



**Summer  
Schools 2023**

a digitalhealth event 

27-28 July

**#DHSS23**

# **Simon Wallace**

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CCIO

Nuance Communications, a Microsoft company

“Now it is complex, effective and potentially dangerous”

## EDITORIAL

# List of covid-19 symptoms must be updated

Pedure to list new variant symptoms is a threat to pandemic control in the UK

**W**ith the unknown arrival of SARS-CoV-2 new dominant waves in the US, and the World Health Organisation warning that half of Europe will have been affected within the next six to eight weeks,<sup>1</sup> we must respond and adjust our approaches to meet the challenges it poses. Although studies have found that economic lockdown measures can slow down the rate of infection,<sup>2</sup> it is highly likely that rates of SARS-CoV-2 has slowed rather than stopped in the higher yet more rural UK. The NHS remains stretched in handling patients with several hospitals declaring critical incidents<sup>3</sup> because of rising pressures and rising resources.

A complete behavioural response update, covering travel, and isolation measures, may not be as important today in halting the spread of covid-19 and protecting the NHS. However, those measures can deliver successfully only if built on a foundation of proper management and public trust – and it is here that the government is continuing to fail, with its lack of clear public health messaging.

That common infection produces similar symptoms and causes severe illness is certainly a good thing, but also shows that it is so much harder to track, making an effective early response programme very difficult to set. Given that we now know from research such as the SERENITY study that the primary symptoms of the disease varied include runny nose, headache, fatigue, sneezing, and sore throat,<sup>4</sup> it is perhaps not surprising that the government has not updated its official<sup>5</sup> and widely cited list of symptoms, which highlights loss of taste or change to sense of smell (0.68%).

Margie Paas, professor, Faculty of Public Health, London School of Hygiene & Tropical Medicine



**Primary symptoms of the common variant include runny nose, headache, fatigue, sneezing, and sore throat**

Across the world, government agencies, including WHO and the US Centers for Disease Control and Prevention, have updated their case definitions of covid-19 to include more diverse symptoms, thus greatly reducing the threshold for people to test and isolate when appropriate. Unlike the UK, however, the clear evidence on the symptoms caused by the common variant and updates its guidance in step with global partners. We will see the effectiveness of our ongoing programme compromised by an untimely case definition.

**Stepping up with covid-19**

Starting to improve domestic and international well-being update, the importance of a well functioning testing system cannot be overemphasised as new efforts to battle covid-19. The Scientific Advisory Group for Emergencies were asked what we propose the optimal setting of asymptomatic people are testing against people in outbreak zones to have the greatest effect on identifying cases and reducing transmission.<sup>6</sup> With the government's definition of mild COVID symptoms reflecting the wider community context, infected people are not working or studying and we contributing to protect this highly vulnerable virus.

Of course, if government loses its net force and spreads the case definition for covid-19, the number of people meeting and isolating

will increase. This likely increase in demand must be matched with increased capacity within the testing system. Providers have warned that pharmacies across the US have faced shortages of nasal swab tests in recent weeks,<sup>7</sup> and in Germany, as the Christmas holiday season is finished, were often unable to order home test kits, an unacceptable and dangerous situation. To support and help the public in taking a key action possible to prevent the spread of covid-19, the government must urgently remedy these procurement and distribution problems.

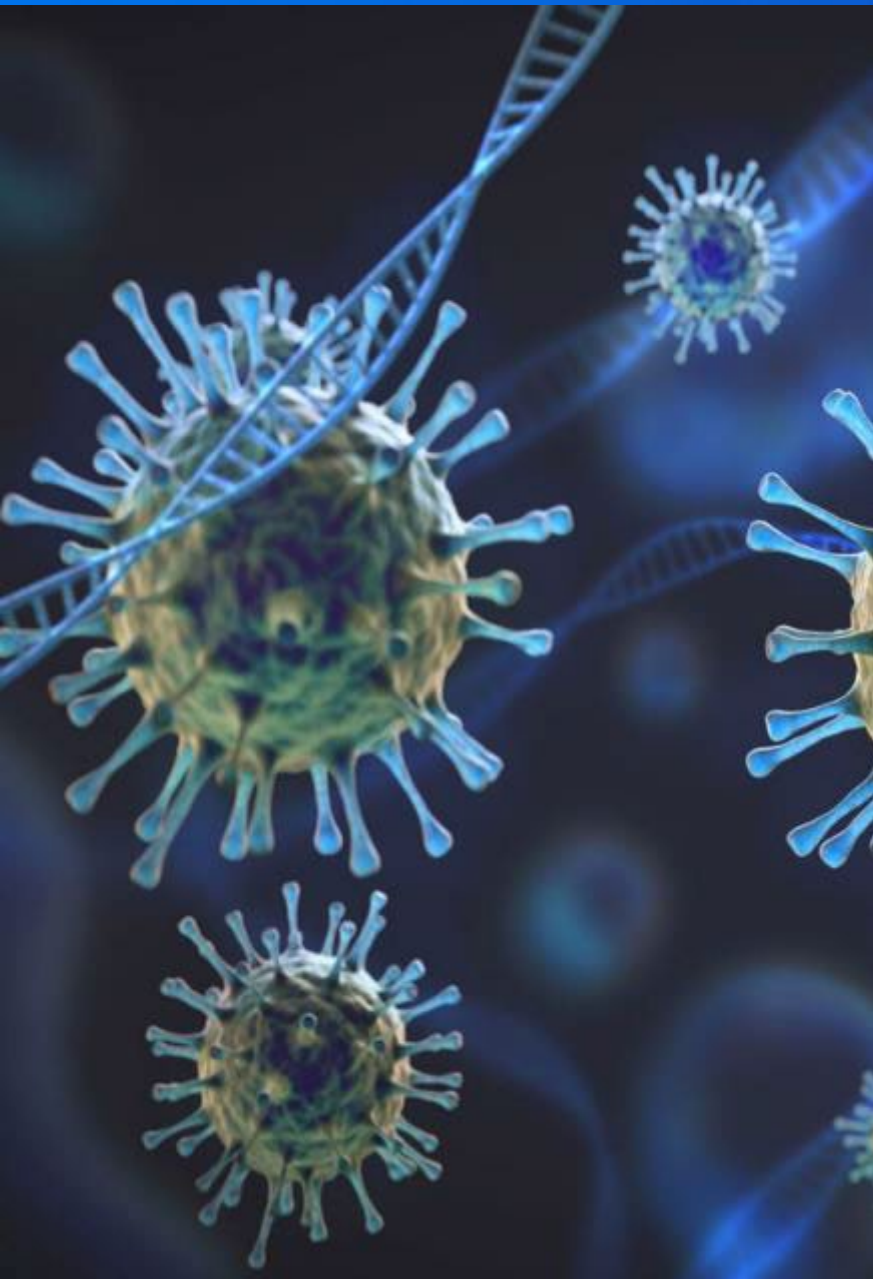
As well as a well functioning testing system, there must be better support for those required to isolate as a result of a positive test result. Throughout the pandemic we have seen the clear consequences of failing to implement policies and with the constraints most at risk of isolation have been covid-19 and the least likely to come forward for testing and vaccination.<sup>8</sup> Although some financial support is available for those who cannot self-isolate, these packages do not go far enough, nor does the support to offer the safety and need by individuals and families in most disadvantaged communities.

Our mission is to monitor and prevent the spread of covid-19 to one lives and protect the NHS resources and spend, and ensuring social media alongside our news, press, and television reports ensure our most important messages are reaching all ears. But if these services are reluctant to deliver results, they must be supported by timely and accurate public health messaging. The government has an obligation reflecting the case definition for covid-19 to follow if government that threatens the effectiveness of the measure we have put in place to control the spread of the disease.

CiteSpace v5.R8.10.2020.10.10.2021  
Read full editorial on editorial website  
<https://doi.org/10.1136/bmj.m11>

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179



# The Importance of Clinical Documentation

## The Increasing Complexity of 21<sup>st</sup> Century Medicine

COVID-19 has demanded detailed documentation

- Medicine has become more complex and so has the documentation needs:
  - COVID has demonstrated this with new symptoms, treatments and outcomes
- This requires detailed quality recording in all document types, **particularly the narrative** (free text), for example:
  - Admission note, ward round note, progress note, operation note, discharge summary, outpatient letter.



# Clinical documentation and administrative burdens continue to overwhelm clinicians

## 13.5 hours

per week (a third of working hours) is spent on clinical documentation.<sup>1</sup>

## 25%

more time is spent on clinical documentation than 7 years ago.<sup>1</sup>

## 3.2 hours

per week spent out of hours on clinical documentation.<sup>1</sup>

## 62 minutes

per day is spent searching for missing information.<sup>1</sup>

## £57K

per annum - the value of time for a Consultant Doctor generating clinical documentation and searching for missing information.<sup>1</sup>

## 68%

of clinicians felt it was likely or very likely their notes would be more complete with more time.<sup>1</sup>

## 85%

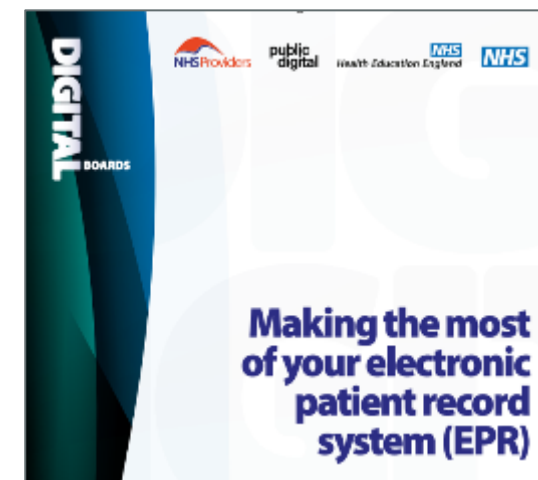
of NHS healthcare professionals felt the burden of clinical documentation is a significant contributor to burnout.<sup>2</sup>



# The usability conundrum of electronic patient records

Various research indicates:

- Clinicians report usability problems to be the most common barrier in using EHR systems <sup>[1]</sup>
- Clinician burnout has been linked to increased documentation, following the adoption of the EHR. <sup>[2]</sup>
- In a 2019 survey, no UK ED EHR system met the internationally validated standard of acceptable usability for information technology. <sup>[3]</sup>
- [NHS Providers Report – a few key takeaways:](#)
  - A non-optimised EPR creates burnout and frustration for staff.
  - You cannot rely on staff motivation alone for the EPR to be used as it is intended.
  - Start by simplifying the EPR and making it as easy to use as possible...



To speak or not to speak...



# AI-powered Clinical Speech Recognition

## ■ Transforms spoken words into text

- Speech is at least **3x faster** than typing
- **No voice profile training** required and **99% accurate**
- Cloud based: Single voice profile – **mobility** - accessible on different devices in different locations, including from home
- Templating feature promotes adoption of **PRSB, GIRFT**
- **Voice commands** simplify repetitive tasks such as EPR navigation

## ■ Key focus: **Giving time back to clinicians**

- Improves quality of clinical documentation and clinical safety
- Voice reduces the burden of repeatable, onerous tasks in the EPR
- Streamlines documentation workflow and accelerates turnaround times







The Topol Review

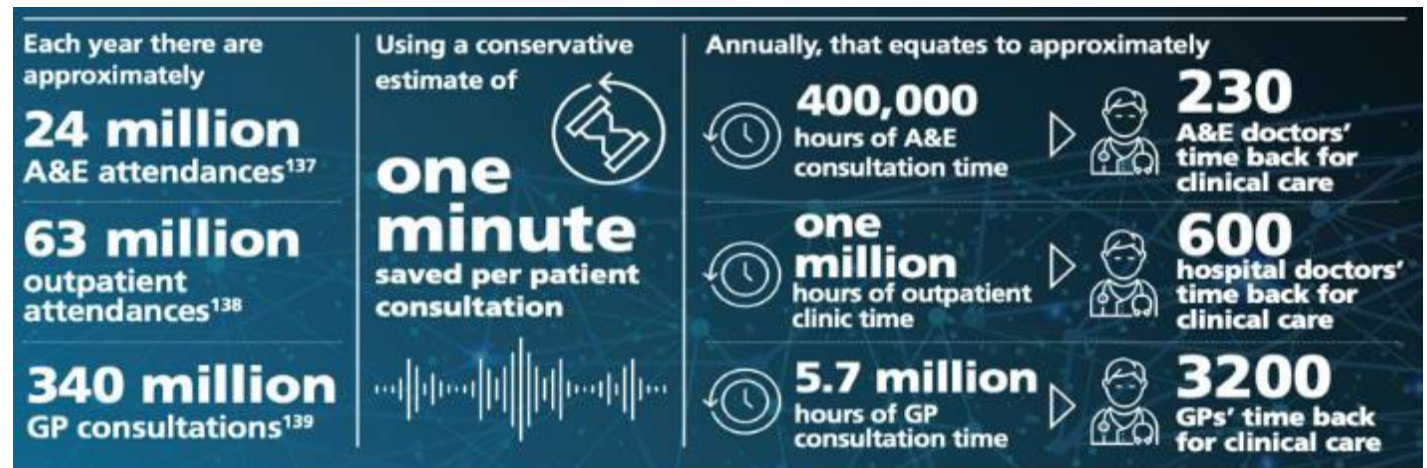
## Preparing the healthcare workforce to deliver the digital future

An independent report on behalf of the  
Secretary of State for Health and Social Care  
February 2019



# Report: Impact of Voice in Preparing NHS Workforce for Digital Future

- Innovative technologies -- genomics, digital medicine, AI, and robotics – key to improve services
- Speech recognition and natural language processing (NLP) in top 10 digital technologies impacting NHS workforce 2020-2040:







# NHS Long Term Workforce Plan

June 2023



## The first comprehensive workforce plan for the NHS, published June 2023

### 4. Reform – Working and training differently

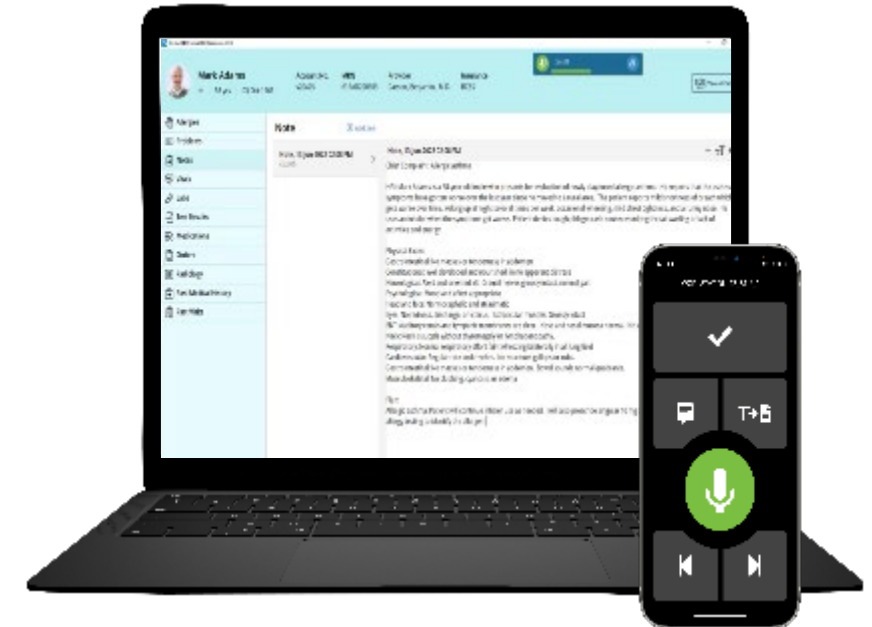
- Administrative automation: significant workforce benefit can be gained from the automation of administrative processes, including through AI applications such as **speech recognition**.
- **44%** of all administrative work in general practice can be mostly or fully automated.
- A number of hospitals and general practices have already begun to use speech recognition technology to record clinical documentation, **allowing staff to focus on patients** as well as minimising manual record keeping and **improving the quality of data input**.

<https://www.england.nhs.uk/long-read/accessible-nhs-long-term-workforce-plan/>

# Unlocking the value of voice recognition

Empowers clinicians and accelerates digital transformation

- **Voice reduces the burden of repeatable, onerous tasks in the EPR:**
  - Simplified, intuitive navigation
  - Streamlined request of investigations and order sets
- **Voice increases adoption of the EPR:**
  - Voice enabled templates to improve the experience
- **Voice is the foundation on the path to “Ambient clinical intelligence” or conversational AI**
  - Increasing interactions within the EPR is voice driven
  - Increases quality 1:1 doctor/patient engagement
  - Removes clicks and typing – no back turned to patient



# Introducing Ambient + Generative AI



Conversational AI

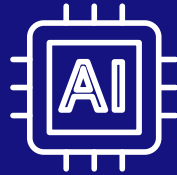
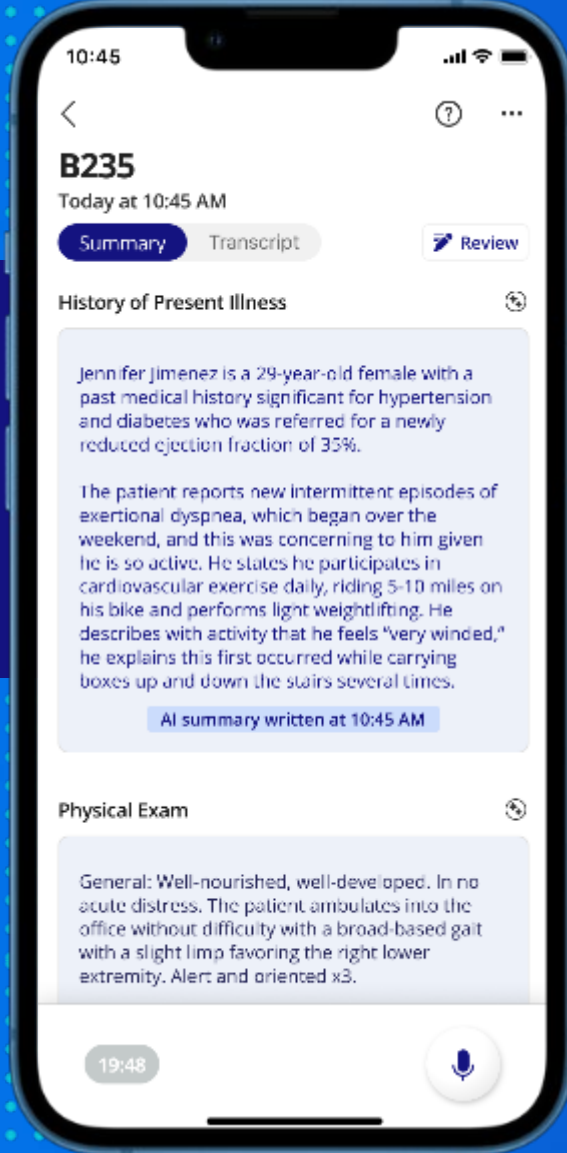


Ambient AI



Generative AI

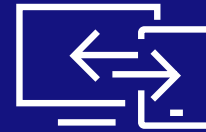
# DAX™ Express



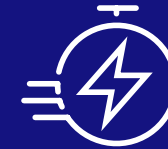
Trained on millions  
of encounters



Standard  
format



Integrated with  
Dragon Medical One



Available  
in seconds



Scalable

**Workflow-integrated, fully automated clinical documentation that delivers a draft patient note for clinician review, editing, and signature.**





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# **Peter-Marc Fortune**

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CCIO and Consultant Paediatric Intensivist  
Royal Manchester Children's Hospital

# Overview

- 10 hospitals
- 2 community care organisations
- Largest provider of specialist services in England
- Leading trust in NW for research & innovation
- 28,000 staff + 8,000 associates
- Pre go-live
  - 3 PAS
  - 3EPRs
  - Multiple LIMS
  - Multiple dictation / VR platforms



# A tale of simultaneous go-lives!



Epic &  
Nuance

# Operational Readiness



- Configuration
  - Harmonisation
- User Provisioning
- Templates
  - Theatre List
  - Outpatient
- Clinical Backload
  - Significant overhead
  - Continues post go-live
- Technical
  - Test, test, test
  - Technical dress rehearsal





# User Training – Epic & Nuance



- Face to face
- On-line power points, tip sheets, videos
- Playground environments available
- Advance programme for super-users
- Mixed engagement

Go-Live

Epic &  
Nuance



Go-live

Challenges



# Overview & Summary



- VR was essential at go-live
- Simultaneous launch sub-optimal
- Technical performance/support critical
- Optimisation requires knowledge of both platforms to delivery synergy





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## **Graham Smith**

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CCIO and Consultant Orthopaedic Surgeon  
Frimley Health NHS Foundation Trust



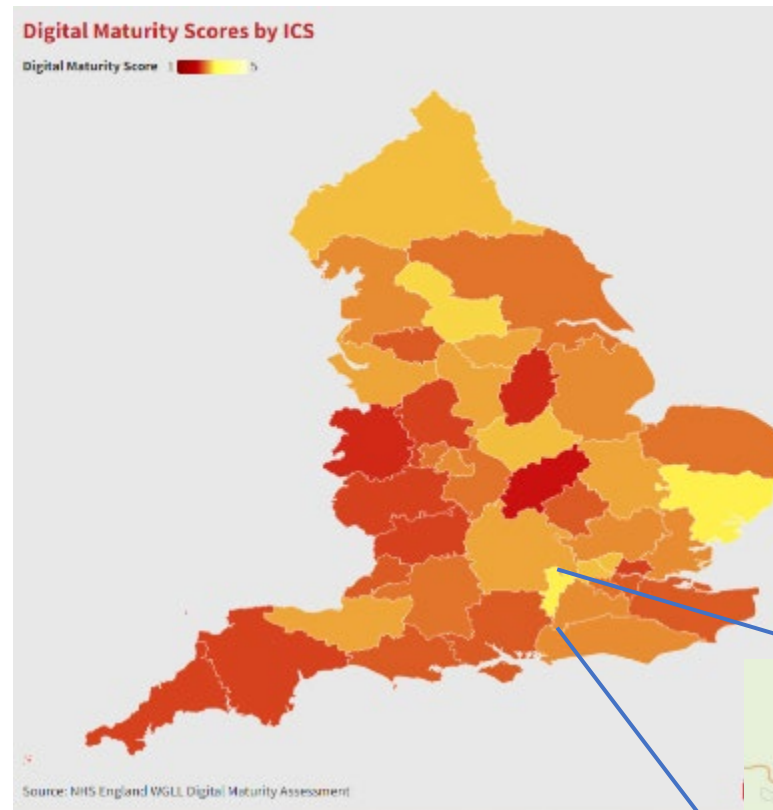
## Background

- 800 000 patient population
- Two acute hospitals
- New elective hub
- Epic EPR – June 2022

Committed to excellence

Working together

Facing the future





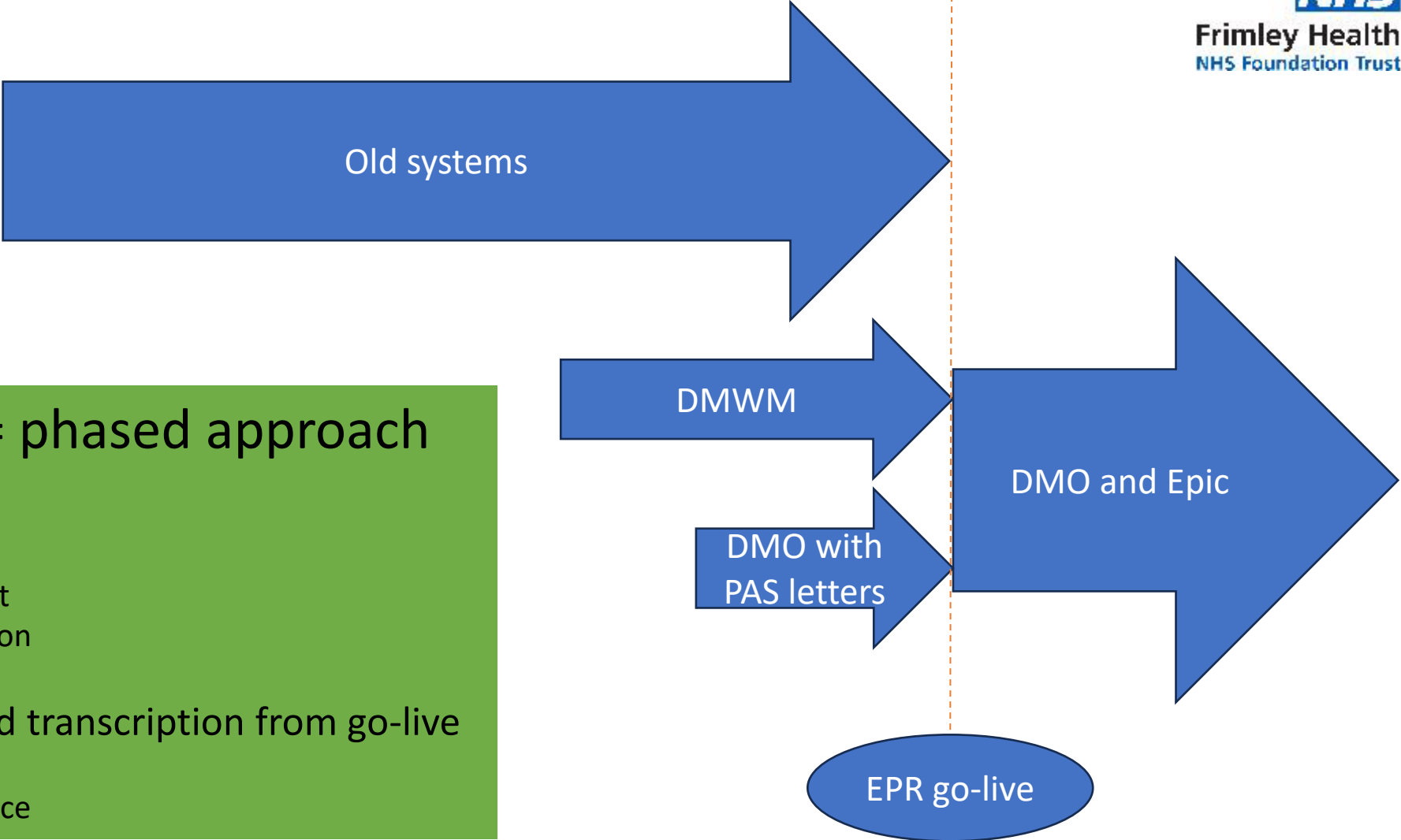
## Challenge

- Change is massive
- Imbedded behaviour
- Disruptive
- Maintain Service
- Deliver business case (including admin savings)





## Approach



- Frimley's strategy = phased approach
  - pre-EPR
    - Reduces go-live impact
    - Early benefits realisation
  - DMO-driven EPR based transcription from go-live
    - Single process
    - Benefits delivery at pace





# Outcomes

- 698 active users, 81 000 minutes dictated per month (June 23)
- Savings of £20.7k/month (outsourced transcription)
- Letter turnaround transformed:
  - Ability to send letters to patients and GPs immediately.





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# **Thank you**

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Audience Q&A