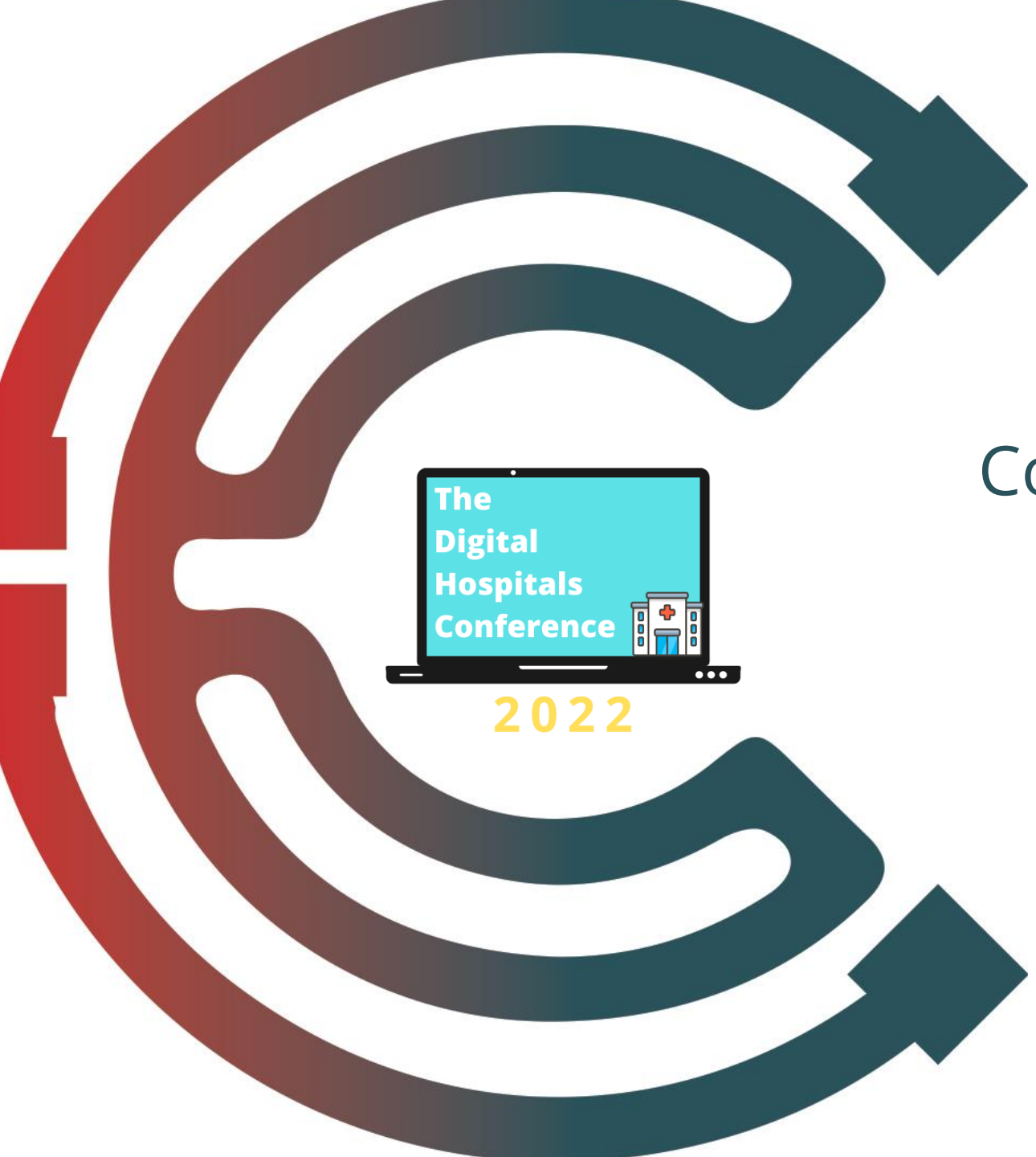
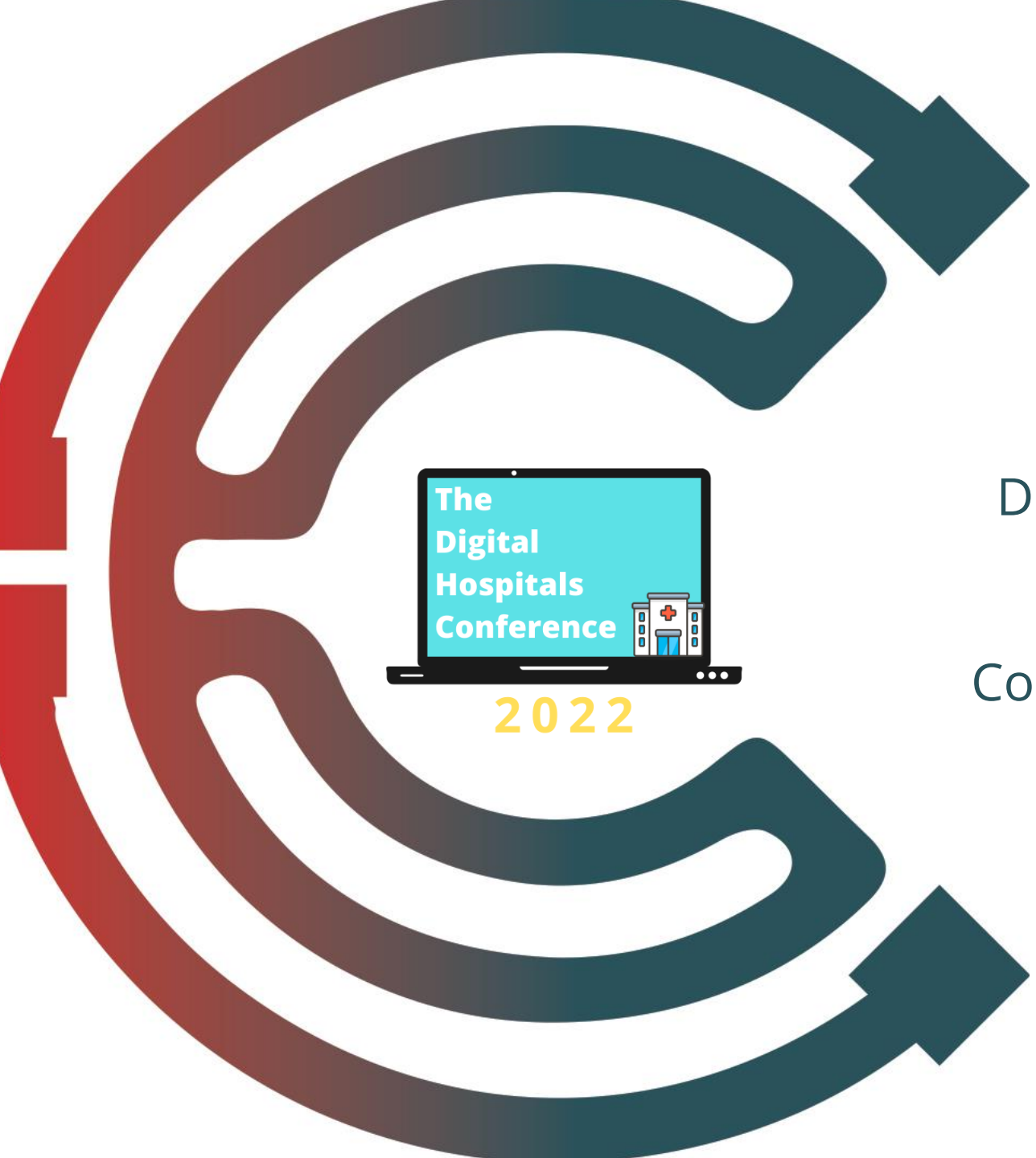


The Digital Hospitals Conference: Reflecting on Rapid Scale up

15th of March – EtcVenues Manchester

Conference hosted by Convenzis Group Ltd

Meet Todays Sponsors



Chairs Opening Address

Dr David Laith Rawaf, Research & Design (WHO Collaborating Centre for Public Health Education & Training, Imperial College) London Surgical Trainee (Epsom & St Helier Hospitals, London Deanery)

2022

Elisa Lakhan-Hector,
Head of Enterprise Architecture,
Health Education England

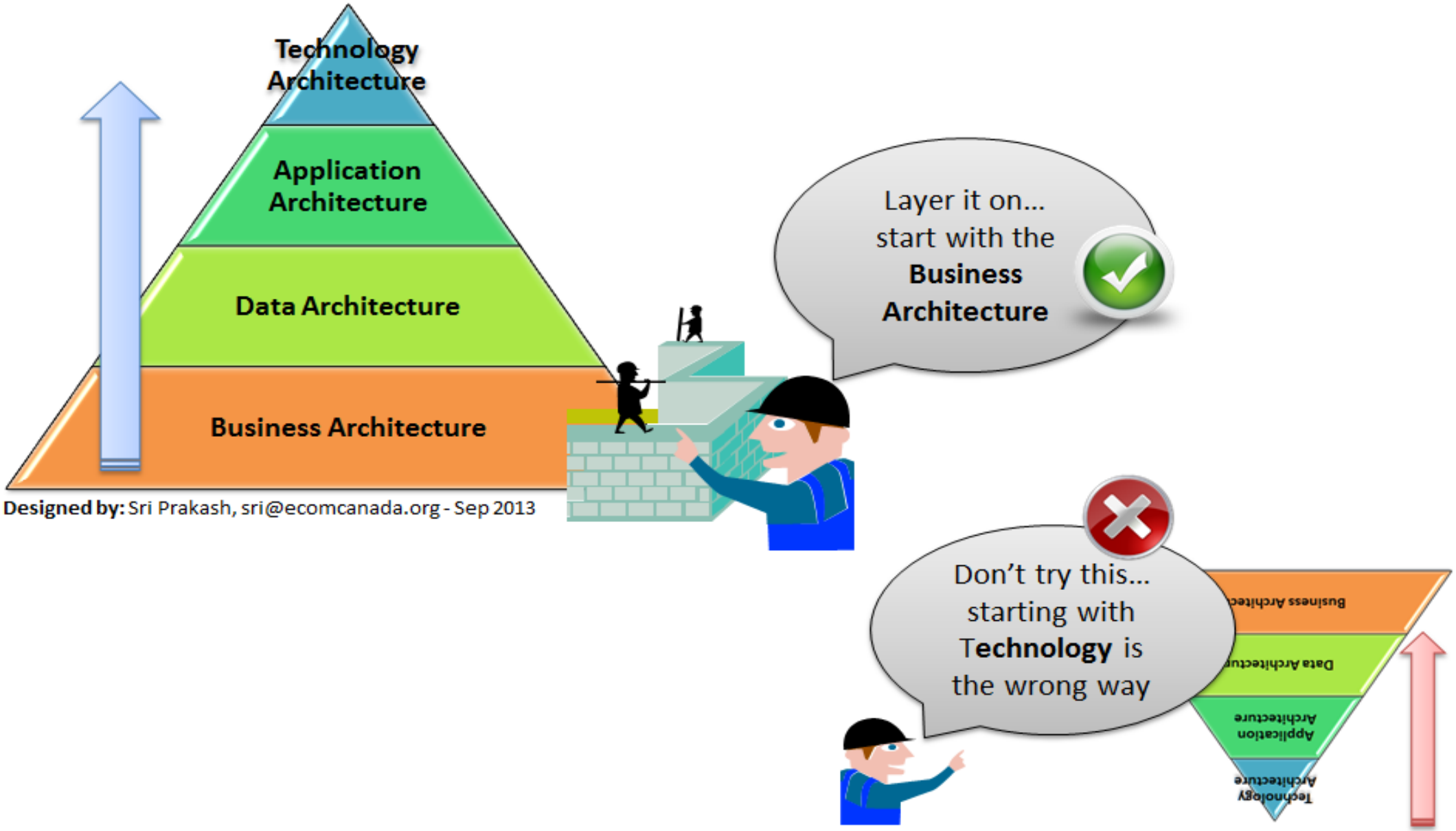
HEE's Digital Transformation Journey

By Elisa Lakhan-Hector
Head of Enterprise Architecture

What is an Enterprise Architect?

"My job is to make decisions. Your job is to make them good decisions."

Enterprise Architecture Pyramid



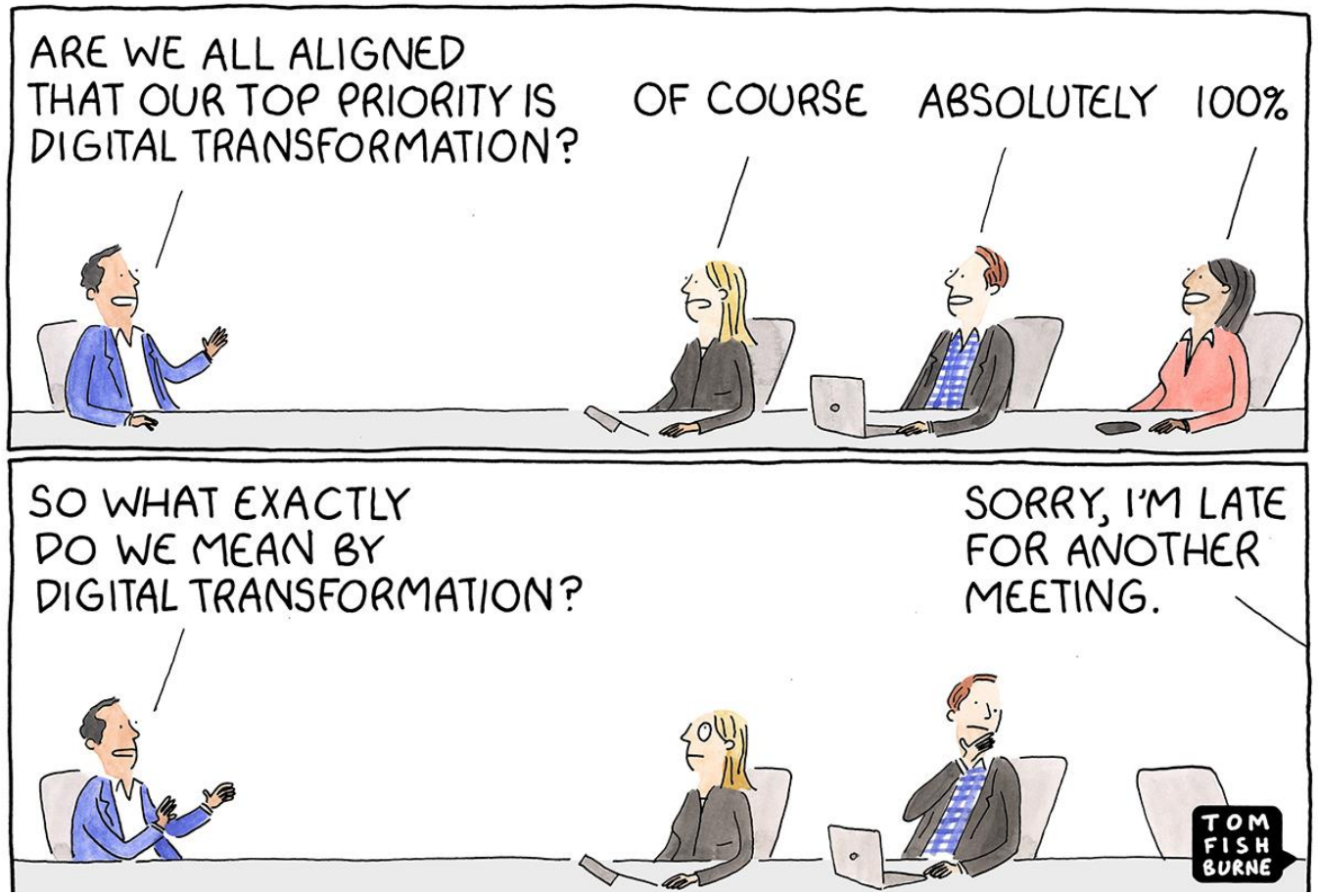
Lessons Learned

Seek

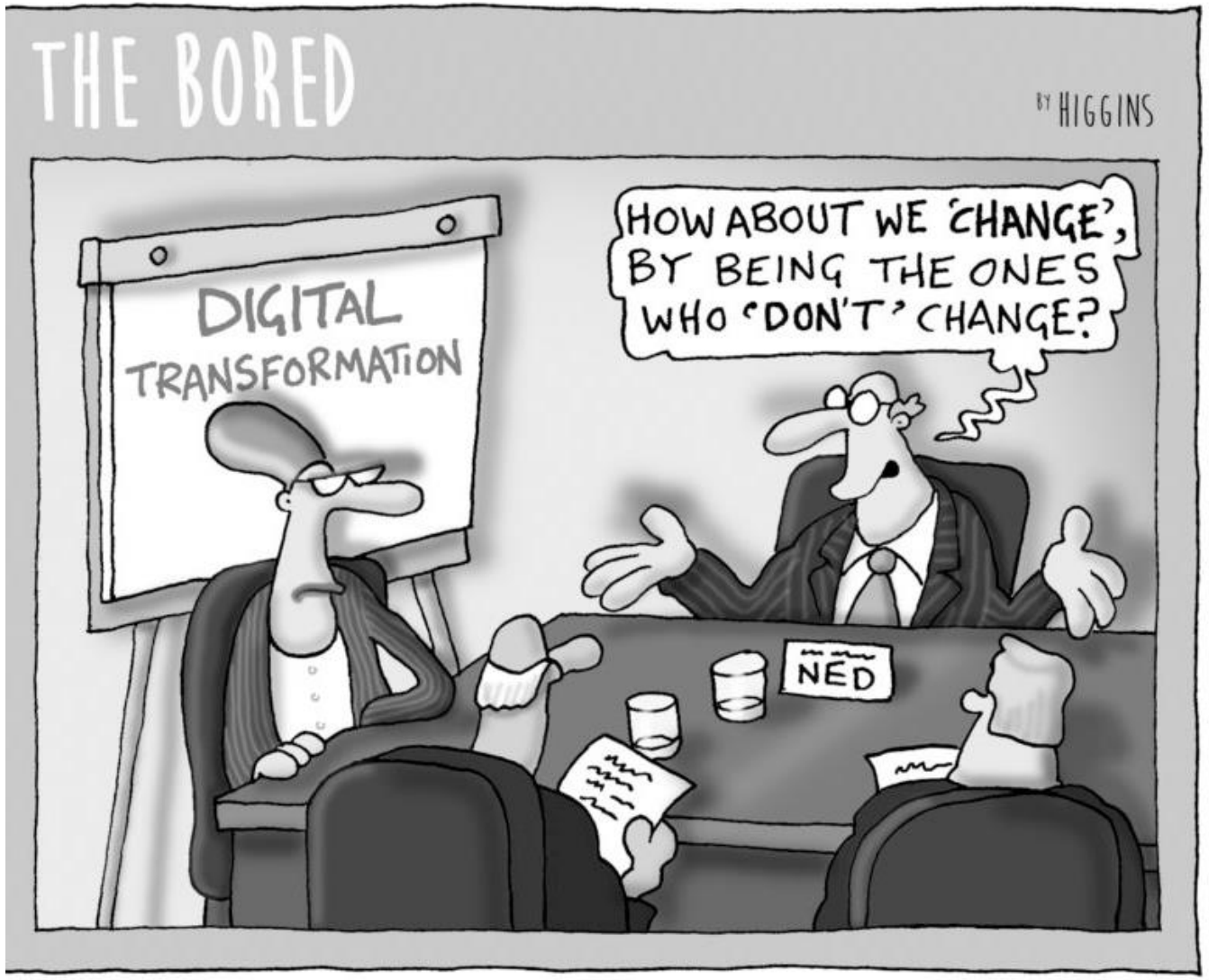
Capture

Act upon

1 . What is Digital Transformation?



2 . Be Honest!


THE BORED
BY HIGGINS
DIGITAL TRANSFORMATION
HOW ABOUT WE 'CHANGE', BY BEING THE ONES WHO 'DON'T' CHANGE?
NED

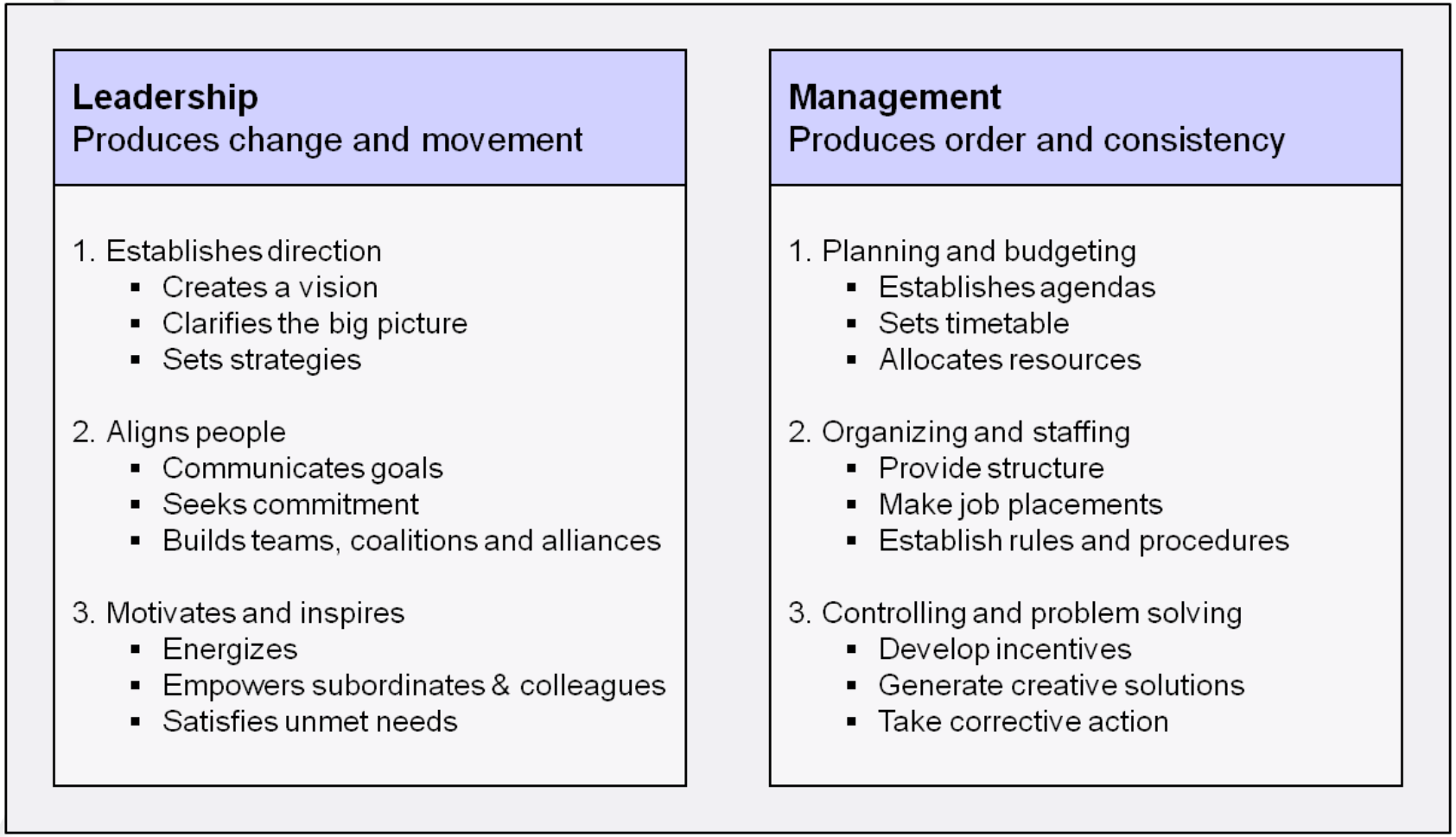
3. Baseline where you are

"If you want to get to there,

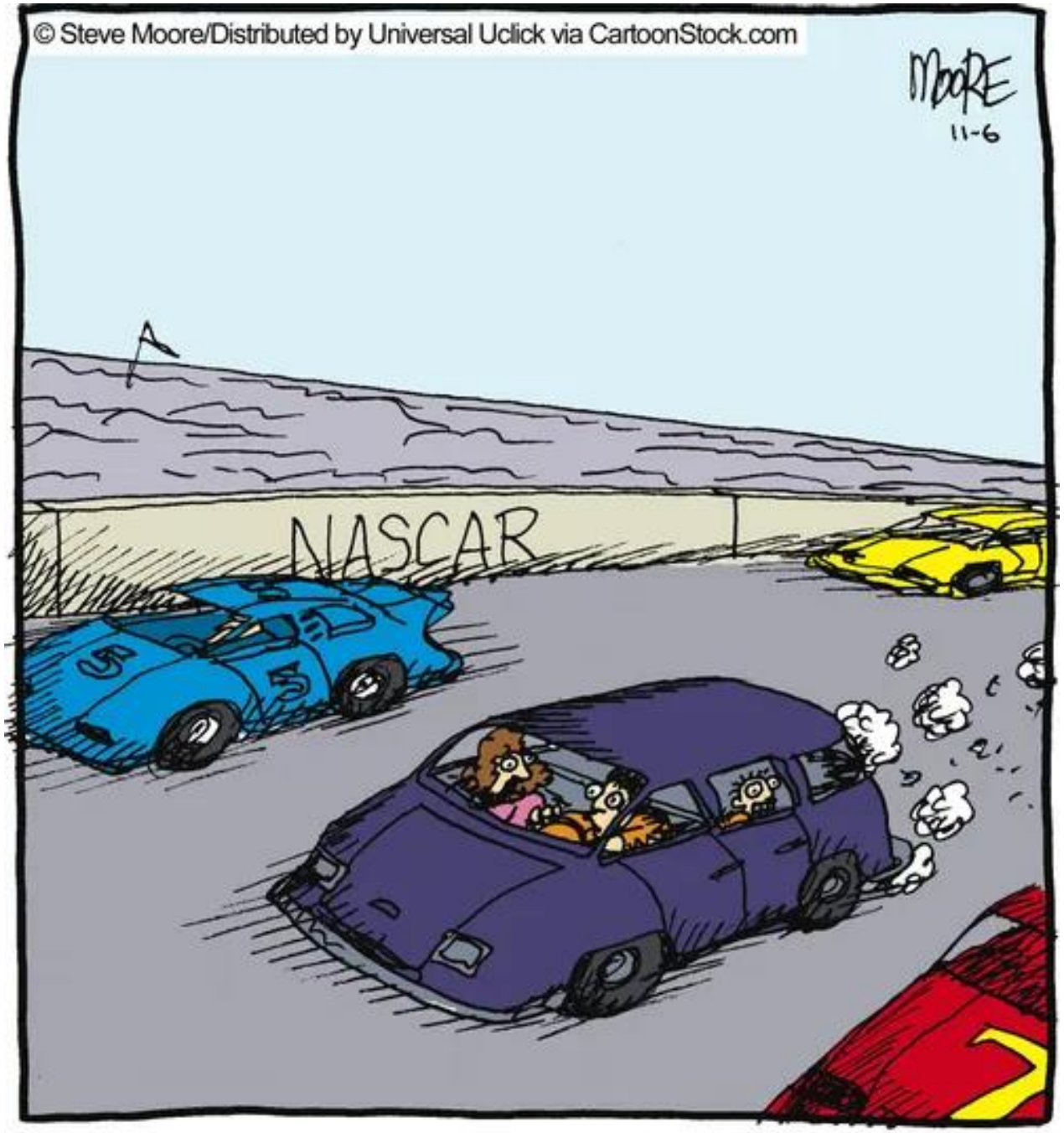
I would not start from here"

4 .Stakeholder Engagement

5. The Right People!



5.5 …in the Right Places?

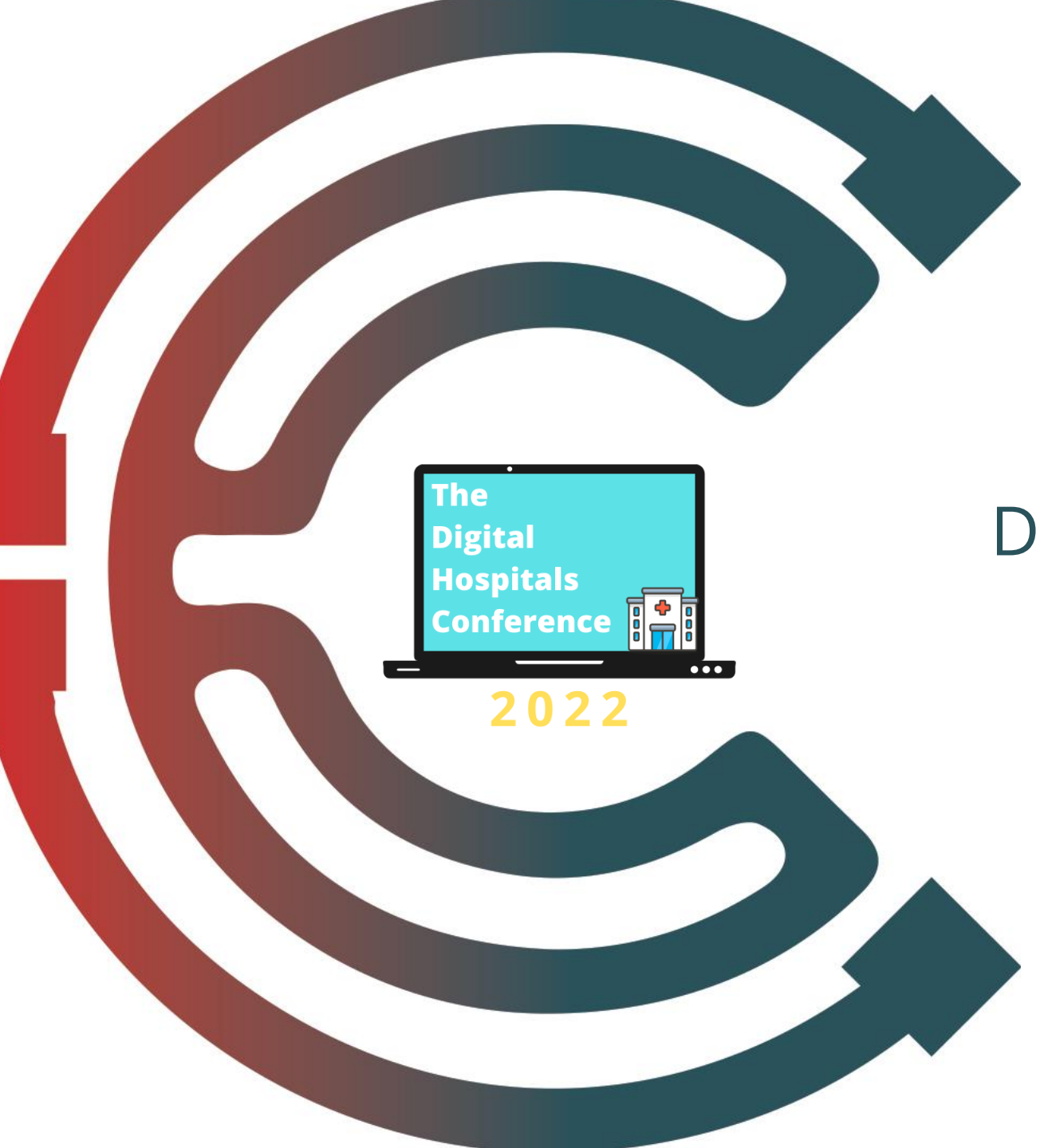


"*Now* will you pull over and ask for directions?"

A Final Thought

A Final Final Thought!


That's all Folks!



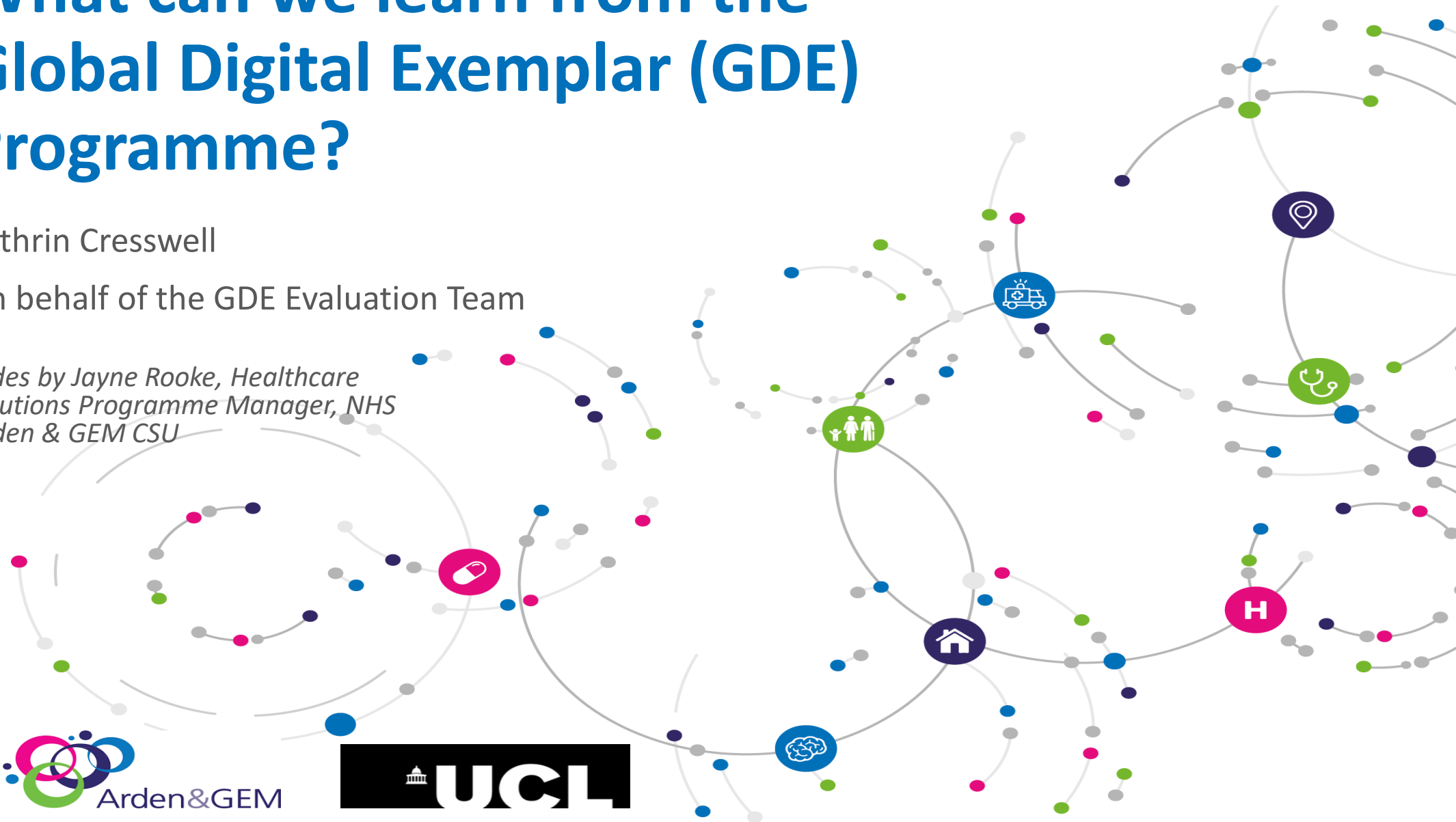
Dr Kathrin Cresswell,
Director of Innovation – Usher Institute at University of Edinburgh

What can we learn from the Global Digital Exemplar (GDE) Programme?

Kathrin Cresswell

On behalf of the GDE Evaluation Team

Slides by Jayne Rooke, Healthcare Solutions Programme Manager, NHS Arden & GEM CSU



Arden&GEM

UCL

Aim of the session

- GDE Programme:
  - Context
  - Getting started
  - Evaluation method
- Insights:
  - From the evaluation
  - From the GDE sites
- Lessons for providers (Trusts)
- Links to published research
- Questions

Global Digital Exemplar Programme

GDE – Context

An ambitious national initiative seeking to:

- *advance digitally enabled (service) transformation in selected exemplar English NHS provider organisations* already characterised by relatively high levels of digital maturity and bring them up to an international level
- *create a national learning ecosystem to spread the knowledge acquired*

- Origins in the 2016 ‘Watcher Review’
- Learned from earlier programmes i.e. National Programme for IT (NPfIT)

GDE Programme

Applicants had to outline ambitious proposals of digital change over a period of 2 to 3.5 years

All organisations were required to secure internal matched funding

33

acute providers

£10 million

£5 million for FFs

15

mental health providers

£5 million

£3 million for FFs

3

ambulance services

£5 million

The University of Edinburgh

Arden&GEM

UCL

GDE Programme

- HIMSS (Healthcare Information and Management Systems Society) as benchmarking

- Central support for the establishment of programme governance and delivery assurance
- Supporting various mechanisms for sharing learning, including:
  - GDE-FF partnerships
  - Blueprinting
  - Learning networks

GDE – Formative qualitative evaluation

Semi structured interviews with clinical, technical and managerial staff; national programme managers and network leaders

Non-participatory observations of knowledge transfer activities through attending meetings, workshops and conferences

Documentary analysis of policy documents.

Overall evaluation findings

The GDE Programme has:

Encouraged **digitally-enabled transformation** within provider organisations

Created the **foundations for a learning ecosystem** to promote digital transformation across NHS England

> *"A lot of our team members, nothing is really very formal any more. They will pick up the phone and phone [our GDE] and ask how they are doing it. So, it's those informal relationships that I think are really beneficial."*
>
> FF, GDE programme staff

Insights – From GDE sites

1 Digitally-enabled transformation and sharing across sites

> *"I think one of the legacies of GDE is a broader or a wider understanding of the potential of digital and I think we need to continue that debate and actually make the case that if you want to make substantial structural changes and savings in the cost base, you have to invest in digital."*
>
> GDE, non-clinical digital leader

2 Sites successfully implemented digitally-enabled transformation

> *"The [provider organisation] has made much progress with deployment, for example [system]. This took six months and since completion the [provider organisation] reported a reduction of 16 cardiac arrests over a four-month period and intensive care unit patients have seen a drop of 10% in mortality rates from 64% to 54%."*
>
> FF, clinical digital leader

Insights – From GDE sites

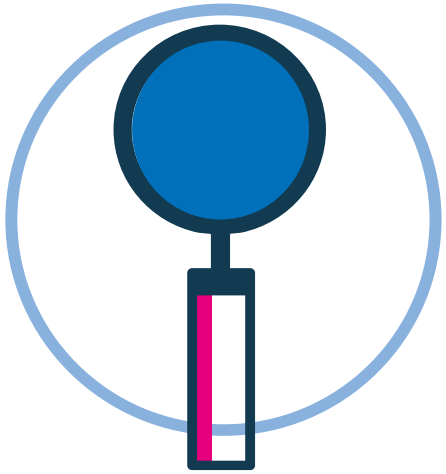
3 Clinical leadership was key

> *"Many [provider organisation]'s IT programmes are led by IT people; but we feel that we deliver because we're clinically led. We're a clinical programme that's clinically led. So, being under the CCIO for us we think gives us all of those benefits and allows us to deliver, because any sort of blockages or misunderstandings get dealt with."*
>
> GDE, non-clinical digital leader

4 Developments in the wider environment

> *"I think what you're seeing through COVID is just how much a small amount of digital spending can make a big difference to actual end user care. And I think it would have been a very different situation if we hadn't done some of these things at the beginning of the programme."*
>
> FF, clinical digital leader

Lessons for providers



1. Keep the focus on digitally-enabled transformation rather than technology adoption

- Digital central to organisational strategy
- Organisation-wide clinical engagement
- From back-office function to board level
- Organisational innovation, not just technological innovation
- Culture change within the organisation
- Broader view of digital transformation in your surrounding health and social care ecosystem.

Lessons for providers

2. Maintain flexibility in implementation strategy

- Different kinds of change need different strategies e.g.

discrete change	**infrastructural change**
fast	slow to implement
benefits soon visible	need time to optimise
	outcomes/benefits appear slowly
	hard to attribute

- Programme management tools need to be iteratively refined and streamlined with stakeholder input.

Lessons for providers

3. Be realistic about benefits realisation

- Baselining digital maturity to understand the starting point and evidence progress
- Achieving benefits can take a long time
- Provides reassurance to policymakers, Treasury evidence of progress and informs business cases
- Understanding the benefits and limitations of existing instruments
- Leaving room for measuring the unanticipated

Lessons for providers

4. Leadership support and workforce alignment

- Senior leadership support and strategic maturity
- Creating hybrid posts supports clinical engagement
- Developing, retaining and re-using digitally enabled transformation and programme management expertise
- Overcoming challenges of recruiting and retaining specialist skills

Lessons for providers

5. Keep sharing learning and knowledge in real-time

- With others who have done it and can share lessons learned
- By going through the journey with other organisations together
- Learning from each other in real-time
- Two-way learning works best with:
  - Shared local patient populations
  - Professional communities of practice
  - Similar/same technological systems.

Digitally-enabled transformation in a complex environment

Transformation in the Programme was influenced by…

- Changes in political leadership and strategic direction
- Lack of coherent long-term strategy and associated short funding cycles
- COVID-19 pandemic which has accelerated some innovations but not others

Questions about how we can take lessons learnt forward, whilst juggling at times competing demands from different stakeholders

Published research on this work

The Final Evaluation Report is available from https://www.ed.ac.uk/usher/digital-exemplars/final-report

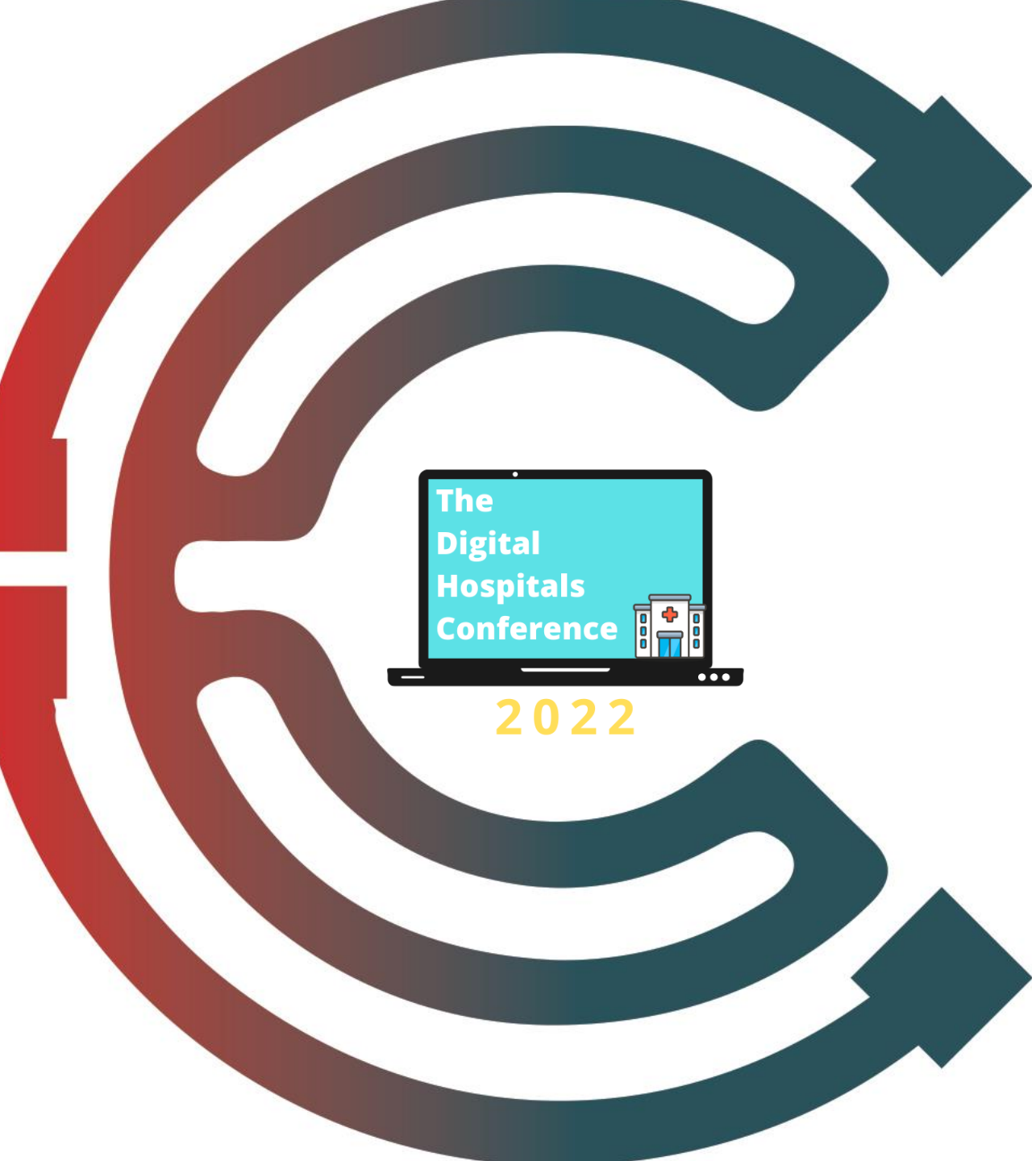
There are a number of original research papers based on this work, including:

- Cresswell K, Sheikh A, Franklin BD, Krasuska M, Hinder S, Lane W, Mozaffar H, Mason K, Eason S, Potts HW, Williams R. Theoretical and methodological considerations in evaluating large-scale health information technology change programmes. BMC Health Services Research 2020 Dec;20(1):1-6.
- Cresswell K, Williams R, Sheikh A. Developing and Applying a Formative Evaluation Framework for Health Information Technology Implementations: Qualitative Investigation. J Med Internet Res 2020;22(6):e15068
- Krasuska M, Williams R, Sheikh A, Franklin BD, Heeney C, Lane W, Mozaffar H, Mason K, Eason S, Hinder S, Dunscombe R, Potts, Cresswell K. Technological Capabilities to Assess Digital Excellence in Hospitals in High Performing Health Care Systems: International eDelphi Exercise. Journal of Medical Internet Research. 2020;22(8):e17022.
- Cresswell K, Sheikh A, Franklin BD, et al. Formative independent evaluation of a digital change programme in the English National Health Service: study protocol for a longitudinal qualitative study. BMJ Open 2020;10:e041275. doi: 10.1136/bmjopen-2020-041275
- Williams R, Sheikh A, Franklin BD, Krasuska M, Hinder S, Lane W, Mozaffar H, Mason K, Eason S, Potts HW, Cresswell K. Using Blueprints to promote interorganisational knowledge transfer in digital health initiatives—a qualitative exploration of a national change program in English hospitals. Journal of the American Medical Informatics Association. 2021 Mar 11.
- Cresswell K, Sheikh A, Franklin BD, Krasuska M, Hinder S, Lane W, Mozaffar H, Mason K, Eason S, Potts HW, Williams R. Inter-organisational knowledge sharing to establish digital health learning ecosystems: qualitative evaluation of a national digital health transformation programme in England. Journal of Medical Internet Research. J Med Internet Res 2021;23(8):e23372.
- Hinder S, Cresswell K, Sheikh A, Franklin BD, Krasuska M, The Nguyen H, Lane W, Mozaffar H, Mason K, Eason S, Potts HW. Promoting inter-organisational knowledge sharing: a qualitative evaluation of England's Global Digital Exemplar and Fast Follower Programme. PloS one. 2021 Aug 2;16(8):e0255220.

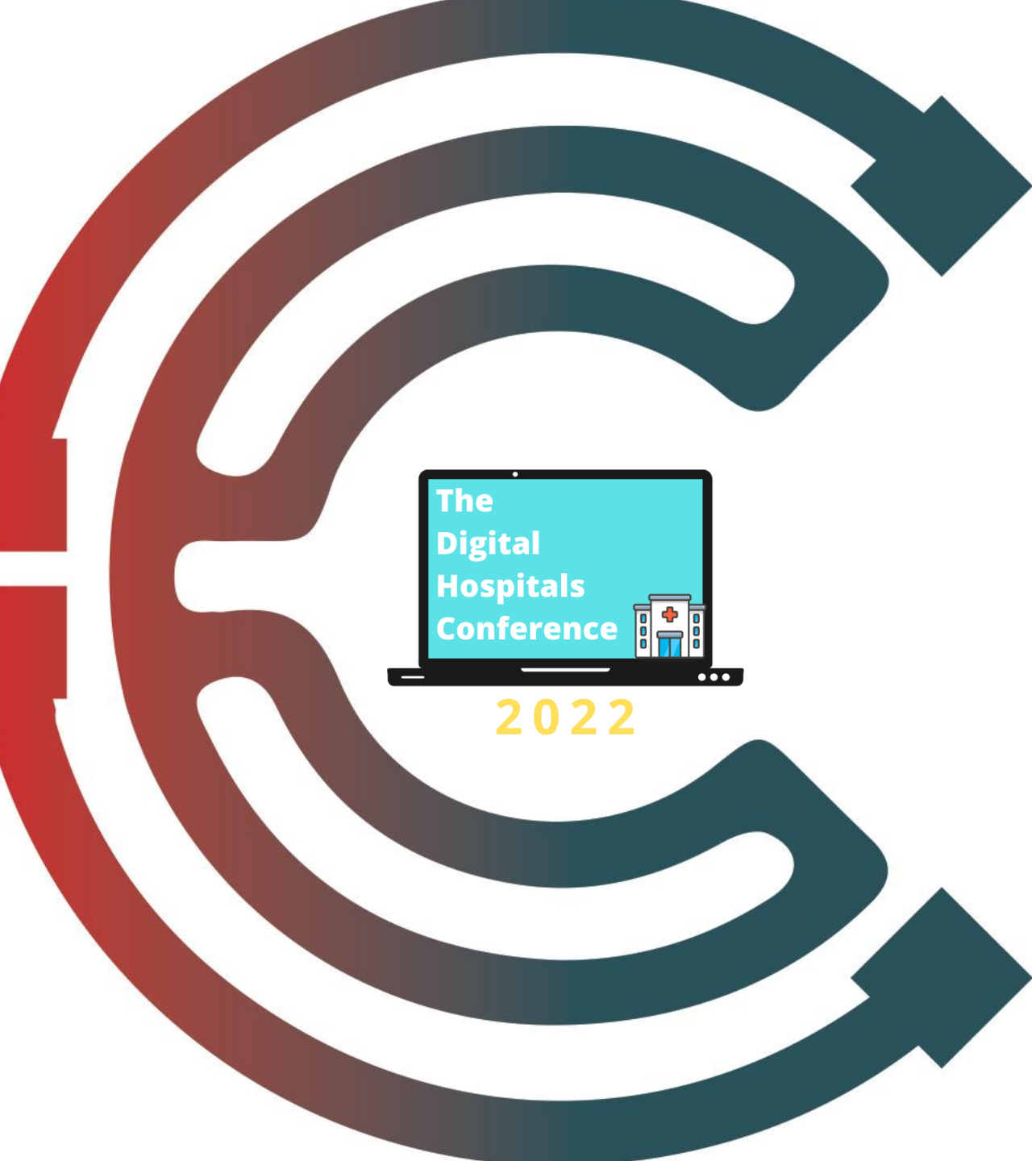
We are very happy to hear from you

Kathrin.Cresswell@ed.ac.uk

Gareth Cairns, Health Technology Advisor at UCL Partners



Liam Murphy,
Head of Sales at T-Pro



Simon Ronald, Director of Business Development, Healthcare (Europe) at ACF Technologies

Case Study: How the NHS COVID-19 Vaccine National Booking Service was deployed in 4 weeks

Simon Ronald

Director of Business Development, Healthcare (Europe)

AGENDA

What did we deliver?

How did we deliver it in 4 weeks?

What did we learn?

Where’s the platform today?

What did we deliver?

NHS COVID-19

National Booking Service

100+ million appointments

30 million patients

1.7 billion page hits

4 weeks

How did we deliver it?

- ✓ Dedicated project team
- ✓ Agile delivery
- ✓ Industry-leading technology

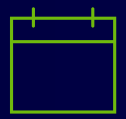
… and a few sleepless nights ☺

What did we learn?

- ✓ Thinking outside the box
- ✓ Team of experts
- ✓ Good working relationships
- ✓ Planning to fail

Where is the platform today?

18 months continuous delivery



100 million appointments booked

1.7-billion-page hits

Busiest day: 1.2 million appointments booked

30 million patients

99.999% uptime

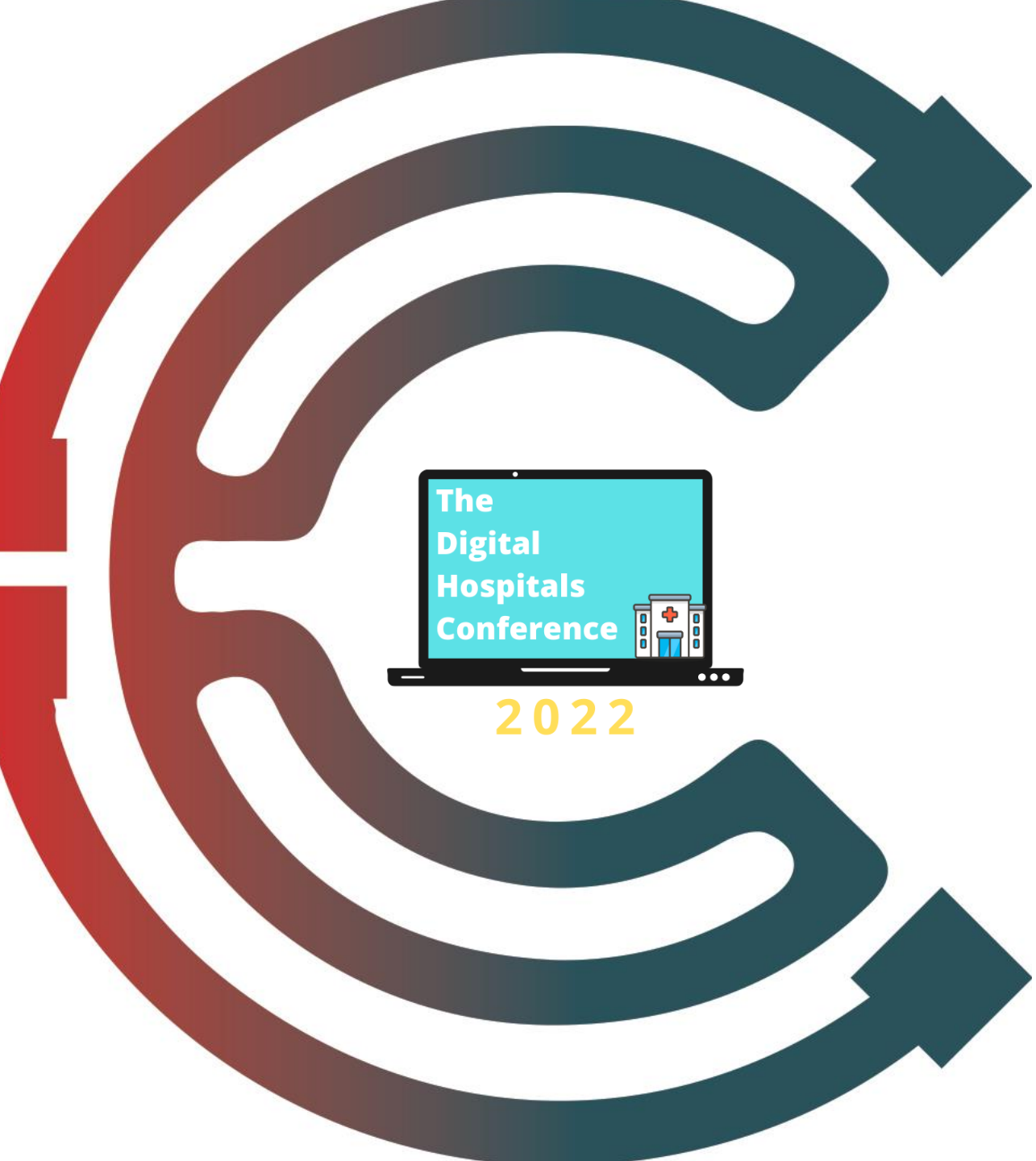
ACF | TECHNOLOGIES

THANK YOU

Any questions?

uksales@goacf.com

ACFTechnologies



Sean Warren, Business Director UK / IRE at AliveCor

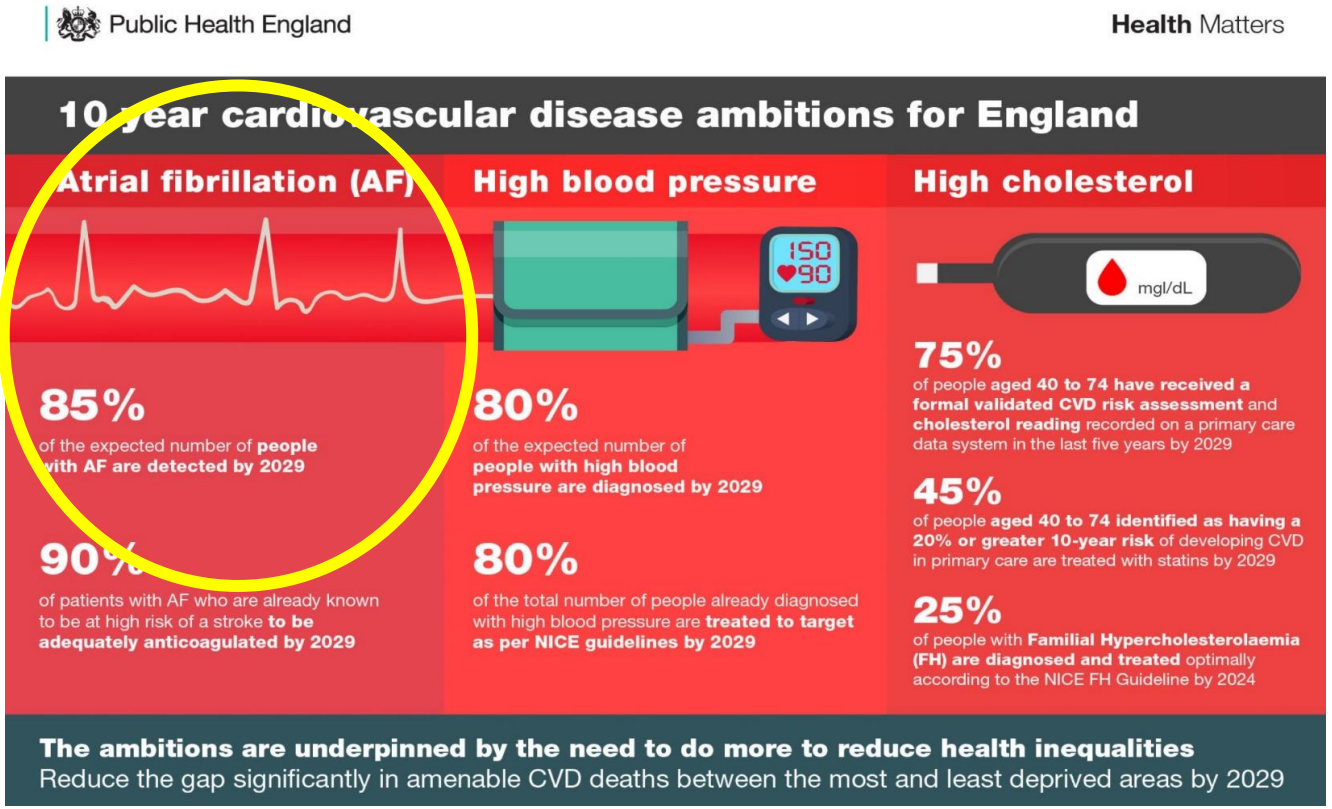
AliveCor®

Utilising technology to tackle cardiovascular disease: a snapshot of arrhythmia detection & stroke prevention in today's healthcare environment

Sean Warren Business Director UK / IRE

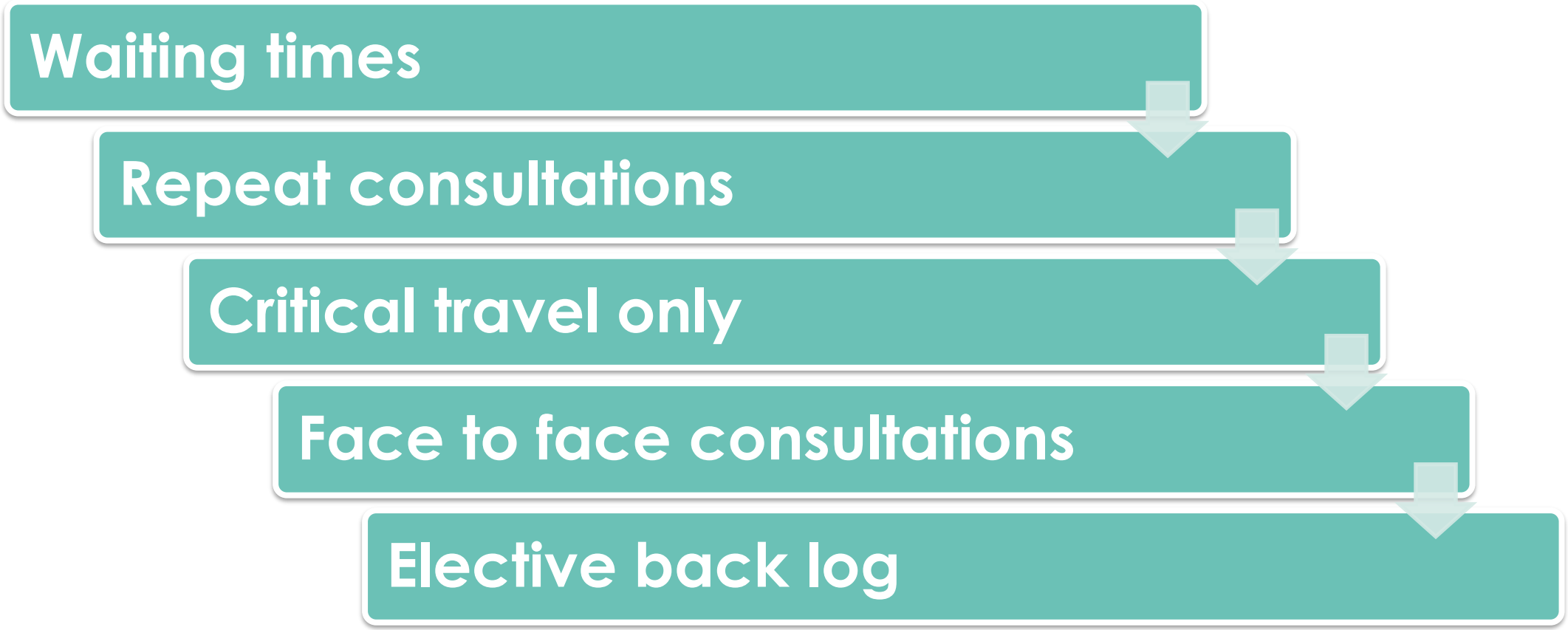
The NHS Long Term Plan

- Cardiovascular disease is a clinical priority
- CVD is the single biggest condition where lives can be saved by the NHS over the next 10 years
- **"NHS England's ambition is to prevent over 150,000 heart attacks, and strokes over the next 10 years"***



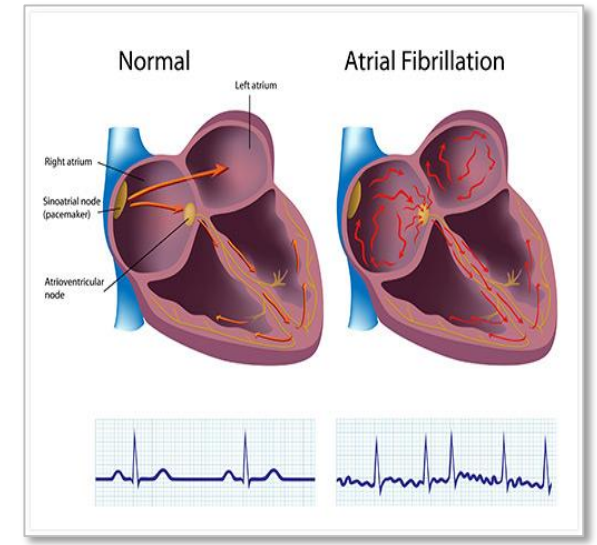
*NHS England Medical Director Prof Stephen Powis PHE CVD Prevention 2020

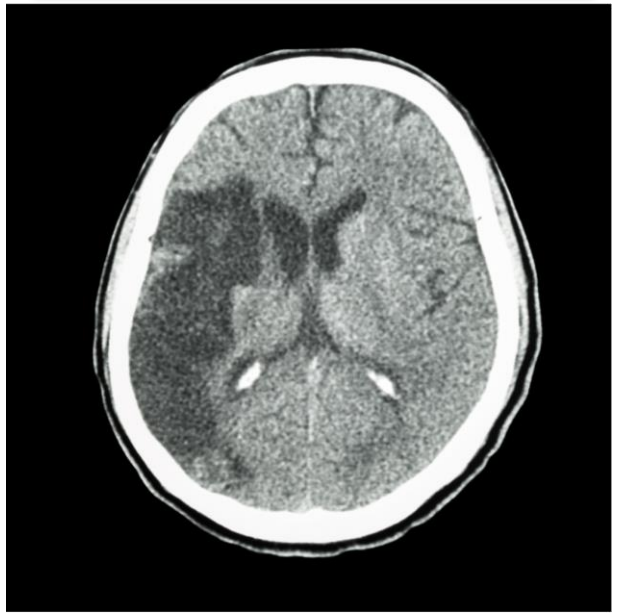
NHS major challenges



AF Challenge: Prevalence in England

- 1.4 million people diagnosed with AF[1]
- ~425k people living undiagnosed[1]
- *5x more* likely to have a stroke with poor outcomes if AF is present[2]
- 20% of all strokes caused by AF (the most common arrhythmia - often goes unnoticed or is diagnosed post-stroke as can be asymptomatic)
- 66% risk reduction of ischaemic stroke if detected, diagnosed and intervened
- 85% AF detection by 2029 - NHS England NHS LTP ambition

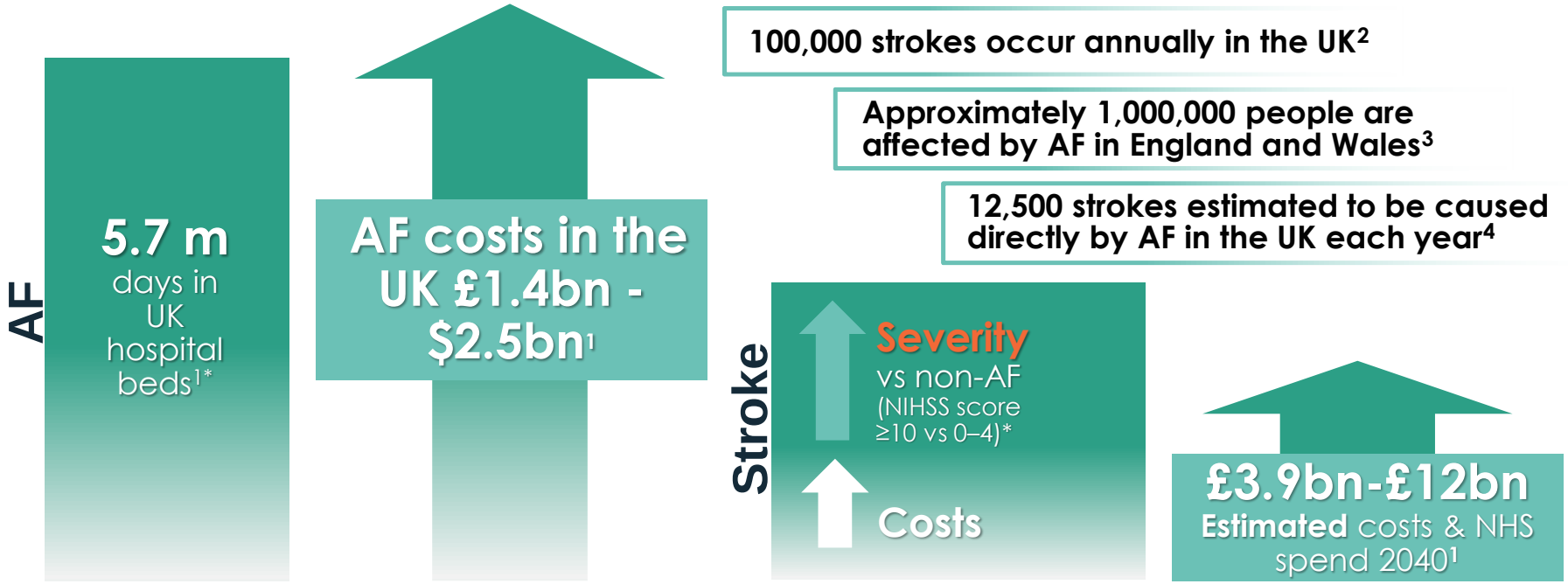




AliveCor®

1. Pubic health England Atrial fibrillation prevalence estimates in England: Published August 2017 PHE publications gateway number: 2014778
2. Wolf PA, Abbott RD, Kannel WB. Stroke 22:983 - 988, 1991

Economic cost of AF

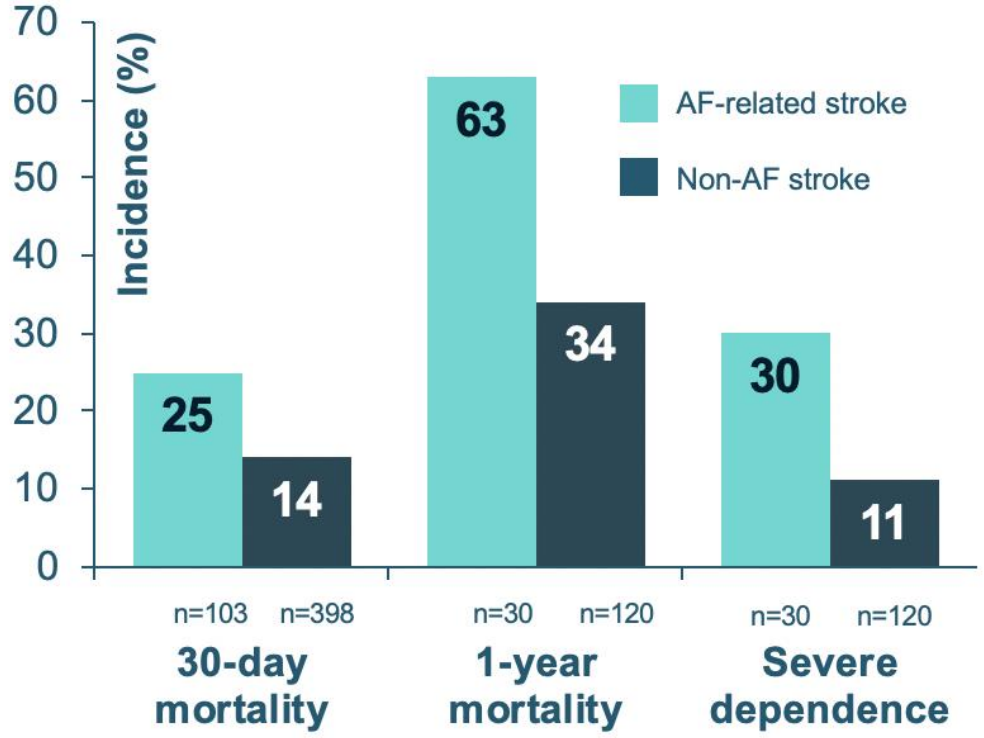


*Figures shown valid as of 2008. NIHSS: National Institutes of Health Stroke Scale.

1. Atrial fibrillation in the UK: https://doi.org/10.1093/ehjqcco/qcaa093
2. State of the nation. Stroke statistics 2018. Available at: https://www.stroke.org.uk/system/files/sotn_2018.pdf, accessed March 2022
3. Pubic health England Atrial fibrillation prevalence estimates in England: Published August 2017 PHE publications gateway number: 2014778
4. https://pharmaceutical-journal.com/article/infographics/new-oral-anticoagulants-for-stroke-prevention-in-atrial-fibrillation

AF-related strokes are more likely to be devastating compared with non-AF strokes…

Outcomes following AF strokes vs non-AF strokes



More fatalities and greater risk of severe disability

Ischaemic stroke associated with AF is:

2x
More likely to be fatal than non-AF stroke

3x
More likely to leave patients severely dependent

Lin HJ et al. Stroke 1996;27:1760–1764

Stroke costs in the UK are enormous and growing…

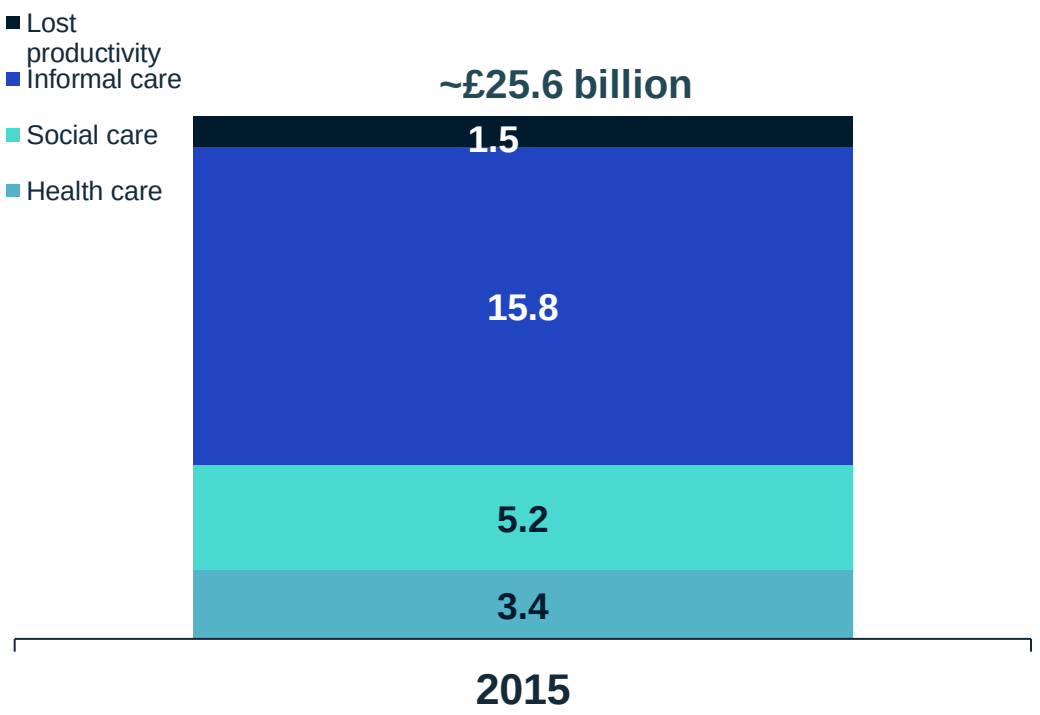
113,000

Strokes in the UK each year[1]

~38,000

Deaths from stroke in one year[1]*

Healthcare costs per year[1]

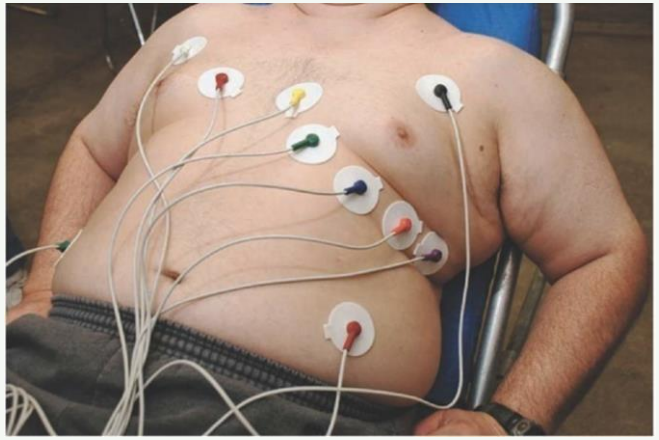


*Based on 2016 UK figures

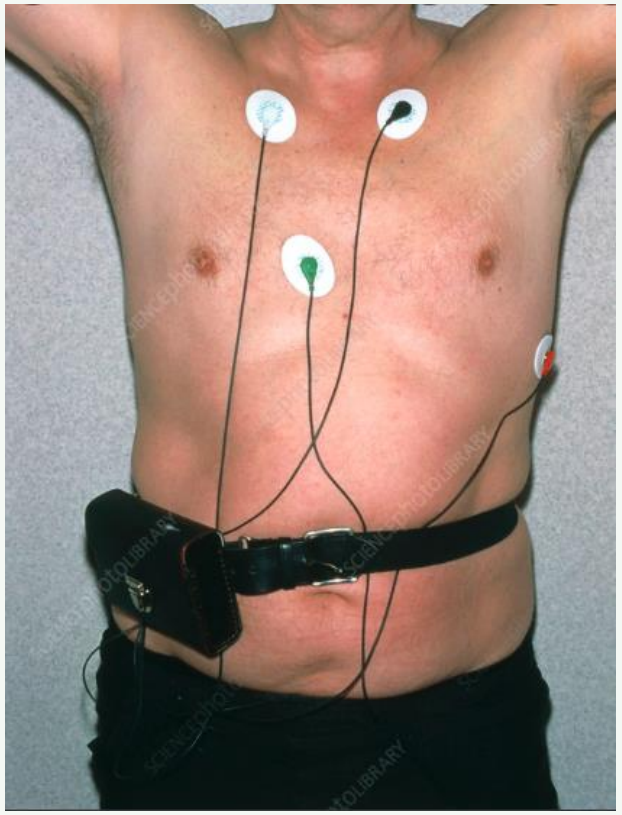
1. Stroke Association. Current, future and avoidable costs of stroke in the UK. Summary report. Available at: https://www.stroke.org.uk/sites/default/files/costs_of_stroke_in_the_uk_summary_report_0.pdf, accessed March 2022

Patient options

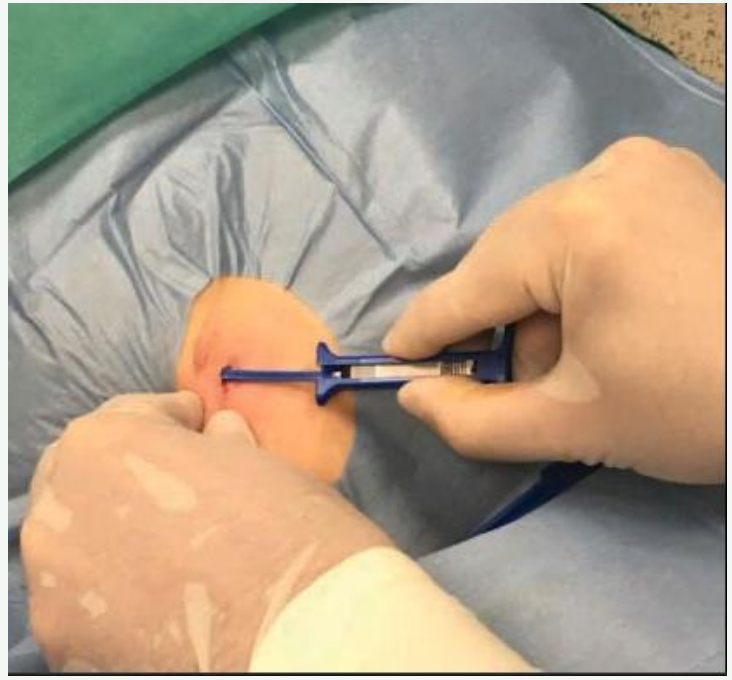
- 12L ECG
  - GP
  - ED
  - Paramedic



- Holter monitor



- Long term monitoring - ILR



NICE National Institute for Health and Care Excellence

Royal College of Physicians

Atrial fibrillation: d
and management

NICE guideline
Published: 27 April 2021
www.nice.org.uk/guidance/ng196

1.1 Detection and diagnosis

1.1.1 Perform manual pulse palpation to assess for the presence of an irregular pulse if there is a suspicion of atrial fibrillation. This includes people presenting with any of the following:

- breathlessness
- palpitations
- syncope or dizziness
- chest discomfort
- stroke or transient ischaemic attack. **[2006]**

1.1.2 Perform a 12-lead electrocardiogram (ECG) to make a diagnosis of atrial fibrillation if an irregular pulse is detected in people with suspected atrial fibrillation with or without symptoms. **[2021]**

1.1.3 In people with suspected paroxysmal atrial fibrillation undetected by 12-lead ECG recording:

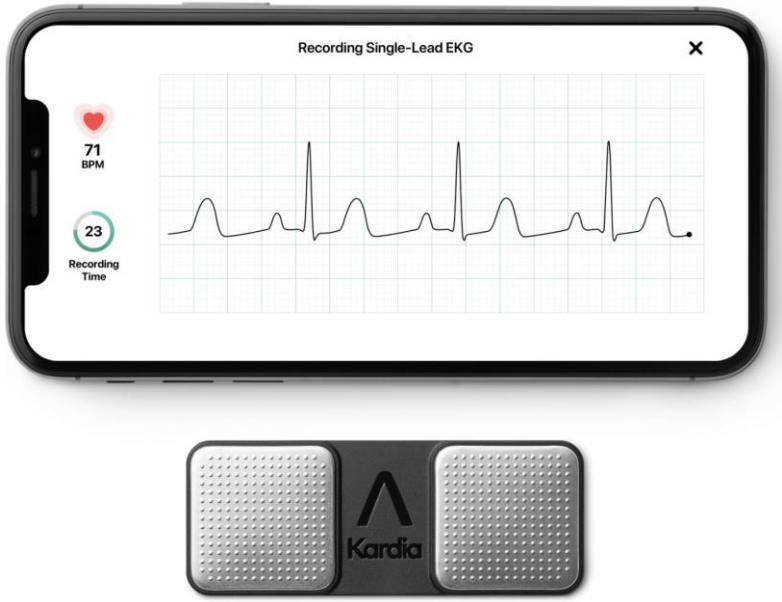
- use a 24-hour ambulatory ECG monitor if asymptomatic episodes are suspected or symptomatic episodes are less than 24 hours apart
- use an ambulatory ECG monitor, event recorder or other ECG technology for a period appropriate to detect atrial fibrillation if symptomatic episodes are more than 24 hours apart. **[2021]**

Mission

AliveCor's mission is to save lives and transform cardiology by delivering intelligent, highly-personalized heart data to clinicians and patients anytime, anywhere.

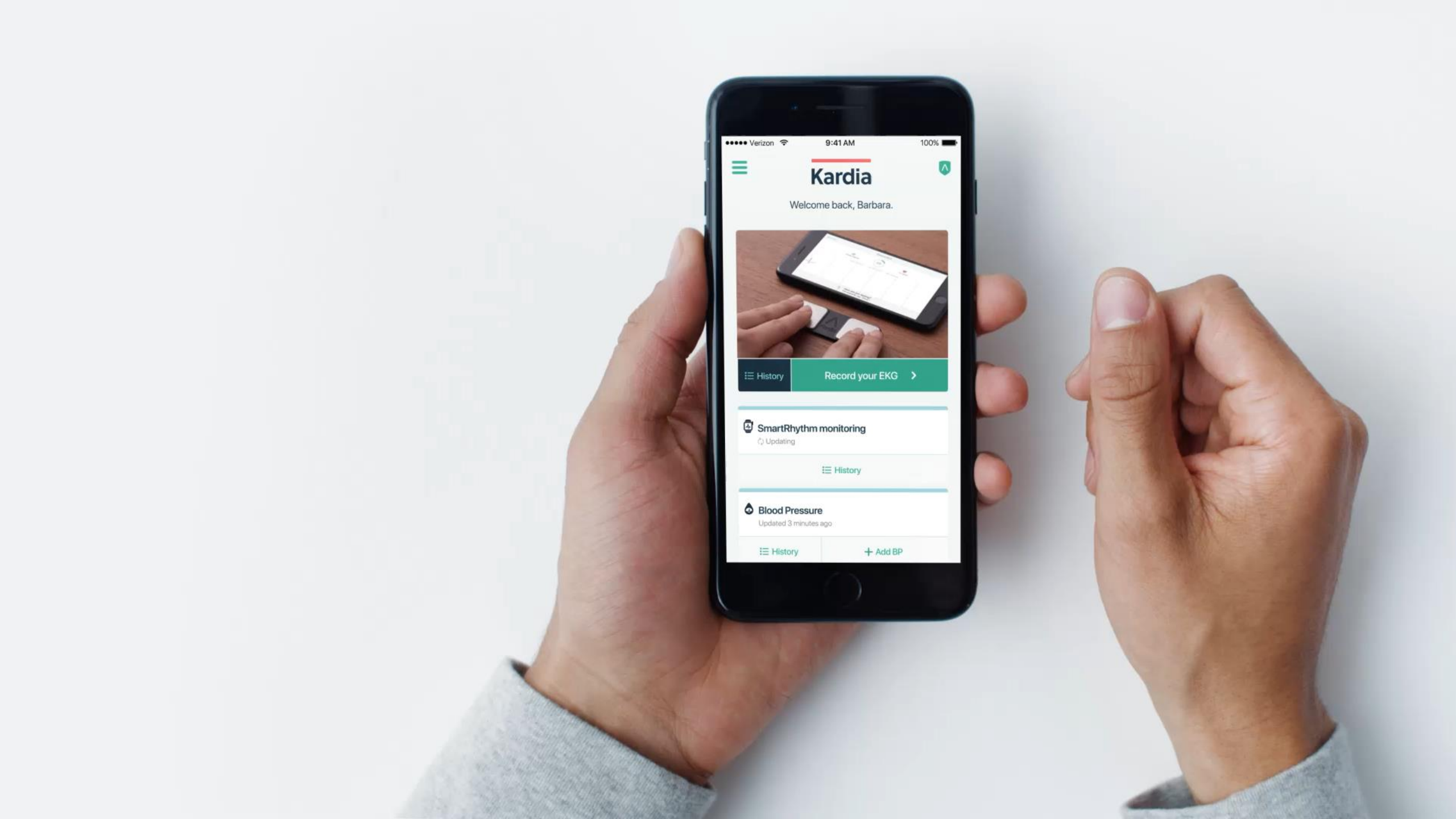
Devices and Hardware | KardiaMobile

- Single-lead rhythm strip comparable to Lead I of standard ECG machines
- Most clinically-validated personal ECG solution available globally
- Instant analysis for Normal sinus rhythm, Atrial Fibrillation, Bradycardia, and Tachycardia in just 30 seconds
- CE-marked and FDA-cleared
- Over 140+ million ECGs recorded worldwide
- Over 15 million total active users



Devices and Hardware | KardiaMobile 6L

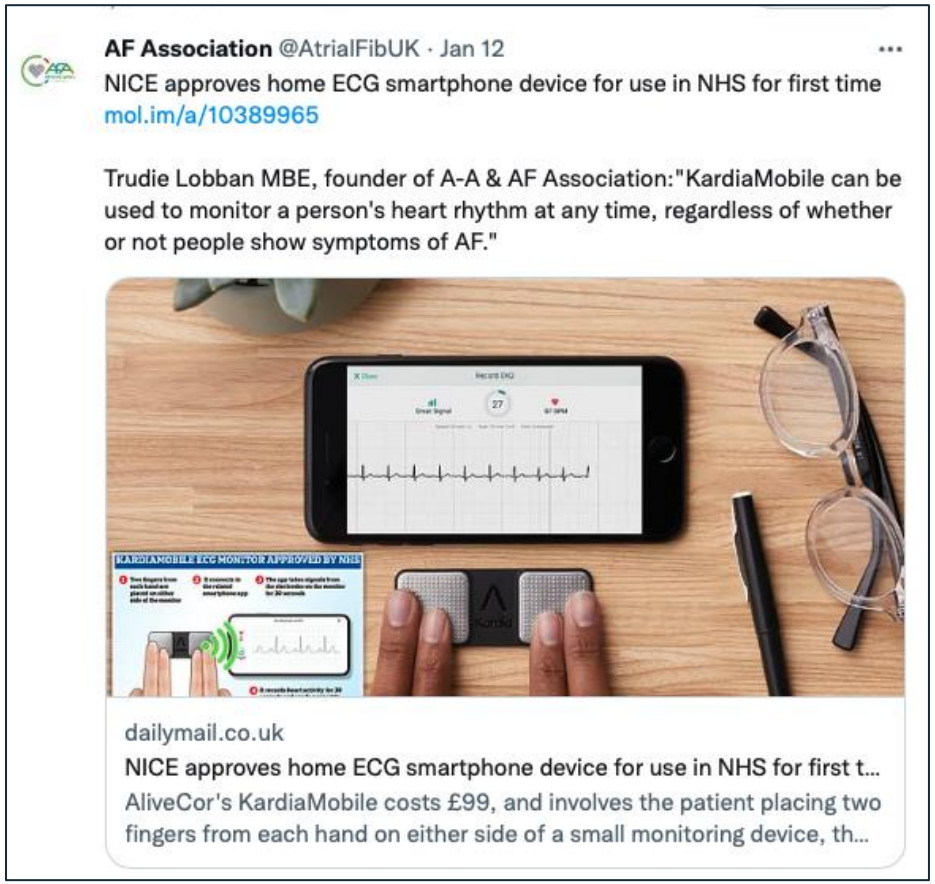
- Introduced in June 2019
- World's first-and-only FDA-cleared 6-lead personal ECG
- Lead I, Lead II, Lead III, aVF, aVR, and aVL
- Captures a medical-grade 6-lead ECG in 30 seconds and detects Possible Atrial Fibrillation, Bradycardia, Tachycardia, or Normal sinus rhythm
- Increased ability to identify cardiac arrhythmias such as atrial flutter, heart block, and PVCs


Verizon
9:41 AM
100%
Kardia
Welcome back, Barbara.
History
Record your EKG
SmartRhythm monitoring
Updating
History
Blood Pressure
Updated 3 minutes ago
History
Add BP

NICE MTG64 | KardiaMobile for detecting atrial fibrillation

KardiaMobile is now recommended as an option for detecting atrial fibrillation (AF) for people with suspected paroxysmal AF, who present with symptoms such as palpitations and are referred for ambulatory ECG monitoring by a clinician.

- The first and only NICE recommended personal ECG device for detecting atrial fibrillation.
- NICE MTG64
- NICE MTG64 AliveCor Press Release



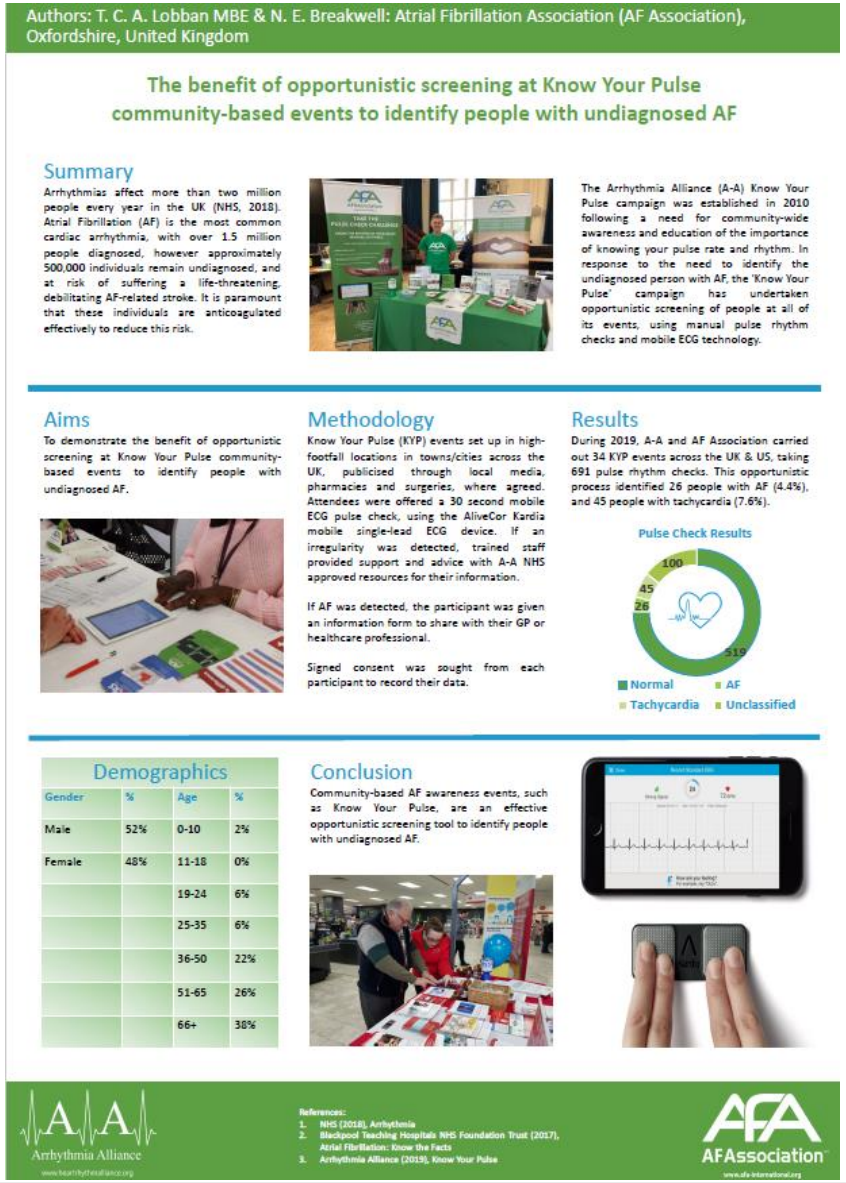
Highlights from the NICE MTG64 recommendation report[1]

- Clinical evidence shows that **significantly more people had AF detected using KardiaMobile** compared with a Holter monitor, the current standard of care.
- **27 studies** including **5 randomised controlled trials** are evaluated within this recommendation.
- It is **easy to use, compact and can be used anywhere, at any time of the day,** to record an ECG.
- **KardiaMobile** is well suited for ambulatory monitoring due to its **accessibility at symptom onset and improved access** to care when needed.

Highlights from the NICE MTG64 recommendation report[1]

- **KardiaMobile's** algorithm has **high diagnostic accuracy** per ECG recording with both sensitivity and specificity.
- Evidence shows that using **KardiaMobile reduces time to AF detection**.
- Cost modelling shows that **KardiaMobile** has **cost savings** compared with a Holter monitor by an average of £13.22 per patient over 2 years in people presenting with symptoms such as palpitations.
- **KardiaMobile** is **cost saving** because of a **reduction in diagnostic costs** including the cost of the device.

Detect. Protect. Perfect.



Covid Vaccination Centre in Suffolk

281 KardiaMobile checks and 15 previously undiagnosed diagnoses made

Ben Lord, @AtrialFibUK Ambassador, explains to @BBCLookEast that a scheme to #DetectAF using mobile ECGs at a vaccine clinic has been so successful that it is being expanded to other centres. bbc.in/3rxPReV

For resources on detecting AF, visit: bit.ly/3tVXI7n

AliveCor UK Ltd

AF Association rolls out opportunistic AF screening at COVID-19 vaccine centres

25 March 2021

"Between use, the mobile ECG device can be sanitised; thus, ensuring no risk to the person from COVID-19"

- Trudie Lobban, Founder & CEO of AF Association

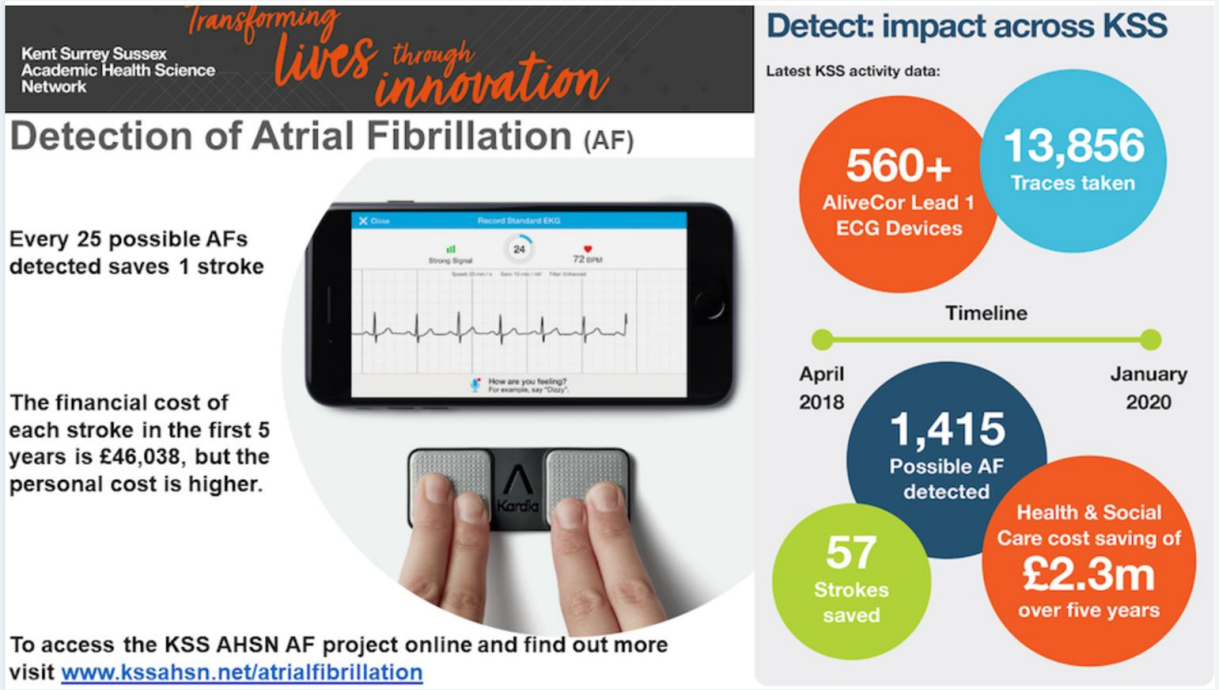
KardiaMobile: impact within AHSN environment

North East & North Cumbria (NENC) AHSN

- 20,735 pulse rhythm checks recorded between Jan 18 and Mar 19
- Detecting 1,175 people with possible AF
- Preventing 47 possible AF-related strokes
- £630,000+ healthcare costs avoided in year
- £2,160,000+ health and social care costs avoided over 5 years
- Potentially, 15 lives have been saved

Health Innovation Network (HIN)

- KardiaMobile was used to test 10,413 people
- Detecting 537 people with possible AF
- Preventing 21 possible AF related strokes
- £281,000+ healthcare costs avoided in year



Capture AF

Community Pharmacist Led Atrial Fibrillation Screening Programme

1. Improve the detection and treatment of undiagnosed AF
2. Improve anticoagulation prescribing in patients with AF
3. Facilitate early referral to a specialist centre

AFA AFAssociation

ALL-PARTY PARLIAMENTARY GROUP ON ATRIAL FIBRILLATION

Enhanced Atrial Fibrillation (AF) Medicines Use Reviews Using Kardia® Monitors To Improve The Identification And Treatment Of Patients With AF: A Case Study

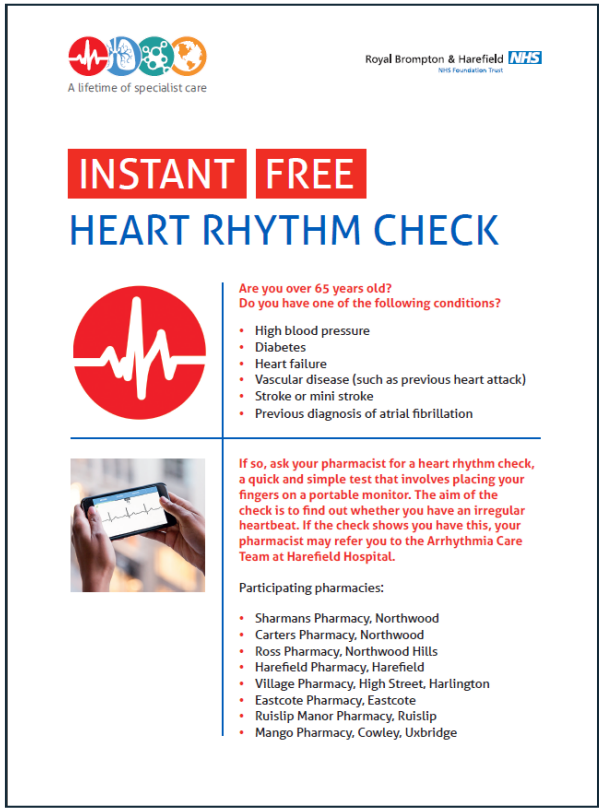
Dr Zainab Khanbhai, AF MUR Project Clinical Lead & Dr Wajid Hussain, Consultant Cardiologist

Aspirin was continued as per the cardiologist recommendations as he previously had an instant restenosis requiring repeat stenting at one year. However

Zainab Khanbha, winner of NHS Digital – award in Digital Innovation

Zainab Khanbha, AF MUR Project Clinical Lead, Royal Brompton and Harefield NHS Trust.

Poster advertising screening program, displayed in pharmacy windows



KardiaMobile in the UK & IRE

Bupa

NHS SCOTLAND

The AHSN Network

NICE
National Institute for Health and Care Excellence

British Heart Foundation

STARS

Arrhythmia Alliance

AFA AFAssociation

www.heartrhythmalliance.org

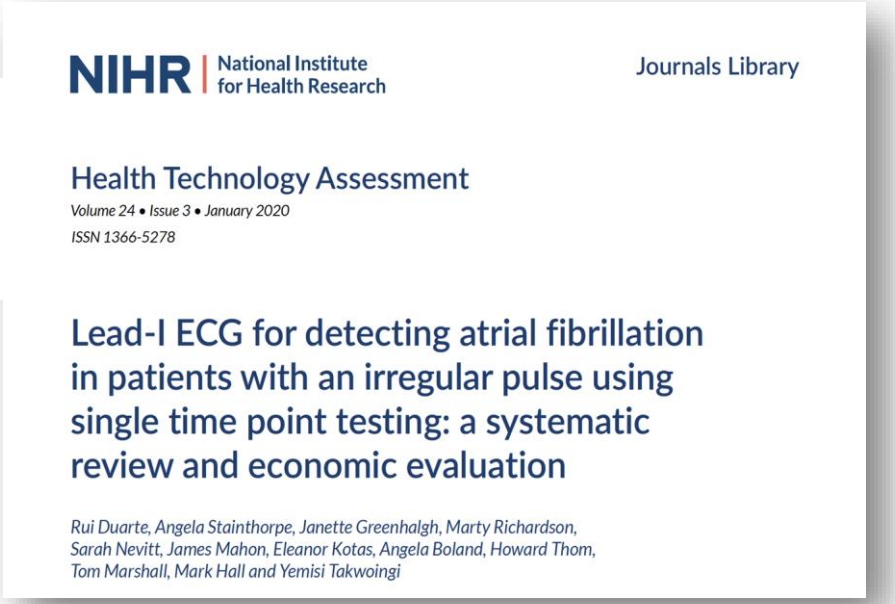
NHS England

NHS X

GIG CYMRU NHS WALES
Rhwydwaith Cardiaidd Cymru
Wales Cardiac Network

All Wales clinical pathway for Atrial Fibrillation (AF) Diagnosis and management

Vitality


NIHR | National Institute for Health Research

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Health Technology Assessment

Volume 24 • Issue 3 • January 2020

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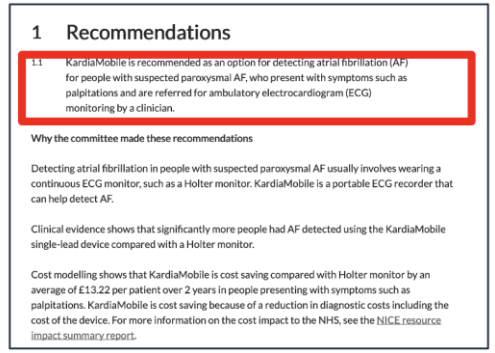
Lead-I ECG for detecting atrial fibrillation in patients with an irregular pulse using single time point testing: a systematic review and economic evaluation

Rui Duarte, Angela Stainthorpe, Janette Greenhalgh, Marty Richardson, Sarah Nevitt, James Mahon, Eleanor Kotas, Angela Boland, Howard Thom, Tom Marshall, Mark Hall and Yemisi Takwoingi

What it means for clinicians



1 Recommendations

1.1 KardiaMobile is recommended as an option for detecting atrial fibrillation (AF) for people with suspected paroxysmal AF, who present with symptoms such as palpitations and are referred for ambulatory electrocardiogram (ECG) monitoring by a clinician.

Why the committee made these recommendations

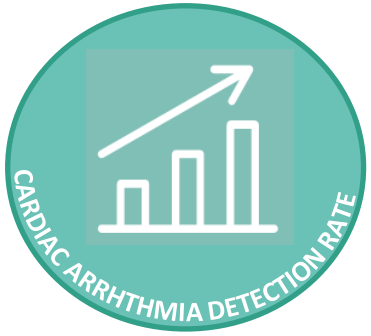
Detecting atrial fibrillation in people with suspected paroxysmal AF usually involves wearing a continuous ECG monitor, such as a Holter monitor. KardiaMobile is a portable ECG recorder that can help detect AF.

Clinical evidence shows that significantly more people had AF detected using the KardiaMobile single-lead device compared with a Holter monitor.

Cost modelling shows that KardiaMobile is cost saving compared with Holter monitor by an average of £13.22 per patient over 2 years in people presenting with symptoms such as palpitations. KardiaMobile is cost saving because of a reduction in diagnostic costs including the cost of the device. For more information on the cost impact to the NHS, see the NICE resource impact summary report.

Rates and referrals

Healthcare professionals recommending KardiaMobile to patients experiencing arrhythmia symptoms could reduce repeat testing rates[1] and referrals to secondary care.[2]



10-fold

Evidence suggest cardiac arrhythmia detection rate at 90-days was increased almost 10-fold compared to standard care alone.[1]

4-fold

Evidence suggests time to detection of a symptomatic rhythm or cardiac arrhythmic was decreased over 4-fold.[1]

1. Reed MJ, Grubb NR, Lang CC et al. Multi-centre Randomised Controlled Trial of a Smartphone-based Event Recorder Alongside Standard Care Versus Standard Care for Patients Presenting to the Emergency Department with Palpitations and Pre-syncope: The IPED (Investigation of Palpitations in the ED) study. EClinicalMedicine. 2019. 19(1):711.
2. 2. Goldenthal IL, Sciacca RR, Riga T, et al. Recurrent atrial fibrillation/flutter detection after ablation or cardioversion using the AliveCor KardiaMobile device: iHEART results. J Cardiovasc Electrophysiol. 2019;30: 2220-2228. https://doi.org/10.1111/jce.14160

What it means for payors

- The recommendation not only highlights the clinical superiority of KardiaMobile against the current standard of care but also the cost effectiveness.
- This savings is driven by a reduction in diagnostic costs and the cost of KardiaMobile is lower than that of Holter.

£3 billion

Strokes are estimated to cost the NHS around 3 billion per year.[1]

£4 billion

Further costs to the economy totalling 4 billion in lost productivity, disability and informal care.[1]

Implementation

Positive recommendation to facilitate uptake in clinical practice.

1. NHS England Press release: NHS stroke action will save hundreds of lives. Available at: https://www.england.nhs.uk/2019/05/nhs-stroke-action-will-save-hundreds-of-lives/. Last accessed: March 2022.

What it means for patients

AF detection rates

Clinical evidence shows that significantly more people had better infrequent AF detection rates using the KardiaMobile single-lead device compared with a Holter monitor.

Community use

KardiaMobile is a convenient device that people can use at home to monitor their heart rhythms.

Ease of use

Evidence from published studies and patient experts shows that KardiaMobile is easier to use compared with other ECG monitors such as Holter monitors.

Additional patient implications

Diagnosis time

This may contribute to an earlier diagnosis of AF, which is essential for patients to avoid the potential consequences of stroke.

Improved access

With physician support, a largely undiagnosed patient population can remotely monitor their own heart health with improved access to technology.

Testimonials

We are witnessing a paradigm shift in arrhythmia detection with the advent of personal ECG recording devices. The KardiaMobile device has been at the forefront of this change. The ECG quality is excellent if used properly and I am increasing replacing the use of traditional hospital prescribed monitoring devices and asking patients to consider obtaining the KardiaMobile as this often reduces time to diagnosis of an arrhythmia
Dr Shouvik Haldar Consultant Cardiologist & Electrophysiologist Royal Brompton and Harefield, Chair of the British Cardiovascular Society education division

Atrial fibrillation is the commonest sustained heart rhythm disorder and is one of the leading risk factors for developing a stroke. Many patients develop AF without any obvious symptoms and remain undetected. With correct treatment, the majority of these strokes can be avoided. However, sadly half of patients who suffer a stroke due to AF are not diagnosed prior to their stroke. The 6 lead Kardia device provides a quick and effective way of detecting AF in clinic. It is portable and fits neatly in my pocket and whether I am in clinic, on a home visit, at home or amongst family and friends, I can diagnose AF within seconds and generate a pdf confirmation that can be filed in the medical notes.
Dr Yassir Javaid MBBChir (Cambridge), Cardiology GPSI and Clinical lead for Cardiology East Midlands Clinical Network

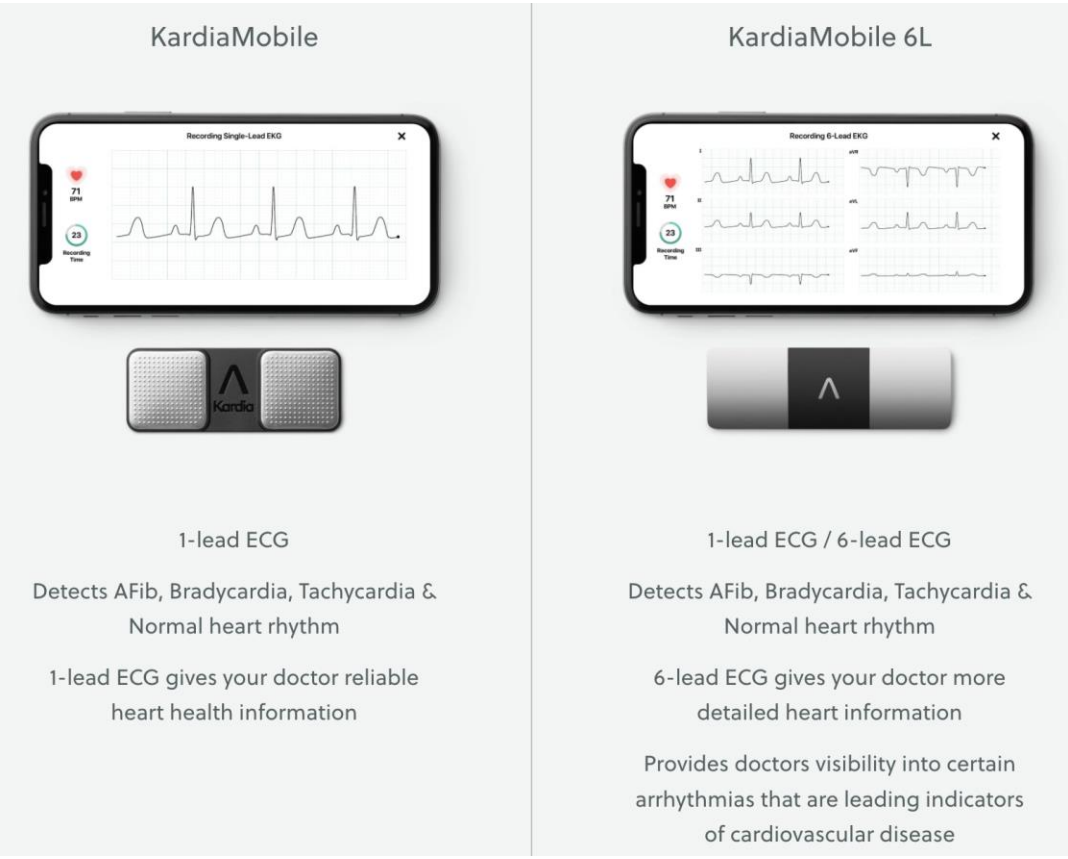
We have distributed 365 AliveCor 1 lead devices to GPs and practice nurses across the 151 general practices in Staffordshire, at workshops relaying clinical best practice management of AF, which includes diagnosing unidentified cases of AF. With the help of the AliveCor screening of AF in 'flu clinics and at long term health condition reviews, the AF prevalence in each CCG has continued to rise and each of our 6 CCGs had a higher AF prevalence rate than the national average, despite the deprivation in several of our CCGs.
Dr Ruth Chambers OBE GP Stoke-on-Trent

Helping people understand their pulse rhythm and how it can be a warning sign for a potentially fatal heart rhythm disorder (arrhythmia) has long been a cornerstone of our educational activity and forms the basis of one of our key campaigns: Know Your Pulse to Know Your Heart Rhythm. Amongst the patients, healthcare professionals and volunteers that we support, AliveCor KardiaMobile has been instrumental in identifying possible atrial fibrillation quickly and enabling patients to be referred for possible intervention to significantly reduce their risk of AF-related stroke. The technology rapidly supports early diagnosis for at risk patients as well as supporting peace of mind for known AF patients.
Trudie Lobban MBE Founder & CEO Arrhythmia Alliance

'After we conducted the IPED study across 10 Emergency Departments in the UK and showed that detection rate for underlying symptomatic ECG rhythms in patients presenting to the ED with palpitations increased from 10% in the standard care arm to 56% in the AliveCor intervention arm, we developed an Ambulatory Care smartphone palpitation service in July 2019. All patients seen in the ED with palpitations now come back to the clinic the following day whereupon they are fitted with the AliveCor and seen again in 4 weeks time. In the first 3 months of the clinic, 68 patients have attended and we have picked up 3 patients with Atrial Fibrillation, 1 with Atrial Flutter and 2 with symptomatic sin bradycardia less than 40 bpm. 44 patients had a symptomatic ECG rhythm correlation. The AliveCor has enabled us to diagnose many more patients that we could with previous standard care and its use in an ambulatory care clinic set up provides a valuable service to our palpitation patients.'
Professor Matthew Reed, Emergency Department Consultant at Edinburgh Royal, Chief Investigator IPED trial

Through the AHSN AF programme we have utilised Kardia by AliveCor in many settings and have identified three high impact settings in which this device facilitates the early detection of AF including mental health, podiatry and flu vaccination clinics as well as use in routine clinical practice within GP practices. The speed of recording and general ease of use makes the device a practical option for healthcare professionals seeking to identify people with AF early.
Helen Williams Consultant Pharmacist for CVD, National Clinical Adviser for AF AHSNs network

KardiaMobile – empowering patients to self-manage
Thank you for listening



Could a patchless, painless and wireless monitor offer a better solution for you and your patient?

AliveCor Contact
Sean Warren
Business Director UK / IRE
sean.warren@alivecor.com
@seanawarren

Aidan Crowe,
Group Sales Manager at Pure Audio Visual Ltd & Paul Martin, Technical Account Manager at Pure Audio Visual

pure av

Audio Visual and Video Conferencing Projects in the NHS

Five lessons learned supporting rapid technology rollout in the NHS

Presented by Aidan Crowe & Paul Martin

Introductions

Aidan Crowe

Group Sales Manager, Pure AV

Paul Martin

Technical Account Manager (NHS), Pure AV

Lets start with a question……

pure av

StarLeaf

webex by CISCO

Polycom®

CISCO

TANDBERG

medio .link

N3 Connecting Healthcare

HSCN HEALTH & SOCIAL CARE NETWORK COMPLIANT


4K
ULTRA HD

A decade of change

2010

BT to run N3 videoconferencing service

NHS Connecting for Health and BT have announced that BT is to offer a national

2015

Hunt approves HSCN: N3 replacement

2020

Half of all NHS trusts in England opt for UK tech company StarLeaf over video conferencing rivals

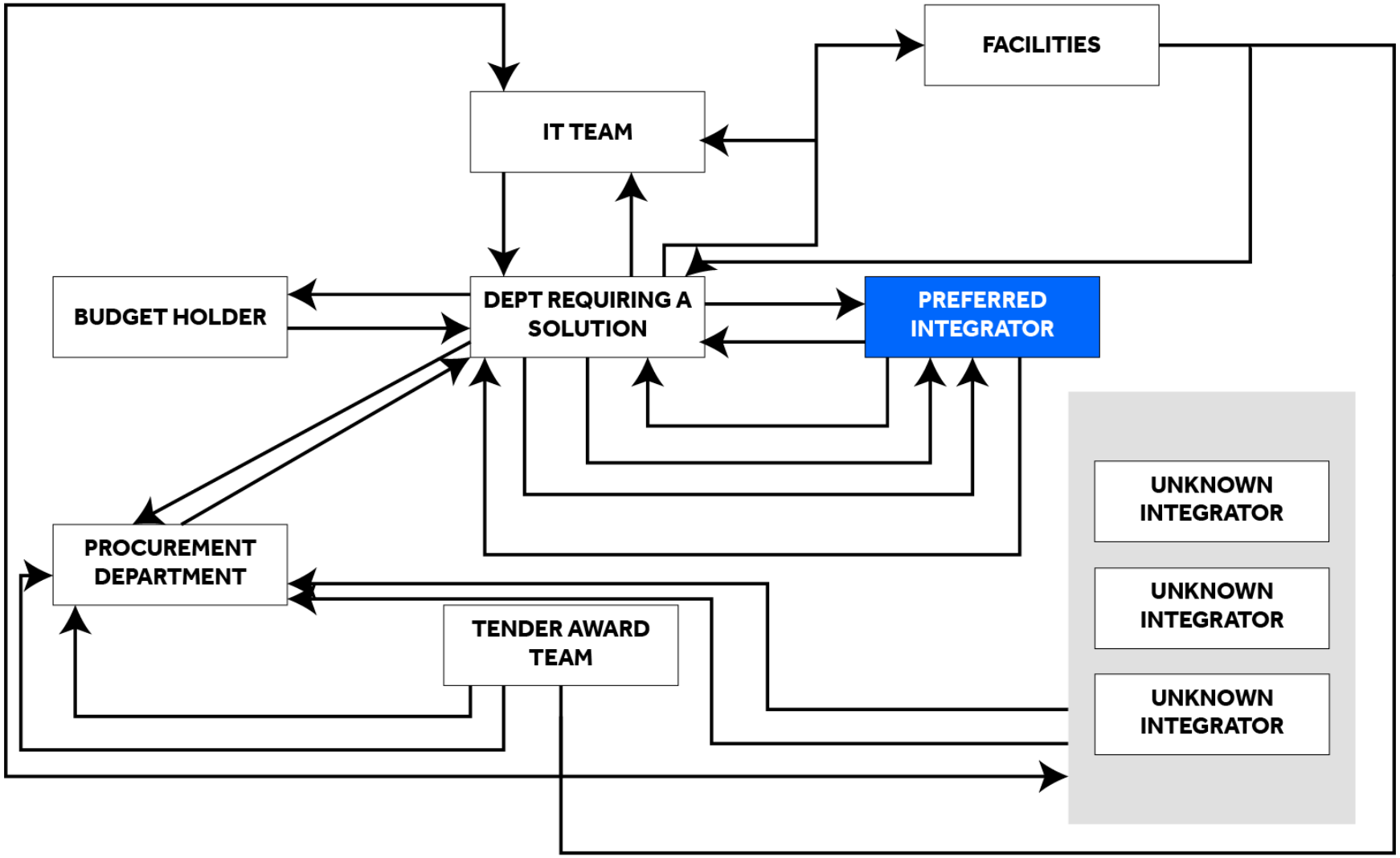
Watford-headquartered StarLeaf is a privacy-centric, British competitor to Zoom.

November 11, 2020

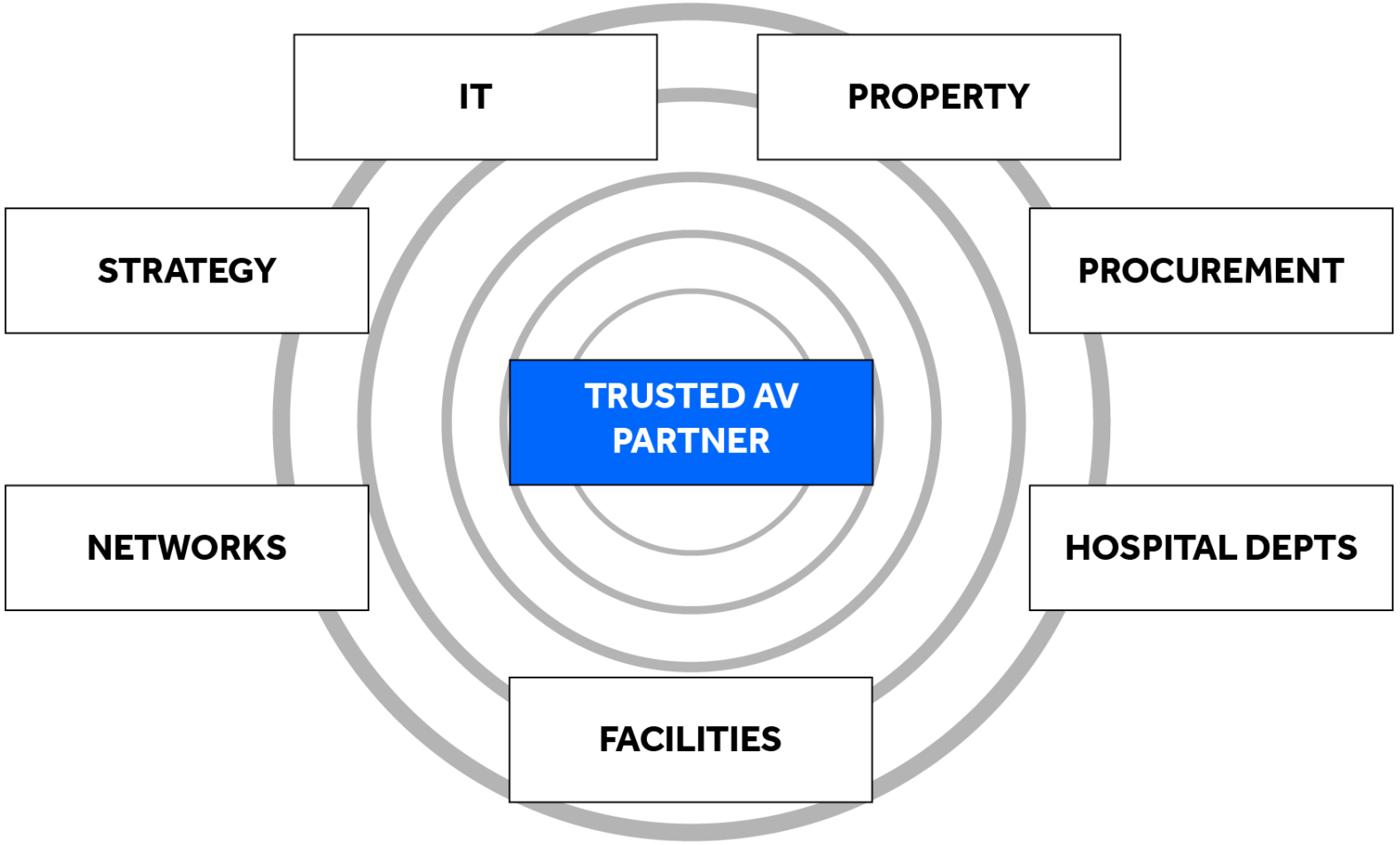
2021

NHS saves more than 2 million hours using Microsoft Teams

The true cost of project delivery



But, it can be simplified



Some specific experiences and what we have learnt

Three real world examples

- East London
- East of England
- North West England

East London Trust

- Only one person in the Trust handling all the AV projects
- Individual departments and the integrator never had direct contact
- Due to staffing changes, the contact changed three times in two years
- Projects were slow to be outlined, slow to be ordered, and slow to be delivered because of the logistical challenges of arranging dates through a single contact.

North West Trust

- The Trust had an idea but were unsure of how to get the project started
- Initially put their idea out to the framework, but the scope wasn't as defined as it could be
- Conversations with Pure AV started, who helped the Trust fill in the missing pieces of the scope
- Educated the Trust stakeholders on the benefits of each recommended solution

East of England

- This Trust had an individual IT-based project manager as the focal point for AV.
- Key contacts from other departments were involved throughout the process
- Enabled pro-active resolution of issues and areas of contention throughout the delivery phase
- Strategic communication continued with the project manager.

Lesson One

A stitch in time.....

Lesson Two

Sometimes we do know best!

Lesson Three

If we say we can, we must.

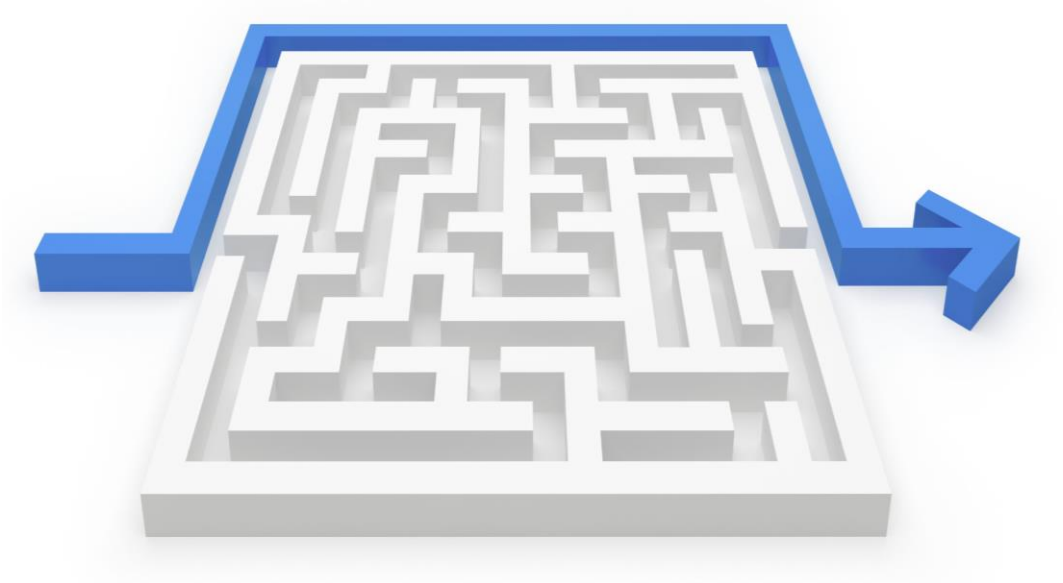
Lesson Four

Procurement can be easy (and quick!)

pure av

Lesson Five

Hey, S~!T happens!



A strategic partnership to simplify your projects

More Relevant Solutions

Faster Turnaround

Less Internal Resource Intense

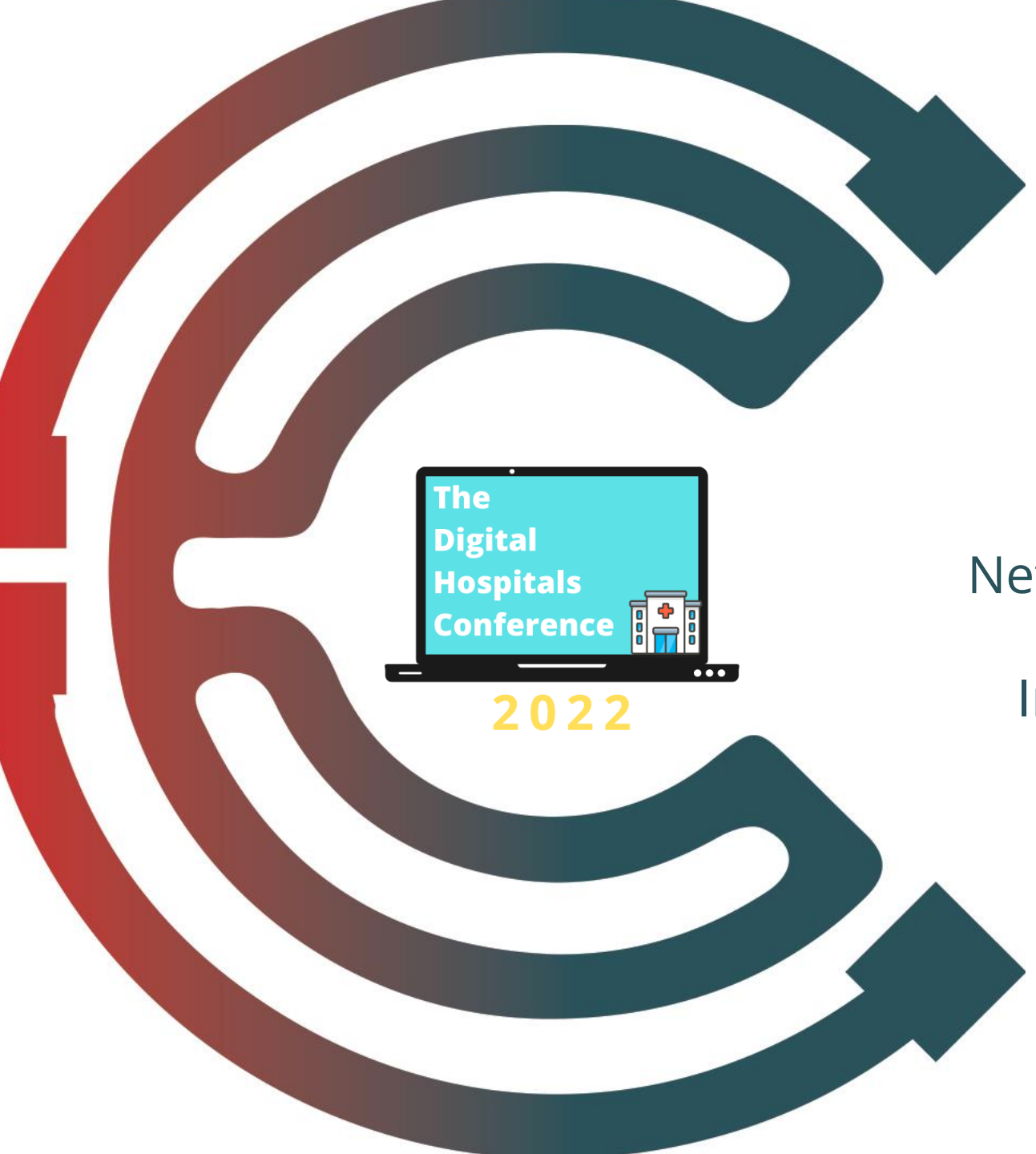
Better Long-term ROI

pure av

Any Questions?

If you have any questions after the presentation, please contact me at p.martin@pureav.co.uk and I will get back to you.

Paul Martin / Aidan Crowe



Dr Asif Bachlani,
Clinical Director for Acute and PICU Networks, Consultant Psychiatrist at Priory Group & Joseph McEvoy, Director of Innovation and Digital at Priory Group.

PRIORY PRIVATE HEALTHCARE

Delivering digital services in mental health care during the pandemic and beyond!

#datasaveslives

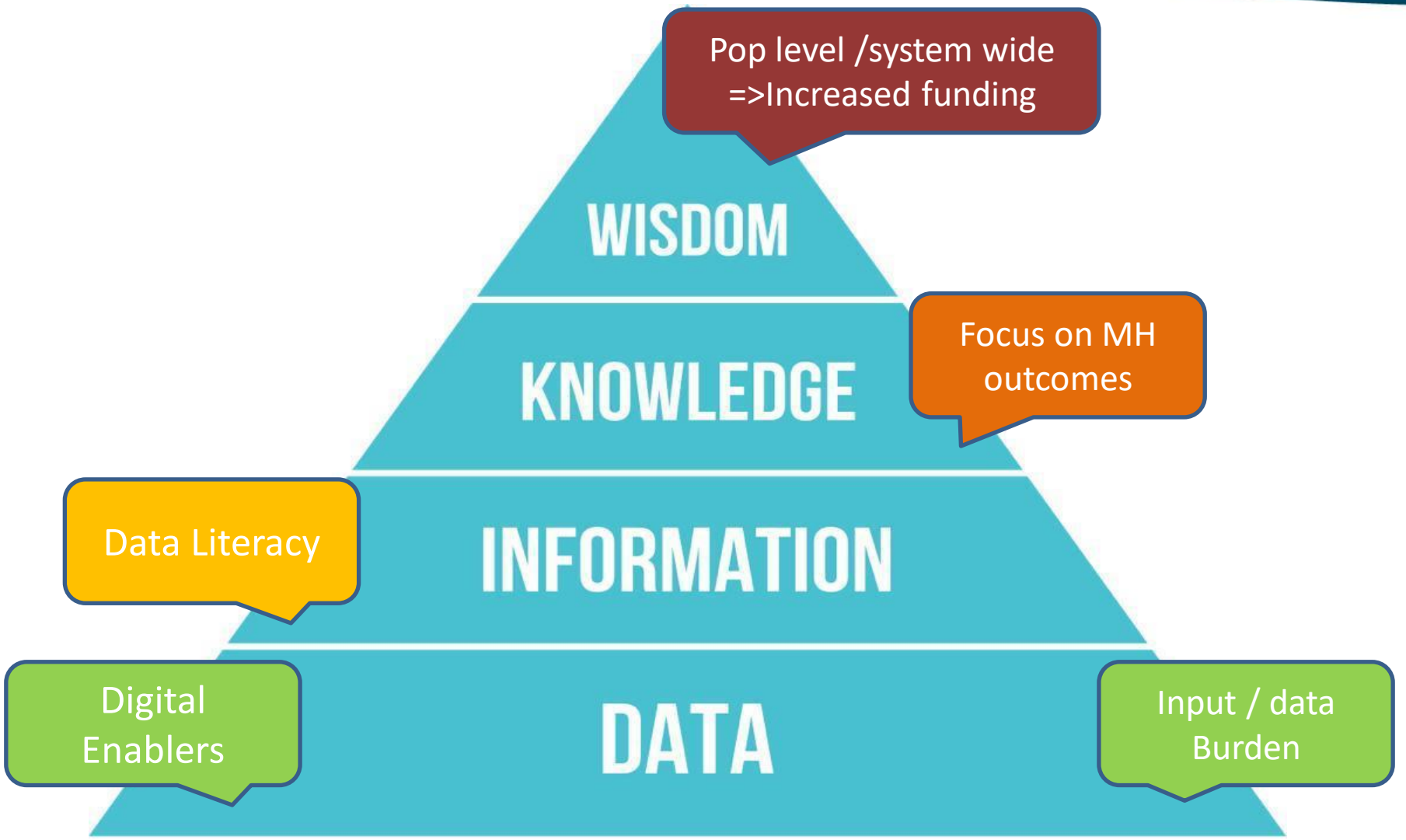
#RCPsychData22

15th March 2022

Dr Asif Bachlani

Joe McEvoy

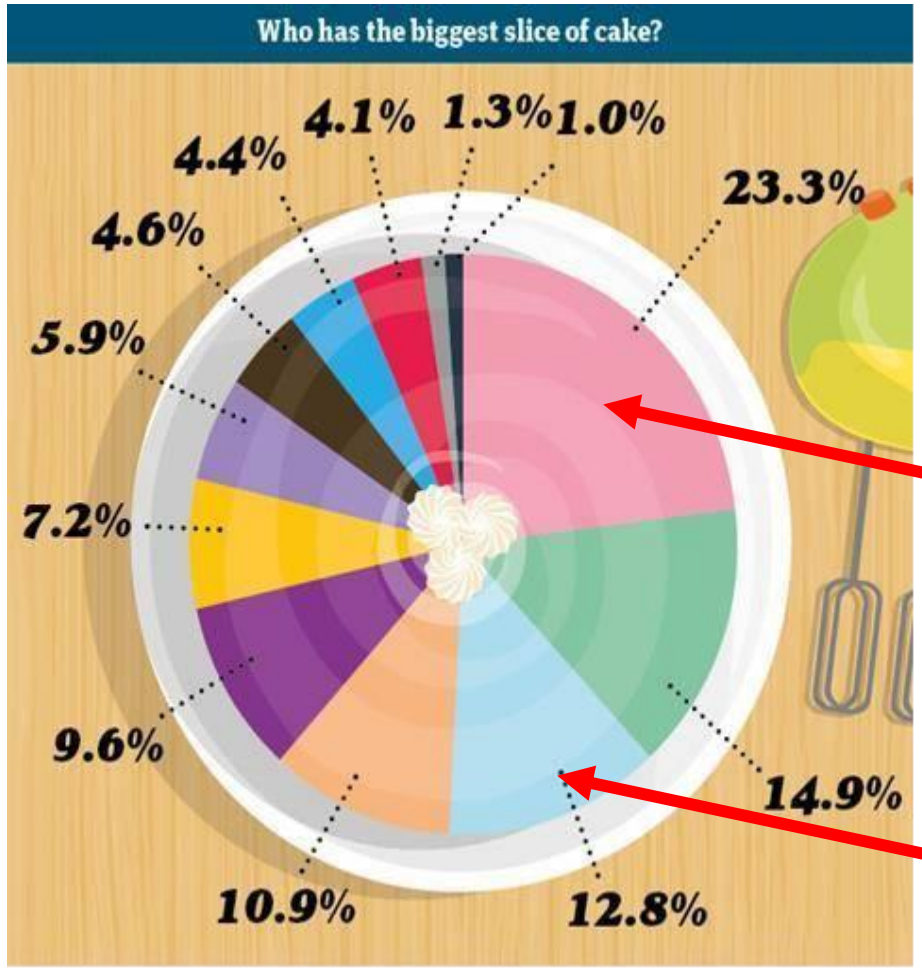
Data Triangle 2.0



Digital for Mental Healthcare

SO WHAT's the problem?

Who gets what slice of the NHS cake?

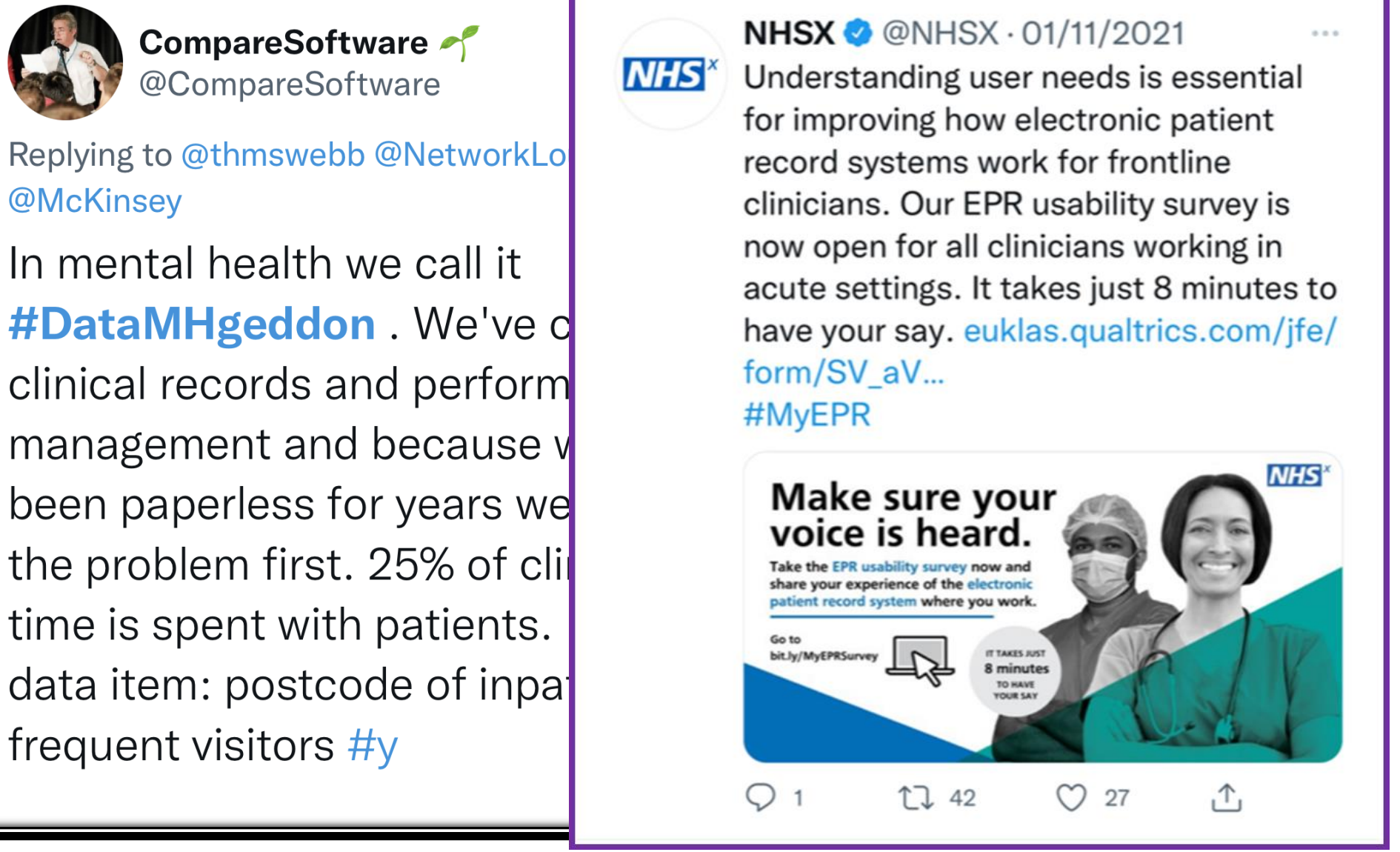


- Who thinks MH services are well-funded?

Approximate proportion of disease burden from MH conditions

Approximate proportion of funding from local NHS budget for MH

#DataMHgeddon



CompareSoftware 🌱
@CompareSoftware

Replying to @thmswebb @NetworkLo
@McKinsey

In mental health we call it #DataMHgeddon . We've c clinical records and perform management and because w been paperless for years we the problem first. 25% of cli time is spent with patients. data item: postcode of inpa frequent visitors #y

NHSX @NHSX · 01/11/2021

Understanding user needs is essential for improving how electronic patient record systems work for frontline clinicians. Our EPR usability survey is now open for all clinicians working in acute settings. It takes just 8 minutes to have your say. euklas.qualtrics.com/jfe/form/SV_aV...
#MyEPR

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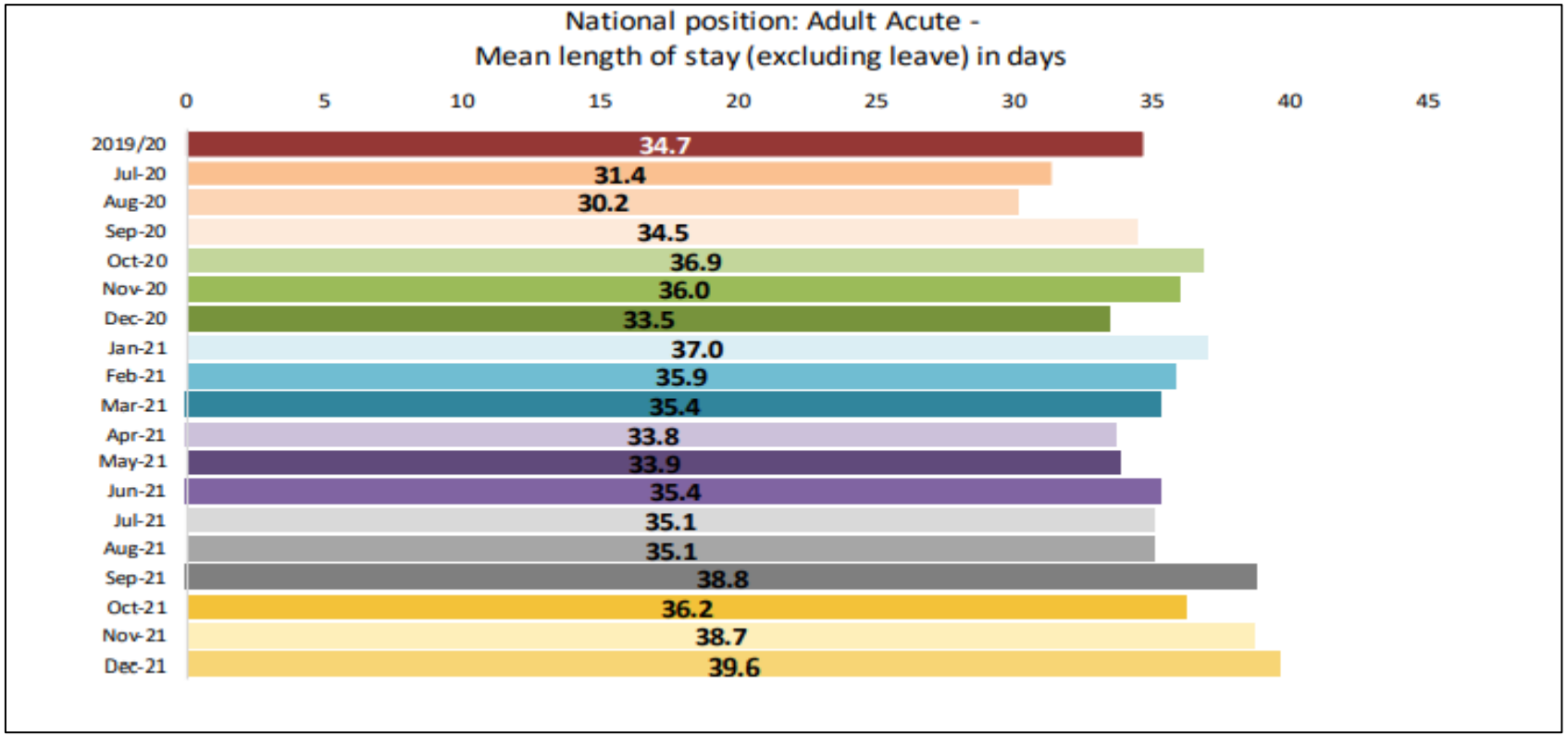
PRIORY PRIVATE HEALTHCARE

Digital for Mental Healthcare

So what does the data tell us?

Length of stay – impact of Covid-19



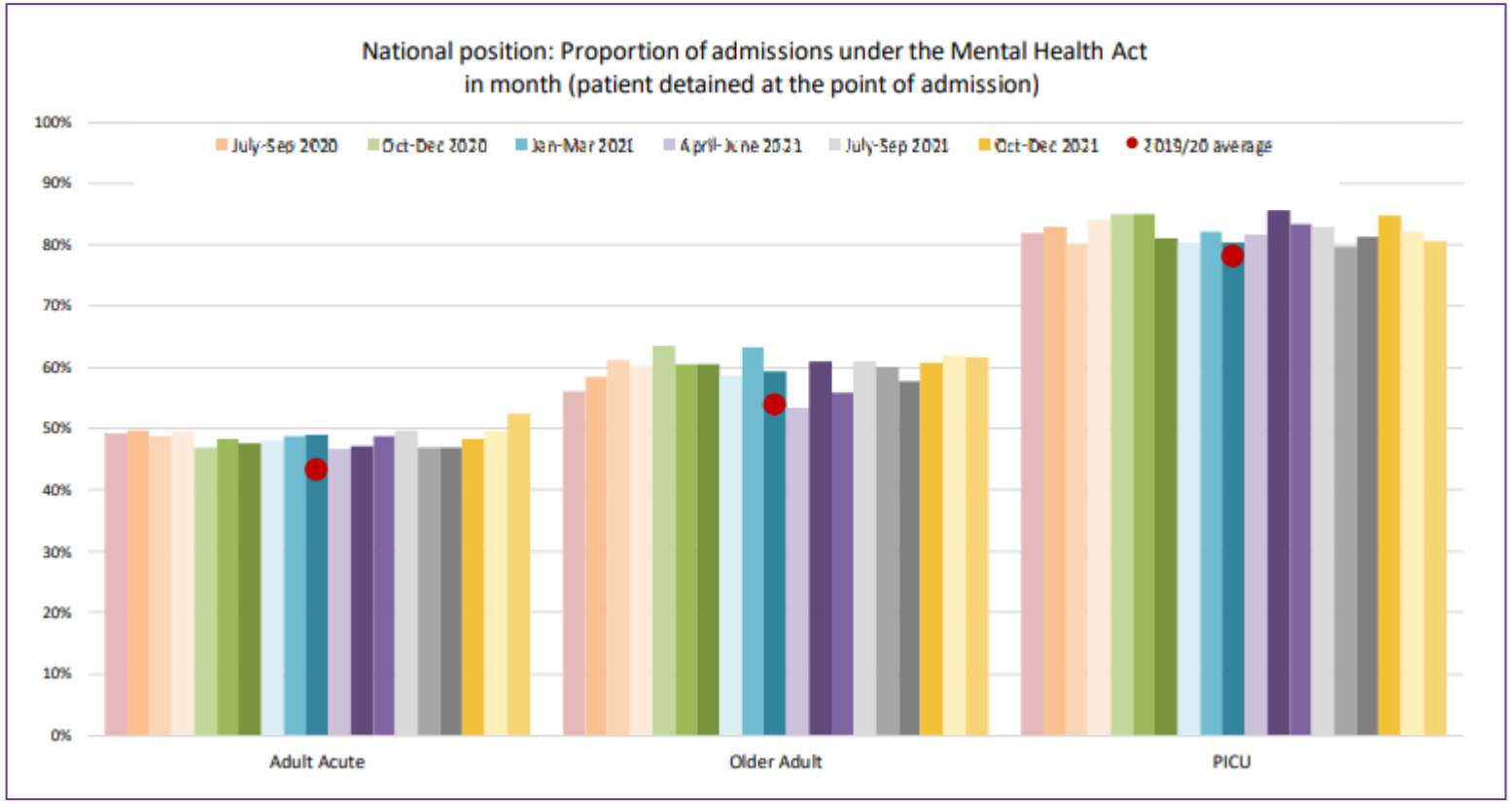
- The average length of stay for adult acute wards continued to exceed historic rates (November/December 2021)

- UK average position of 39.6 days =>14% increase from historic levels.

Data Source – NHS Benchmarking Network

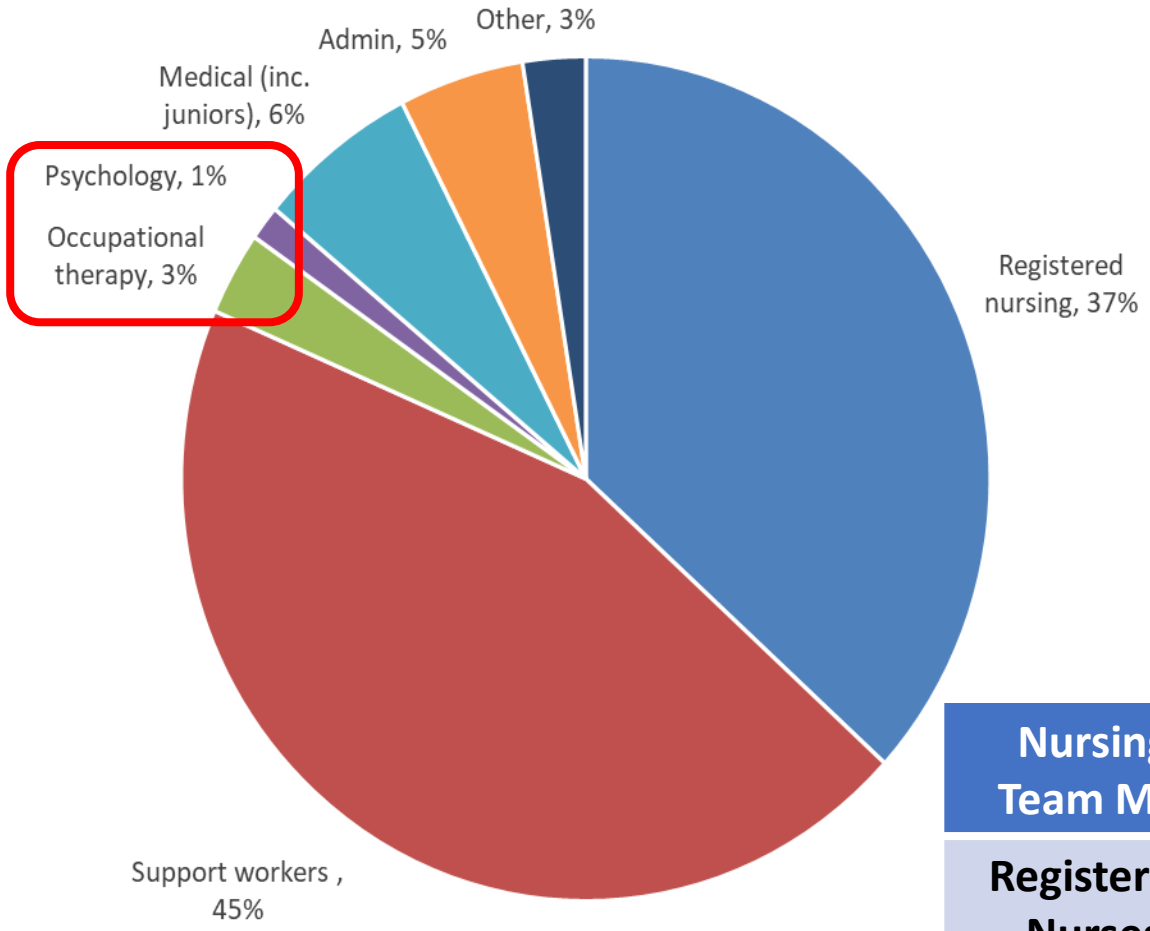
MHA admission trends – Adult Inpatient Units

- MHA (involuntary) rates remain 21% higher 2019/20 (pre-covid)
- 2% increase per 100k population



Data Source – NHS Benchmarking Network

Optimising the workforce - Adult acute skill mix



- 82% of ward staff are nurses or support workers
- Ongoing reduction in Nursing Team skill-mix
- Specialist therapy input remains small – higher levels of therapy input = shorter ALOS
- Peer Support <1% of MDT

Nursing Team Mix	2012/13 share	2019/20 share
Registered Nurses	60%	45%
Support Workers	40%	55%

NHS Benchmarking Network

PRIORY PRIVATE HEALTHCARE

Digital for Mental Healthcare

SOLUTIONS

Digital Strategy for Clinicians

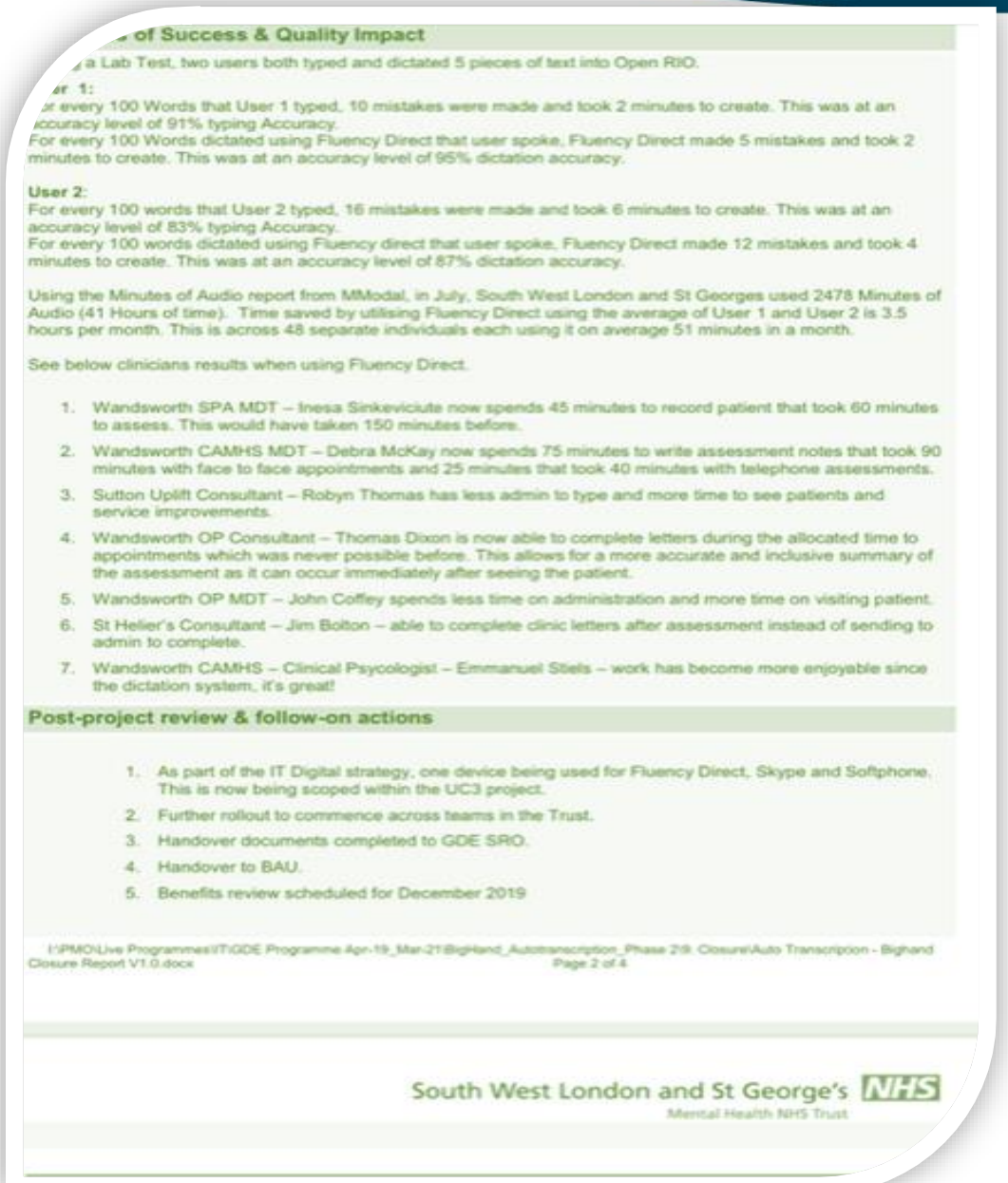
South West London and St George's NHS
Mental Health NHS Trust

- 3 work-streams
  - ICE – Improving clinician efficiency i.e. reduce admin burden for clinicians
  - IPO – Improving patient outcomes
  - EDMH – Enabling Digital Mental Health

Theme	Project	Clinical Lead	IT/Performance Lead
Increasing Clinician Efficiency (ICE)	Voice recognition / digital dictation	Tom Dixon (CMHA)	Amallia Thomas Chuks Anah
	Reducing clinical admin burden - RiO	Denis Hodzovic (CSL) Sarah Adams (ACL)	Liam Ford Trevor Saruchera
Improving Patient Outcomes (IPO)	Mental Health Tariff	Asif Bachlani	Liam Ford Keith Williams
Embracing Digital Mental Health (EDMH)	Skype assessments	Suhana Ahmed (CMHA)	Stephen Guise
	Clin Touch (App)	Ian Petch	
	Paperless NHS (appt letters / clinical letters)	Asif Bachlani	

Data entry and burden

- Who records the data
- Structured vs non structured data
- Admin vs Clinical Time: 30-70%
- Consultant Psychiatrist vs Consultant Cardiologist
- Use of Voice recognition technology



of Success & Quality Impact

a Lab Test, two users both typed and dictated 5 pieces of text into Open RIO.

r 1:
r every 100 Words that User 1 typed, 10 mistakes were made and took 2 minutes to create. This was at an ccuracy level of 91% typing Accuracy.
For every 100 Words dictated using Fluency Direct that user spoke, Fluency Direct made 5 mistakes and took 2 minutes to create. This was at an accuracy level of 95% dictation accuracy.

User 2:
For every 100 words that User 2 typed, 16 mistakes were made and took 6 minutes to create. This was at an accuracy level of 83% typing Accuracy.
For every 100 words dictated using Fluency direct that user spoke, Fluency Direct made 12 mistakes and took 4 minutes to create. This was at an accuracy level of 87% dictation accuracy.

Using the Minutes of Audio report from MModal, in July, South West London and St Georges used 2478 Minutes of Audio (41 Hours of time). Time saved by utilising Fluency Direct using the average of User 1 and User 2 is 3.5 hours per month. This is across 48 separate individuals each using it on average 51 minutes in a month.

See below clinicians results when using Fluency Direct.

1. Wandsworth SPA MDT – Inesa Sinkeviciute now spends 45 minutes to record patient that took 60 minutes to assess. This would have taken 150 minutes before.
2. Wandsworth CAMHS MDT – Debra McKay now spends 75 minutes to write assessment notes that took 90 minutes with face to face appointments and 25 minutes that took 40 minutes with telephone assessments.
3. Sutton Uplift Consultant – Robyn Thomas has less admin to type and more time to see patients and service improvements.
4. Wandsworth OP Consultant – Thomas Dixon is now able to complete letters during the allocated time to appointments which was never possible before. This allows for a more accurate and inclusive summary of the assessment as it can occur immediately after seeing the patient.
5. Wandsworth OP MDT – John Coffey spends less time on administration and more time on visiting patient.
6. St Helier's Consultant – Jim Bolton – able to complete clinic letters after assessment instead of sending to admin to complete.
7. Wandsworth CAMHS – Clinical Psycologist – Emmanuel Stiels – work has become more enjoyable since the dictation system, it's great!

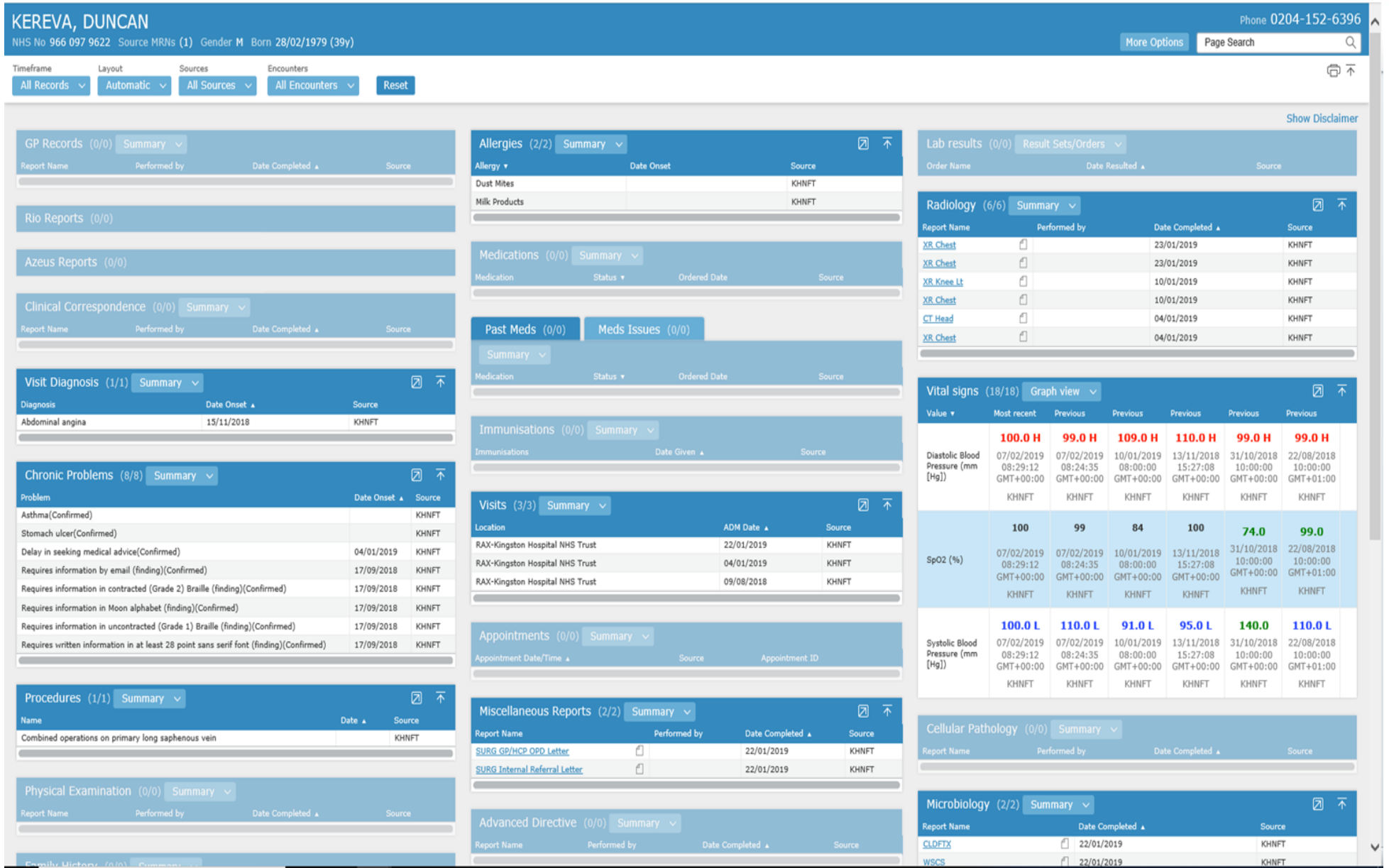
Post-project review & follow-on actions

1. As part of the IT Digital strategy, one device being used for Fluency Direct, Skype and Softphone. This is now being scoped within the UC3 project.
2. Further rollout to commence across teams in the Trust.
3. Handover documents completed to GDE SRO.
4. Handover to BAU.
5. Benefits review scheduled for December 2019

I:\PMO\Live Programmes\IT\GDE Programme Apr-19_Mar-21\Bighand_Autotranscription_Phase 2\9. Closure\Auto Transcripion - Bighand Closure Report V1.0.docx Page 2 of 4

South West London and St George's NHS
Mental Health NHS Trust

Shared records (intra-operability)



Digital Mental Health

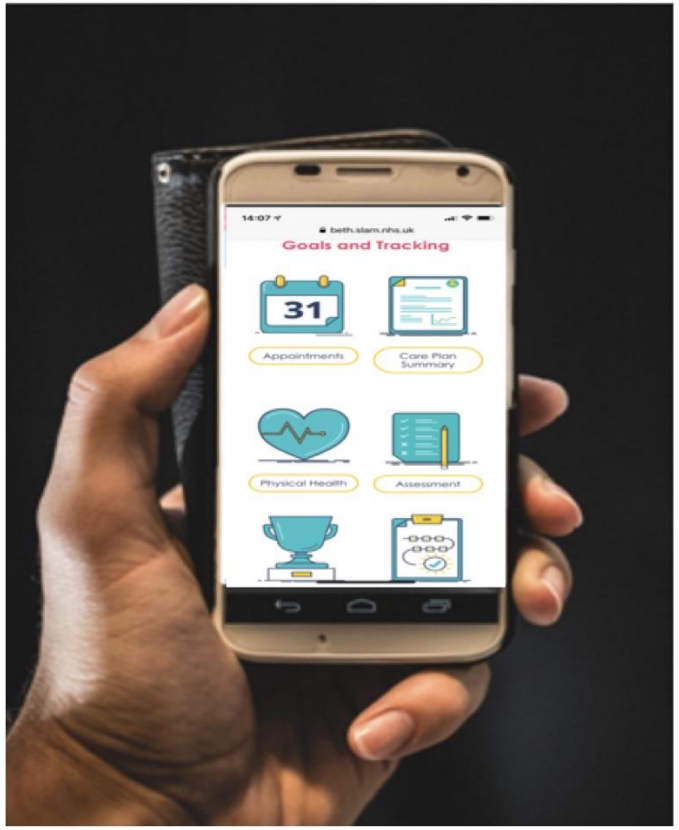
- E-PMA
- E-observation
- Digital ECG
- mEPR

Personalised Health Record

Meet Beth

- A free and secure online platform
- For patients, carers and staff
- Accessible on any device with connection to the internet
- Sharing parts of health records
- Self-monitoring tools
- Access to trusted health resources

beth.slam.nhs.uk

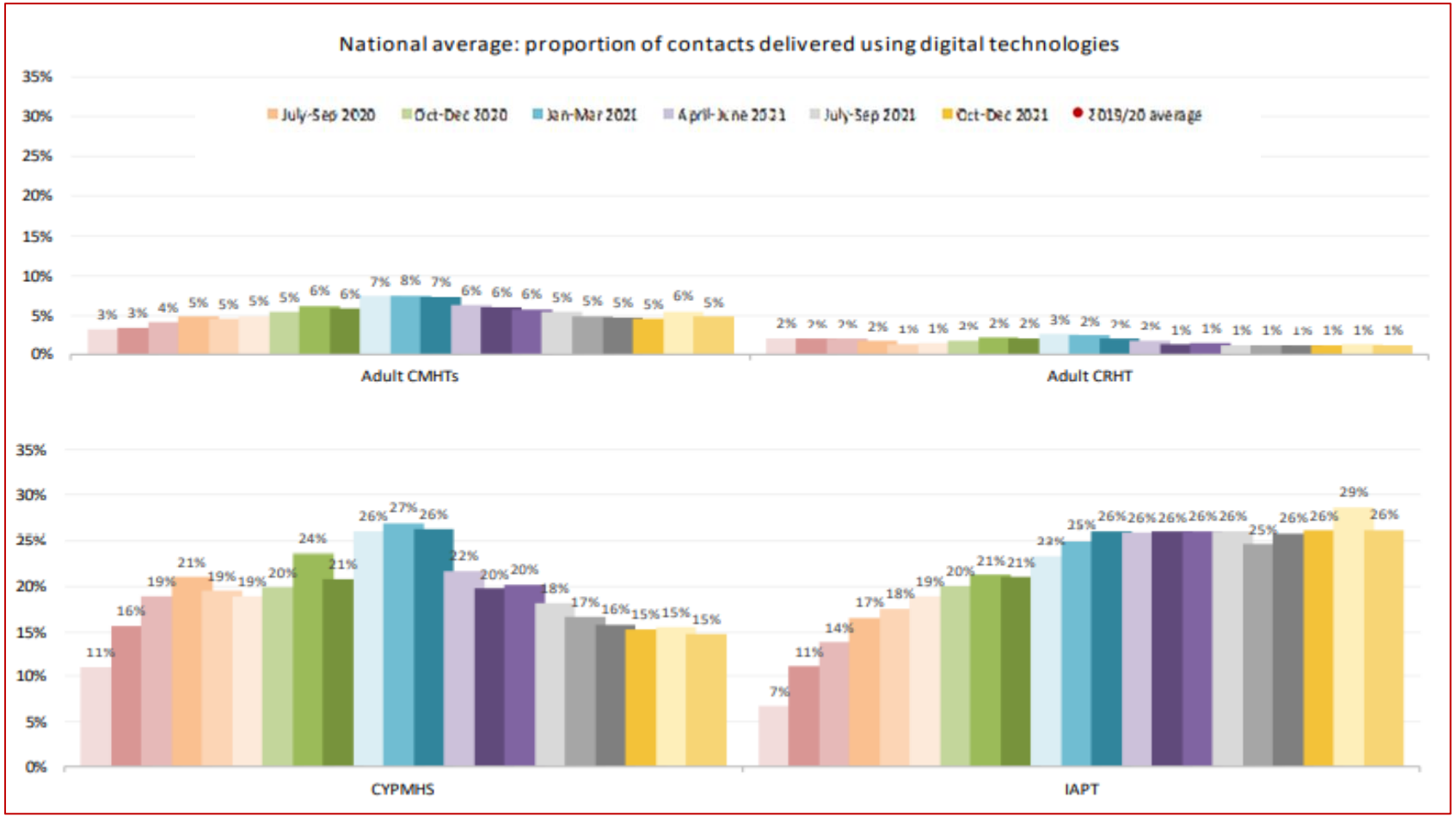


Dr Barbara Arrayo – CCIO

Mental Health Services – Digital Technologies

- Adult Services < Children Services (CYP)

- IAPT – 26%



Data Source – NHS Benchmarking Network

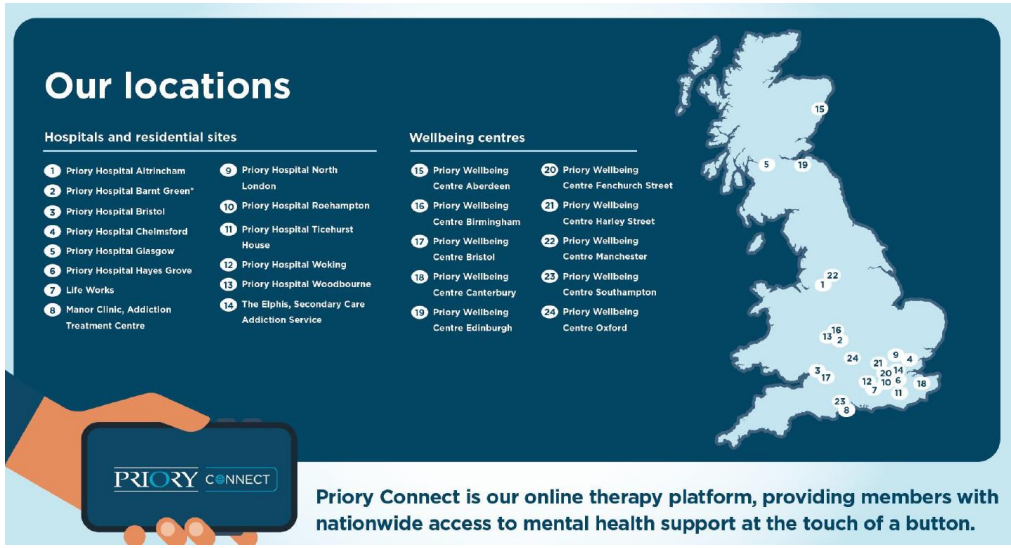
Accelerating digital services in mental health care during the pandemic and beyond!

Joe McEvoy – Director of Innovation and Digital

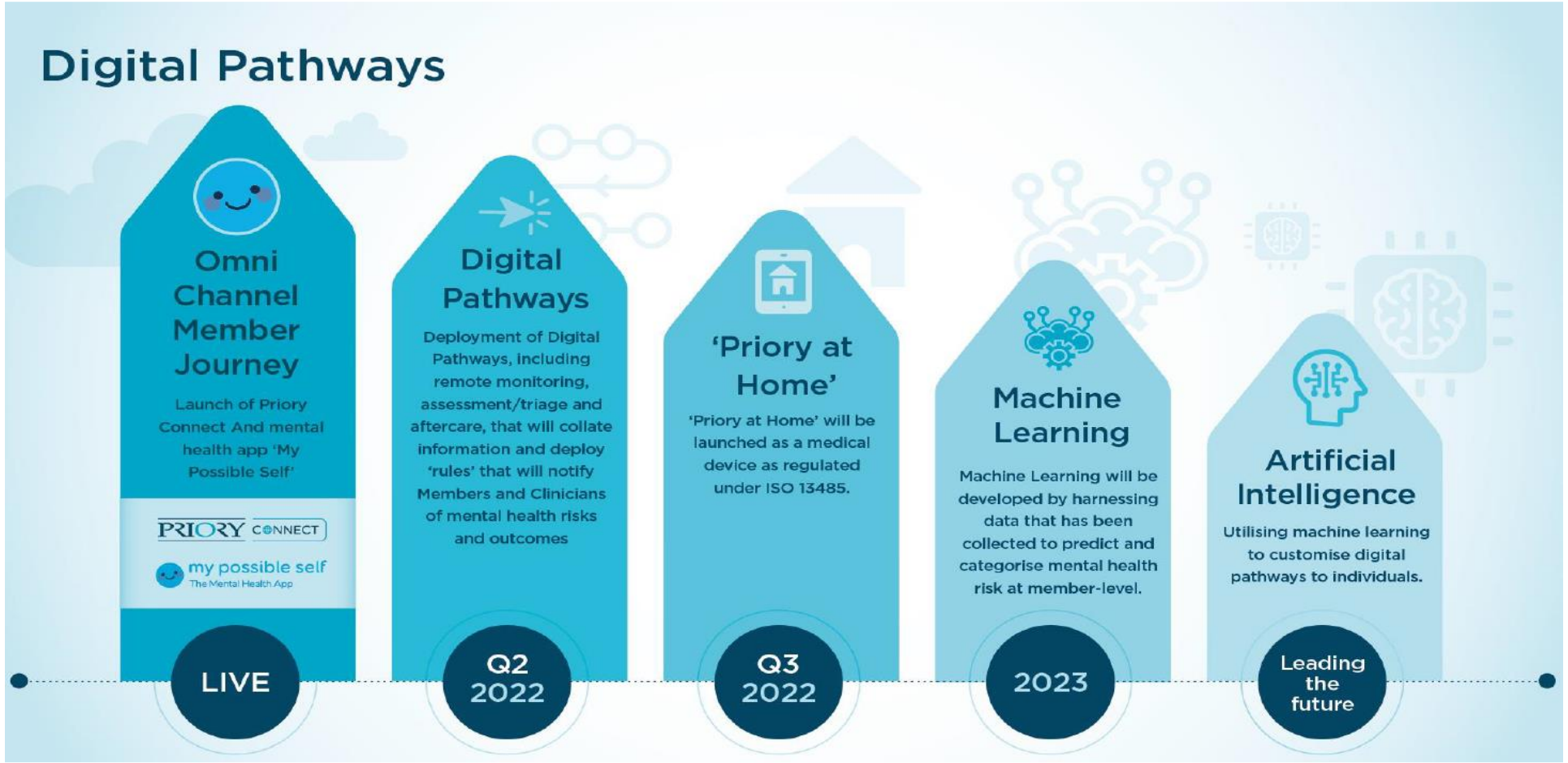
Background


1,600
NETWORK OF OVER 1,600 THERAPISTS
30,000
OVER 30,000 INDIVIDUALS SUPPORTED PER ANNUM

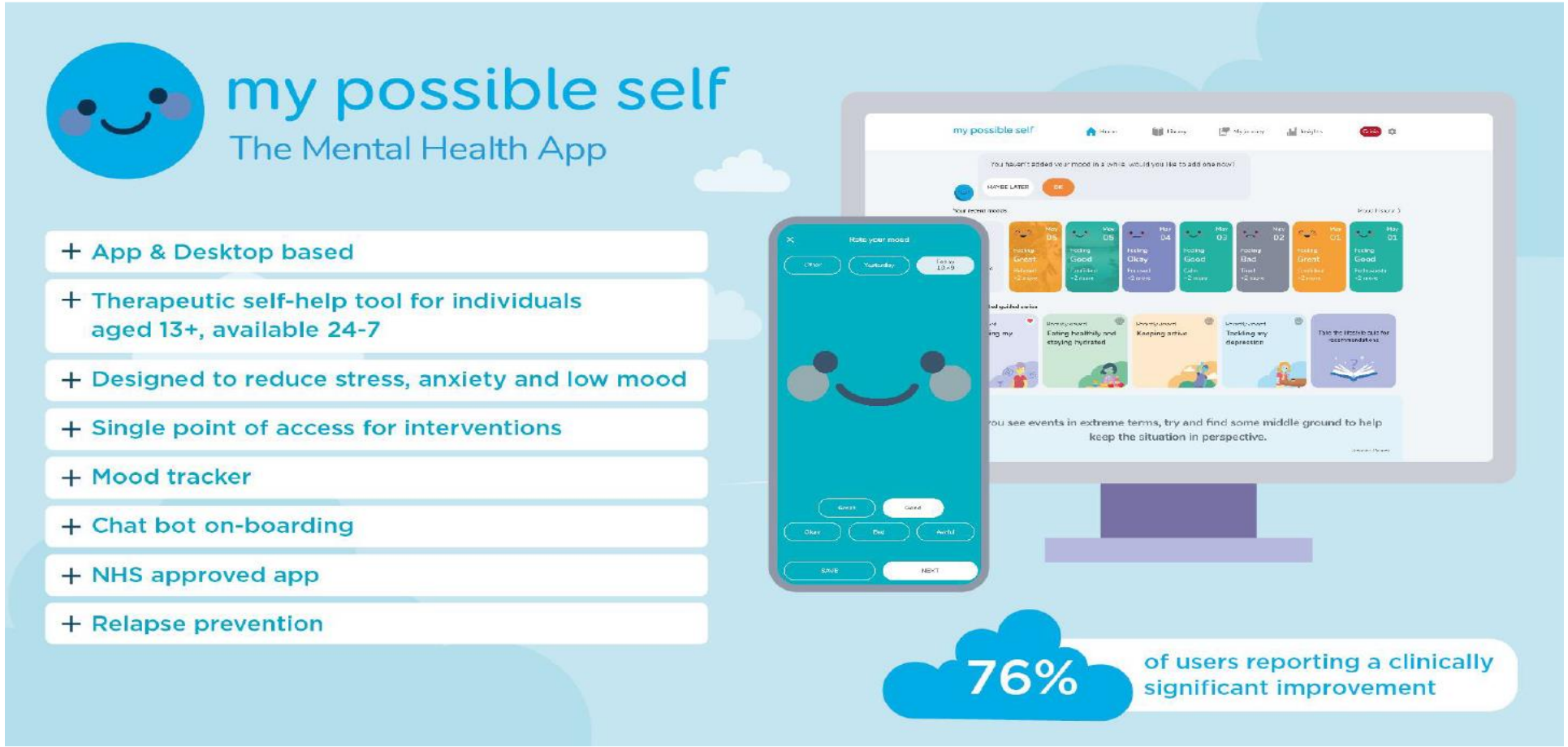

Treatment delivery and monitoring
GP
• Assessment
• Watchful Waiting
RECOGNITION
Recognition
THERAPY
• Telephone Assessment
• Guided self help-CBT
• cCBT Programs
• Psychoeducational Groups
• Behavioural Activation
• MPS Priory App
MILD - MODERATE
Depression: Mild-Mod
Anxiety-Mild-Mod
-Panic, GAD, OCD
THERAPY
• Medication
• Psychological interventions
• 1:1 (CBT, IPT, 3rd Waves, Counselling, EMDR, Couples, & Psychology)
• Treatment Groups
• Social Support
MODERATE - SEVERE
Depression: Mild-Sev
Anxiety-Mod-Sev:
-GAD, Panic, PTSD, SA, OCD, Phobia, HA, BDD
*Mod ED, ADD, Addictions
OUTPATIENT/ DAYCARE/ CRISIS TEAMS
• Medication
• Complex Psychological Interventions
• Groups (inc specialist groups)
• Combined treatments
SEVERE/SPECIALIST
Severe, Recurrant & Complex, Depression, Anxiety, ED, Addictions, Atypical, Personality Disorder
Risk to self- Crisis Team
INPATIENT
• Medication
• 1:1 and Group Therapy (up to 5 hours per day)
• Stabilisation
• Complex Presentations
• Detox
RISK TO SELF, SEVERE SELF NEGLECT
Severe Depression
Anxiety with risk to self and neglect
Addictions
Emotional Dysregulation with risk
Complex co-morbidities
STEP 1
STEP 2
STEP 3
STEP 4
STEP 5
PRIORY CONNECT
First point of contact
Interface with secondary care


Our locations
Hospitals and residential sites
1 Priory Hospital Altrincham
2 Priory Hospital Barnt Green*
3 Priory Hospital Bristol
4 Priory Hospital Chelmsford
5 Priory Hospital Glasgow
6 Priory Hospital Hayes Grove
7 Life Works
8 Manor Clinic, Addiction Treatment Centre
9 Priory Hospital North London
10 Priory Hospital Roehampton
11 Priory Hospital Ticehurst House
12 Priory Hospital Woking
13 Priory Hospital Woodbourne
14 The Elphis, Secondary Care Addiction Service
Wellbeing centres
15 Priory Wellbeing Centre Aberdeen
16 Priory Wellbeing Centre Birmingham
17 Priory Wellbeing Centre Bristol
18 Priory Wellbeing Centre Canterbury
19 Priory Wellbeing Centre Edinburgh
20 Priory Wellbeing Centre Fenchurch Street
21 Priory Wellbeing Centre Harley Street
22 Priory Wellbeing Centre Manchester
23 Priory Wellbeing Centre Southampton
24 Priory Wellbeing Centre Oxford
PRIORY CONNECT
Priory Connect is our online therapy platform, providing members with nationwide access to mental health support at the touch of a button.

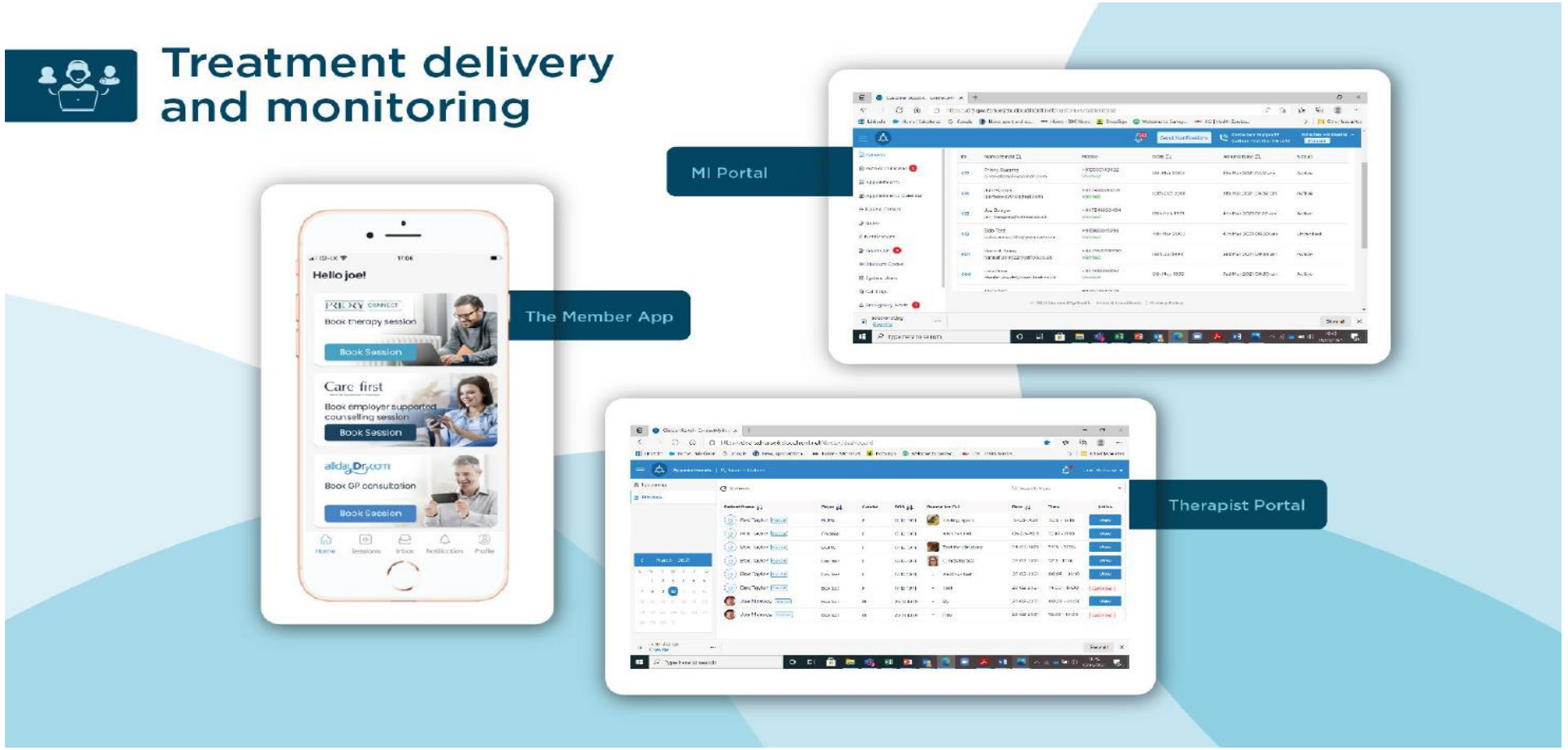
Digital Roadmap



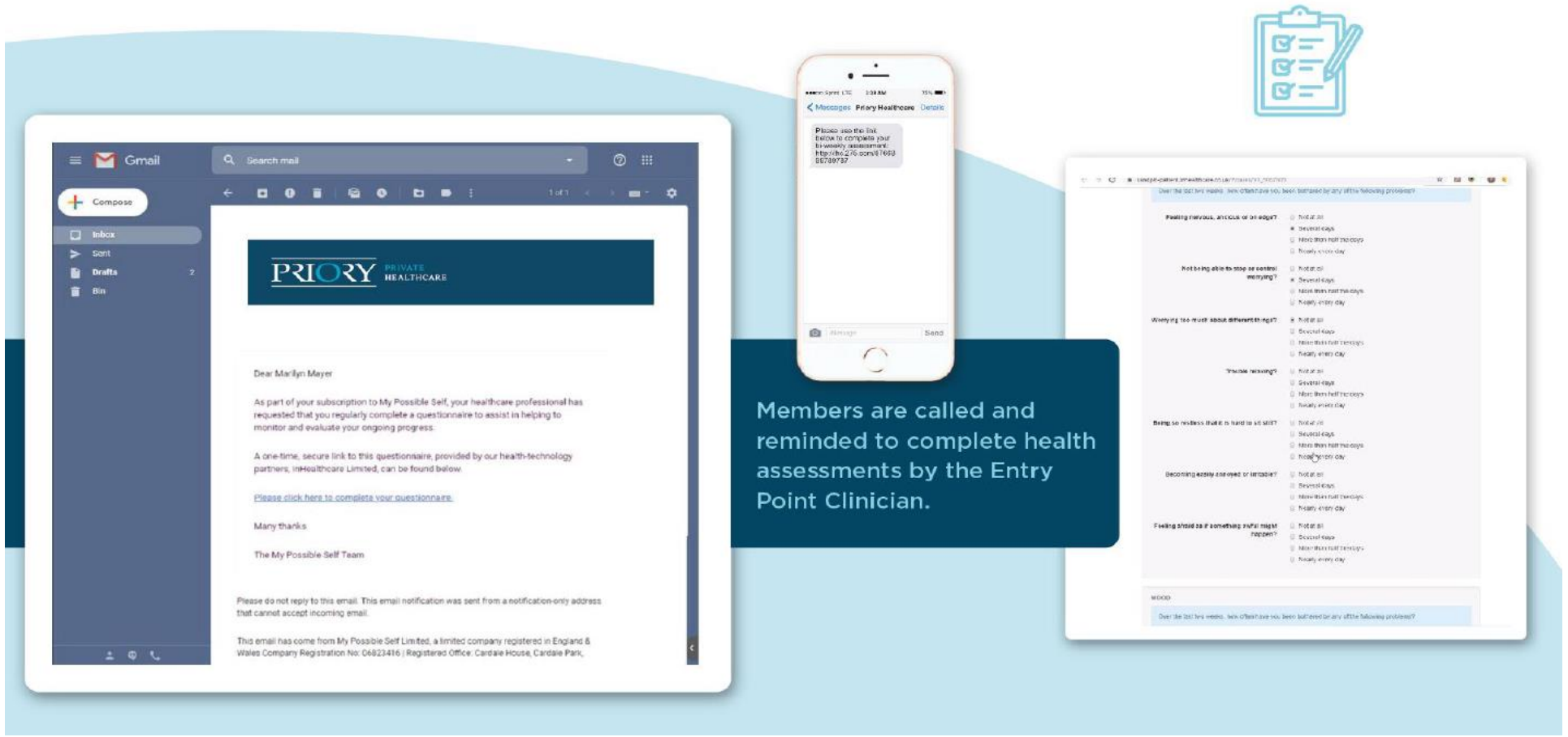
My Possible Self



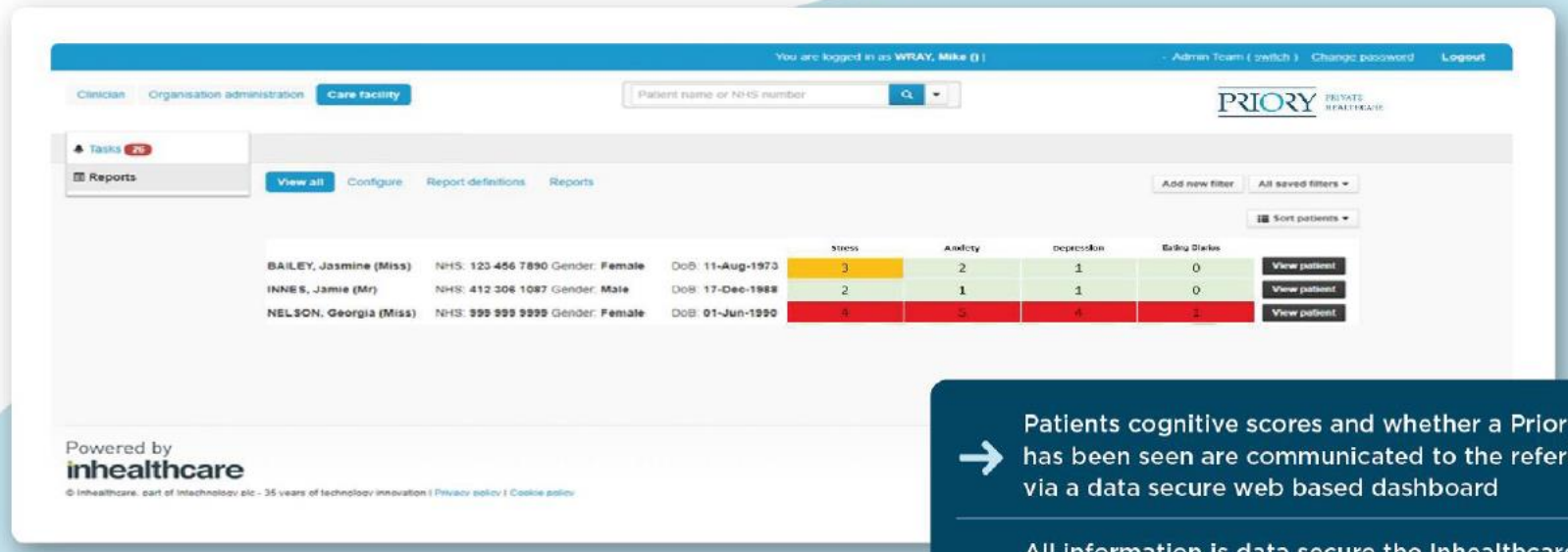
Priory Connect



Remote Monitoring – Digital Pathway



Clinical Portal



- Patients cognitive scores and whether a Priory specialist has been seen are communicated to the referring clinician via a data secure web based dashboard
- All information is data secure the Inhealthcare platform is accredited to the following standards: ISO 27001, ISO9001, MHRA, NHS IT Toolkit level 3, Cyber Security Essentials plus and the NHS Digital Data Security Toolkit
- The referring clinician can update the GP on any support given to the patient.

2022

Thank you for attending the Digital Hospitals Conference 2022. Please have a safe journey home.