



# NHS INTEGRATING CARE CONFERENCE

BUILDING INTEROPERABLE SYSTEMS



Welcome to the NHS Integrating  
Care Conference!

Slido



Agenda



16th May 2024  
9am – 5:30pm  
etc venues, Manchester



## NHS INTEGRATING CARE CONFERENCE

BUILDING INTEROPERABLE SYSTEMS



# Chair Opening Address



**Ellen Rule**

Deputy CEO / Director of Transformation  
Gloucestershire Integrated Care Board



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## Case Study...





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## Speaking Now...



**Georgina Hurst**  
VP of Sales UK&I  
BridgeHead Software

# Enabling Interoperability For Enhanced Patient Care

*“Getting the right data to the  
right people at the right time...”*

Georgina Hurst – Vice President Of Sales, UK & Ireland

Adam Coombes – HealthStore® Product Owner



# The Challenge: Healthcare Silos And Data Fragmentation

What Clinicians have told us...

“

Our Multidisciplinary Teams struggle to access data from multiple sources.

”

“

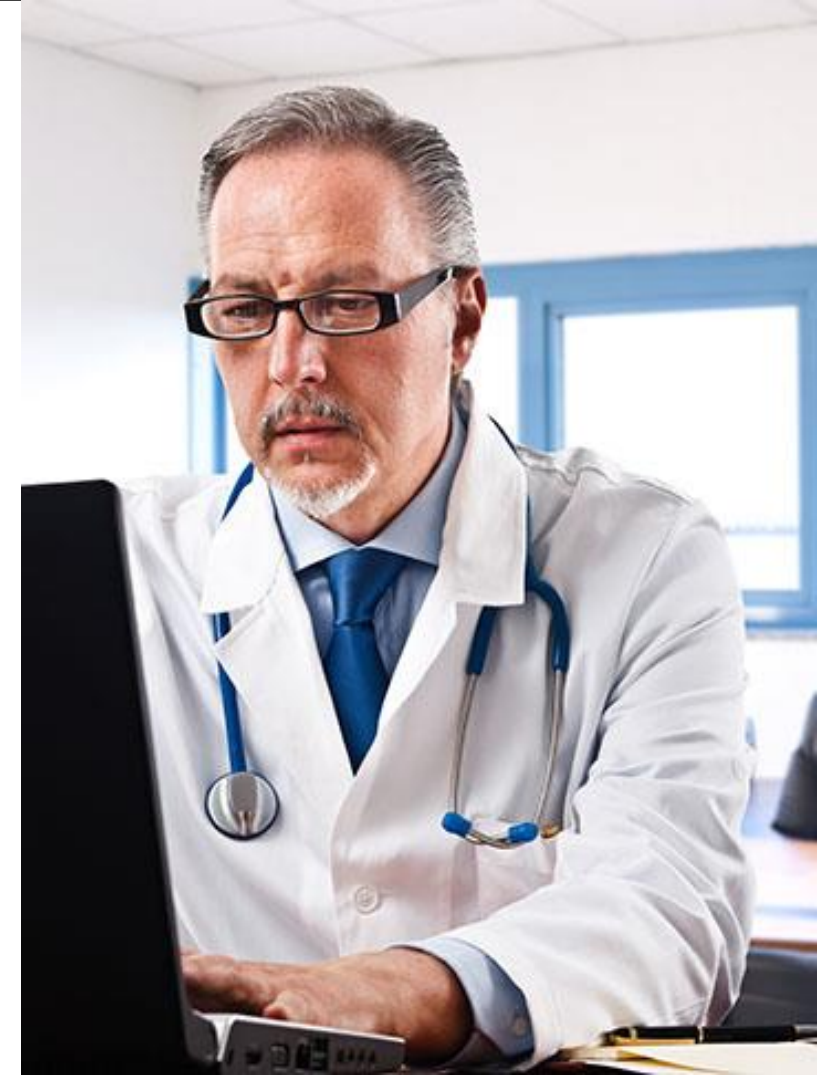
Useful and critical data is siloed in various systems and applications, causing inefficiencies, impacting clinical decisions, and increasing the risk of errors.

”

“

The time spent having to log into multiple different applications is time wasted that impacts patient care.

”



# The Challenge: Healthcare Silos And Data Fragmentation

What IT teams have told us...

“ Although, it is ultimately our responsibility to provide our clinicians and support staff with access to the data they need, it’s a lot more difficult than people realise! ”

“ We have multiple, dormant applications that are no longer creating new content but need to be kept for legal reasons. ”

“ Replacement of clinical systems (e.g. PACS/LIMS) creates and isolates legacy data. ”

“ End-of-life and unsupported legacy systems put everyone at risk! ”



# The Challenge: Healthcare Silos And Data Fragmentation

And then there's the ICS and ICBs...

“

Cannot readily get access to all data required for analytics/population health. Data is stored in multiple systems and is not readily shared.

”

“

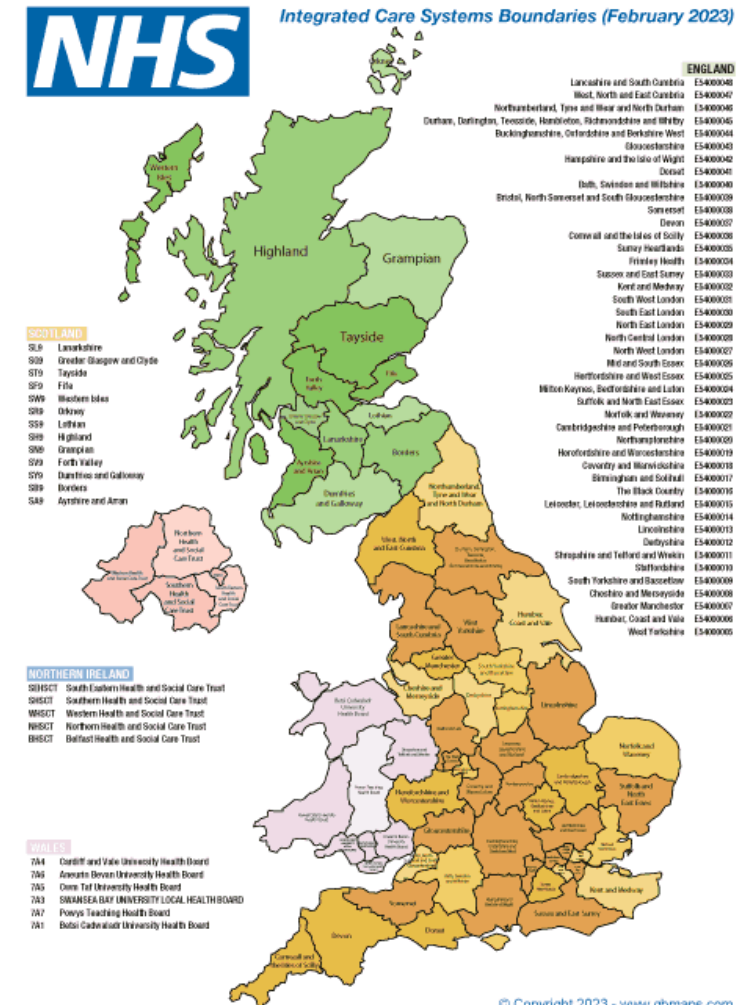
Protecting patient information while sharing data across different systems and organisations is a critical concern.

”

“

Ensuring that data is standardised across different systems and organisations is a significant challenge for us.

”





# The Impact: Healthcare Silos And Data Fragmentation

The top challenge in working with disparate IT systems and

**80%**

of respondents say it complicates their job

In a typical EPR deployment, on average only

**30%**

of data is migrated to the new EPR system

**55%**

of providers depend on

**>50**

point solutions to manage their clinical operations

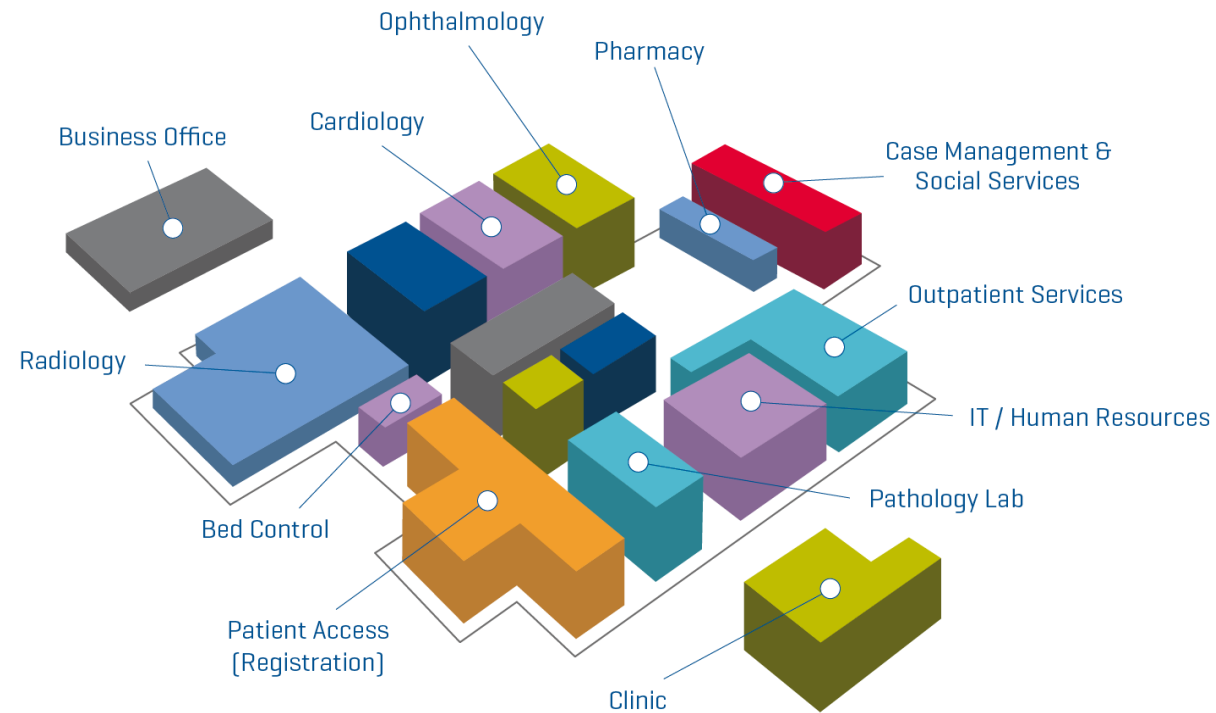
**27%**

of NHS clinicians lose over four hours a week through inefficient IT systems

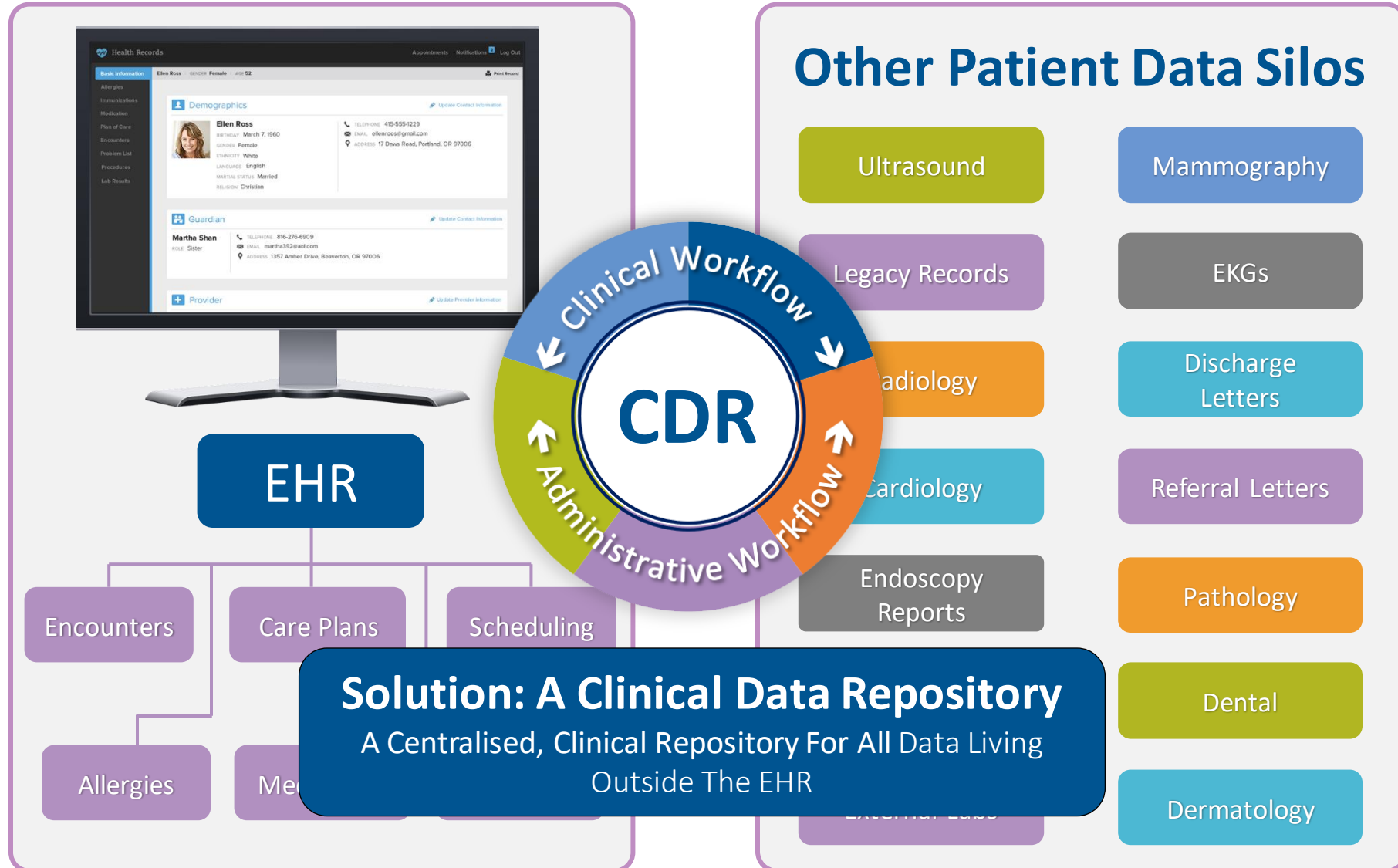
# How Can We Solve These Problems?

The Solution: A Centralised, Clinical Repository For All Data Living Outside The EPR

- ▶ A real-time, FHIR-enabled application that consolidates data from various current & legacy sources to present a unified view of a single patient
- ▶ Valuable adjunct to electronic health records (EHRs) & clinical decision support systems
- ▶ Stores raw and transformed discrete data (i.e. lab results & medication details), images, documents and other information that clinicians use for patient care



# What Is An Interoperable Clinical Data Repository?



# CDR connectivity overview



**Clinical Data Repository (CDR), a critical tool for aggregating, organizing, protecting and sharing patient data.**



# Live Demo of HealthStore<sup>®</sup> Clinical Data Repository

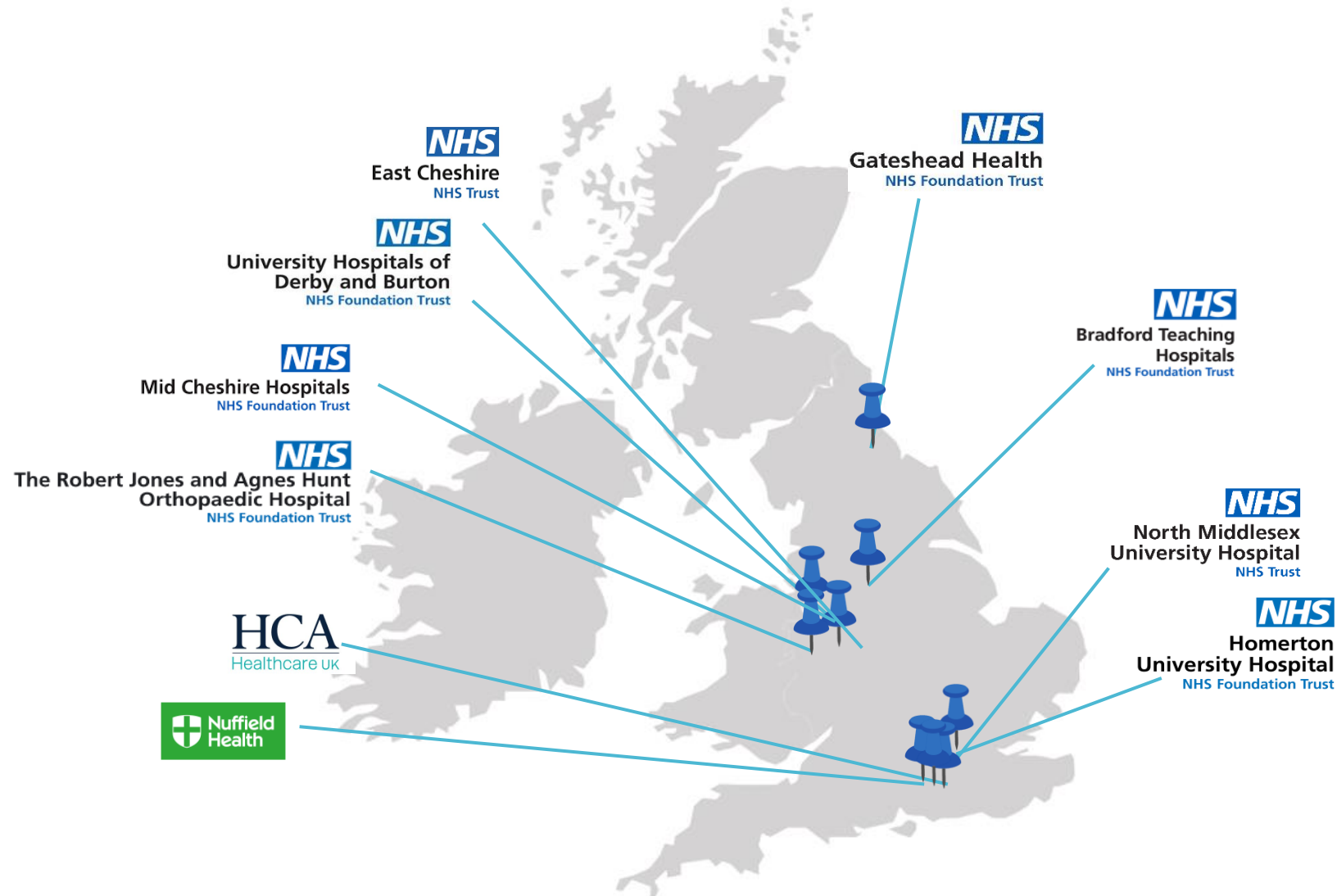
*Walk through of a scenario similar to BridgeHead's live integration and data exchange with EPIC and Oracle Cerner.*

Images from HIMSS24 Interoperability Showcase

# The Benefits: A FHIR Enabled Clinical Data Repository



# Just Some Of Our UK Adoption...



# Why Customers Chose An Interoperable CDR...



**University Hospitals of Derby and Burton**  
NHS Foundation Trust

▶ New EPR: Nervecentre



**Homerton University Hospital**  
NHS Foundation Trust

▶ EPR: Oracle Cerner



▶ New EPR: IMS Maxims  
▶ New PACS: Philips



**Bradford Teaching Hospitals**  
NHS Foundation Trust

▶ EPR: Oracle Cerner

## DRIVERS

PATIENT SAFETY

DATA ACCESS

CYBER RISK

REDUCE COST

PATIENT SAFETY

DATA ACCESS

CYBER RISK

REDUCE COST

PATIENT SAFETY

DATA ACCESS

CYBER RISK

REDUCE COST

PATIENT SAFETY

DATA ACCESS

CYBER RISK

REDUCE COST



## **Georgina Hurst**

Vice President Of Sales, UK & Ireland

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## **Adam Coombes**

HealthStore® Product Owner

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STORE | PROTECT | SHARE



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## Slido

**Please scan the QR Code on the screen. This will take you through to Slido, where you can interact with us.**



**SCAN ME**



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## Speaking Now...



**Ben Jeeves**

Associate Chief Clinical Information Officer, AHP  
professional Lead, Advanced Practice Physiotherapist  
Midlands partnership NHS University Foundation Trust

# HOW CAN THE CHALLENGES OF INTEGRATING HEALTHCARE BE EFFECTIVELY ADDRESSED BY DIGITAL?

BEN JEEVES

ASSOCIATE CCIO

MAY 2024



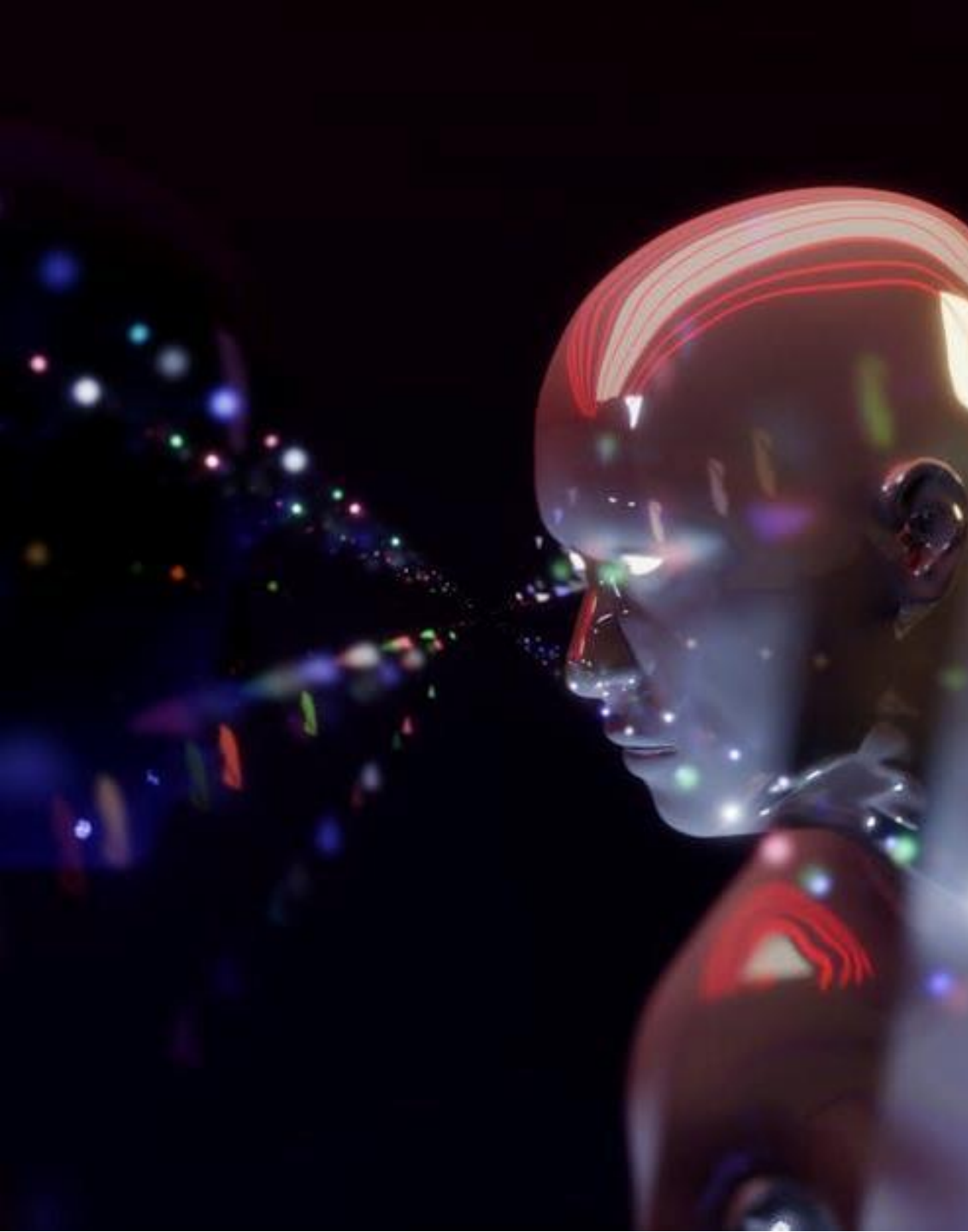
# AGENDA

- COMPELLING NEED FOR CHANGE

- DIGITAL AS AN ENABLER

- BARRIERS

- CLOSING



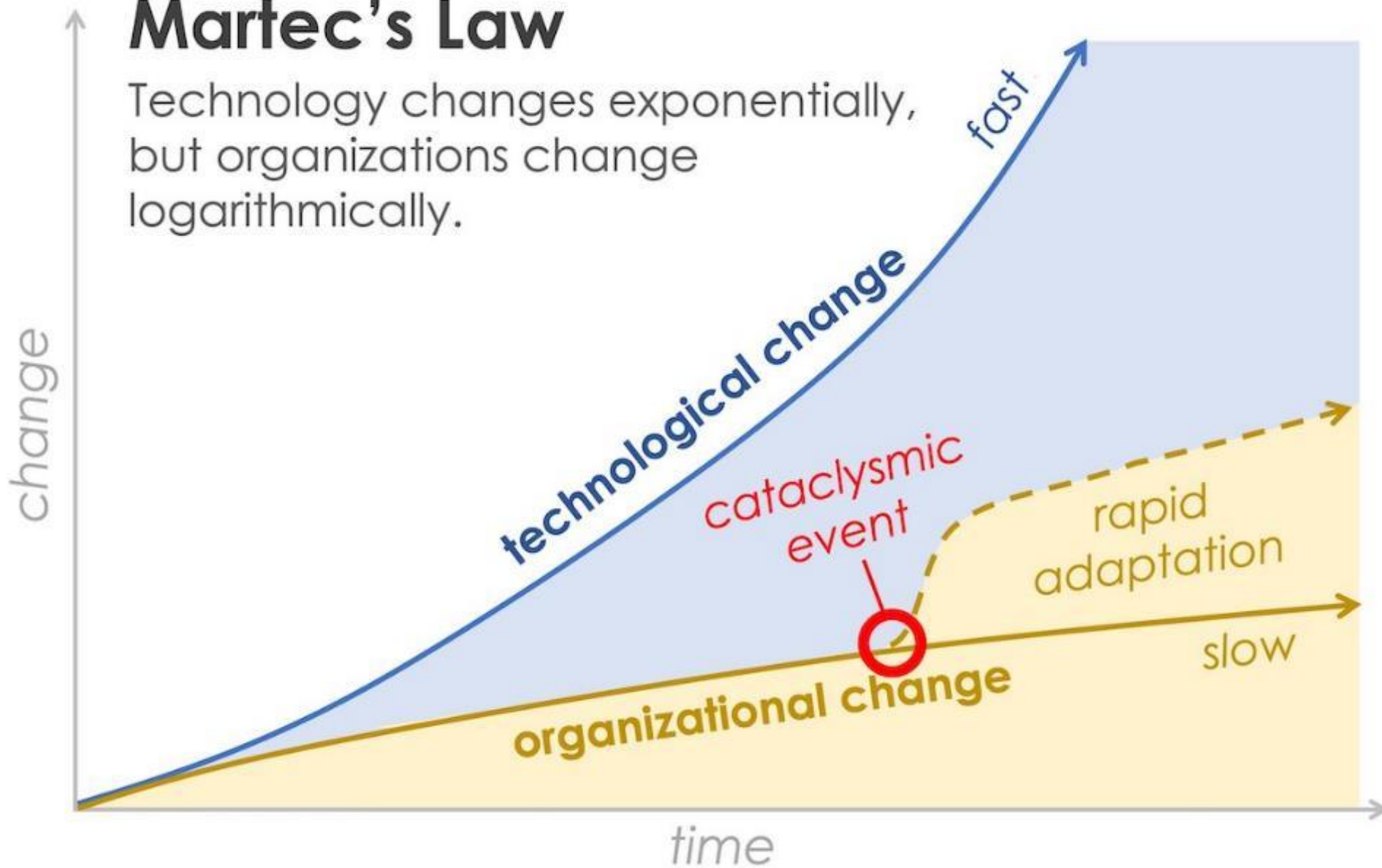
# CHANGE

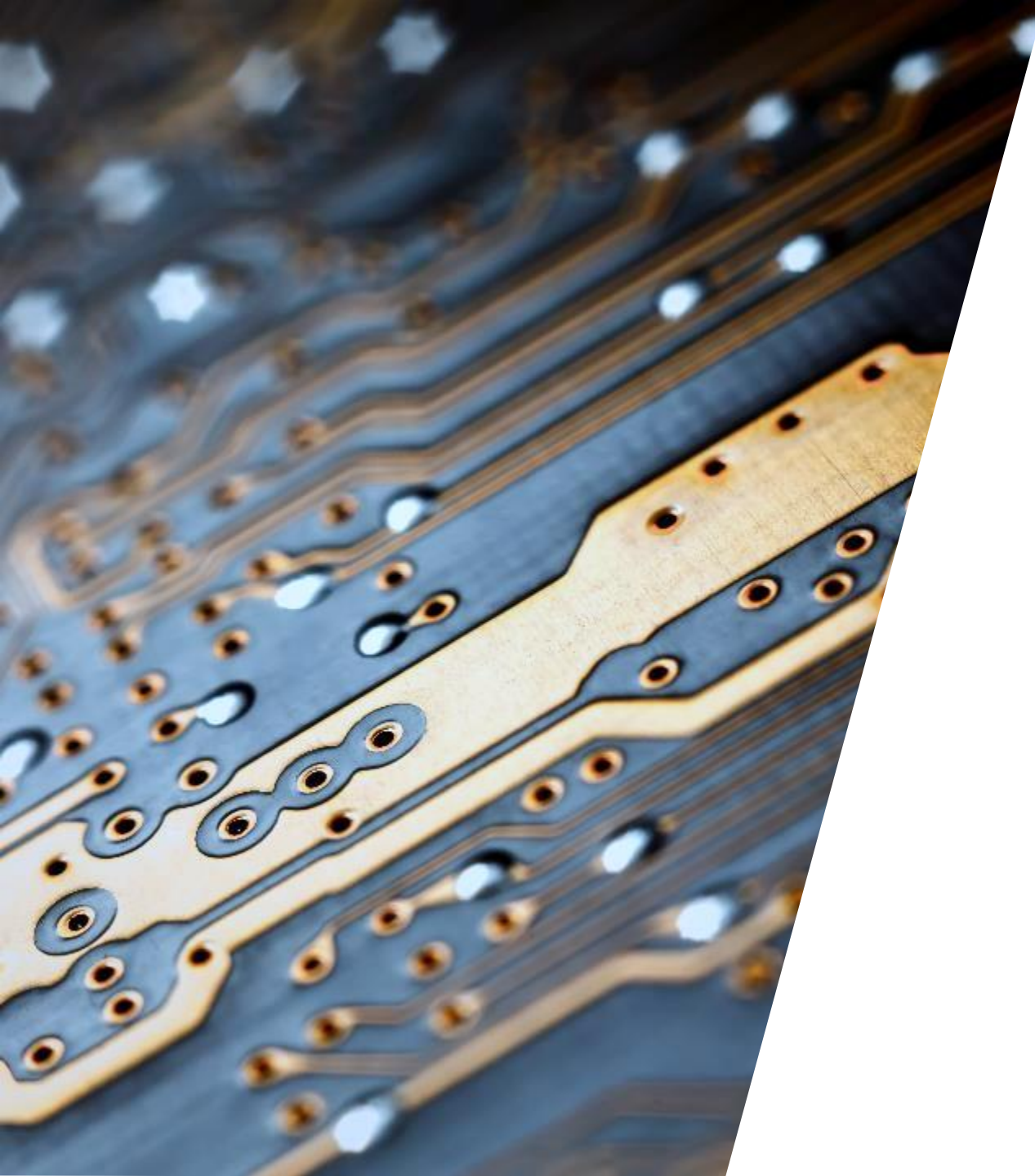
## WHAT ABOUT CHANGE?

- THE CASE FOR CHANGE
- CHANGE IS INEVITABLE
- CHANGE IS ESSENTIAL
- THERE IS DIGITISATION
- THEN THERE IS DIGITAL TRANSFORMATION

# Martec's Law

Technology changes exponentially,  
but organizations change  
logarithmically.





# DIGITAL WILL ONLY GET YOU SO FAR

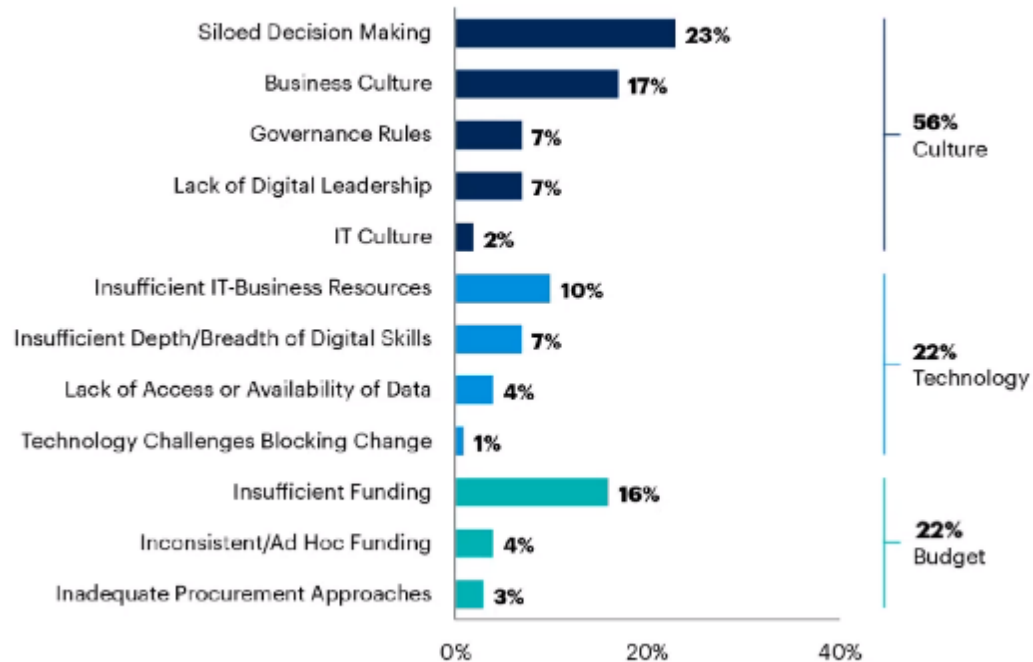
WHAT IS THE CITED  
FAILURE RATE?



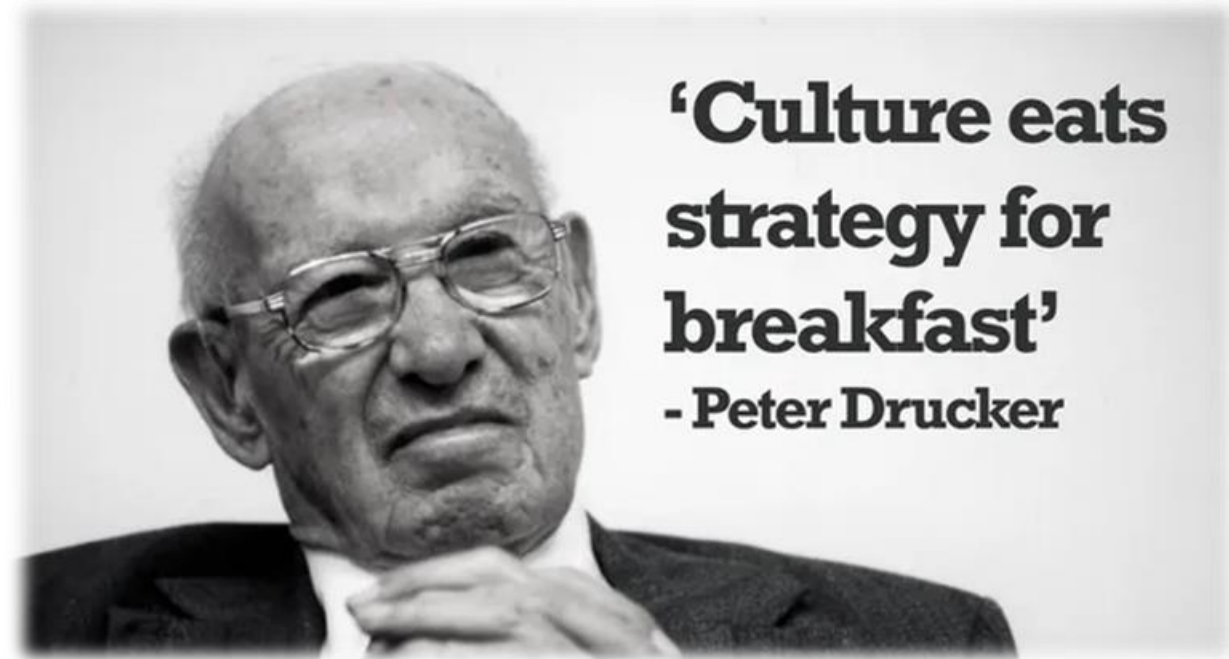
# BARRIERS TO CHANGE

## READINESS FOR CHANGE

**Digital Transformation Challenges in Government**  
Percentage of Respondents; Rank One



n = 166 total answering





# A CASE FOR CHANGE

A BLOG





# CHANGE MANAGEMENT

ITS ALWAYS PEOPLE

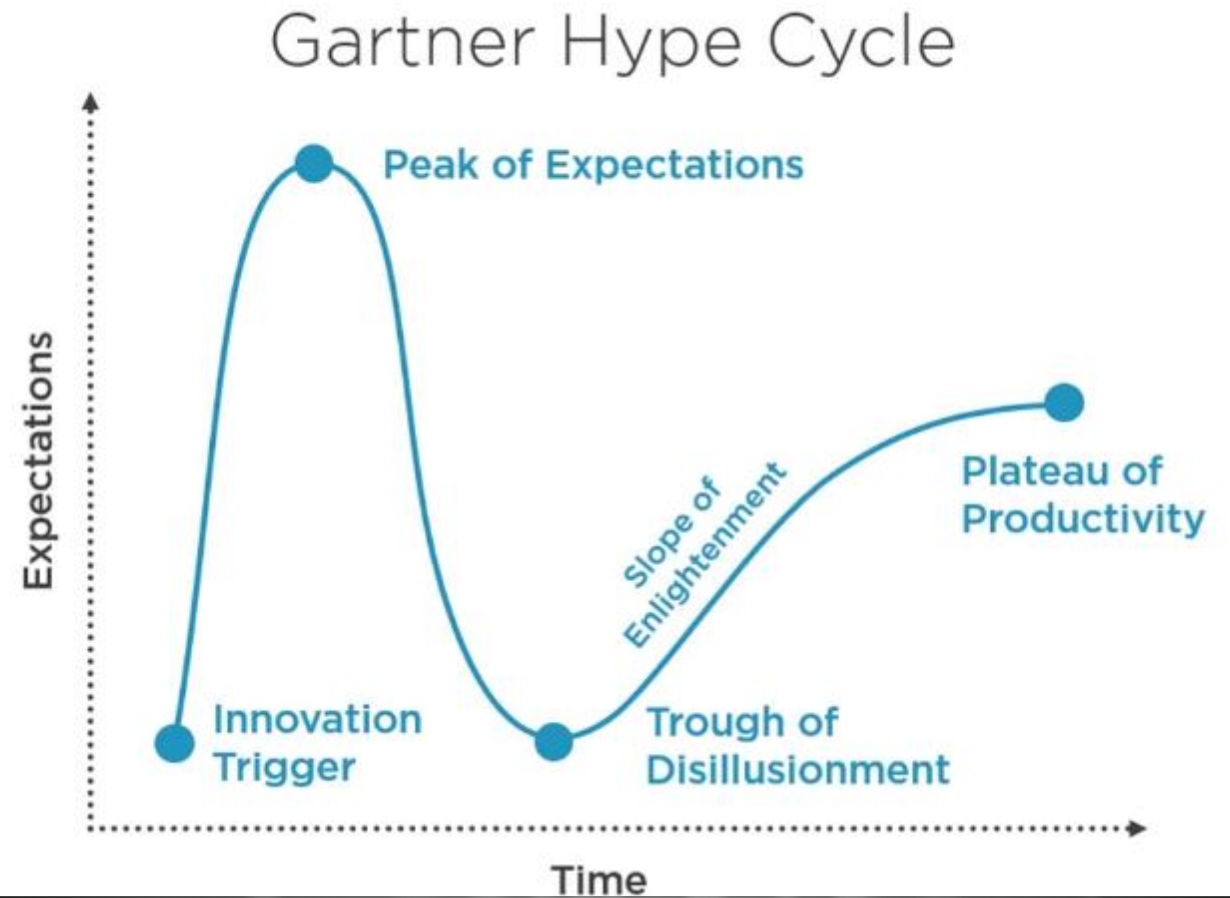
## Challenge No. 2: Risk-averse culture

Cultures that resist change are particularly common among frontline and service delivery workforces, which are often risk-averse and see no benefit in making changes to what they perceive as tried-and-true practices.

In this environment, a CIO driving a technology-led transformation faces a particularly acute challenge. To succeed, align your **digital transformation** programs with business outcomes and make organizational change the core element of such programs.

**Gartner**<sup>®</sup>

**MANAGE PEOPLE  
MORE THAN THE TECH**





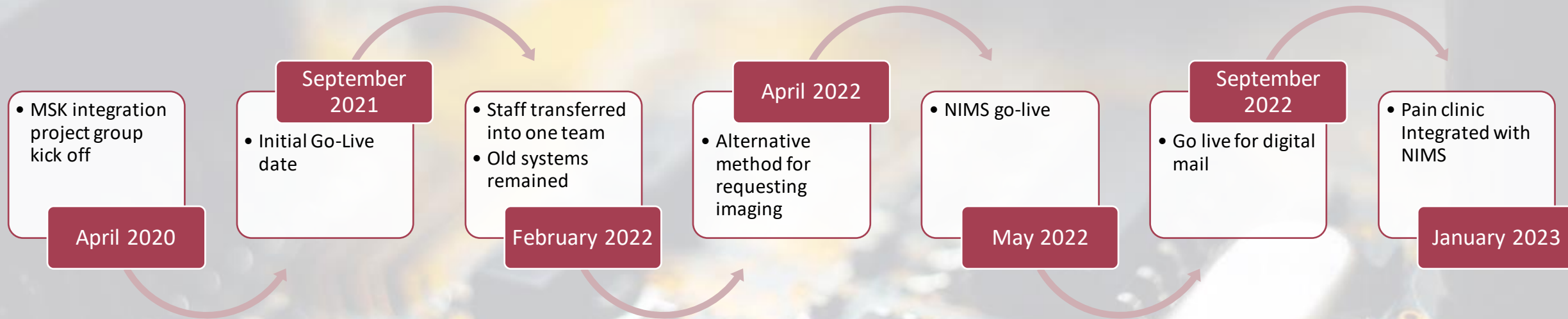
# AN EXAMPLE

M S K

# WHAT DID WE HAVE?

- North Staffordshire and Stoke-on-Trent
- IMPACT (Interdisciplinary Musculoskeletal Pain Assessment Community Team) Pain Service
- Musculoskeletal Interface Service (MIS)
- Physiotherapy service
- Podiatry service
- Multiple pathways/ entries for MSK care
- Duplication
- Inefficiency
- Multiple systems (7 clinically related systems)

# TIMELINE



# WHAT DO WE HAVE NOW?

- A single point of access
- 6 systems
- Digital mail solution
- Less admin burden
- Less appointments needed?
- Some co-located clinics
- We still have duplication
- We still have inefficient pathways
- We have not yet fully realised benefits of integration
- Not all clinicians are co-located
- We have an ongoing need for change



# LESSONS LEARNED

- **Communication**
- **Colleagues didn't feel ready**
- **People forget**
- **You don't always need new tech**



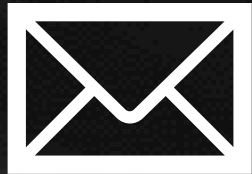
**Always leave things better than you found  
them, especially people.**

**DR HENRY CLOUD**

**SO HOW CAN THE CHALLENGES OF INTEGRATING  
HEALTHCARE BE EFFECTIVELY ADDRESSED BY DIGITAL?**

A large, billowing white cloud dominates the lower two-thirds of the frame, rising from the bottom left towards the top right. The cloud has a textured, puffy appearance with various shades of white and light grey, suggesting depth and volume. The background is a uniform, light grey color, providing a high-contrast backdrop for the cloud and the text above it.

# THANK YOU



[ben.jeeves@mpft.nhs.uk](mailto:ben.jeeves@mpft.nhs.uk)



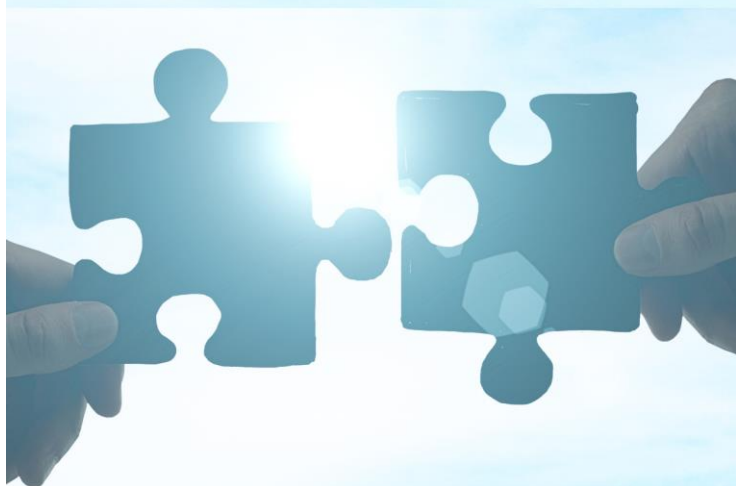
[@bjeeves](https://twitter.com/bjeeves)





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## Speaking Now...



**Sophie Hodges**

Lead Data Engineer  
The Health Economics Unit



# STAR with patients, carers, clinicians and system leaders to help make resourcing decisions across an ICS

Convenzis – Integrating Care Conference

16<sup>th</sup> May 2024

Sophie Hodges, Lead Data Engineer, Health Economics Unit

# Hello, my name is Sophie

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- Lead Data Engineer
  - Health Economics Unit, part of ML
  - Work with data scientists, economists, +++
  - Wide range of projects with various parts of health and care
- My background
  - Data
  - Project management
  - PHM
  - Analytics





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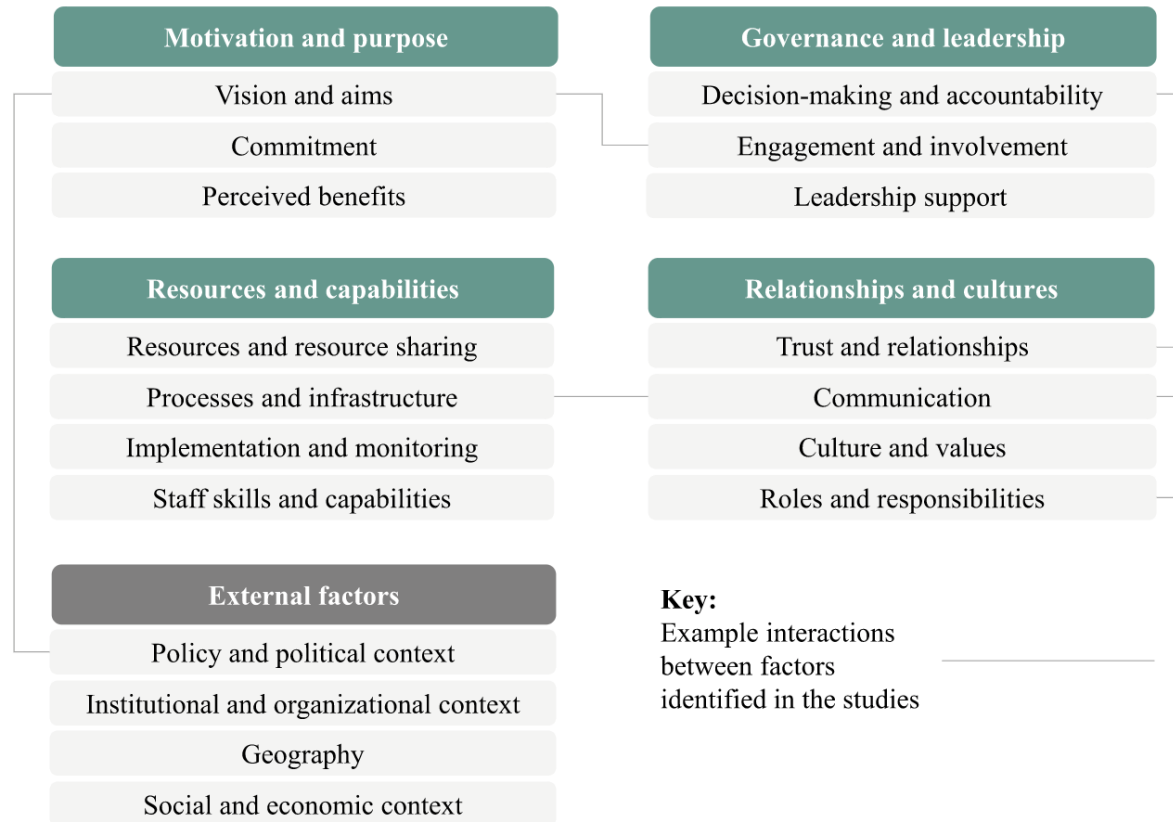
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Commissioning Support Unit

# The challenge

Why do we need MCDA and STAR?

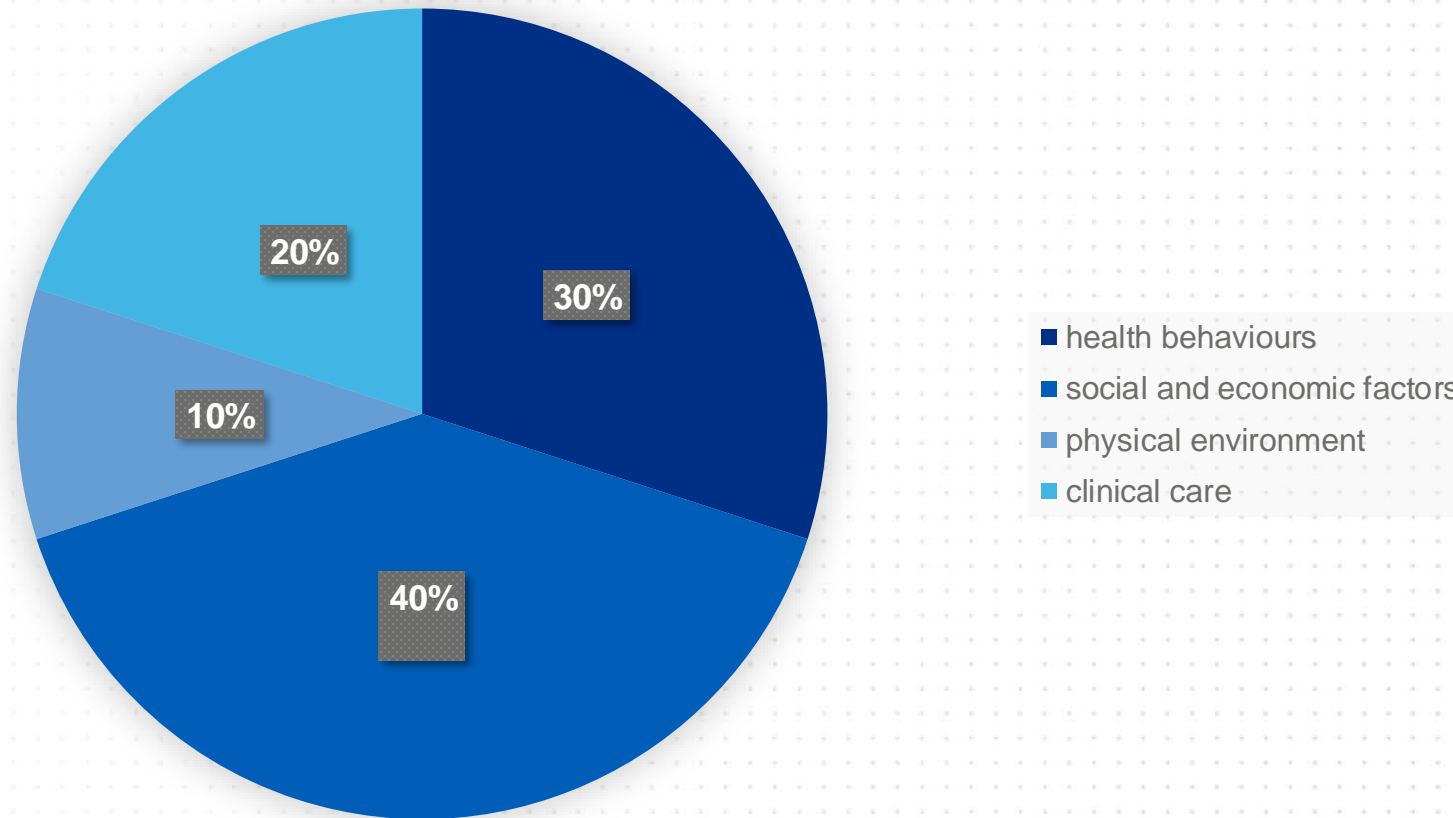


# System working is hard

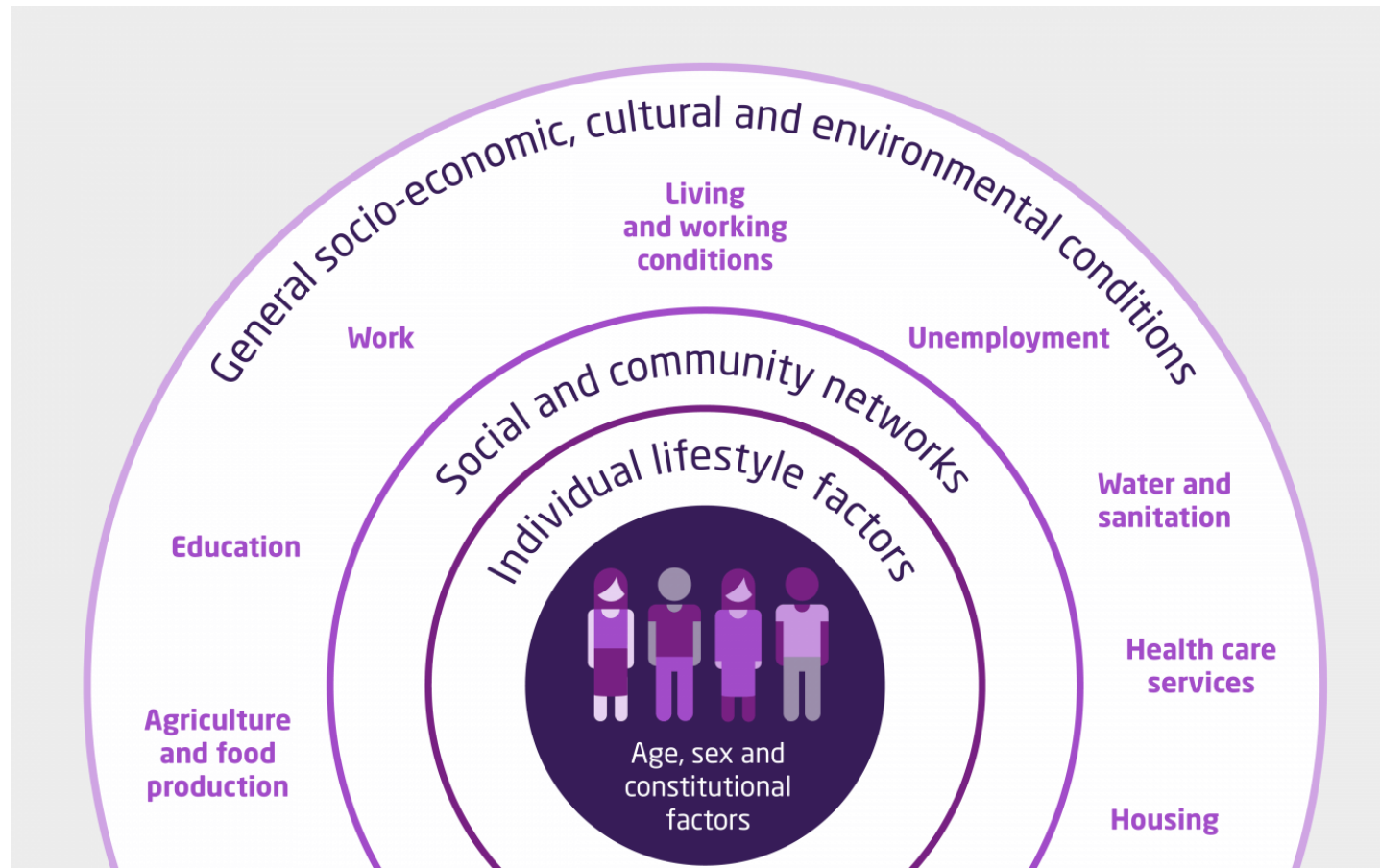


# Modifiable determinants all contribute to outcomes

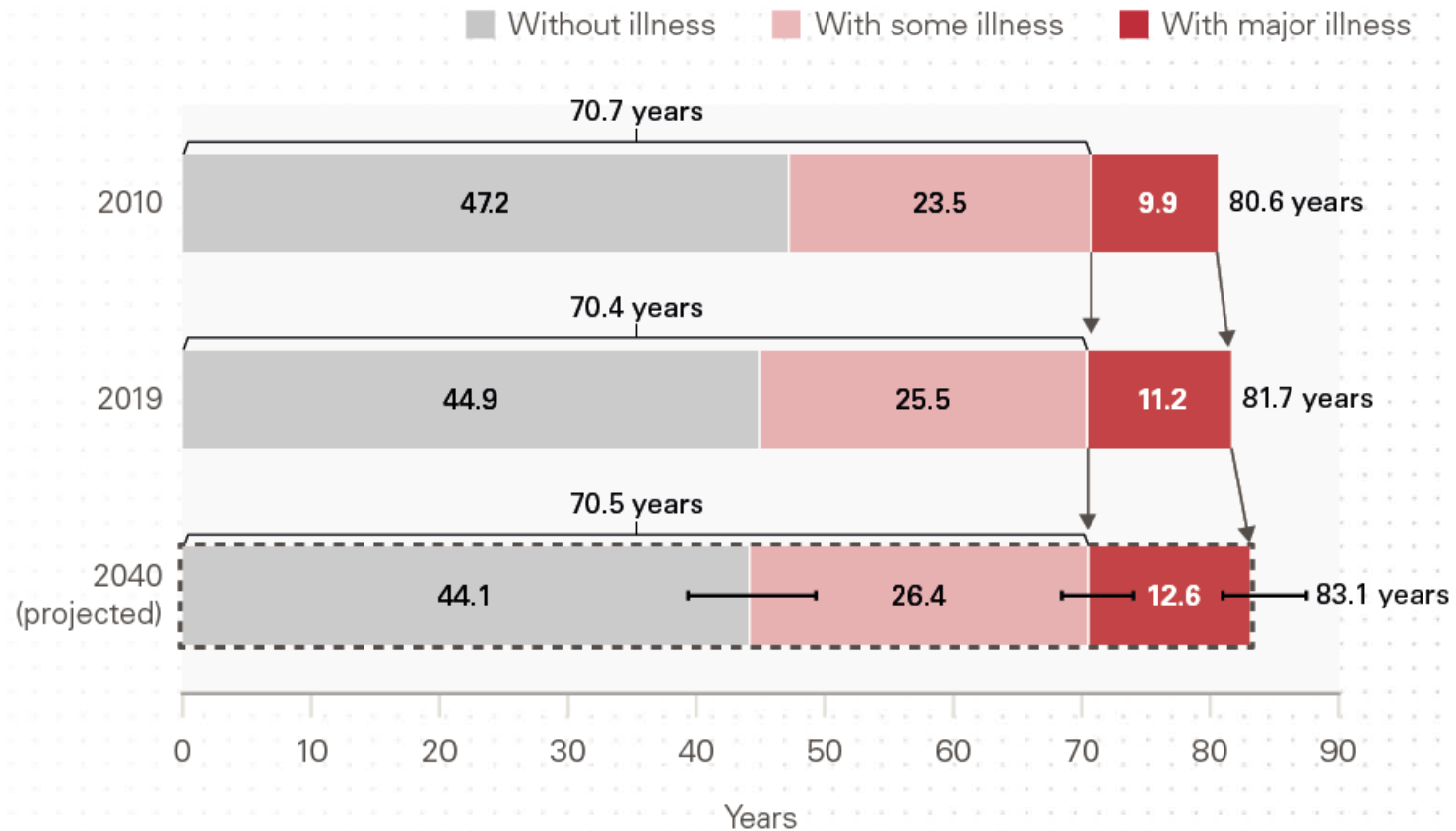
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# Data and evidence quality is unequal



# Moving targets





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# Measuring efficiency

What are the types of efficiency and how can understanding them help make better decisions?

# Types of efficiency – party edition

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Technical efficiency – **doing things right**



# Types of efficiency – party edition

Technical efficiency – **doing things right**

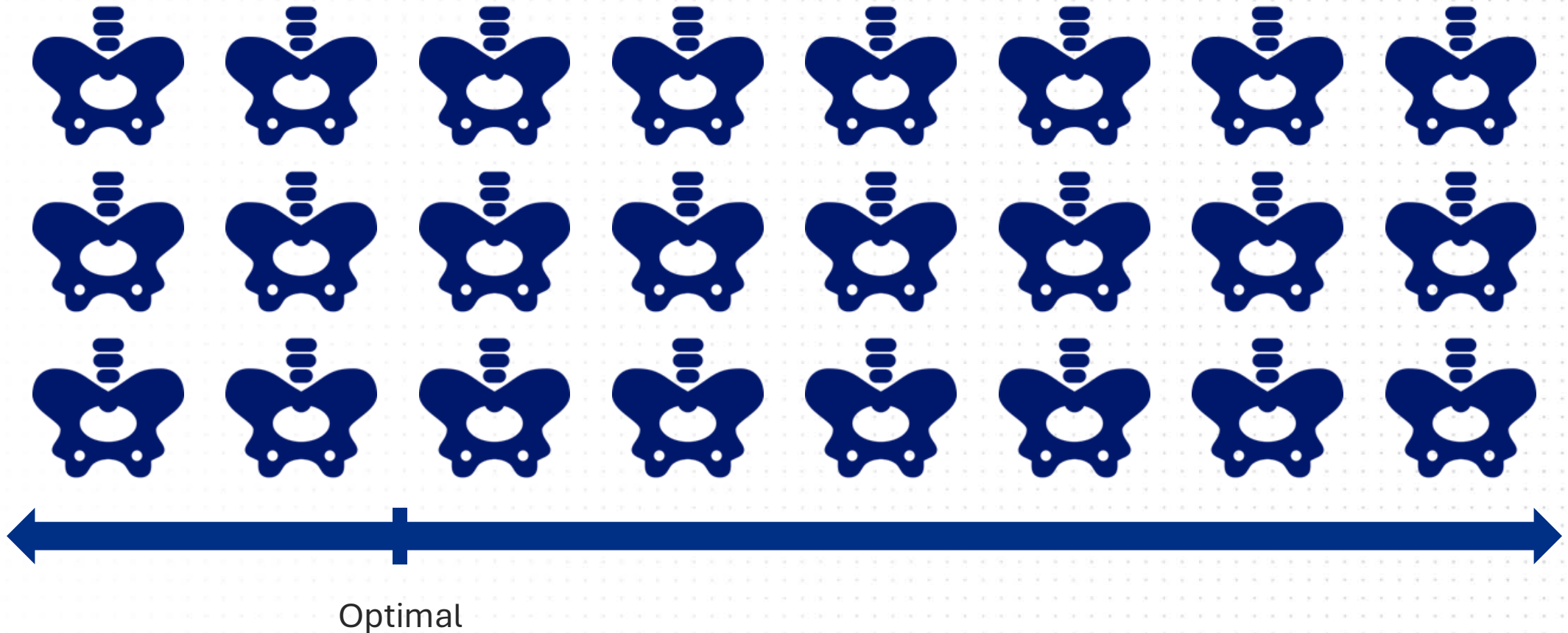


Allocative efficiency – **doing the right things**



# Efficiencies in healthcare

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# STAR

Socio-Technical Allocation of Resources, an approach rooted  
in Multi-criteria Decision Analysis (MCDA)

# Socio-Technical Allocation of Resources

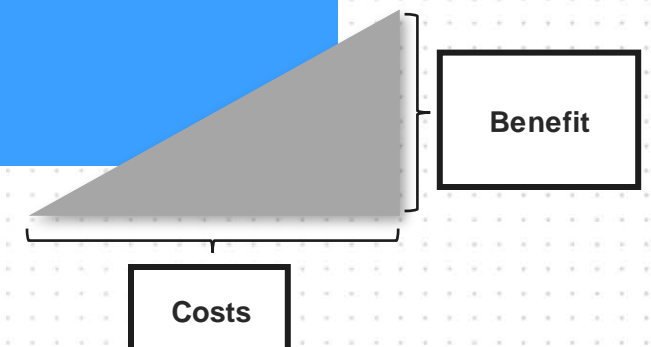
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## 'Socio' part

The social process entails engaging local, key stakeholders (including patients, clinicians, and managers) to reach consensus about the best way forward. This is done with the help of an impartial facilitator in 'decision conferences.'

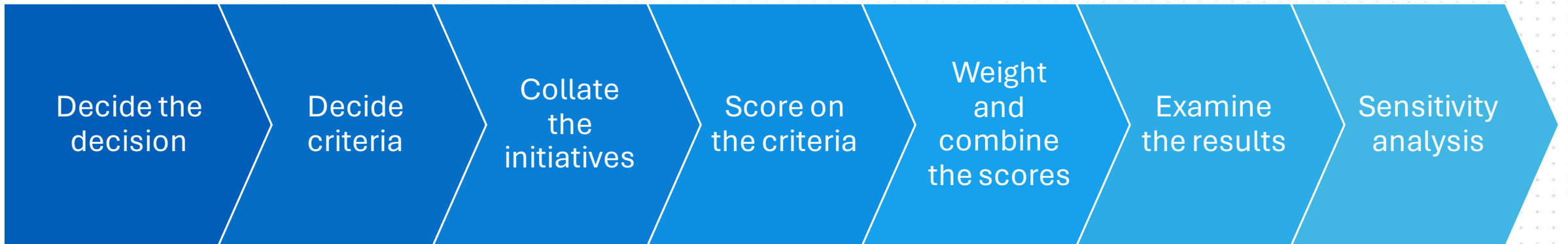
## 'Technical' part

The technical process entails building visual models of the decision problem at hand. These models combine the best available data with stakeholders' views on multiple criteria to help determine the best way forward.

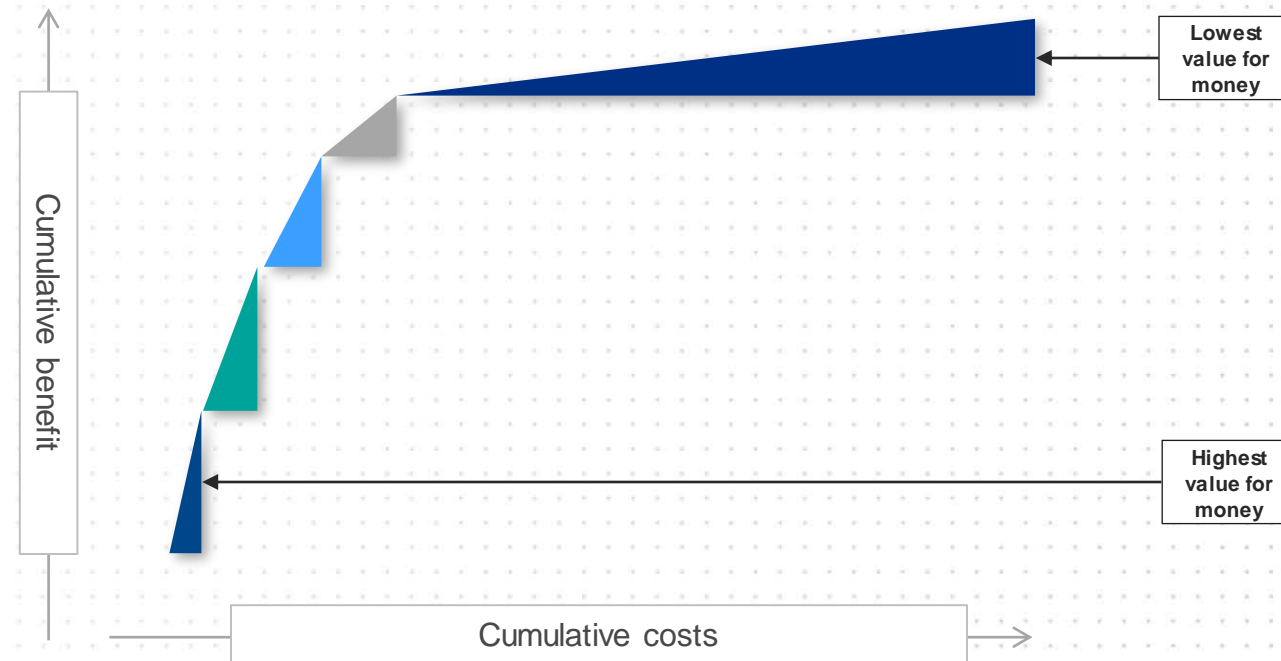
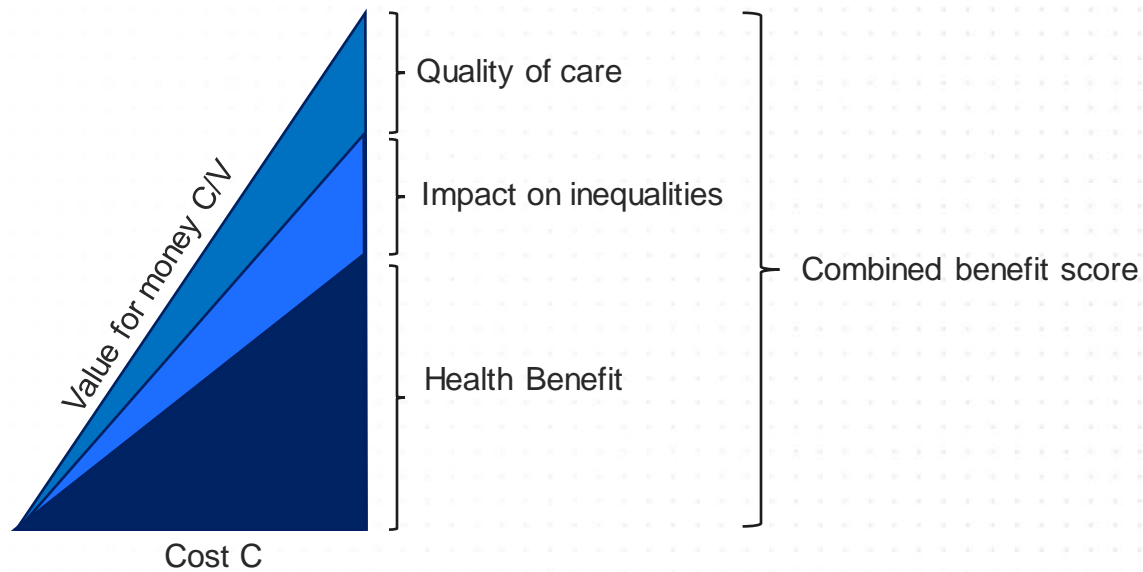


# General approach to socio-technical projects

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# Visualisations: efficiency frontiers

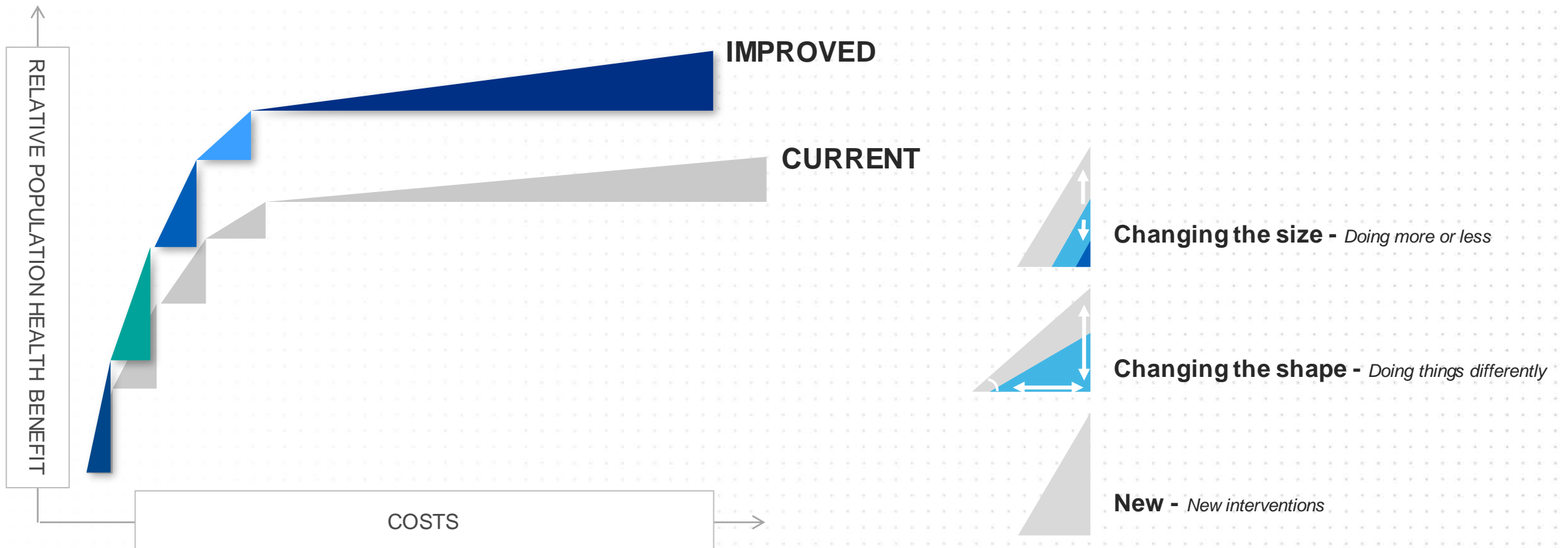


# Decision conferences



*“a way of helping a group of key players to resolve important issues in their organization by working together, under the guidance of an impartial facilitator, with the aid of a decision analysis model of participants’ perspectives on the issues”*

# Improving the efficiency frontier





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# STAR programme for COPD in 5 ICSs

# COPD STAR Programme

We worked with 5 ICSs on their entire COPD pathways:



## Collected data and evidence on the pathway:

- **>500** COPD patients completed a preferences survey
- **>64** publications were part of the literature review
- **>100** data points were collected looking at costs, activity and health gain.



## Collaborative workshops to value the pathway and identify improvements:

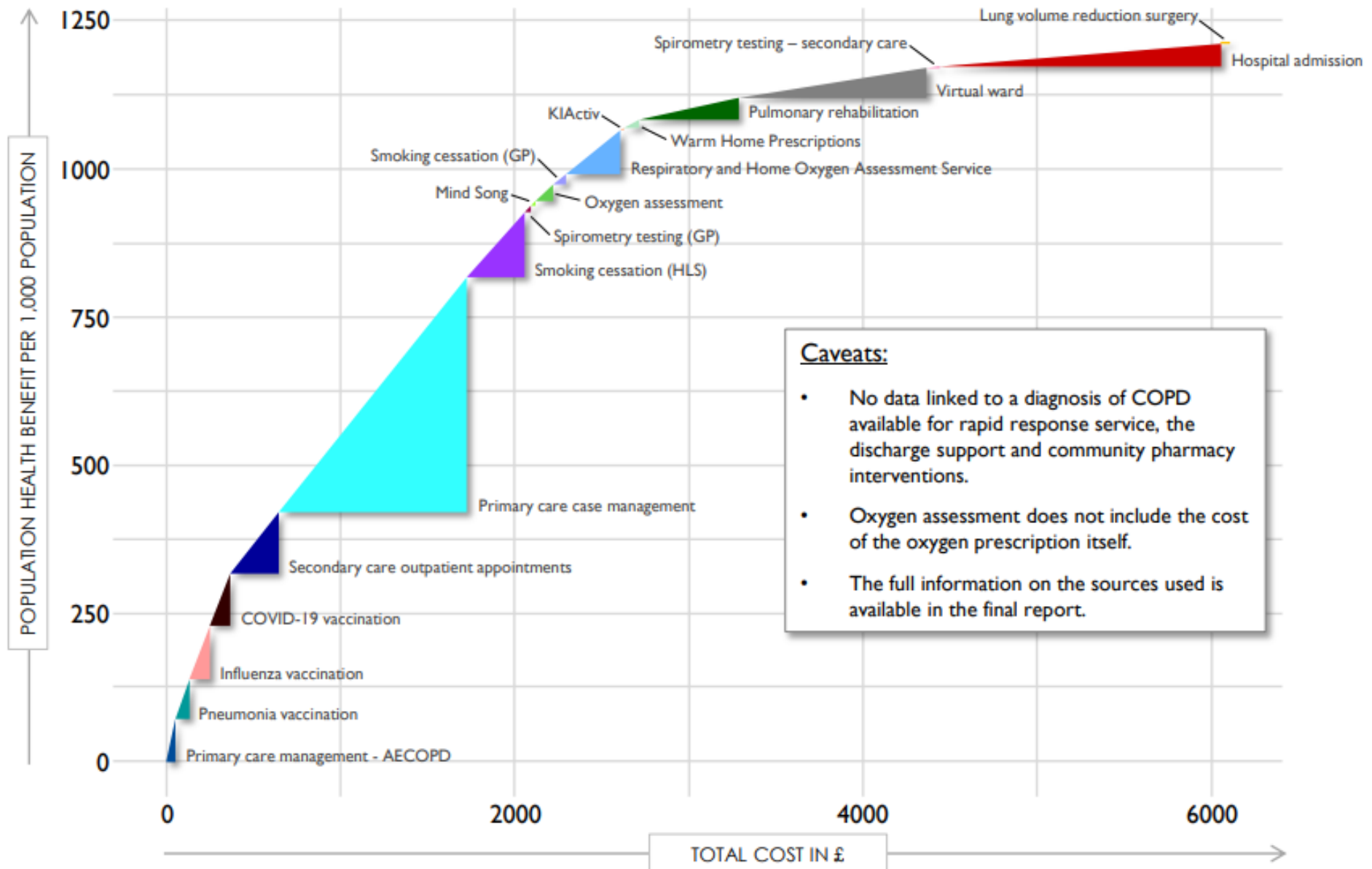
- ~100 attendees contributed to **10 in-person workshops**
- Attendees included patients, COPD clinical specialists, public health, finance, informatics, analysts and transformation managers.



## Model pathway improvements in terms of costs and population health:

- **70** pathway improvements were modelled using STAR approach.
- **Five** pathway improvements per ICS were recommended for implementation due to the modelled cost and population health gain.



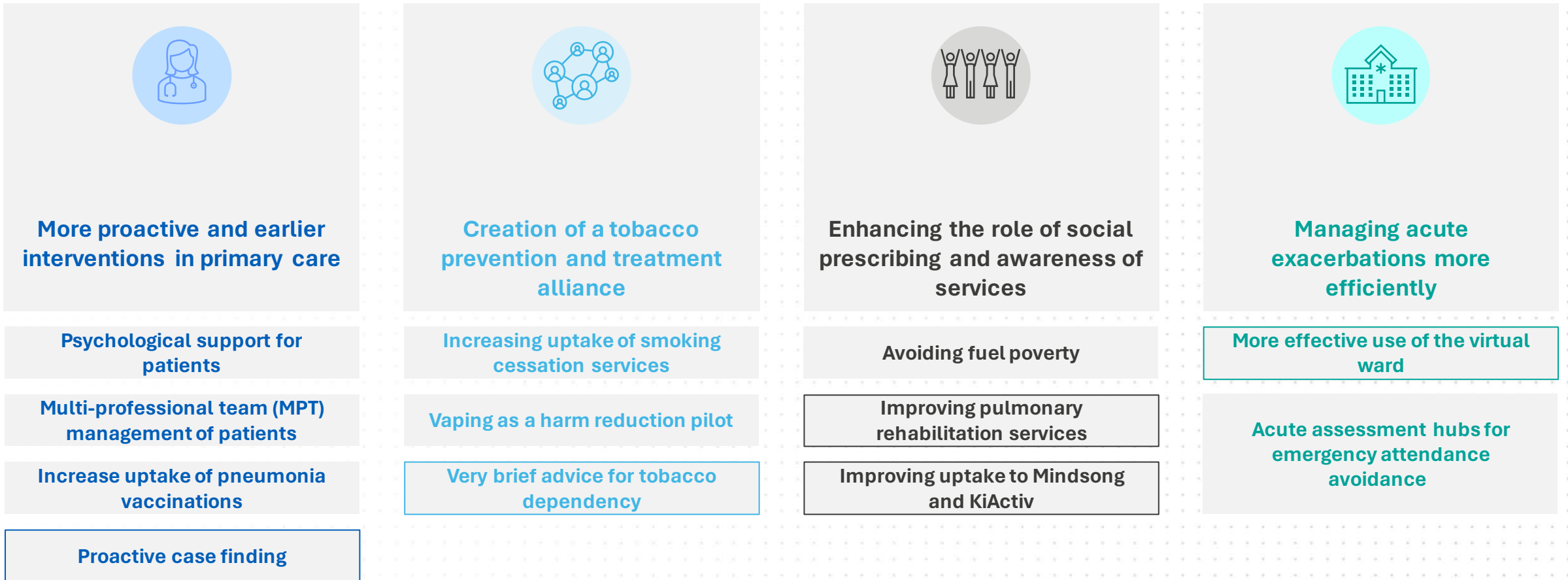


**Caveats:**

- No data linked to a diagnosis of COPD available for rapid response service, the discharge support and community pharmacy interventions.
- Oxygen assessment does not include the cost of the oxygen prescription itself.
- The full information on the sources used is available in the final report.

	PRIMARY PREVENTION	SECONDARY PREVENTION/DIAGNOSIS	STABLE MANAGEMENT	TERTIARY PREVENTION	MANAGEMENT OF ACUTE EXACERBATIONS
% of total spend	6.7%	8.3%	27.4%	12.4%	45.2%
% of pop health gain	10.5%	22.6%	47.4%	6%	13.5%

# The pathway improvements identified by priority area





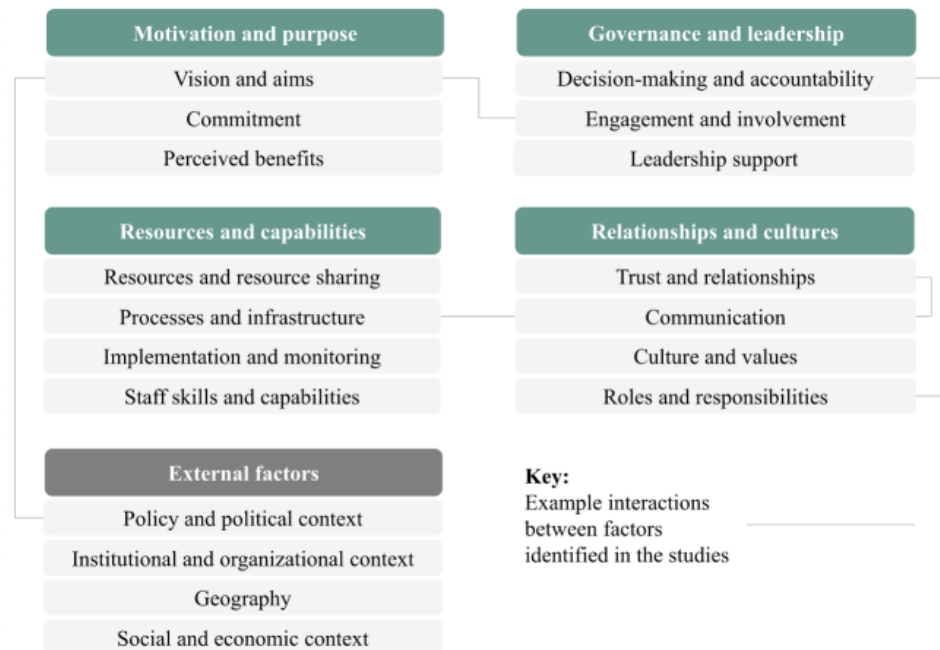
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# Lessons learned along the way

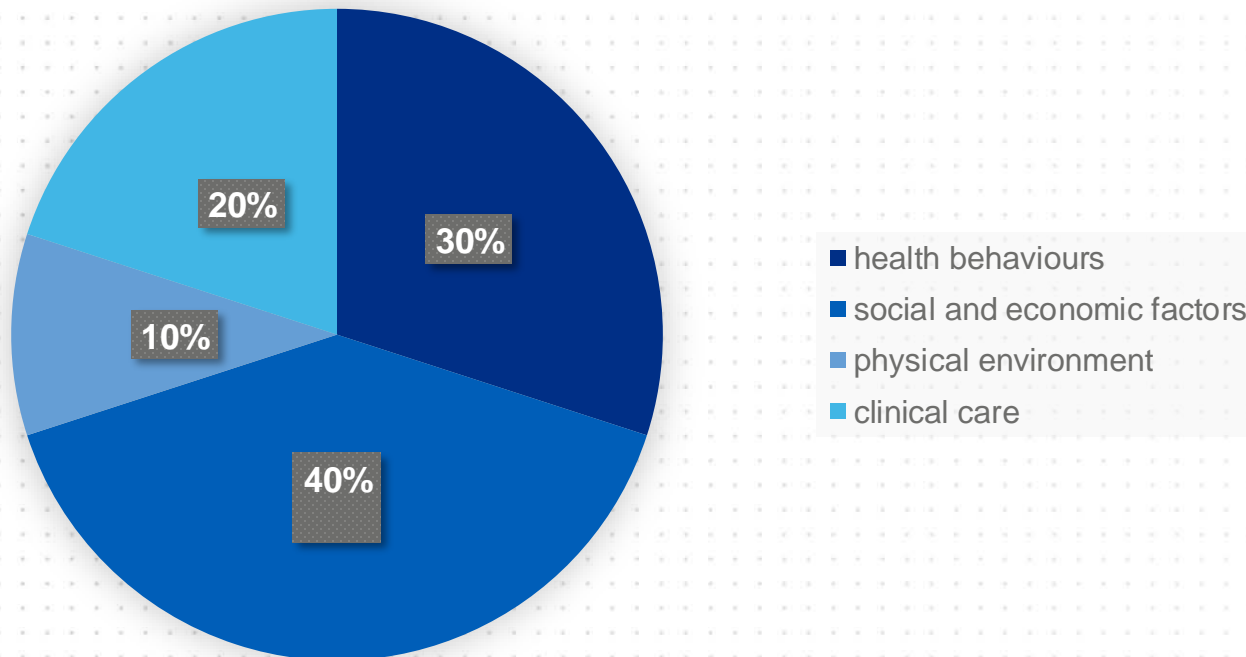
# System working is hard



- A decision framework can provide structure to support system working
- Decision conferencing allows for consensus and collective decision making

# Modifiable determinants all contribute to outcomes

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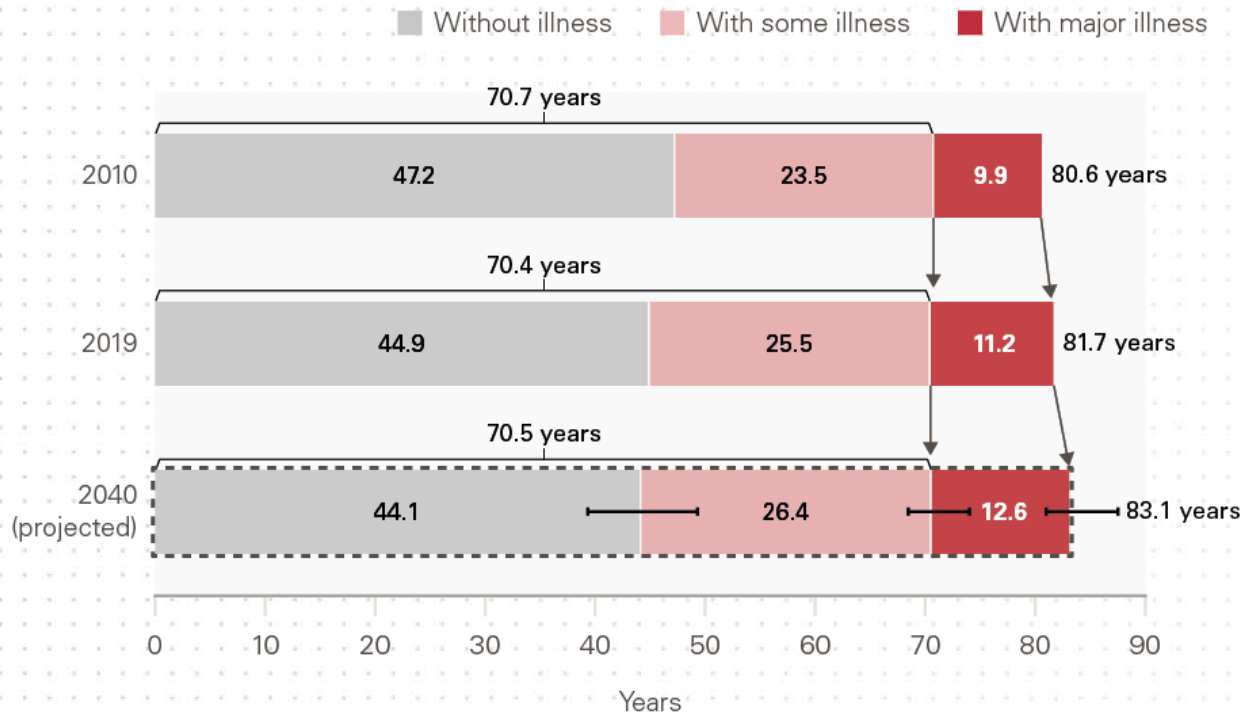
- Incorporate entire pathways from prevention to end of life care.
- Decisions are influenced by those in the room – so get the right people in the room that equally represent all important areas

# Data and evidence quality is unequal

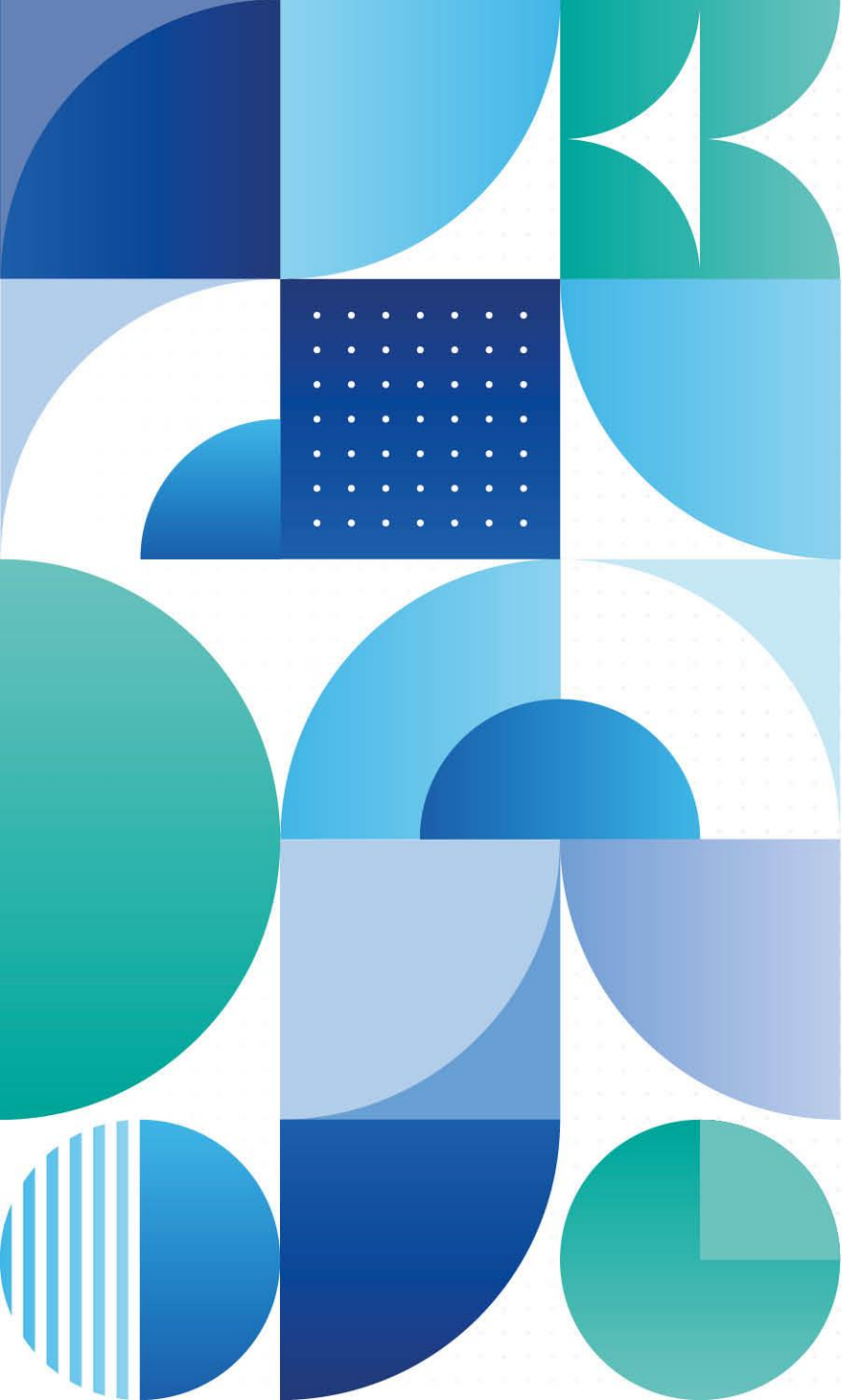


- The absence of data and evidence is not a complete barrier.
- Patient input is vital.

# Moving targets



- Aim for progress and not perfection.
- Come back to these approaches regularly.



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## Any questions?

I hope you enjoyed this session!



sophie.hodges5@nhs.net



<https://healtheconomicsunit.nhs.uk/>





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## Human Elements of Integration: Activating Communities for enhanced outcomes discussion



**Taps Mtemachani**  
Director of Transformation  
and Partnership  
NHS Black Country ICB



**Dr Ian Lawrence**  
Clinical Director for  
Integration | Chief Clinical  
Information Officer  
Derbyshire Community  
Health services