

digitalhealth

REWWIRED
2023 —



**DIGITAL
NURSING
SUMMIT**

Digital Transformation of Medicines Management

Jonathan Bevan, Digital Medicines Lead, Mid Yorkshire Hospitals NHS Trust

Graham Prestwich, Public and Patient Engagement Lead, Yorkshire and Humber Academic Health Science Network

Pav Deagon, Lead Pharmacist – Pharmacy Informatics & Digital Medicines, NELFT

João Bastos da Fonseca, Modern Matron Critical Care & Head of Clinical Site Management, Capacity & Nursing Workforce planning, Cromwell Hospital

Chair: **Anna Awoliyi**, CNIO Nursing and AHP, Epsom and St Helier University Hospitals NHS Trust

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LONDON

14-15 MARCH 2023

Headline Sponsors:



Jonathan Bevan

Digital Medicines Lead,

 @jono_bevan



The Mid Yorkshire Hospitals
NHS Trust

Why Are We All Here?



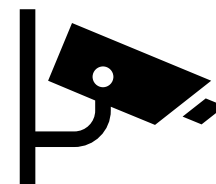
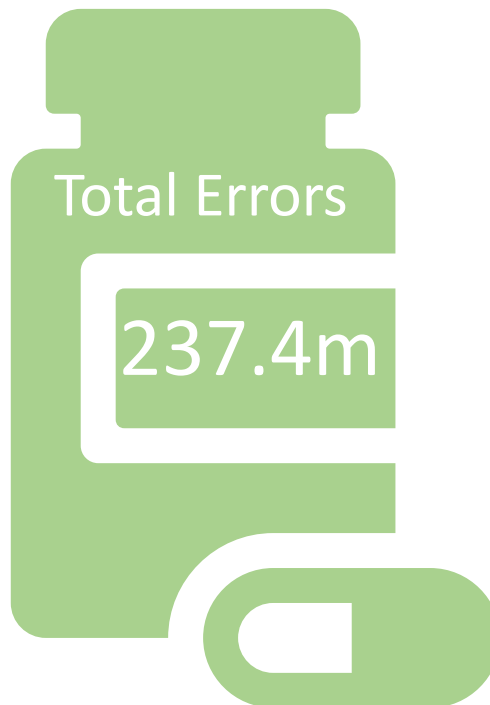
Primary Care
91m/38.3%



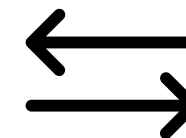
Secondary Care
47.4m/20%



Care Home
99m/41.7%



Monitoring
16.5m/7%



Transitions of Care
3.3m/1.4%



Dispensing
37.8m/15.9%



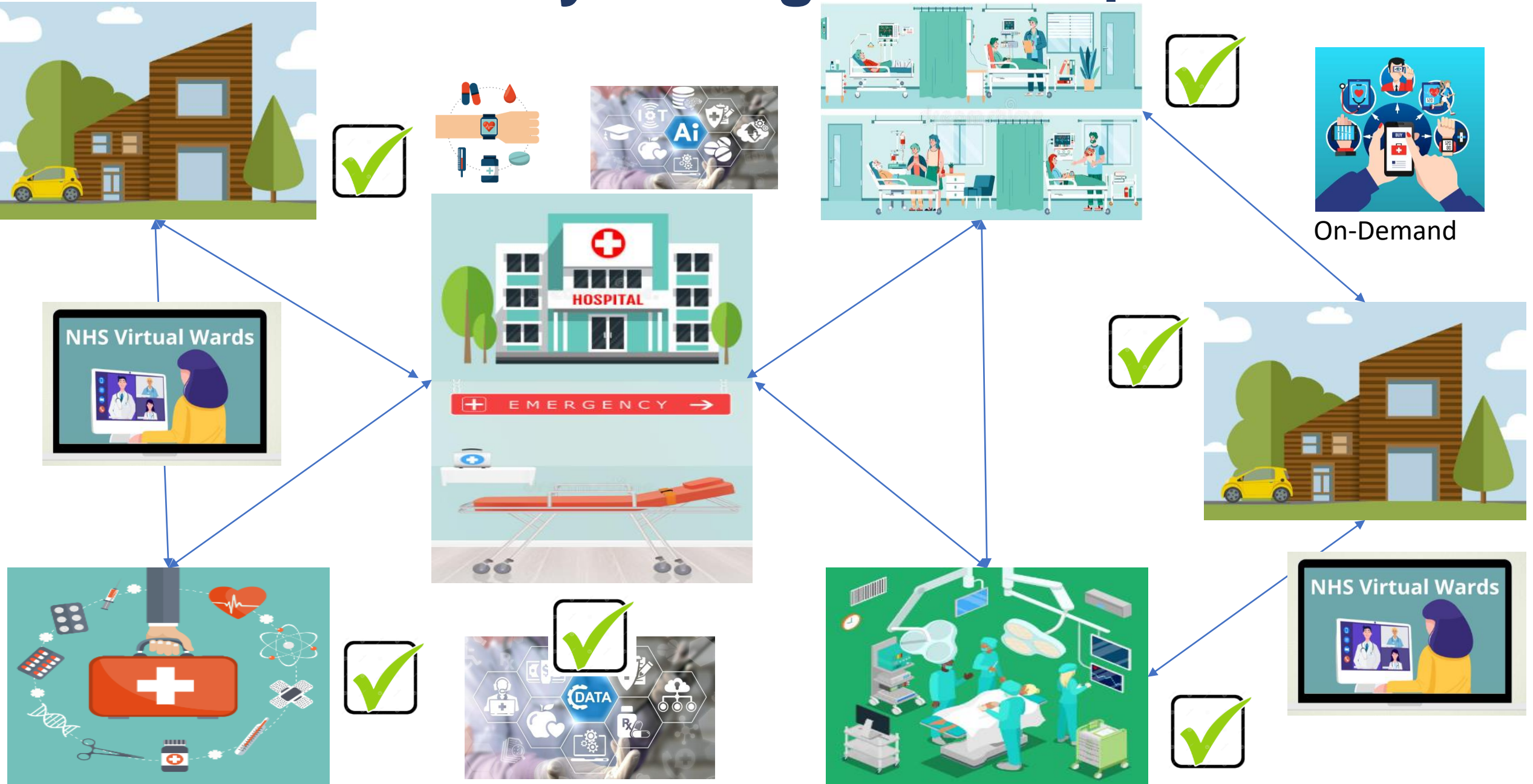
Administration
129.1m/54.4%



Prescribing
50.7m/21.3%

A systematic review and meta-analysis reported **a 50% reduction** in preventable adverse drug events with the implementation of electronic prescribing systems in the hospital setting.

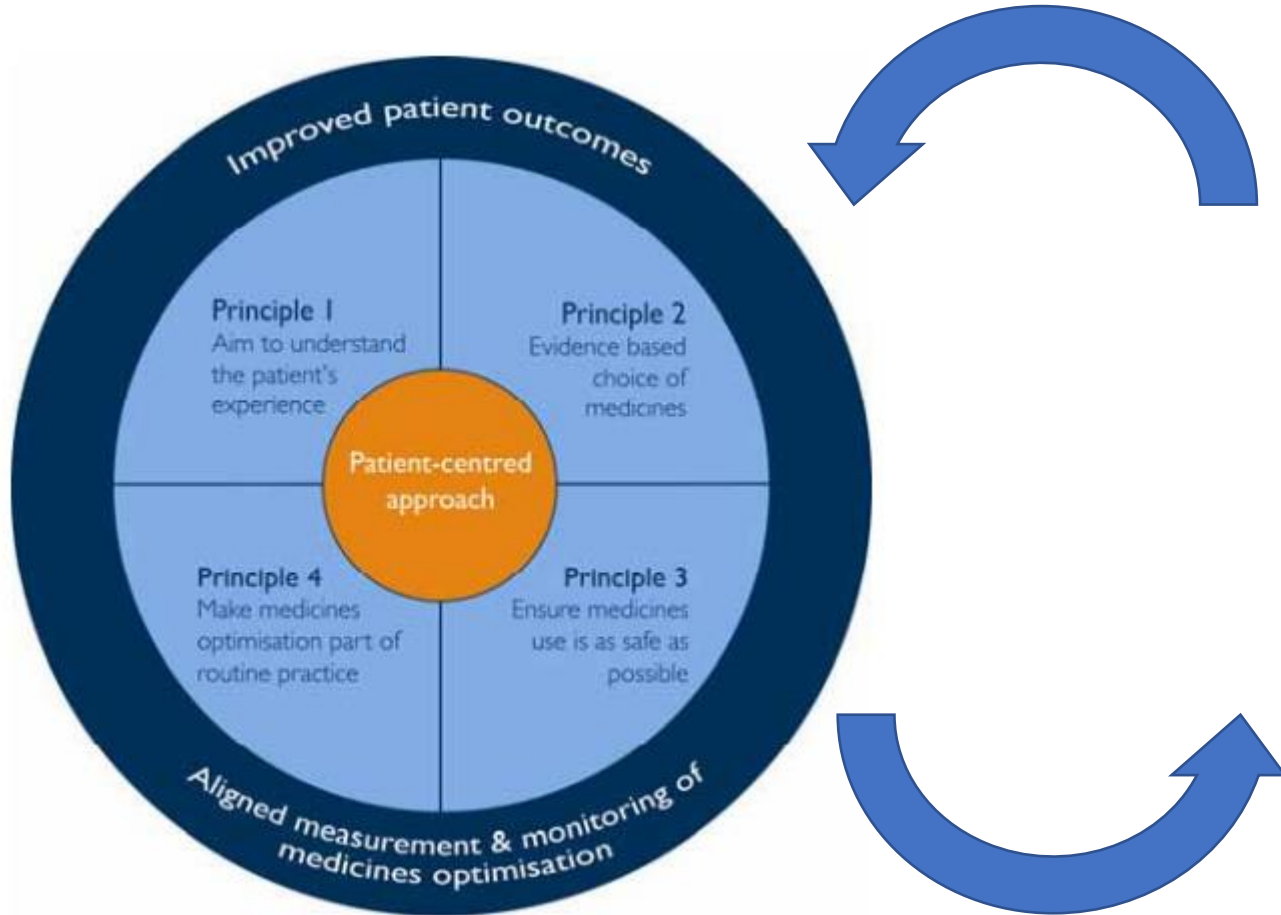
A Patients Journey through the hospital








Medicines Management; Back to Basics

Four Principles of Medicines Management

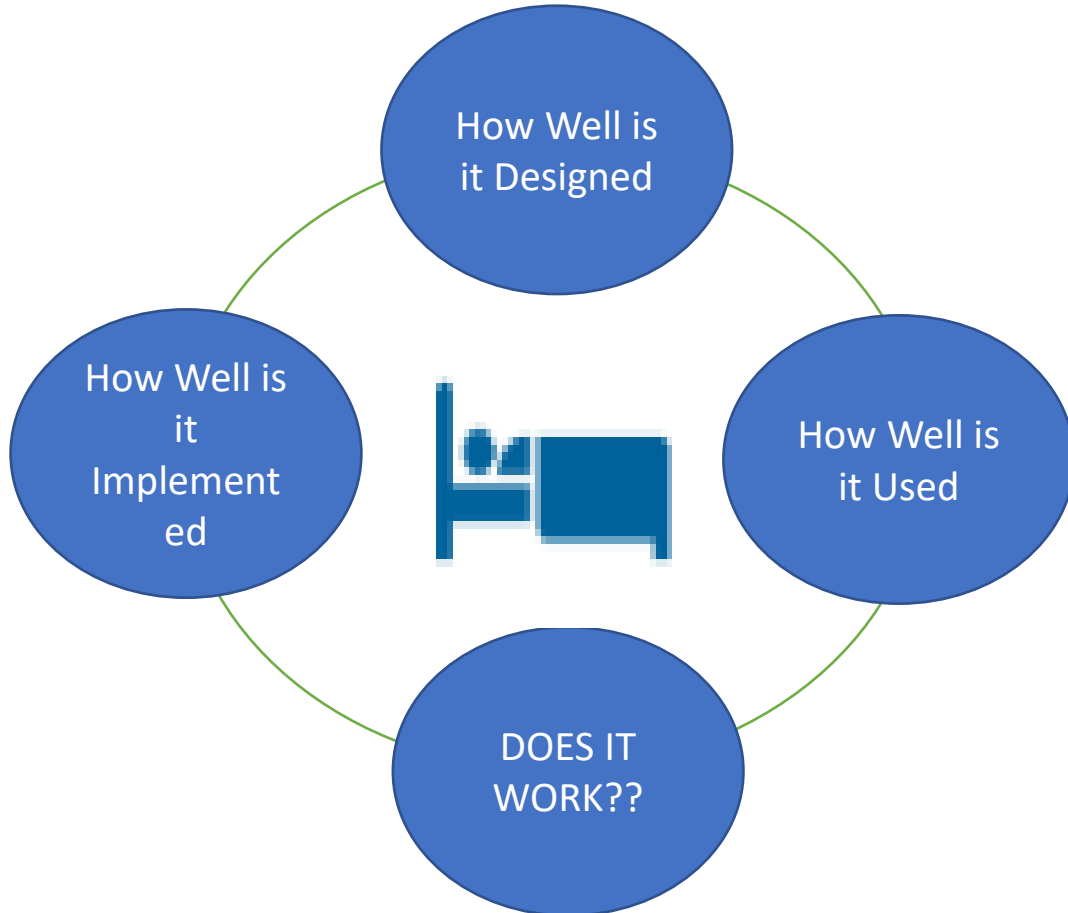
Aims of Digitising Medicines Management



-  Improvement in Safety
-  Optimising Medication Use
-  Streamlining processes
-  Improving Information Flow
-  Improving Patient Outcomes

Digital Transformation; What are the concerns?

Sociocentric



Concerns to overcome



Integration – Too many languages; Too many Barriers



Acceptance of technology - Patient and Staff



Culture change – ‘Rushing to digitise’ and not thinking as ‘A System’



Security of Data/Consent – Balance patient care v Patient Privacy



Impact of AI/Machine Learning – with great potential comes great responsibility

Digital Transformation – What is the potential...

PharmOutcomes
Delivering Evidence

Correct Information
At Correct Time

GP Connect

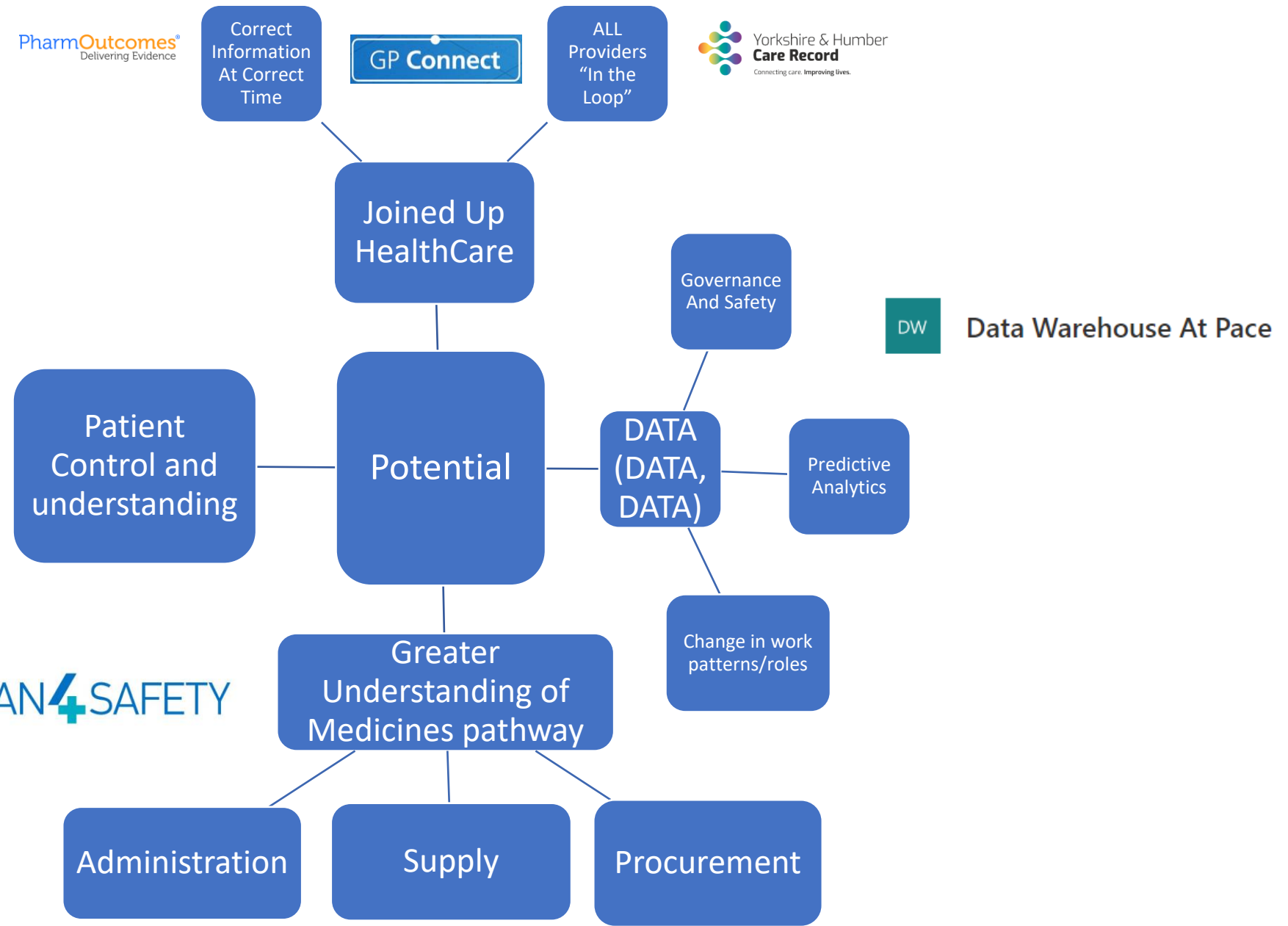
ALL Providers
"In the Loop"

Yorkshire & Humber
Care Record
Connecting care. Improving lives.

PATIENTS KNOW BEST®
MANAGE YOUR HEALTH

NHS
App

SCAN+SAFETY



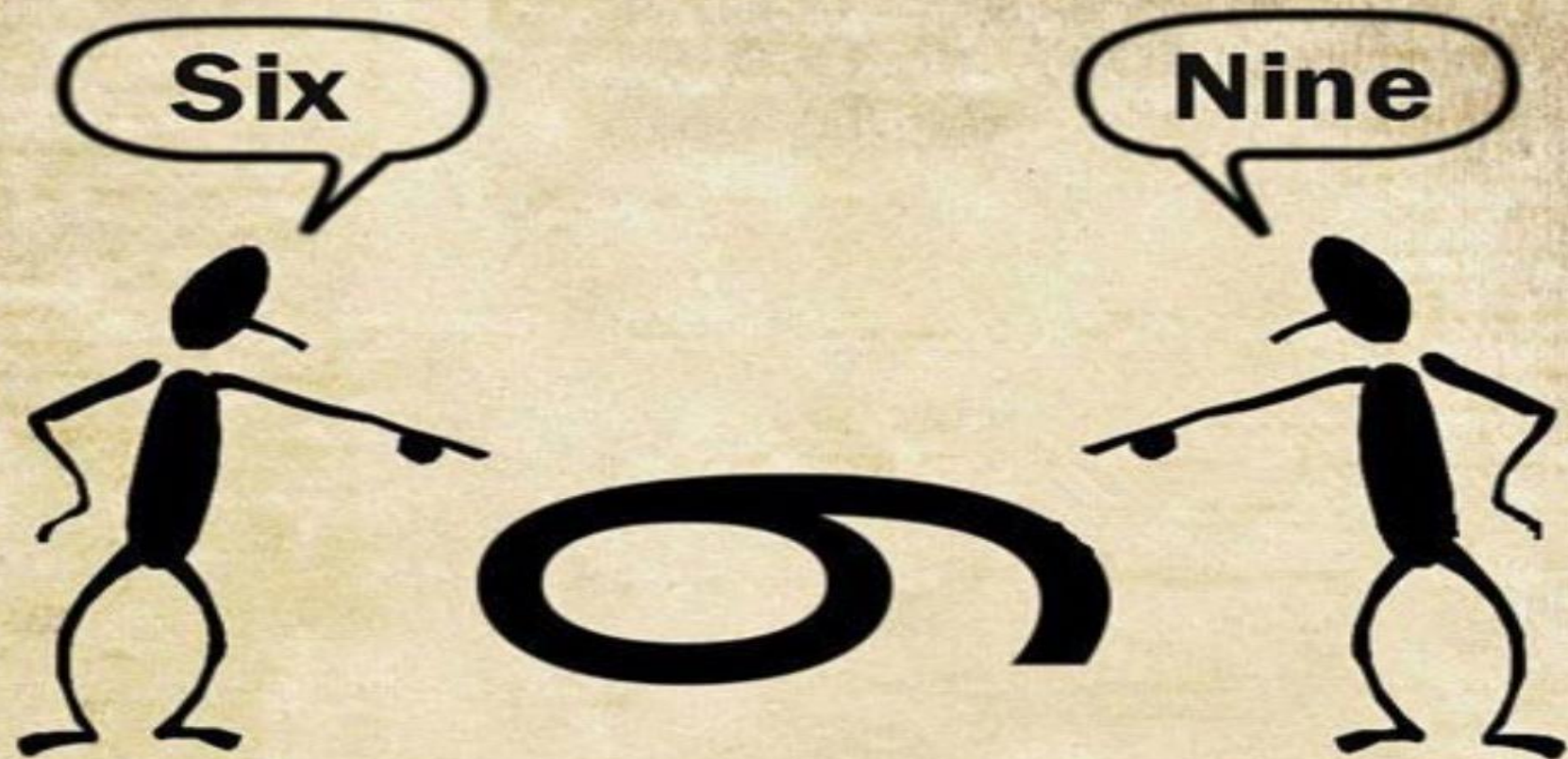
DW

Data Warehouse At Pace

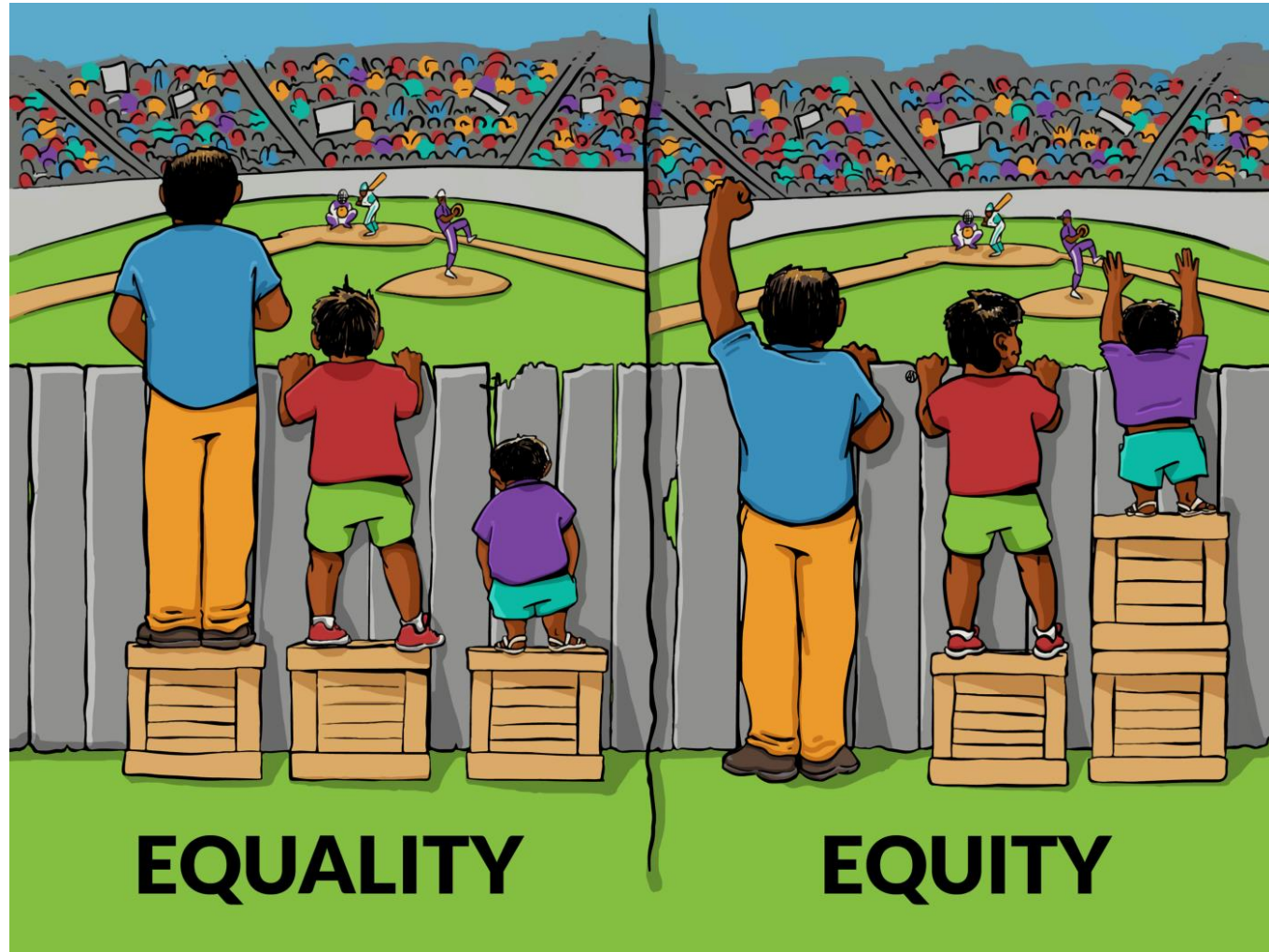
GRAHAM PRESTWITCH

PUBLIC AND PATIENT ENGAGEMENT LEAD

YORKSHIRE AND HUMBER ACADEMIC HEALTH SCIENCE
NETWORK

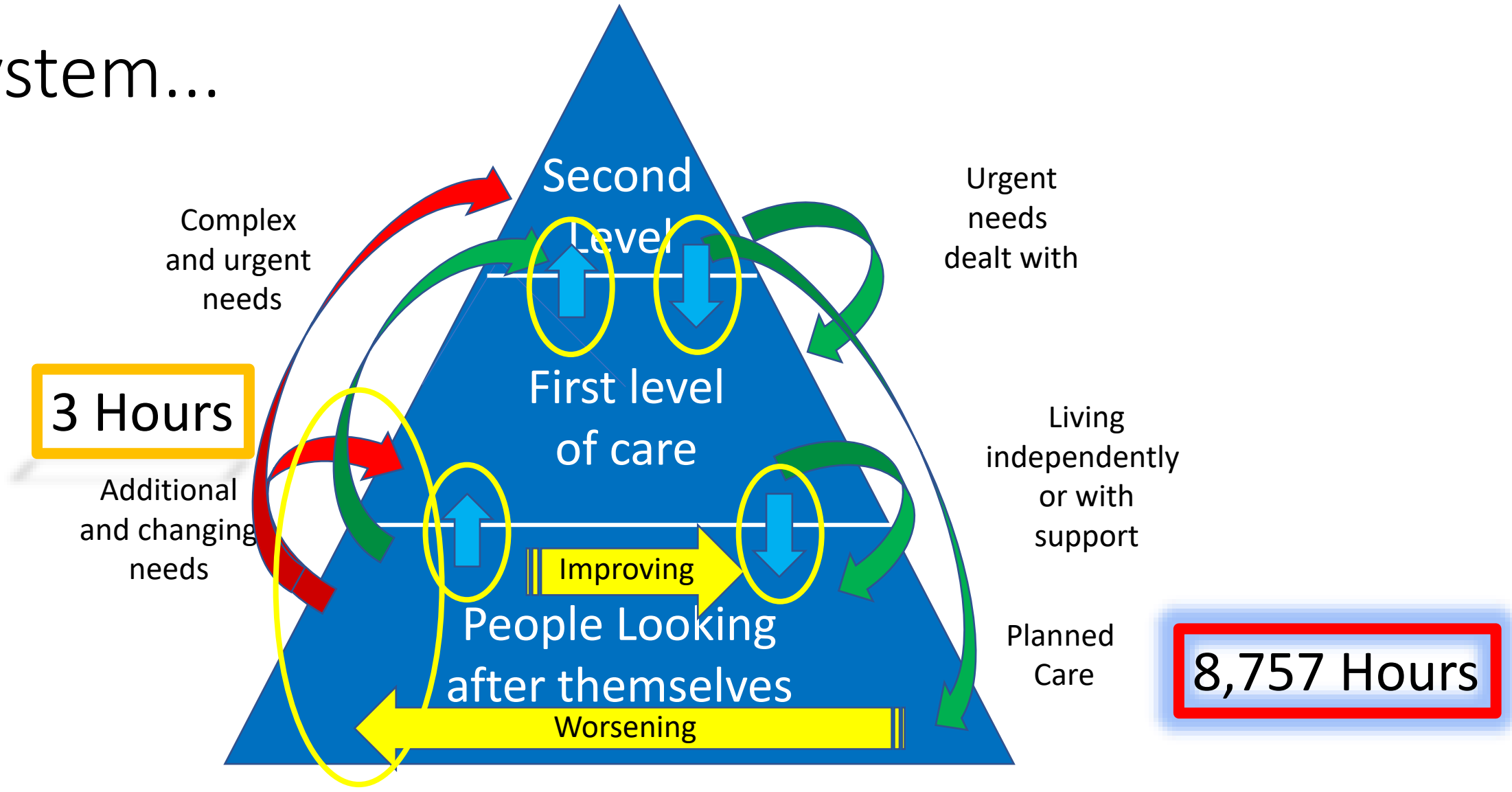


Just because you're right
doesn't mean i'm wrong, you
just haven't seen life from my
position.



“Please don’t blame me, it is not my fault”

The System...





These are the kitchen fridges from two organisations working in healthcare.

Which one is more likely to be working with a collaborative approach to the identification and resolution of problems and challenges?

~~Project Manager~~ Patient

- You will need to devote some time each day to the job, occasionally this may involve travel, though this is usually fairly local.
- You will be expected to organise and complete various activities in a timely manner and ensure that you attend meetings for reviews and feedback.
- There is no management accountability structure though you may find it helpful to organise and involve local resources such as family, neighbours and friends.
- A substantial part of your job will involve liaison with the NHS and organising various activities and services to support the delivery of your project.
- You will be working on a voluntary basis
- The job title is Patient and we currently have 1000s of vacancies.
- No need to formally apply, just start when you are given a prescription and see how you get on.
- Recruitment is open until further notice.



Omnis CIC

The Aural Apothecary Podcast

[The Aural Apothecary: 5.1 - Graham Prestwich - The Patient as a Project Manager on Apple Podcasts](#)

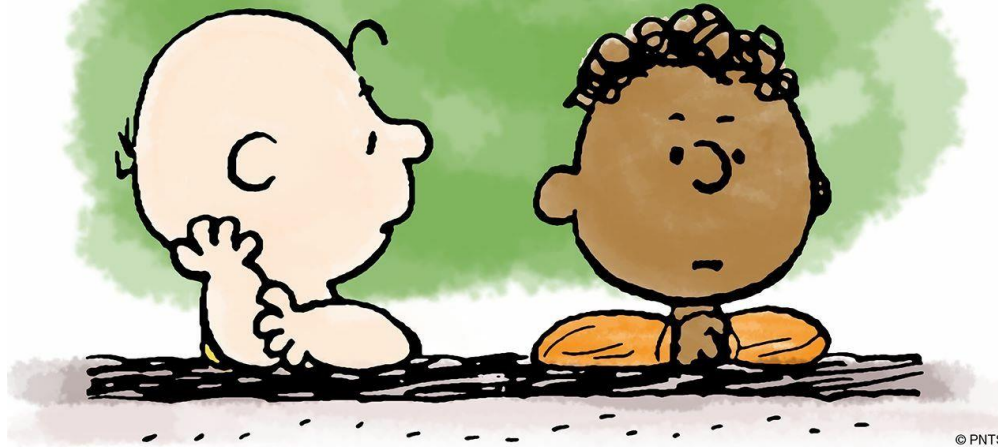
The Role of Patient and Public Involvement in Implementation Research

[Role of patient and public involvement in implementation research: a consensus study \(bmj.com\)](#)

Public Governance of medical artificial intelligence research in the UK

[Public governance of medical artificial intelligence research in the UK: an integrated multi-scale model \(springer.com\)](#)

**Thank you
for listening**



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Headline Sponsors:



Pav Deagon

Lead Pharmacist – Digital Medicines
& Pharmacy Informatics



Best care by the best people

Digital Medicines Journey so far...



Putting the
plan into effect

IMPLEMENTATION

- Multi-stage process
- Consider the process to be supported
- Aim – Safe, effective and efficient clinical processes



Taking
Advantage

Big Data

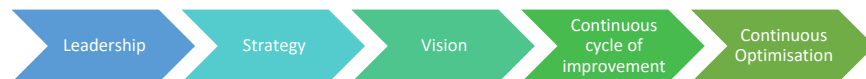


OPTIMISATION

- Optimise to improve outcomes
- Understand clinical/patient needs, understand the journey
- Aim – improve quality of care, efficiency, working relationships

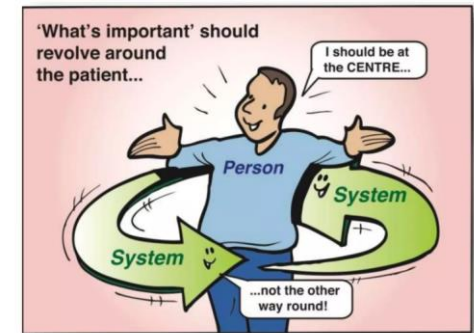
DATA DRIVEN CARE

- Major contributor – improving outcomes
- NHS Long Term Plan
- Decision making processes
- Use of standards & Interoperability



So what next?

- Focus on the user, their needs and how we can help achieve their goals
- User-centred design
- ‘Design’ – a creative process to solve complex problems:
 - Empathy – seeing the world through the eyes of the people involved
 - Prototyping – iterative process, share early and often
- Whole systems thinking
- Patient-centredness:
 - Patients needs come first
 - No decision about without me



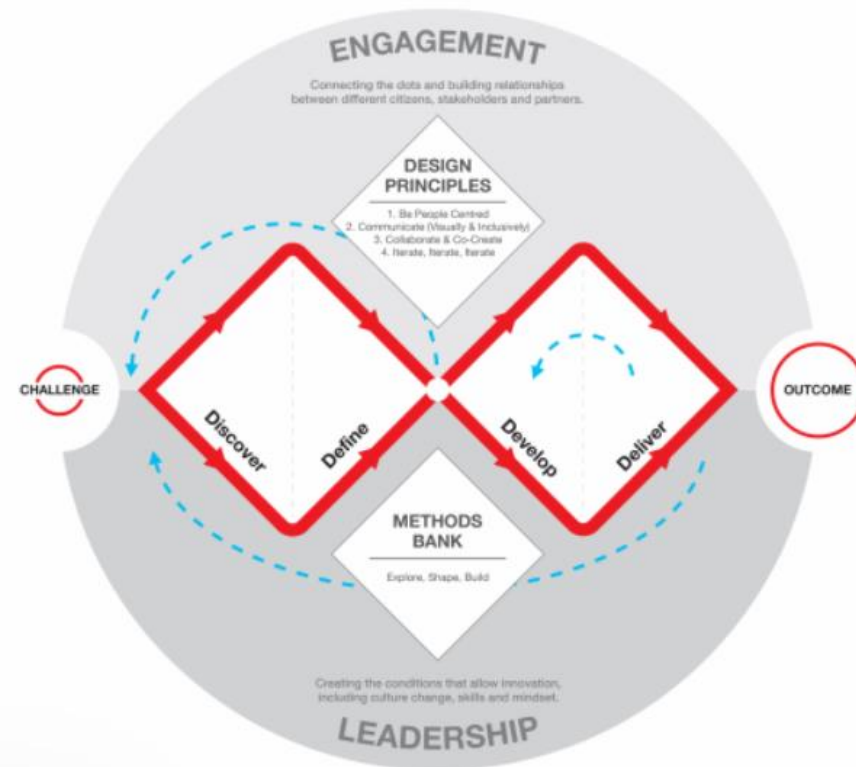
How can we achieve this?

6 Principles of User-Centred design*

- Design based upon explicit understanding of users, tasks and environments
- Users involved throughout the design and development
- Driven and refined by user-centred evaluation
- Iterative process
- Addresses the **whole user experience**
- Design team = multidisciplinary skills and perspectives

*Ref: ISO 9241-210

Design Council's Double Diamond



Leadership & Engagement

- Creating a culture of success!
- Clinicians and Patients in the driving seat – empowerment and shared leadership



- Inclusive and Equitable
- Collaboration and Innovation
- Clinical Leadership at Board level



- Listen to the stories
- No to top down approach
 - Pull not push



JOAO BASTOS DA FONSECA

MODERN MATRON CRITICAL CARE & HEAD OF CLINICAL SITE
MANAGEMENT, CAPACITY AND WORKFORCE PLANNING
CROMWELL HOSPITAL

How Automated Dispensing Cabinets can benefit frontline healthcare staff – a case study

Cromwell Hospital

2nd Covid wave – Jan 2021

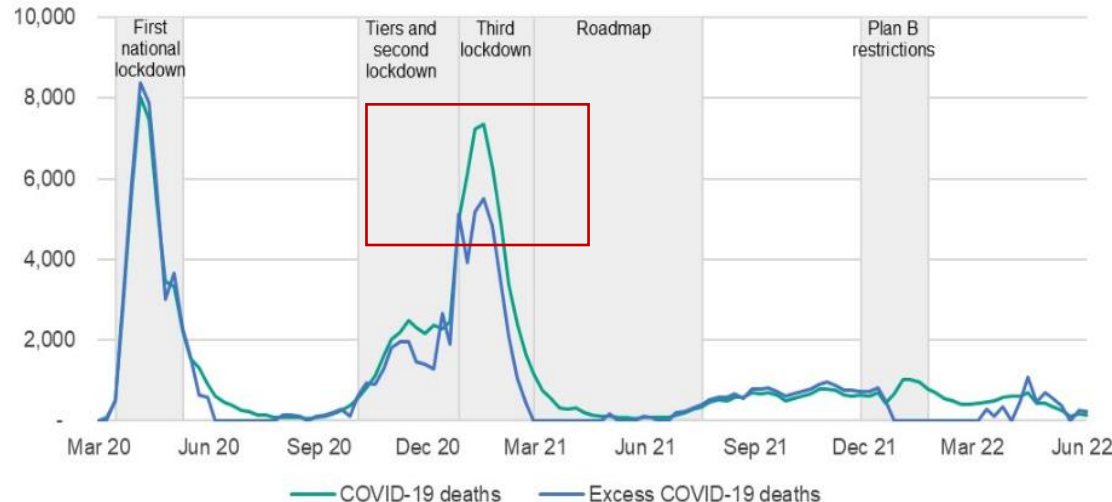
Full ICU

“Clean Site” - Partnership with Royal Marsden

Extensive cancer list ahead

Old ICU (Deactivated)

Working from home - Covid positive 🤔



World class care, expertly tailored to you

How did we manage the medicines?

How Automated Dispensing Cabinets can benefit frontline healthcare staff – a case

Study

Options on the table? 🤖



1)



2)



3)

How Automated Dispensing Cabinets can benefit frontline healthcare staff – a case

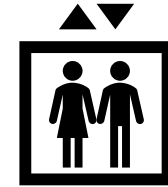
Study

Data availability



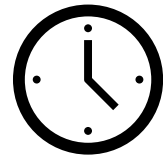
- ↳ Access to Stock list.
- ↳ Identification of trends in medication usage.

Design & Mobility



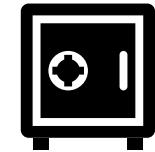
- ↳ Easily moved from environment to environment.
- ↳ Same principles from cabinet to cabinet
- ↳ Multi size cabinets.

Optimise time to care



- ↳ Quick & easy removal of multiple drugs.
- ↳ No non-nursing time spent on ordering, stocking or charging.
- ↳ Faster CD Checks.

Safety & Error reduction



- ↳ Safe Storage (Standard & Control Drugs) dependent on user set up and finger print.
- ↳ Linked to patient (hospital number, name, DOB)
- ↳ Last dose on the screen
- ↳ “Blind checks”

How Automated Dispensing Cabinets can benefit frontline healthcare staff – **a case**

Study

What were the outcomes?

Timely expansion, no delays



> 300 overnights



No medication related incident



Overall quality of the care “excellent” for 93% of the patients

