



Headlined by:



Thursday 2nd November | 15Hatfields, London





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## Welcome to the NHS Virtual Wards Conference!



2nd November 2023 8am – 4pm 15Hatfields, London





Headlined by:

## **Chairs Opening Address**



Mrs Sara Fenner

Head of Facilitated Discharge and

Urgent Care - Sutton Health and Care



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2023

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## Speaking Now...



Adam Fitzgerald

Head of Nursing, Integrated Local Services
- Guy's and St Thomas' NHS Foundation

Trust

#### **Lambeth and Southwark Virtual Wards**

Adam Fitzgerald

Harriet Slade

Aimee Venner

#### NHS VIRTUAL WARDS SOUTH CONFERENCE

2<sup>nd</sup> November 2023



#### **Overview**

## Creating the opportunity to develop integrated place based Virtual Wards

- Some definitions
- Our journey
- Current models of care
- Our next steps

#### What is a 'Virtual Ward'?

#### Virtual Ward

A virtual ward is a safe and efficient alternative to **NHS bedded care**.

Virtual wards support patients who would **otherwise be in hospital** to receive the acute care and
treatment they need in their own home.

This includes either **preventing avoidable admissions** into hospital, or **supporting early discharge** out of hospital.

- The acuity and complexity of the patient's condition differentiates virtual wards from other community and home-based services
- It provides urgent access to hospital-level diagnostics (such as endoscopy, radiology, or cardiology) and may include bedside tests such as point of care (POC) blood tests
- It provides hospital-level interventions (such as access to intravenous fluids, therapy, and oxygen)
- It requires daily input from a multidisciplinary team, either in person or enabled by technology e.g. virtual consultation, and sometimes multiple visits and provisions for 24h cover with the ability to respond to urgent visits.
- It requires consultant practitioner specialist leadership and clear lines of clinical responsibility
- Defined inclusion and exclusion criteria, with defined target population and deliver a time-limited short-term intervention of 1–14 days.
- VW patients have equity of access to other specialty advice as though an in-patient.

**NB:** A virtual ward **is not** a mechanism intended for enhanced primary care programmes; chronic disease management; intermediate or day care; or proactive deterioration prevention. Wider virtual care supported services (including NHS@home) are scaling to enable these cohorts to be increasingly supported at home / in the community.







#### The benefits of Virtual Wards

#### For patients:

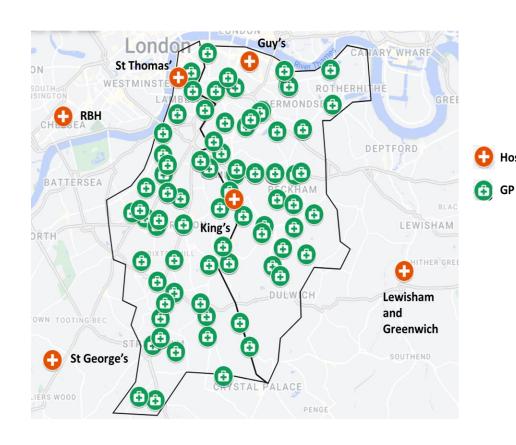
- Improving access to care in the right place at the right time by the right people
- Improved patient activation/self-management by providing urgent care to patients in the comfort of their own homes
- Improved patient satisfaction by offering the choice regarding the most appropriate place for care and providing options that offer care with the minimal impact on their lives

#### For the system and service delivery:

- Improved integration and reduction in GP appointments
- Improved hospital discharge pathways leading to better hospital flow and hospital admission avoidance.
- Improved patient data for clinicians and facilitation of remote working
- Development of specialist expertise in community models of care

#### **Local Context**

### Our Population: Lambeth and Southwark



- Population 625,300
- High levels of deprivation
- Significant health inequalities

Hospital

- Challenges with digital literacy
- >150 different languages spoked
- Aging population
- Population set to increase by 5.2% over the next 5 years

#### **Local Context**

#### **Our Workforce**

- Multi-disciplinary and integrated with community services, acute medicine, general practice, and social services
- Reflective of our population
- We have recruitment challenges in all professions, including nursing, AHP and medicine. These vary at different levels of seniority and different teams
- Virtual Wards are an emerging specialty there is a lack of dedicated training at undergraduate and postgraduate levels for all profession
- In times of Trust bed escalation we find it a challenge to find staff who can rapidly deploy into ILS services at times of need
- We don't have a pool of confident staff who feel able to leave their usual bases on wards and clinics to see people in their own homes

## **How Virtual Wards Work: Local Response**

- Guy's and St Thomas' NHS Foundation Trust (GSTT), with our partners
  Kings College Hospital (KCH) and primary and social care colleagues in
  Lambeth and Southwark are in a mature position. The Trust was an early
  national exemplar of virtual ward services, establishing its @home service
  in 2014.
- To support SE London ICS Lambeth and Southwark Local Place are building upon the current core and established services provided by our NHS community services and other established pathways and partnerships, including:
  - GSTT @Home expansion.
  - Expand GSTT Integrated Respiratory Team (IRT) Oxygen weaning and telephone support to enable admissions avoidance and early support discharge pathways which was stood up during the pandemic
  - Significantly expansion of GSTT community Palliative and End of Life care by providing 24/7 service including night sitting / Virtual Ward
- Building further capacity with the development of a viable remote monitoring (RM) offer

## **How Virtual Wards Work: Local Response**

#### **GSTT @Home Service**

 The @home service provides acute clinical care to patients at home that would otherwise be carried out in hospital



- The MDT consists of highly skilled Nurses, Therapists, Doctors, Social Workers, Support Workers and Administrators
- Interventions are delivered in the usual place of residence in order to provide the best possible patient experience and outcome, and enable the patient to benefit from holistic integrated care.
- There are few exclusions however @Home focus predominantly on elderly, frail, and vulnerable. This leads to some inequalities i.e. younger BAME with Sickle cell
- GPs tend to be risk averse telephone triage.

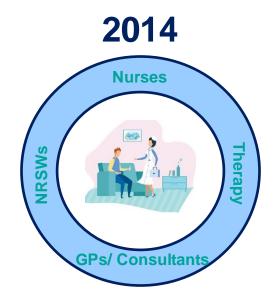
## How Virtual Wards Work: Local Response Aims of the @Home service

The service has three main aims:

- 1) Identifying people at risk of a hospital admission and delivering care which prevents their condition getting worse
- 2) Providing a high level of clinical care at home to prevent an avoidable hospital admission
- 3) Facilitating advanced discharge out of hospital, so patients can recuperate in the comfort of their home while receiving high quality clinical and personal care

## **How Virtual Wards Work: Local Response**

### The expansion of the team







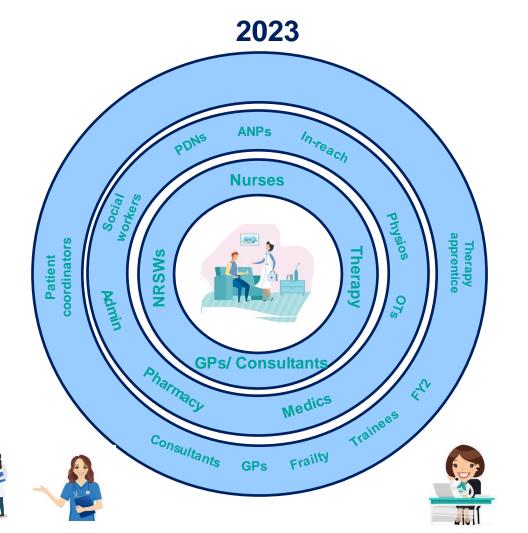






### **How Virtual Wards Work: Local Response**

### The expansion of the team











## **How Virtual Wards Work: Local Response Transforming the Urgent Community Response**



2014

@home

goes live

across

Lambeth &

Southwark

2000s Reablement council teams



CQC inspections -community services rated as outstanding



2021
New NHSE urgent community response guidance



Development of new integrated service model for VWs



















Partnership

Southwark

2012 Enhanced rapid response teams established





2020 Integrated health and social care teams formed ICL

Lambeth

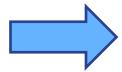
2023
Development of tech enabled remote monitoring system with Doccla

doccla



## **How Virtual Wards Work: Local Response The expansion of the service**

2013	
Workforce	Nurse led, GPs, Therapy, support workers
Capacity	250 patients per month
Service scope	<ul> <li>Expedite hospital discharge</li> <li>Admission Avoidance</li> <li>Supporting acute medical needs</li> </ul>
Length of stay	>7 days



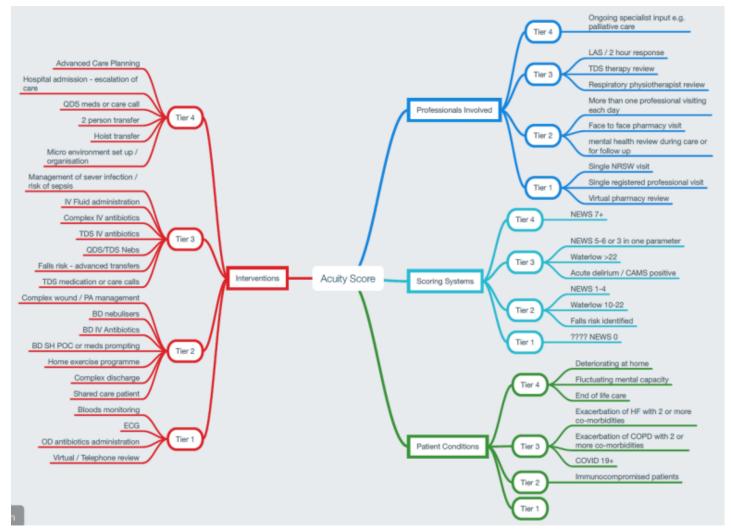
2023/24	
Workforce	Nurse led, GPs, Therapy, Social workers, Rehab Support Workers, Trainee GPs, Clinical Fellows, Pharmacy, Patient Pathway Coordinators
Capacity	400 patients per month
Service scope	<ul> <li>Expedite hospital discharge</li> <li>Admission Avoidance</li> <li>Supporting acute medical needs</li> <li>Provide Urgent Community Response, Medical Therapy and Social care</li> </ul>
Length of stay	5.2 days average



# How Virtual Wards Work: Local Response Validated acuity tool

- Initial acuity tool developed in 2019 A new tool to measure acuity in the community: a case study
- Devised to quantify acuity in a non hospital based setting within @home.
- Due to natural evolution of the service and new pathways added to the team this has been reviewed and republished in 2021 and is currently under-review since becoming an Integrated Care Service.

# How Virtual Wards Work: Local Response Validated acuity tool



together

## **How Virtual Wards Work: Local Response**

#### How we work now

#### Triage

- Single point of access
- Multi-disciplinary triage team
- Strong admin support

#### Response types

- 0-2 hour
- Same day
- Next day response

#### Visits types

- Face to Face visits
- Telephone Virtual Visits

## **Expansion Plans Overview**

### **Developing integrated place based Virtual Wards**

Aims	Each ICS has been requested to develop and extend its virtual ward capacity in line with a national ambition of developing 40 – 50 virtual ward 'beds' per 100,000 population by December 2023, as outlined in the 2022/23 Priorities and Operational Planning Guidance.  A Virtual Ward enables people who have an acute condition that would normally require hospital-level care, to receive this care in the place they call 'home'. The target service users are adult patients resident in the London Boroughs of Lambeth and Southwark who require acute clinical care which includes components of admissions avoidance and early supported discharge.
Objectives	<ol> <li>240 – 300 virtual bed capacity (Lambeth and Southwark) by December 2023</li> <li>80% bed occupancy by end of September 2023</li> </ol>
Impact	The intended impact is to improve patient experience and outcomes, as evidence shows that they recover better when staying in a familiar environment. Technology will also allow Acute sites to dedicate their increasingly pressured capacity for patients in need of complex Acute care whilst addressing inequalities and barriers of access by providing care closer to home.  This programme fits into the wider NHS strategy to provide care in an integrated way across health and social care, and across primary, secondary and community care.
Place Leads:	Jane Bowie (Lambeth) and Martin Wilkinson (Southwark)

## Virtual Ward expansion plans at GSTT

### **Summary expansion plans**

Phase 1 – Expand current services

Phase 2 – Digital service offer, Remote Monitoring

Phase 3 – Optimise, Scale-up and Integrate

Opportunities	Challenges
New opportunity to develop a coordinated approach to caring for more patients outside of hospital in an environment familiar to them such as their own home.	The term 'Virtual Ward' creates a conceptual challenge – services are mainly delivered face to face and not 'virtual' using video conferencing, for example, though that is a tool to be utilised.
Provides an alternative to hospital attendance/admission which does not mean a shift in care but an expansion of potential capacity to alleviate pressure on the system.	Staffing presents an enormous challenge which is why the wider use and implementation of digital technology is being tested.

## **Capacity Targets and Trajectory**

Provider	April		July September			ber	November		
Total bed capacity	137		167		185		220+		
					<b>1</b> 35	5%	1 6	60%	
	@Home	70					•		82
0077	Pal@Home	12	Capacity Expansion Plans						22
	ОРАТ	25							25
GSTT	IRT	10						20	
			Doccla	30	Remo	te Monit	oring		30
					Evelina @Home	18			18
KCH	ОРАТ	25							25
KCH	IRT	?							?

A balance of approx. **20 beds** to reach expected capacity by December 2023



## **Remote Monitoring**

### 30 Beds available from July 2023

Contract has been developed with Doccla, chosen as provider through competitive tender process using CCS Procurement Framework. Doccla provide the technical platform, devices, customer support to on-board patients and provide on-going tech help as well as clinical monitoring.

- To support the existing @home and IRT service to enable earlier safe and supported discharge from hospital and/or to provide a safe and supported alternative to hospital admission for patients.
- Quantitative and qualitative observations enabling clinicians to make more informed decisions about patient care
- To help support patient choice, address sustained pressure on urgent and emergency care services and support elective recovery by supporting patients to access clinical monitoring in their own home.

New remote monitoring care pathway went live in mid-July initially receiving referrals via the @home triage matrons identifying suitable patients. A respiratory pathway will be live in late October via GSTT IRT with the clinical SOP and pathway open to KCH.

## Virtual Ward expansion plans at GSTT

### Collaborative place-based work

Funding flow from NHSE to Integrated care System level (South East London) and allocated to local care partnership based on proposals developed in Summer 2022

GSTT main provider of Virtual Ward services within the Integrated and Specialist Medicine clinical group delivered in the community across the Lambeth and Southwark footprint

Lambeth and Southwark have distinct governance structures and we have built a collaborative governance and assurance structure with strong links to the local place reporting lines





## Virtual Ward expansion plans at GSTT

### Collaborative place-based approach

Project governance and assurance structure within the Local Care Partnership allows us to develop an integrated, holistic VW model taking into consideration the needs of the diverse local populations we serve.

Through co-design we are addressing the following:

Domain	Capability
DEMAND AND ACCESS	Assessment of demand and access by ethnicity, IMD, geography and insight to inequality and unmet need
PATIENT ENGAGEMENT AND CO- PRODUCTION	Designing services with patients and communities and involving patients in supporting care delivery
PARTNERSHIPS, LEADERSHIP & WORKFORCE	Partnership working, leadership and workforce skills and roles
MANAGEMENT OF CLINICAL RISK	Supported by integrated Multi-disciplinary team with input from local care partnership providers ensuring appropriate referrals are received for patients who otherwise would have stayed in hospital, not building an additional safety net



Where are we now in terms of overall "maturity" across the system?



Maturing

		<del>-</del>
Category	Maturity %	Comments and suggestions
Service model	70%	<ul> <li>Each service has robust and established service models</li> <li>Service models are currently working in isolation</li> <li>Referrers report current processes challenging to navigate</li> <li>A single point of access to VW services could make access more streamlined, and would promote integration of referral routes and delivery.</li> </ul>
Integration	62%	<ul> <li>Further integration with place-based partners across the PCN is required to enable joined-up care to be delivered as an holistic response to patient needs, and improve system flow</li> <li>Patients moving from acute beds should be seamlessly "transferred" to a VW bed rather than discharged or stepped down from services. This concept will require a change in cultural mindset across the system.</li> </ul>
Digital technology	50%	<ul> <li>A method to integrate and expand services should consider the wider use and implementation of digital technology, of which it's use is emerging across the services</li> <li>Further evaluation of safety, effectiveness and usability is required to scale the use of digital innovations to support patients care in their own home.</li> </ul>
Staff & workforce	65%	<ul> <li>A robust and sustainable workforce is required to deliver a "thriving" virtual ward</li> <li>There is good evidence that some integrated workforce models have been developed, but in consideration of further integration, workforce models, recruitment, retention, and training and development need review and redesign with place-based partners.</li> </ul>
Patient safety	80%	<ul> <li>Patient safety is a high priority across the current services and systems, however due care is needed to ensure that VW services are not used as a safety-netting provision.</li> <li>Robust escalation routes and governance structures should remain a high priority.</li> </ul>
Population	59%	<ul> <li>The needs of the diverse local populations we serve need to be considered in development plans</li> <li>Access to population data could support this and aid further understanding of unmet need</li> <li>Inequalities and inclusion should be considered throughout plans to ensure equity of access.</li> </ul>
Data & information	75%	<ul> <li>Robust data metrics and qualitative patient feedback need to support the oversight of VWs and all services should report into a SitRep and an automated dashboard developed to enable scrutiny of service quality and delivered</li> </ul>
Finance	65%	• Funding should be allocated and combined from the different teams and organisation to develop a joined-

up model to deliver an integrated VW at scale to improve patient outcomes and flow





## **Summary of our next steps**

Phase 3: Scale-up, Integrate, Optimise

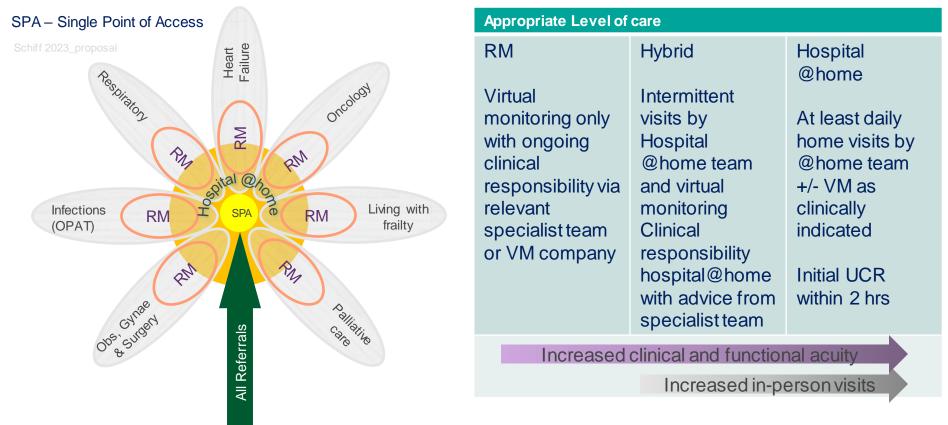
- 1. Use learning from Doccla pilot to inform digital offer
- 2. Agree additionality to scale up capacity to meet the NHSE ambition
- 3. Population health approach
- 4. Integration: access, delivery supported by specialisms and direct access to hospital level diagnostics

### **Summary of our next steps**

#### To be addressed

- An understanding of the mechanism for identifying actual demand for VW beds from the additional pathways. Can we determine the hospital step down trim points and expected community demand to understand how many VW beds would be required to manage the patient flow?
- What does Population Health data tell us about prospective numbers of people at risk of hospital admission?

# Integrated Virtual wards with Single Point of Access across Lambeth and Southwark



- All referrals via SPA
- SPA triage and "admitted" to appropriate level of virtual ward depending on intensity of need.
- UCR via Hospital@home then ongoing care as deemed clinically appropriate via hospital@home, hybrid hospital@home and VM or VM only.
- Patients may move between different levels of virtual ward as clinical picture changes



## Thank you

Adam.Fitzgerald@gstt.nhs.uk







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# Panel Discussion - Role and impact of virtual wards in freeing up capacity in healthcare

Within this panel discussion our panel of experts will be discussing:

- 1.Definition and Purpose of virtual wards in healthcare.
- 2.Implementation challenges and considerations.
- 3. Patient populations suitable for virtual wards and remote monitoring.
- 4.Outcomes and efficacy compared to traditional care models.
- **5.**Future prospects and integration of virtual wards in healthcare systems



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#### Speaking Now...



**Martin Taylor**Deputy CEO - Content Guru





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#### **Q&A Panel**



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#### Morning Break





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#### **Chairs Morning Reflection**



Mrs Sara Fenner

Head of Facilitated Discharge and

Urgent Care - Sutton Health and Care





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Up Next...

doccla





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#### Speaking Now...



Jen Tomkinson

Head of Specialist Services - Sirona
(Bristol, North Somerset and South
Gloucestershire ICS)

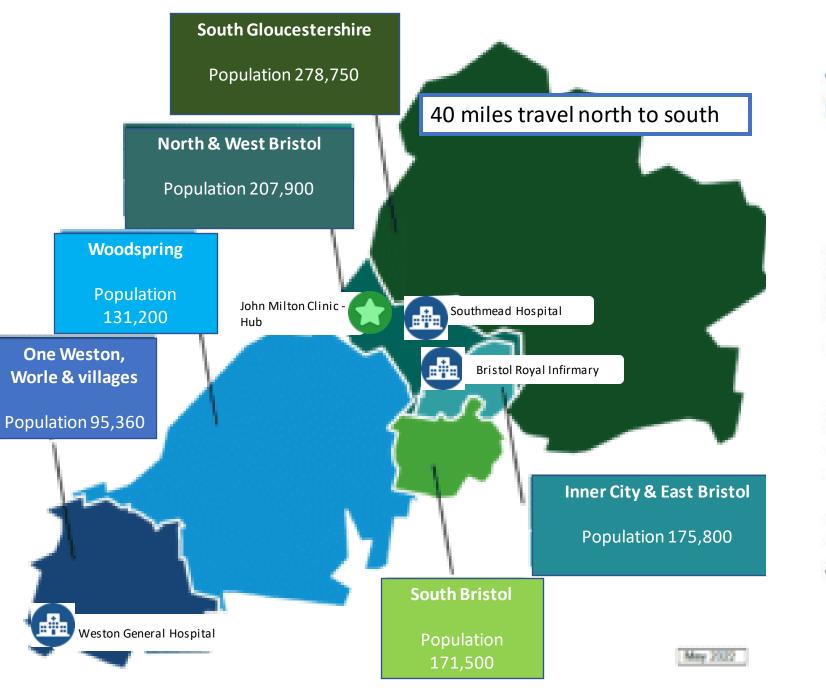
## Flying the plane whilst building it

Jen Tomkinson

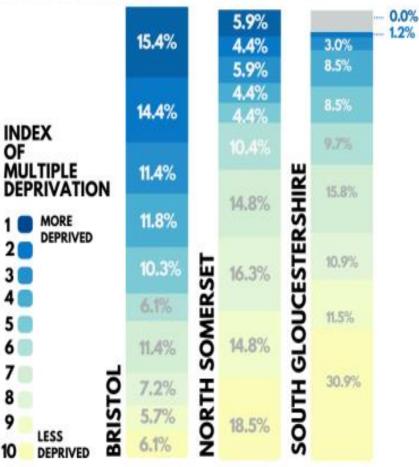
Associate Director NHS@Home

Sirona care & health

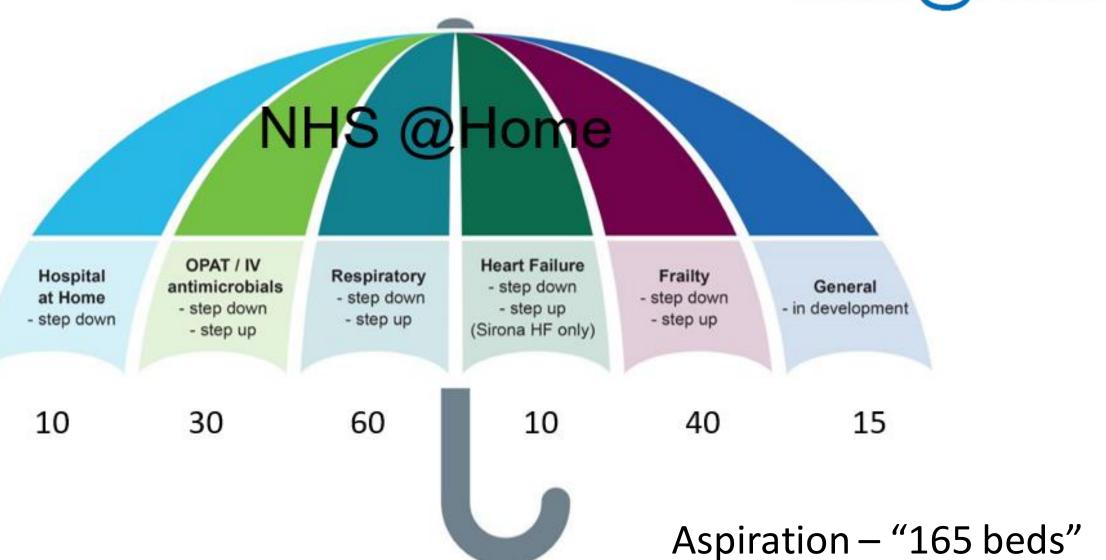




#### THERE ARE WIDE VARIATIONS IN DEPRIVATION



#### NHS@Home







doccla







Bristol, North Somerset and South Gloucestershire

**Integrated Care Board** 

#### NHS@Home has been a journey....

Sirona Home oximetry

System-wide Covid VW set up for those most at risk Start: November 2020

Covid VW established

2020

2021

Increasing occupancy

Refinement & service improvement

Alignment with

OPAT

Start: November 2021: Target occupancy 16 by May 2022

10 by Way 2022

2022\_

Frailty

UCR & SDECs

Heart
Failure

2023 April 2024

Existing Community urgent response teams e.g. rapid response

2019

Hospital
@Home care
begins (NBT)

\*

2018

NHS England National Ambition for 40-50 "beds" per 100,000 population announced



Procurement of Doccla – July 2022

End-to end CVW

Managed through InHealthcare platform with Clear collaboration & System-wide end-to-end pathway

Start: July 2021

Rapid CVW expansion

Covid VW provision reaches capacity of circa 750

Start: Jan 2022

Respiratory

First digital enable pathway Capacity - 15

Start: October 2022

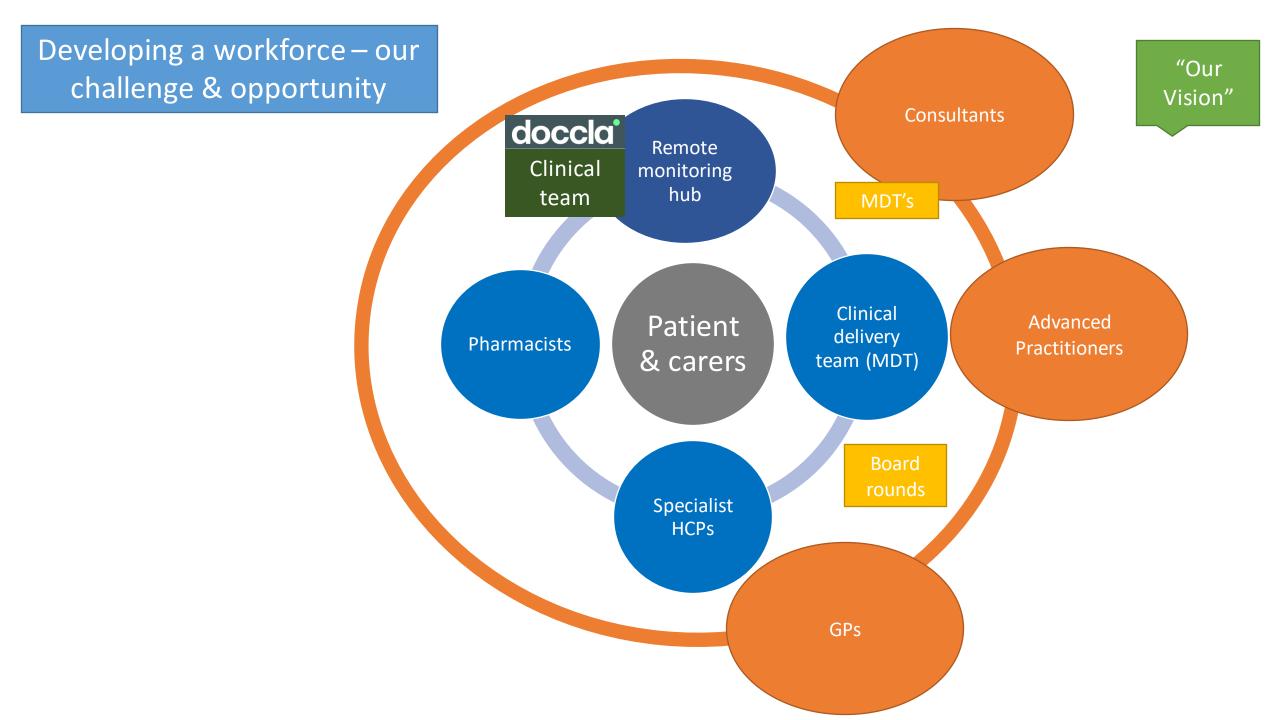
Full Doccla roll out

roll out out

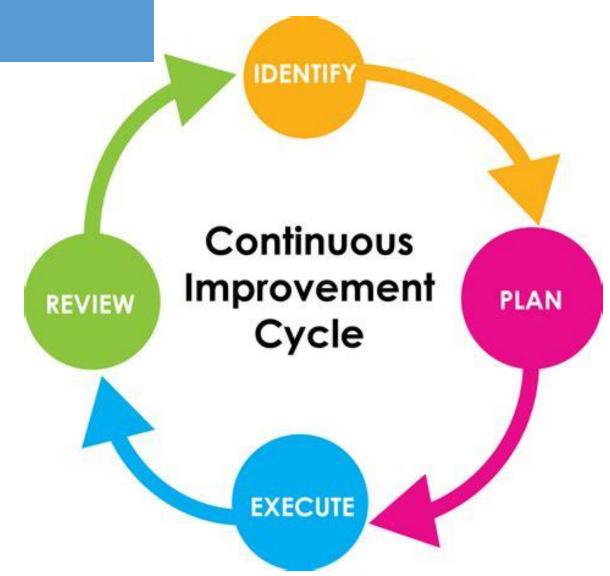
Capacity – 150 Capacity – 3

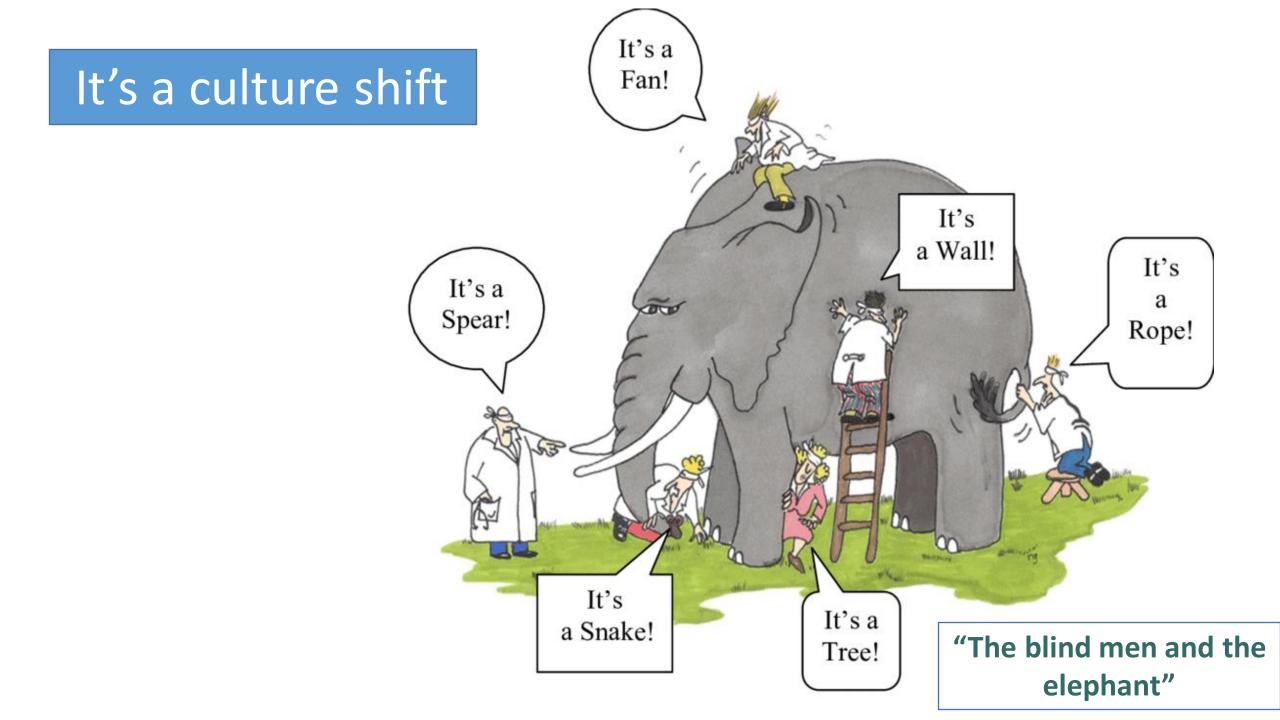
apacity – 150 devices April 2023 Capacity – 300 devices

NEWS2 roll



"Designing" the technology solution





#### However it is all worth it!

- 5 organisations involved
- 6 pathways live
- 920+ patients have used Doccla
- 100+ staff working for NHS@Home
- Since Jan 23 had approximately 1700 patients referred to the service



'Kept patient out of hospital, needed to be around family'

"I have more information so I have better clinical oversight and can hold more risk."

66

'So nice to be able to come home and not be admitted to hospital, as well as feeling safe.

Because I was being monitored it put my mind to rest. Good that I could message them when I was in distress and how quick I was contacted was mind blowing. I have a disabled son at home so I felt I could put my health first while still looking after him.

66

'If everything was like this a lot of us older people would be very happy people. Regular phone calls, nurse visits made me feel relieved and safe. Excellent service.'

#### Key things for reflection

- This is shifting the paradigm of healthcare
- Workforce
- Technology as an ENABLER not the solution
- Leadership & behaviours

"I think I've recovered quicker as I feel more comfortable in my own surroundings, I'm able to rest in my own bed and I have my family around me."

Eileen, service user

#### Thank you for listening...



jenny.tomkinson@nhs.net



@jen\_tomkinson

https://youtu.be/2zdOJdOP2GE













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#### Up Next...







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#### Speaking Now...



Myles Murray (Mr.)
Founder - PMD Solutions



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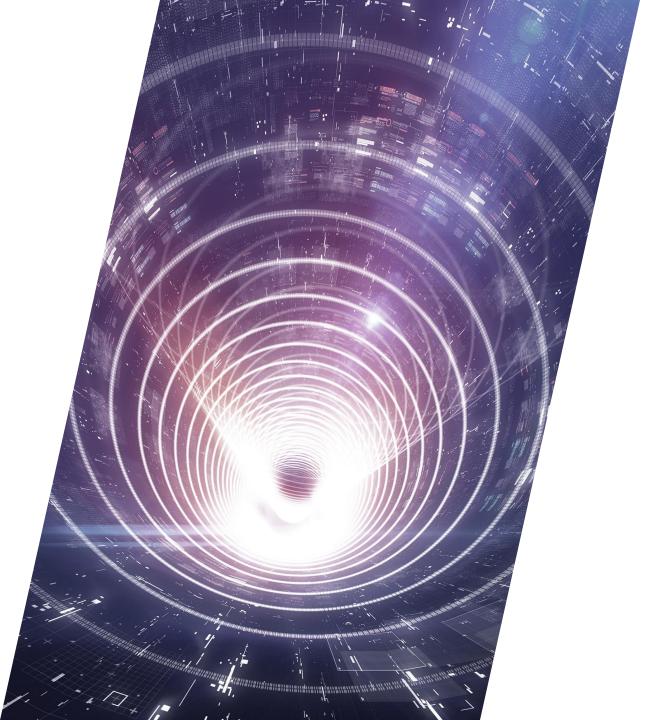


#### **Ben Jeeves**

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

## VIRTUAL WARDS (AND EVERYTHING ELSE...) AND BENEFITS REALISATION

ARE WE LOOKING WIDE ENOUGH?



#### **BACKGROUND**

**Associate CCIO** 

Clinical Safety Officer

AHP Professional Lead

Advanced Practice MSK Physio

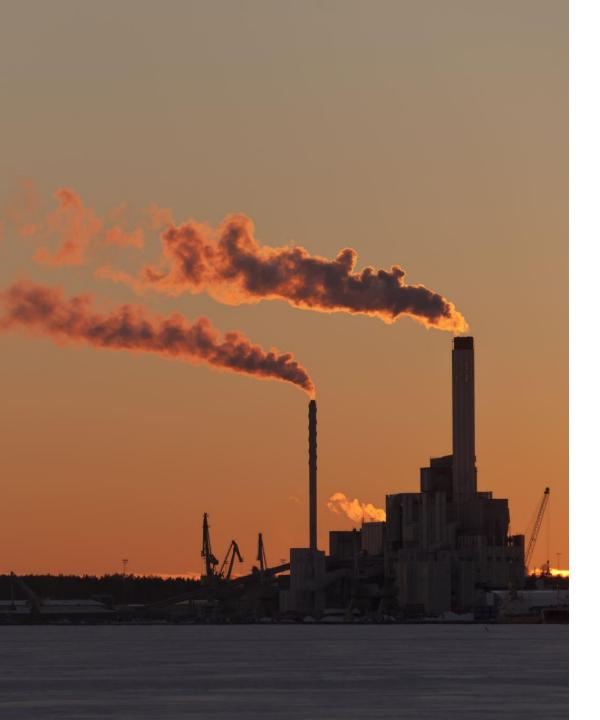


#### **BENEFITS REALISATION**

THE THING WE NEED MORE OF

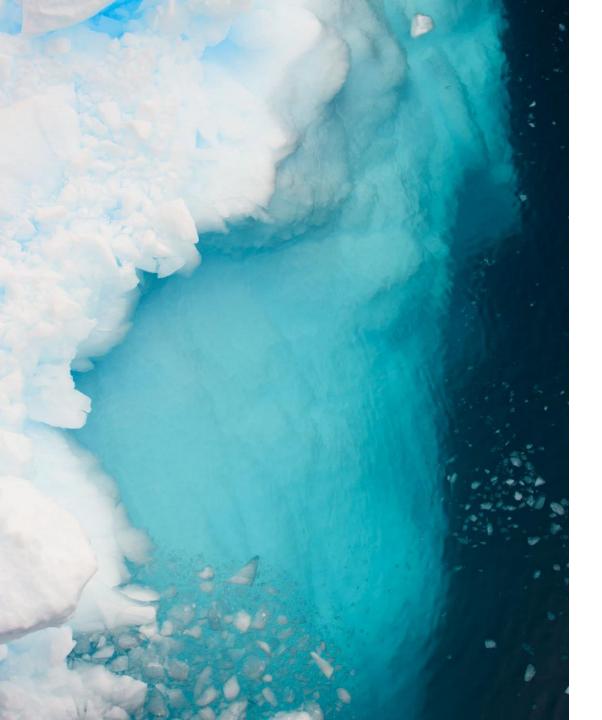
- A difficult thing to do
- Under measured
- Under resourced
- Not (always) resourced fully





#### **GREEN**

- Delivering 'Net Zero'
- The NHS Carbon Footprint: For the emissions we control directly, net zero by 2040
- The NHS Carbon Footprint Plus: For the emissions we can influence, net zero by 2045.



#### THE HOW?

- New models of care
  - The virtual ward
- Our transport and Travel
- Our innovation
- Our values and governance
  - Does your organisation have a net zero lead?

Delivering a 'Net Zero' national health service

#### CARBON REDUCED VIRTUAL WARD

- Reduced milage
- House keeping
- Food chain
- Supply chain
- Less PPE
- Reduced waste
- Pharmacy

- Carbon costs
- Milage disbenefit?
- Additional equipment needs
- Additional I.T equipment
- Network infrastructure
- Data storage



#### CARBON COST OF I.T EQUIPMENT

- Laptop and screen
  - 778kg CO2e (85% manufacturing & shipping)
- Laptop and dual screen
  - 928kg CO2e (85% manufacturing & shipping)
- Screen 602kg CO2e +/- 129kg CO2e
- Laptop 315kg CO2e +/- 65kg CO2e
- Dock 35.74 -40.95kg CO2e

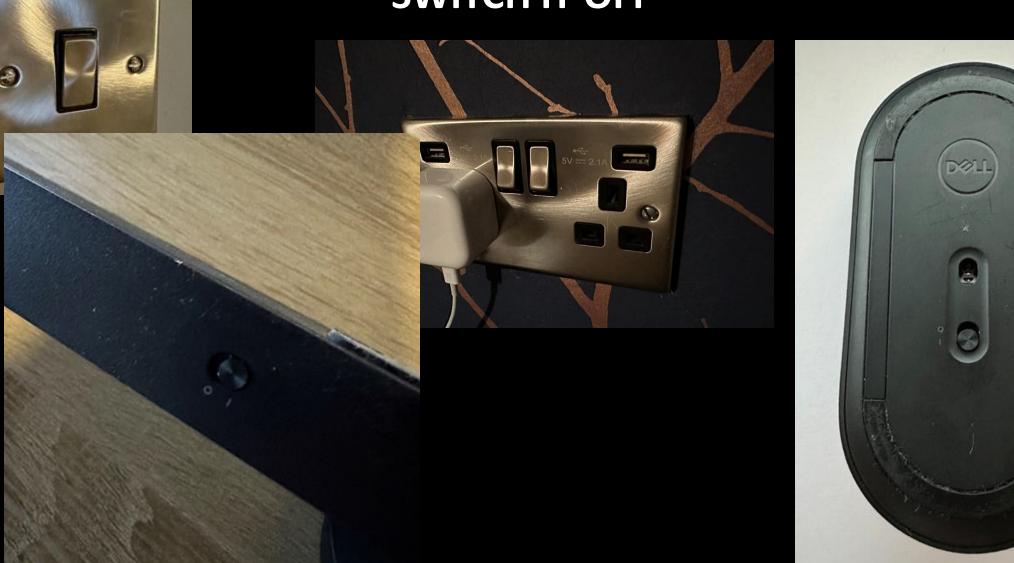
University of oxford / Dell



#### CARBON COST OF I.T EQUIPMENT

- Carbon Reduction Strategies
- Carbon Reduction Devices

#### **SWITCH IT OFF**



"Embrace the power of benefits realisation, for in it lies the alchemy to turn intentions into triumphs and ambitions into accomplishments."

:block;position:

CHAT GPT 2023



### WHAT SHOULD YOU HAVE?



# A DEFINED BENEFITS MANAGEMENT APPROACH

PRINCE 2

# BENEFITS MANAGEMENT APPROACH



# Scope

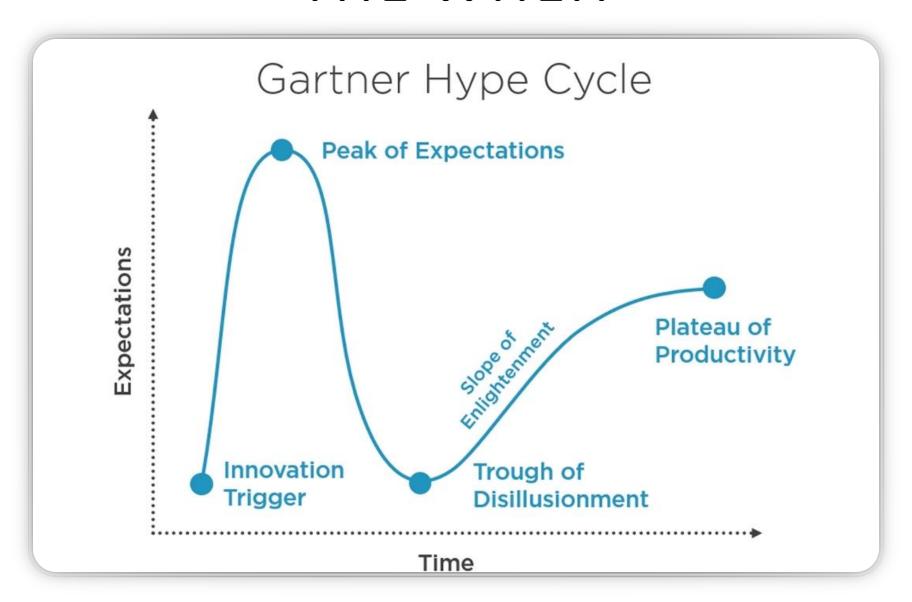
- What is in scope of benefits management?
- What are you setting out to measure?
- Can it be measured?
- SMART



# Categories

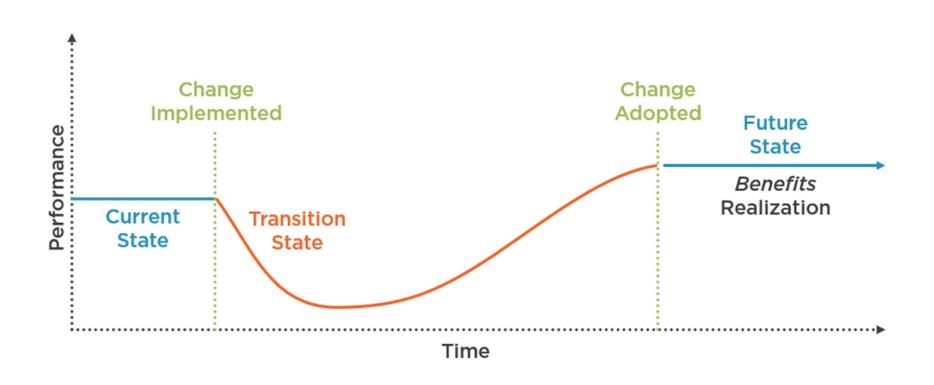
- Cash releasing
- Non-cash releasing
- Environmental/public/societal
- Quality

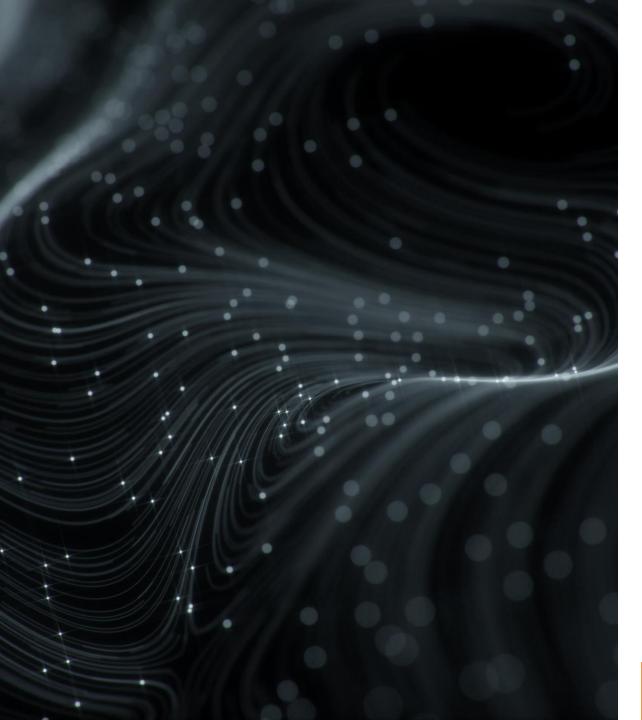
# THE WHEN



# THE WHEN

### The Transitional Process





# **THE WHY**

ACCOUNTIBILITY AND TRANSPARENCY Good governance.

CONTINUOUS IMPROVEMENT Because.

QUALITY ASSURANCE

Has the "project" delivered?

DATA INFORMED DECISIONS

Has it worked?

"The only way to do great work is to love what you do"

**Steve Jobs** 

# THANK YOU



ben.jeeves@mpft.nhs.uk



@BJEEVES



Ben Jeeves

# REFERENCES

- University of Oxford <u>Environmental impact of IT: desktops</u>, <u>laptops and screens | IT Services (ox.ac.uk)</u>
- Dell- <u>Product Carbon Footprints</u> | <u>Dell USA</u>





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# **Q&A Panel**



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# Lunch & Networking





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# **Chairs Afternoon Address**



Mrs Sara Fenner

Head of Facilitated Discharge and

Urgent Care - Sutton Health and Care





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# Up Next...





# Panel Debate...



2023

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Jardine Barrington Cook
Head of Interoperability
and Data - The Access
Group



Professor Lionel
Tarassenko CBE FREng
FMedSci
Professor of Engineering
Science / President Reuben College



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Hadleigh Stollar
CEO - Healthcare Innovation
Consortium





# Innovating Healthcare: The Transformative Role of Virtual Wards in the NHS

Hadleigh Stollar | Chief Executive Officer Healthcare Innovation Consortium



# NHS Virtual Wards in UK Government Policy

2014

NHS England's "Hospitals at Home" initiative



Promoted the use of virtual wards to provide acute care services in patients' homes.

This approach aims to reduce hospital admissions, improve patient outcomes, and enhance resource allocation by leveraging digital technology and remote monitoring solutions.

2020

The Pandemic

The onset of Covid-19 led to an increase in the adoption of virtual care solutions.

Virtual wards became the primary responsive approach to providing care when in-person interactions were limited during this time.

2016

The "Enhanced Health in Care Homes" (EHCH) framework



Encouraged the use of virtual wards in care homes to improve residents' health outcomes and optimise care delivery.

This framework promotes better integration of health and social care services, fostering collaboration between care homes, healthcare providers, and local authorities to support the implementation of virtual wards.

NHS Long Term Plan

2019



Highlights the adoption of virtual wards as a key strategy for modernising healthcare by 2023/24.

The plan emphasises the need to shift towards community-based care, offer more personalised and integrated services, and utilise digital technology to enhance patient monitoring and support, underlining the crucial role of virtual care in the future of the NHS.

2023

**National Rollout** 

NHS England's call for a national rollout of 25,000 virtual ward beds is a direct response to the capacity challenges faced by hospitals up and down the country.

The current system simply cannot continue to care for the volume of patients needing actue and chronic care.



# **The Role of Virtual Wards**

### Monitoring patients with chronic conditions remotely

The increasing prevalence of chronic conditions strains the NHS. Virtual wards provide a practical solution, enabling remote monitoring and timely interventions, helping patients manage their conditions effectively and potentially reducing hospital visits.

### Reducing the risk of hospital-acquired infections Hospital-acquired infections are a significant concern for patient safety and healthcare costs. Virtual wards can help the NHS

### Enhancing patient experience and convenience

In a patient-centric healthcare landscape, virtual wards bring care to patients' homes, improving satisfaction and empowering them to actively participate in their healthcare, ultimately supporting better health outcomes and treatment adherence.

### Enabling healthcare professionals to make more informed decisions

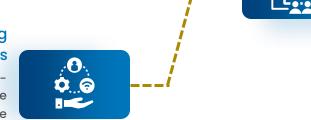
outcomes, and reduce related costs.

Virtual ward technology provides real-time health information, enabling healthcare professionals to make data-driven decisions for individual patients. This can improve clinical outcomes and efficiently use NHS resources by identifying potential issues early and initiating suitable interventions.

minimise hospital stays, lower infection risks, improve patient

### Optimising resource allocation by prioritising high-risk patients

Virtual wards help the NHS allocate resources by prioritising highrisk patients. This saves costs and ensures timely, appropriate care, leading to better health outcomes and a sustainable healthcare system.







# Case Studies from across the UK

### Hampshire Hospitals NHS Foundation Trust

Successful implementation of virtual wards for heart failure patients.

- NHSE funded an evaluation of <u>HHFT's</u> <u>virtual ward</u> <u>programme</u>.
- The evaluation found no increased risk for virtual ward patients, who felt supported and reassured. Staff appreciated skill development and virtual care benefits.
- The evaluation highlighted potential for integrated care between acute, primary, and community services.
- However, greater awareness of virtual care advantages is needed for acute and primary care staff and patients.

### **Doccla and NHS Partners**

Remote monitoring available to community urgent response teams.

Recently, the <u>technology was deployed</u> to HCT's urgent care and response teams to tackle ambulance wait times.

Early pilot evaluation showed promising results:

- Reduced ambulance conveyance rate to 33% (from an anticipated 100%).
  - o 33% 🖧 💆
- Reduced ambulance attendances by 18% at East and North Herts NHS Trust.
  - 18 %
- Increased time for crew to respond to acute emergency calls.
- Reduced handover delays outside hospital.

# Greater Manchester's "COVID Oximetry @home" model

Utilising virtual wards for COVID-positive patients at risk of deterioration.

- The programme, managed by NHS England and NHS Improvement, is in partnership with NHSX and NHS Digital
- <u>COVID Oximetry @home</u> uses pulse oximeters for patients to safely selfmonitor their condition at home.
- 100% of CCGs had established a fully operational COVID Oximetry @home pathway by early February 2021, up from
- 94% of acute trusts now have access to a COVID virtual ward, an increase of 69% since the beginning of the year.







# **Evaluating the Benefits of Virtual Wards**with Health Innovation NWC



### **HIC Case Study: Health Innovation NWC**

Working alongside Health Innovation North West Coast and supporting NHS England to evaluate the benefits of Virtual Wards across the North West of England.

Virtual wards play a crucial role in modern healthcare, they enable remote monitoring and improve patient outcomes.

The ongoing project has a focus on heart failure, frailty and other longterm conditions pathways.



### Limited access to data

- · Silo working causing inconsistent clinical pathways
- Different technology across pathways
- Stakeholder engagement
- · Clinical pathways vary in complexity around systems and service models



- · Stakeholder engagement including site meetings and interviews
- Implemented a robust governance structure
- Creation of a Business Case Template
- Building Treasury Green Book Business Case
- Building a Health Economic Model
- Benefit Realisation Model and Analysis



- Partnership and collaboration between national, regional and academic organisations to produce Health Economic Model and Business Case
- · Business case to secure funding for onwards service delivery
- Business case template is transferable across other healthcare settings



# Getting the Model Right The Different Models

### **Admission Avoidance**

Focusing on patients most at risk for emergency, unplanned, and recurring admissions. Qualification for virtual care is determined by predictive modelling and clinical decisionmakers, including the virtual ward team and the patient's primary doctor.

### **Hospital at Home**

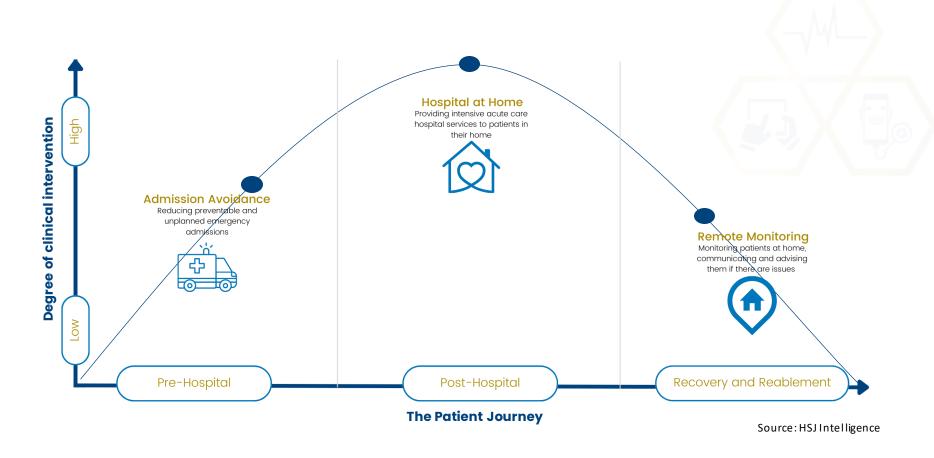
The core elements of this model are remote monitoring, telehealth or home visits from clinical staff to deliver care, allowing specialist clinicians to frequently check patients, and intervene quickly, if necessary,

### **Remote Monitoring**

A component of the Hospital at Home.

Although sometimes a stand alone model.

Remote monitoring conducted by clinicians, patients, or both makes it possible to release a patient who would otherwise need to remain in the hospital.





# What's Next and How to Truly Transform Services

### **Future Considerations**

### **Benefits**

### **How to Realise Potential**



Expansion of virtual wards to cover a broader range of conditions and patient groups



NHS can better manage seasonal outbreaks, chronic conditions and emergency care by reducing admissions and improving access for remote or underserved communities.



Past focus has been on respiratory infection. NHSE should allow local systems more flexibility to deliver and monitor virtual ward models that reflect specific population health needs.



Further investment in telemedicine technology and infrastructure



Enhances NHS ability to provide remote care. Investment bridges the gap between providers and patients, ensuring continuous support for individuals and optimising NHS resource use.



Investment in virtual wards need to be long-term and flexible. In addition, adequate social care support is essential in delivering fully integrated successful virtual wards.



Enhanced integration of virtual wards with existing electronic health record systems



Access to up-to-date patient information leads to informed treatment decisions and better coordination among multidisciplinary care teams.



Local data should be used to make bespoke, local healthcare decisions that address the needs of that population in every ICS.



# What's Next and How to Truly Transform Services

### **Future Considerations**

### **Benefits**

### **How to Realise Potential**



Development of a robust evaluation framework to measure outcomes and effectiveness



Tracks success and identifies areas for improvement to inform future investment in digital health solutions.



NHS England should approach virtual ward expansion as a coherent larger-scale and holistic digital project.



Collaboration between healthcare providers, policymakers, and technology partners



Strong partnerships among key stakeholders mean innovative solutions in virtual care can continuously be explored and developed.



Local providers should ensure that clinicians and patients are involved in co-design from the start of development.



# How do the public and NHS staff feel about virtual wards?





- Disabled people and those with a carer show higher support for virtual wards
- Socioeconomic groups D and E (low) express less support, requiring further understanding and addressing of concerns
- 71% of the public open to being treated through virtual wards under the right circumstances
- 78% of the public willing to monitor health at home using technology; potential terminology influence on support levels





 NHS staff generally supportive of virtual wards (63% to 31%)

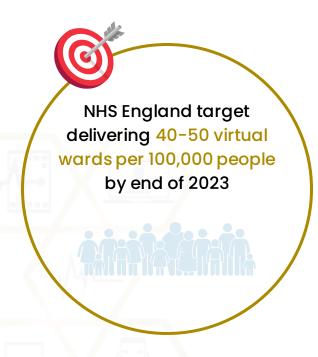
Top factors for successful virtual wards among NHS staff:

- Expedited patient admission to hospital if flagged as required through remote monitoring channels.
- Patient accessibility to health professionals if help is needed.
- Patient choice between 'traditional' hospital ward or virtual ward
- Confidence in using technology at home through training



# **Key Takeaways**

- There has been rapid growth of virtual wards as an alternative to traditional in-patient care pathways in the UK NHS.
- Virtual care, taking many forms, has been widespread in the NHS for some time. But necessity dictated growth during the COVID-19 pandemic, accelerating virtual care adoption.
- Lengthy backlogs, staffing shortages and ongoing capacity constraints require innovative solutions.











# **The Future of Virtual Care**

In the future, The lines between remote care and traditional hospital treatment will become blurred.

"Virtual care," won't exist, it will just be "Care."

Here's what it could look like:



You wake up at 7 a.m, not to the buzz of an alarm, but by a process deployed by an app in your micro-implant.



You walk to the bathroom and step into the shower. Before the water starts, you hear the hum of a full-body MRI scan, instruments collect samples and catalogue vitals.





Some vitals are collected and monitored continually through an implant. All of them flow in real time through Al and your hospital care team.



Doctors are still involved but when it's time for a conversation, you'll have it – remotely, over video or VR.
Inpatient hospital care is reserved for serious procedures.



Results are analysed in real time by AI and sent to the hospital for validation. A transdermal infuser pushes your medications into your blood: vitamins, pain killers, beta blockers, anxiolytics, TNF inhibitors.

All synthesised in response to your current blood chemistry, and carefully balanced against one another.

# THANK YOU







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Professor of Critical Care
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**Emil Pohl**Transformation Project Lead Whittington Health



# **NCL ICS Overview**



# Providers delivering Virtual Wards within North Central London ICS

- The Whittington (Lead Provider)
- Royal Free Hospital
- University College London Hospital
- North Middlesex University Hospital
- Barnet Hospital
- Central Northwest London Trust
- Central London Community Health

The delivery of Virtual Wards across NCL is a collaborative effort between all the organisations involved and the design and delivery is provider led.

#### Introduction to the Problem

The journey of integrating and expanding virtual wards within a heterogenous system is filled with diverse challenges, primarily arising from four separate domains:

- Disparate technological infrastructures.
- Variability in care standardization and quality assurance mechanisms.
- Hurdles in inter-organizational communication and collaboration.
- The necessity for robust monitoring and evaluation frameworks to gauge effectiveness and ROI.

Disparate technological infrastructures.

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# Critical Domains guiding our Virtual Wards Expansion



Technological Harmonisation:

Streamlining tech platforms for seamless operations.



Standardisation of Care and Quality
Assurance:

Establishing uniform care standards.



Inter-organisational Communication and Collaboration:

Fostering a culture of shared learning and synergy.



Monitoring and Evaluation:

Assessing the impact and effectiveness through structured frameworks.

### Technological Harmonisation

## Embarking on Tech Harmonisation

### Provider-led Approach via Digital Reference Group:

 Engaging providers in a collaborative forum to address technological harmonization, ensuring the alignment of technological platforms across organizations.

### Single System Procurement Strategy:

 Advancing towards a unified procurement strategy, informed by learnings from five digital system pilots, to achieve seamless technological integration.

### Insights from Five Digital System Pilots:

 Gleaning valuable insights from pilot projects to inform decision-making and guide the procurement process.

## Engagement and Collaboration

Engaging
Providers in
System
Development:

 Collaborating with providers to develop and tailor systems that meet the unique needs of Virtual Wards, enhancing the functionality and user-friendliness of technological platforms.

Tailoring
Systems for
Virtual Wards:

 Customizing technological solutions to meet the specific operational requirements of virtual wards, ensuring optimal performance and user satisfaction.

Anticipated
Dividends from
Unified
Technological
Platforms:

 Expecting significant benefits from a unified technological platform, including enhanced interoperability, operational efficiency, and improved patient care delivery.

## Envisioning the Tech Future



Future Roadmap for Technological Integration:

Outlining a forward-looking plan for further technological integration across the NCL ICS, aiming to bolster the digital healthcare landscape.



### Enhancing Interoperability and Operational Efficiency:

Striving to improve interoperability and operational efficiency through seamless technological integration, facilitating smoother workflows and better coordination among healthcare teams.



#### Scalability and Sustainability of Technological Solutions:

Ensuring the scalability and sustainability of technological solutions to meet the evolving needs of the healthcare landscape.

## Standardisation of Care and Quality Assurance

## Laying the Foundation for Standardisation

#### Early Consensus on a Core Service Offer:

 Achieving early agreement on a core service offer across five boroughs to ensure a consistent level of care delivery, setting a foundation for uniform care standardization.

### Utilizing HEE Funding for Skill Enhancement:

 Leveraging HEE funding to upskill frontline teams in crucial clinical areas, enhancing their competence and ability to deliver highquality care.

#### Crucial Areas of Training:

Focusing on key areas of training such as ECG interpretation, Advanced Diagnostic Reasoning, and Long Term Condition Management to enrich the skill set of healthcare teams.

## Enhancing Skills and Collaboration

Recruitment of a B7 CNS for IV Skills and OPAT Delivery:

Bringing on board a specialised clinical nurse specialist to focus on Intravenous Skills and Outpatient Antibiotic Therapy delivery, exemplifying cross-trust collaboration for enhanced patient care.

Cross-trust
Collaboration
for Skill and
Knowledge
Enhancement:

Fostering a culture of cross-trust collaboration to enhance the skill and knowledge base of healthcare teams, elevating the standard of care delivery across organizations.

Elevating Standard of Care:

Striving to elevate the standard of care through collaborative efforts, ensuring a patient-centric approach and improved clinical outcomes.

## Quality Assurance and Future Directions

## Upholding and Elevating

#### Upholding and Elevating Care Quality and Patient Safety:

• Continually working to uphold and elevate the quality of care and patient safety standards across the virtual ward system, ensuring a patient-centric approach in care delivery.

#### **Exploring**

#### Exploring Future Directions for Quality Assurance:

• Identifying future directions to achieve comprehensive quality assurance across the NCL ICS, ensuring consistent, high-quality care delivery that meets and exceeds regulatory standards.

#### Ensuring

#### Ensuring Consistent, High-quality Care Delivery:

 Striving to ensure a consistent, high-quality care delivery across all virtual wards, aligning with the overarching goals of enhanced patient satisfaction and improved clinical outcomes.

## Inter-Organisational Communication and Collaboration

#### Fostering Communication and Collaboration



Establishment of a Monthly Steering Group:

Setting up a monthly steering group to foster a culture of shared learning, open communication, and robust collaboration among various stakeholders.



Shared Learning, Communication, and Collaboration:

Encouraging a culture of shared learning, open communication, and robust collaboration to drive the project forward and overcome operational hurdles.



Collaborative Venture in Setting Up a New Islington Virtual Ward:

Embarking on a collaborative venture to set up a new Islington virtual ward, exemplifying the power of inter-organizational synergy in enhancing healthcare delivery.

#### Models of Engagement and Support



#### Two-provider Model for Extended Medical Cover:

Adopting a two-provider model to extend medical cover and clinical staff, broadening service outreach and ensuring a more inclusive, patient-centric approach in care delivery.



#### Proactive Engagement of the ICB:

Experiencing proactive engagement from the Integrated Care Board in addressing system concerns, supporting barrier resolution, and fostering a supportive environment for interorganizational collaboration.



#### Addressing System Concerns and Supporting Barrier Resolution:

Actively addressing system concerns and supporting barrier resolution to ensure smooth project progression and achievement of shared objectives.

#### Achieving Synergy in Operations

Effective
Communication in
Overcoming
Operational Hurdles:

• Highlighting the pivotal role of effective communication in overcoming operational hurdles, ensuring all stakeholders are aligned and engaged towards shared objectives.

Anticipated
Outcomes from
Enhanced
Collaboration:

 Anticipating positive outcomes from enhanced inter-organizational collaboration, steering towards

### Monitoring and Evaluation

#### Structuring Assessment Frameworks

Standardized assessment matrix for Remote Monitoring:

Developing a structured framework for objective assessment of remote monitoring effectiveness.

Informing future procurement plans:

Utilizing insights gained to inform procurement strategies, ensuring alignment with organizational goals.

Laying foundation for a unified Remote Monitoring system:

> Building a robust foundation for a harmonized remote monitoring system across NCL.

## Feedback on Performance Metrics



Emphasis on collecting staff and patient feedback:

Valuing feedback as a crucial component for continual improvement.



Standardized performance metrics across organizations:

Establishing uniform metrics to objectively evaluate performance and impact.



Objective evaluation and continual improvement:

Fostering a culture of continual assessment and improvement to ensure project success.

## Acuity Study Insights



ICS-wide Acuity Study: A retrospective evaluation shedding light on patient acuity levels, informing training needs and pathway development.

Evaluations based on interventions, patient condition (utilizing NEWS2, CFS, and 4AT for delirium patients), and clinical input.



Identifying potential training needs and pathway development:

Utilizing study findings to identify areas for training and development.

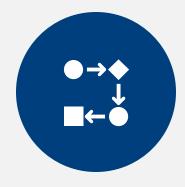


Reflecting on comprehensive insights for virtual ward expansion:

Gleaning insights to inform future strategies for virtual ward

## Summary

#### **Summary**



Technological Harmonisation: Our journey has seen the fruitful initiation of a provider-led approach, embarking on a path towards a unified technological platform that promises seamless operations and interoperability across the NCL ICS.



Standardisation of Care and Quality Assurance: Through collaborative consensus, upskilling initiatives, and strategic recruitment, we are elevating the standard of care and ensuring consistent, high-quality care delivery across the virtual ward system.



Communication and
Collaboration: The establishment
of a monthly steering group and
proactive engagements has
fostered a culture of shared
learning and collaboration,
enabling successful ventures like
the new Islington virtual ward.



Monitoring and Evaluation: The development of a standardized assessment matrix for Remote Monitoring and the ongoing ICS-wide Acuity Study are laying a solid foundation for robust evaluation and continual improvement, guiding us towards informed future strategies.

#### **Looking Ahead**

As we reflect on our accomplishments and learnings, we remain committed to navigating the challenges ahead with a collaborative, patient-centric approach. Our collective efforts will continue to drive the expansion and delivery of virtual wards, advancing towards a cohesive, efficient, and high-quality virtual ward model across the NCL ICS.





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