

# Deteriorating Patient Learning System

24<sup>th</sup> May 2018

A photograph showing four healthcare professionals in blue scrubs and stethoscopes. They are gathered around a patient lying in a hospital bed, focused on the patient's condition. The background is a clinical setting with a grid pattern.

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**



## Welcome

Ben Bridgewater  
Chief Executive Officer  
Health Innovation Manchester

Greater Manchester &  
Eastern Cheshire

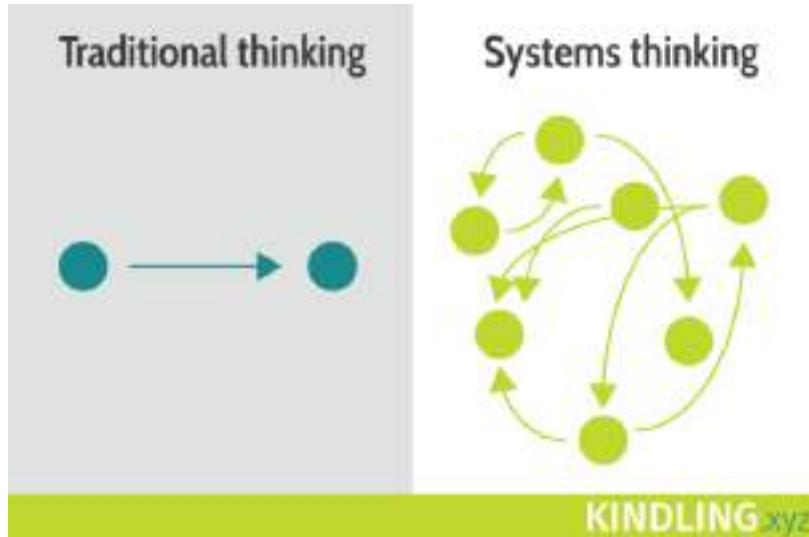
**Patient  
Safety  
Collaborative**

# Health Innovation Manchester (HInM)

- GM is the first region in the country to take control of its combined health & social care budgets, with a budget of more than six billion pounds
- GM health devolution has enabled the formation of an Academic Health Science System facilitating the acceleration of clinical research into clinical practice



# Health Innovation Manchester (HInM)



- HInM supports a 'One Manchester Team' to tackle GM health & care challenges and delivers the GMEC Patient Safety Collaborative with a mandate to create a culture of continuous learning and improvement in the NHS
- Promoting a system thinking approach to patient safety and population health across Greater Manchester and Eastern Cheshire

# Patient Safety Collaborative National Context

*The national PSC is the largest safety initiative in the history of the NHS, supporting and encouraging a culture of safety, continuous learning and improvement, across the health and care system.*

# For further information on Health Innovation Manchester Patient Safety Collaborative

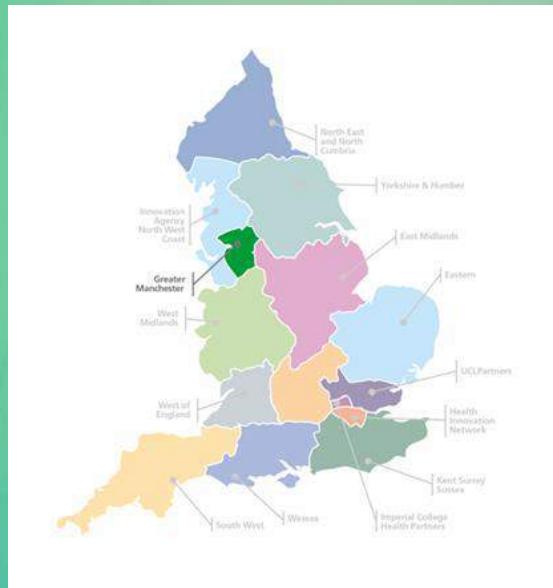
**Ben Bridgewater**  
**Chief Executive Officer**  
**Health Innovation Manchester**  
**@healthinnovmcr**  
**Tel: 0161 509 3850**

HInM, Suite C, Third Floor,  
Citylabs, Nelson St, Manchester,  
M13 9NQ



@GMEC\_PSC

#GMECDetPat



## Patient Safety collaborative overview

Jay Hamilton

Associate Director, Patient Safety Collaborative

Patient Safety Collaborative Steering Group  
(Vice Chair)

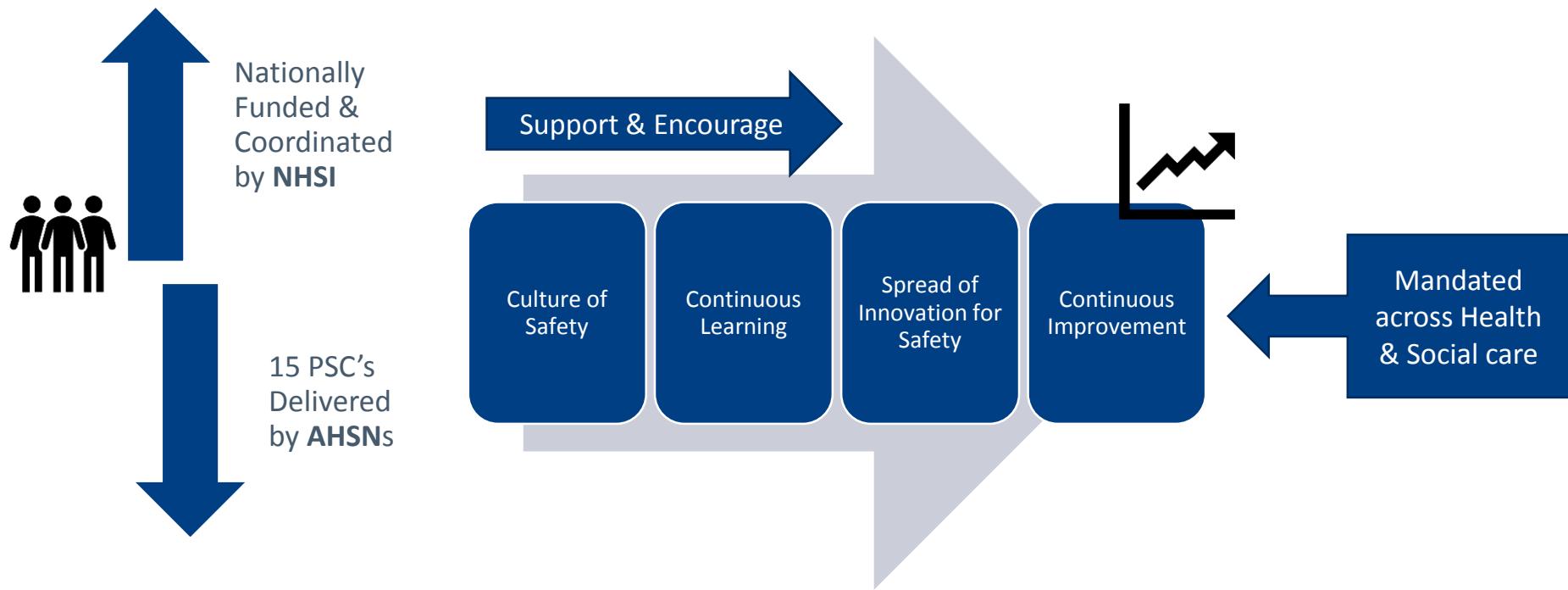
Greater Manchester & Eastern Cheshire

**Patient Safety Collaborative**

# Housekeeping



# National Patient Safety Collaboratives



# PSC workstream

## Workstream 1: Deteriorating Patient

- *To reduce avoidable harm & enhance the outcomes & experience of patients who are deteriorating*

## Workstream 2: Culture & Leadership

- *To help create the conditions that will enable healthcare organisations to nurture & develop a culture of safety by 31<sup>st</sup> March 2019*

## Workstream 3: Maternity & Neonatal

- *To improve maternity & neonatal care, specifically reducing the rate of stillbirth, neonatal death & brain injuries occurring during or soon after birth by 20% by 2020*



# The Patient Safety Collaborative – Our Mission



Supporting  
Quality Improvement



Promoting a safety  
culture for everyone



Testing  
Innovation



Collaborating  
across the system



Sharing knowledge  
and expertise



Enabling safe care,  
everywhere, every time



Inspiring  
voices



# Question

What would you like to get out of today's Deteriorating Patient learning system launch event?

*(answers via Slido.com)*

- *We want to make sure we address your most important questions and concerns at today's event. Therefore, we'll be using a simple tool called Slido that allows you to easily submit your questions and express your opinion by voting on live polls.*
- *Please take out your smartphones and connect to the wifi*
- *Open the web browser*
- *Go to [www.slido.com](http://www.slido.com) and enter the event code: #2961*

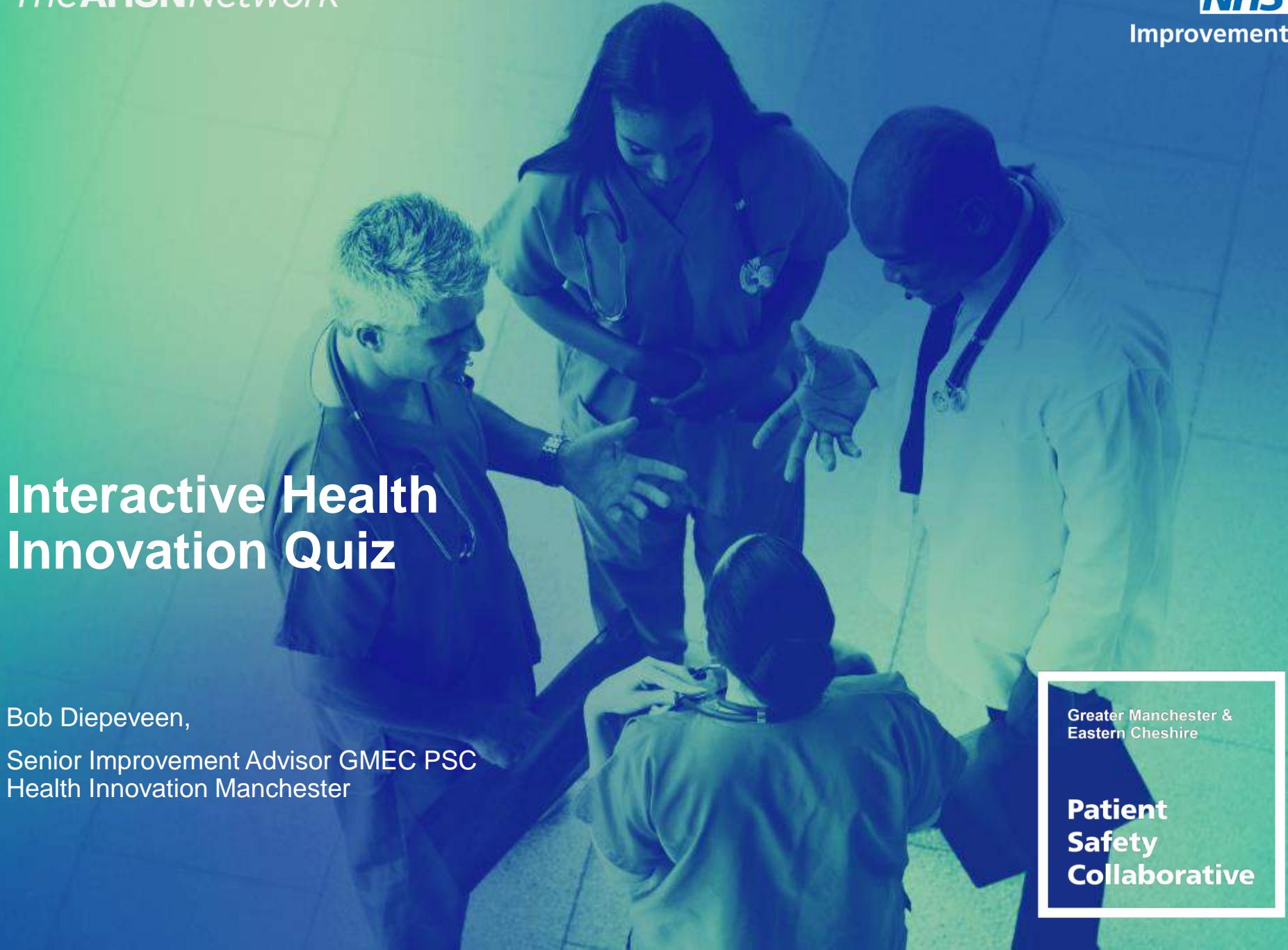


# For further information on Health Innovation Manchester Patient Safety Collaborative

**Jay Hamilton**  
**Managing Director Health  
Innovation Manchester**  
**@healthinnovmcr**  
**Tel: 0161 509 3851**

HInM, Suite C, Third Floor,  
Citylabs, Nelson St, Manchester , M13  
9NQ





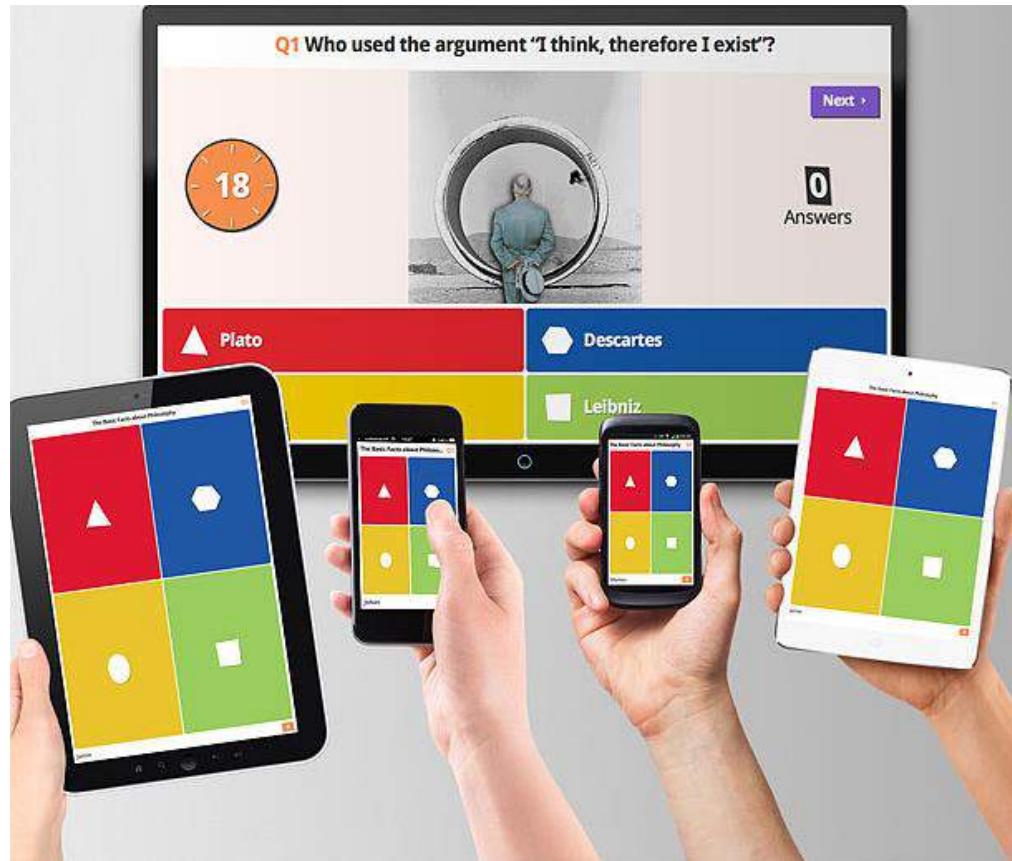
## Interactive Health Innovation Quiz

Bob Diepeveen,  
Senior Improvement Advisor GMEC PSC  
Health Innovation Manchester

Greater Manchester &  
Eastern Cheshire

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# What do you already know about today?





## The ‘Deteriorating Patient’ workstream

Eva Bedford,  
Lead, The Deteriorating Patient, GM&EC  
Patient Safety Collaborative, Health  
Innovation Manchester

Greater Manchester &  
Eastern Cheshire

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# Why is the deteriorating patient a patient safety issue?



Safety Critical Industry

*It can happen at any time*



*Timely recognition & response  
is critical*

*3-5% hospital  
deaths preventable*



© Can Stock Photo

*Failure to detect deterioration  
remains a cause for concern*

# The Deteriorating Patient - NHSI Aim & Primary Drivers

**AIM**  
**To reduce avoidable harm and enhance the outcomes and experience of patients who are deteriorating**

## Recognition

Reliable identification, assessment and monitoring of the patient's physiological condition

## Response

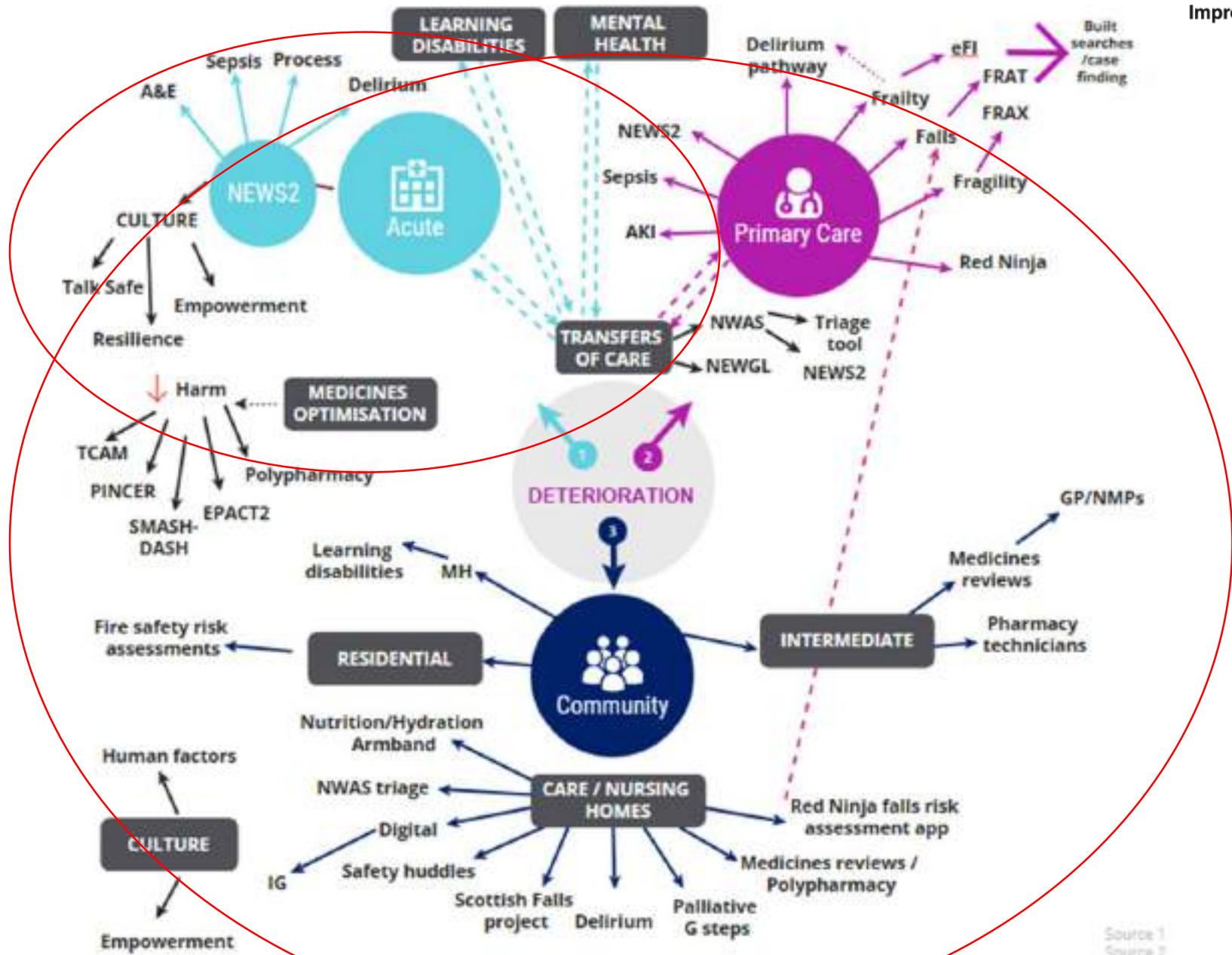
Reliable activation, response to and communication of deterioration

## Communication

Between healthcare professionals – high quality and structured at handover across care settings and at shift changes

## Communication

With patients and carers – informed and inclusive pro-active decision making



# Deteriorating Patient – GMECPSC 2018/19

National Early Warning Score (NEWS)*							
PHYSIOLOGICAL PARAMETERS	3	2	1	0	1	2	3
Respiration Rate	>28		9 - 11	12 - 20		21 - 24	≥25
Oxygen Saturation	≤91	92 - 93	94 - 95	≥96			≥98
Any Supplemental Oxygen		Yes		No			
Temperature	≤35.0		35.1 - 36.0	36.1 - 38.0	38.1 - 39.0	≥39.1	
Systolic BP	≤90	91 - 100	101 - 110	111 - 120			≥120
Heart Rate	≤60		61 - 80	81 - 100	101 - 120	121 - 130	≥131
Level of Consciousness			A				V, P, or U

\*The NEWS algorithm is used in the National Early Warning Score (NEWS) to predict the risk of death in patients with deteriorating conditions. The NEWS score is calculated by summing the scores for each of the eight physiological parameters. The score is then converted into a risk category: Low Risk (0-2), Moderate Risk (3-4), High Risk (5-6), and Very High Risk (7-8). The Royal College of Physicians (2014) has endorsed the NEWS as a tool for identifying patients at risk of deterioration and initiating timely interventions. The Royal College of Physicians (2014) has endorsed the NEWS as a tool for identifying patients at risk of deterioration and initiating timely interventions.




ED patient safety checklist

This is a detailed patient safety checklist for the Emergency Department (ED). It includes sections for:

- Initial assessment and history
- Medication reconciliation
- Communication with other healthcare providers
- Hand hygiene and infection prevention
- Equipment and environment safety
- Documentation and reporting
- Discharge planning and follow-up

The form is designed to be filled out by healthcare professionals to ensure comprehensive patient safety in the ED setting.



# Early Warning Score Systems

EWS system developed to improve the detection of and response to clinical deterioration in patients with acute illness.

They provide for structured assessment of routine physiological measurements and allocate points on the basis of their deviation from 'normal' range

Aggregate scores provide a trigger for clinical response

Improved clinical outcomes including cardiopulmonary arrest, mortality, serious adverse events, length of hospital stay, observation frequency and ICU/HDU admission following implementation of EWS

No standard early warning scoring system in use currently, nationally or locally

# National Data - 2018

## How are we using the National Early Warning Score in England?

**79%**

OF ACUTE TRUSTS

are using NEWS in all or part of the organisation



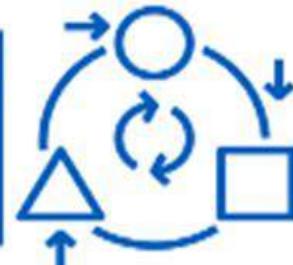
**100%**

OF AMBULANCE TRUSTS

are using NEWS in all or part of the organisation



1 in 20 acute trusts adapt NEWS to their local needs



Ambulance trusts use a variety of criteria to trigger transfers:

A NEWS score of 5+: 4/10 trusts

A NEWS score of 3+: 1/10 trusts

Combination of NEWS score & other markers: 5/10 trusts

# Local Data - 2018

## How are we using the National Early Warning Score (NEWS) within Greater Manchester & Eastern Cheshire?

**67%**

of Acute Trusts are using NEWS or an adapted version of NEWS  
(Remaining Acute Trusts are using another EWS)



**100%**

of Acute Trusts and NWAS responded to the survey about NEWS use



North West Ambulance Service (NWAS) using NEWS across the entire region



- 3 x Acute Trusts using an electronic scoring system
- 3 x Acute Trusts + NWAS using a paper scoring system
- 3 x Acute Trusts using a mixture of electronic and paper scoring systems



Physiological  
parameters

Score

# The National Early Warning Score2 (NEWS2)

- NHS England endorsing adoption of NEWS2 for non-pregnant adult patients across all acute hospital and ambulance trusts by March 2019.
- NEWS2 tool reliably detects deterioration & sepsis in adults, triggering review, treatment and escalation of care (NHSI 2018).
- Update includes consideration of hypercapnic respiratory failure and new confusion
- Joint 'Patient Safety Alert' issued 25 April 2018 identifying resources necessary to support the safe adoption of NEWS2 – completion 21st June 2018
  - Nominate a NEWS2 champion
  - Identify/ establish a reporting committee to plan adoption of NEWS2
  - Identify actions required to ensure trust-wide adoption of NEWS2 by March 2019

Physiological  
parameters

Score

3

# How will this improve patient safety?

Respiration rate  
(per minute)

≤8 9-11 12-20 21-24 ≥25

SpO<sub>2</sub> Scale 1 (%)

≥91 92-93 94-95 ≥96

SpO<sub>2</sub> Scale 2 (%)

≥95 96-97 ≥97 on oxygen

Air or oxygen

Normal 4% 8% 12% ≥16%

Systolic blood pressure

≤90 91-100 101-110 111-219 ≥220

Consciousness

Alert Alert Alert Alert CVPU

Pulse (per minute)

≤40 41-50 51-90 91-110 111-130 ≥131

Temperature (°C)

≤35.0 35.1-36.0 36.1-38.0 38.1-39.0 ≥39.1

**Reduce variation and improve the quality of care by:**

- **Standardising** approach to identifying and grading acute-illness severity, in order to trigger a timely and appropriate clinical response
- **Enabling** effective communication throughout the patient pathway
- **Common Language** – to communicate the score and criteria
- **Critical Language** – Ensuring key message is transmitted and received appropriately as part of escalation/de-escalation

# Why is improving communication a key theme?

- Breakdown in communication has been identified as a leading factor in adverse patient events and is a major cause of inadequacies in healthcare delivery
- Poor communication especially common at the interfaces of care and culminate in adverse events, including an increase in preventable hospital admissions
- Effective communication is essential both within and between teams to ensure co-operation and coordination of care
- Clear, accurate, and timely communication can improve patient outcomes, safety and satisfaction



# References

- Illingworth J. (2015). Is the NHS getting safer? London: The Health Foundation. <https://www.health.org.uk/sites/default/files/IsTheNHSGettingSafer.pdf>. (accessed 13/05/2018)
- The National Patient Safety Agency (2007). Recognising and responding appropriately to early signs of deterioration in hospitalised patients. ISBN: 978-0-9556340-8-6. [www.npsa.nhs.uk](http://www.npsa.nhs.uk). (accessed 04/03/2018)
- Hogan H, Zipfel R, Neuberger J, Hutchings A, Darzi A, Black N. Avoidability of hospital deaths and association with hospital-wide mortality ratios: retrospective case record review and regression analysis. *BMJ* 2015;351:h3239.
- Royal College of Physicians (2017). National Early Warning Score (NEWS) 2 Standardising the assessment of acute-illness severity in the NHS. Updated report of a working party. <https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2>. (accessed 21/02/2018)
- NHS England & NHS Improvement (2018). Resources to support the safe adoption of the revised National Early Warning Score (NEWS2). Alert reference number: NHS/PSA/RE/2018/003: [https://improvement.nhs.uk/documents/2508/Patient\\_Safety\\_Alert\\_-\\_adoption\\_of\\_NEWS2.pdf](https://improvement.nhs.uk/documents/2508/Patient_Safety_Alert_-_adoption_of_NEWS2.pdf) (accessed 01/05/2018)



## Why is the NHSI endorsing the implementation NEWS2

Dr Emmanuel Nsutebu,  
Consultant Infectious Diseases Physician,  
Royal Liverpool Hospital and Clinical Advisor  
for Sepsis (NHS England) and Deterioration  
(NHS Improvement)

Greater Manchester &  
Eastern Cheshire

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# NEWS2 and improving culture, systems and teams for responding to deterioration

Dr Emmanuel Nsutebu

*Consultant Infectious Disease Physician &*

*Clinical lead for sepsis*

*National Advisor Deterioration (NHS*

*Improvement) and Sepsis (NHS England)*

# Delphine's tragic story...31.07.2003.....



# Key messages



- Patients want us to “make them better, not harm them, be nice to them, continue to improve”
- “Quality & Patient safety is about culture, systems and trained staff working in teams”
- “Every system is designed to deliver what it delivers”



# Objectives

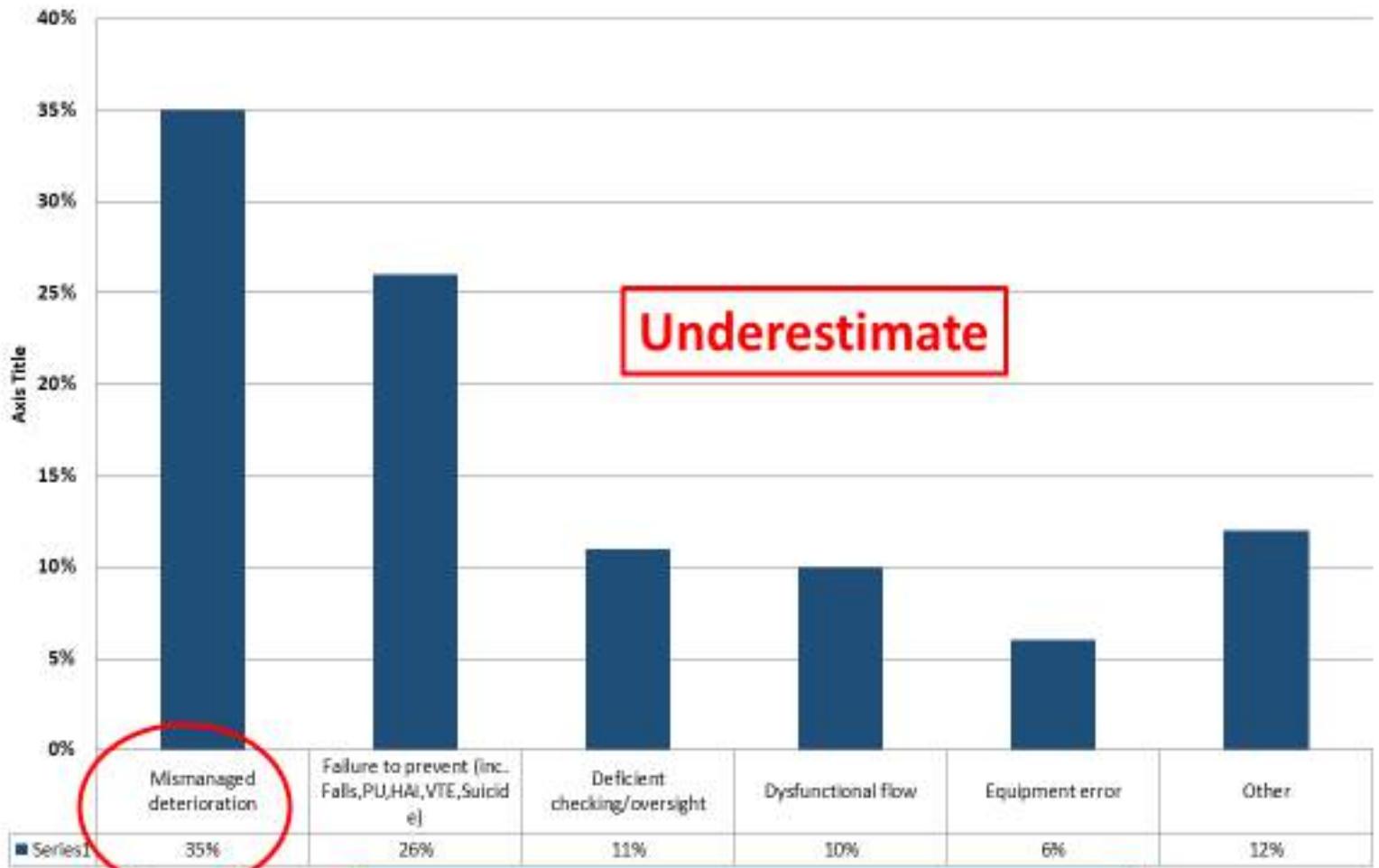
- Illustrate with patient stories
- What is deterioration?
- What needs to improve?
- Role of culture/systems and teams
- NEWS & NEWS2 – NHS England policy



# Mismanaged Deterioration is the #1 Avoidable cause of death

2010 deaths due to safety incidents

iPLOS 2010-2: Donaldson et al 2014



All lead to physiological deterioration

a difference

# How safe are our hospital wards?

- Example of last week's patients

# Key messages

- Principles of improving deterioration
  - Recognition: Obs (make vital signs great again) and EWS
  - Response – action and escalation
  - Communication – SBAR
- Electronic systems are important however avoid over-reliance
- The escalation plan should allow clinicians to escalate care based only subjective concern - ('worried' criterion).
- Rapid Response Teams are important however nursing and medical team are ultimately responsible



# Transfer of care – problems at transition of care

- Another patient story

# Have I got NEWS for you?

## National Early Warning Score (NEWS)\*

PHYSIOLOGICAL PARAMETERS	3	2	1	0	1	2	3
Respiration Rate	<8		9 - 11	12 - 20		21 - 24	≥25
Oxygen Saturation	≤91	92 - 93	94 - 95	≥96			
Any Supplemental Oxygen		Yes		No			
Temperature	≤35.0		35.1 - 36.0	36.1 - 38.0	38.1 - 39.0	≥39.1	
Systolic BP	≤90	91 - 100	101 - 110	111 - 219			≥220
Heart Rate	≤40		41 - 50	51 - 90	91 - 110	111 - 130	≥131
Level of Consciousness				A		V, P, or U	

\*The NEWS score is taken from the Royal College of Physicians' NEWS Development and Implementation Group (NEWSDIG) Report, and was jointly developed and tested in collaboration with the Royal College of Physicians, Royal College of Nursing, National Clinical Practice and the RCoA Training in Medicine.

© Royal College of Physicians 2012

Chart 4: Clinical response to the NEWS trigger thresholds

NEWS score	Frequency of monitoring	Clinical response
0	Minimum 12 hourly	<ul style="list-style-type: none"> <li>Continue routine NEWS monitoring</li> </ul>
Total 1–4	Minimum 4–6 hourly	<ul style="list-style-type: none"> <li>Inform registered nurse, who must assess the patient</li> <li>Registered nurse decides whether increased frequency of monitoring and/or escalation of care is required</li> </ul>
3 in single parameter	Minimum 1 hourly	<ul style="list-style-type: none"> <li>Registered nurse to inform medical team caring for the patient, who will review and decide whether escalation of care is necessary</li> </ul>
Total 5 or more Urgent response threshold	Minimum 1 hourly	<ul style="list-style-type: none"> <li>Registered nurse to immediately inform the medical team caring for the patient</li> <li>Registered nurse to request urgent assessment by a clinician or team with core competencies in the care of acutely ill patients</li> <li>Provide clinical care in an environment with monitoring facilities</li> </ul>
Total 7 or more Emergency response threshold	Continuous monitoring of vital signs	<ul style="list-style-type: none"> <li>Registered nurse to immediately inform the medical team caring for the patient – this should be at least at specialist registrar level</li> <li>Emergency assessment by a team with critical care competencies, including practitioner(s) with advanced airway management skills</li> <li>Consider transfer of care to a level 2 or 3 clinical care facility, ie higher-dependency unit or ICU</li> <li>Clinical care in an environment with</li> </ul>

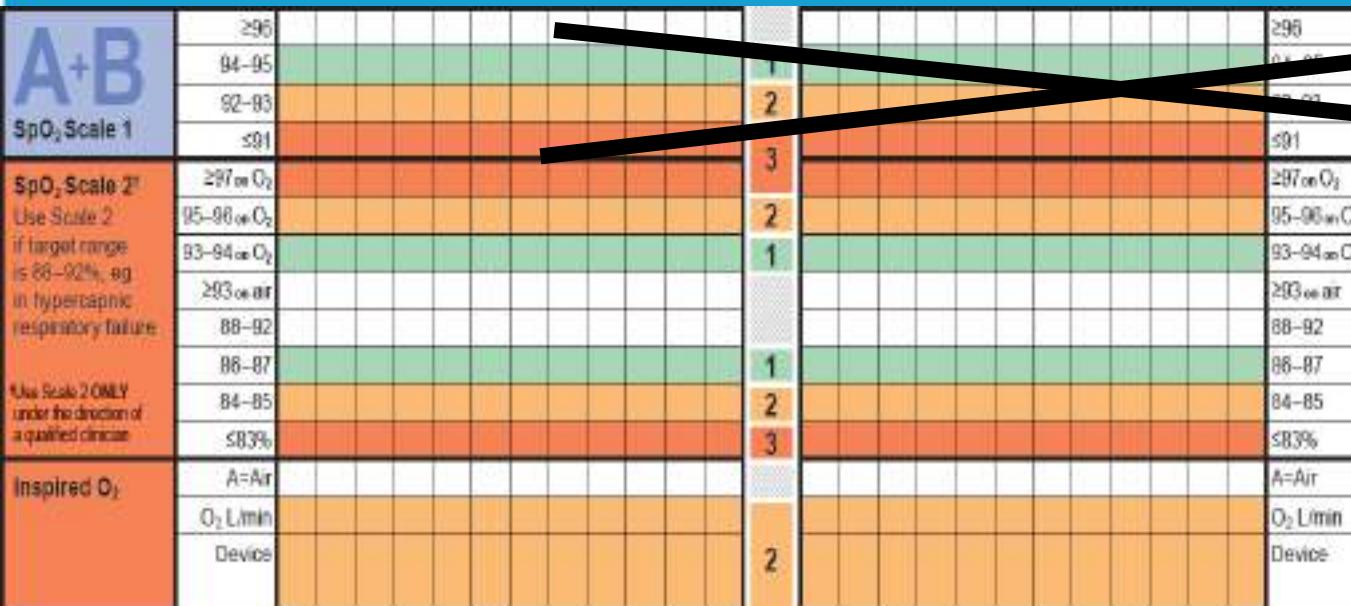
# NEWS2

- Chronic hypoxia subchart
- Addition of NEW Confusion to AVPU scoring a 3
- De-escalation of single parameter 3 value
- Sepsis chapter defining the place of NEWS in Infection = screen if NEWS 5 or more

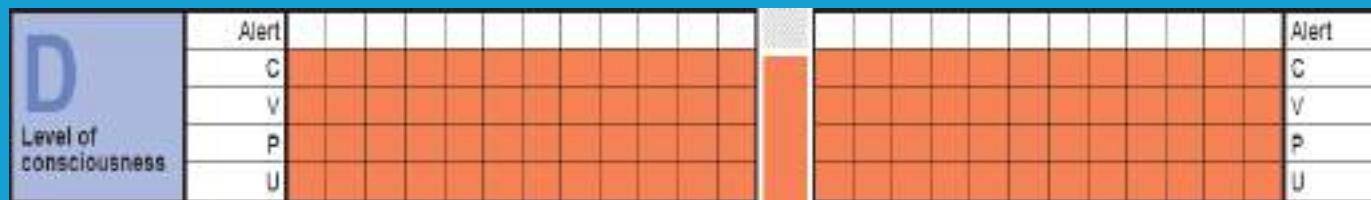


# NEWS2

## 2 Oxygenation scales- Chronic hypoxia & normal



NEW Confusion- off baseline. “Do I think that Mr X is more confused than normal?”



Sepsis Chapter defining the place of NEWS in Sepsis

Where we all make a difference

# NEWS2

- De-escalation of single parameter 3 value
- Sepsis chapter defining the place of NEWS in Infection = screen if NEWS 5 or more
- Not recommended for us in children <16, pregnant women and spinal cord injury

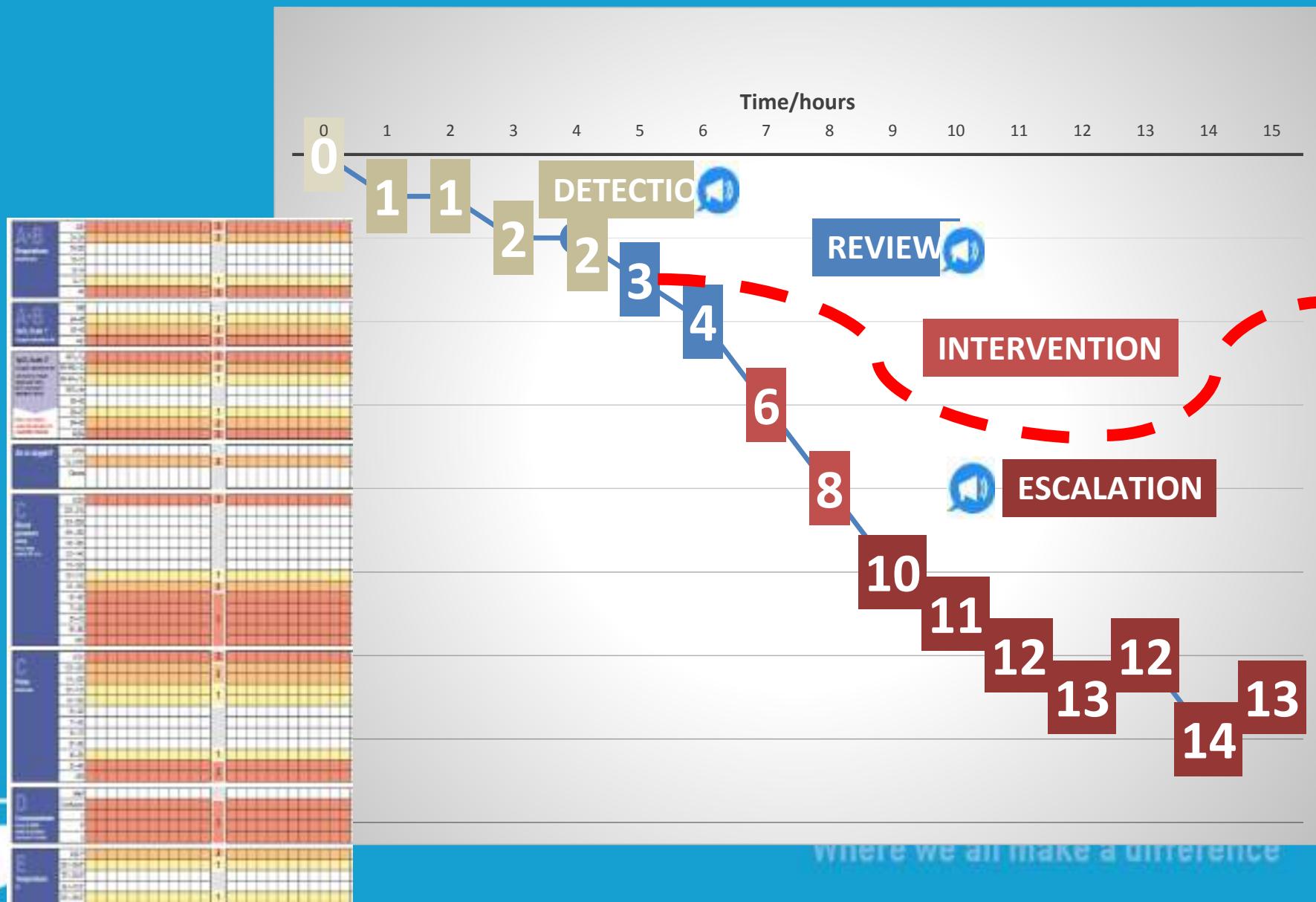


# What about using NEWS in the community?

- Validated for ambulance services
- Various parts of England using it and evaluation is required
- Important principles
  - Not a diagnosis
  - Clinical judgement remains crucial
  - Useful to communicate concern when referring a patient
  - Needs to be used with support in the community e.g. someone to phone and discuss



# NEWS - A Standardised Systems Solution for deterioration



# S

**Situation:**

I am (name), a nurse on ward (X)  
I am calling about (child X)  
I am calling because I am concerned that...  
(e.g. BP is low/high, pulse is XXX temperature is XX, Early Warning Score is XX)

# B

**Background:**

Child (X) was admitted on (XX date) with  
(e.g. respiratory infection)  
They have had (X operation/procedure/investigation)  
Child (X)'s condition has changed in the last (XX mins)  
Their last set of obs were (XXX)  
The child's normal condition is...  
(e.g. alert/drowsy/confused, pain free)

# A

**Assessment:**

I think the problem is (XXX)  
and I have...  
(e.g. given O<sub>2</sub>/analgesia, stopped the infusion)  
OR  
I am not sure what the problem is but child (X)  
is deteriorating  
OR  
I don't know what's wrong but I am really worried

# R

**Recommendation:**

I need you to...  
Come to see the child in the next (XX mins)  
AND  
Is there anything I need to do in the meantime?  
(e.g. stop the fluid/repeat the obs)

Ask receiver to repeat key information to ensure understanding

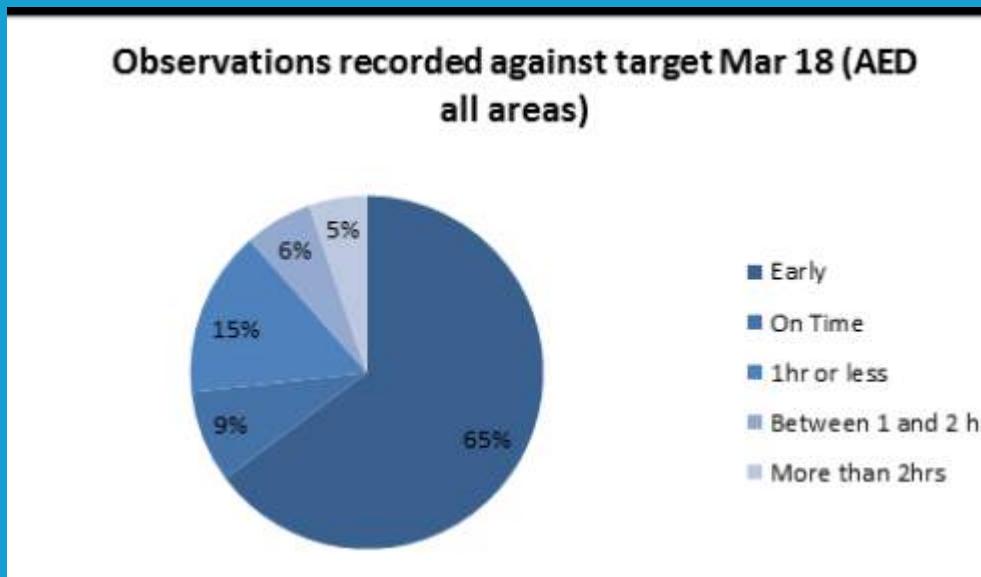
R

The SBAR tool originated from the US Navy and was adapted for use in healthcare by Dr M Leonard and colleagues from Kaiser Permanente, Colorado, USA

If you require further copies quote SC043

we all make a difference

# In God we Trust, every body else bring data!



# Key messages

- Every system is designed to deliver what it achieves
- Culture eats systems for breakfast, systems are better than teams and teams are better than highly trained individuals
- Widespread adoption of NEWS2 can help improve safety by standardising recognition and response to deterioration



# Thank you

- Emmanuel.Nsutebu@nhs.net

# Common questions about NEWS

- There is a risk of large numbers of admission to hospital and ITU because confusion has been added to NEWS2
- What if a patient refuses all observations e.g. mental health problems?
- What about hospitals with electronic systems, it isn't easy to switch from NEWS to NEWS2
- Should HCAs be taking observations?
- What if hospitals modify triggers for NEWS?
- What if we have our own EWS or modified NEWS which works for us and is also validated?
- Why is urine output not part of NEWS or NEWS2
- What about specialist Trusts who require closer neurological monitoring or have pregnant women or children?





## NEWS 2 – A trigger for Future Planning and Decision Making

Dr David Waterman  
Consultant in Palliative Medicine  
Stockport NHS Foundation Trust

Palliative Care Clinical Lead for Greater  
Manchester and Eastern Cheshire  
Strategic Clinical Network

Greater Manchester &  
Eastern Cheshire

**Patient  
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# NEWS 2 – Physiological Scores

Chart 1: The NEWS scoring system

Physiological parameter	3	2	1	Score 0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO <sub>2</sub> Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO <sub>2</sub> Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)							
Pulse (per minute)							
Consciousness							
Temperature (°C)							

Chart 2: NEWS thresholds and triggers

NEW score	Clinical risk	Response
Aggregate score 0–4	Low	Ward-based response
Red score Score of 3 in any individual parameter	Low–medium	Urgent ward-based response*
Aggregate score 5–6	Medium	Key threshold for urgent response*
Aggregate score 7 or more	High	Urgent or emergency response**

\* Response by a clinician or team with competence in the assessment and treatment of acutely ill patients and in recognising when the escalation of care to a critical care team is appropriate.

\*\*The response team must also include staff with critical care skills, including airway management.

# Patient Safety Alert NEWS 2 – April 2018

Resources to support the safe adoption of the revised National Early Warning Score

- ‘Failure to recognise or act on signs that a patient is deteriorating... is a key patient safety issue’ – **What are the options for actions?**
- ‘.....deterioration may not have been recognised or acted on and the patient died. Although these patients may not have survived with prompt action, the care provided did not give them the best possible chance of survival’ – **How to maximise the care of those with reversibility and irreversibility?**
- ‘NEWS 2 ....reliably detects deterioration in adults, triggering review, treatment and escalation of care where appropriate’ – **How can the trigger aid decision making and future care planning?**

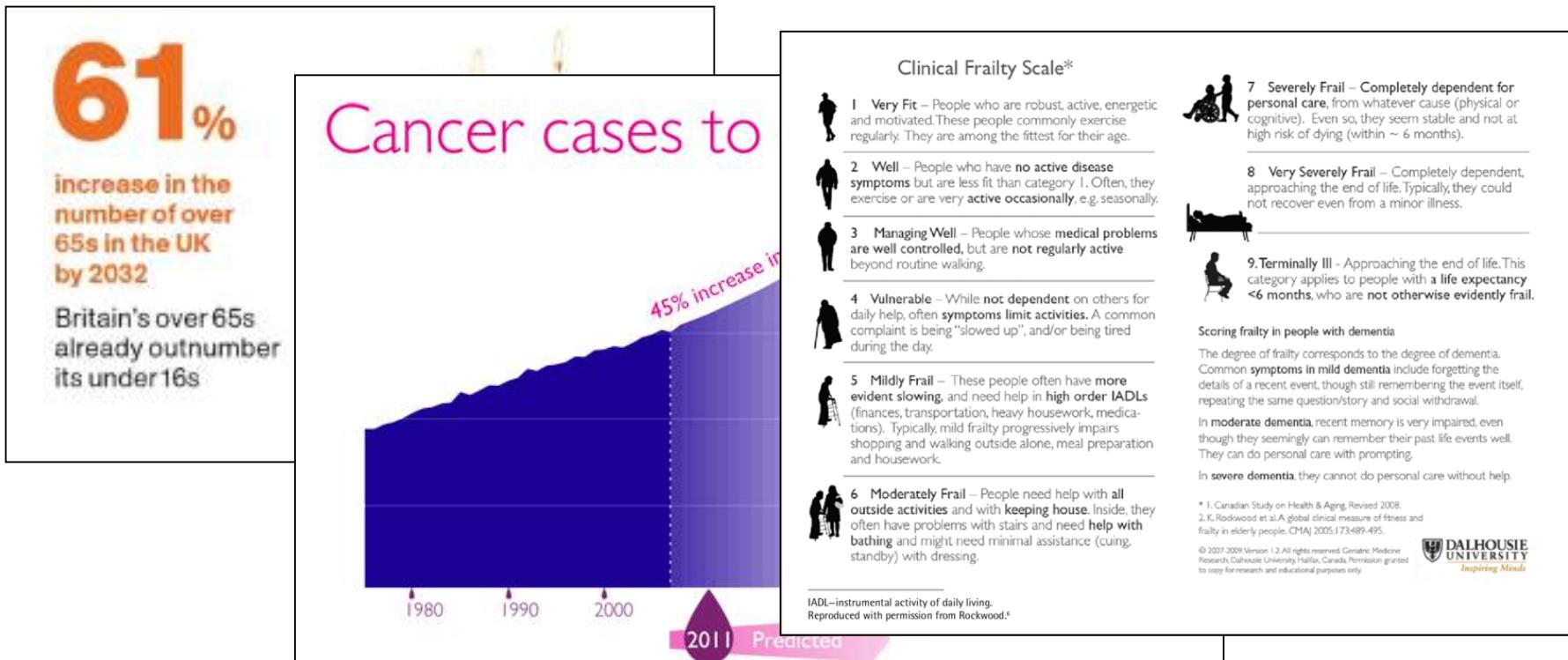
# Recognition of Deterioration



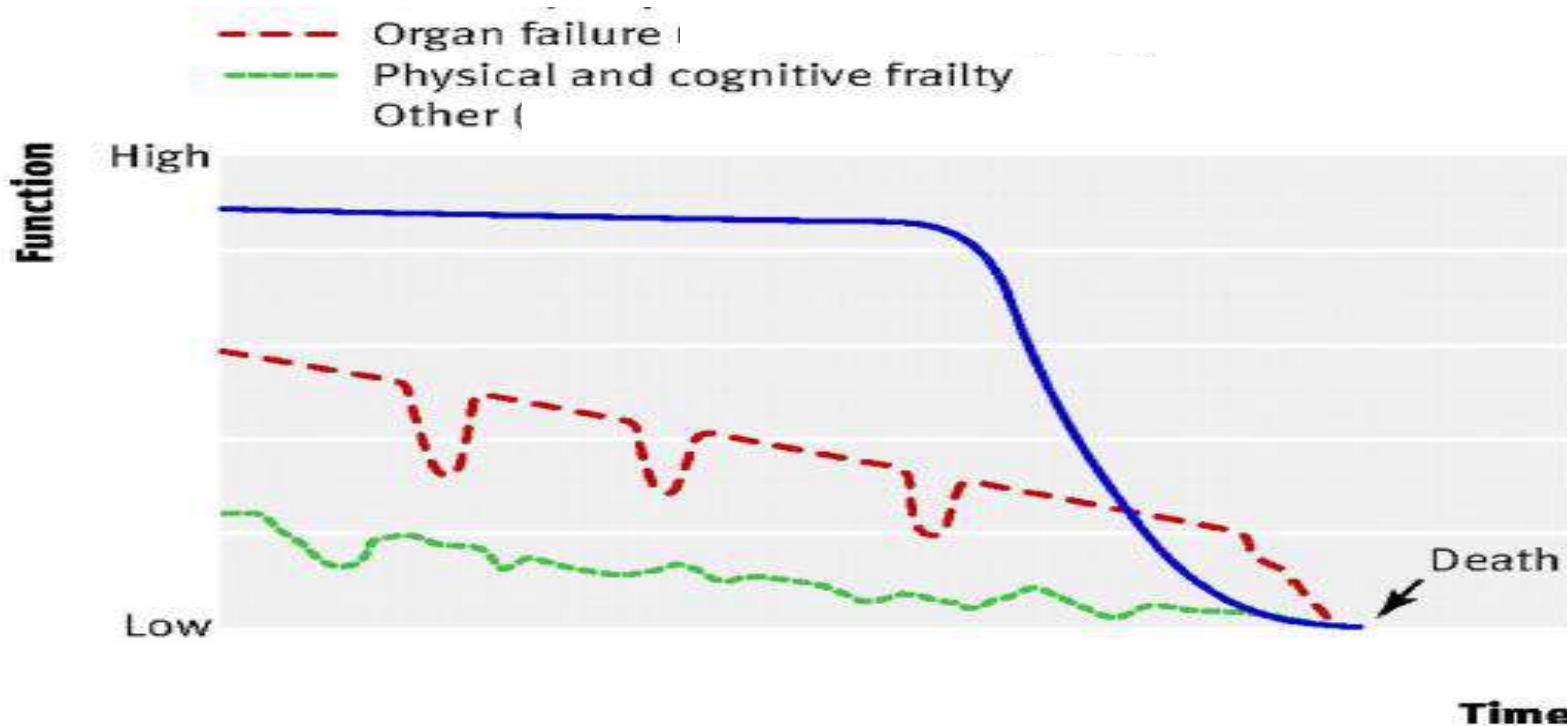
- A Trigger for further assessment
- Consideration of clinical history
- Treatment options
- Degree of Reversibility
- Previous Wishes/ Advance Plans

# Decision Making Context - Populations

- GM - 23,866 deaths (ONS 2016) - Of these 49.8% died in hospital



# Clinical Context of Decision Making



Murray, S. A et al. BMJ 2008;336:958-959

Supportive and  
Palliative Care

Active Treatment and  
Management

# Hospital Admission Data

- 28.8% patients died during the one year follow up period in a Scottish study (1/10 of those who died were during that admission)
- Likelihood of dying three times higher at one year for patients aged 85 and over, compared to those who were under 60.

Clark, D et al. Imminence of death among hospital inpatients: a prevalent cohort study. *Palliative Medicine* March 2014

- The National Audit of Heart Failure - 32% of patients died within the year of their admission for heart failure (2010)
- Acute hospitals dealing with a very large number of people who are nearing the end of their lives – though they may not always be recognised

# Clinical Complexity

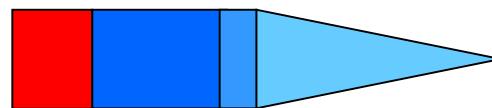
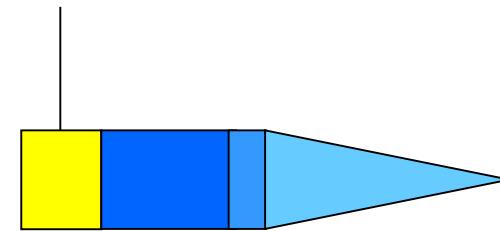
Increasing complexity and options for interventions

**Supportive care – Living with  
LTC or Cancer or Cancer  
Survival**

**Supportive care  
with on-going  
treatment**

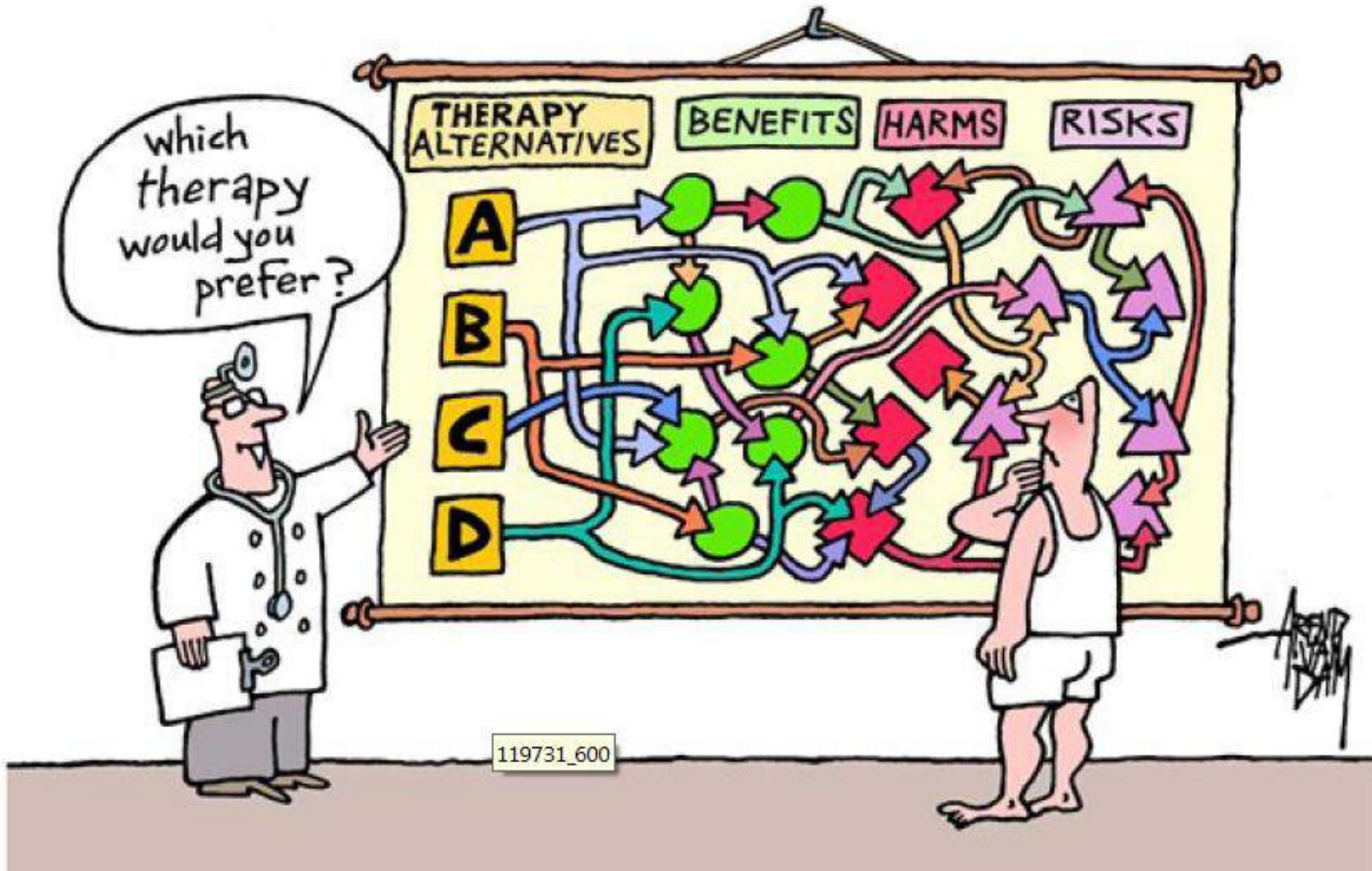
**Diagnosis and  
initial treatment**

**Increasing  
Morbidity  
(on treatment)**

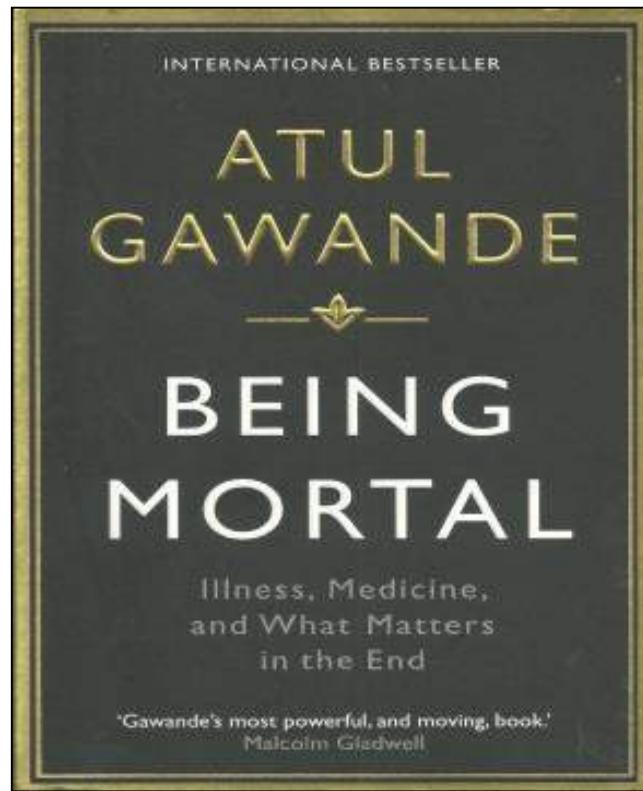


**Palliative and EOLC**

# Decision Making

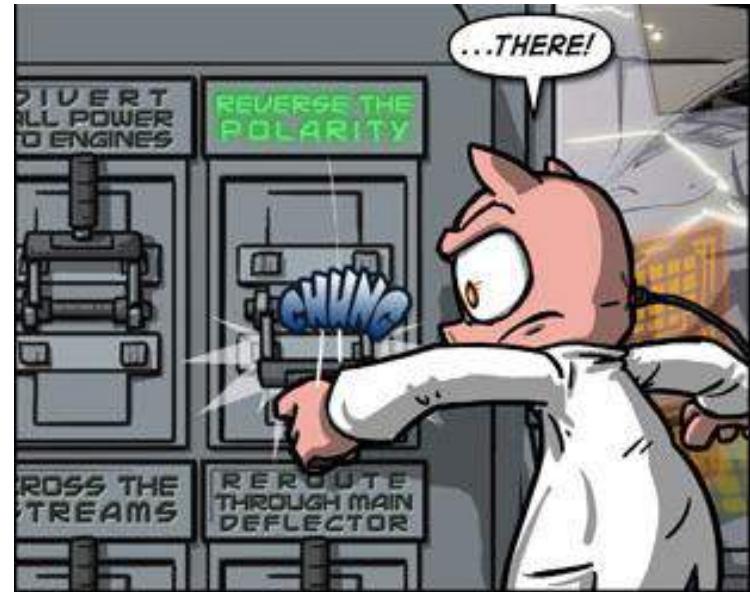
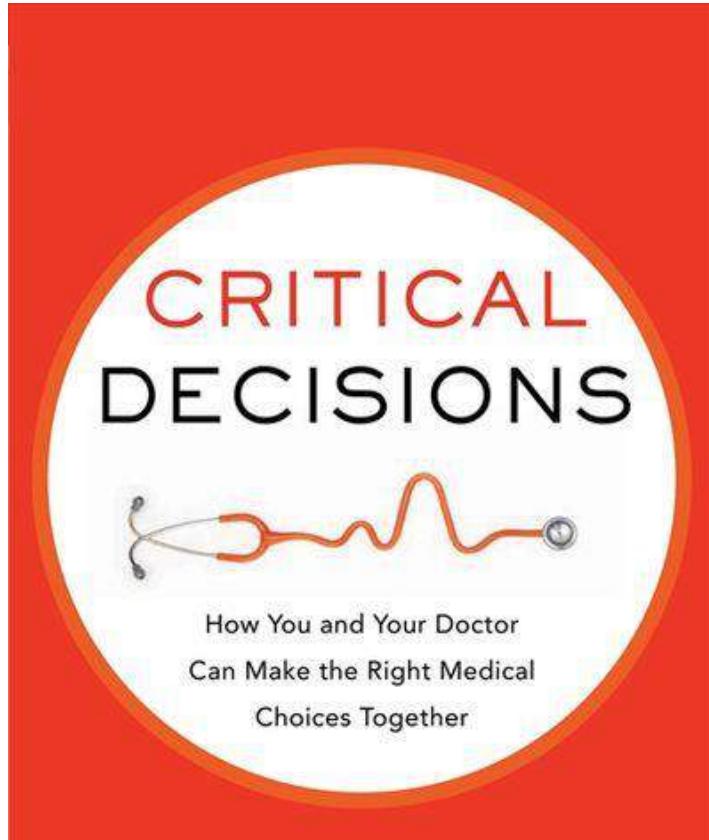


# Practical Decision Making?



'In theory, a person should make decisions about life and death matters analytically, on the basis of facts.....holes and uncertainties...Making choices required somehow filling the gaps.'

# Reverse the Reversible



# Uncertainty and Limits of Care



- Uncertain whether a patient will recover in part due to underlying chronic conditions or frailty
- Proactive management of these types of situations that may be dynamic and changing
- Encourages to continue with treatment in the hope of a recovery
- While talking openly about people's wishes and putting plans in place should the worst happen
- Deciding together how the person will be cared for should their condition get worse and documenting a plan
- Agreeing these plans with all of the clinical team looking after the person

# Irreversibility and Ongoing Deterioration

## Priorities for Care of the Dying Person

**Plan & Do**  
An individual plan of care, which includes food and drink, symptom control and psychological, social and spiritual support, is agreed, co-ordinated and delivered with compassion.

**Recognise**  
The possibility that a person may die within the next few days or hours is recognised and communicated clearly, decisions made and actions taken in accordance with the person's needs and wishes, and these are regularly reviewed and decisions revised accordingly.

**Communicate**  
Sensitive communication takes place between staff and the dying person, and those identified as important to them.

**Involve**  
The dying person, and those identified as important to them, are involved in decisions about treatment and care to the extent that the dying person wants.

If unsure, or the dying person or those important to them raise concerns, a senior clinician must review the person and the goals and plan of care.

Local palliative care contact:

For further guidance [www.nhsiq.nhs.uk/endoflifecare](http://www.nhsiq.nhs.uk/endoflifecare)

scan on a smartphone to access to website guidance

- Consider quality of life
- Burdens of treatment
- Prolongation of Distress
- Undignified Death

# Care Planning & Future Care Planning



# Care Plans



## Care Plans

Complex  
Care  
Plan

DNACPR

Ceilings  
of Care

Wishes/ Priorities for  
Care

Best  
interest  
decision

LPA

Advance  
Care  
Plan

Advanced Decision  
to Refuse treatment  
(ADRT)

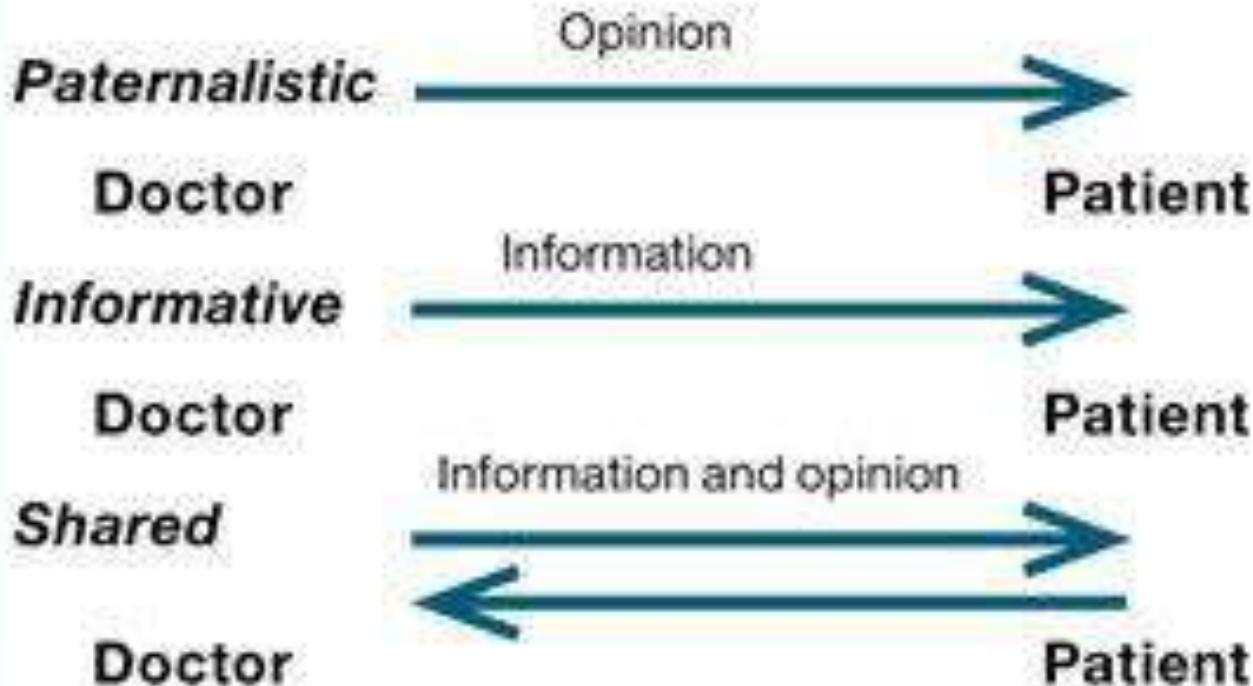
# Shared Decision Making

An approach where clinicians and patients make decisions **together**, using the best available **evidence** to deliberate about the likely benefits and harms, and where patients are **supported** to arrive at **informed preferences**.

Elwyn G, Frosch D, et al. Shared decision making: a model for clinical practice. *J Gen Internal Medicine* 2012;10:1361-7.

# Shared Decision Making

## *Types of decision-making*



# Communicating Decision Making

“Giving patients, their relatives or carers information about what is going to happen to them is an aspect of treating them with respect and dignity. Effective communication with patients and families helps to inspire confidence and trust.

Conversely, poor communication can lead to a loss of confidence and trust.”

*(More Care Less Pathway, Parliamentary Review 2013)*





Think about it

Talk about it

Record it

Share it

THINK  
ABOUT IT

1.



TALK

2.



SHARE IT

4.



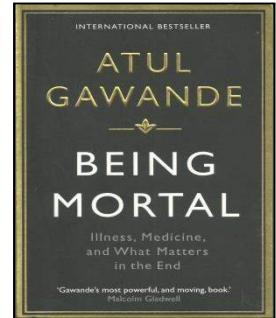
RECORD IT

3.



**'It is a procedure, and it requires no less skill than performing an operation'**

# Communication & Values



- 'What would the best day possible mean now?'
- 'What have you been forced to give up?'
- 'If time becomes short, what is most important to you?'
- 'What are your fears and concerns about what lies ahead?'
- 'What kind of trade offs are you willing to make and what ones are you not?'
- 'Who do you want to make decisions if you can't?'

# Final Thoughts/ Summary

- NEWS2 as a positive trigger for decision making
- Implementation to consider the clinical context of that decision
- Reverse the reversible
- Acknowledge the Irreversible
- Individual needs different if irreversibility or reversibility
- Communicate uncertainties
- Shared Decision Making and Planning in all circumstances
- Compassion and dignity

# More People Less Patients

The Lives of Others' Des Spence

BMJ 22 March 2014 (348): 41

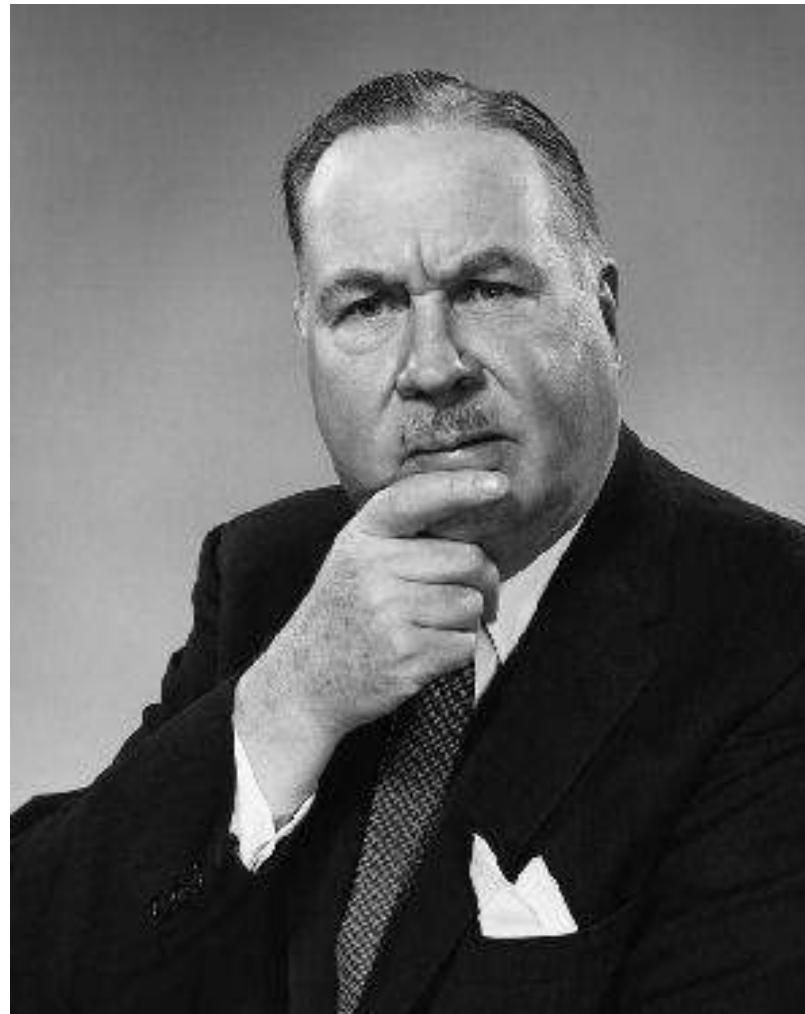
'...Treat others as you would want to be treated yourself. Remember that the patient is someone's son, daughter, sister, brother or mother.....In modern jargon this might be called empathy....but it is more than that....We have to consider how we would feel, what we would want, how we would wish to be spoken to'

What matters to them

NOT JUST

What is the matter with them?

# Comments/ Questions





## Patient story

Tricia McDonnell,  
Occupational Therapist,  
Wrightington Wigan and  
Leigh NHS Foundation Trust

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**



## Lunch & learn

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**

Market Stall	Organisation	Facilitator
1	Patient Track	Andrew Clark and David Proctor, Patient Track  
2	AQuA	Liz Kanwar, AQ Programme Manager, AQuA  
3	Life QI	Bob Diepeveen, Improvement Advisor, GM&EC Patient Safety Collaborative, Health Innovation Manchester (HInM)  
4	Urgent Care 24	John Caldwell, Medical Lead, Integrated Urgent Care  
5	PINGR, SMASH DASH, FFF	Dai Roberts, Programme Development Lead, Health Innovation Manchester (HInM)  
6	Salford Royal Foundation Trust Delirium Pathway	Emma Vardy, Consultant Geriatrician and Clinical Dementia Lead,  



## Use of Quality Improvement

Bob Diepeveen,  
Senior Improvement Advisor GMEC PSC  
Health Innovation Manchester

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**

# What is Quality Improvement?

*“The use of methods and tools to continuously improve quality of care and outcomes for patients”*

<https://www.kingsfund.org.uk/publications/making-case-quality-improvement>

Other source: Quick guide health foundation

<https://www.health.org.uk/sites/health/files/QualityImprovementMadeSimple.pdf>



# STEEEPEP



Source picture: <https://em3.org.uk/foamed/4/1/2017/modified-valsalva-manoeuvre-svt>

Source content: [Crossing the Quality Chasm: A New Health System for the 21st Century](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC129037/),  
2001 Institute of Medicine



## EDITORIALS

BMJ 2018;361:k1924 doi: 10.1136/bmj.k1924 (Published 17 May 2018)

Page 1 of 2

# Creating space for quality improvement



OPEN ACCESS

Dominique Allwood *assistant director of improvement*, Rebecca Fisher *policy fellow*, Will Warburton *director of improvement*, Jennifer Dixon *chief executive*

Health Foundation, London, UK

“Clinicians already have the motivation; now they need time, skills, and support”



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78

# Quality Improvement Knowledge

- Please fill out this short questionnaire:

<https://www.surveymonkey.co.uk/r/KHH5BGP>

Please rate yourself for each of the following theories, methodologies or skills of Quality Improvement using the scoring below:

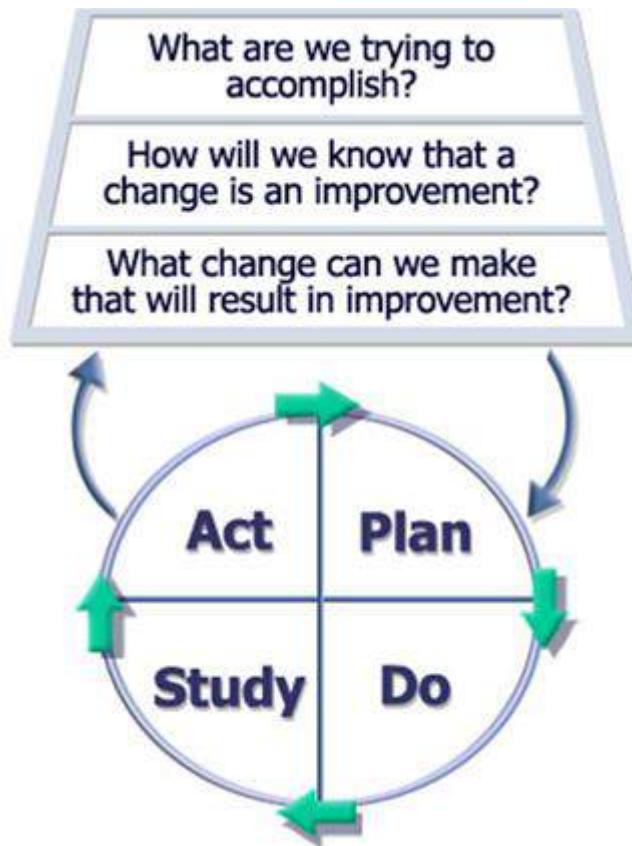
Level 0	I have no knowledge of this.
Level 1	I have some awareness of this but I do not know how to apply it.
Level 2	I am able to apply this in limited scenarios with some assistance.
Level 3	I know when, where and how to apply this and am able to do so on my own.
Level 4	I have good experience of using this and am able to adapt to use in a multitude of situations.
Level 5	I can teach this theory, methodology or skill to others.



# My first improvement project



# Model for Improvement



Langley G, Nolan K, Nolan T, Norman C, Provost L, editors. The improvement guide. San Francisco: Josey-Bass; 1996.

# What are you trying to accomplish?

## Criteria for a good aim

- Specific
- Measurable
- Timely



To walk more than 15 consecutive steps by 31/03/1985

# What change can we make that will result in improvement?

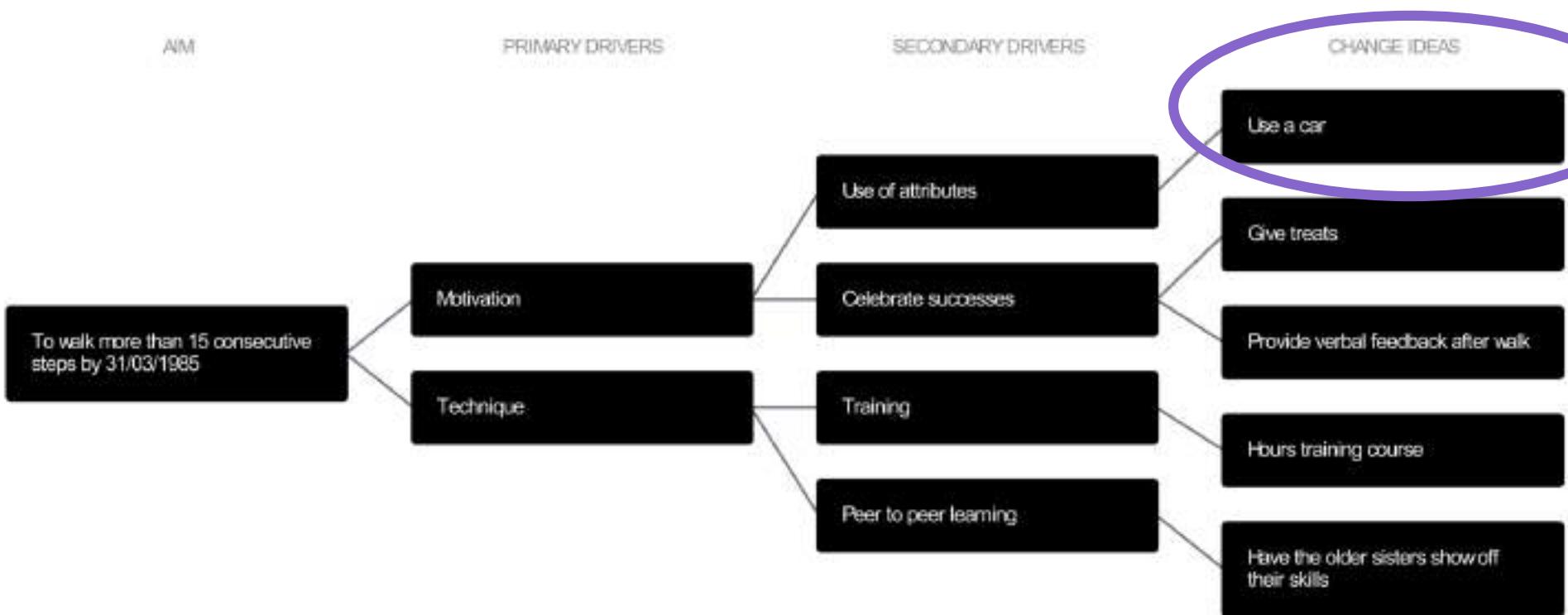
## What's **YOUR** Theory?

Driver diagram serves as tool for **building and testing** theories for improvement

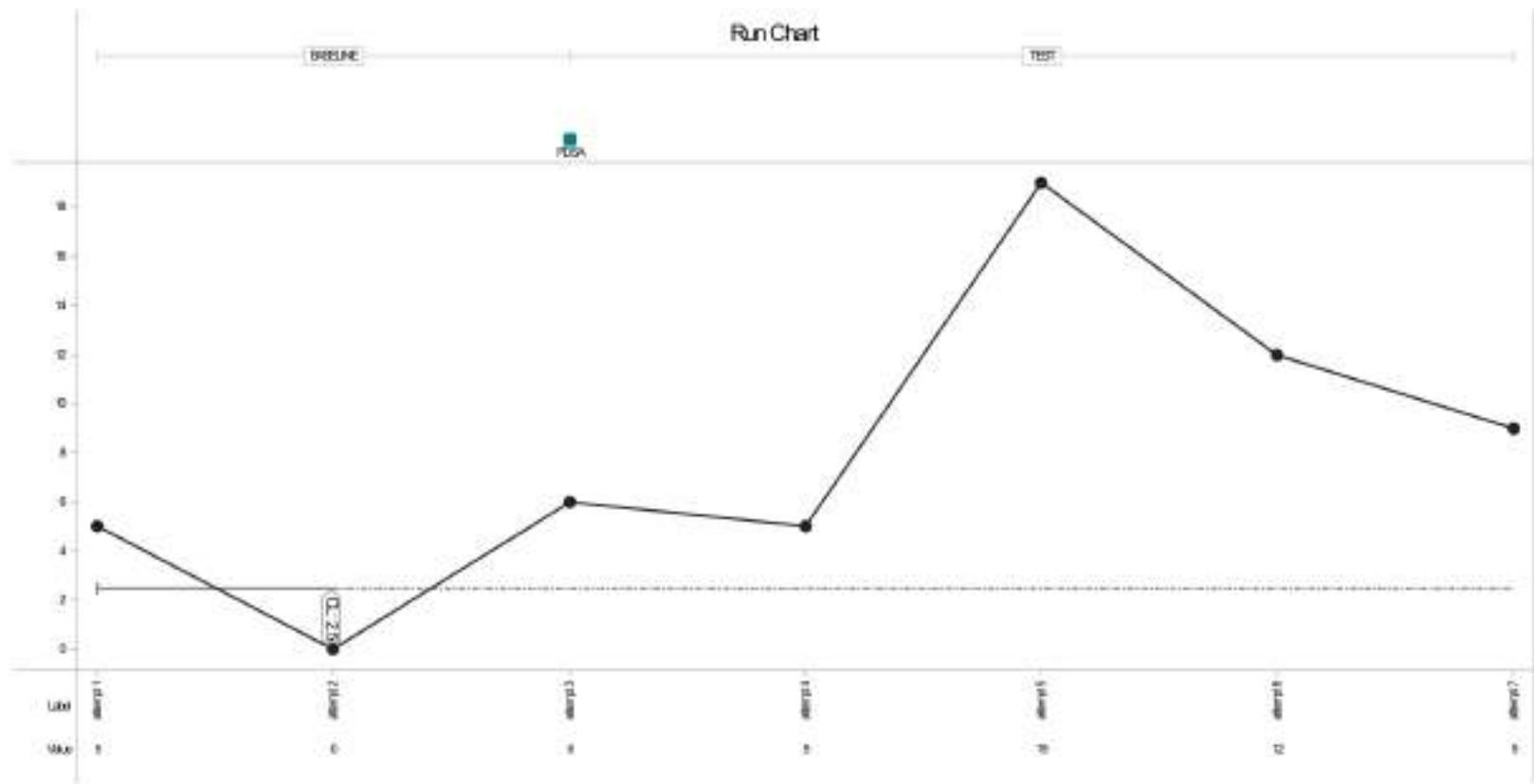
by Brandon Bennett and Lloyd Provost

Bennet B, Provost L. What's your theory, QP, 2015-07:36-43

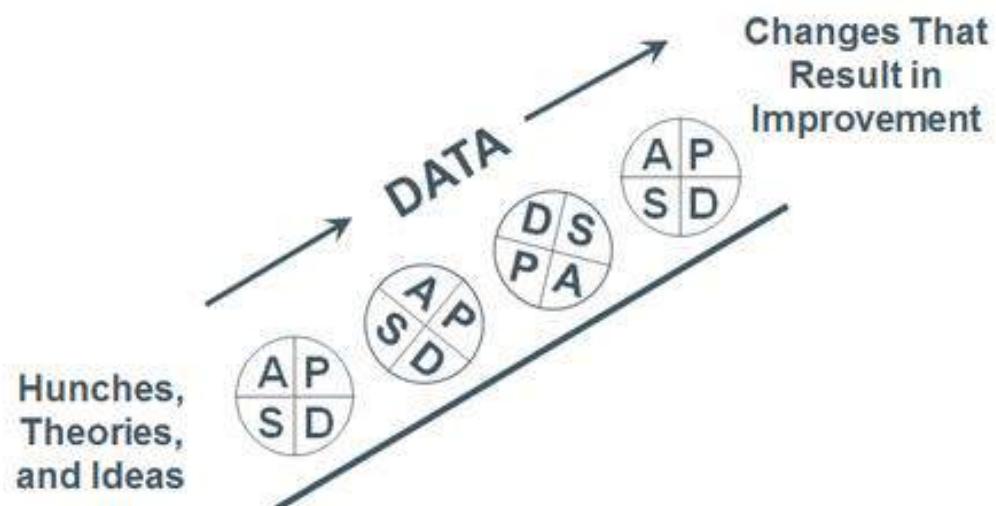
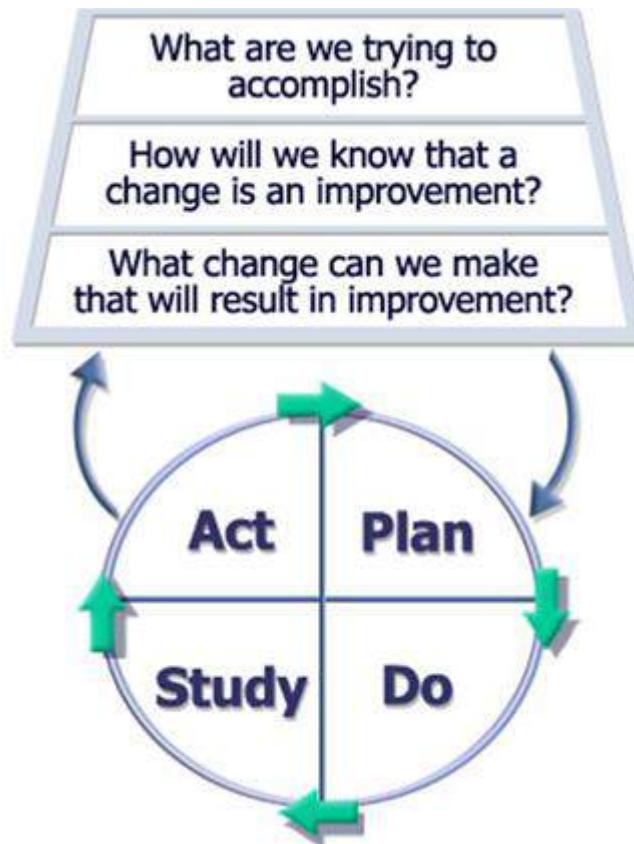
# What change can we make that will result in improvement?

Generated by 

# How do we know that a change is an improvement?



# Model for Improvement

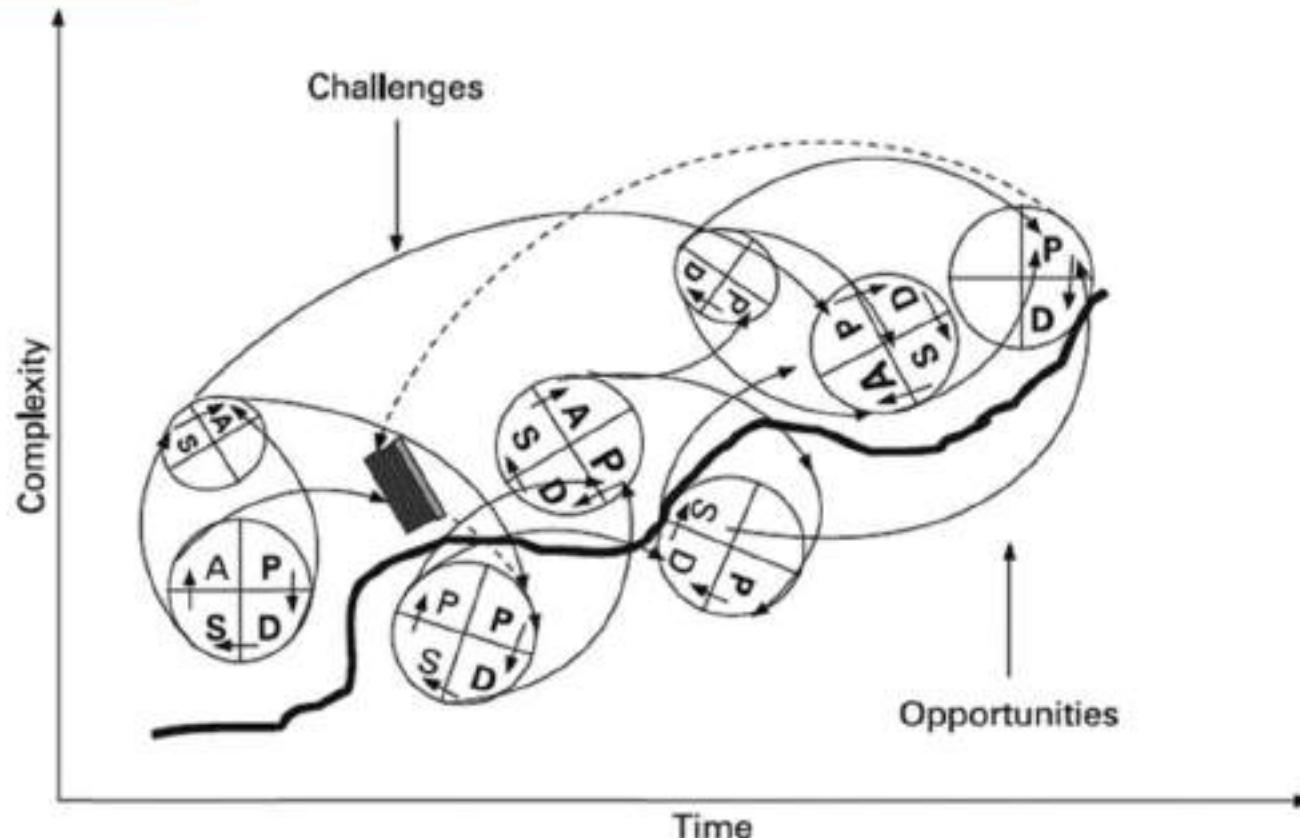


Source: *The Improvement Guide*, p. 103

Langley G, Nolan K, Nolan T, Norman C, Provost L, editors. *The improvement guide*. San Francisco: Josey-Bass; 1996.

BMJ Quality  
& Safety

# Building knowledge, asking questions

Greg Ogrinc and Kaveh G Shojania *BMJ Qual Saf* 2013;0:1–3.

P = Plan

D = Do



= Barrier

S = Study

A = Act



= Lingering background impact

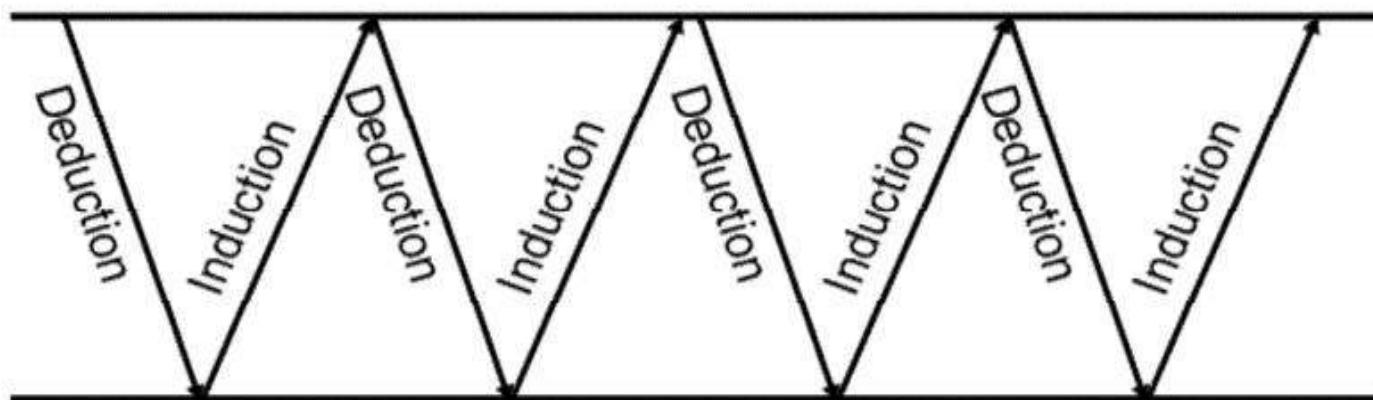
— = Direct flow of impact

Arrowhead = Feedback or feedforward

Different sizes of letters and cycles and bold letters = denotes differences in importance/impact

# Scientific Method

Prediction (Based on a hypothesis, conjecture, model, theory)



Real World: Observation, carryout test, look for anomalies

Source: Evolution of the PDCA Cycle, Ronald Moen , Clifford Norman

# Changing how we think about healthcare improvement

Complexity science offers ways to change our collective mindset about healthcare systems, enabling us to improve performance that is otherwise stagnant, argues **Jeffrey Braithwaite**

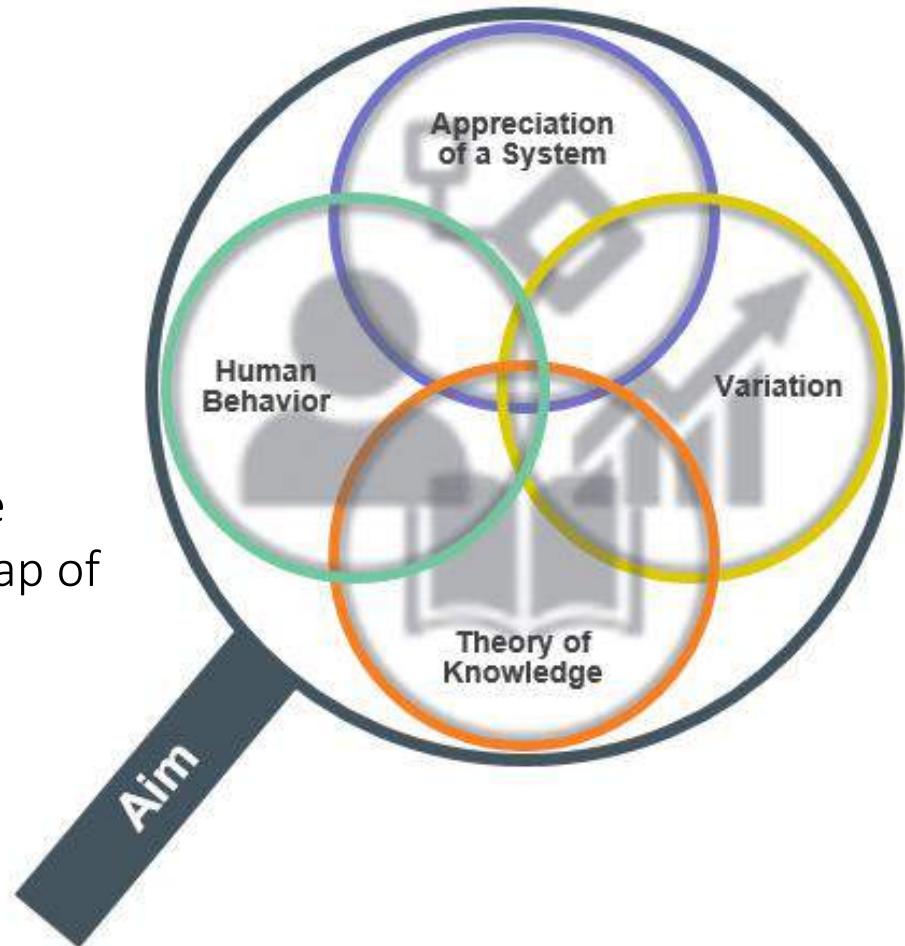
the **bmj** | *BMJ* 2018;361:k2014 | doi: 10.1136/bmj.k2014

*“We need to turn healthcare into a learning system, with participants attuned to systems features and with strong feedback loops to try to build momentum for change.”*

# Lens of Profound knowledge

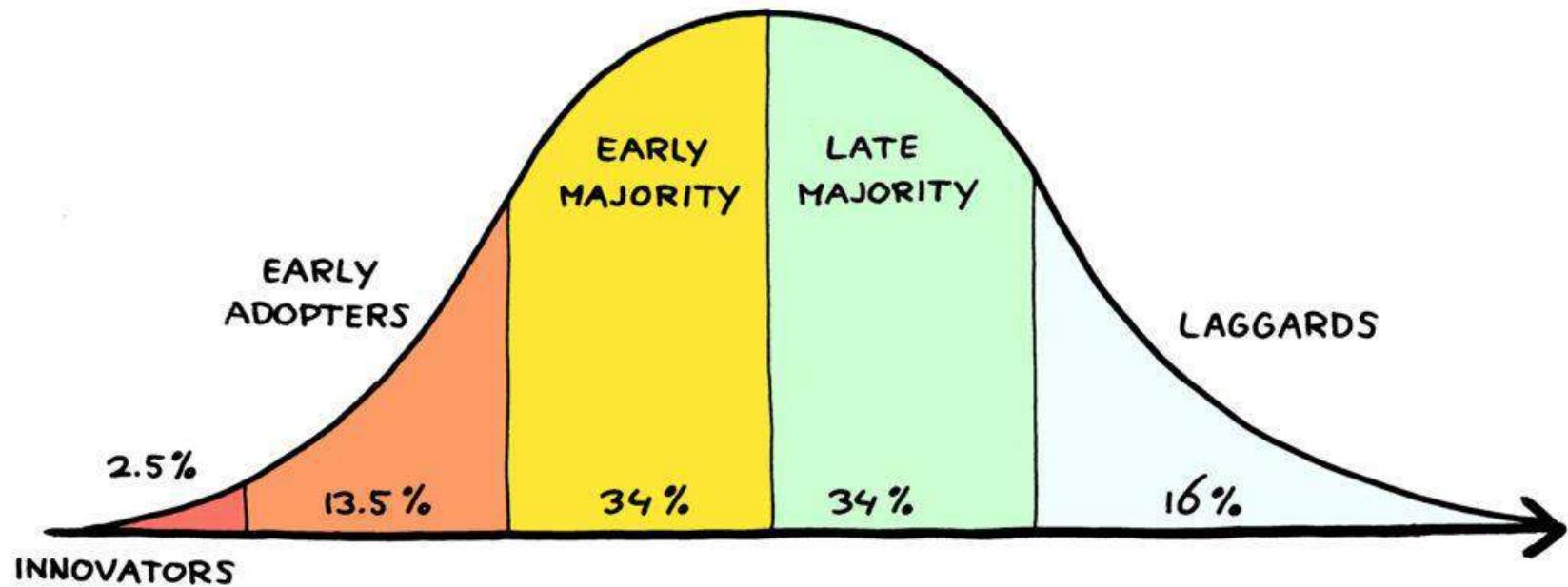


“The system of profound knowledge provides a lens. It provides a new map of theory by which to understand and optimize our organizations”



Source: Out of the crisis W Edwards Deming

# Human behaviour / psychology



Source: E.M. Rogers



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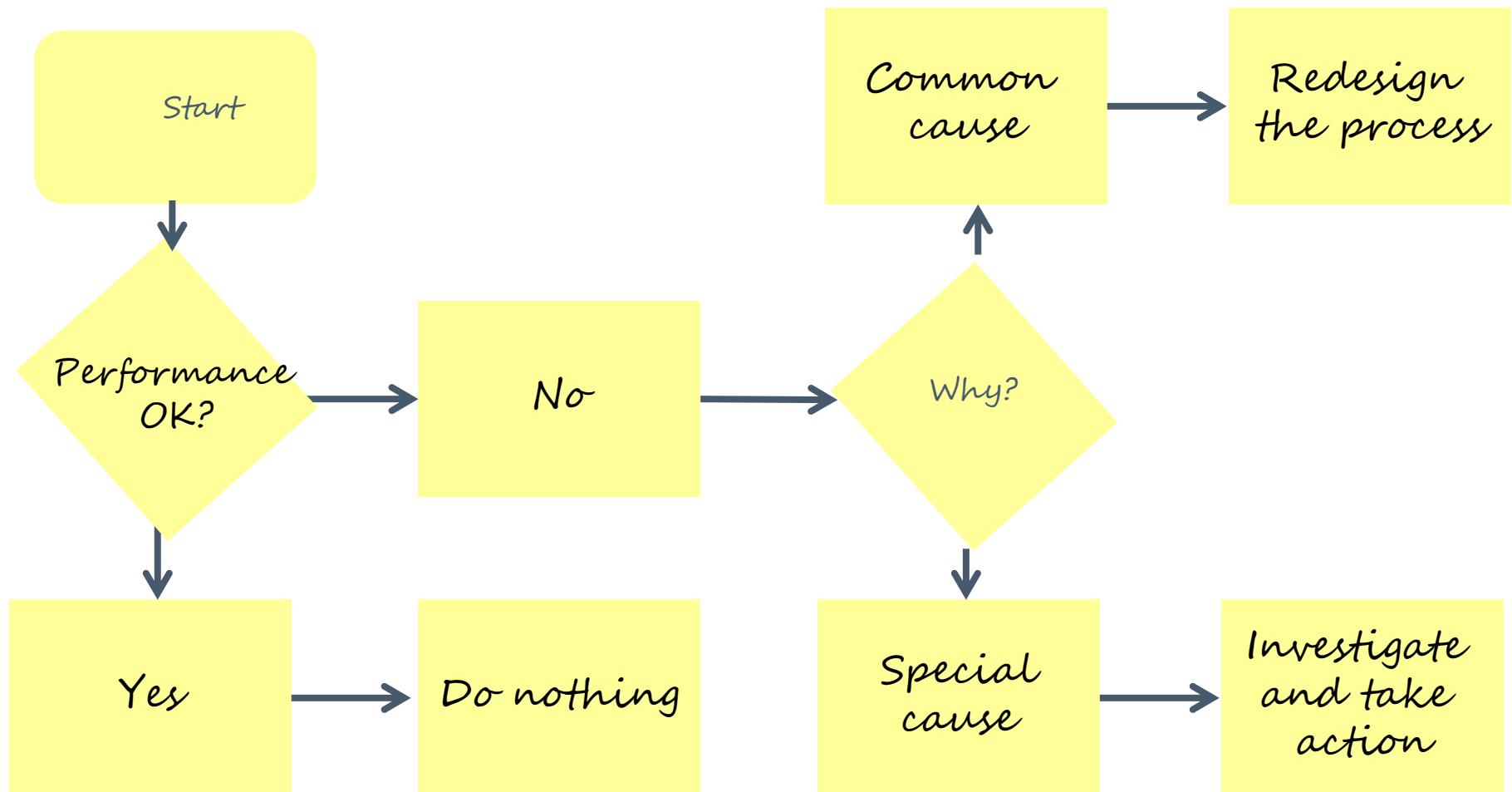
# Variation

- Shewhart's Theory of variation

Common Cause: Those causes inherent in the system over time, affect everyone working in the system, and affect all outcomes of the system

Special Cause: those causes not part of the system all the time or do not affect everyone, but arise because of specific circumstances



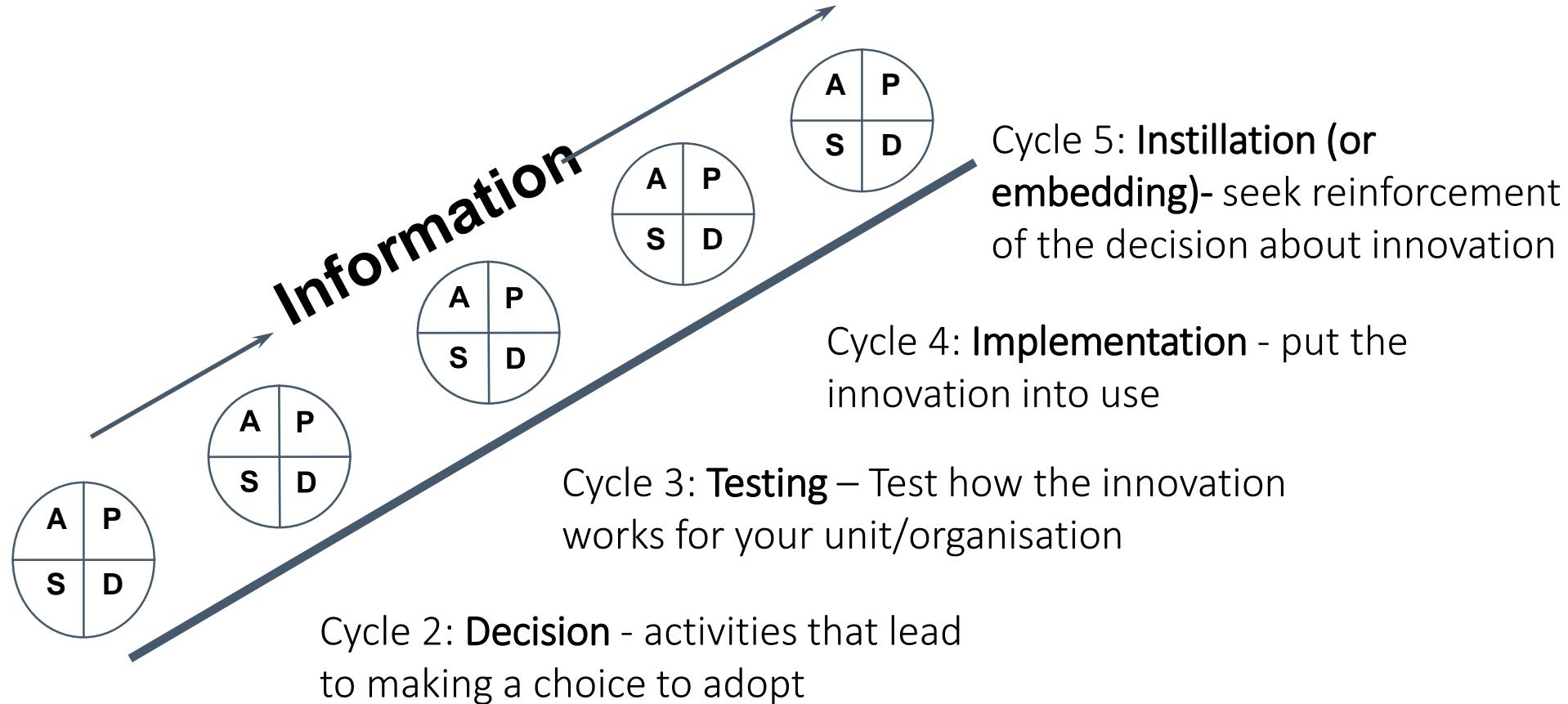


# Appreciation of a system

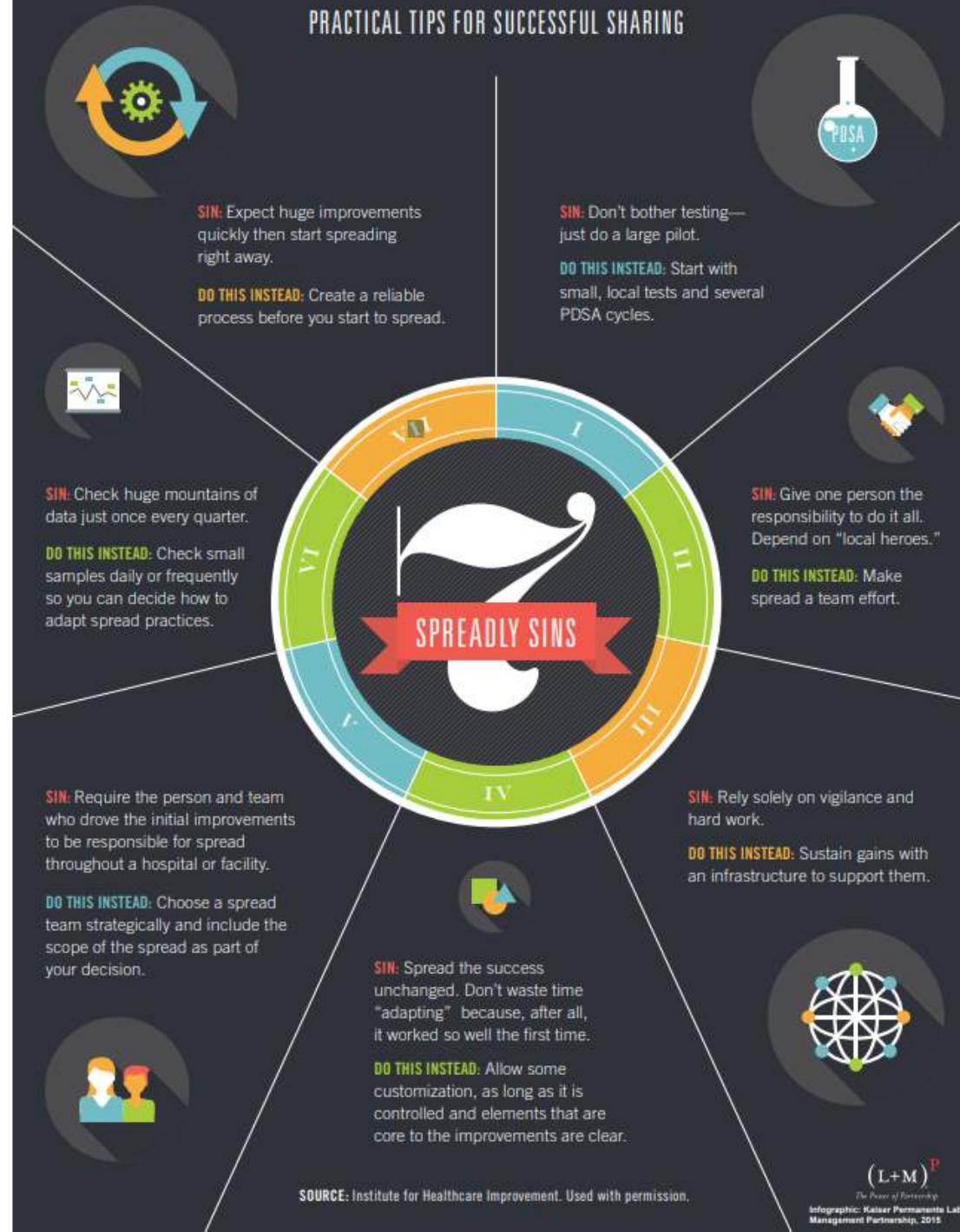


“Every system is perfectly designed to achieve the results it gets”  
Paul Batalen

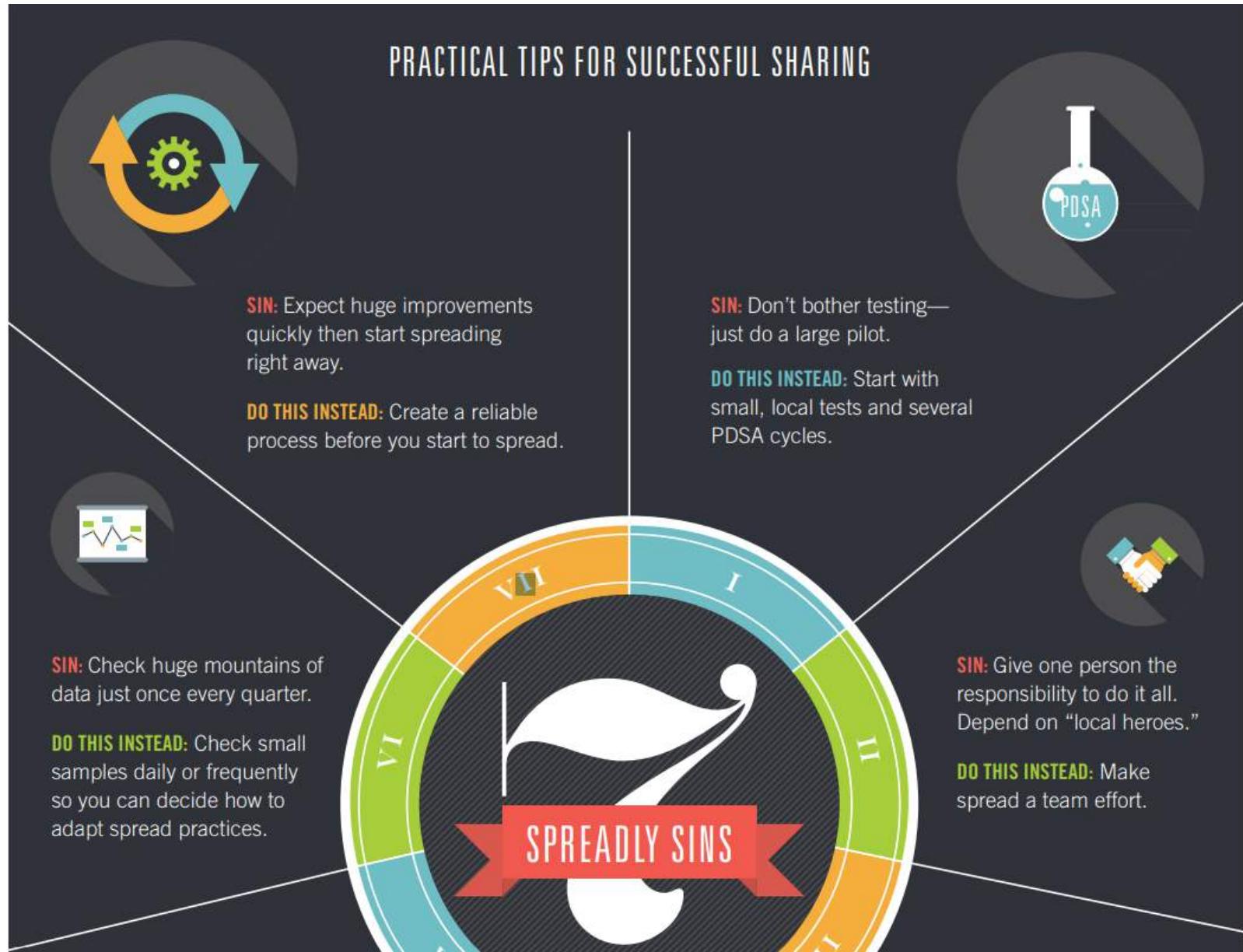
# Spread Fundamentals: Innovation-Decision Process



## PRACTICAL TIPS FOR SUCCESSFUL SHARING



SOURCE: Institute for Healthcare Improvement. Used with permission.





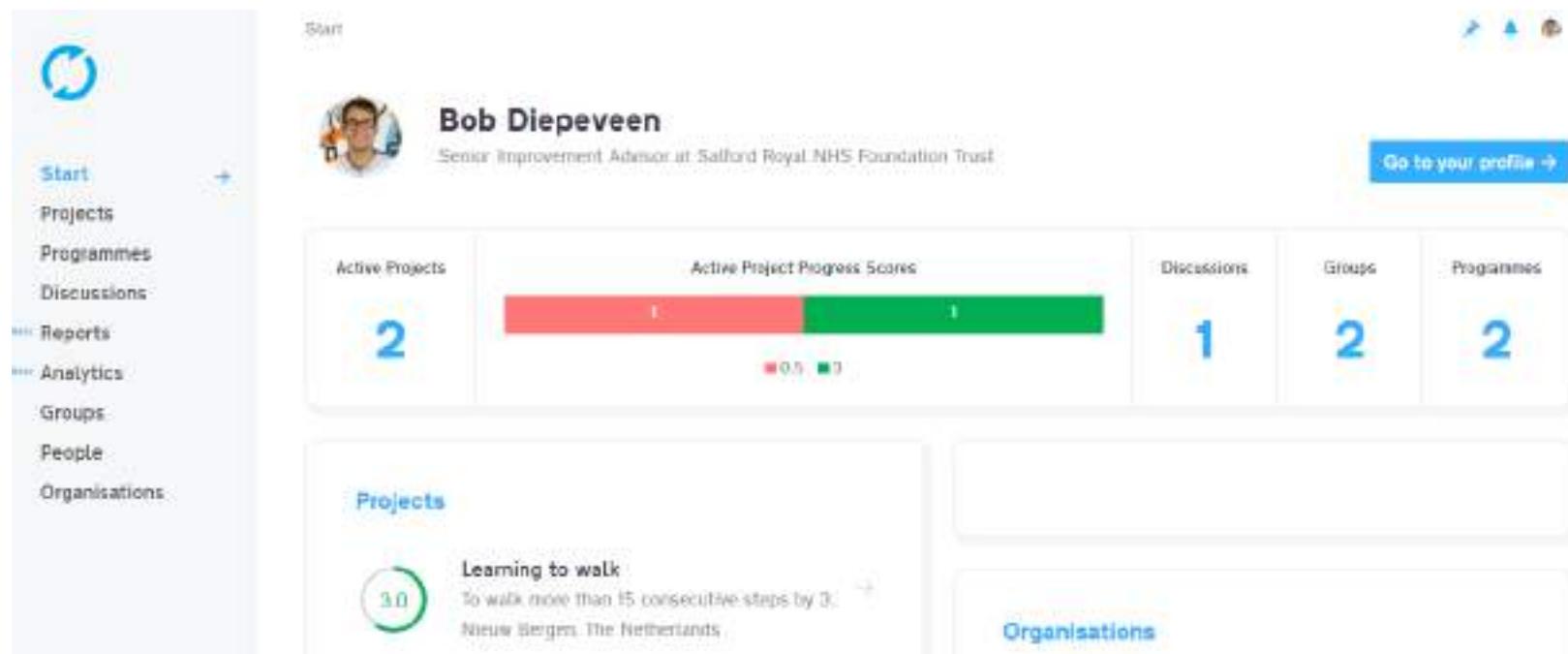
$(L+M)^P$   
The Power of Partnership  
Infographic: Kaiser Permanente Labor Management Partnership, 2015

# Team roles

- Clinical Leader
- Day to day leader
- Technical expert (data analyst / improvement advisor / LifeQI)
- Subject matter expert
- Patient representative
- Project Sponsor

<http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementFormingtheTeam.aspx>

# Life QI platform



The screenshot shows the Life QI platform dashboard for Bob Diepeveen. The dashboard includes a sidebar with navigation links: Start, Projects, Programmes, Discussions, Reports, Analytics, Groups, People, and Organisations. The main area displays Bob's profile picture, name, title (Senior Improvement Advisor at Salford Royal NHS Foundation Trust), and a 'Go to your profile' button. Below this is a summary card with metrics: Active Projects (2), Active Project Progress Scores (0.5), Discussions (1), Groups (2), and Programmes (2). A 'Projects' section shows a card for 'Learning to walk' with a progress score of 3.0. A 'Organisations' section is partially visible.

<https://uk.lifeqisystem.com/>



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100



## NEWS Story & Toolkit

**Joanna Garrett**

Patient Safety Improvement Lead, West of England Academic Health Science Network

Greater Manchester & Eastern Cheshire

**Patient  
Safety  
Collaborative**



**Joanna Garrett**  
**Patient Safety Improvement Lead**



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# NEWS

- Who we are
- Why NEWS
- How we spread NEWS across a health system
- Preliminary results and evaluation
- Research and innovation



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# The West of England AHSN

West of England Academic Health Science Network Map

- A South Gloucestershire
- B Bristol
- C North Somerset
- D Bath and North East Somerset
- E Gloucestershire
- F Swindon
- G Wiltshire





1 Ambulance  
Trust

3  
Universities

7 Clinical  
Commissioning  
Groups

2.4  
million  
residents

6 Acute Trusts

7  
Community  
Service

2 Mental  
Health  
Trusts

# Why NEWS?



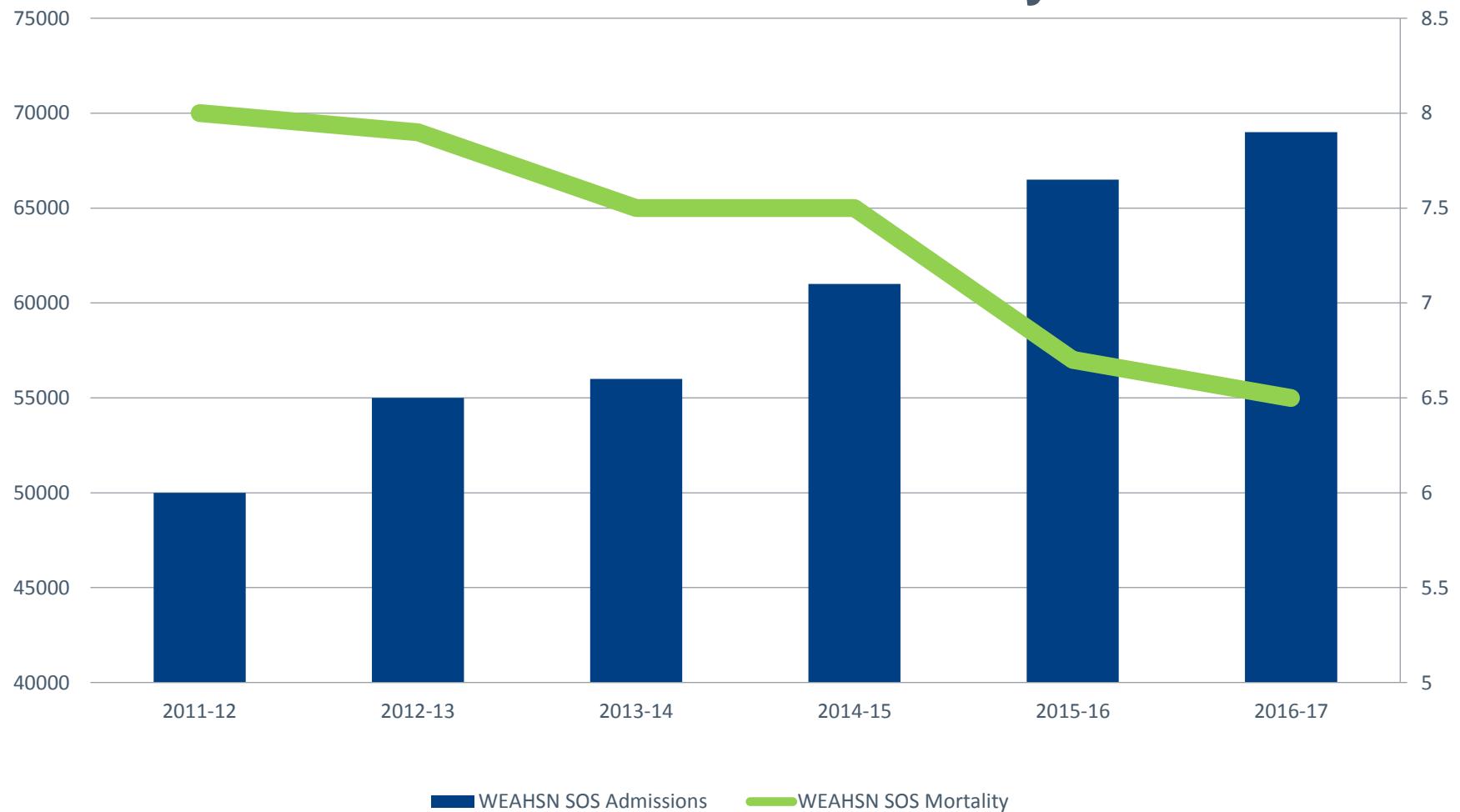
@GMEC\_PSC

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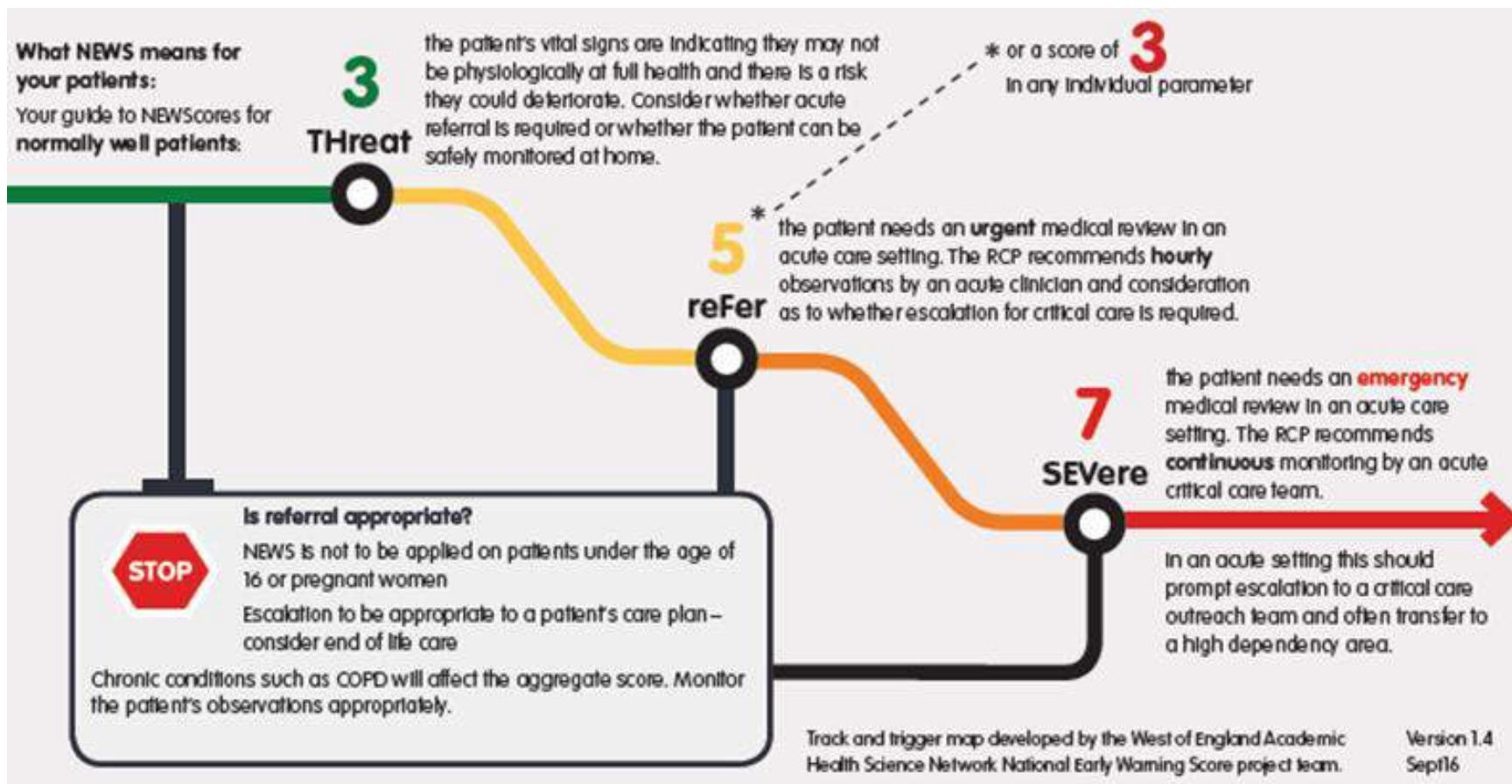


West of England  
Academic Health  
Science Network

## WEAHSN SOS admission/mortality 2011-17



# Cross System



# Cross system



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# How we do it

- IHI breakthrough collaborative model
- Health community work streams
- Primary care and ED collaboratives
- QI methodology
- Strategic change
- Harnessing existing programmes e.g. SWAST ePCR

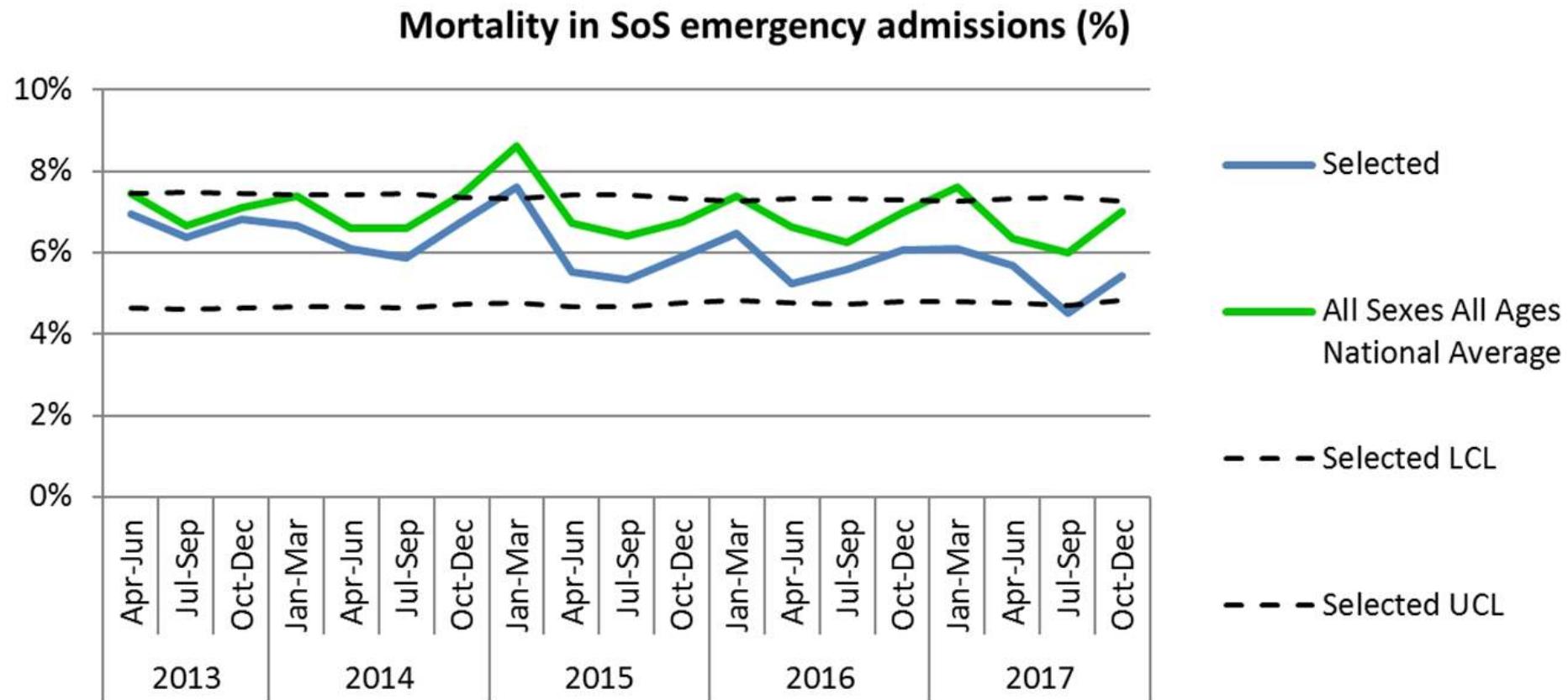


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# Year 1

- Focus on introducing NEWS to all settings and using NEWS accurately
- Some acute organisations had EWS so changed to NEWS



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**2gether**  
Making life better

Together  
NHS Foundation Trust **NHS**

Avon and Wiltshire  
Mental Health Partnership NHS Trust

**NHS** BrisDoc

 **NSCP**

 **Sirona**  
care & health

**NHS**  
Bath and  
North East Somerset  
Clinical Commissioning Group

 **Bristol**  
Community  
Health

**NHS**  
South Gloucestershire  
Clinical Commissioning Group

**NHS**  
**Swindon**  
Clinical Commissioning Group

Gloucestershire Care Services  
 **SEQOL**  
care • health • support

**NHS**

**University Hospitals Bristol**  
NHS Foundation Trust

**NHS**

Royal United Hospitals Bath  
 **NHS**  
NHS Foundation Trust

**NHS**

North Bristol  **NHS**

Clinical Commissioning Group

Great Western Hospitals  **NHS**  
NHS Foundation Trust

 **medvivo**  
Integrating health and care

**NHS**  
**Bristol**  
Clinical Commissioning Group

Gloucestershire Hospitals  
 **NHS**  
NHS Foundation Trust

Weston Area Health  **NHS**  
NHS Trust

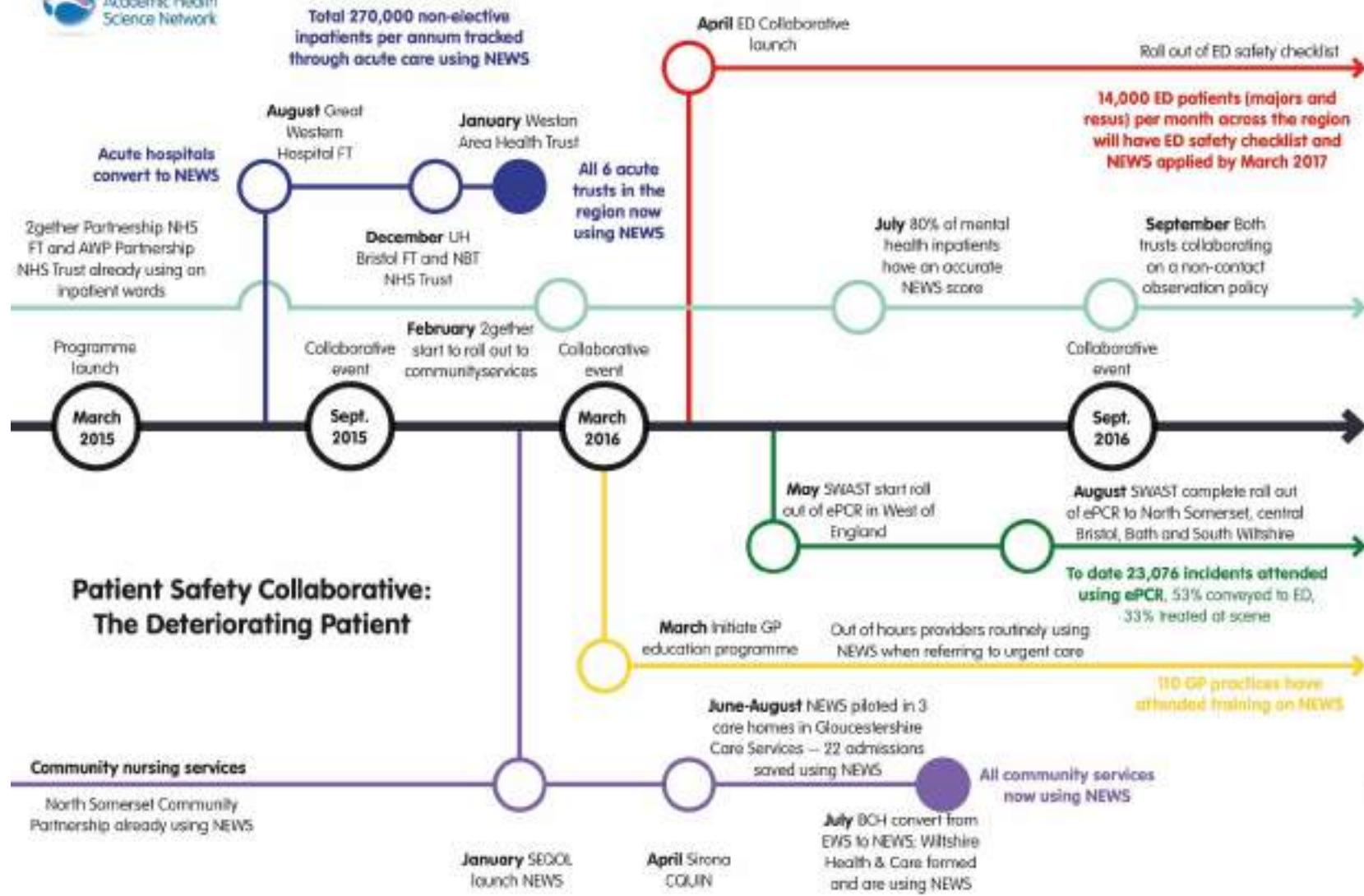
**NHS**

**care**  **uk**

South Western Ambulance Service  
NHS Foundation Trust

**NHS**

**NHS**  
Gloucestershire  
Clinical Commissioning Group



## Patient Safety Collaborative: The Deteriorating Patient

Community nursing services

North Somerset Community Partnership already using NEWS

January 2016  
SECOL launch NEWS

April 2016  
Sirona CQUIN

July 2016  
BCH convert from EWS to NEWS; Wiltshire Health & Care formed and are using NEWS

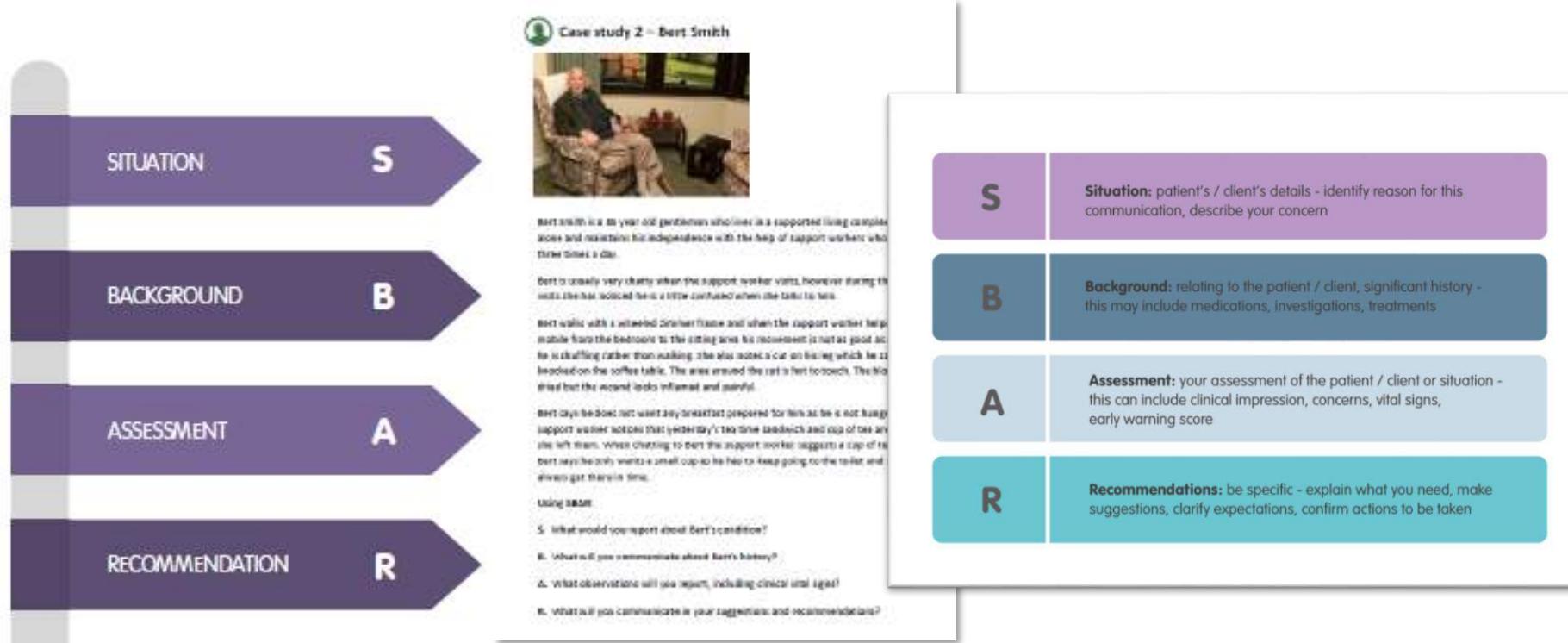
All community services now using NEWS



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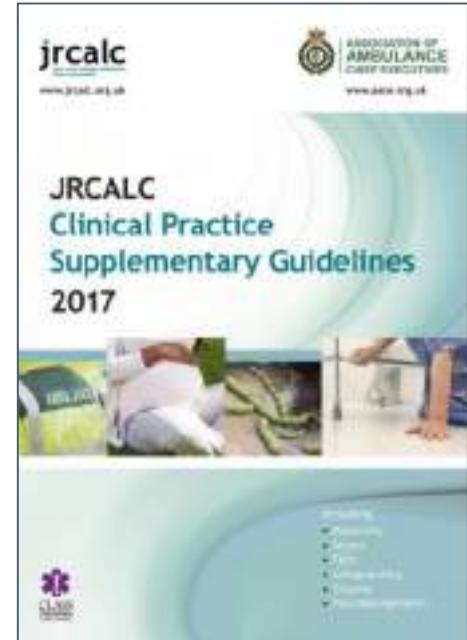
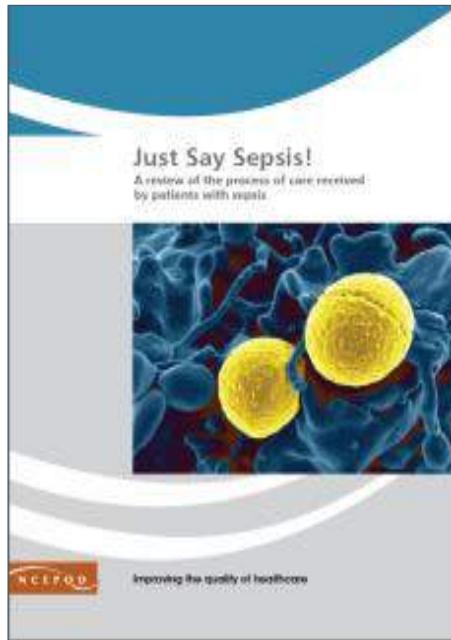
# Human Factors



But it is not  
validated in primary  
care.....



# The National Early Warning Score



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## NEWS 2 AND SEPSIS

## NEWS 2 sepsis score is not validated in primary care

Alex Burns general practitioner

Acute GP Service, Treriske Hospital, Truro TR1 3LQ, UK

Inada-Kim and Nsutebu urge the health system to use the NEWS 2 score in all healthcare settings.<sup>1</sup> They say that "a score in one setting must mean the same in any other." The problem is that it doesn't.

Improved communication in health systems should be encouraged, but as Bernard Shaw (maybe) said about the United Kingdom and United States, primary and secondary care will always be separated by the same language.

As with any scoring system, diagnostic test, or risk stratification tool, the predictive value is governed by the pre-test probability as well as the characteristics of the test. A NEWS score of 4 in an emergency medical setting<sup>2</sup> does not mean the same as in an ambulance call-out<sup>3</sup> or a GP surgery, for the simple reason that serious illness is not as common in these settings.

Clinicians should observe patients and be alert to sickness, but we should acknowledge that the NEWS score is not validated

in primary care, let alone as a screening tool. We need research to establish what any warning score means in primary care; until then, we must accept that the NEWS score from primary care is spoken with a different dialect.

Competing interests: None declared.

1. Inada-Kim M, Nsutebu E. NEWS 2: an opportunity to standardise the management of deterioration and sepsis. *BMJ* 2018;360:k1282. 10.1136/bmj.k1282 23559439
2. Smith GB, Pyburn D, Menedetti P, Schmidt PE, Featherstone PI. The ability of the National Early Warning Score (NEWS) to discriminate patients at risk of early cardiac arrest, unanticipated intensive care unit admission, and death. *Resuscitation* 2011;82:465-70. 10.1016/j.resuscitation.2011.02.018 21329577
3. Silcock DJ, Corfield AP, Cowans PA, Rooney KD. Validation of the National Early Warning Score in the prehospital setting. *Resuscitation* 2014;90:31-5. 10.1016/j.resuscitation.2014.12.020 25083149

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## NEWS 2 AND SEPSIS

### NEWS 2

Alex Burns gen

Acute GP Service, Tre

Inada-Kim and Nsuti  
2 score in all healthc  
setting must mean th  
it doesn't.

Improved communic  
encouraged, but as B  
Kingdom and United  
always be separated

As with any scoring  
tool, the predictive v  
as well as the charac  
an emergency medic  
ambulance call-out<sup>1</sup>  
serious illness is not

Clinicians should ob  
we should acknowledge that the NEWS score is not validated

### Common Language



care

eed research  
ry care; until  
inary care

management of  
25 594 00  
he ability of the  
of early cardiac  
station

onal Early Warning

where not already  
i-Loosing/



@GMEC\_PSC

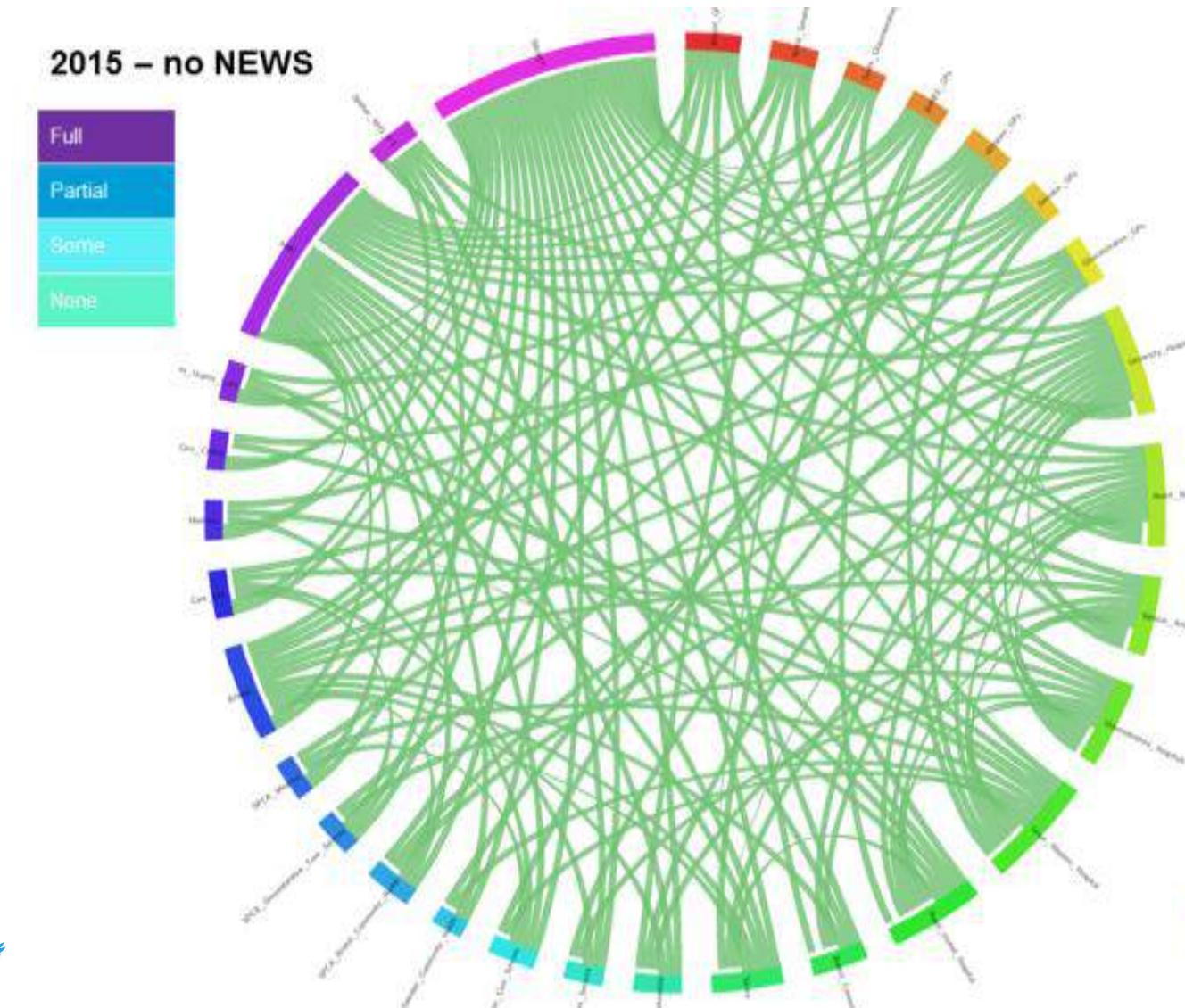
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## Year 2

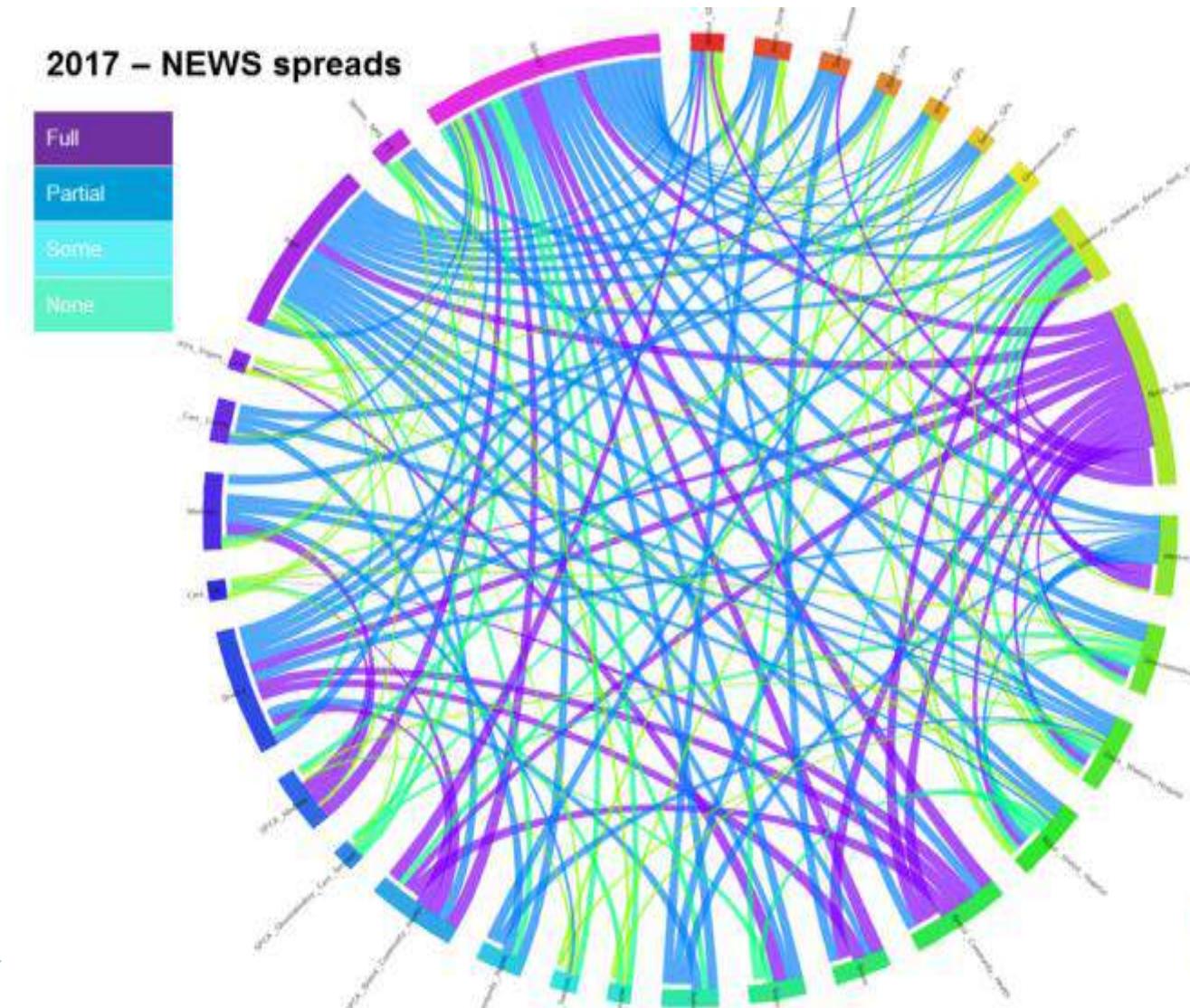
- Focus on using NEWS at handover of care



# Connections March 2015



# Connections – July 2017



West of England  
Academic Health  
Science Network

# News at handover



# Single Point of Access



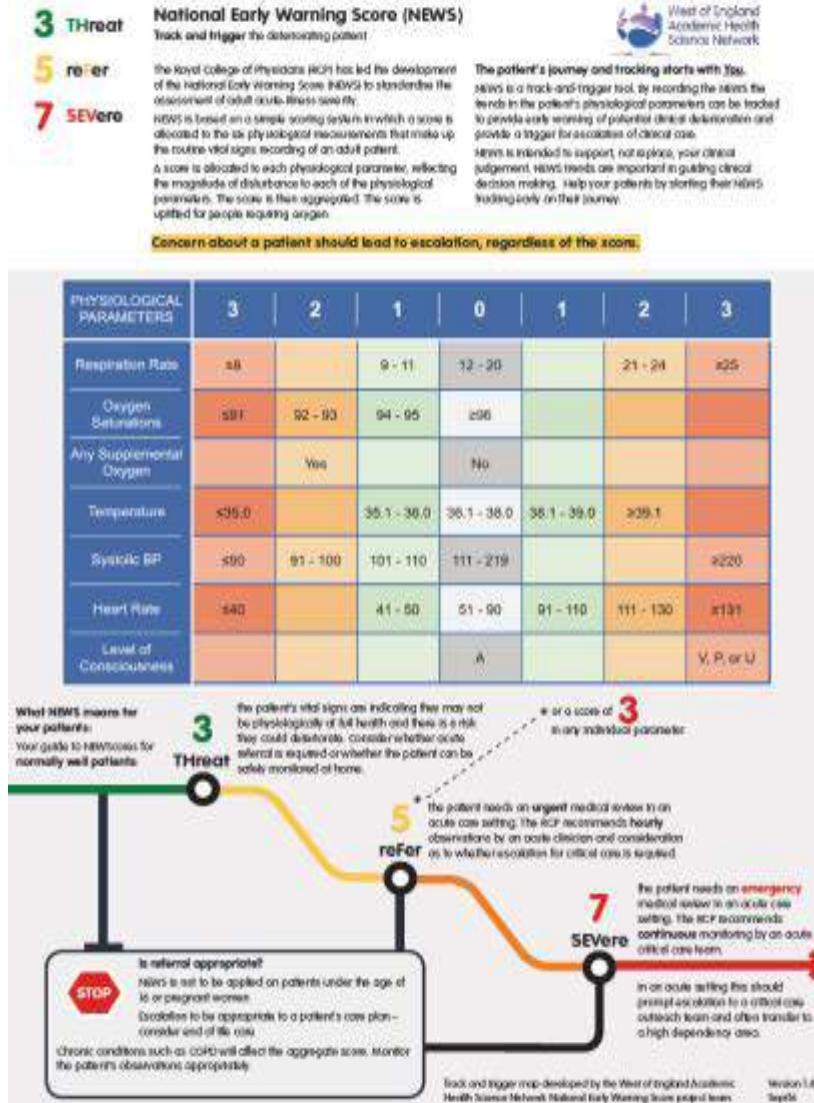
# ED safety checklist



# Community baseline measurement



# Primary Care



- Information and education
- Presentations to practices
- Primary care collaborative
- Digital templates



M3

ortivus

Dave Partlow (554 646 5465)

Observations

Primary Survey

Vital Signs

Status/ History

Secondary Survey

Drug Intervention

Treatment

Discharge

+

Vital Signs Pain Assessment

Time	13:46
NEWS	9
Sepsis	Consider Sepsis
AVPU	Unresponsive
Eyes	4
Verbal	5
Motor	6
GCS	15
Type	Adult
Capillary Refill (secs)	>5
Resp Rate	17
Pulse	111
SpO2 (on air)	98
SpO2 (on oxygen)	98
EtCO <sub>2</sub>	

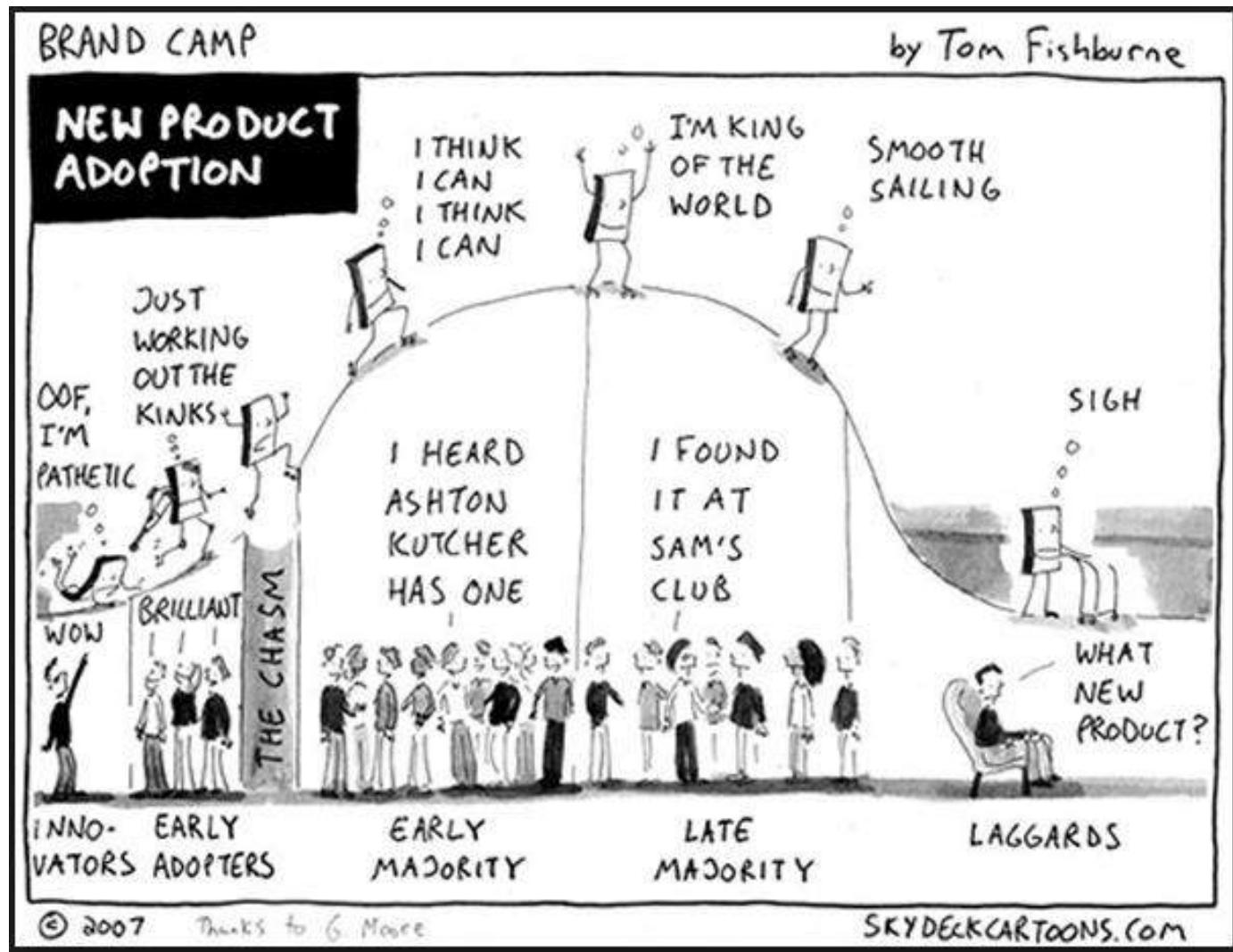
ePR

Messages

Monitor



# Year 3



# Evaluation



**Systematic  
Review**



**Qualitative**

National Institute for  
Health Research

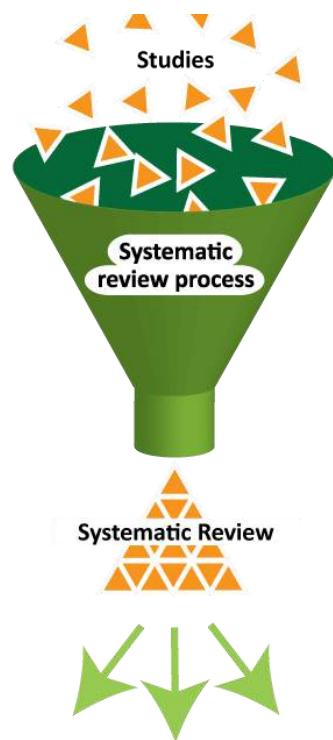
**CLAHRC West**



**Quantitative**



# Systematic Review



- No evidence where EWS has been put into a prehospital system
- 17 studies (n=157 878)
- Low EWS and high EWS predict mortality

# Qualitative Research



- Improved communication
  - across systems
  - across professional roles
- Supported clinical decision making & prioritisation

But it will increase  
referrals. I see lots of  
people with a NEWS  
of 5.....



# Quantitative Research



- 8% of 122 000 ED attendances
- 18% of 1.1 million South West ambulance service conveyances
- 12% of 21 000 Bristol community health visits

NEWS 5+ uncommon



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# NEWS : a common language

This chap has had 2x admissions to southend  
in sepsis from cellulitis. (see enclosed).

Acutely unwell again today :

T 39.3

SaO<sub>2</sub> 91%

P 120

BP 140 systolic

RR 18

NEWS = 7

(MP) - Sepsis 2<sup>o</sup> to cellulitis

Ambulance  
ePCR

1. Incident  
NEWS 8

GP

ED  
Triage

NEWS Score  
21221 9

1. Is NEWS 5 or more or 3 in one parameter?   
OR does patient look sick?

After  
treatment

NEWS

6 1 4 3



# Paul's Story



<https://vimeo.com/208284106>



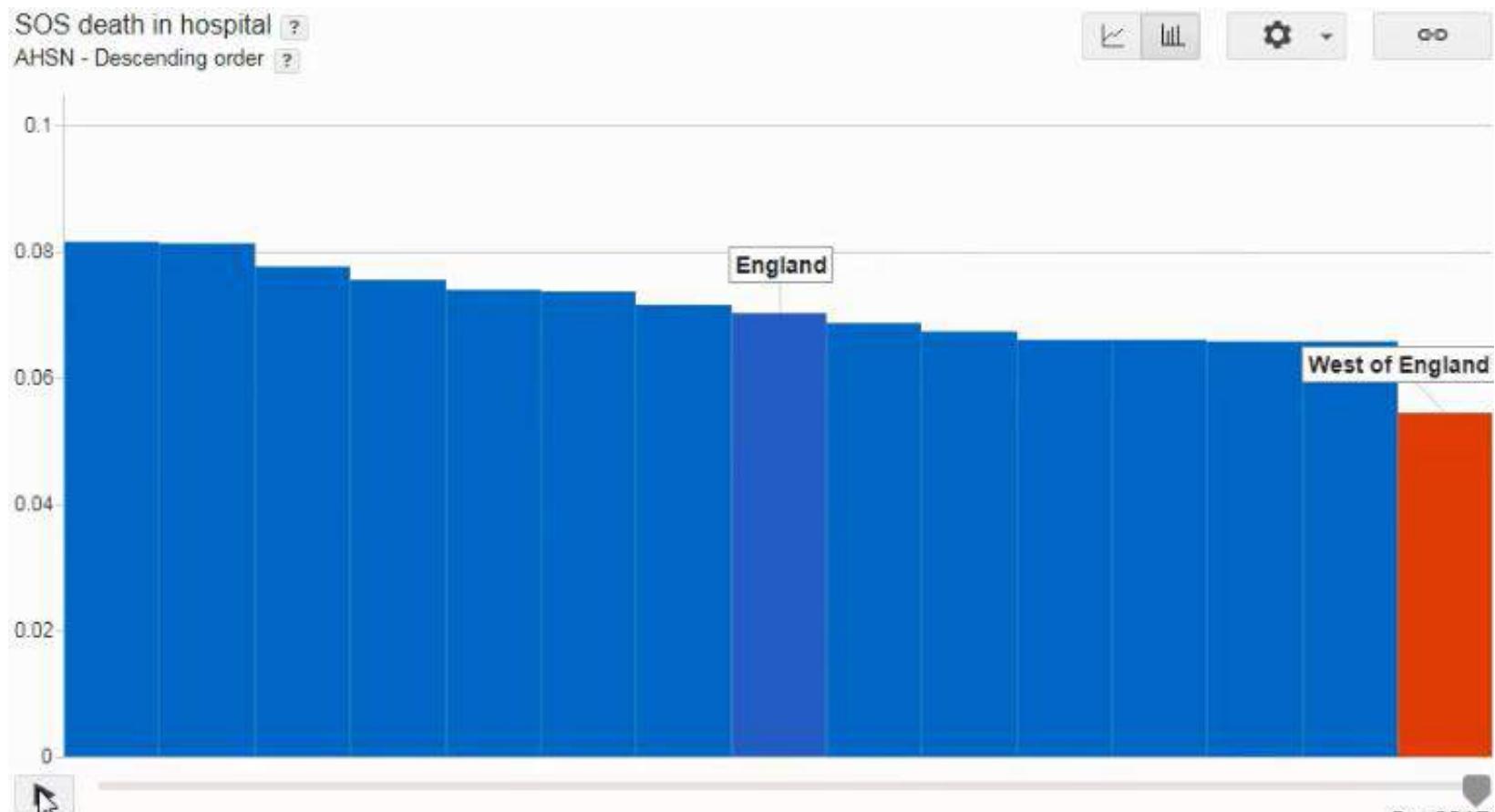
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Science Network

# Mortality from Suspicion of Sepsis



Data from Patient Safety Measurement Unit Last updated: Mar 12, 2018



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## Tools available

## Podcasts

<http://www.weahsn.net/news/patient-safety-podcasts/>

## Toolkits



<http://www.weahsn.net/what-we-do/enhancing-patient-safety/the-deteriorating-patient/>

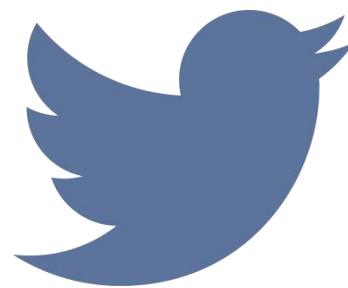




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## Break out session

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**

# Plan your News journey

Greater Manchester & Eastern Cheshire  
Patient Safety Collaborative

Deteriorating Patient – Learning System Launch Event 24<sup>th</sup> May 2018

Organisation (Name): \_\_\_\_\_

1: Why Change?	2: Form your team	3: Agree your measures
What are the benefits of having a standard approach to the assessment of acutely unwell patients for your organisation?  1) Standardisation will mean NHS staff who move between trusts are using a consistent set of measures for diagnosing patients. 2) Shared common language 3) Clear communications throughout the patient pathway	Who will you need in your team to oversee delivery of the project? Consider representation from all key groups influenced by the change.	What will you measure? – consider process; outcome; balancing measures. Who will measure it, how and with what frequency?
4: Agree your actions  Think about the phases involved in establishing a new process. 1) <b>Introduction</b> – development work and publicising change 2) <b>Implementation</b> – rolling out the change across the organisation 3) <b>Instillation (Embedding)</b> – ensuring that the change is thoroughly embedded and working well	5: Known Issues  Some issues can be considered at the start of the process others may arise as the process of implementation progresses. Initially you may want to consider: 1) Training 2) Cultural Change 3) Trigger resetting 4) Communication processes & tools e.g. <u>SBAR</u>	6: What help might you need?  Consider what expertise you have currently within your system/organisation. Are there elements of expertise missing from your project team? What sort of assistance might you need?



Implementing the National Early Warning Score (NEWS)



West of England Academic Health Science Network

Introduction Why change? Form your team Agree your measures Agree your actions Known risks Appendices

- Gather with the people from your organisation and work on the worksheet till 14:15
  - Please do talk to other organisations in the room or the facilitators for more inspiration
- 14:15 Facilitators to take pictures of the results
- These sheets will be shared on our Greater Manchester and Eastern Cheshire Deteriorating Patient, Patient Safety Collaborative group within LifeQI.
  - Only visible to people who signed up



Groups



## Groups

det

[Start a new group +](#)[Reports](#)[My Groups](#)[My Org's Groups](#)

### Greater Manchester and Eastern Cheshire Deteriorating Patient, Patient Safety Collaborative

Share improvement projects and ideas and tips of teams that take part in Greater Manchester and Eastern Cheshire Deteriorating Patient, Patient Safety Collaborative learning system



Showing 1 to 1 of 1

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A photograph showing a team of healthcare professionals in a clinical setting. A male doctor in a blue scrub top and stethoscope is in the foreground, focused on a procedure. Behind him, a female nurse in a blue scrub top and stethoscope is assisting. To the right, another female healthcare worker in a white scrub top and cap is observing. The background shows the tiled walls of a hospital operating room.

## A local perspective

**Professor Alison Lynch**

Chief Nurse & Director of Quality  
Governance, Stockport NHS Foundation  
Trust

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**

# Implementing NEWS 2 Stockport NHS FT Local Perspective

**24<sup>th</sup> May 2018**

*Professor Alison Lynch  
Chief Nurse  
Stockport NHS Foundation Trust*



**Your Health. Our Priority.**

# Local Context

- Stockport NHS FT is on a quality improvement journey
- CQC rating as 'Inadequate' for medical care and safety in Emergency Care and as 'Inadequate'
- To address this, a Quality Improvement Plan (QIP) has been developed with the ambition to be rated "Good" by 2019 and "Outstanding" by 2020
- The QIP consists of seven key themes
  - ***NEWS 2 sits within the "Reducing Unwarranted Variation in Clinical Practice" theme***

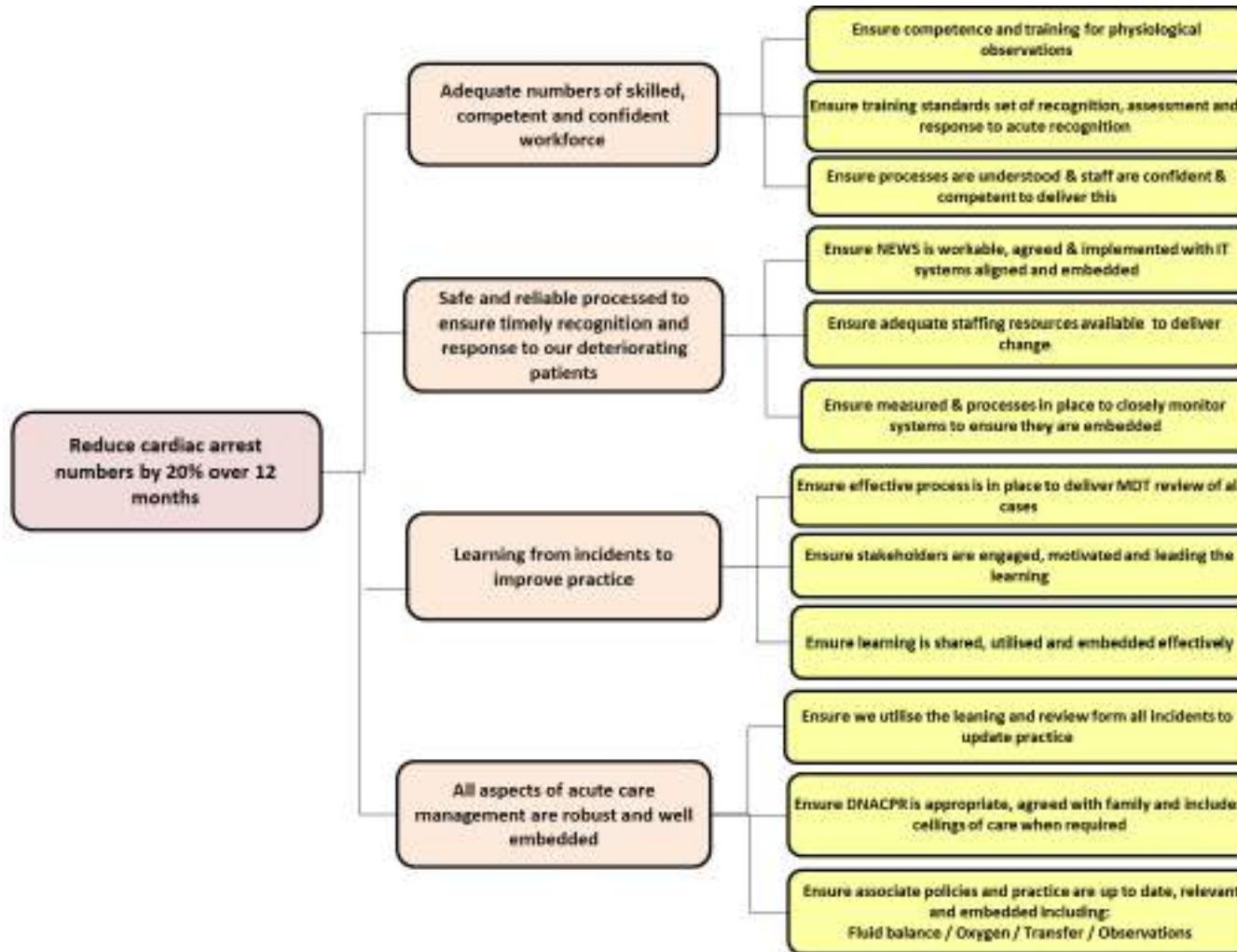


# Quality Improvement Plan

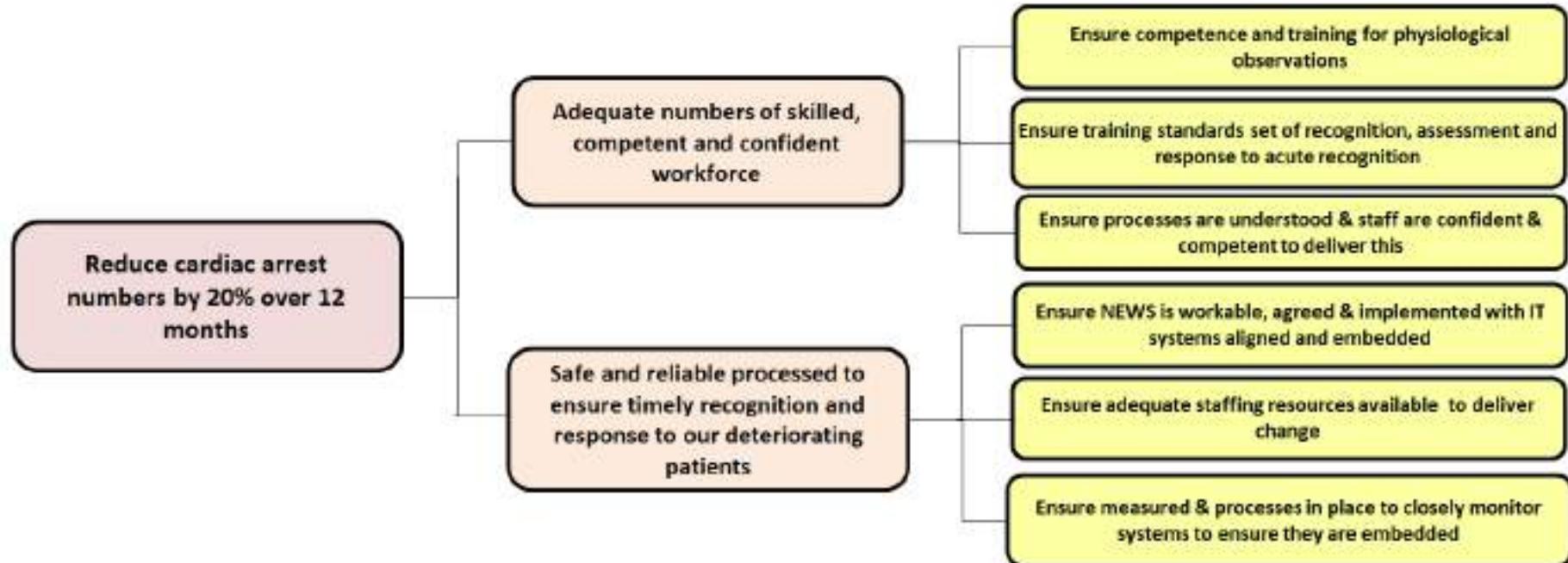
- The Trust's Quality Improvement Plan seeks to ensure:
  - **Safe, effective, high quality services for patients**
  - **Lessons are learned and shared across the trust thus reducing the risk of incidents and improving responsiveness, quality of care and experience for patients**
  - **The trust has robust systems and processes in place thus reducing clinical and reputational risk**
  - **The trust is compliant with CQC regulations**
  - **Well trained and valued staff**
  - **There is a sustainable trust-wide process and governance arrangements are in place to move programme work into business as usual at local level when appropriate**
  - **Senior oversight on progress and any slippage allows executives to prioritise work**



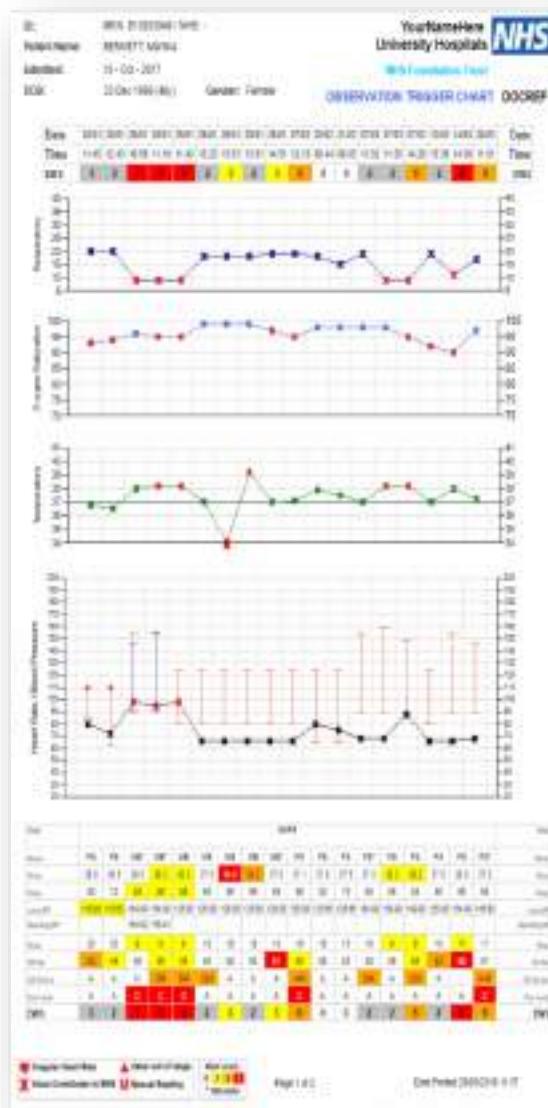
# Implementing NEWS: Driver Diagram



# People, Processes.....



# People, Processes.....



## Notes

29/01/2018 10:59 - MB - Several attempts to get SpO2 reading.

29/01/2018 11:19 - MB - More notes.

29/01/2018 02:51 - MB - SpO2 Scale 2.

07/03/2018 11:32 - PS - Notes.

26/03/2018 11:51 - PS - Martina preferred temp probe in left ear as right was very uncomfortable.

Notes

## EWS Regime History

### I NEWS

Start Date: 16/01/2018 17:18 End Date: 16/01/2018 12:29

Start Date: 16/01/2018 14:00 End Date: 16/01/2018 14:01

Start Date: 16/03/2018 08:03 End Date: 16/03/2018 08:18

Start Date: 26/03/2018 11:58 End Date: 26/03/2018 11:46

Reason for Application: Other Reason

Temperature	15-19 (3)	35.10-35.16 (1)	36.18-38.00 (1)	38.11-39.09 (1)	39.10+ (2)
Living Systolic Blood Pressure	111 (3)	131-150 (2)	151-170 (1)	171-210 (2)	229+ (1)
Heart Rate	44-61 (3)	45-60 (1)	61-88 (3)	81-110 (1)	111-138 (2)
Respiratory Rate	4-6 (3)	9-11 (3)	12-28 (3)	21-34 (2)	35+ (3)
AiPU	Alert (3)	Verbal (3)	Faint (3)	Unresponsive (3)	
Oxygen Saturation	95-101 (3)	95-99 (2)	94-95 (7)	94-96 (6)	

### II NEWS

Start Date: 16/01/2018 12:28 End Date: 16/01/2018 14:00

Start Date: 16/01/2018 14:00 End Date: 26/03/2018 14:49

Start Date: 16/03/2018 10:58 End Date: 30/03/2018 08:03

Start Date: 30/03/2018 08:18 End Date: 10/03/2018 13:51

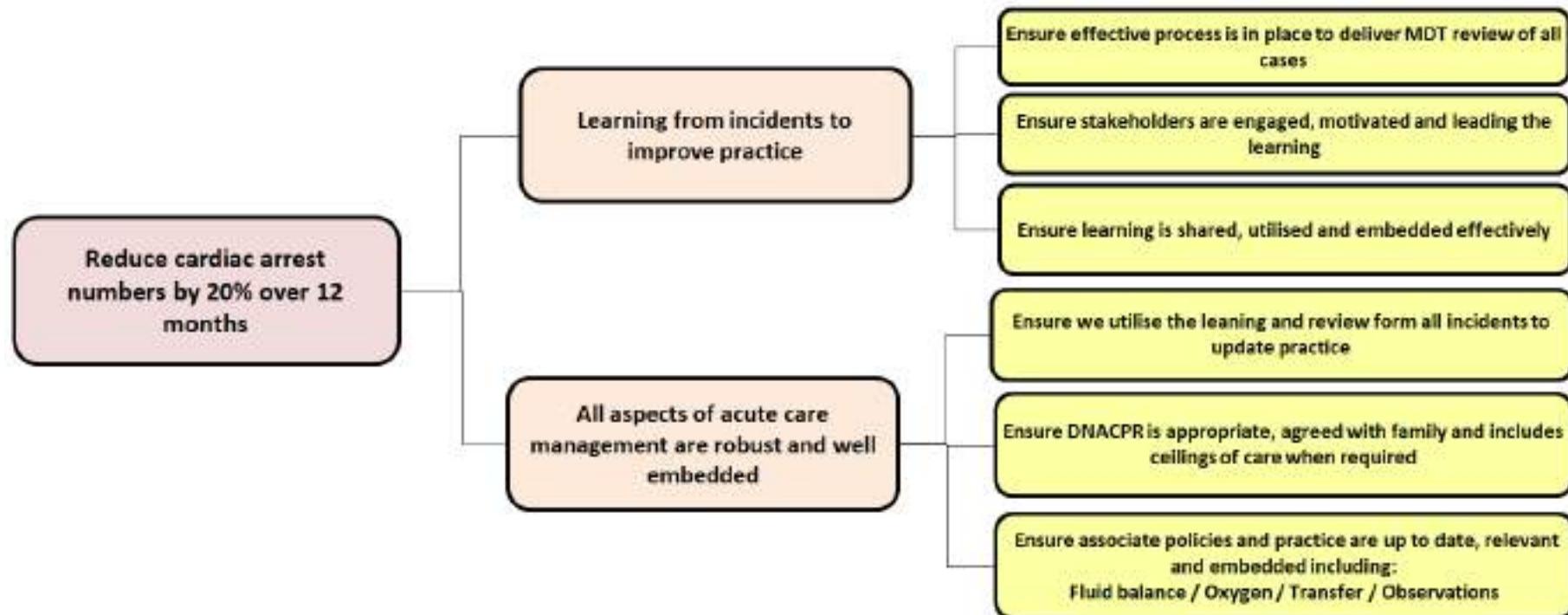
Start Date: 26/03/2018 11:46 End Date:

Reason for Application: Other Reason

Heart Rate	44-61 (3)	45-60 (1)	61-88 (3)	81-110 (1)	111-138 (2)	139+ (3)

NEWS 2 colour coding

# .....and Systems



# Challenges

- Present compliance with EWS
- Expected increase to alerts
- Two EPR systems for observations
- Engaging the hearts and minds
- ...many other changes required – *we can do this!*

# Implementing NEWS: Next Steps





## Supporting Implementation of NEWS2 – PSC

**Tazeem Shah**

Project Manager, GM&EC Patient Safety  
Collaborative, Health Innovation Manchester  
(HInM)

Greater Manchester &  
Eastern Cheshire

**Patient  
Safety  
Collaborative**

# Prof. Don Berwick's Report

The report of Don Berwick's National Advisory Group on the Safety of Patients in England stated that:

*"The most important single change in the NHS in response to this report would be for it to become, more than ever before, a system devoted to continual learning and improvement of patient care, top to bottom and end to end."*



# What is a Local Learning System?

The learning system is an ‘improvement forum’ where individuals, across different professions, and from different organizations, come together to share and learn about improvement approaches and outcomes.



# PSC support for Greater Manchester & Eastern Cheshire

- Focus on quality improvement - Life QI
- Work directly with local teams, supporting you to make sure you have the right skills and resources to implement successful improvement
- Focus on people-centred care, across all care settings
- Influence across the health system including acute, community and mental health trusts, GPs, and care homes to share good practice
- Identify local priorities for quality improvements that will make a difference to our local health care systems
- Link and build relationships with frontline staff, businesses and academia helping to stimulate innovation and improvement



# Question

Use one word to describe:  
What you think the deteriorating patient local learning system should offer you?

*Answers via [www.slido.com](http://www.slido.com) and enter the event code: #2961*





**'The Deteriorating Patient'...**

**How Can AQuA Support?**

Liz Kanwar - AQ Programme Manager

Amanda Huddleston - Quality Improvement Lead

Greater Manchester & Eastern Cheshire

**Patient  
Safety  
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# **‘The Deteriorating Patient’... How Can AQuA Support ?**

Liz Kanwar - AQ Programme Manager

Amanda Huddleston - Quality Improvement Lead

# Who are AQuA?

**Advancing Quality Alliance (AQuA)** - established in 2010 to improve health and care quality in the North West

- Hosted by Salford Royal NHS Foundation Trust – **NHS not for profit**
- North West membership model - **60+ members** - Acute, primary care, community, CCG, mental health and ambulance trusts
- **Consultancy and grant work** all across the UK.
- **4 Improvement Priorities:**
  - Supporting System Transformation
  - Delivering Person Centred Care
  - Building Capability for Improvement
  - Delivering High Quality Care



# Building Capability for Improvement

**Delivering high levels of performance across all domains of quality is dependent on organisational design, leadership and culture, measurement systems, and capability of the workforce.**

We work with members to:

- Build a culture and system for Quality Improvement
- Develop capacity and capability for Quality Improvement across organisations
- Provide development opportunities, advice and support to all staff; from frontline teams and service users, to managers, Boards and Non-Executive Directors
- Represent a whole system approach for improvement

AQuA 'Dosing Formula' for  
**Building Improvement Capability**



# Delivering High Quality Care

**Aim to support members to become high reliable organisations, delivering high quality health and care services that reflect the needs of patients, service users and staff**

Through a wide range of offers we will support members across a variety of health and care settings to:

- Tackle specific care and quality issues e.g. reducing patient harm or deterioration or improving local waiting and access times
- Use evidence, knowledge & understanding to enable continuous improvement, best practise and quality assurance
- Support a culture for safety focusing on human factors and psychological safety to improve outcomes

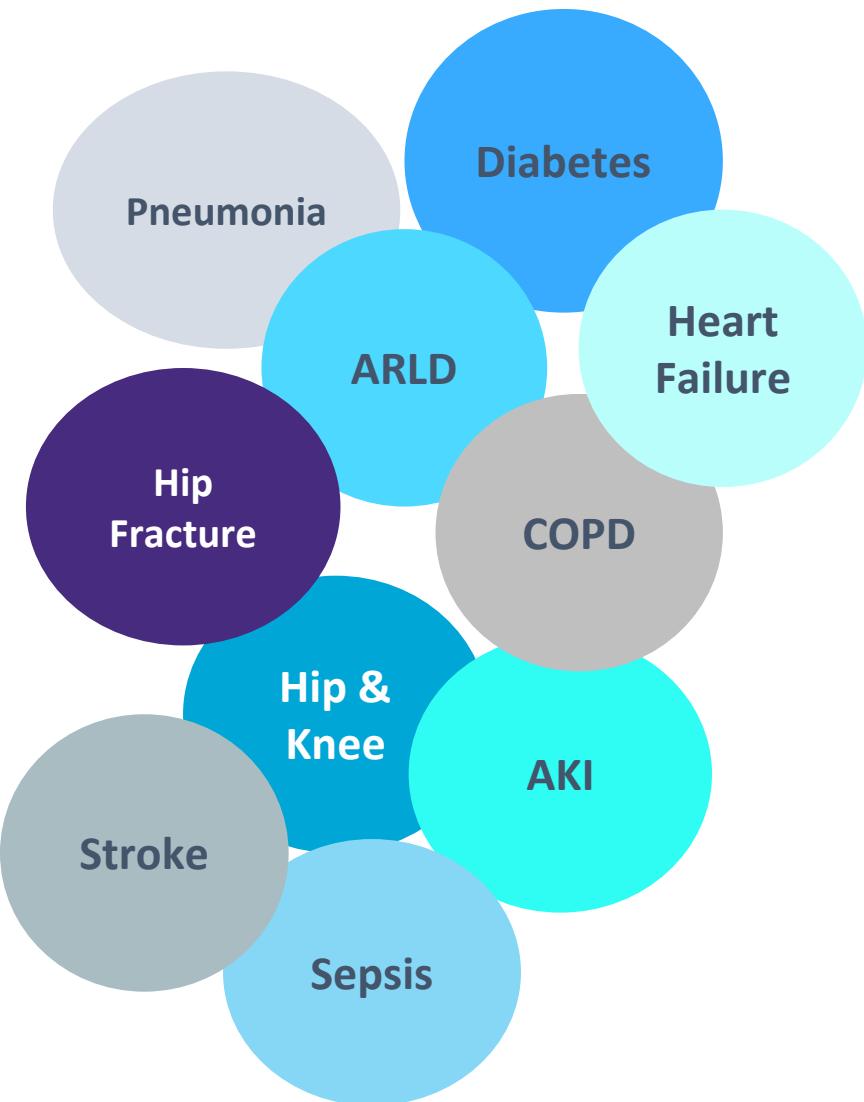
WHAT DO WE MEAN BY  
**Quality Healthcare?**



# Advancing Quality: High Reliability



# Clinical Focus Areas



- 10 highly prevalent clinical conditions – 6 x data collection
- Derived from National guidelines eg NICE
- Supported by National Research Organisations eg BMJ Lit
- Improve clinical outcomes eg mortality , LOS , readmissions
- Allows teams to identify improvement opportunities
- Support improvement opportunities utilising QI methodology

# Sepsis

## Measures devised 2015

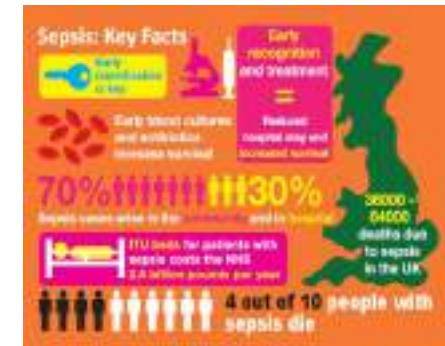
- Utilised arrival time as time zero
- ICD10 codes identify population
- Follow patient pathway

 Royal College  
of Physicians

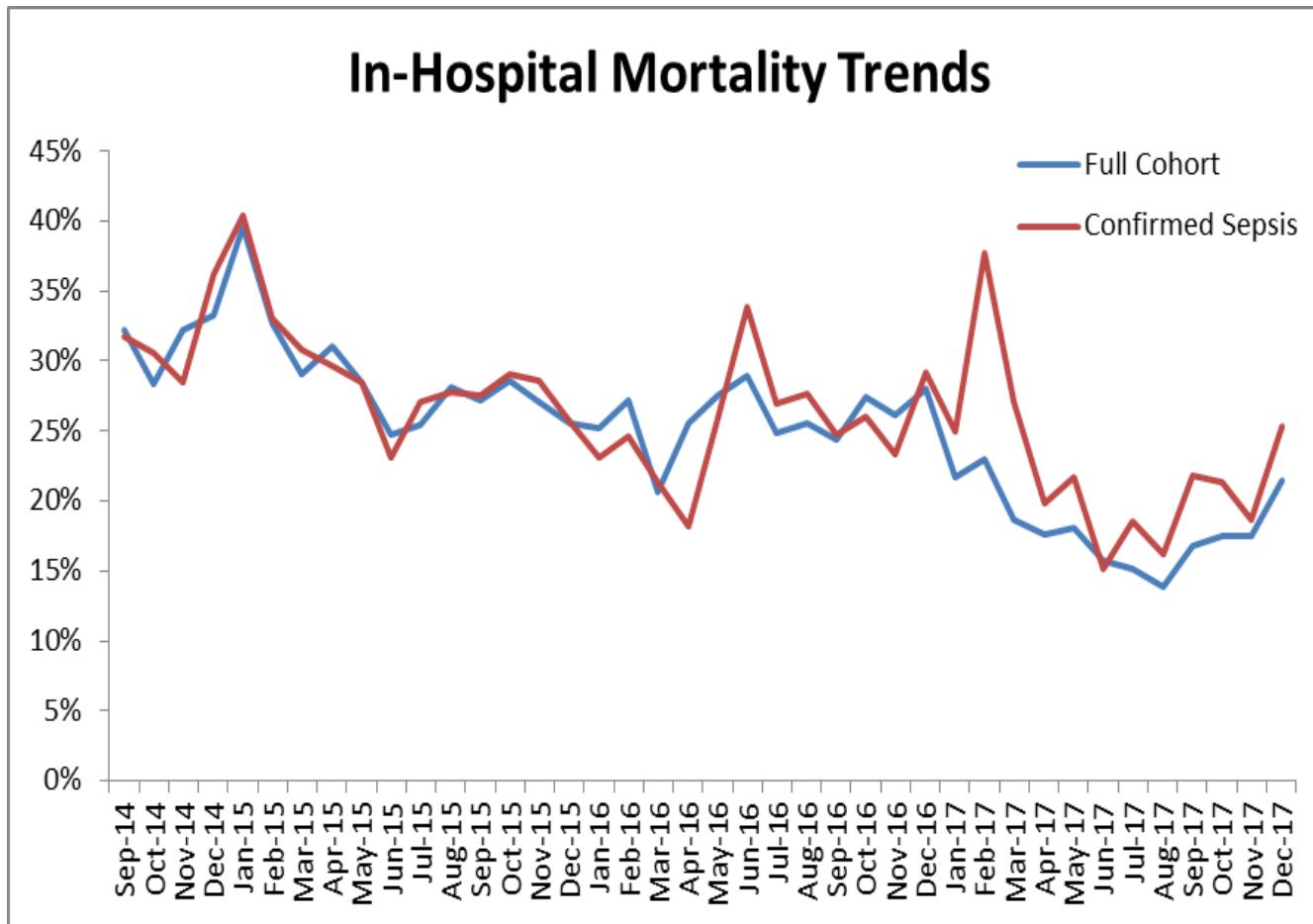
NHS England approves use of National Early Warning Score (NEWS) 2 to improve detection of acutely ill patients

## Measures Revised 2017

- NHS England recommendation for the use of NEWS2
- Utilising sepsis diagnosis time as time zero
- Follow patient pathway
- Cheshire & Mersey priority area of Health & Care Partnership
- Collaborative working PSC / AQ



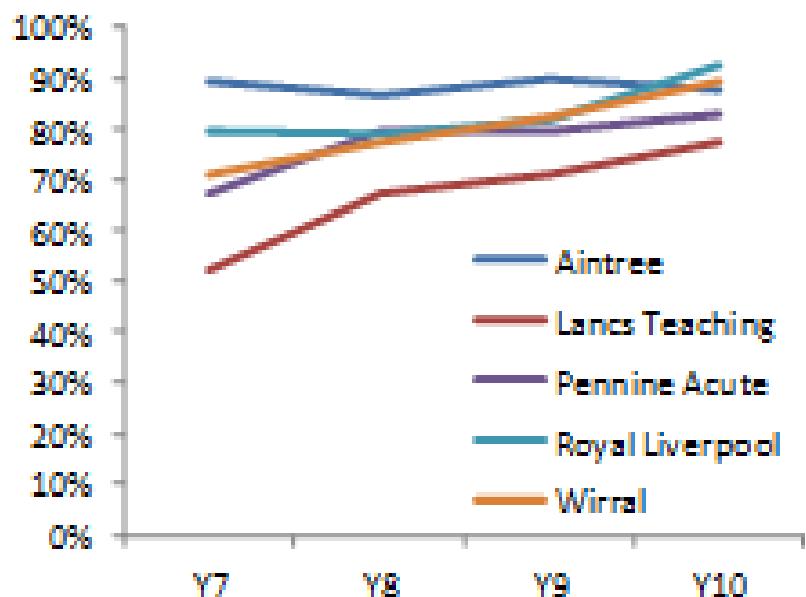
# In-Hospital Mortality



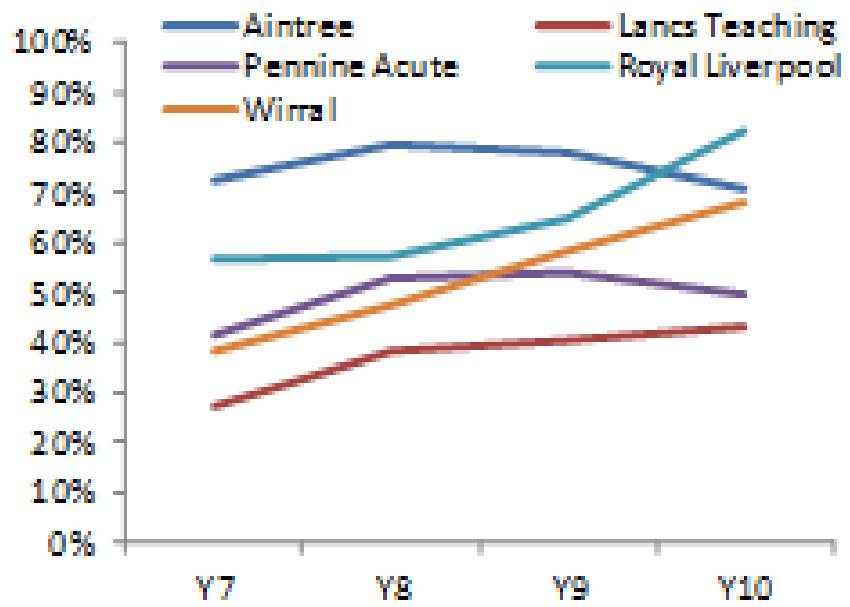
All outcomes calculations include only patients that are confirmed sepsis and 2017 providers.

# Sepsis Improvement Trends

## Sepsis CPS Trend over time



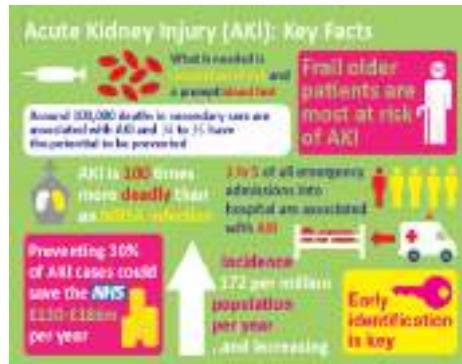
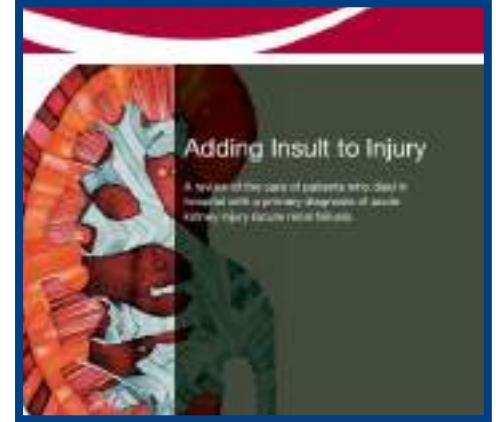
## Sepsis ACS Trend over time



# Acute Kidney Injury

## Measures devised 2015

- Use of national algorithm to identify patient population
- Matched with national HES data - outcomes
- All AKI3 patients included with 'look back' at care delivery
- Stage progression analysis
- Follow patient pathway



## Shortlisted for Patient Safety Awards 2018

### Early Identification and Treatment of AKI to Improve Patient Outcomes

18.6% (n 1,312) of patients received all eligible measures resulting in a mean length of stay **2.23 days shorter** than those not receiving all measures

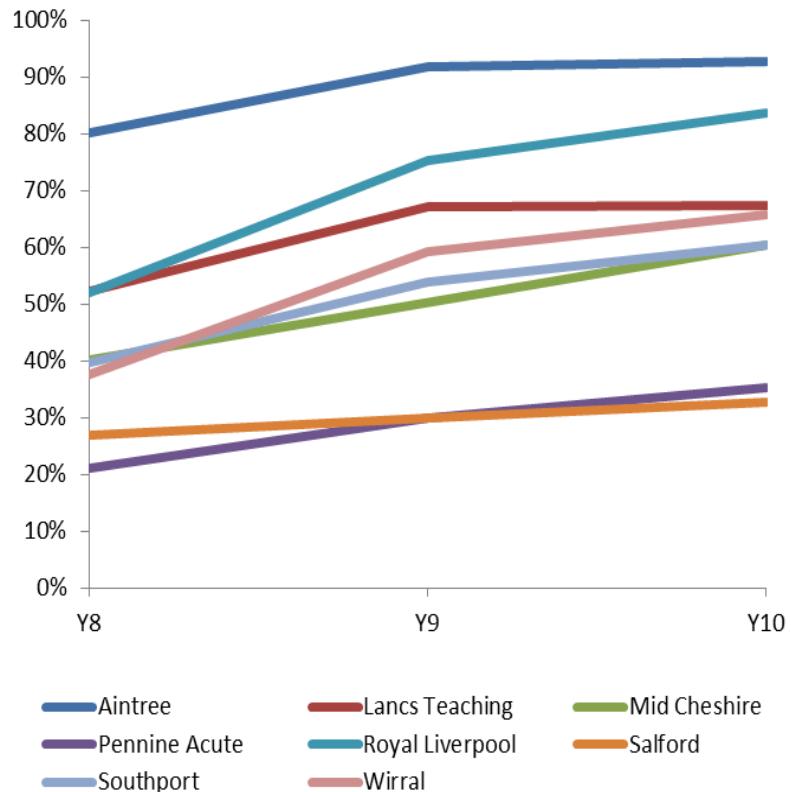


Potential savings of over **12,000 bed days** might have been realised if remaining patients had a matched length of stay (n5758 X (19.1-16.8) = 12,866 bed days saved). At an average cost of £250 per bed day that is a value of **~£3.2 million**

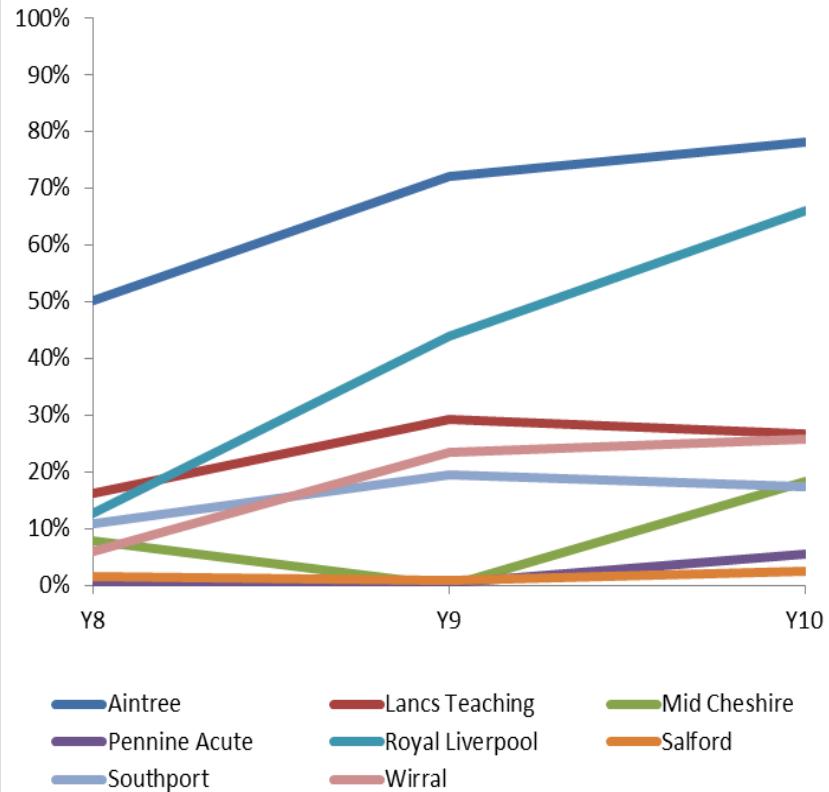
Jul 2015 - Sep 2017 AQ AKI Patients			
AQ AKI	Count	Bed Days	Avg Bed Days
Passed	1,312	22,063	16.82
Failed	5,758	109,695	19.05
Total	7,070	131,758	18.64

# AKI Trends

## CPS Trend Over Time



## ACS Trend Over Time



CPS Improvement from Y8 – Y10 has ranged from 6% to 32%  
ACS Improvement from Y8 – Y 10 has ranged from 1% to 53%

## Advanced Team Training for Deteriorating Patient

Focus on : Frail Elderly population

Team Focus: Identification issues to include assessment and intervention review

AQuA can offer forum for members to come together to identify part of the system and risk areas to patient

# Thank you

For further information please contact: [AQuA@srft.nhs.uk](mailto:AQuA@srft.nhs.uk)



## Summary

Jay Hamilton

Associate Director, Lead for GM Patient Safety Collaborative, Health Innovation Manchester

Greater Manchester & Eastern Cheshire

**Patient  
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Please fill out the forms on your table

# Resources

- Website





Thank you

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