), Delyth Price (1), Emma Dorgeat (1), Paul Bowie, Jean-Pascal Fournier (2, 3), Peter D Hibbert (4, 5), Adrian Edwards (6), Rhiannon Phillips (1), Natalie Joseph-Williams (1), Alison Cooper (1), Andrew Carson-Stevens

User redesign, testing and evaluation of the Monitoring Risk and Improving System Safety (MoRISS) checklist for the general practice work environment 

Paul Bowie<sup>1, 2</sup>, Carl de Wet<sup>3, 4</sup>, Tracey Crickett<sup>1</sup>, Jan McCulloch<sup>5</sup>, Pauline Young<sup>5</sup>, John Freestone<sup>5</sup>, Paul Watson<sup>1</sup>, Neil Houston<sup>6</sup>, Jill Gillies<sup>6</sup>, Duncan McNab<sup>1</sup>

A preliminary ergonomic analysis of the MRI work system environment: Implications and recommendations for safety and design

L. Pickup<sup>a</sup>, B. Nugent<sup>b c d</sup>, P. Bowie<sup>e f</sup>  

### CHAPTER 3

#### The Systems Engineering Initiative for Patient Safety (SEIPS)

A Human Factors Approach to Work System Analysis

*Paul Bowie and Helen Vosper*


### CHAPTER 7

#### Walk-Through-Talk-Through Analysis to Support Healthcare Safety and Improvement Activity

*Richard Brownhill and Paul Bowie*

Sup

# SEIPS – Research Applications

Content analysis of 50 clinical negligence claims involving test results management systems in general practice 

Diane Baylis<sup>1</sup>, Julie Price<sup>1</sup>, Paul Bowie<sup>2</sup>

**More holes than cheese. What prevents the delivery of effective, high quality and safe health care in England?**

Sue Hignett , Alexandra Lang, Laura Pickup, Christine Ives, Mike Fray, Celine McKeown, ...show all  
Pages 5-14 | Received 30 May 2016, Accepted 02 Oct 2016, Published online: 20 Oct 2016

ORIGINAL RESEARCH


***Enhancing the Effectiveness of Significant Event Analysis: Exploring Personal Impact and Applying Systems Thinking in Primary Care***

Bowie, Paul PhD, MIEHF, FRCPE; McNaughton, Elaine MB ChB, DRCOG, DFSRH, FRCGP; Bruce, David MB ChB, FRCGP; Holly, Deirdre DHealthPsych CPsychol; Forrest, Eleanor BA, C.ErgHF, FIEHF;



**HUMAN FACTORS IN PRIMARY CARE:  
EXECUTIVE BRIEFING**

The role of informal dimensions of safety in high-volume organisational routines: an ethnographic study of test results handling in UK general practice

Suzanne Grant<sup>1\*</sup> , Katherine Checkland<sup>2</sup>, Paul Bowie<sup>3</sup> and Bruce Guthrie<sup>1</sup>

**Repeat prescribing of medications: A system-centred risk management model for primary care organisations**

Julie Price BA RGN, Shu Ling Man GPhC, Stephen Bartlett BSc (Hons), Kate Taylor RGN PgCert Med Ed, Mark Dinwoodie MA MB BS MMed FRCGP, Paul Bowie PhD C.Erg.HF MIEHF FRCPEd 

# Recent Thought/Opinion Papers



*International Journal for Quality in Health Care*, 2021, 33(S1), 25–30  
doi:10.1093/intqhc/mzaa101  
Frontiers of Improvement



Frontiers of Improvement

## Is the 'never event' concept a useful safety management strategy in complex primary healthcare systems?

PAUL BOWIE<sup>1,2,3</sup>, DIANE BAYLIS<sup>4</sup>, JULIE PRICE<sup>4</sup>, PALLAVI BRADSHAW<sup>4</sup>,  
DUNCAN McNab<sup>1,2</sup>, JEAN KER<sup>1</sup>, ANDREW CARSON-STEVENS<sup>5</sup> and  
ALASTAIR ROSS<sup>6</sup>

## PROCESS AND SYSTEMS The contribution of human factors and ergonomics to the design and delivery of safe future healthcare

Authors: Mark Sujan,<sup>A</sup> Laura Pickup,<sup>B</sup> Paul Bowie,<sup>C</sup> Sue Hignett,<sup>D</sup> Fran Ives,<sup>E</sup> Helen Vosper<sup>F</sup> and Noorzaman Rashid<sup>G</sup>

## WHY IS THE NHS STILL HARMING PATIENTS?

Taking a Professional Approach to Patient Safety for COVID-19 and beyond



doi:10.10  
Advance Access Publication Date

Editorial

## Frontiers in human factors: embedding specialists in multi-disciplinary efforts to improve healthcare

KEN CATCHPOLE<sup>1</sup>, PAUL BOWIE<sup>2</sup>, SARAH FOUQUET<sup>3</sup>,  
JOY RIVERA<sup>4</sup> and SUE HIGNETT<sup>5</sup>

Examples of Practical Network Outputs:

**Closing the Research-Practice Gap**

# SEIPS – A Multi-Functional Tool for all Health and Social Care Teams

- Multi-Functional Tool e.g.
  - Incident reporting and data collection
  - Process mapping and systems thinking
  - Care system designs and redesigns
  - Design of simulation scenarios
  - **Hazard identification, risk assessment & control**
  - **Team-based learning from incidents, complaints and everyday work**
  - **Organisational safety and complaints investigation/learning**
  - Considering Workforce wellbeing issues
  - Teaching fundamentals of the HF Systems Approach
  - **Designing standard operating procedures**
  - **Problem solving everyday hassles and irritations**



## SEIPS: the 'Swiss Army Knife' of Human Factors

P Bowie, H Vosper, M Kumar, I Davidson, A Ross, T Herlihey, L Pickup, D Owens, D Benson, B Baxendale, M Money Penny, A Carson-Stevens

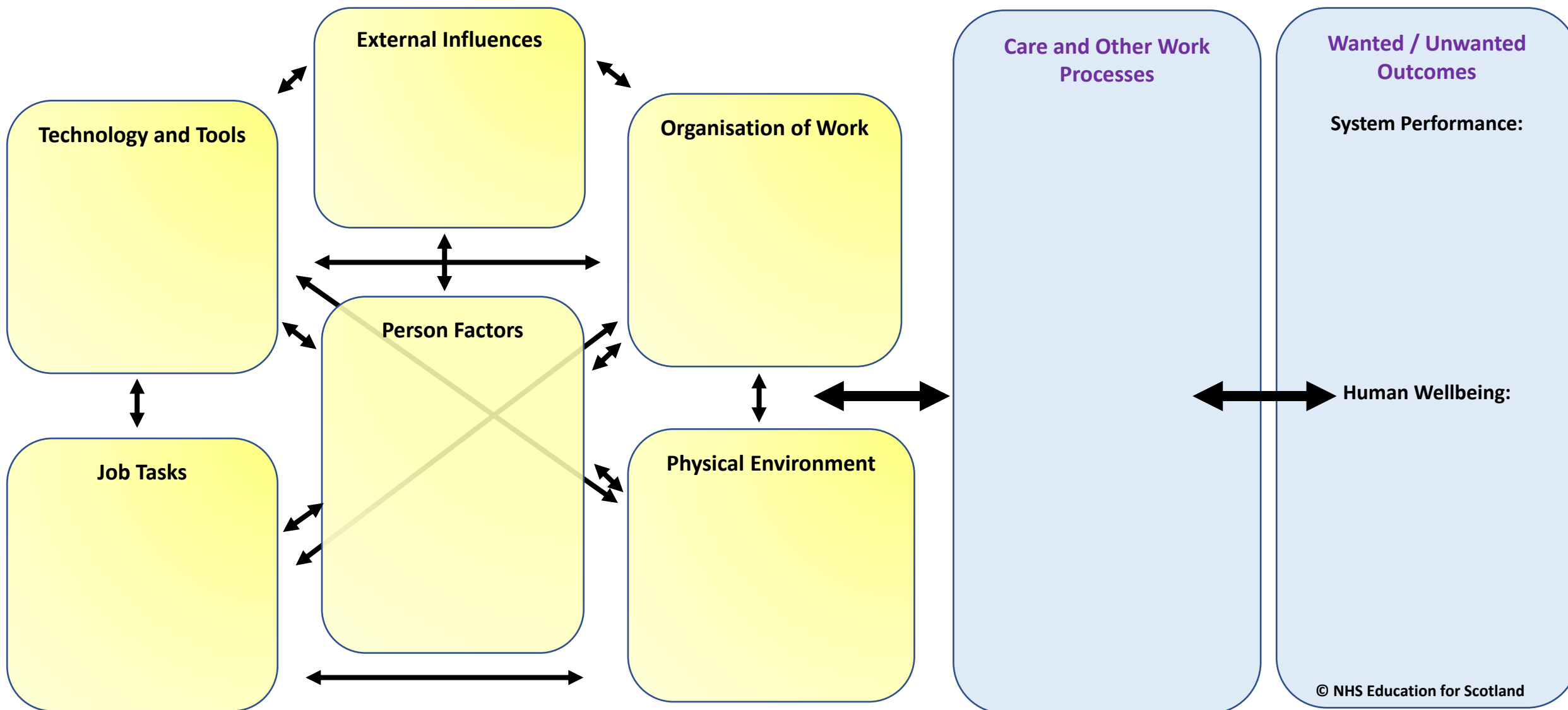
# Care Systems Analysis Tool



**Work System Design Issues** (e.g. Facilitators or Barriers)

**Care Process**

**Outcomes**





## SEIPS Explained

- SEIPS is the Safety Engineering Initiative for Patient Safety.
- It is based on a Human Factors systems approach to understanding care systems, processes and outcomes to inform better design and improvement.
- SEIPS can be used by anyone as a general systems analysis and problem-solving tool e.g. incident investigation; hazard identification; incident reporting & data collection; simulation design; protocol & checklist development; research design and data analysis..

## Guiding Step

1. As a team, use the worksheet as a prompt to highlight the system-wide factors that contribute to the issue at hand
2. Seek to understand how these factors influence processes and interact to produce outcomes (wanted or unwanted)
3. Link this new knowledge to making improvement recommendations

## Examples of Performance Influencing Factors (PIFs)

### Person Factors

e.g. Physical, psychological capabilities, limitations and impacts (frustration, stress, fatigue, burnout, musculoskeletal, satisfaction, enjoyment, experiences, job control); personality or social issues; cognitive ; competence, skills, knowledge, attitudes; risk perception; training issues; personal needs and preferences; psychological safety; performance variability; personal goals; adaptation to work conditions.

**Care team** e.g. roles, support, communication, collaboration, supervision, management, leadership

**Patient/client** e.g. complexity of clinical condition, physical, social, psychological, relationship factors

**Others** e.g. families and carers, and other health and social services colleagues

### Tools & Technology

e.g. design interaction and device usability issues; familiarity; positioning, accessibility; availability; access; mobility; operational /calibrated /maintained; device usability; various IT design issues.

### Task Factors

Specific actions within larger work processes, includes task attributes such as:

- level of task difficulty /complexity;
- time taken;
- hazardous nature;
- variety of tasks;
- sequencing of tasks
- workload, time pressure, cognitive load,

### Physical Environment

e.g. Layout; noise; lighting; vibration; temperature; humidity and air quality; design of immediate workspace or physical environment layout; location; size; clutter; cleanliness; standardisation, aesthetics; crowding

### External Influences

e.g. Societal, government, cultural, accreditation and regulatory influences e.g. funding, national policies and targets, professional bodies, regulatory demands, legislation and legal influences, other risks and influences

### Organisation of Work Factors

e.g. Structures external to a person (but often put in place by people) that organise time, space, resources, and activity.

#### Within institutions:

- Work schedules/staffing
- Workload assignment
- Management and incentive systems
- Organisational / safety culture (values, commitment, transparency)
- Training
- Policies/procedures
- Resource availability and recruitment

#### In other settings:

- Communication
- Infrastructure
- Living arrangements
- Family roles and responsibilities
- Work and life schedules
- Financial and health-related resources

## Outcomes

**Outcomes – System Performance**  
e.g. Safety; productivity; resilience; efficiency; effectiveness; care quality

**Outcomes – Human Wellbeing**  
e.g. Health and safety; patient satisfaction and experience; enjoyment; staff turnover; staff welfare; job satisfaction

# I-SOG (*In Situ* System Observation Guide)




*In-Situ* System Observation Guide (I-SOG) for Exploring Human Work in Health & Care

## DATA COLLECTION BOOKLET

<p><b>Date:</b></p> <p><b>Observer(s):</b></p>	<p><b>Location:</b></p> <p><b>Care Process:</b></p>	<p><b>User Participant Roles:</b></p>	
<p><b>Think About Different Aspects of Human Work to be Explored:</b></p>			
<p><b>Work-As-Imagined</b> The work that we imagine takes place. The work that others do (now or in the past or future) or the work that we imagine that we do (or <u>did</u>, or will do).</p>	<p><b>Work-As-Done</b> Describes what <u>actually happens</u>, how work unfolds over time in complex contexts.</p>	<p><b>Work-As-Prescribed</b> The formalisation, specification and design of work. It is the work that people 'should do', especially according to policies, procedures, rules, and so on.</p>	<p><b>Work-As-Disclosed</b> The work that people say that they (or others) do or did, either in formal accounts or informal accounts.</p>

# Risk Assessment and Control: Guidance Package for Scottish General Medical Practices



## A 5-Step Guide to Risk Assessment in General Practice Environments

THE 5-STEPS


RISK IDENTIFICATION TOOL FOR GENERAL PRACTICE

REFERENCE LIST OF CONTRIBUTORY FACTORS TO PRACTICE RISKS

PRACTICAL EXAMPLES

### KEY POINTERS

- + To identify, assess and control system-wide risks, the care team should think about what could go wrong and cause harm to people and your practice
- + Risk assessment shouldn't be bureaucratic, it should be about identifying sensible measures to control practice risks (e.g. those associated with infection control or test results handling systems)
- + You will already be taking steps to identify and control risks, but a more formal assessment will help you to prioritise and decide whether you have covered all that you need to
- + Quick pragmatic definitions  
**Hazard:** Anything that can cause harm  
**Risk:** The chances of that hazard causing harm  
**Harm:** Anything that you would not like to happen to your patients, your team or yourself
- + Think about **Risk** over time  
**Past:** What has gone wrong in the past?  
**Present:** What could go wrong currently?  
**Future:** What could go wrong due to change?
- + The **5-Step Guide** can help you look at risks and control measures in more detail with a view to improving these, where you think this is necessary





## COVID-19: Monitoring Risk and Improving System Safety (C-MoRISS) Checklist

### About the checklist

- As part of our Covid-19 response, the checklist was co-designed by many different GP team members to help practices identify and check safety-critical issues of importance to the health and wellbeing of patients, visitors and care teams during this crisis period and as we return to new ways of working.
- It is important to note that it is not fully mandatory – but is a flexible guide that you can adapt to suit your local circumstances. **Use your own judgement and apply your own common sense** when determining the content and if you're fully compliant with each checklist issue.
- As far as possible the checklist development process was informed by human factors/systems thinking to make the content relevant and understandable and to cover all possible risks across the general practice workplace.

### How to use the checklist

- Simply work your way through the checklist (it has been sub-divided to make it easier to follow and complete) and use a combination of checking and your own professional judgement to determine whether you are fully compliant with each of the issues outlined.

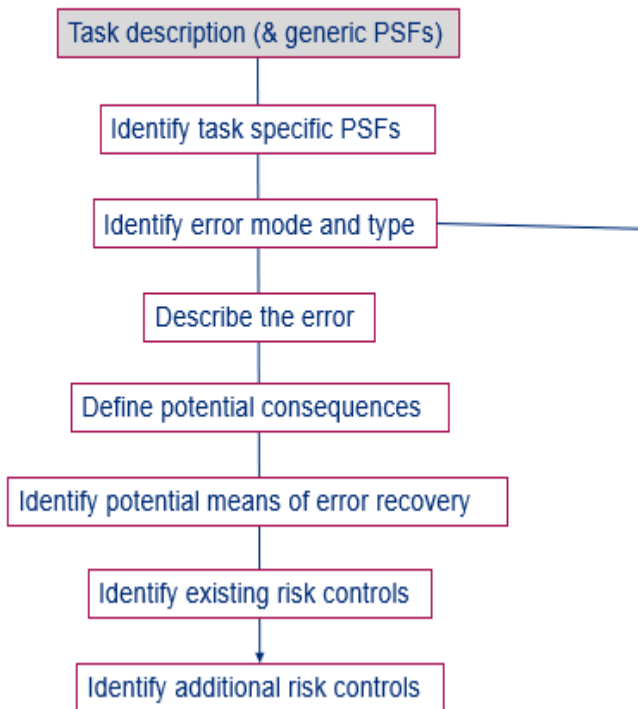
### Definitions

- **Mandatory** – 'where a legal, professional, contractual or regulatory obligation existed for the check to take place'
- **Essential** – 'where a failure to check the item would have the potential for harm to occur to patients, GP team members, or practice visitors, or impact negatively on the performance and reputational risk of the practice'
- **Advisable** – 'where periodic checking of the item would be a voluntary demonstration of high quality safe system practice'

Category Key: Mandatory ■ Essential ■ Advisable ■

# HF Review of NHS Vaccination Sites

## Human Reliability Assessment Process



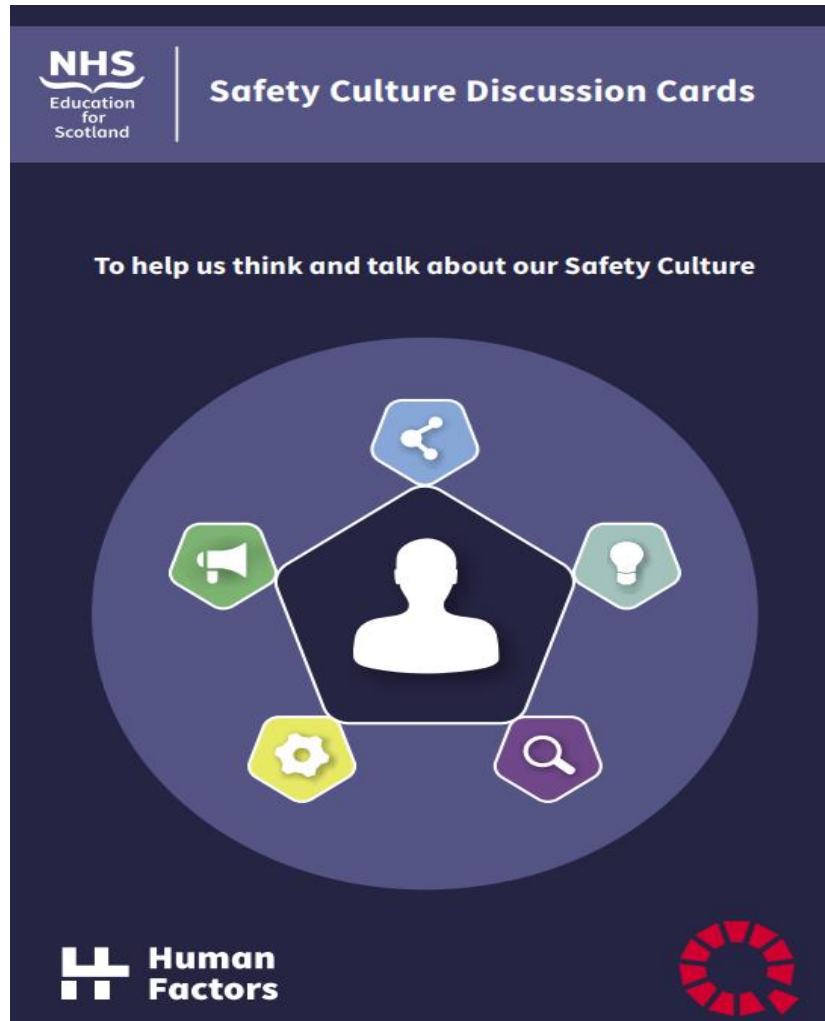
**Human Reliability Assessment for the COVID-19 Mass Vaccination Service Delivery**  
For NHS Ayrshire and Arran on behalf of NHS Education for Scotland



# The Systems Thinking Mindset for Healthcare Safety



# Safety Culture Discussion Cards



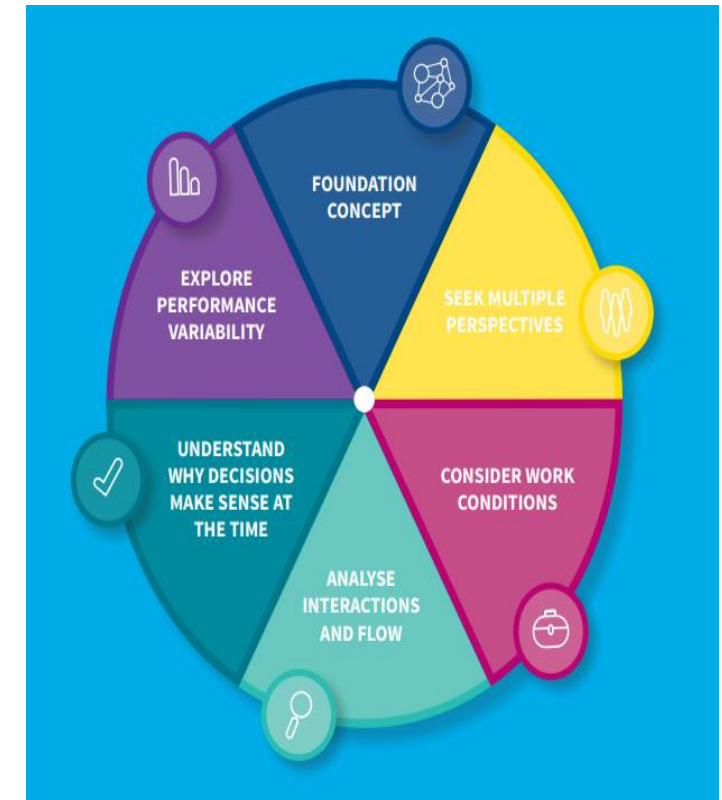
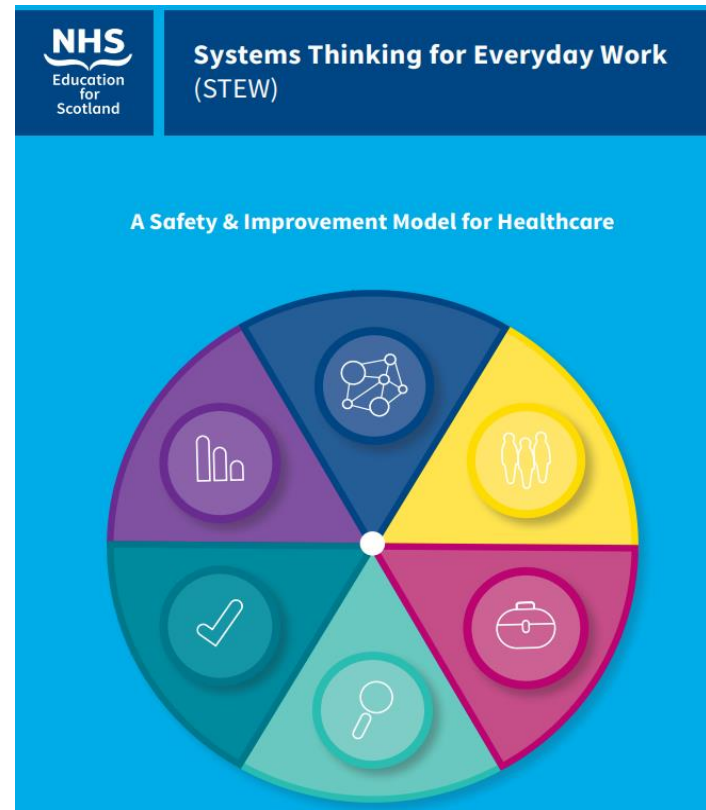
- Get people talking!
- No answers but raise questions!
- Build on what care teams already know and experience
- Encourage discussions to learn about and improve SC
- c80 Cards, c10 guiding/explanatory, 70 discussion cards, 8 themes
- Flexibility to compare views, safety moments, choose a specific theme in-depth – highly flexible
- Aim to be straightforward and practical

# Systems Thinking for Everyday Work (STEW)

- The principles contained in these cards can be used to frame team discussions to encourage a systems approach to exploring and improving safety in healthcare.

They can help to:

- Understand the current system
- Analyse incidents (with both wanted and unwanted outcomes)
- Identify improvement priorities
- Develop change ideas and their implementation into current work systems
- Monitor, evaluate and spread change



# Systems Thinking Challenge Cards

The image displays four Systems Thinking Challenge Cards, each with a distinct color scheme and content. Each card includes the NHS Education for Scotland logo and the text 'Openness and Learning SYSTEMS THINKING' at the top. A central icon of a smartphone with signal waves is present on each card. The cards are as follows:

- Card 1 (Orange):**
  - Challenge Title:** Performance Variability
  - Concepts:** Work-As-Imagined, Work-As-Done, Efficiency-Thoroughness-Trade-Offs (ETTOs)
- Card 2 (Maroon):**
  - Challenge Title:** Local Rationality
  - Concepts:** Just Culture
- Card 3 (Teal):**
  - Challenge Title:** Taking a Systems Approach
  - Concepts:** Complexity, Interactions and Emergence, Systems Framework, Limitations of Linear Thinking
- Card 4 (Dark Blue):**
  - Challenge Title:** Balancing Safety-I and Safety-II Approaches



# Human-Centred Design of Work Procedures



Human Factors in Health and Care

## Why People Don't Follow Work Procedures

[Such as Protocols, Checklists, Standard Operating Procedures, Policies, Guidelines]

<b>Accessibility</b>	<ul style="list-style-type: none"> <li>We don't know where they are kept.</li> <li>We don't know they exist.</li> </ul>
<b>Accuracy</b>	<ul style="list-style-type: none"> <li>We think they're inaccurate.</li> <li>We think they're out-of-date.</li> <li>We don't think they reflect how best to do the job.</li> </ul>
<b>Culture &amp; Policy</b>	<ul style="list-style-type: none"> <li>We don't understand why they're needed.</li> <li>We're unclear on when they should be used and by whom.</li> <li>We think they've been created by people who don't do our job.</li> <li>We're unsure which work procedure version to use.</li> <li>We think their purpose and content needs to be reviewed.</li> <li>We think they're designed to help other peoples' work, not ours.</li> <li>We think the organisation is unnecessarily risk averse.</li> <li>We don't think they will solve the problem at hand.</li> </ul>
<b>Design &amp; Usability</b>	<ul style="list-style-type: none"> <li>We weren't involved in their co-design, testing and evaluation.</li> <li>We don't think they reflect the reality of how the work is done.</li> <li>We think they're too complex to fully understand.</li> <li>We think it's difficult to find the right information in the work procedure.</li> <li>We think the format is cumbersome, unclear, and unusable.</li> <li>We think greater logic, clarity and readability are needed.</li> <li>We think more testing and improvement is needed.</li> </ul>
<b>Feasibility</b>	<ul style="list-style-type: none"> <li>We think they're too restrictive.</li> <li>We think they're too time consuming.</li> <li>We think they're impracticable and unworkable.</li> <li>We need training to understand and use the work procedure.</li> <li>We think if they were followed exactly as intended, they could not be completed on time.</li> <li>We don't think they're needed.</li> </ul>
<b>Job Control</b>	<ul style="list-style-type: none"> <li>We already know what is in the work procedure.</li> <li>We are very experienced and don't need them.</li> <li>We don't like being told what to do.</li> <li>We think they're infantile and belittle us.</li> <li>We think they interfere with our autonomy and deskill us.</li> <li>We much prefer to rely on our own knowledge and skills.</li> <li>We know a better way to complete the job.</li> </ul>

## Ten key steps to design work better

Make your work procedures **safe** and **easy-to-use** for person-centred care



# Taught Courses (November 2024 Programme Launch)

HF Champions Course  
(3.5. Days)

TBQR

(Online 3-hours)

Work System Analysis  
(1 Day)

HF Introductory  
Course (1 Day)

Facilitating TBQR  
(Online 3-hours)

Design of Work Procedures  
(Online 3-hours)

Teaching HF  
(1 Day)

Organisational Safety &  
Learning for Leaders (Online  
3-hours)

Safety Culture  
(Online 3-hours)

Safety Learning Review  
(Hybrid) (1 Day)

HF for Board Members  
(Online/F2F 3-hours)

HF & Risk Control  
(Online 3-hours)

# EQUIPS

EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK

## Get Involved!

Participatory Design of Practical Innovations  
Increasing Q&S/HF Knowledge  
Building Research Capability  
Closing the Research Practice Gap  
Personally and Professionally Fulfilling

# THANK YOU!

[paul.bowie@nhs.scot](mailto:paul.bowie@nhs.scot)

# HEPS | 2025

Healthcare Systems Ergonomics And Patient Safety

## Healthcare Systems Ergonomics and Patient Safety

The conference for Healthcare Systems  
Ergonomics & Patient Safety is taking place  
in Trinity College Dublin, Ireland from the  
**18th - 20th of June 2025.**



[www.HEPS2025.com](http://www.HEPS2025.com)



# EQUIPS

EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK

# Patient Partner: Anne Lawlor, 22q11

Submit your questions for  
today's panel:



Join at [slido.com](https://slido.com)  
#4064335

@EQUIPSIrI #EQUIPS



# EQUIPS

EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK



# Cards on the table – a networking activity

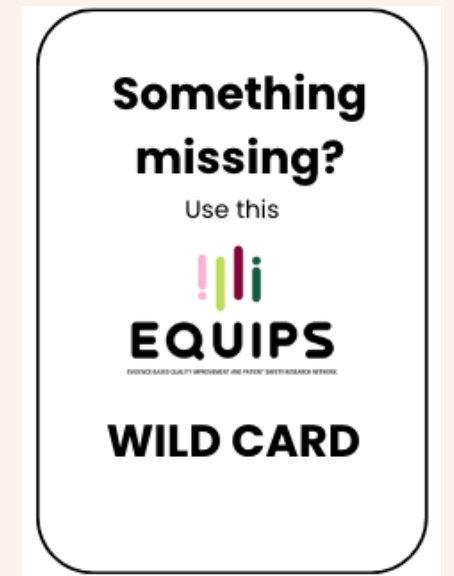
# Aim: to build a vision for EQUIPS

This card activity will involve working in groups to discuss:

1. Motivations for attending today
2. Barriers and facilitators to QPS
3. Values important to a network like EQUIPS

To build a *vision* for the EQUIPS Research Network

Can't find a card? Use your wild card and write something that fits better



# Round 1 – 10 minutes

Introduce yourself to those around you.

Select a 'motivation' card which best summarises your reasons for being here and discuss

Extra time? Reflect on your values using the sheet provided

**Reflection: Defining EQUIPS' values**  
Values are standards by which individuals discern what is "right" or assess the importance of preferences (Finegan, 2000)  
Circle, sign, sticker, or initial the value you think is most important.


Integrity	Accountability	Innovation	Compassion	Empathy
Respect	Perseverance	Honesty	Justice	Humility
Fairness	Courage	Kindness	Loyalty	Optimism
Responsibility	Transparency	Trust	Creativity	Discipline
Generosity	Authenticity	Collaboration	Resilience	Excellence
Adaptability	Open-mindedness	Determination	Inclusion	Selflessness

\*Generated with support from ChatGPT using the prompt "Generate a list of 30 core values at random" (OpenAI, 2024).

**EQUIPS mission statement**  
Consider the motivations, barriers, enablers, facilitators, and core values your group discussed to **draft a vision statement for EQUIPS.**  
**EQUIPS will...**

**Motivation**  
Choose 1 motivation card and discuss

**Something missing?**  
Use this



**EQUIPS**  
EQUINOX ASSOCIATES | IMPROVEMENT AND PREVENTION RESEARCH NETWORK

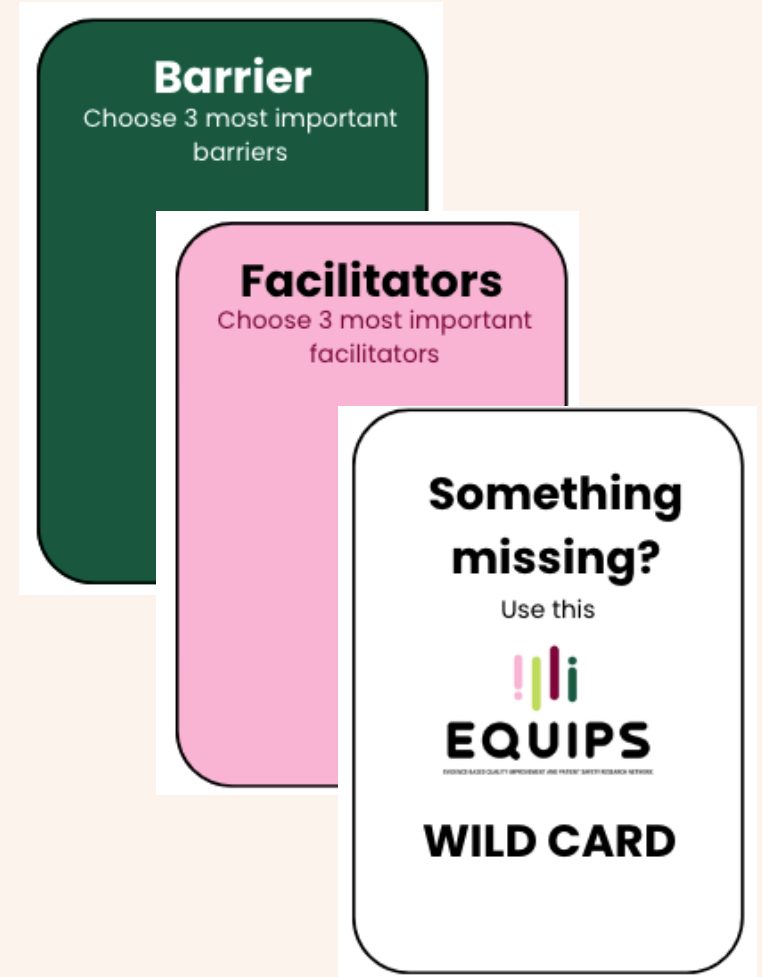
**WILD CARD**

# Round 2 – 15 minutes

As a group, review the barriers and facilitators to QPS research

If you could choose the 3 most important from each category, what would they be?

Are there any missing?



# Round 3 – 15 minutes

## Build a vision

Consider the motivations, barriers, facilitators, and values you have identified and discussed.

Using the flipchart paper, in your group, design a short vision statement ('elevator pitch') for the EQUIPS Research Network starting with:

"EQUIPS will... "

Tweet us your vision @EQUIPSiri #EQUIPS



## Reflection: Defining EQUIPS' values

Values are standards by which individuals discern what is "right" or assess the importance of preferences (Finegan, 2000)

Circle, sign, sticker, or initial the value you think is most important.

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Adaptability	Open-mindedness	Determination	Inclusion	Selflessness

## EQUIPS mission statement

Consider the motivations, barriers, enablers, facilitators, and core values your group discussed to **draft a vision statement for EQUIPS.**

**EQUIPS will...**



# EQUIPS

EVIDENCE-BASED QUALITY IMPROVEMENT AND PATIENT SAFETY RESEARCH NETWORK

# Panel: 'the practicalities of QPS Research'

Chaired by: Prof Siobhán Corrigan, Centre for Innovative Human Systems, Trinity College Dublin

Panel:

Prof Paul Bowie, Staffordshire University

Padraig Carroll, PPI Ignite Local Manager, Trinity College Dublin

Dr Olga Cleary, HSE Research and Development

Prof Sam Cromie, Centre for Innovative Human Systems, Trinity College Dublin

Dr Orla Healy, HSE National Quality and Patient Safety Directorate

Ms Anne Lawlor, 22q11 and EQUIPS Patient Partner

Dr Teresa Maguire, Health Research Board

Submit your questions:



Join at [slido.com](https://www.slido.com)  
#4064335



slido



**Audience Q&A**

**i** Start presenting to display the audience questions on this slide.

# Thank you

Next steps:

Feedback on event form – check email

Visit our EQUIPS webpage to:

1. Register your interest in the network (and receive our next newsletter)
2. Complete the membership survey
3. View available presentations

Contact [equips@tcd.ie](mailto:equips@tcd.ie) if you have any questions

Follow us on twitter @EQUIPSIrl



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# EQUIPS

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