CONVENZIS

Agenda for today:

Thursday 29th February | 15Hatfields, London

Welcome to The Virtual Wards Conference!

29th February 2024
9am – 5:30pm
15Hatfields, London

Chairs Opening Address

Dr Gurnak Singh Dosanjh
GP and ICB Clinical Lead for Home First
Leicester, Leicestershire and Rutland ICB

Slido

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SCAN ME

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

NHS VIRTUAL WARDS SOUTH CONFERENCE

28 February 2024

Collaborative ICS (place based) challenges and how we're overcoming this to create the 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

Local context: South East London system

Overview of **current workforce estimates in SEL** across health and care.

Workforce in excess of **132,084** employed by:

- 341 Pharmacies
- 210 GP Practices
- 2 Mental Health Providers
- 4 Community Providers
- 3 Acute Trusts
- 6 Local Authorities
- 1 Integrated Care Board
- 11 Specialist Palliative Care Community Providers

Insights

Vacancies: High vacancy rates for health and social care staff;

Retirement Risk: Ageing workforce;

Pay: Pay disparity between Health & Social Care;

Retention: High turnover rates;

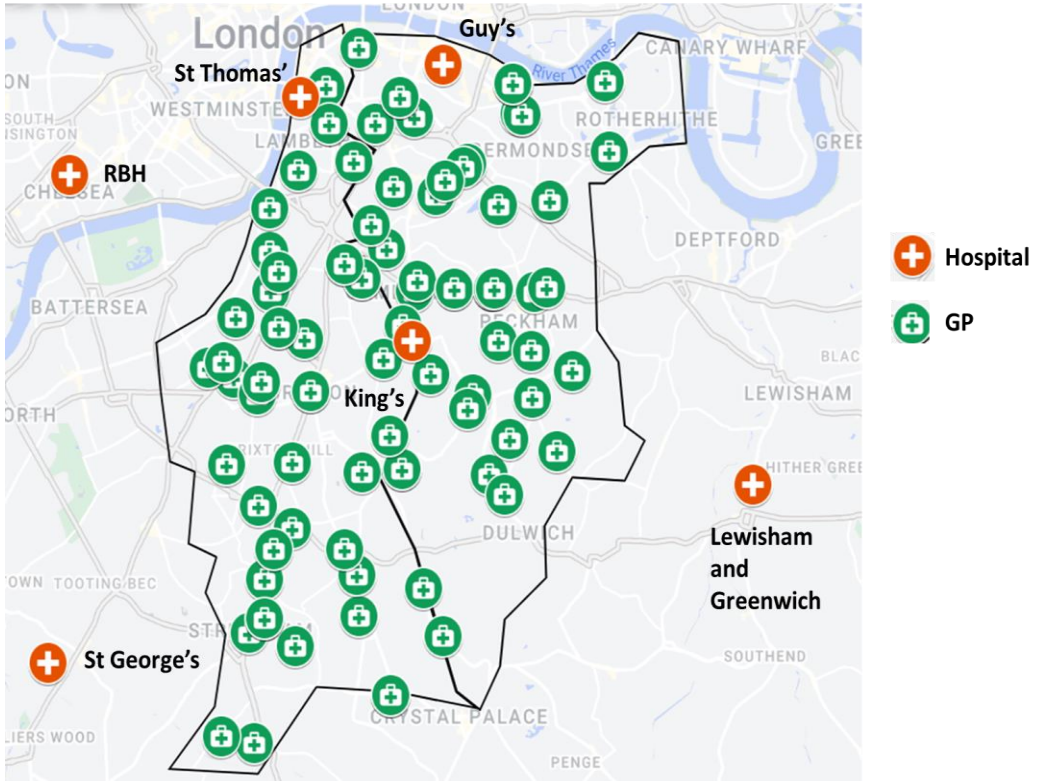
Carers: Significant levels of unpaid careers (est.upwards 26,000).

Competition: For staff across providers.

Organisation	Headcount
Adult Social Care (Independent sector)[1]	37,000
Voluntary Sector Employees[2] (crude split London/5)	31,848
Guy's and St Thomas'	22,188
King's College Hospital	13,291
Lewisham and Greenwich FT	6,888
South London & The Maudsley SLAM (also covers Croydon	5,526
Oxleas	3,958
Pharmacy (July 22)	2,457
Adult Social Care (Local Authorities)	2,400
General Practice (July 22)	5,065
Bromley Health Care	1100
SEL ICB	663
Figures for independent sector (other than adult SC are unknown), those working for direct payment recipients are also not counted.	unknown
Estimated workforce SEL	**132,384**

Local Context

Our Population: Lambeth and Southwark



- Population 625,300
- High levels of deprivation
- Significant health inequalities
- Challenges with digital literacy
- >150 different languages spoked
- Aging population
- Population set to increase by 5.2% over the next 5 years

Local context: Lambeth and Southwark

- NHSE target capacity 40-50 virtual ward ‘beds’ per 100,000 population, achieving 80% occupancy

- 240-300 ‘virtual beds’ in Lambeth and Southwark ICS

A collaborative place-based approach

- Project governance and assurance structure within the Local Care Partnerships (including primary care, VCS, social services, acute and community care representation) allows us to develop an integrated, holistic VW model taking into consideration the needs of the diverse local populations we serve.

- Engagement with a range of partners including primary/secondary/voluntary/social care providers and commissioners

- Overseen at an SEL level via a Steering group supported by a Community of Practice with representation from all boroughs.

Lambeth and Southwark Virtual Ward Expansion Plans

Through co-design we are addressing the following:

Domain	Capability
DEMAND AND ACCESS	Assessment of demand and access by ethnicity, Index of Multiple Deprivation, 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

Lambeth and Southwark Virtual Ward 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 operate as a hybrid function to allow greater patient flexibility and not fully ‘virtually’, though that is a tool to be utilised.
Provides an alternative to hospital attendance/admission which does not mean a shift in care but a targeted expansion of capacity to alleviate pressure on the system.	Staffing presents a significant challenge which is driving the implementation of digital solutions.

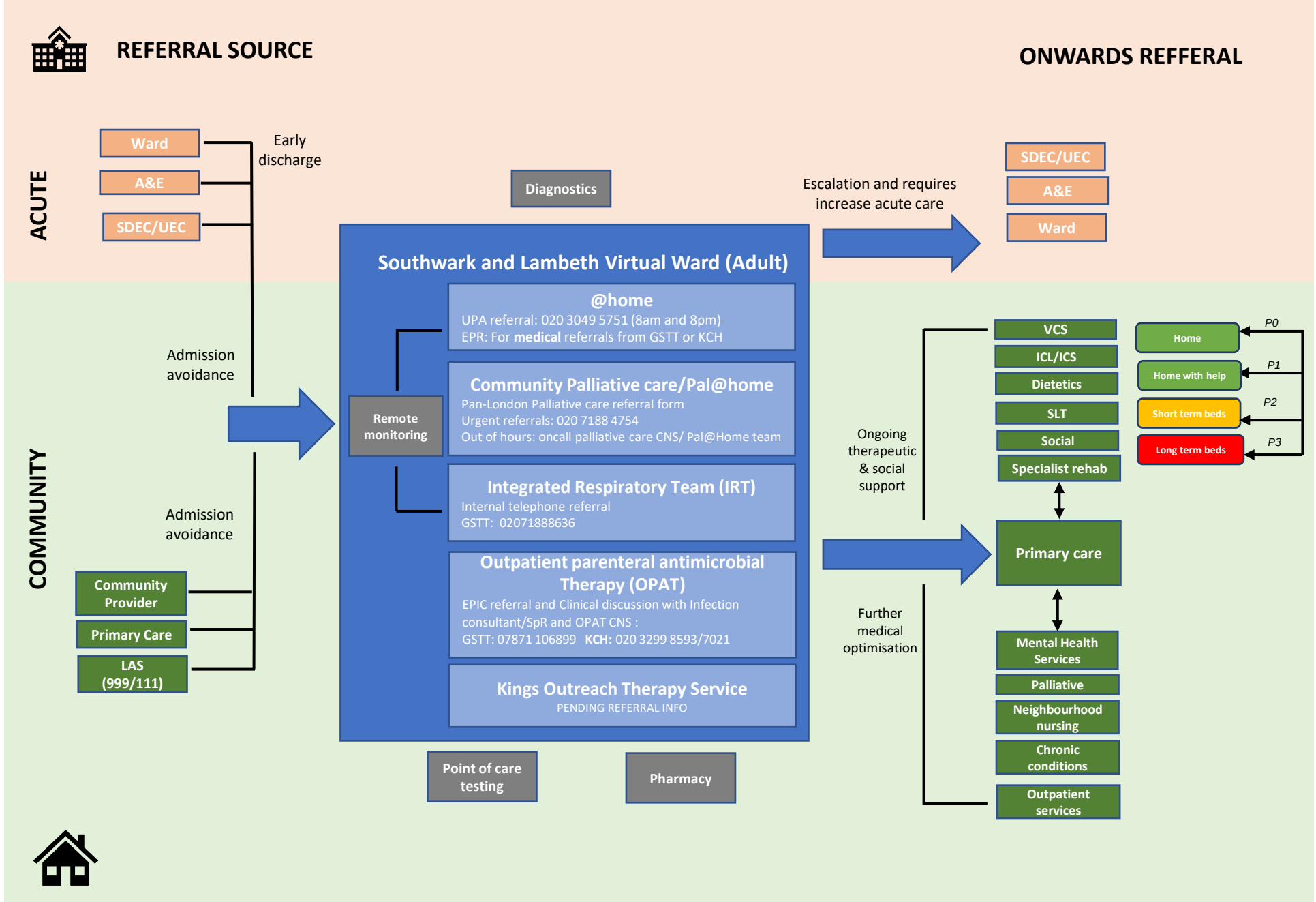
Lambeth and Southwark: Virtual Ward Early Development

- Recognition and rebadging of teams and services providing care that aligns with the NHSE definition of virtual wards across a broad spectrum of clinical pathways and provider organisations

- Virtual Ward funding:
  - Increasing capacity of existing face to face services
  - Addressing gaps in access across the geographical population investing in new services
  - Developing a Remote Monitoring technology enable pilot project

Lambeth and Southwark Virtual Wards Landscape - Adults and Children

OPAT= Outpatient Parenteral Antimicrobial therapy
IRT= Integrated Respiratory Team


REFERRAL SOURCE
ONWARDS REFFERAL
ACUTE
Ward
A&E
SDEC/UEC
Early discharge
Diagnostics
Escalation and requires increase acute care
SDEC/UEC
A&E
Ward
Southwark and Lambeth Virtual Ward (Adult)
@home
UPA referral: 020 3049 5751 (8am and 8pm)
EPR: For medical referrals from GSTT or KCH
Community Palliative care/Pal@home
Pan-London Palliative care referral form
Urgent referrals: 020 7188 4754
Out of hours: oncall palliative care CNS/ Pal@Home team
Integrated Respiratory Team (IRT)
Internal telephone referral
GSTT: 02071888636
Outpatient parenteral antimicrobial Therapy (OPAT)
EPIC referral and Clinical discussion with Infection consultant/SpR and OPAT CNS :
GSTT: 07871 106899 KCH: 020 3299 8593/7021
Kings Outreach Therapy Service
PENDING REFERRAL INFO
Remote monitoring
Point of care testing
Pharmacy
Admission avoidance
Admission avoidance
COMMUNITY
Community Provider
Primary Care
LAS (999/111)
Ongoing therapeutic & social support
Further medical optimisation
VCS
ICL/ICS
Dietetics
SLT
Social
Specialist rehab
Primary care
Mental Health Services
Palliative
Neighbourhood nursing
Chronic conditions
Outpatient services
Home
Home with help
Short term beds
Long term beds
P0
P1
P2
P3

Progress so far

Since April 2023 we have :

- Delivered a **65%** increase in virtual ward capacity
- Delivered **80%** utilisation against the 80% target set by NHSE
- Supported implementation of Epic across all services
- Progressed pilot project and contract with Doccla using remote monitoring technology

- Additional benefits:
  - Identifying and addressing historical variation in service provision across Lambeth and Southwark (IRT, Palliative Care, Outreach Therapy Services)
  - Building partnerships across organisational boundaries

Remote Monitoring: Doccla Contract

Contract with Doccla, chosen as remote monitoring 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.

Adopted 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, expanding to additional clincal pathways to increase utilisation in a phased approach

Test and learn from a 1-year pilot project with a 3-month implementation period to address:

- Operational experience of how remote monitoring could be operationalised efficiently
- To discover the challenges, identify the barriers and define the benefit for the patient, the system and clinically.
- Discover what impact RM has on the sustained pressure on urgent and emergency care services and support elective recovery by supporting patients to access clinical monitoring in their own home.

Technology-enhanced care

Live from mid-July 2023

Through our partnership with Doccla we provide:

- Clinical kit
- Devices to facilitate connectivity
- Customer services: device delivery, onboarding, patient compliance support
- Clinical monitoring and support
- Clinical web portal
- CQC compliance

1

Identification &Admission

Clinician selects and admits a patient onto the Doccla Virtual Ward. Patient receives devices.

2

Onboarding & Reporting

At home, the patient is onboarded and uses devices provided by Doccla and the patient app to send clinical data.

3

Monitoring

Client or Doccla clinicians monitor patients' vital signs, subjective responses and alerts via Doccla web dashboard.

4

Patient Support

If needed, the clinician can message the patient or hold a video call. They can also adjust patient's alert thresholds.

5

Discharge

When the monitoring is completed, the patient is "discharged" from the Doccla Virtual Ward and devices are collected by a courier.

Remote Monitoring Delivery Plan

Pathways	Live Y/N/Paused	Stage	Est. date for go-live
GSTT Hosp @ Home (inc. frailty, respiratory, other)	Live		
GSTT Integrated Respiratory Team (IRT)	Live		
Evelina Children's. (bronch and acute resp)	Live		
Palliative Care (IPoS Questionnaire – GSTT/St Christophers)	Not live	Preparing for go-live	Early March 2024
Hepatology (KCH/GSTT)	Not live	Exploratory	End of March 2024
Heart Failure (KCH/GSTT)	Not live	Preparing for go-live	TBC
Surgery (KCH/GSTT)	Not live	Exploratory	From April 2024
Diabetes, Diabetes/Oncology - blood glucose remote monitoring (KCH/GSTT)	Not live	Exploratory	From April 2024
KCH Integrated respiratory team (IRT)	Not live	Exploratory	From April 2024

Remote Monitoring challenges

- Referral processes – initially lengthy and inefficient using MS Word form sent via email. Doccla building direct patient referral system (PDS) within the Doccla platform to provide pre-populated demographics and simplified process.

- Improved stock control, logistics and speed of delivery and onboarding by having stock stored at clinical bases

- Engagement from patient and families can be challenging; compliance obs, perceived benefits, declining at point of onboarding and anxiety – time investment is needed at point of referral to define expectations and provide assurance

- Workforce: cultural shift required; perceived benefits, acuity

- Building awareness with referrers to virtual ward services that remote monitoring is available and how it can be accessed is key

Remote Monitoring key points of learning

- Identifying patient suitability for remote monitoring: Clinical presentation, Clinical outcome, Social circumstances, Confidence with tech

- Patient conditions and utilisation:
  - 53% Respiratory conditions (COVID, LRTI, CAP, Flu A, exacerbation COPD)
  - 24% Cardiac (Hyper/hypotension, tachycardia, Heart failure)
  - 18% Other (UTI, cellulitis, pain, hyperemesis)

- Exploring potential benefit of moving clinical monitoring in-house

- Anecdotal impact on @Home and IRT activity, and some reduction in system pressures – to be fully defined as part of the evaluation

- Patient activity to be monitored and measured against the GSTT @Home Acuity Tool

Case example

Description

36yr old lady, had an asthma attack weeks after the birth of her baby. Asthma diagnosed as a teenager, but never prescribed or used medication or experienced any serious symptoms.

Context

- Experiencing coughing episodes, wheezing, a tightening chest, and struggling to breathe, finish sentences or lie down.
- Attended ED and peak flow measured at 100 and condition considered life threatening.

Methods

- ED diagnostic testing: diagnosis of asthma attack triggered by rhinovirus, provision of initial management including nebuliser, excluding other pathology e.g. PE
- Offered referral to GSTT @Home to be managed at home and stay with baby. Patient consented to remote monitoring following triage to monitor heart rate; respiratory rate and peak flow 3 times a day.
- @home clinicians also visited daily to take blood tests and carry out further checks.

Outcomes

- Admission prevented, "*I was glad because I'd rather be at home with my baby and have everything I need around me, especially during the midnight feed.*"
- Full clinical recovery
- Husband, who is a self-employed, did not have to take time off work. *"It meant that we still had an income, especially with me being on maternity leave."*

What did we learn?

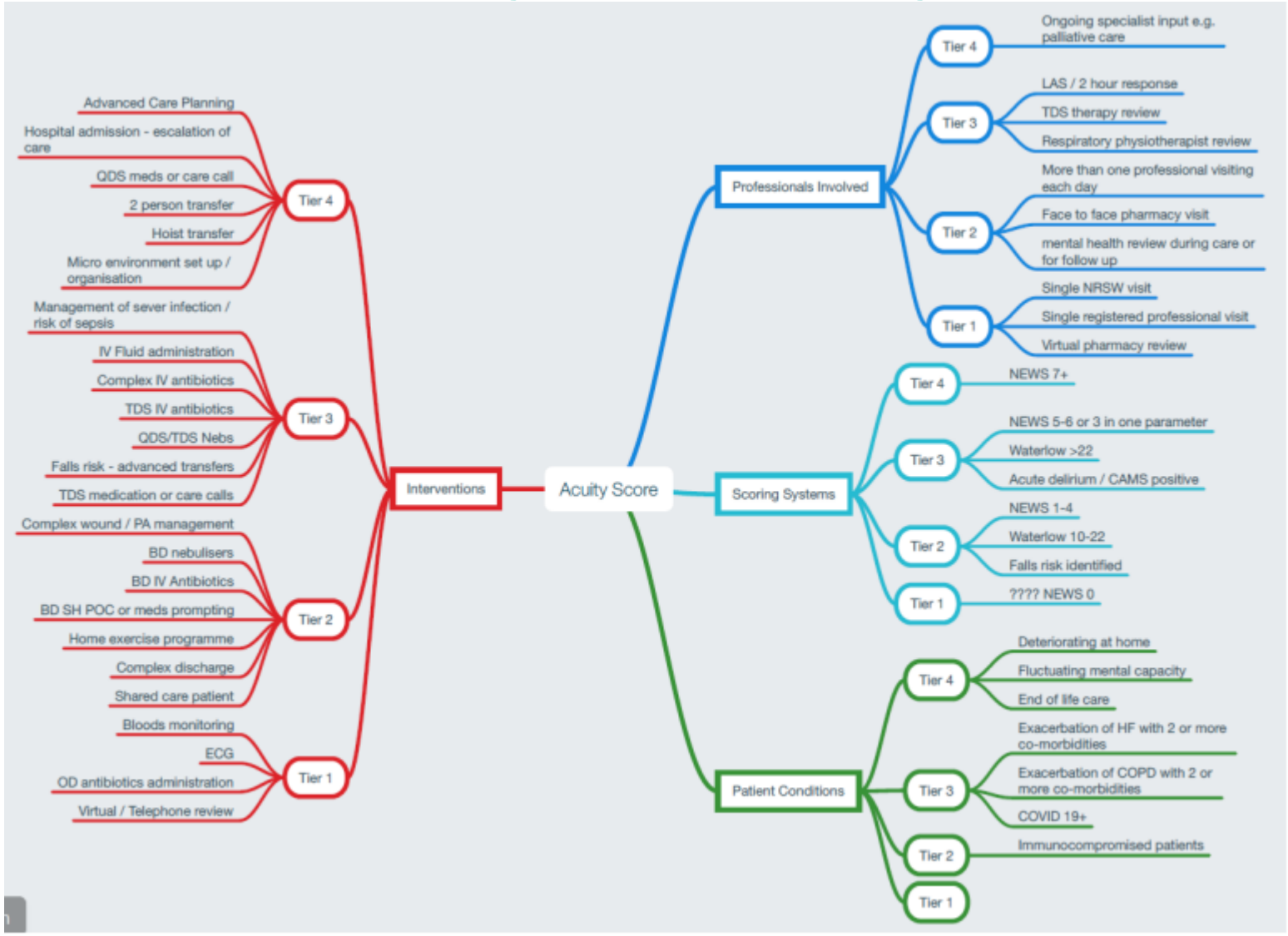
- Integration of remote monitoring into the @home service enabled this patient, who would have otherwise required hospital admission, to be safely cared for and managed at home

Patient Experience

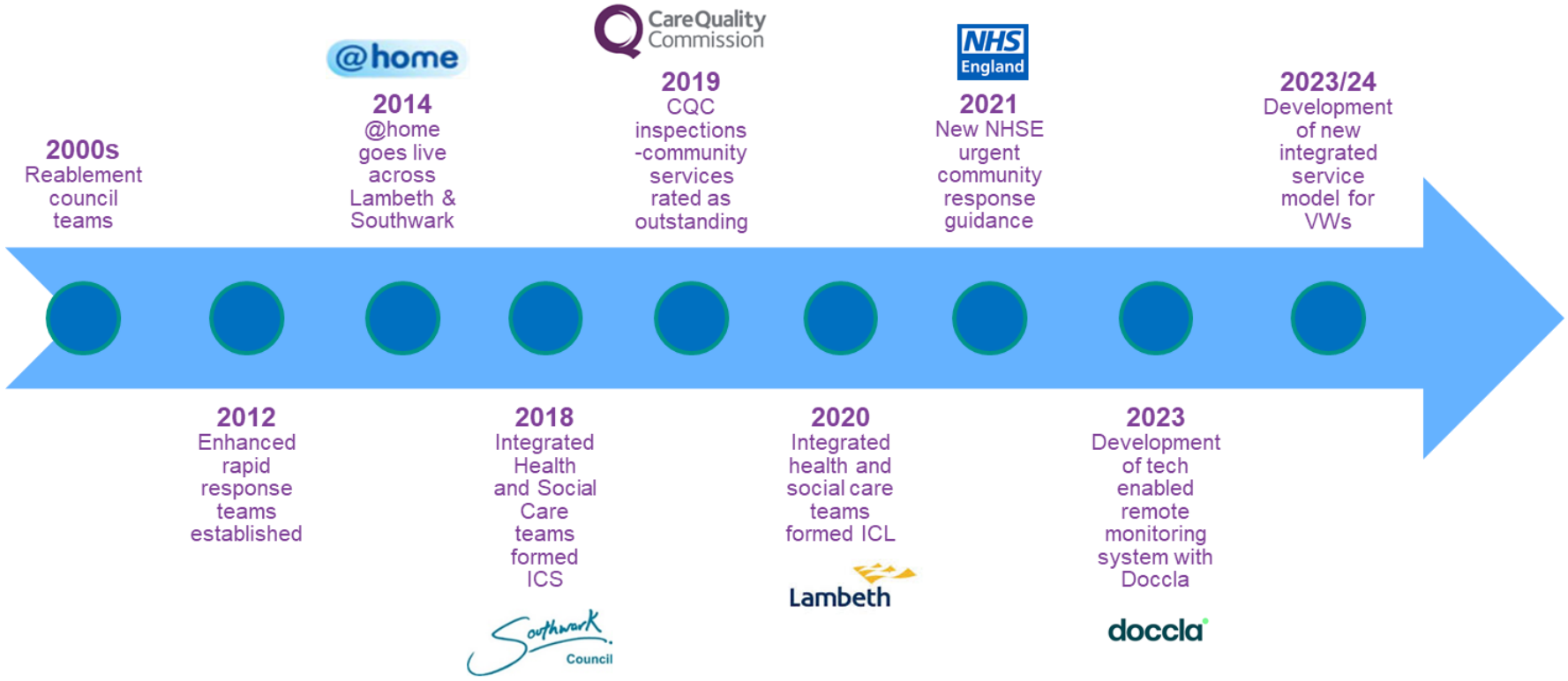
"I felt so incredibly well looked after. The @home team was absolutely wonderful – the nurses and the doctors. And every person who phoned to check on me was so kind and considerate, and aware of everything. It was such an amazing experience."

"The monitoring is so quick and easy to do. It puts you at ease seeing your results, and knowing you are getting better every day. It made me feel I was a little bit more in control of things."

Virtual Wards Acuity Tool - history



Virtual Wards Acuity Tool - history



Virtual Wards Acuity Tool - current

- Based on acuity tool developed in @Home in 2019

Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Patient does not require any medical or therapy interventions but remains under at home for bridging of care and ongoing social interventions.	Acute care at home. However, patient needs are met through routine once daily typically carried out by band 5 nurse. Low level therapy interventions.	Acute care at home. Patient requires more than a routine visit, clinically stable but at risk of deterioration. This would be typically carried out by senior band 5 and band 6 clinicians, with up to twice daily medical/nursing visits. Therapy input where deterioration is a risk factor.	Acutely unwell at home, clinically unstable with higher risk of deterioration. These visits would typically be carried out by senior Band 6, Band 7 and doctors, with up to 3 visits daily or a joint visit requiring MDT.	Acutely unwell requiring external expertise and staffing level. Patient with an advanced care plan/ceiling of care to be provided in place of residence. These visits would typically be carried out by band 7 clinicians and doctors.

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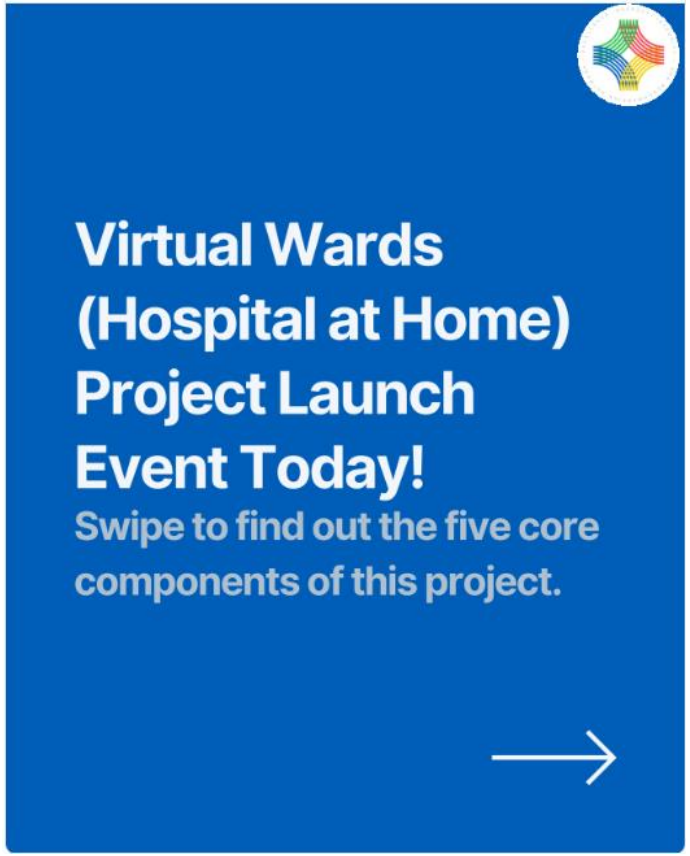
Virtual Wards Acuity Tool – NHS Benchmarking

- **Exciting new project with NHS Benchmarking as part of outcomes from virtual wards.**
- **Reaching over 230 member organisations.**
- **Incorporates Experience Measures, Friends and Family Feedback, Clinical Case Review and activity/workforce metrics.**



Next steps

- Progress plans to co-design the longer-term vision of integration in our boroughs
- Work with SEL and NHSE colleagues to support reducing variation in virtual ward delivery across the system
- Measure workforce competencies against published guidance and address gaps through a workforce plan
- Interim Evaluation of our pilot scheme for Remote Monitoring
- Scoping opportunity for expanding the remote monitoring offer and integration with Epic
- Working on new opportunities including:
  - People with sickle cell disease experiencing acute crises
  - Expansion of remote monitoring for people with diabetes
  - Delivery of care to people with cancer requiring acute interventions
  - Peri-surgical pathways to release capacity in inpatient areas
  - Home-based interventions for people with chronic liver disease
  - Enhanced care for people with chronic heart failure, including PIFU

Remote Monitoring Development

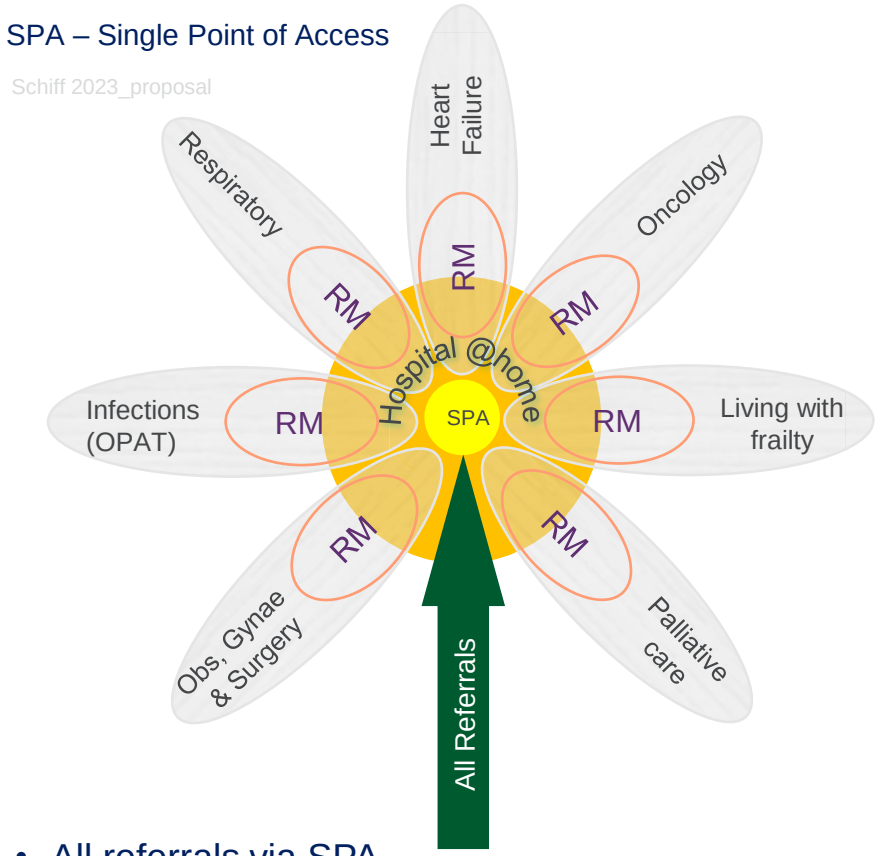
SEL ICB has successfully applied to the Health Technology Adoption and Accelerator Fund (HTAAF) for resources to increase the availability of technology enabled virtual wards across the footprint, with a focus on respiratory, frailty and paediatric pathways.

As part of our delivery plan, we will be looking improve utilisation of current capacity and to implement additional clinical pathways

Programme next steps 24/25:

1. Extend the current pilot for a further year or to end of March 2025 to align with other contracts across SEL;
2. Develop Lambeth and Southwark remote clinical monitoring hub;
3. Increase capacity
4. Integration with Epic

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



Appropriate Level of care		
RM Virtual monitoring only with ongoing clinical responsibility via relevant specialist team or VM company	Hybrid Intermittent visits by Hospital @home team and virtual monitoring Clinical responsibility hospital@home with advice from specialist team	Hospital @home At least daily home visits by @home team +/- VM as clinically indicated Initial UCR within 2 hrs

Increased clinical and functional acuity

Increased in-person visits

- 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

Investment in workforce training and development Panel Discussion

Francesca Markland
Senior Programme Manager, Remote Monitoring & Virtual Wards - NHSE London Region Digital Transformation Team

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

Pippa Macey
Sutton Virtual Ward and Urgent Response Operational Manager Sutton Health and Care

Temba Ndirigu
Head of Clinical Development (Nursing) Leeds Community Healthcare Trust

THE VIRTUAL WARDS CONFERENCE
NHS Implementation and best practice

Up Next…

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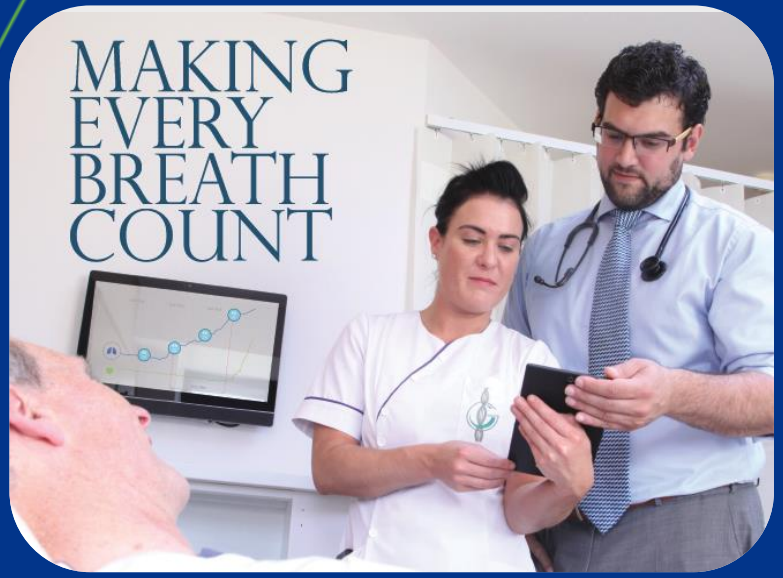
Speaking Now…

Lucy Stones
Clinical Change Specialist
PMD



PMD SOLUTIONS

Revolutionising Respiratory Outcomes

Transforming Virtual Ward Remote Interventions

Digital Tools that work with your care pathway

Lucy Stones

29th February 2023 - The NHS Virtual Ward Conference South.

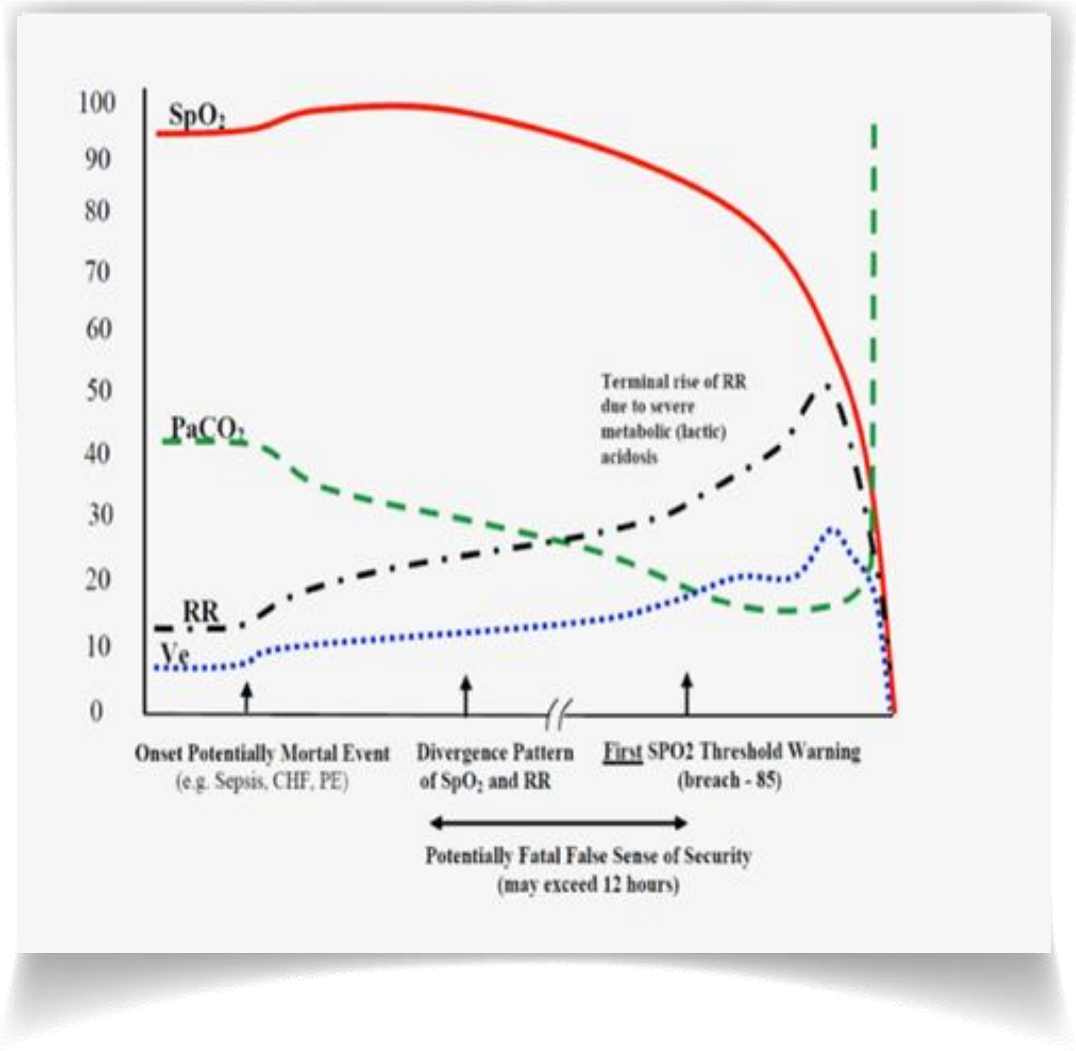
Digital Health. London

Patient Story

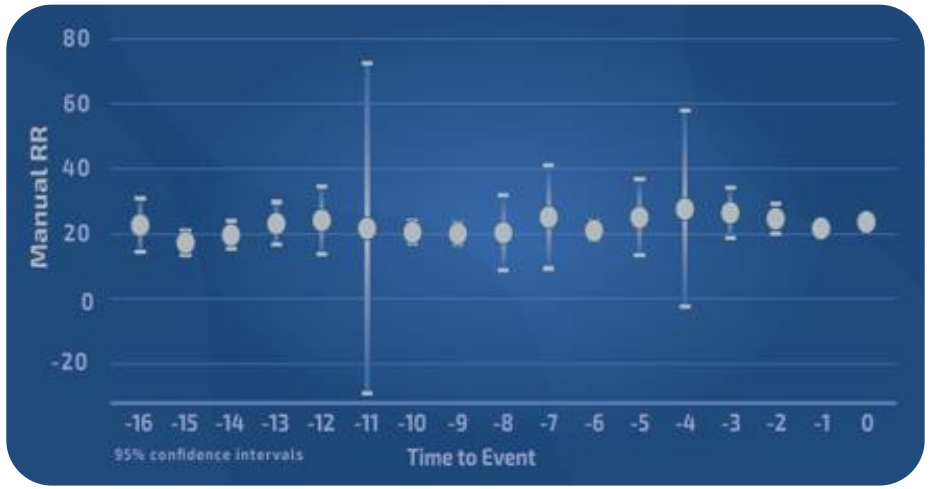
Photo: posed by model

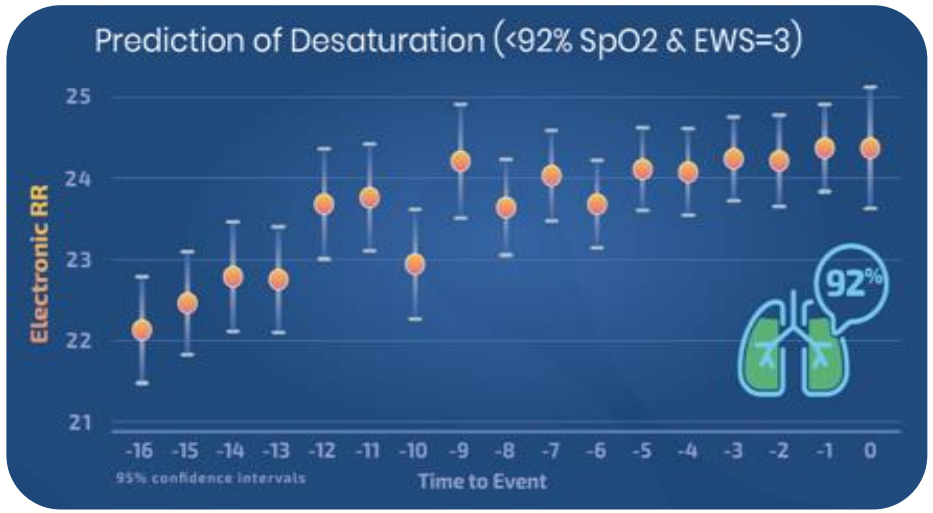
The Importance of CRR

- Curry 2018 - Changes in respiratory rate indicate potential Respiratory Alkalosis or Metabolic Acidosis
- SpO_2 can be a lagging indicator of same with delayed interventions happening if accurate measurement of elevated RR is not achieved
- Trends versus spot checks for RR give greater sensitivity in correlating abnormal RR with underlined deterioration
- A simple Arterial Blood Gas (ABG) analysis can confirm this in day to day clinical practice.
- Confirmation of Alkalosis or acidosis can give healthcare providers the direction for the appropriate course of treatment.



cRR prediction of Hypoxia





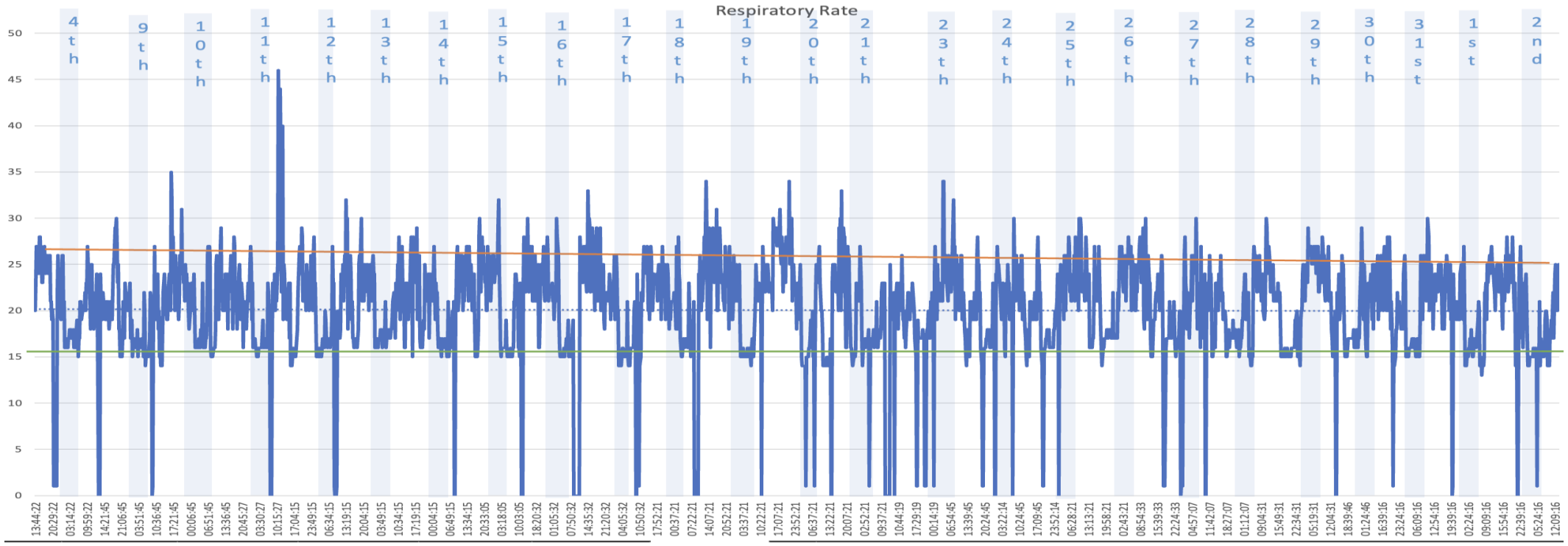
McCartan2020 demonstrated that eRR >24 breaths per minute gave 12hrs early warning of impending hypoxia event with over 90% sensitivity

Manual RR measurements gave no significant predictive power for pending hypoxia

Electronic monitoring of patients Respiratory Rate can help allocate the Right Resources to the Right Patient at the Right Time

cRR also predicted pyrexic events of temp>38ºC

What is a Personalised Normal Continuous RR Profile

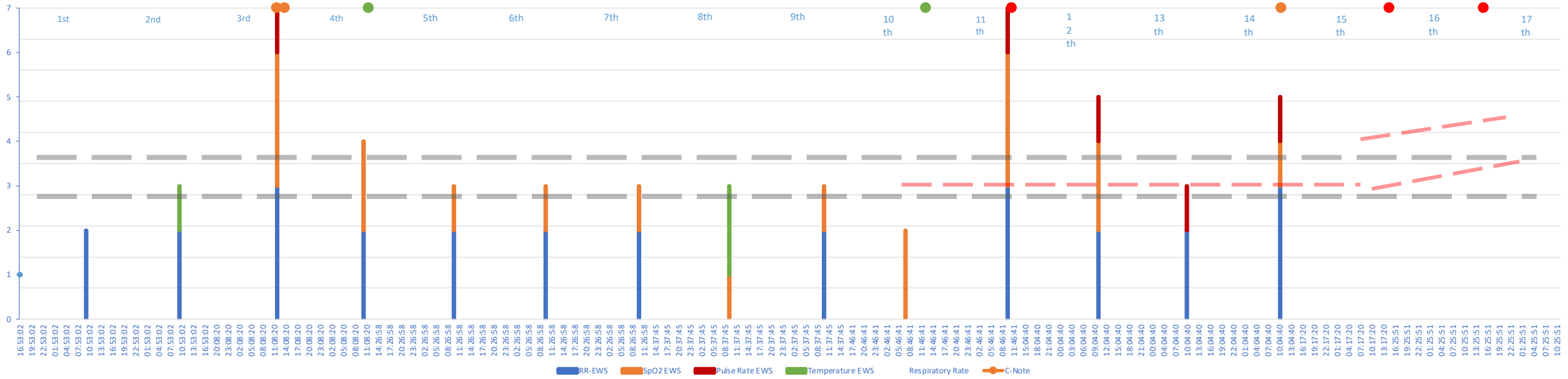


- Repeating patterns of variation
- Reduction in RR during sleep
- Range of RR is consistent
- Lower and Upper RR averages are consistent

Example features of cRR to aid in detecting deterioration

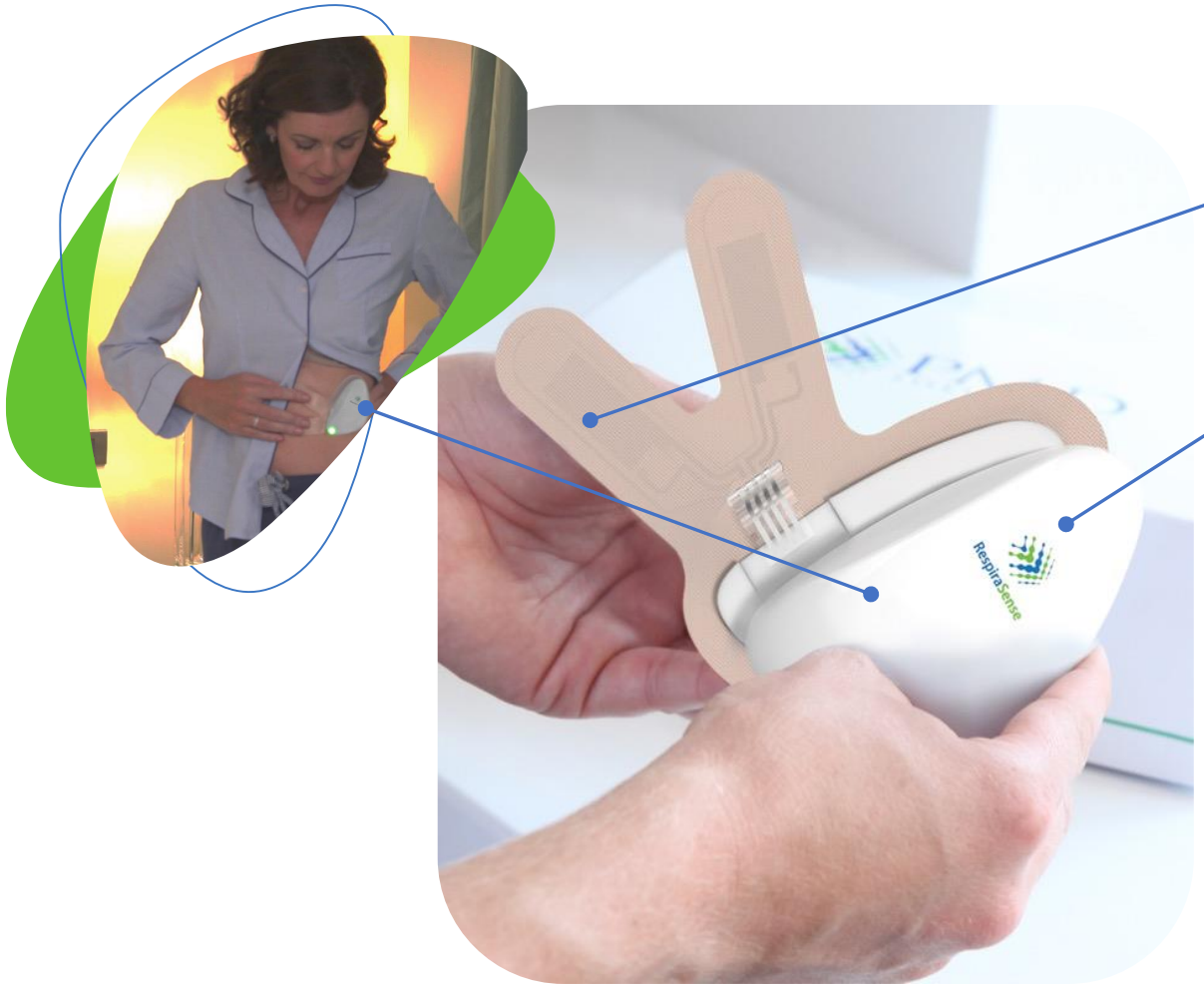
Identify deviations in range, trend or averages from the norm

Example 2: Variation in Lower RR range and trending increase in RR range: occupied with disturbed nocturnal cRR



Grey Dashed lines show that from history what the normal stable RR profile is.
Red Dashed lines show how the range changed as events worsened.

RespiraSense – Continuous and motion tolerant eRR monitoring



Single Patient Use RespiraSense Sensor

Reusable/Rechargeable Lobe
(measures, processes, communicates)

Optional:
Bluetooth SpO2/PR monitor - nonin

Acute monitoring of Respiratory Compromised Patients using cRR

- cRR is in 23 Acute Hospitals and 47 Respiratory Wards across Ireland
- 20 bed Respiratory Virtual Ward
- NHSx funded roll-out in Nottingham University Hospital across 3 Wards
- 40,000+ patients monitored every year using RespiraSense
- Invented for patients on 4lt Supplementary O^2, NIV, or HFOT

Nottingham University Hospital NHS Trust

NICE National Institute for Health and Care Excellence

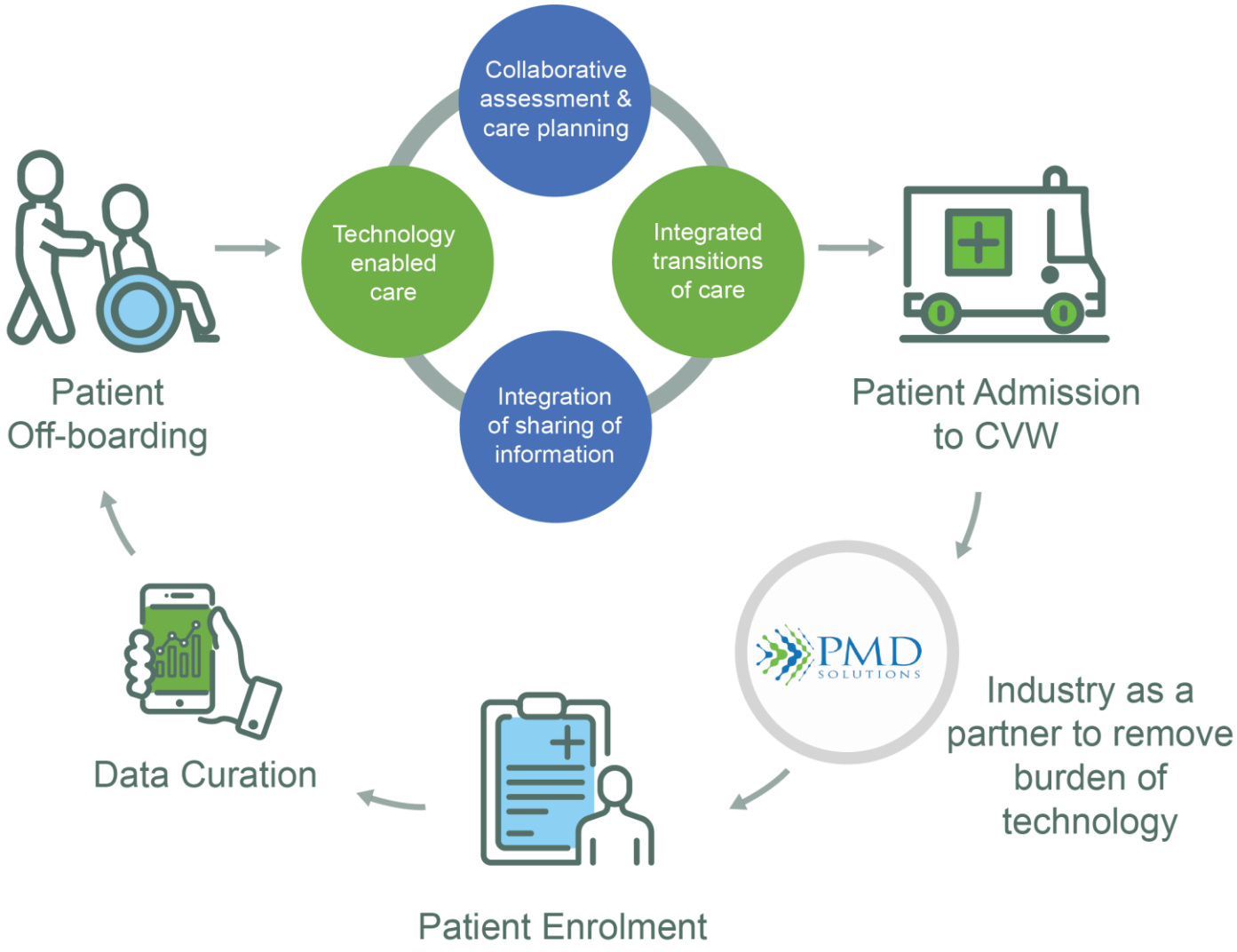
Digital Health. London

The next advance – Continuous Respiratory Rate (cRR)

Impact

- Deterioration preceded symptoms
- Patient felt intimidated by technology
- No improvement in Quality of Life

Why Change?

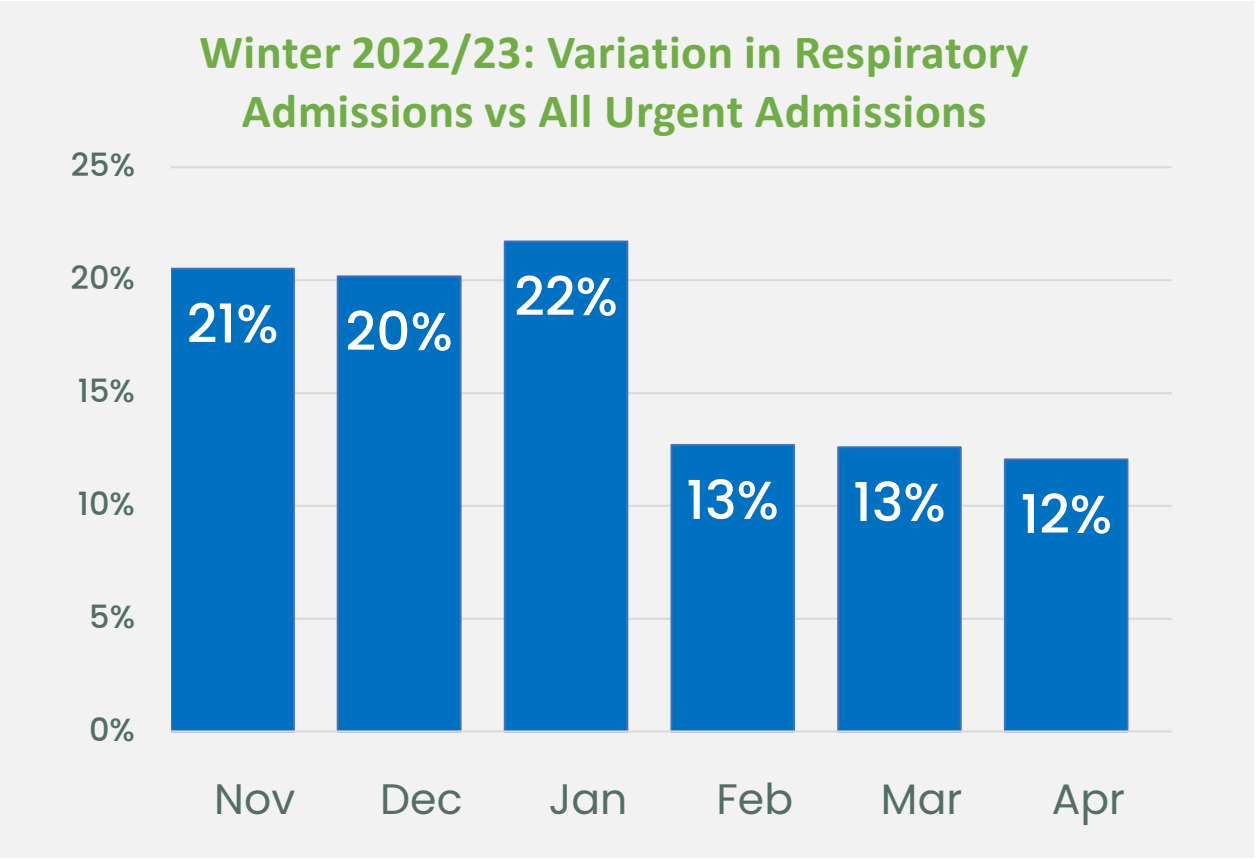

Collaborative assessment & care planning
Technology enabled care
Integrated transitions of care
Integration of sharing of information
Patient Off-boarding
Patient Admission to CVW
Industry as a partner to remove burden of technology
Patient Enrolment
Data Curation

Respiratory Admissions Seasonal Variance South London

Seasonal Variation of Respiratory complaints has significant impact on Winter Pressures

Key Correlations:

- Max A&E Waits = 0.85r
- Max Open Beds = 0.905r
- Peak A&E Demand = 0.99r
- Max 12 hr Breaches = 0.905r



Scaled Impact in South London

How Respiratory Affects Winter Pressures in South London

- **23%** of all Hospital Admissions in Winter vs. 14% in Summer
- **5,194** admissions pcm
- **1,924** Beds per month (28.5% of beds used vs. 14.2% in Summer)
- **95 A&E** Presentations Per Day

Admission Profile: NHS England Regions

NW
North West:
32,907 Admissions
Free 50 Beds

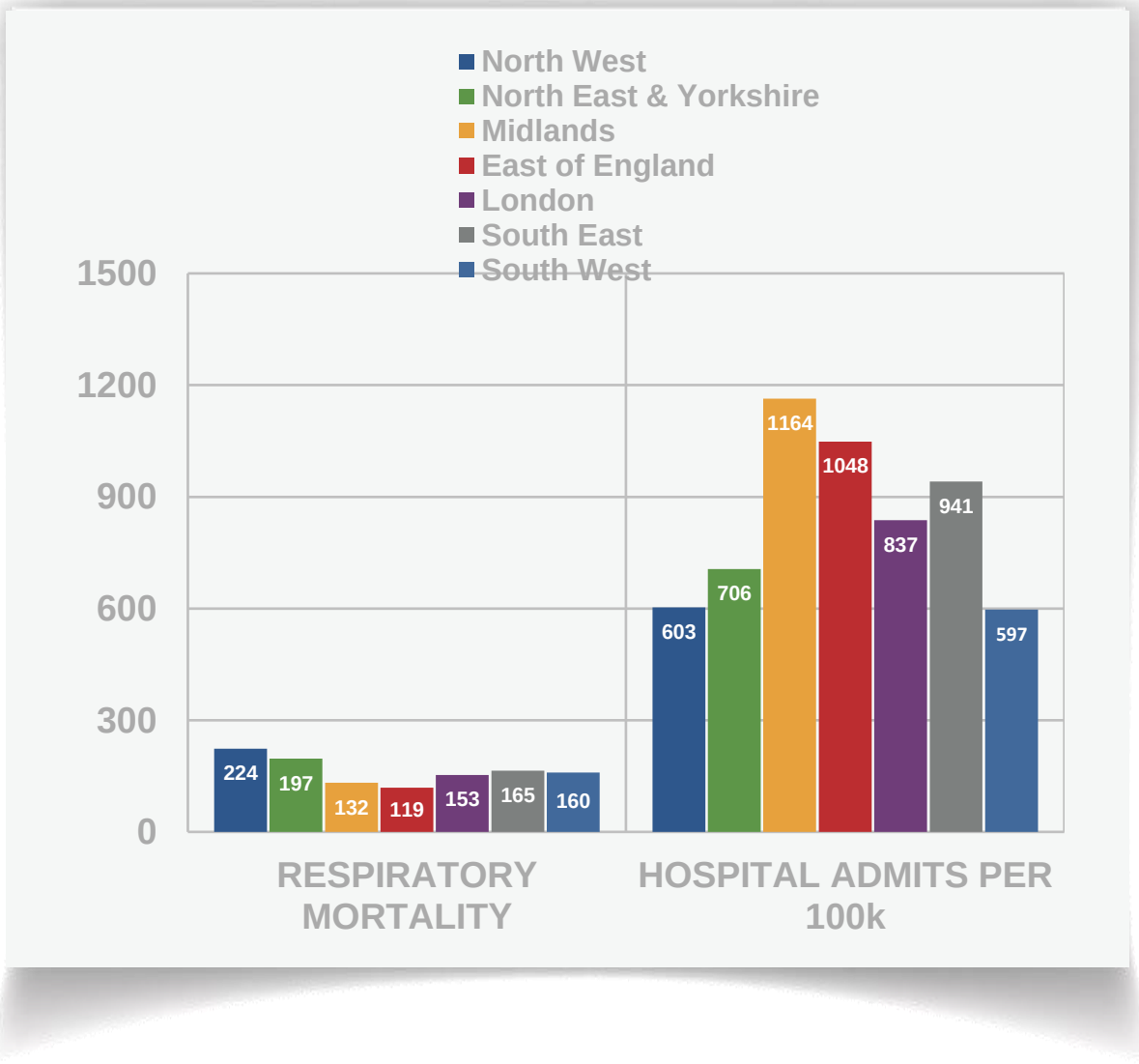
East
East of England:
101,055 Admissions
Free 305 Beds

NEY
N.E. & Yorkshire:
196,835 Admissions
Free 155 Beds

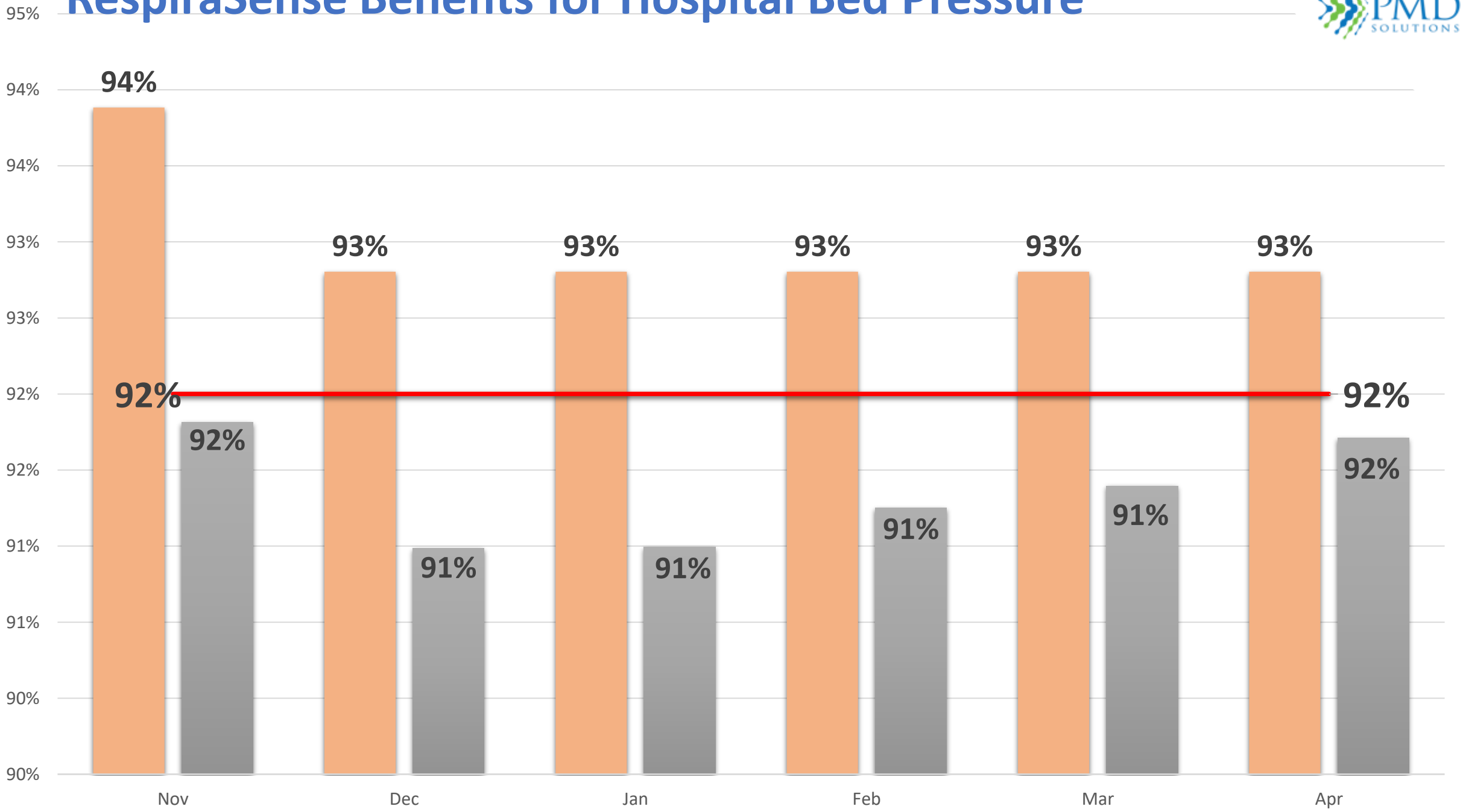
LON
London:
131,836 Admissions
Free 722 Beds

MID
Midlands:
196,818 Admissions
Free 155 Beds

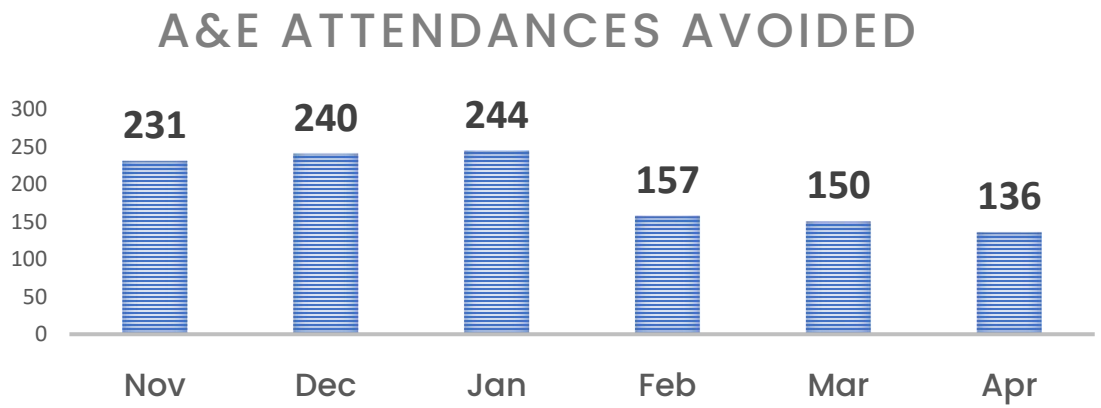
SW
South West:
36,025 Admissions
Free 52 Beds

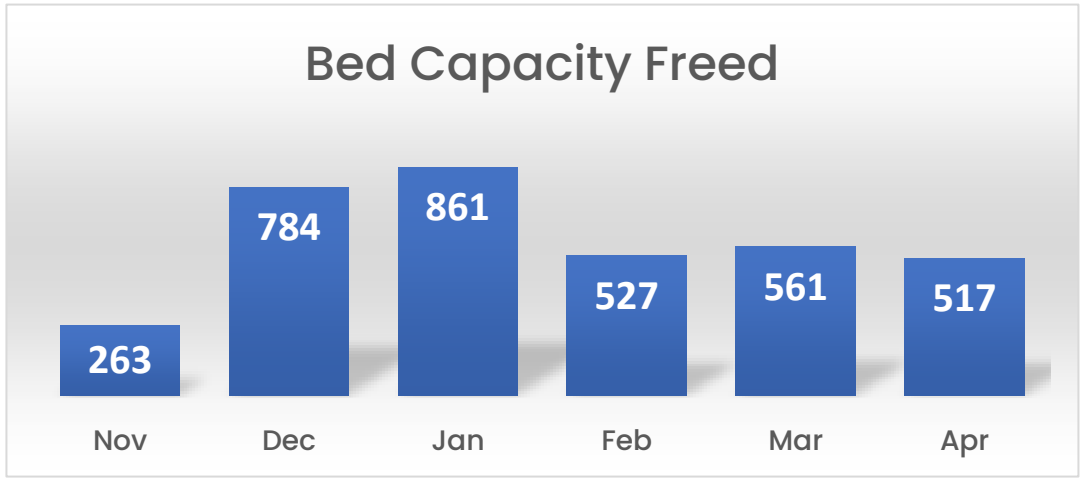


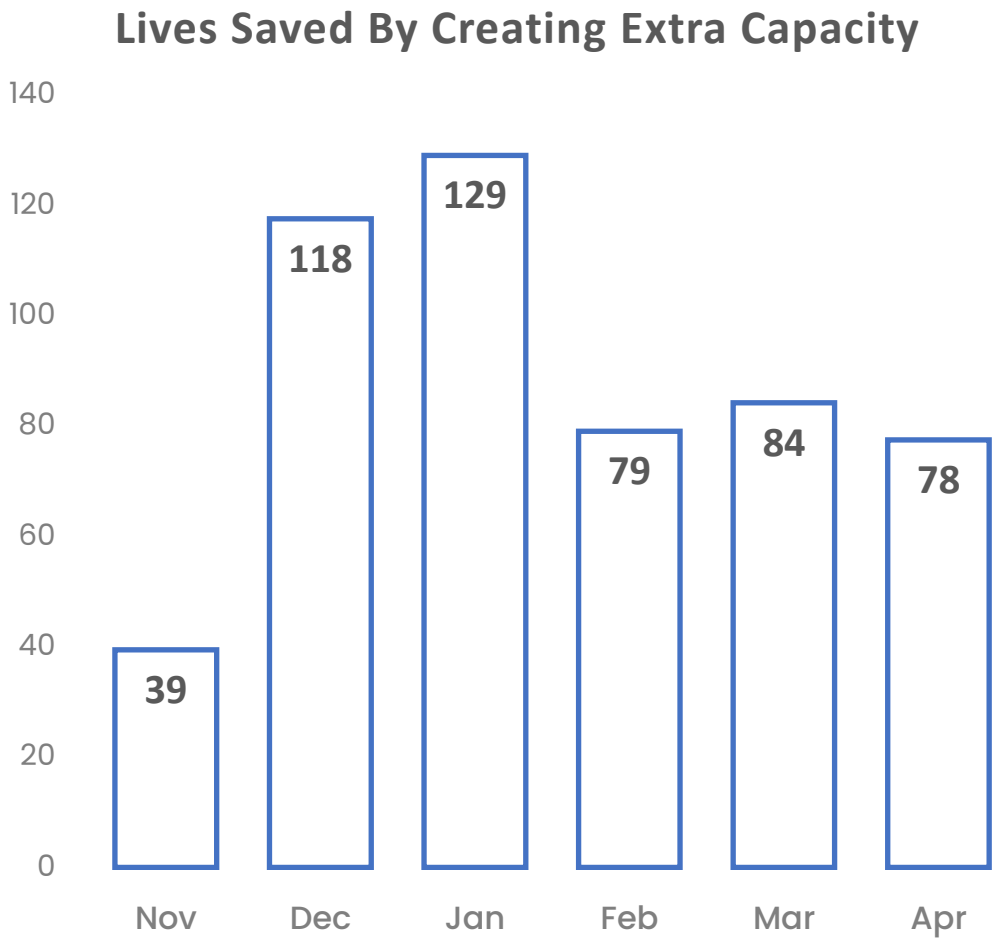
RespiraSense Benefits for Hospital Bed Pressure



Operational Impact In South London







Patient Story – The ending

Photo: posed by model

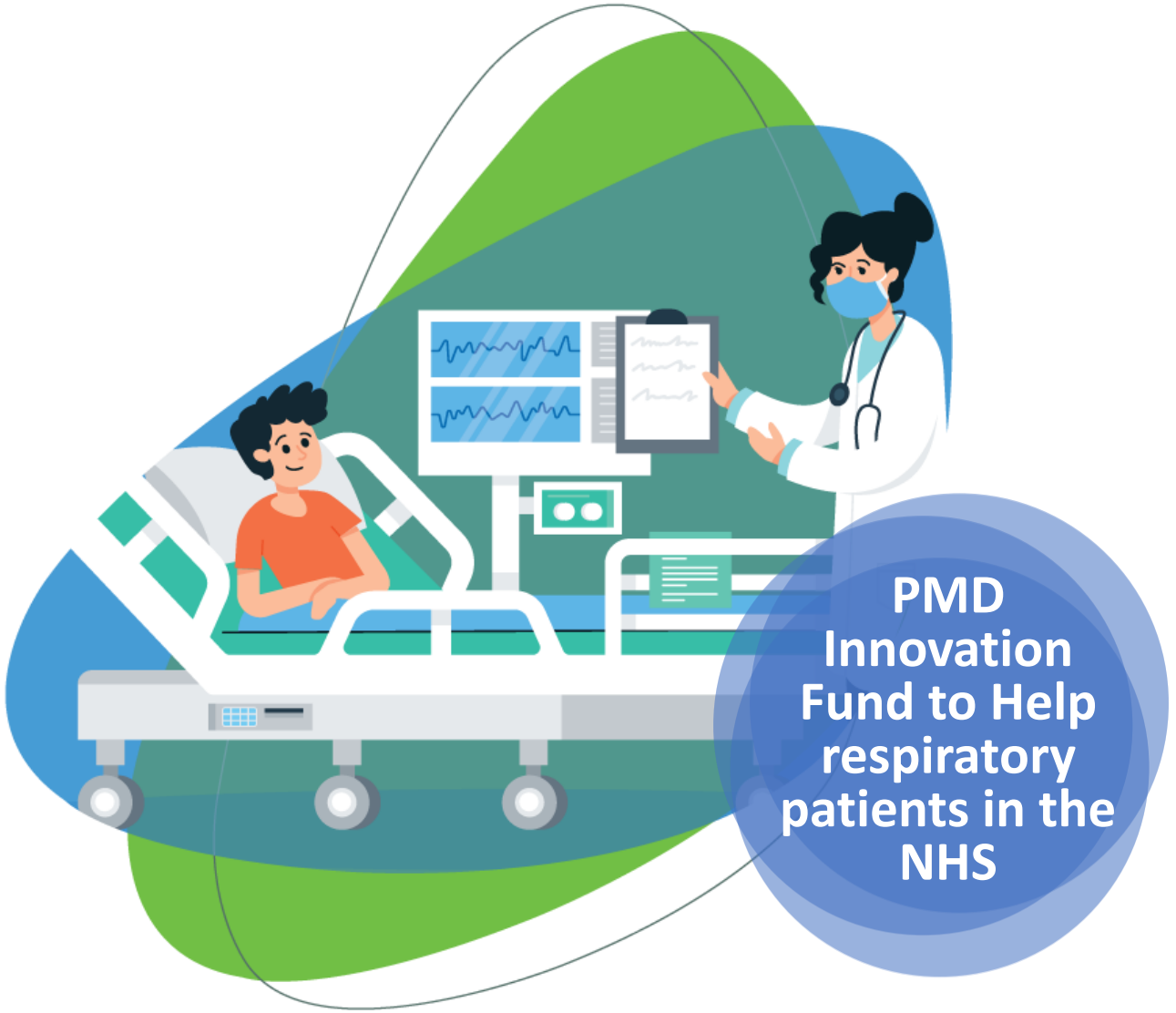
Making Every Breath Count

Community Readiness

End to end support
Delivery Manager
Runs the project for you
Dedicated delivery team

Personalised to needs
Virtual and on-site training
7/7 Support

Co-investment offer
Setup and Launch
Patient support in home



Refreshments & Networking

Chairs Morning Reflection

Dr Gurnak Singh Dosanjh
GP and ICB Clinical Lead for Home First
Leicester, Leicestershire and Rutland ICB

Up Next…

access
freedom to do more

CONVENZIS

Speaking Now…

Laura Thompson
Head of Marketing
Access Group

access Health, Support and Care

Taking an integrated approach to virtual wards

February 2024

access Health, Support and Care

Our Health, Support and Care solutions are underpinned by unparalleled support as part of the wider Access Group

7,000+ people

100,000+ customers

One of the largest **International software companies with a UK HQ**

Over £1.3m raised for our chosen charities in 2023

800+ HSC Team

200+ Local authorities

45+ Trusts and ICS

100% Police forces in England and Wales

100+ UK universities

9,000+ Schools and academies

Public Sector Transaction Volume and Value*

34m+

Card transactions processed per annum

c£4bn

Value transacted per annum

**Health, Local Government, Housing, Education and other public sector where Access Pay360 process the acquiring*

access Health, Support and Care

We work across the care continuum ...

25%

Of all social care hours in the UK managed

500k

Community activities referred to by social prescribing link workers

150k

Clinicians use our EPR solution across community and mental health

80k

Individuals protected by Technology Enabled Care

The right person gets the right care in the right place, based on the right decision made at the right time – all because the person supporting them had the right information when they needed it

Improved Outcomes and Control for Individuals

Transformation

to Person Centric Care delivery model

Integration

of Tools and Systems

Data in Context

to enable decision-making

delivered (home and community)

Joined up decisions *about an individual's*

Information *about own health and care*

Innovation and ***digitisation*** *to provide tools*

The future for Care and Healthcare Providers

Information sharing *to establish needs of local populations*

https://www.gov.uk/government/publications/health-and-social-care-integration-joining-up-care-for-people-places-and-populations/health-and-social-care-integration-joining-up-care-for-people-places-and-populations#conclusion-impact-on-people-and-next-steps

An overstretched NHS

The NHS is facing significant challenges in coping with increased demand in an environment of declining strategic funding and capacity. This is leading to a multitude of problems across the healthcare system.

Overburdened healthcare staff and strain on morale

Burn-out caused by mental and physical pressures are leading to greater staff attrition

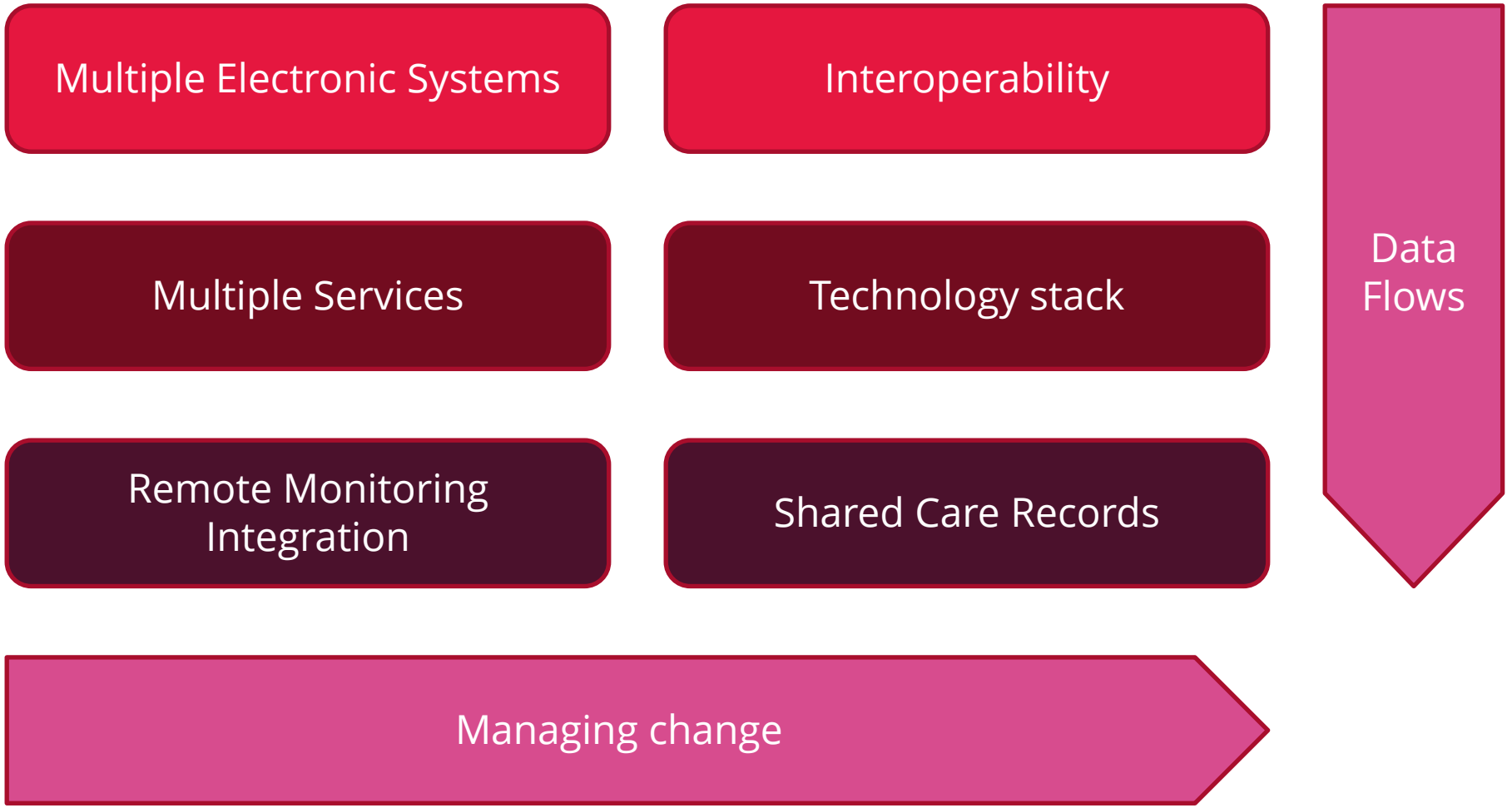
Breakdown of patient flow and health risks for patients

Patients face delays and a backlog of treatment, resulting in decreased independence and increased health issues

Excess financial costs for resource-constrained NHS

Rising costs are compounded by "bed blocking" and pressures of an ageing population

There are many challenges with traditional approaches…



Integration is the differentiator

We believe that an integrated approach, looking at more than just remote monitoring and working across the ICB, within existing systems, will deliver better outcomes for people, clinicians, organisations and communities.

Transformation

- Improved access to healthcare in patient's own home
- Reduction in hospital admissions/Admission avoidance
- Enhanced patient experience
- Costs savings

Integration

- Optimised resource allocation
- Improved Collaboration between Acute and Community services
- Obs scores and NEWS 2 data feeds directly to EPR
- EPR data can be presented on Shared Care Record

Data in Context

- Proactive care delivery
- Early supported discharge and early detection of complications
- Efficiency in response time by clinicians
- Single data dashboard

Access Virtual Care: Three core service elements to enable a frictionless clinical experience and unlock the benefits of remote care for individuals

Streamline Processes | Deliver Context Relevant Insights | Improve Outcomes

1. Remote Patient Support

Real time data and alerts combining remote clinical observations alongside Activities of Daily Living

Simple, self-administered clinical readings and unobtrusive passive monitoring into EPR, with proactive alerting to changes in behaviour patterns

2. Patient Flow and Bed Management

Enable patient RPM data to be accessed in the context of other health record data, and to be incorporated within clinician workflow.

Seamlessly manage patient data and bed availability across both physical and virtual wards

3. Transfer and Discharge Management

Simple tools to request and automate the provision of the elements of a patient's clinical assessment or care plan, to enable faster transfer or discharge

Why is this relevant across health and care...

Health Providers

- Reduced time spent on bed-related issues / free up beds quicker
- Provide higher-quality care when patients are in the right 'place'
- Focus on providing care rather than administrative logistics (easier discharge)
- Identify health deterioration and deliver timely interventions
- Improved patient outcomes

Local Authorities

- Link to re-enablement providers
- Joining up systems to help prevent admissions (to care home / hospitals)
- Reduce care home costs
- Delivery of personalised care services
- Collaborative working to deliver co-ordinated care
- Reduce bottlenecks in delivering services

Care Providers

- Creates new service opportunity
- Better visibility of citizen needs
- Supporting Virtual Care patients at home
- Increase/improve capacity management and efficiency
- Deliver person centred quality care

What's next?

- More than 15 million people in the UK live with a long-term condition (LTC)
- Existing strategy for identifying and supporting those with long-term illnesses is only half the battle
- Prevent patients from being admitted into hospital or needing costly ongoing treatment in the first place
- Joined-up care model integral in keeping LTC patients from deteriorating
- Unify primary, acute and community services so that patients have improved access to treatment and care
- Virtual care is leading the way in all of this and we at Access will continue to champion its potential to transform the health sector and provide health and care workers with the tools to make a difference

Integration provides the cooperation needed to make virtual wards a success

1. Rather than putting in a short-term tactical solution, look at how to create **smoother, clearer workflows** between Acute, Community and Social Care to support someone at home

2. Deploy **interoperable software solutions** that allow those providing care to use systems they are familiar with, while enabling them to share information to support virtual ward workflows

3. Use systems that staff recognise and understand, and integrate them so information is available when needed, also **reduces the burden on those providing care**

access

Consider technology that promotes:

- Admission avoidance
- Frictionless processes
- Optimised data flows
- Prevention of delays to discharge or transfer
- Putting people first, both citizens and frontline staff

access

Helping all of us to enjoy longer, healthier lives, with greater independence, in our chosen place, by providing sustainable, safe and high-quality integrated health, support and care

The freedom to make it personal

Connect on LinkedIn

Up Next…

livework

Slido

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

SCAN ME

CONVENZIS

Speaking Now…

Ben Reason
CEO, Founder
Livework Studio

Livework

Designing the ideal Virtual Ward

Virtual Wards 2024

liveworkstudio.com
Livework Studio © 2023

London Rotterdam São Paulo

live|work

livework

Imagine your organisation is well designed. Things flow smoothly and, most importantly, you deliver value to patients. Amazing.

livework

Your patients receive value

Your people can do their jobs

Your operations are vastly improved

Business is better

livework

NHS Institute for Innovation and Improvement

Department of Health

Public Health England

NHS Sussex

2008

2024

ST. OLAVS HOSPITAL
UNIVERSITETSSYKEHUSET I TRONDHEIM

Zilveren Kruis

Nuffield Health

Journey on the Virtual Ward (Pathways 1, 2, 3)

Admission Avoidance (Step-Up): Pathway 1 - AA from Gateway (ED/CDU/SDEC/AAU/AMU) & Pathway 2 - AA from Community // Early Supported Discharge (Step-Down): Pathway 3

Our patients are in need of care on the virtual ward.
This results in our **Trust** needing to have a process in place, to provide them with care.
Therefore, our operations must establish a clear approach to ensure they receive the care they need.

Referral is processed by the UCR team.	Patient referral is accepted for VW and they are admitted/onboarded to the service.	Patient is discharged from the acute to their home. (This step applies to patients on Pathway 3.)	Patient is assessed and a care plan is created (includes medicines reconciliation).	A prescription is required for the patient at the start of their care.	Remote monitoring is required for the patient.
The patient waits for their referral to be processed.	The patient is admitted and onboarded to VW.	The patient is discharged to their home.	The patient is assessed and their care plan is developed.	The patient requires an initial prescription.	The patient requires remote monitoring.
'For those last couple of days I was in the hospital, I was just itching to get home. If I had known sooner about it [VW], then I could have said: hey, why can't I make use of this service?'	*'I was happy to be going home, but very unsure of the [VW] service.'*	*'It was nice that they discharged me from the hospital and I could be treated at home. And I really do believe it actually speeded up my recovery process, because it made me feel more positive.'*	*'I [carer] just got told that it [VW] is going to be an ongoing thing. That he [the patient] is going to need carers. But we didn't really get a care plan as such.'*	*'The hospital started me on a new medication and the respiratory nurses tried to get it from the doctor. Apparently it wasn't sent up. I had to phone them, but I eventually go it.'*	*'This is like you're having 24-hour care at home with a machine, it's absolutely ideal!'*
Clinical conversation with SCDM. If the referral is rejected, a call is made to the referring clinician in the acute to add this to the patient's notes.	Patient is told that they have been accepted to the VW and that they will be discharged to their home **(P3)**		Perform initial assessment of patient. // Pharmacist attends daily board rounds.	The patient, their next of kin, or their carer collect medicine from a community pharmacy. // The Core VW Team collect medicine from a pharmacy (acute or community) or VW stock.	The Core VW Team preform a clinical visit to support the patient set up the equipment,
			Daily board round - discuss patient care plan under VW. Done in-person or remotely (MS Teams).		Daily board round - discuss remote monitoring. Done in-person or remotely (MS Teams).
UCR receives referral via phone call// Clinical conversation with SCDM.	Patient is told that they have been accepted to the VW and an ANP will visit them in their home. **(P1 & P2)** // GP is informed that patient has been admitted to VW.	Patient is told that an ANP will visit them in their home, and the approximate time they will be there. **(P3)**	Pharmacist will call the patient or their carer to understand their drug history.	Phone consultation with a VW pharmacist or doctor to help explain new or complex medication to the patient.	The Core VW Team call to set up the equipment.
UCR receives referral via email.	Discharge summary/SBAR from other PAS (not S1) to be sent to the VW team, if applicable. **(P2)** // GP is informed that patient has been admitted to VW.				
			Specialist nurse/ANP understand patients capability to use the VW equipment, if applicable.* **(P2)**		Patient receives equipment. // Patient is monitored via the equipment. //Core VW Team monitor the caseload via the dashboard.
UCR receives S1-to-S1 referral **(P1 & P2)** // Search NHS number, add patient to system (if necessary), complete SBAR template, accept or reject referral, and record reasoning.	S1 used to manage referrals and allocated patient to respective caseload(s). // S1 used to open any parallel admissions, if necessary. **(P2)**	Discharge summary is generated in S1 and sent as a letter to the patient's GP. **(P3)**	Create the care plan. // S1-to-S1 referral to the VW Pharmacy. // Pharmacist undertakes medicine reconciliation and assessment on S1.		Patient health data from Current Health can be copied across into S1, if necessary.
	Patient discharged from Nervecentre (acute) and registered again in community. **(ESHT - P1 & 3)** //			EMIS web prescription (EPMA). //	

How to design the ideal Virtual Ward

1. Patient experience - deliver the promise

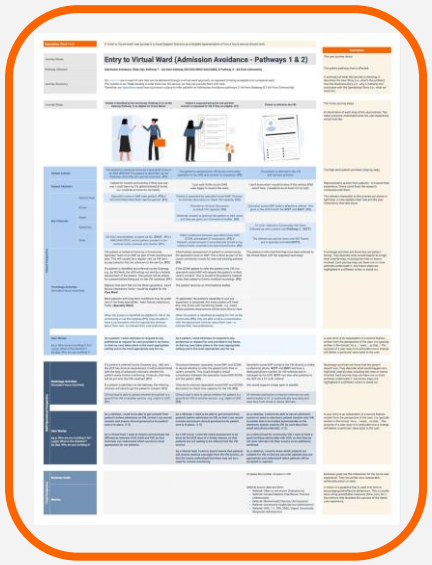
2. Align the team - create a clear understanding

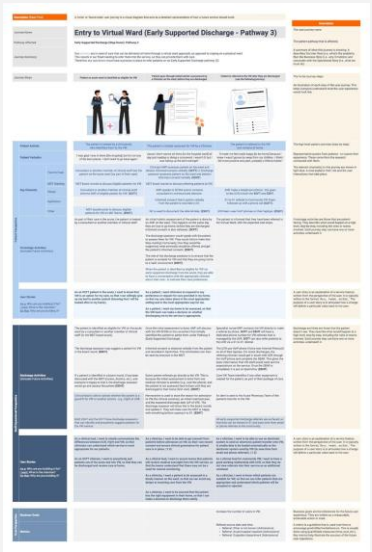
3. Clinician buy-in - define how to provide assurance

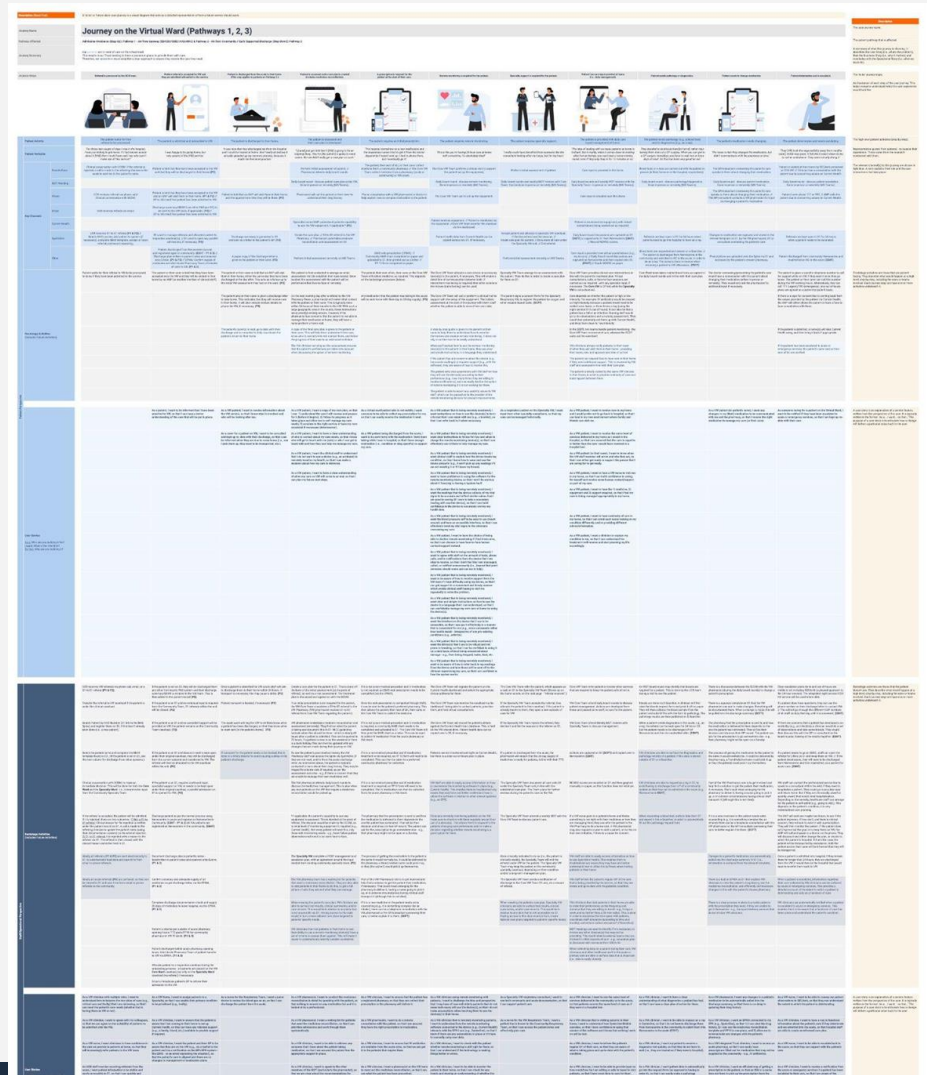
4. Business case - identify specific in-journey metrics

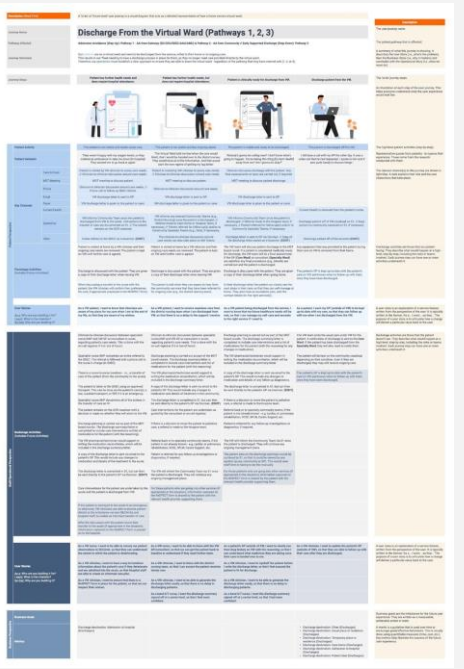
5. Lead IT - journey defines use cases, data flows and integration

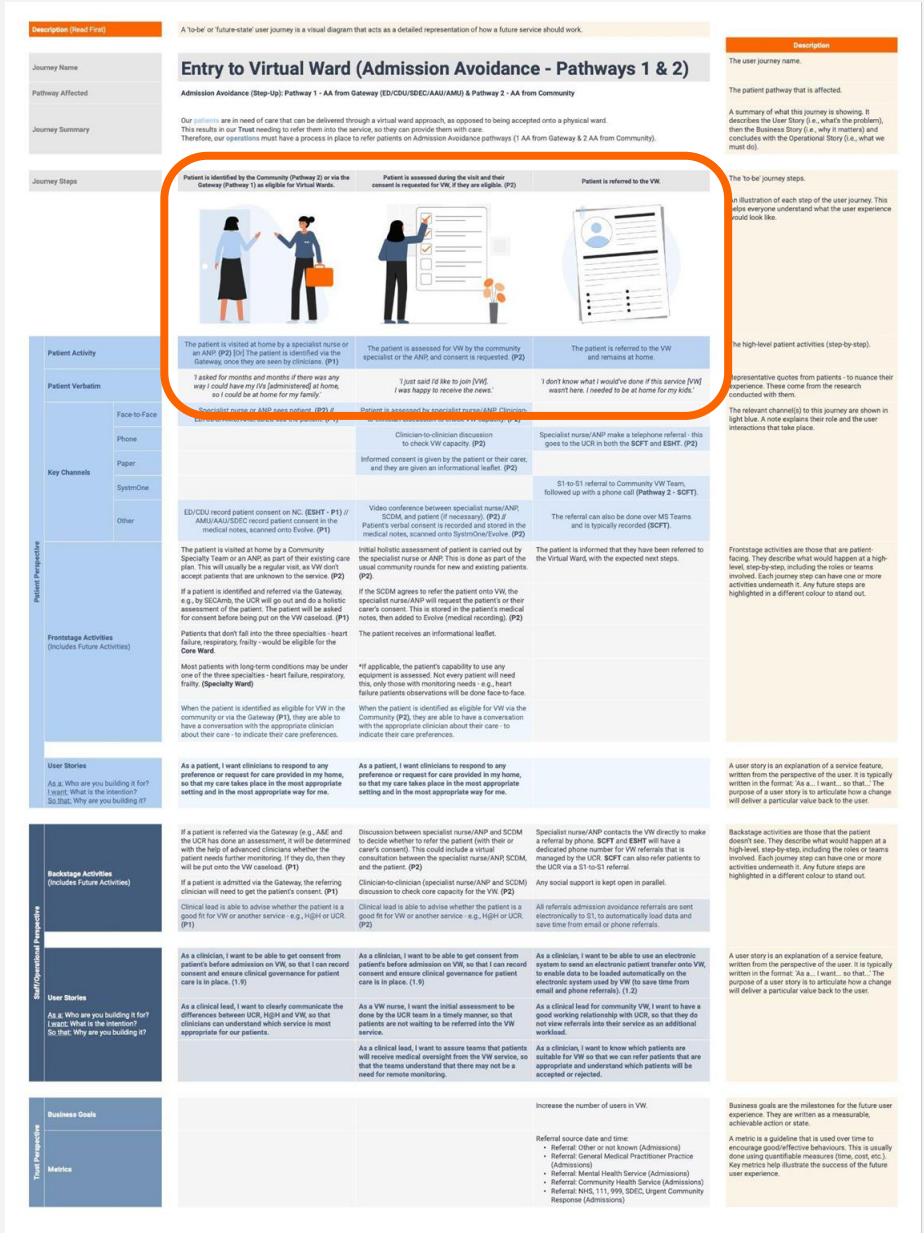
How to design the ideal Virtual Ward











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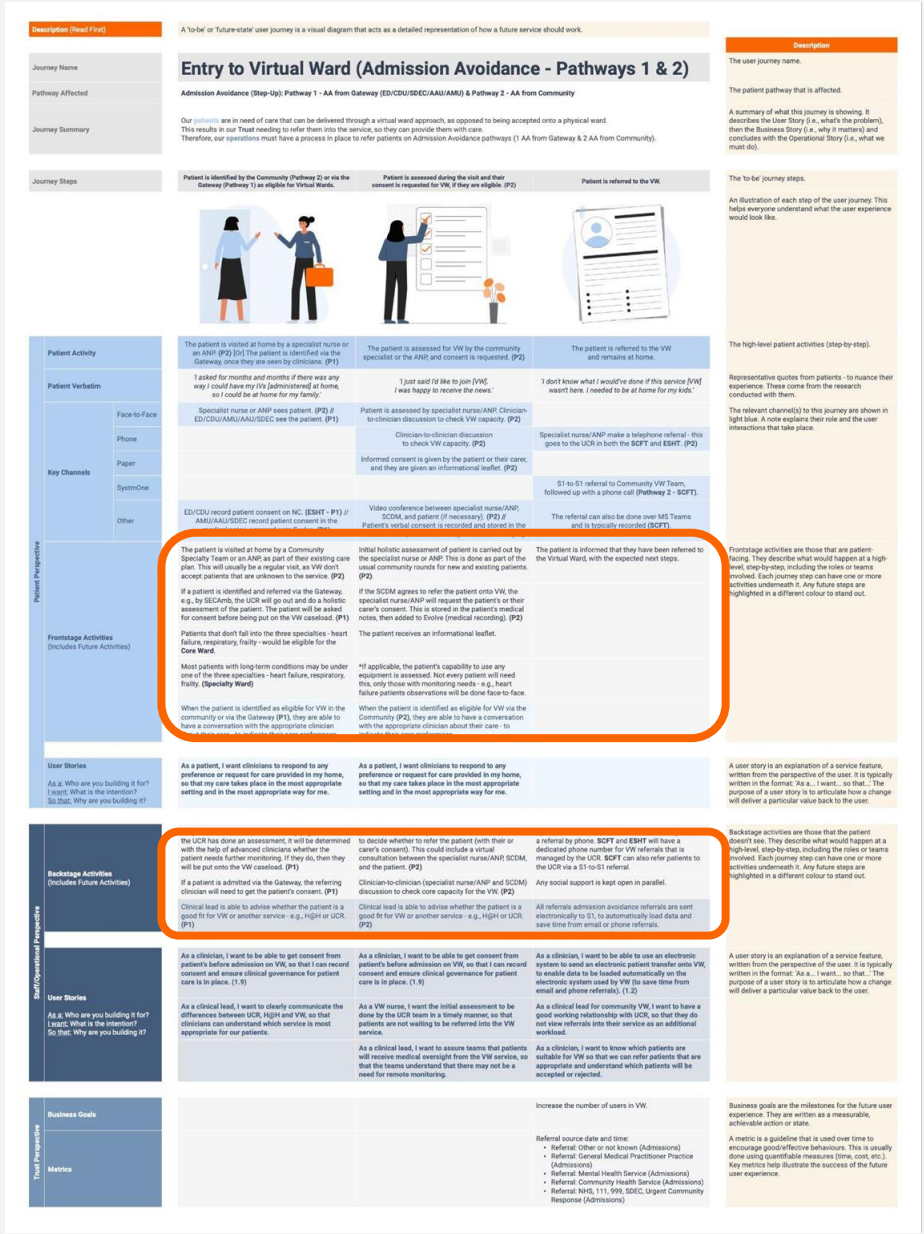
4. Measure and prove
5. Lead IT



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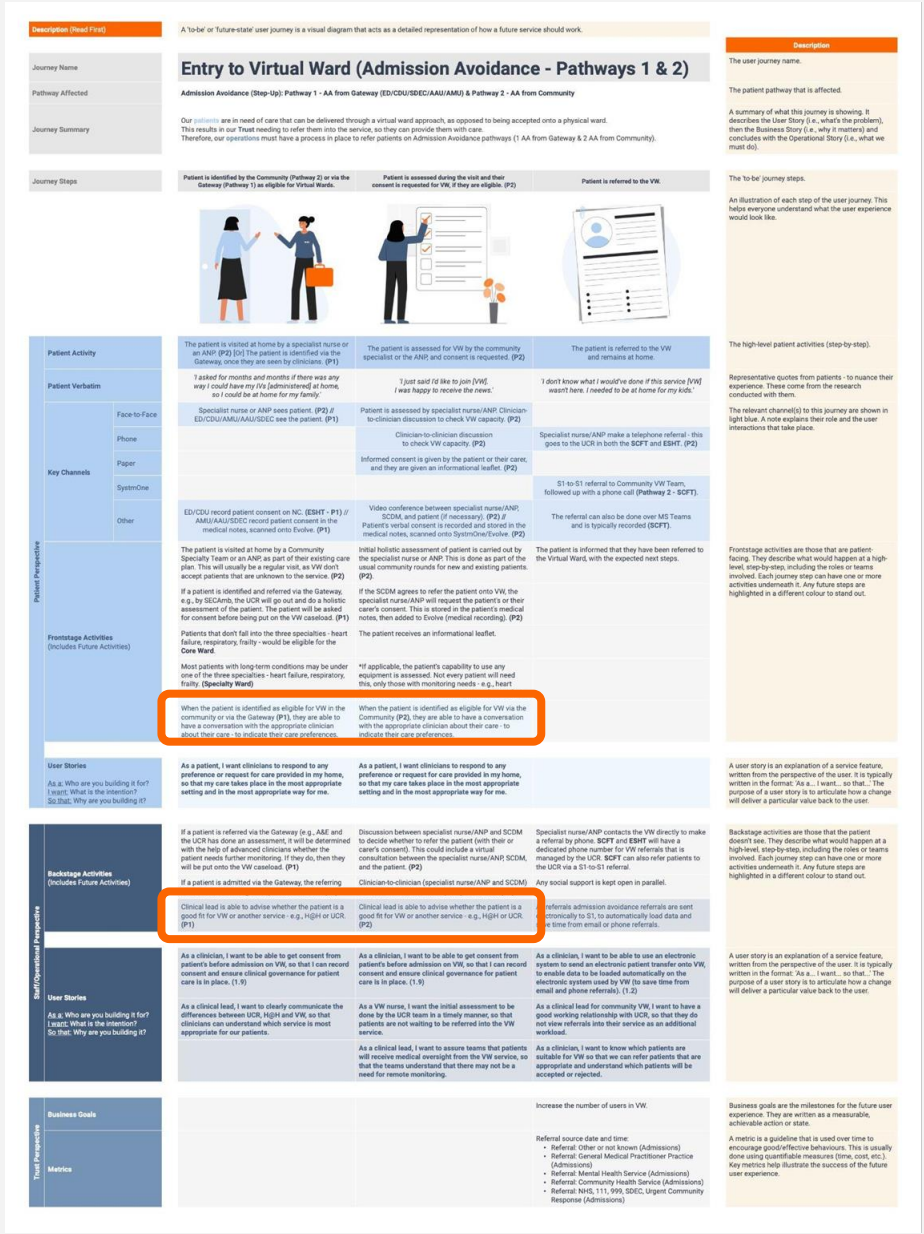

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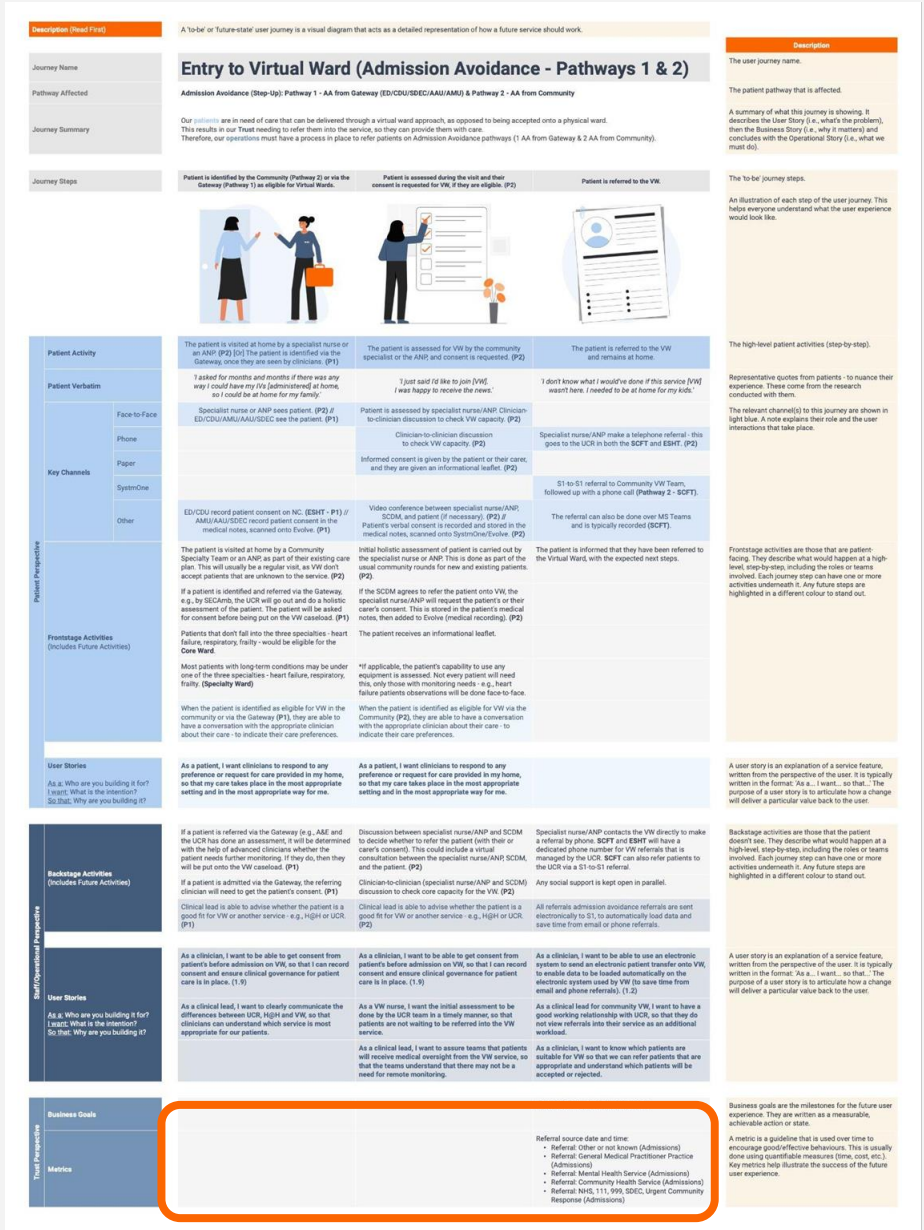

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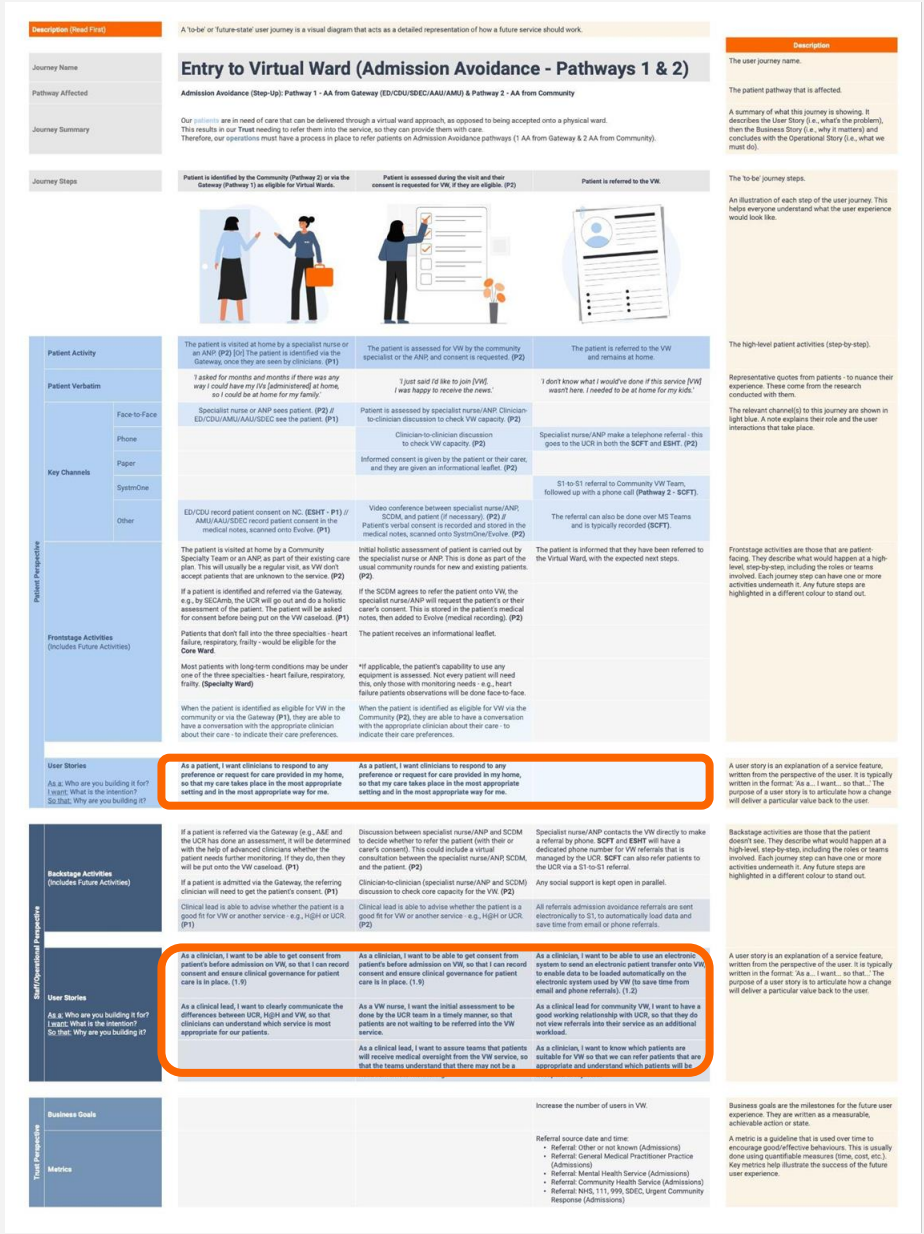

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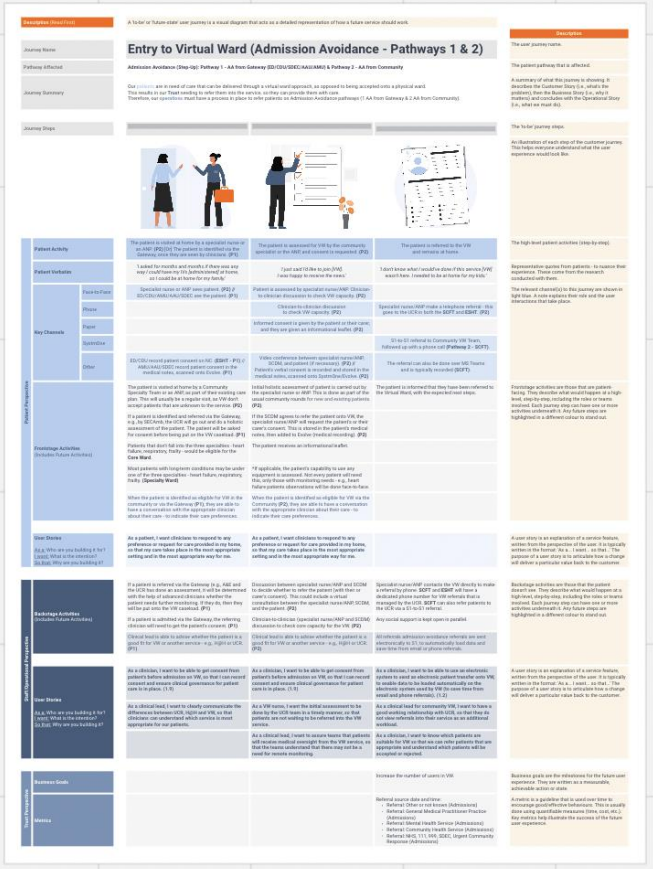
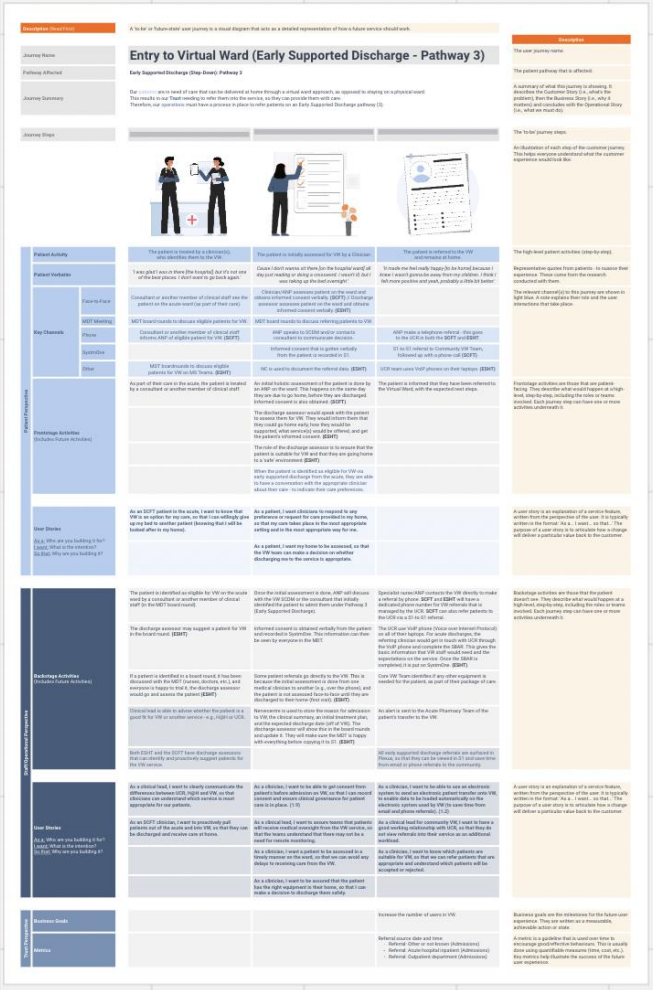
05 | Avoid the ‘IT tail wagging the healthcare dog’

1. User Journeys

Entry to Virtual Ward (Admission Avoidance - Pathw...



Entry to Virtual Ward from Acute (Early Supported Di...

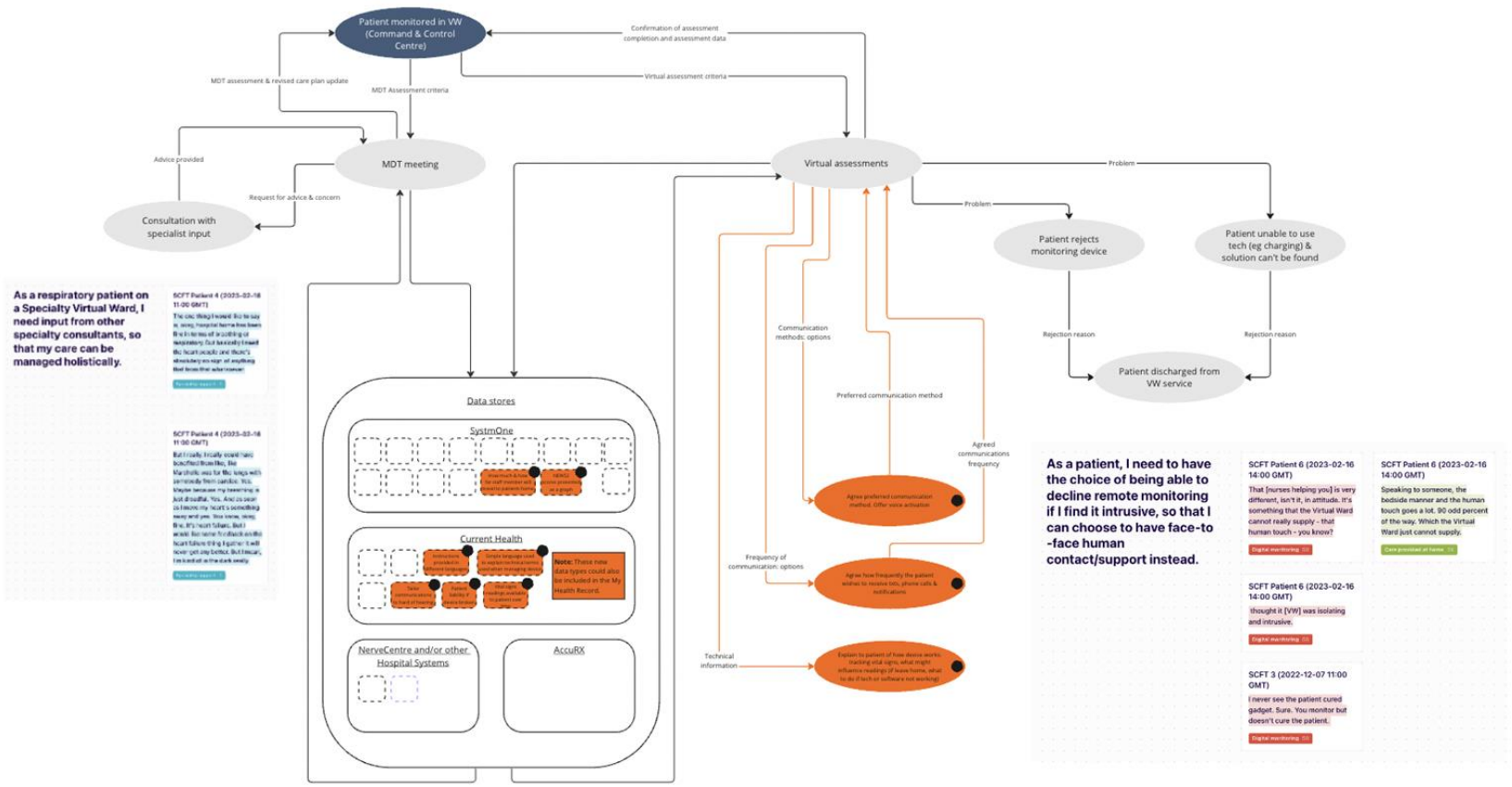


1. User journeys for referral, care and discharge from the virtual ward (staff & patients).
2. Data flows for referral, care and discharge from the virtual ward (staff & patients).
3. An index of the digital systems used on virtual wards, with a process map.

All deliverables are dated as being accurate to **20.03.2023**.

Any changes to the virtual ward service beyond this point will not be reflected.

2. Data Flows



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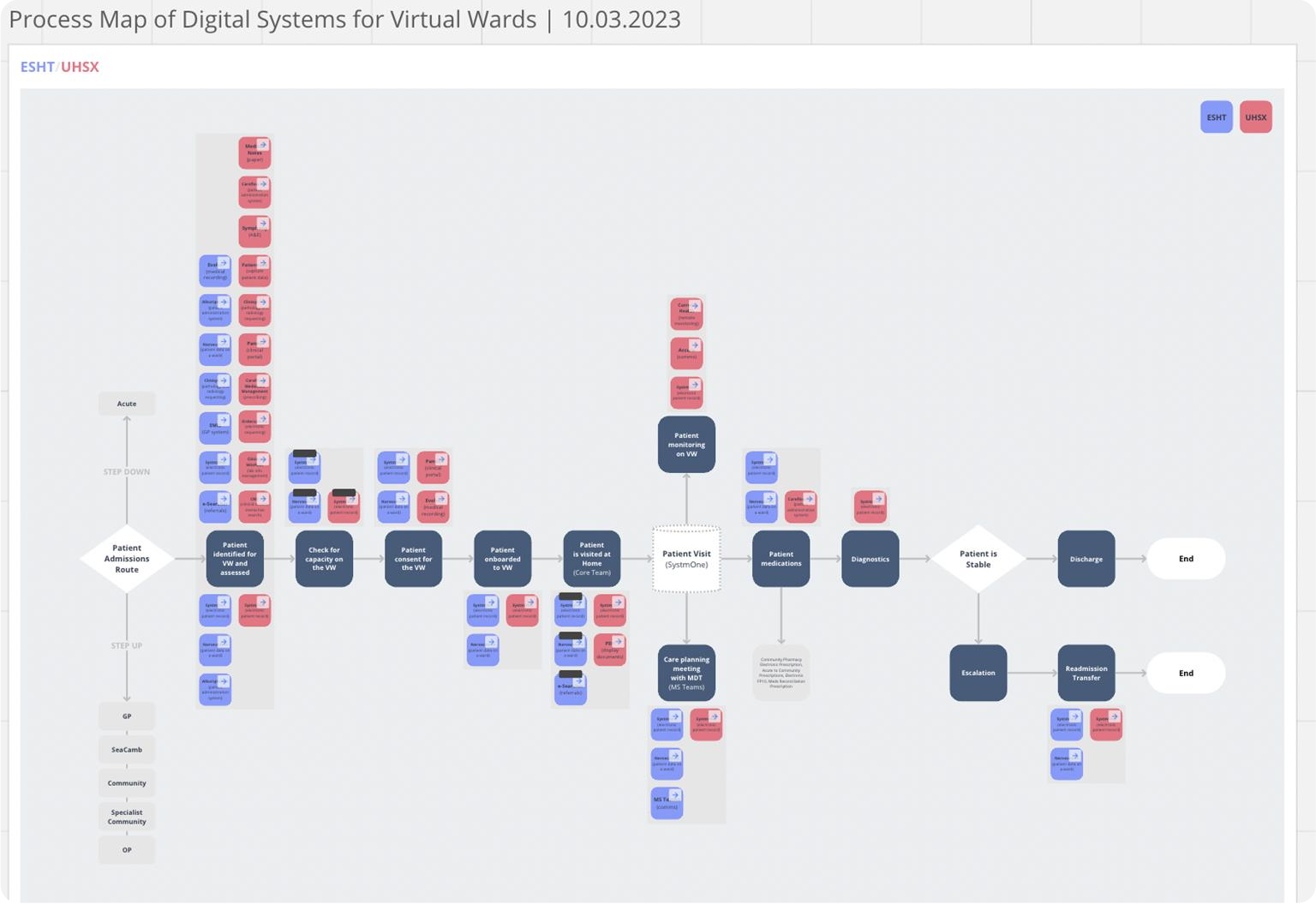
3. Index of Digital Systems

Process Map of Digital Systems for Virtual Wards | 10.03.2023



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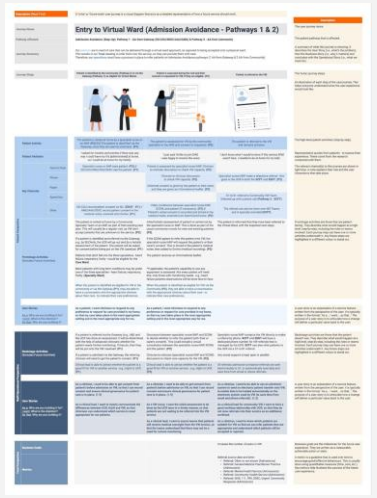
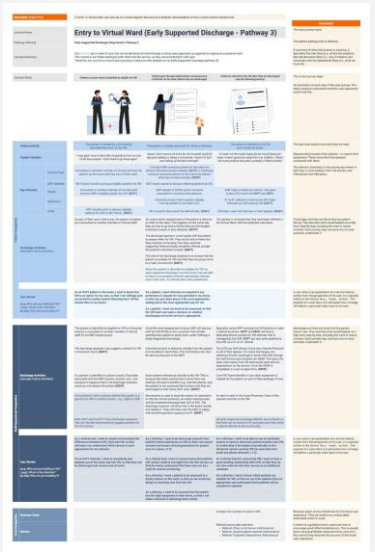
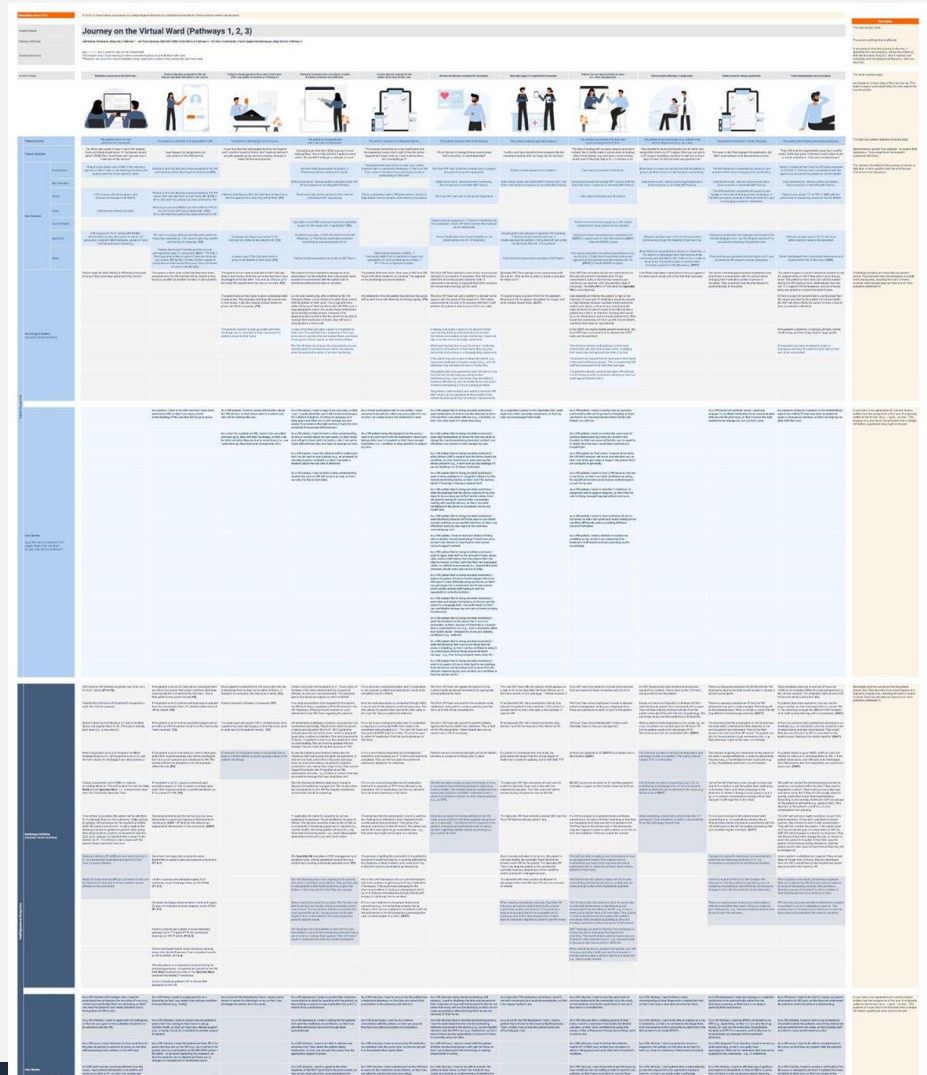
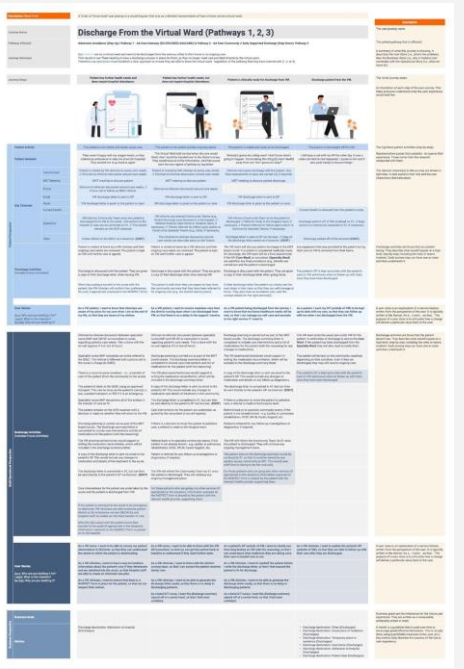
Free introductory workshop









Discharge From the Virtual Ward (Pathways 1, 2, 3)

Admission Avoidance (Step-Up): Pathway 1 - AA from Gateway (ED/CDU/SDEC/AAU/AMU) & Pathway 2 - AA from Community // Early Supported Discharge (Step-Down): Pathway 3

Our patients are on a virtual ward and need to be discharged from the service, either to their home or to ongoing care.
This results in our Trust needing to have a discharge process in place for them, as they no longer need care provided directly by the virtual ward.
Therefore, our operations must establish a clear approach to ensure they are able to leave the virtual ward - regardless of the pathway that they have entered with (1, 2, or 3).

Patient has further health needs and does require hospital attendance.	Patient has further health needs, but does not require hospital attendance.	Patient is clinically ready for discharge from VW.	Discharge patient from the VW.
The patient is not stable and needs acute care.	The patient is not stable and has ongoing needs.	The patient is stable and ready to be discharged.	The patient is discharged off the VW.
'They weren't happy with my oxygen levels, so they ordered an ambulance to take me down [to hospital]. They wanted me to go back in again.'	*'The Virtual Ward told me that when the care would finish, that I would be handed over to the district nurses. They would have all of the information. And that would start the new regime of getting my leg better.'*	*'Nobody's gonna be calling now? I don't know what's going to happen. You're taking this thing [Current Health] away from me? Am I gonna be okay?'*	*'I did have a call with my GP the other day. It was a video call that he had requested. I spoke to him and it was quite handy to discuss things.'*
Patient is visited by VW clinician to asses care needs. // Clinician-to-clinician discussion around care needs.	Patient is visited by VW clinician to asses care needs. // Clinician-to-clinician discussion around care needs.	Clinician discusses discharge with the patient. Any final assessments or tests are carried out, if required.	
MDT meeting to discuss patient.	MDT meeting to discuss patient.	MDT meeting to discuss patient discharge.	

Thank you!

ben@liveworkstudio.com

Speaking Now…

Tracy Stocker
Director of Operations for Flow and Integration
Medway NHS Foundation Trust

Technology, Innovation and Engagement – the Key Enablers to a Successful Virtual Ward

Tracy Stocker

Director of Operations, Flow and Integration

Medway NHS Foundation Trust

SRO Virtual Ward Programme Medway and Swale HCP

NHS Medway NHS Foundation Trust

Patient FIRST

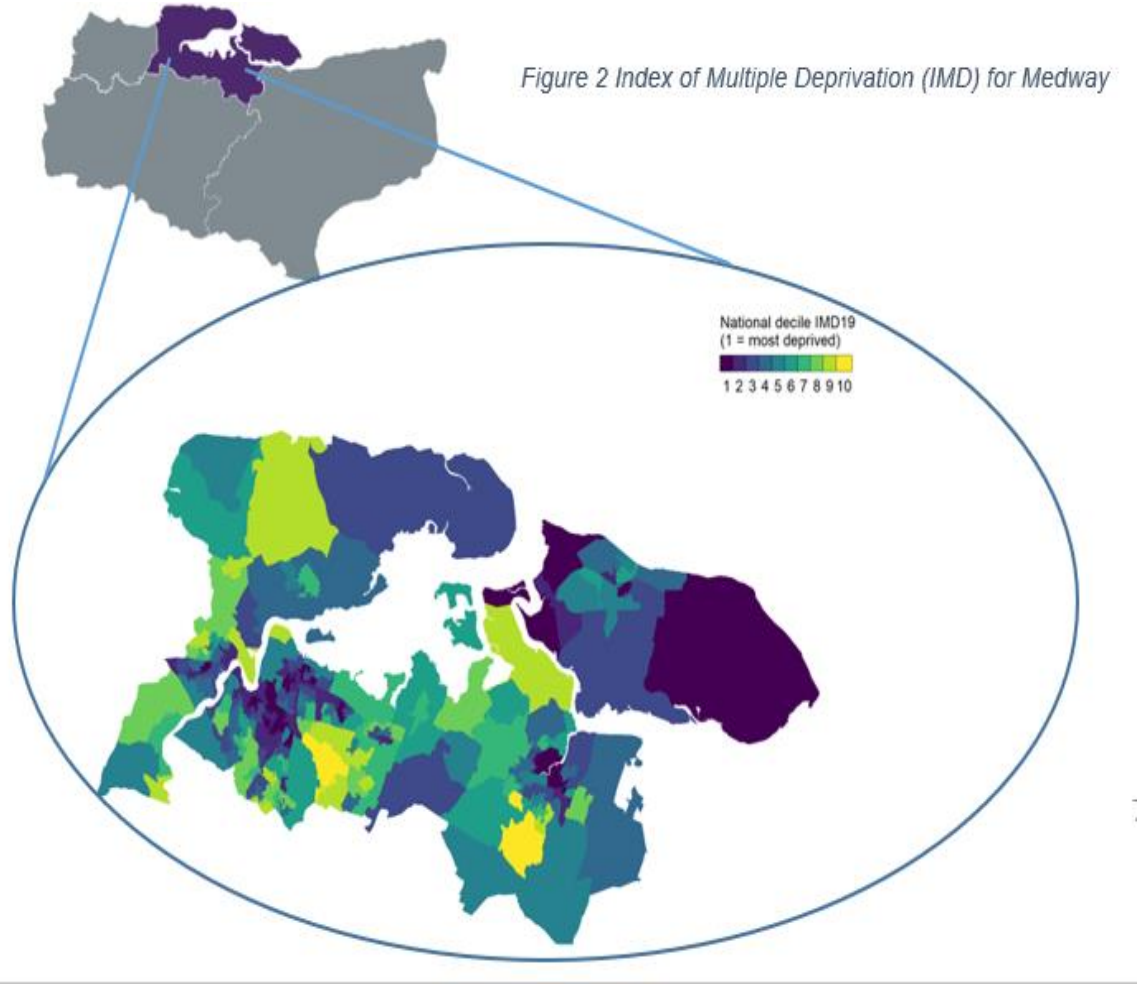


Figure 2 Index of Multiple Deprivation (IMD) for Medway

Health Profile Medway and Swale

Medway and Swale have some of the highest deprivation levels in the UK, with some wards in the 10 per cent most deprived areas in the country. 52 per cent of residents on the Isle of Sheppey do not have their own means of transport and the duration of a round trip public transport journey from Sheppey to Medway NHS Foundation Trust is 2.5 hours. This results high DNA rates, late presentation of disease, greater complexity due to acuity or the chronic nature of conditions together with increased co-morbidities.

Several factors contribute to the general health of the population. Medway and Swale is comprised of a few rural affluent areas, with the majority of the population residing in large low-income coastal communities, with densely populated deprived urban areas and heavy industry with concomitant pollution associated health risks. These environmental factors along with societal factors associated with deprivation (housing, education, employment opportunities etc.) create specific health care demands for Medway NHS Foundation Trust and its system partners.

The health of the local Medway and Swale population is mixed with 13 national indicators of health scoring better and six worse than the average in England. In addition, Medway NHS Foundation Trust provides healthcare services to some of the most vulnerable members of our community across seven prisons and young offender institutions across Kent and Medway. This population have greater health needs at an earlier age than the general population, adding to acute healthcare demands. This has a significant impact on our bed occupancy and flow from ED through to community and LA provision.

There are health inequalities between ethnic minority and white groups, and between different ethnic minority groups. People from some ethnic minority groups are more likely to report being in poorer health and to report poorer experiences of using health services than their white counterparts. Unpicking the causes of ethnic inequalities in health is difficult. Evidence suggests a complex interplay of many factors including deprivation, environment and health-related behaviours. COVID-19 has shone a light on inequalities and highlighted the urgent need to strengthen action to prevent and manage ill health in deprived and ethnic minority communities.

Our Journey

- MFT H@H Service was commissioned in 2009, as An 18 bedded virtual ward to care for patients who required Neb and O2 weaning and IVAB prior to discharge
- Bridging team was an Enhanced Recovery pilot for post op breast/urology and bowel surgery which was established within the surgical directorate in 2011. This pilot was to aid early discharge and admission avoidance.
- The success of the Bridging team led into an expansion of the service to cover the whole of surgery and orthopaedics. In 2013, SPET (Surgical Patients Enhancement Team) was set up.
- In 2018 Further expansion to allow integrating of all Directorates/ specialties led into the amalgamation of SPET and H@H. SMART (Surgical medical acute recovery Team) was born.
- In 2016, Vascular access was launched with SMART to enhance the OPAT Pathway..
- CMDU was launched 2021 to minimise the potential of vulnerable patients contracting COVID, from getting sick enough to warrant a hospital admission
- RPM initially introduced in June 2020 to support in-patient COVID Wards – not fully embedded
- Two weeks later ruled out and RPM introduced to the SMART H@H ward to support our patients

Bed Capacity for Acute Hospital Discharge and ED

60 with current staffing, regularly in excess of 90, increasing to 100 once recruited

Community capacity

50 Beds across 2 providers

Working Hours

8am to 8pm looking to increase to 24hrs

Out of Hours

111 / 999

WORKFORCE

- Clinical Nurse Lead
- Vascular Access CNS's
- Clinical Sisters
- Staff nurses
- Physiotherapist
- Nurse Associate's
- Therapy Assistant practitioner
- Clinical support workers
- Admin support

Medical Cover

Acute physicians, 3 PA weekly, supporting SMART, clinical reviews, medical decision making, MDT, OPAT, and clinical governance

SMART Acute Medicine Specialist Doctor, 12 PA, supporting SMART Mon – Fri

Microbiologist (2 hrs weekly) for MDT OPAT
On call specialty Drs PRN for planned and trauma / surgical emergency patients

Inclusion Criteria **subject to SMART/MDT risk assessment**

- Over 18 years old
- All specialties
- Admitting consultant agrees to transfer with clinical support via the referring Team
- Patient must reside within the Medway Swale catchments area. (If not, then patient must agree to attend SDEC when face to face treatment is required
- Patient is safe to start acute treatment or continue acute care in an outpatient setting
- Patients / NOK must have access to a telephone in working order (Remote monitoring to be issued to allow communication with SMART)
- Patient requires only short term care (1-14 days)
- The patient will be able to transfer independently and mobilise short distances safely. However, if they have full time care available within the place of residence, the patient can be accepted onto the scheme
- The patient is compliant with the proposed care and is not confused or disorientated. (Exceptional to living with a responsible fulltime adult or a safe patient tailored safety net can be implemented)
- Any long term complex care needs will be managed by the patient or ongoing care needs must be met by the patient. (e.g. Stoma, catheter, etc.)
- Referral team agree for SMART to directly facilitate re-admission of any patient who requires urgent surgical or medical treatment, via SDEC/SAU/HOT CLINIC/ED via Clinical team on call as expected.
- Patient and family must agree to discharge onto SMART ward.

Exclusion Criteria

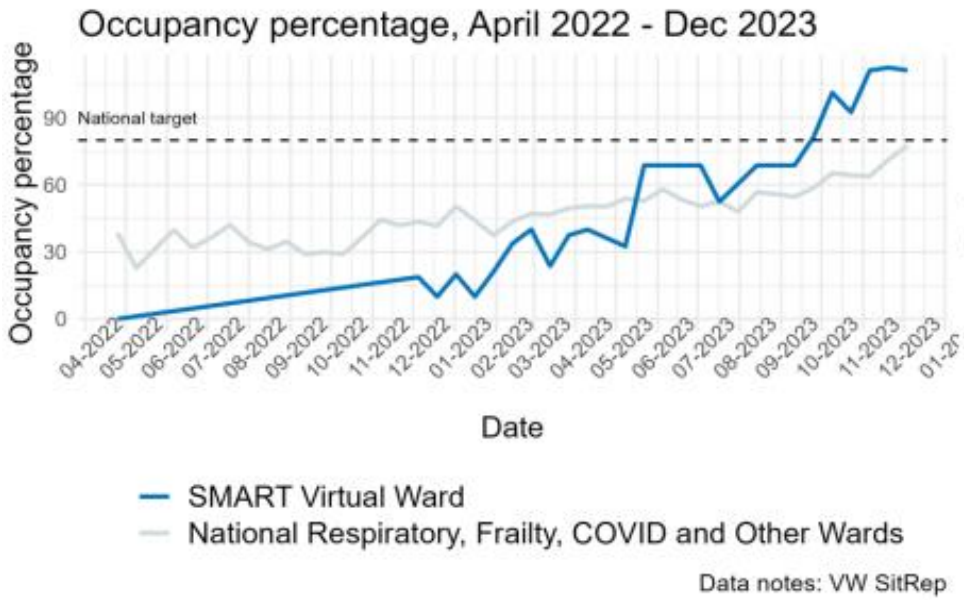
NHS Medway NHS Foundation Trust

- Patients under 18 (for SMART VW)
- Patients that live alone and their safety cannot be mitigated
- Patients to whom SMART has no clinical skills to provide care to
- Patients who are assessed as lacking capacity to consent (Including Dementia, and a safety net cannot be put in place.
- Patients who are assessed and deemed high risk (Risk to staff due to lone working, if cannot be mitigated, as well as risk to self)
- Patients with altered states of consciousness (fits/cerebral events) There will be individual exception to this rule
- Acutely hypoxic patients
- Patients outside the Medway/Swale GP catchment area There will be individual exception to this rule

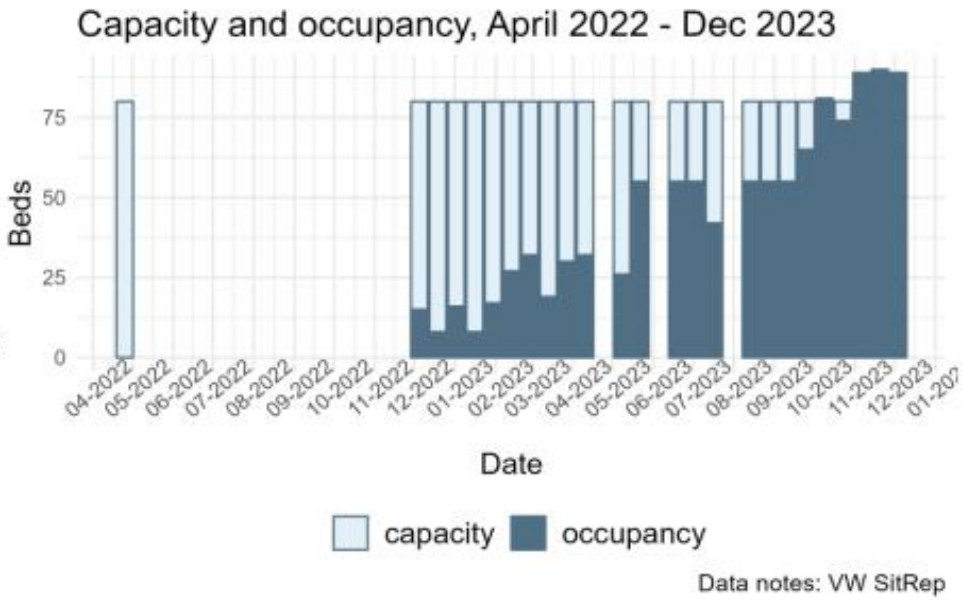
4. Capacity and Utilisation

4.4 Occupancy rate

Occupancy is captured as a snapshot at 8am on the Thursday in the week prior to submission. Providers should work towards achieving and maintaining occupancy of 80%.



Data notes: VW SitRep



Data notes: VW SitRep

One platform, providing technology to enable good quality care at home

Medway NHS Foundation Trust

Provision of **High-quality technology.**

Our advanced technology comprises a diverse ecosystem of CE/CA marked devices for continuous vital sign monitoring, and intermittent vital sign capture. This enables remote patient care across diverse clinical pathways.

- RPM Devices
- Telehealth
- Clinical Dashboard
- EPR Integration

Wrap around **Programme support.**

The delivery of high-class technology alone is not enough for a successful care at home programme, so we've developed extensive wrap-around services to aid your programme's operations.

- Professional Services
- Clinical Research
- Logistics Services
- Virtual Monitoring Hub

Our step down Virtual Ward includes:

- Post Operative ESD
- Post Operative direct from Recovery (Breast Surgery & urology Patients)
- Heart Failure
- Respiratory
- Accufuser IV's
- Orthopaedic
- Frailty

Our step up Virtual Ward includes:

- Heart Failure
- Respiratory
- Frailty
- Acute Clinical Investigations and Monitoring
- Acute Infection Treatments
- Attendance Avoidance, deteriorating patients under the community Virtual Ward reviewed at home by the SMART VW Doctor. PoC testing conducted to aid diagnosis / treatment
- Referred from ED, SDEC, Assessment Units; Community referrals from Community Virtual Ward

Pilots

- Paediatric pilot
- Neonatal pilot

A single platform delivering across multiple use cases

Medway NHS Foundation Trust

Virtual Wards

Improve the availability of in-patient beds, increase capacity, and reduce unnecessary hospital re-admissions, through the safe enrollment and monitoring of patients on virtual wards.

Transitional Care

Proactively manage step-up and step-down care to help prepare for a planned hospital admission or a planned patient discharge, whilst retaining clear insight into patient health.

Chronic Care

Effectively manage large patient populations and deliver preventive care through personlised, low-touch care plans, whilst retaining a holistic, real-time view of patient health.

Clinical use cases

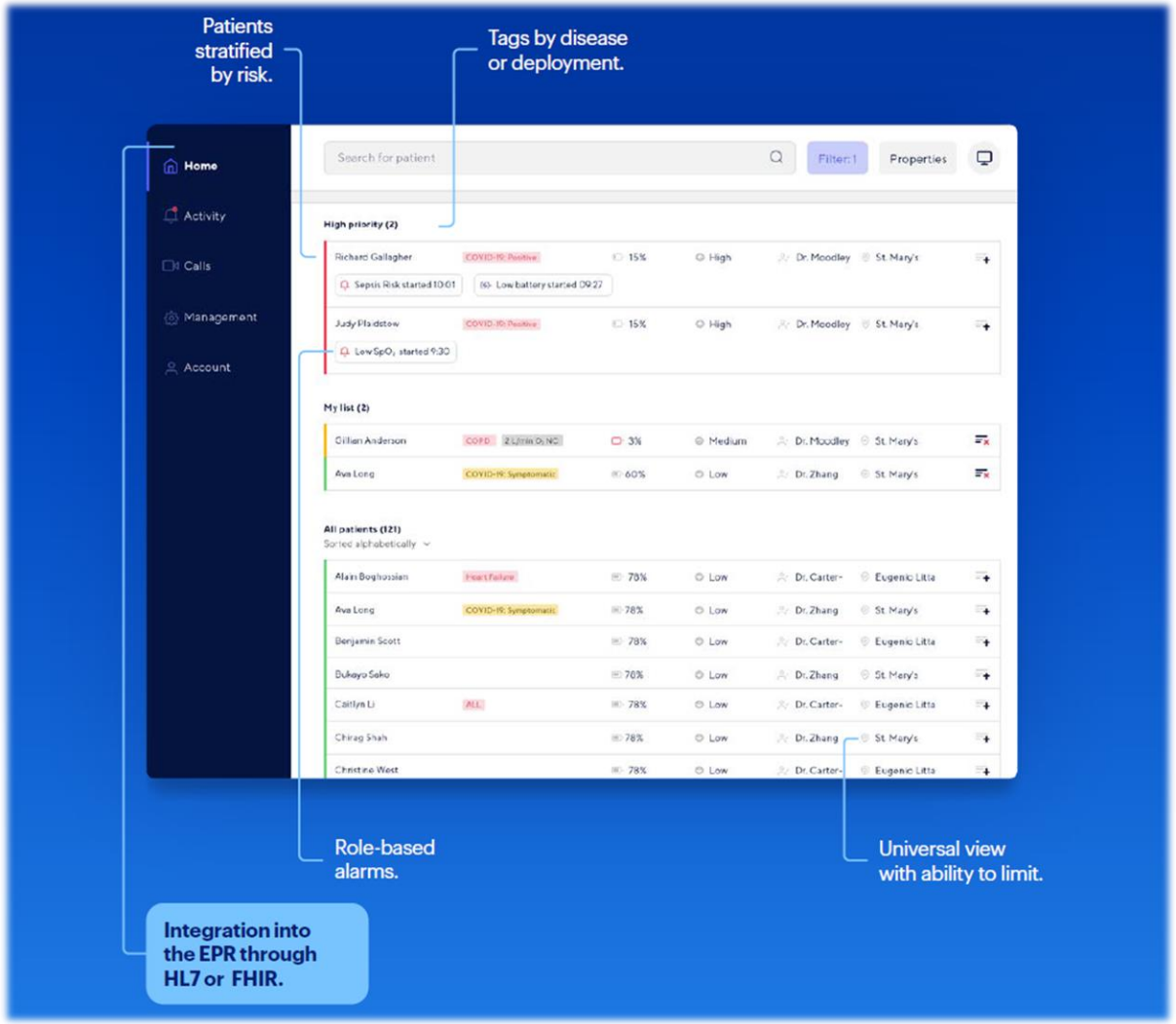
We provide a configurable platform that can be tailored to the clinical condition and acuity of each patient. Our team of clinical and operational experts will help you design, build, and scale your programme.

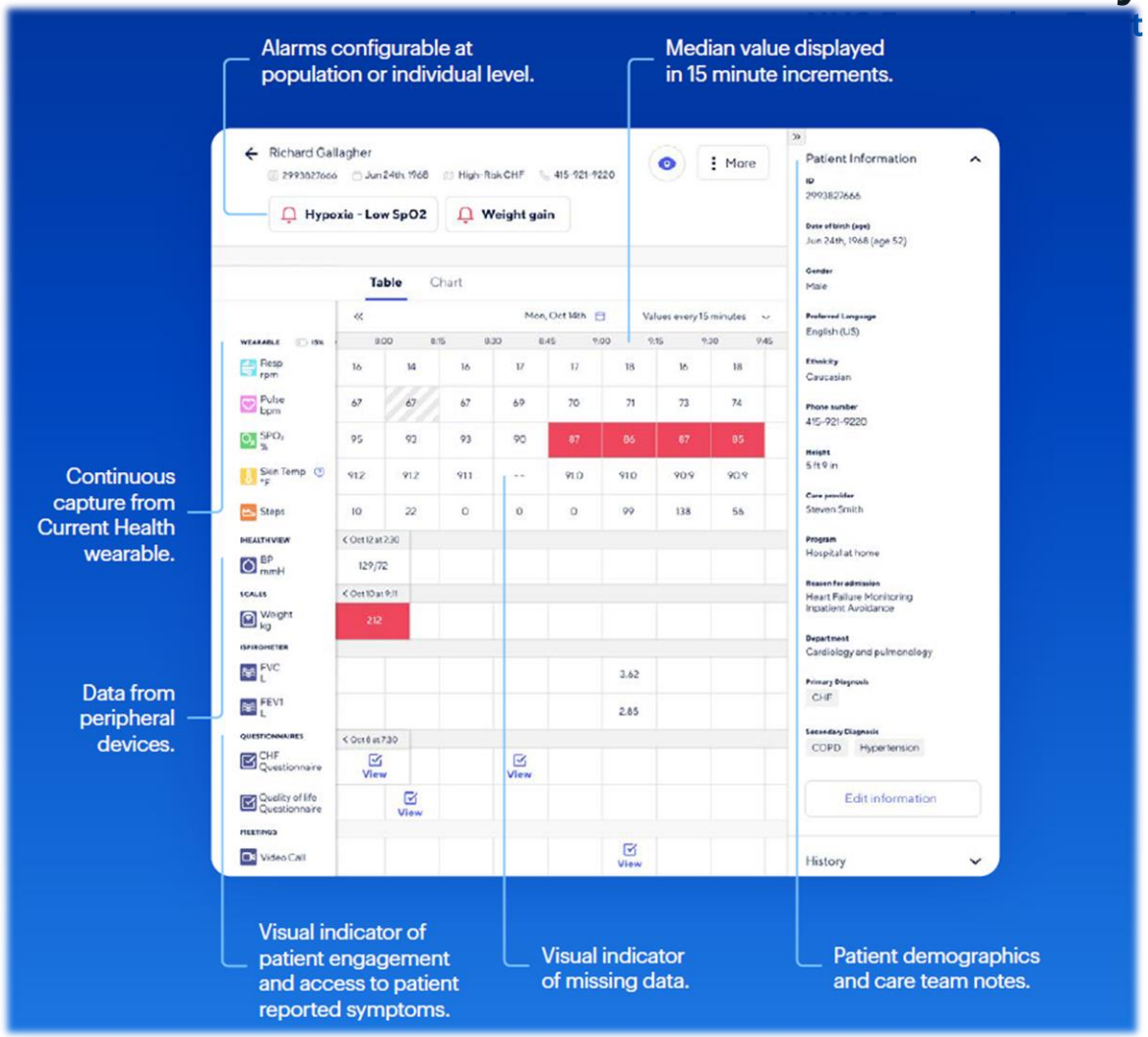
Common use cases include:

- Acute Respiratory Infection
- Frailty
- Heart Failure
- Acute Kidney Infection
- Pre and post surgery
- Diabetes
- Oncology

One dashboard for all clinicians

NHS Medway

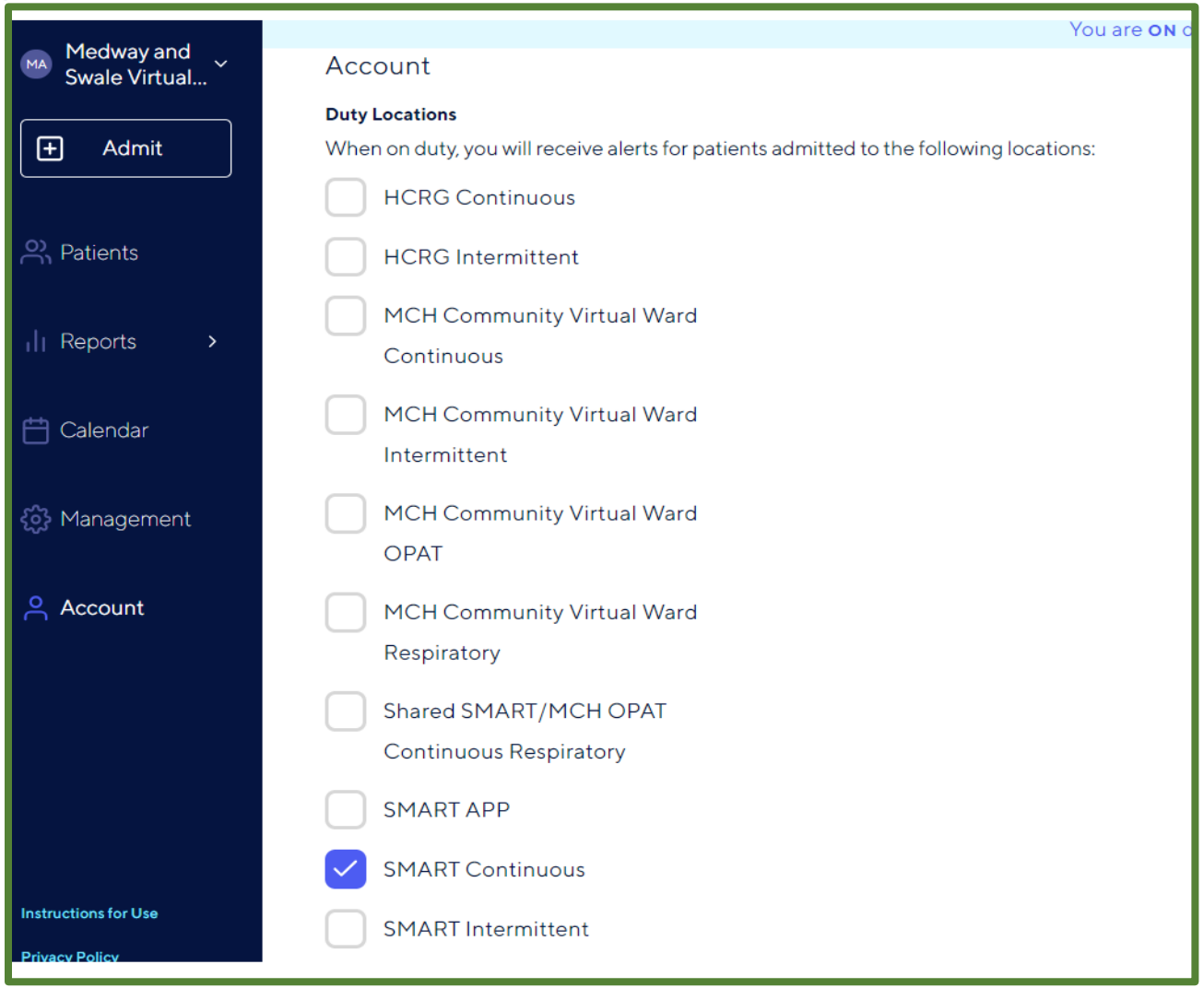




Enabling Care at Home for Everyone

Collaboration across Acute and Community Providers

- One Doctor, based in the Acute, with permission to view all patient data across all organisations reviewing virtual patients
- Both of our community organisations has permission only to view their patients (GDPR)
- SMART can view all patients as the lead organisation for VW (information sharing agreement)



Care at home Technology

NHS
Medway
NHS Foundation Trust

Capture the broadest picture of patient health with access to continuous and intermittent RPM devices in addition to patient-reported data.

The [redacted] wearable device.

Our CE/CA-certified wireless biosensor continuously and passively captures vital signs with the same accuracy of an ICU monitor, providing hospital-grade monitoring at home for (PROMS) patients.

- Pulse rate
- Respiration rate
- Mobility and step count
- O_2 Oxygen saturation
- Body temperature

Best-in-class peripheral devices.

Devices come preconfigured as part of our kit for easy patient setup. Data is transmitted wirelessly and integrated into our clinical dashboard for a single view of patient health.

Patient reported outcomes (PRO).

Daily activity data and self-reported symptoms provide a holistic picture of patient health and help teams to monitor care, plan engagement and medication adherence.

Care at home Technology

Making care at home accessible for diverse patient populations

Connectivity for all

We provide everything the patient needs to get online, including cellular connectivity wit connection, and a tablet to help inc our patients.

88%

of patients 'strongly agree' or 'agree' it was easy to set up the kit[4]

Pa

No action is needed hare their data, everything is transm to the Current Health platform through wireless connection.

Simplified instructions

Easy, clear, and visual instructions for patients with low literacy levels – all patient-facing content written at age 10-13 reading level, translated in to multiple languages.

Benefits and efficiencies

MFT identified recurrent non-cashable productivity benefits:

Data from November 2022 to October 2023 was analysed at spell level, the key data being occupied bed days, and cost difference between acute physical beds and virtual ward beds as the key metrics in calculating these benefits.

During this period 8,848 bed days of virtual ward activity were carried out, potentially saving 8,848 bed days of acute hospital in-patient admissions.

The cost of virtual ward bed (FY23 costing) is £130 per day, whilst average cost of in-patient acute hospital bed is £433 per day.

From this analysis:

Total av. cost of activity if all 8,848 bed days were in acute physical hospital beds is £3.83M

Total cost of the same activity and bed days in virtual wards is £1.15M

Cost differential benefits (productivity savings) on the 8,848 bed days spanning Nov 22 to Oct 23 is calculated as £2.68M

During the stated 12 months period:

959 virtual ward spells were carried out.

Of this, 402 were electives which provides additional benefit in delivering our elective recovery plan and supports an increase in elective flow

NHS Medway NHS Foundation Trust

Overall, virtual wards benefits could be summarised into the following:

- Length of stay reduction in a physical bed
- Workforce efficiencies – with potential release of clinical time for direct clinical care in the acute setting
- Readmission rate reduction
- Admission avoidance – especially from ED
- Release of elective and elective beds
- Improved flow across the trust supporting the front door

The most important benefit is to our patients; Our tech enabled VW addresses many health inequalities across our HCP (smart device, connectivity, location, access to transport, carer responsibilities, discharge from recovery) . Evidence suggests patients have better recovery at home with improved experience and outcomes.

Feedback from our patients and carers;

"Very good support after operation. Especially for people on their own and having the tablet to stay in contact is a really good idea"

"Better alternative to hospital stay" *"Very efficient feel safer"*

"Much better at home than having to stay in hospital for the same treatment"

"It nice to know that I'm being monitored without having to be in hospital. There's always someone at the end of the phone if you need reassurance and them checking in that everything is OK"

Neonatal Virtual Ward Pilot

Medway NHS Foundation Trust

Why we decided to do it?

Establishing feeding is often the final area holding babies back from being discharged from the Neonatal Unit once medically fit in all other areas clinically.

This can be frustrating for parents, especially when they have other children at home to split their time between, long distances to travel, and the separation of families in general.

Sending these babies home earlier NGT feeding reunites families, promotes Family Integrated Care, improves parental confidence, improves developmental outcomes and reduces the demand on neonatal cots.

How are we using tech?

The Virtual Ward has funded scales for the Short-Term Home NGT Service, which has enabled us to loan the scales to families

for the duration of their early discharge so that parents can weigh their babies daily, reducing the Outreach Team's travel time for daily home visits.

Criteria

Brief Criteria for the Short-Term Home NGT Service:

Corrected gestation 34 weeks

Current weight >1.6kg

Clinically Well

Maintaining temperature

Feeding: taking two full suck feeds in 24 hours

SaLT assessment completed

Location within Outreach region

Parents completed Unit NGT competencies

About the team

At Medway the Neonatal Outreach Team are a team of experienced Neonatal Nurses and Clinical Support Workers, who support families from admission through to discharge and beyond. This can include referrals to outside agencies and charities, mental health support and home visits post discharge. We also run the Short-Term Home NGT service, ROP clinic, RSV Clinic, Home Oxygen and deal with all safeguarding for the unit.

Case Study

Virtual Ward

Utilisation of remote patient monitoring to improve capacity and reduce acute bed requirements.

Patient FIRST

NHS Medway NHS Foundation Trust

The issue

- Identifying opportunities to support post-op patients out of the acute hospital at the start of and during Covid.
- Our post-op breast patients who needed a surgical drain that requires acute monitoring prior to discharge, were being admitted onto a ward with an average seven day length of stay in an acute bed for monitoring.
- Daily visits to support these patients by the team was not practical due to capacity.
- Patient reviews carried out by phone led to patients receiving a face-to-face visit most frequently because patients, descriptions of concerns needed clinically verifying.
- This put additional pressure on the service to accommodate a patient often resulting in a couple of days stay in an acute bed before they could be transferred to the SMART team.

In April 2023, twelve patients were directly admitted onto the virtual ward (VW) following breast surgical procedures.

The combined length of stay (LOS) on the VW was **73 days average 6.08 days**. The majority of these patients had drains in place and require some remote monitoring via RPM technology. There were 27 face-to-face visits by SMART practitioners across these patients who were supported via Remote Patient Monitoring (RPM) technology. These patients were brought back in for the drain to be removed and then discharged from the SMART virtual ward.

This pathway provided a **73-day elective bed saving in April** which provides an efficiency in length of stay and flow and a cost avoidance. This pathway enables these physical elective beds to be used for other elective patients, freeing up bed days to enable additional elective activity which will contribute towards meeting/exceeding operational planed activity.

What we did to make a difference

1. Hospital at Home pathways for inpatients suggest daily face-to-face visits to ensure patient safety. However, the introduction of Remote Patient Monitoring (RPM) enabled SMART to accept patients directly from recovery when safe to go home, directly onto the virtual ward.
2. Patients were educated on post-op pain control and taught how to change redivac bottle.
3. All patients are called twice daily via video and remotely monitored via RPM.
4. Patients have a chat link to communicate with the SMART virtual hub nurses.
5. Patients feel empowered by being involved in their care.
6. We have a ratio of 1 HCP to 20 patients on our virtual pathway.
7. RPM requires less face-to-face interaction and more virtual care.

Our key outcomes

Average LOS of a breast patient is **seven days on a ward**, this **saves** an average **seven acute bed days per patient**

Face-to-face interaction 2x weekly for wound review and bottle change if required.

Patients are able to **recover in their home environment** which is generally agreed as a driver for quality health outcomes

Pain well controlled due to self-medication.

Bed day efficiency which supports improvement in our elective capacity.

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THANK YOU

Up Next…

inhealthcare

Virtual Care_a patient and clinical perspective

29th February 2024

Vicki Dhanjal – Business Development Director – Virtual Care

Vicki Dhanjal
07860189294
Vicki.dhanjal@sciensus.com

1.

Patient Experience

2.

Our insights after providing decades of care for patients at home

3.

Efficiencies play

4.

Our learnings – digital solution

Sciensus

Virtual Ward Defined

Vicki Dhanjal
07860189294
Vicki.dhanjal@sciensus.com

NHS Virtual Ward defined: ***Hospital-level care at home safely and in familiar surroundings, helping speed up recovery while freeing up hospital beds for patients that need them most, including:***

- Blood Tests
- Administering treatment
- Ward round through video technology
- Technology through Apps & Wearables

+20 years heritage
+60 pathways
Support hospital run virtual wards to increase capacity with hospital @ home services

Remote monitoring

Success

Co-design bespoke pathways with NHS colleagues
Co-design materials with patients
Arming workforce with required skills
Agility
Marketing rigour

Sciensus

The efficiencies gain

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Technology

Technology

NHS

- Blood Tests
- Administering treatment
- Ward round through video technology
- Technology through Apps & Wearables

Interoperability
All touchpoints
Optimise workforce
Empower & educating patients

Sciensus

Our learnings_digital solutions considerations

Vicki Dhanjal
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- Digital pathways designed to fit your need and flexible to your ways of working
- Integrated with local systems to ensure data is available across the health system
- Digital solutions and integration beyond immediate need eg appointment management, long term condition management, self-management, self-referral, PROMs
- User interface with simple navigation and ongoing support for users

Sciensus

Thank you

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SCAN ME

Lunch & Networking

Chairs Afternoon Address

Dr Gurnak Singh Dosanjh
GP and ICB Clinical Lead for Home First
Leicester, Leicestershire and Rutland ICB

Up Next…

MASIMO®

Slido

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SCAN ME

CONVENZIS

Speaking Now…

Dr Iain Goodhart, MBChB BMedSci FRCA FFICM MPhil MA
Consultant in Intensive Care and Anaesthesia, and
Director of Acute Care - Cambridge University Hospitals
NHS Foundation Trust

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Virtual Care, Effective Care

Dr Iain Goodhart

FRCA FFICM MPhil MA

Cambridgeshire & Peterborough Integrated Care System

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NHS Foundation Trust

It was the most marvellous and efficient service. There was never a delay in speaking to someone and the support and advice around pain management and medication was superb. I had suffered a pulmonary embolism on 25 th May and needed to be stabilised before undergoing a 2nd operation on 9 th June. After 8 days as an in patient I was visibly deteriorating psychologically and physically after being on a short staffed overcrowded noisy ward with no daylight.By being discharged to the comfort and peace of my beautiful home I was in the best possible psychological and physical state to undergo further surgery which I am pleased to report was successful

Free text patient feedback response from June 2023

Cambridgeshire & Peterborough Integrated Care System

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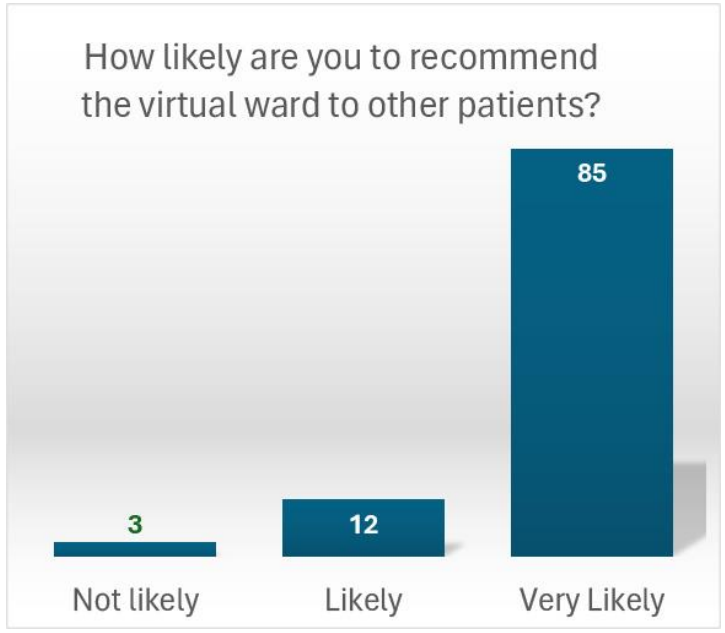

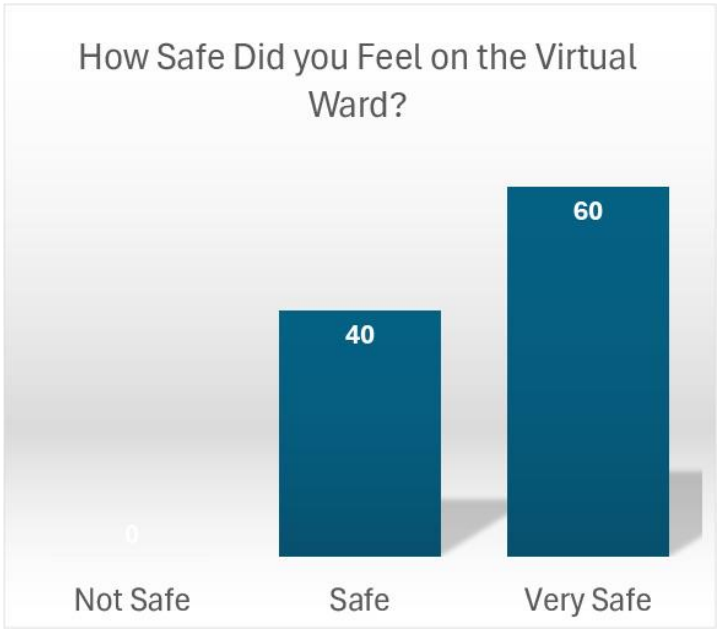

Cambridgeshire & Peterborough Integrated Care System

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CUH

Consultant Oversight

24/7

Open to all

Inclusive

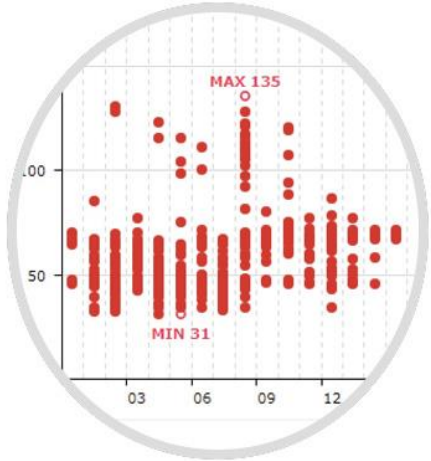
Technology enabled

Individualised, patient centric care

Home care as required

Occupancy currently @ 72 per day

32 Specialities



Cambridgeshire & Peterborough
Integrated Care System

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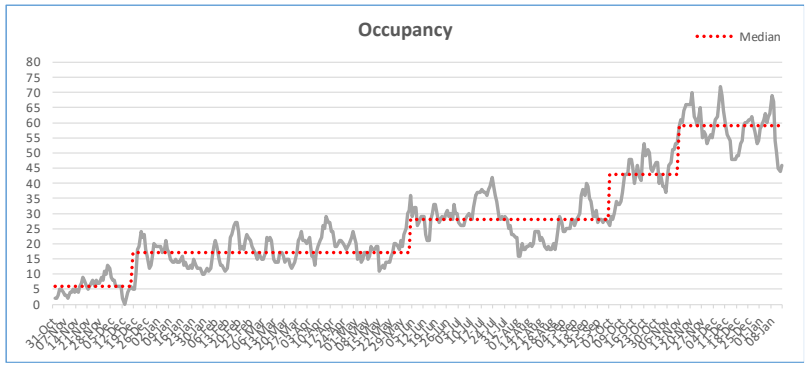
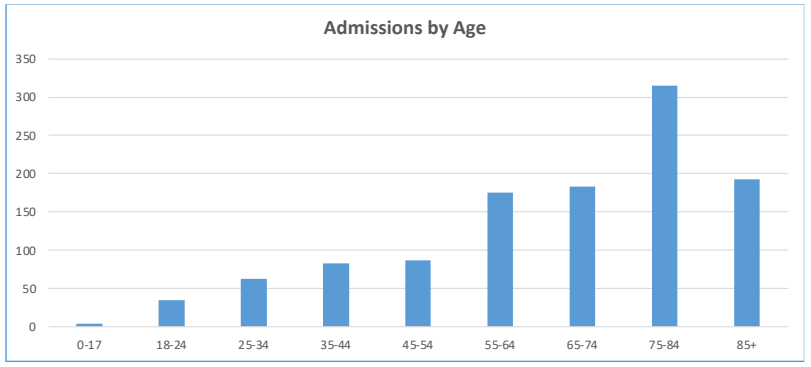
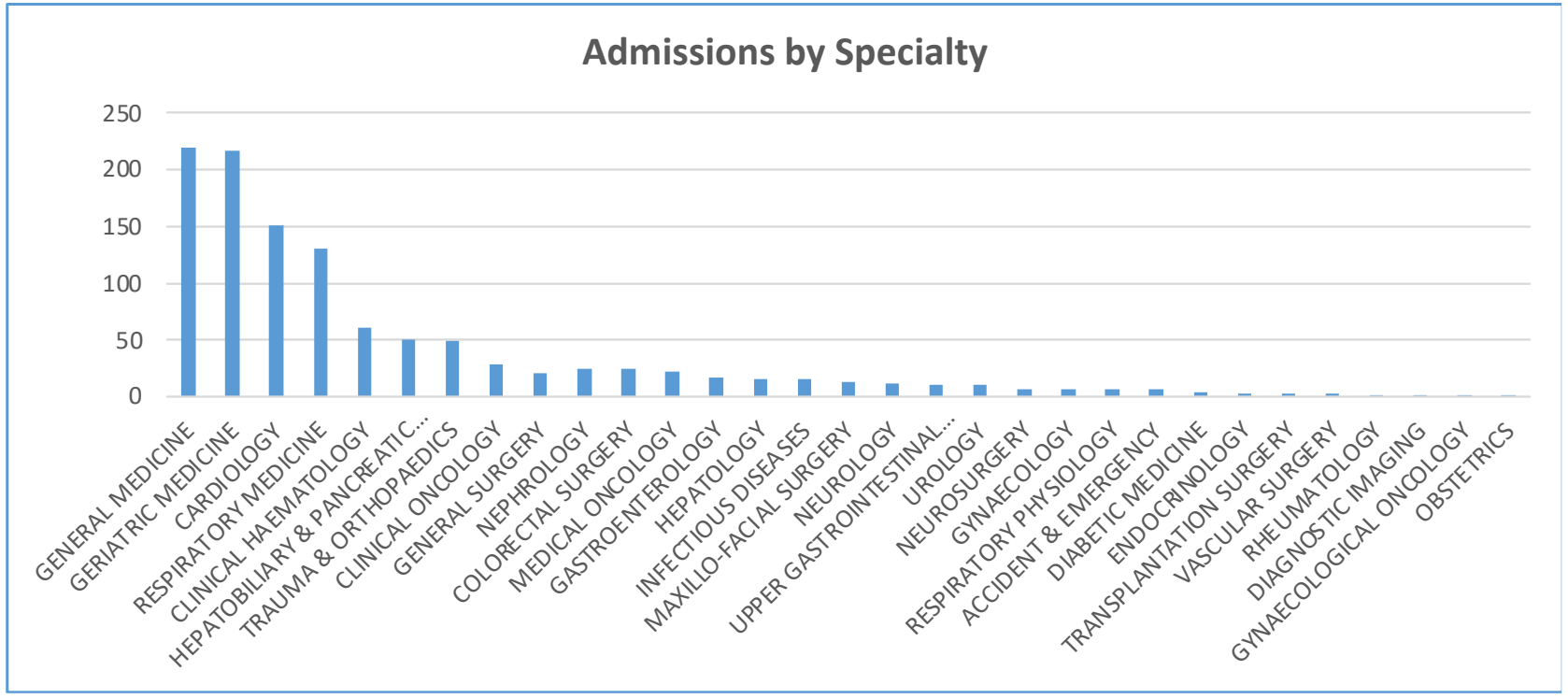






Is it viable?

FOR HEALTHCARE LEADERS

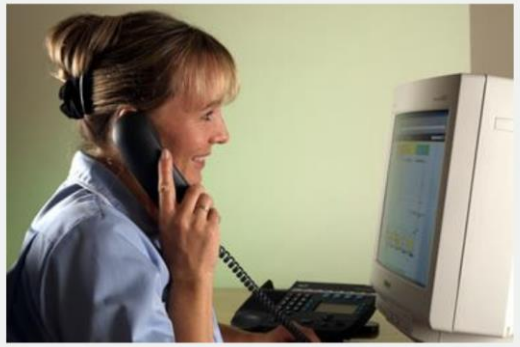
HSJ

Part of Wilmington Intelligence

Virtual ward costs twice that of inpatient care, study finds

By Lawrence Dunhill | 25 January 2024

Researchers have found the costs of treating patients in a 40-bed virtual ward were almost double that of traditional inpatient care.



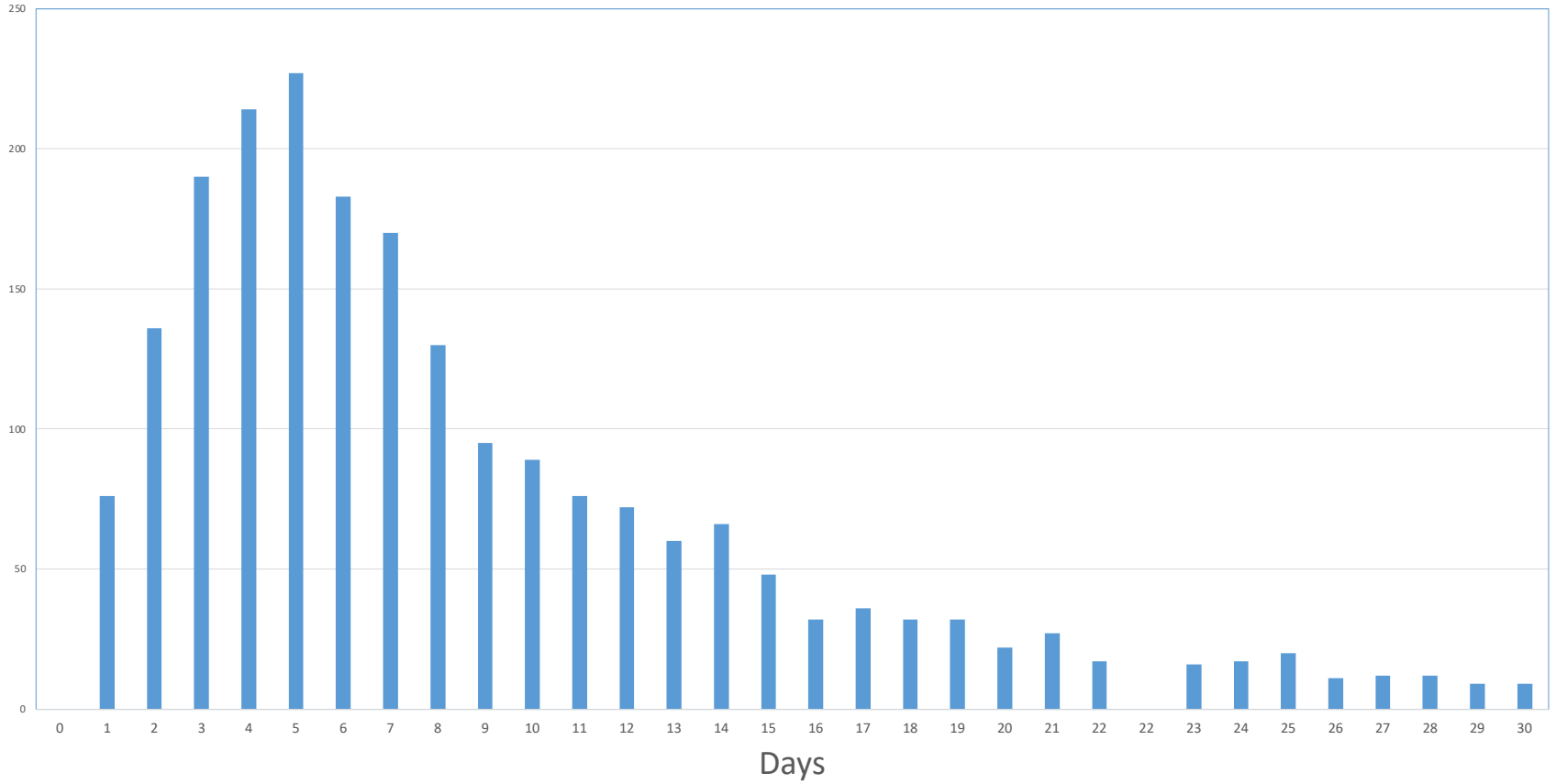
Is it viable?

Is it viable?

1,300 Patients. Average bed day savings according to ICD10 & 5 year age grouping is 4.18 days. Virtual ward length of stay 7 days, Average length of stay for an elective spell is 4.17 days. Elective spell can generate >£3,000

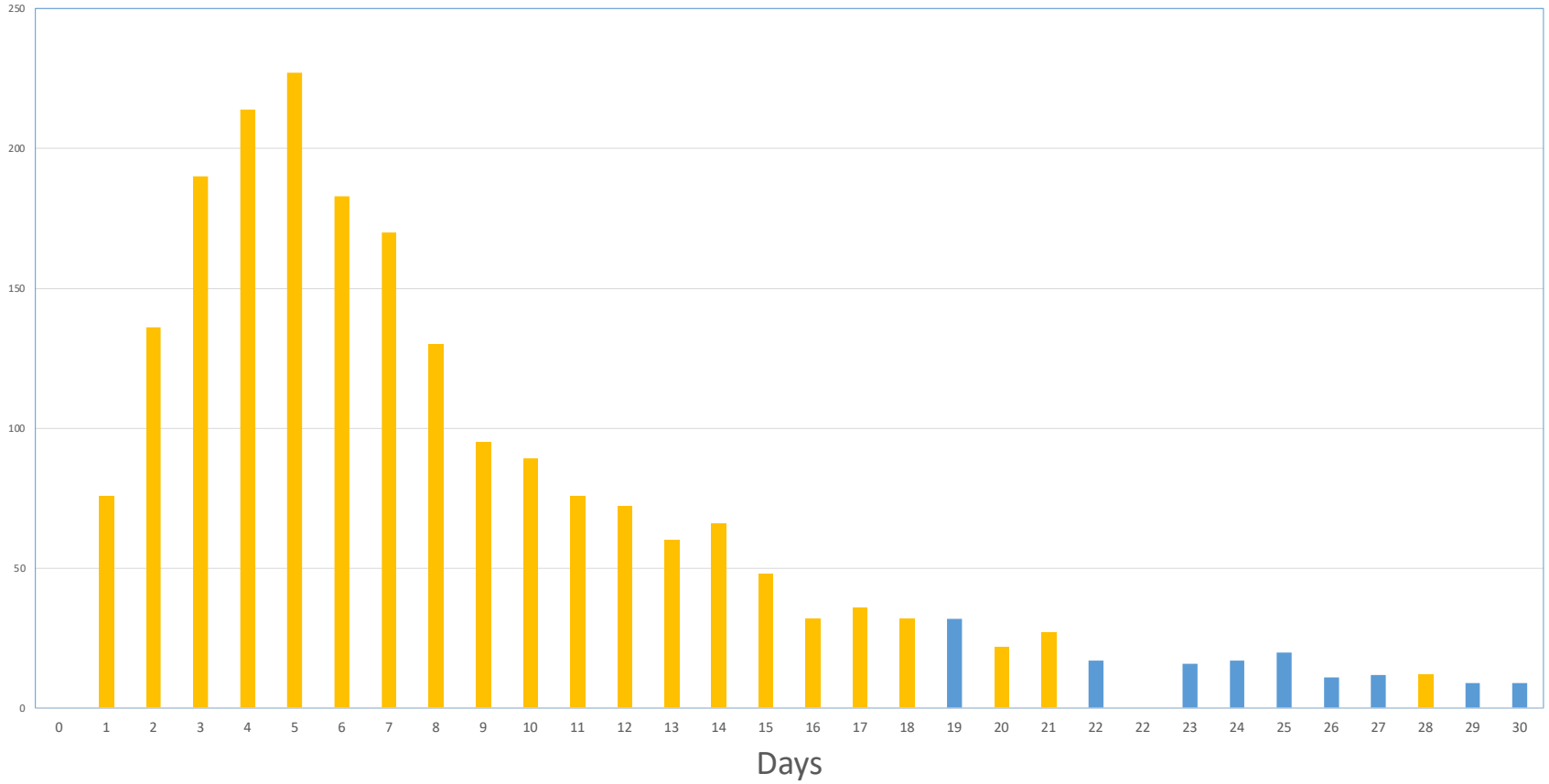
Length of Stay Savings?

All Patients with Pneumonia as primary diagnosis n = 2106, Length of stay <30 days (93%)



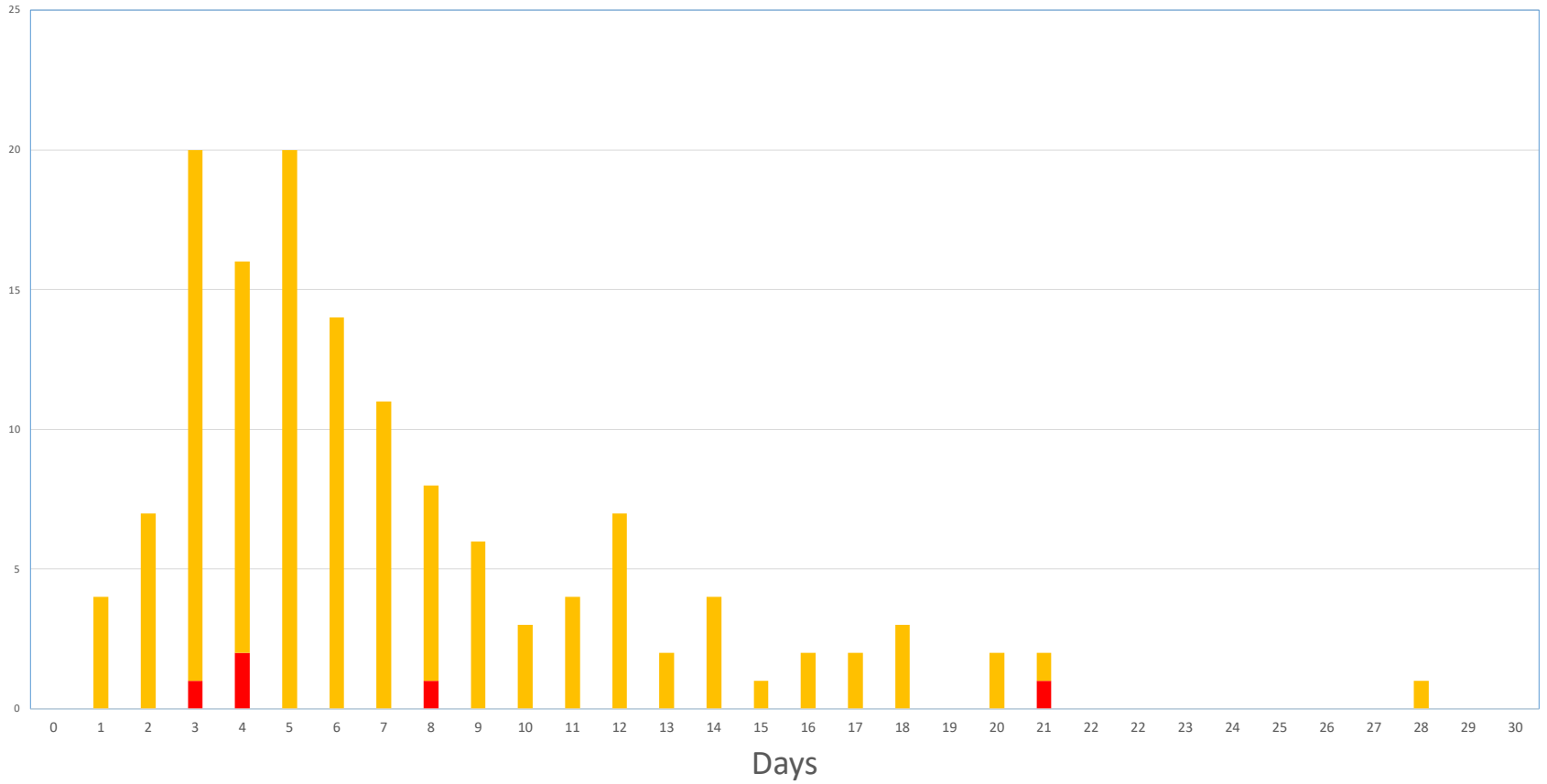
Length of Stay Savings?

All Patients with Pneumonia as primary diagnosis age 65 – 69 yrs n = 134, 6.3%



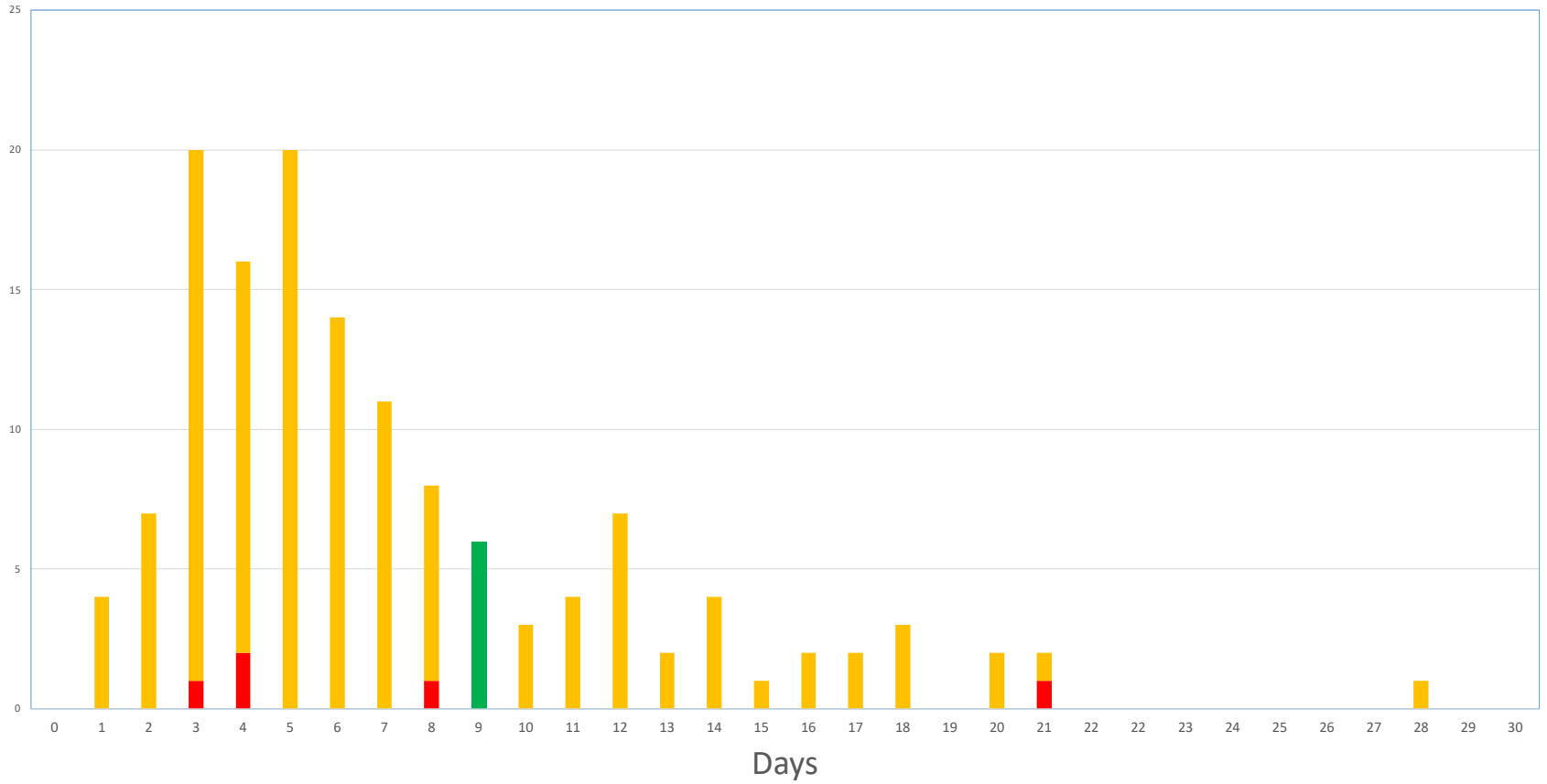
Length of Stay Savings?

All Patients with Pneumonia as primary diagnosis age 65 – 69 yrs n = 134, 6.3%



Length of Stay Savings?

All Patients with Pneumonia as primary diagnosis age 65 – 69 yrs n = 5, 3.7%



Is it viable?

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12		TOTAL
INPATIENT	£350	£350	£350	£350	£350	£350	£350	£350						
VIRTUAL WARD														

Is it viable?

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12		TOTAL
INPATIENT	£350	£350	£350	£350	£350	£350	£350	£350						
VIRTUAL WARD														£0

Is it viable?

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12		TOTAL
INPATIENT	£350	£350	£350	£350										
VIRTUAL WARD					£100	£100	£100	£100	£100	£100	£100			£700

Theoretical organisational benefit of £910,000

Is it viable?

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12		TOTAL
INPATIENT	£350	£350	£350	£350										
VIRTUAL WARD					£100	£100	£100	£100	£100					£900

Theoretical organisational benefit of £1.17 million

Is it viable?

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12		TOTAL
INPATIENT	£350	£350	£350	£350	ELECTIVE PROCEDURE + £3,000									
VIRTUAL WARD					£100	£100	£100	£100	£100					£3,900

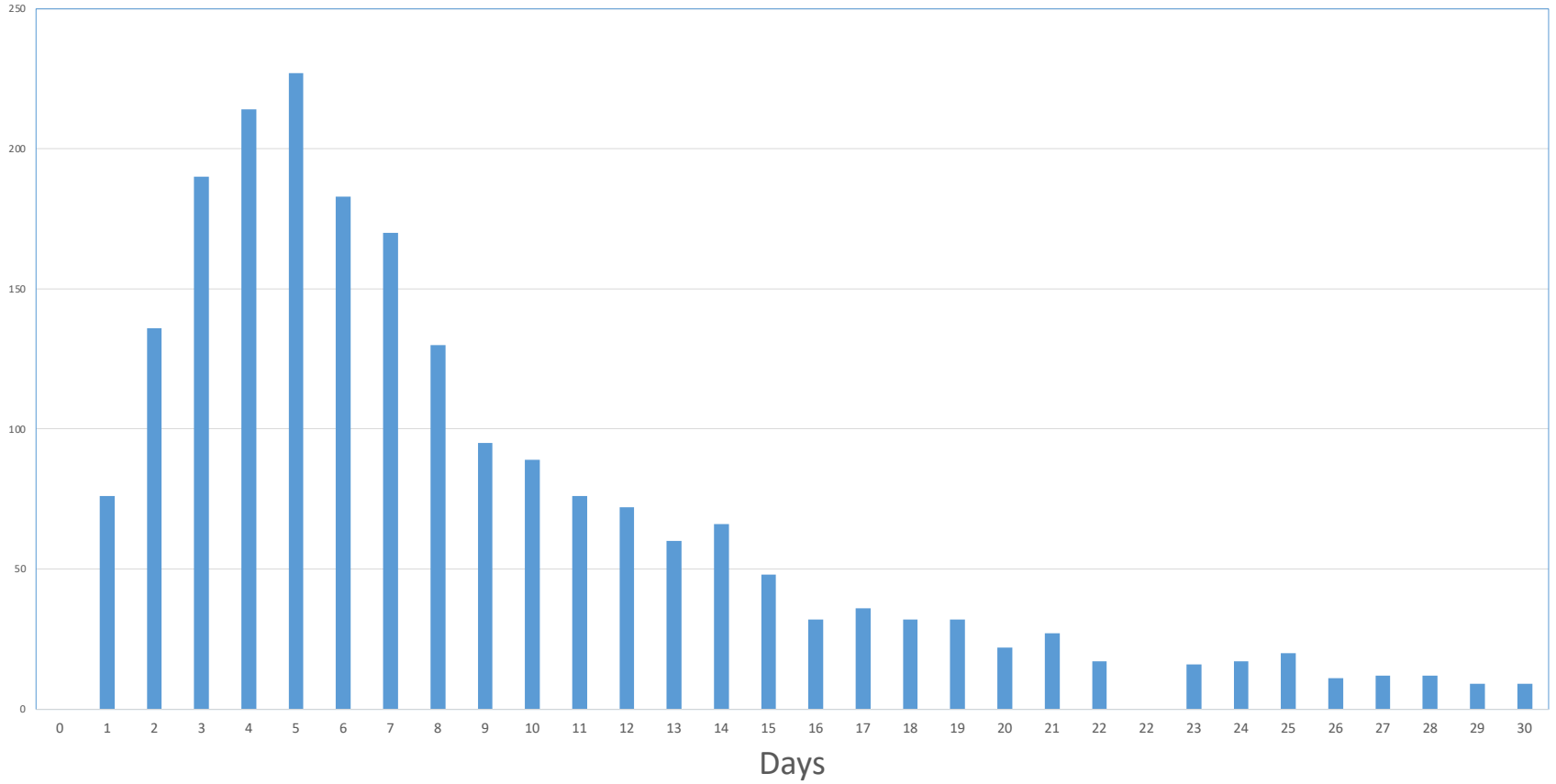
Theoretical organisational benefit of > £5 million

Is it viable?

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12		TOTAL
INPATIENT	£350	£350	£350	£350	ELECTIVE PROCEDURE + £3,000									
VIRTUAL WARD					£100	£100	£100	£100	£100					£3,900

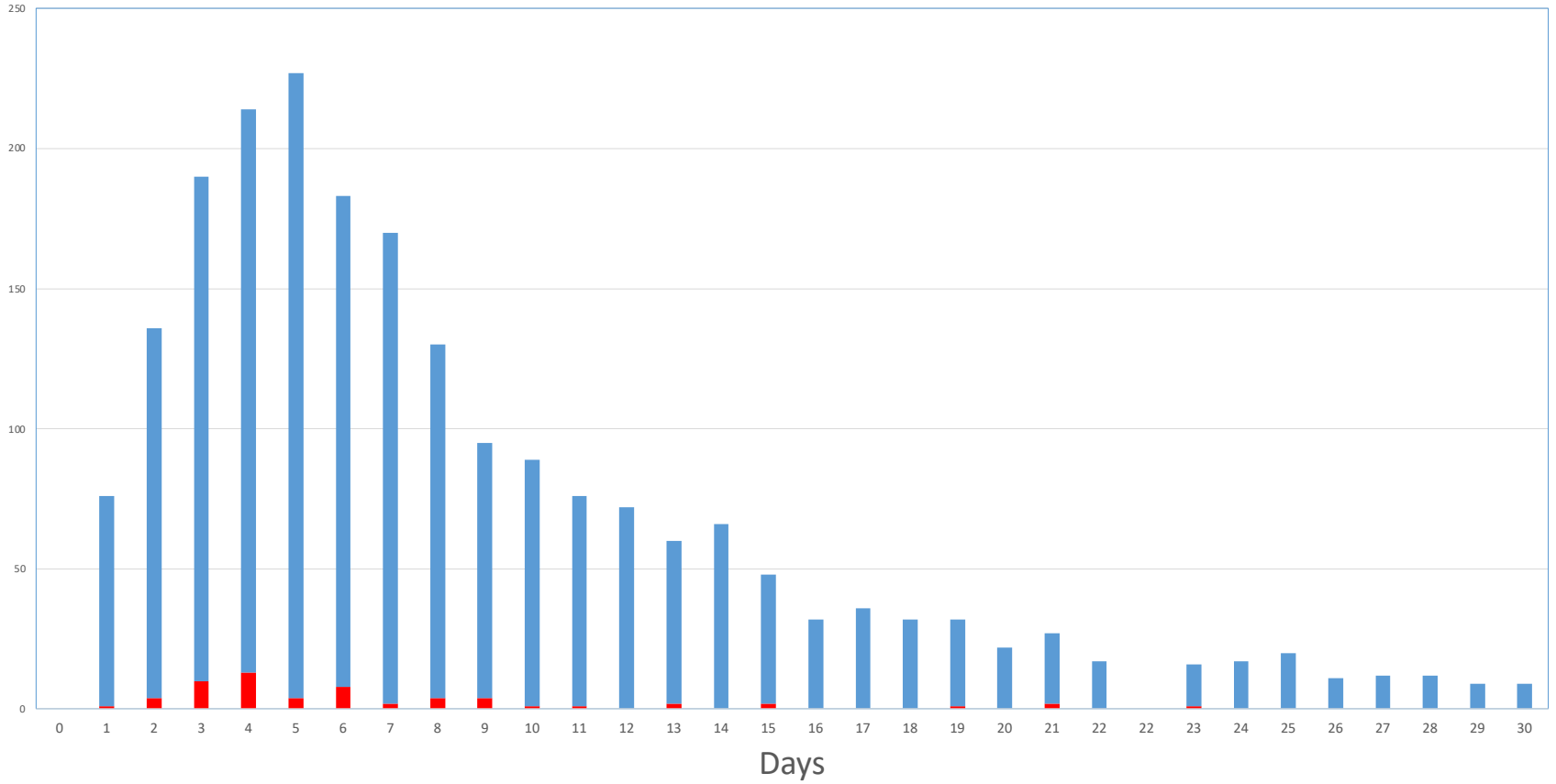
Does it have an impact?

All Patients with Pneumonia as primary diagnosis n = 2201



Does it have an impact?

All Patients with Pneumonia as primary diagnosis managed in VW n = 60, 2.7%



Does it have an impact?

For Virtual Wards to have an impact they need scale, capability, monitoring and a fundamental change to inpatient management.

Does it have an impact?

For Virtual Wards to have an impact they need scale, capability, monitoring and a fundamental change to inpatient management.

SMART Hospital?

- Presenting problem
- Background
- History
- Examination
- Results
- Observations

- Impression

- Plan

SMART Hospital?

Presenting problem
Background
History
Examination
Results
Observations

Impression

Plan
Clinically Fit Date

SMART Hospital?

Presenting problem
Background
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Impression

Plan
Clinically Fit Date
Criteria to reside

SMART Hospital?

Presenting problem
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Clinically Fit Date
Criteria to reside

SMART Hospital?

Hospital Setting	**Home Setting**
Nurse Attendance	Nurse Attendance
Dr Attendance	Dr Attendance
IV medication	IV medication
Oxygen Therapy	Oxygen Therapy
Blood test	Blood test
Wound Care	Wound Care
End of life care	End of life care
Dialysis	Dialysis
Ventilation	Ventilation

SMART Hospital?

Hospital Setting

Home Setting

Observation of patient at risk of deterioration

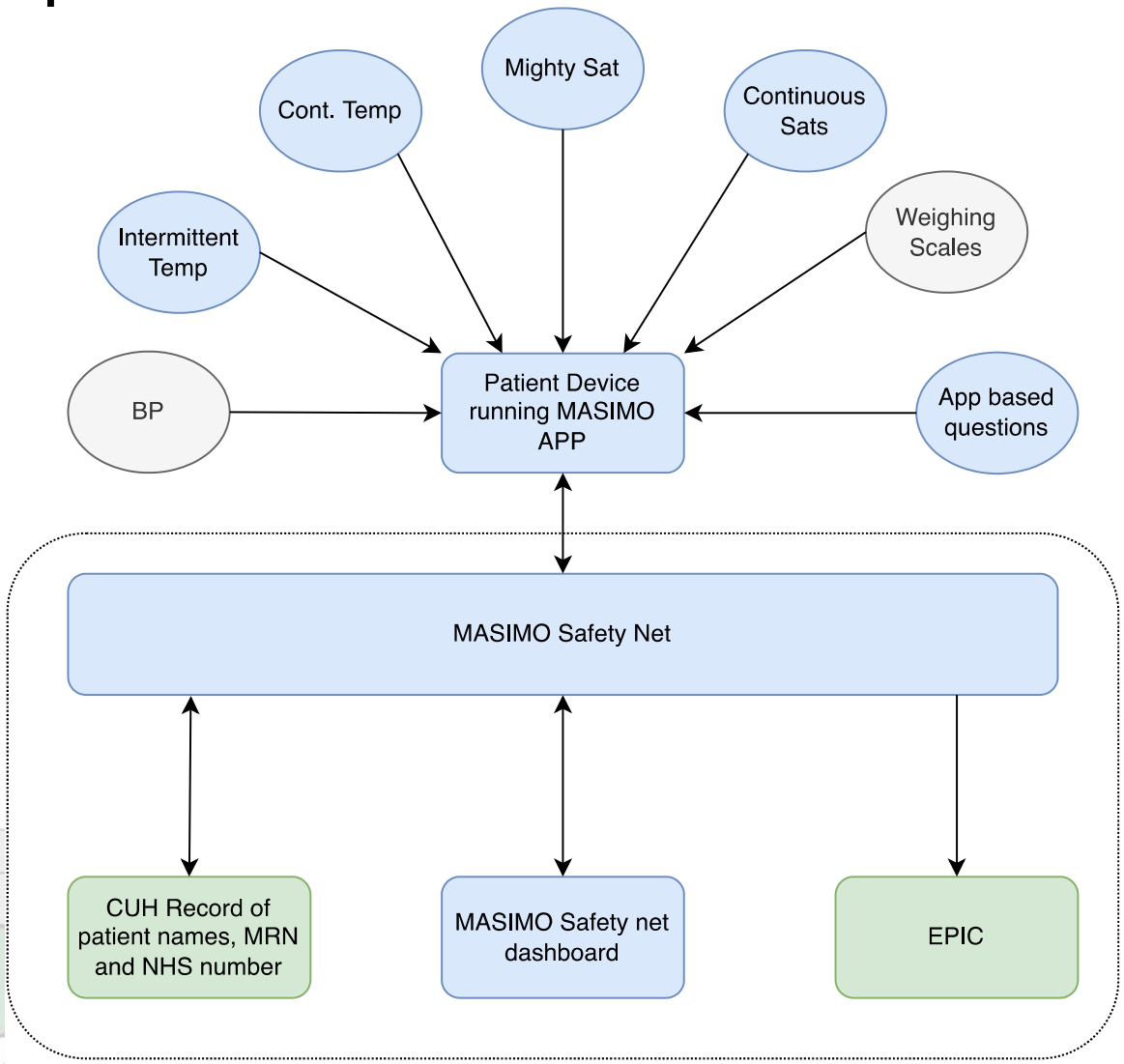
SMART Hospital?

Hospital Setting

Home Setting

Observation of patient at risk of deterioration

SMART Hospital?



SMART Hospital?

SMART Hospital?

Hospital Setting

Observation of patient at risk of deterioration

Home Setting

Observation of patient at risk of deterioration

SMART Hospital?

Presenting problem
Background
History
Examination
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Plan
Clinically Fit Date
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SMART Hospital?

Plan

SMART Hospital?

Plan

SMART Hospital?

Plan

Specific
Measurable
Achievable
Realistic
Timely

In Hospital?

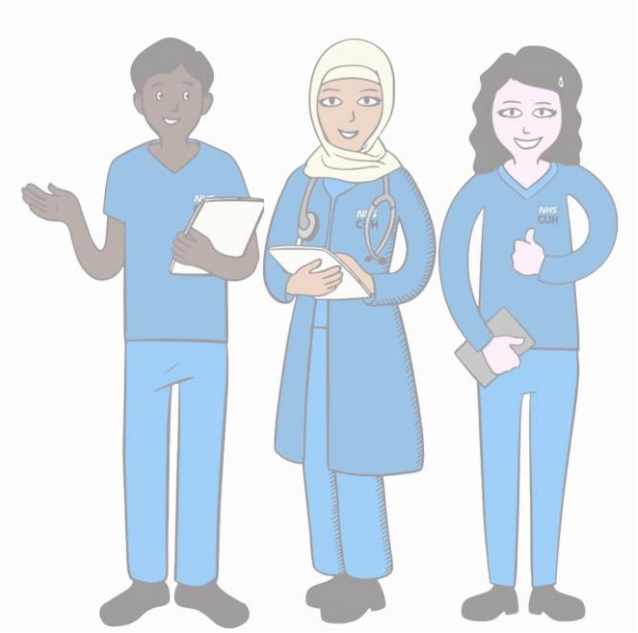
SMART Hospital?

Plan	HOSPITAL	HOME

Specific
Measurable
Achievable
Realistic
Timely

In Hospital?

- O2 until Sats >94%
- IV Antibiotics 4/7
- IV Fluids 1/7
- OD ECG 4/7
- OT / PHYSIO assessment today
- Repeat CT scan in 5/7
- Drain out in 4/7
- Repeat bloods 2/7 and 5/7
- BP/HR/SATS/PAIN/TEMP 4hr



SMART Hospital?

Plan	HOSPITAL	HOME

Specific
Measurable
Achievable
Realistic
Timely

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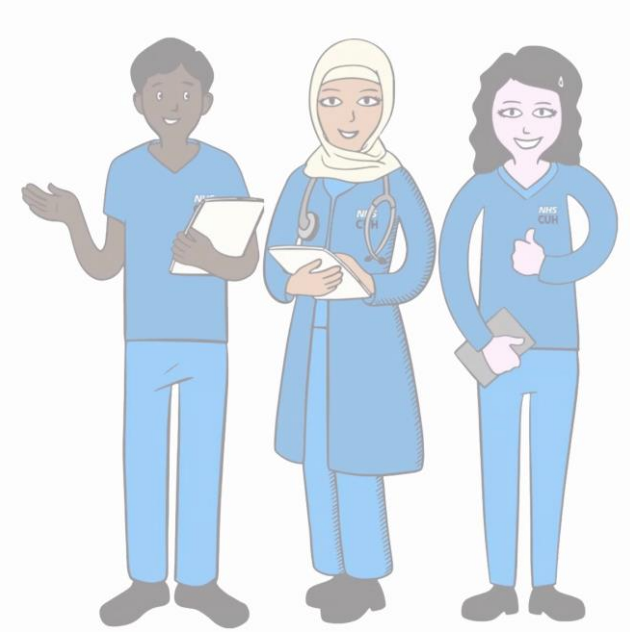

SMART Hospital?

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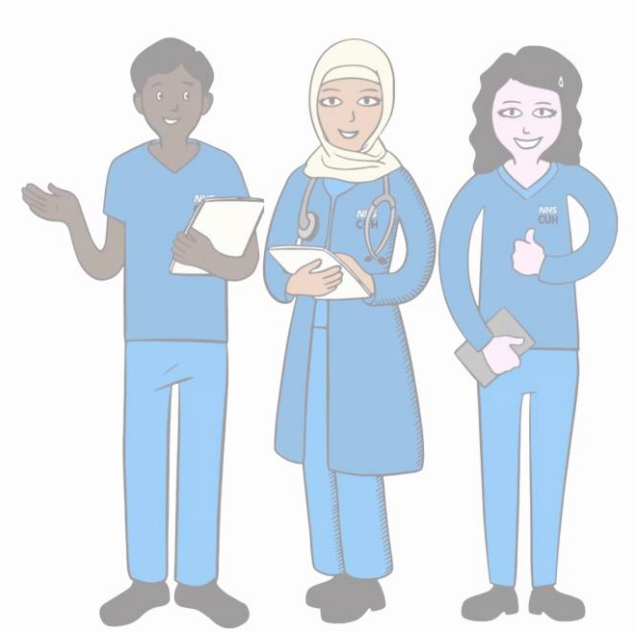

SMART Hospital?

Plan	HOSPITAL	HOME

Specific
Measurable
Achievable
Realistic
Timely

In Hospital?

- Sats >94% on AIR
- IV Antibiotics 3/7
- IV Fluids 0/7
- OD ECG 3/7
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- Repeat CT scan in 4/7
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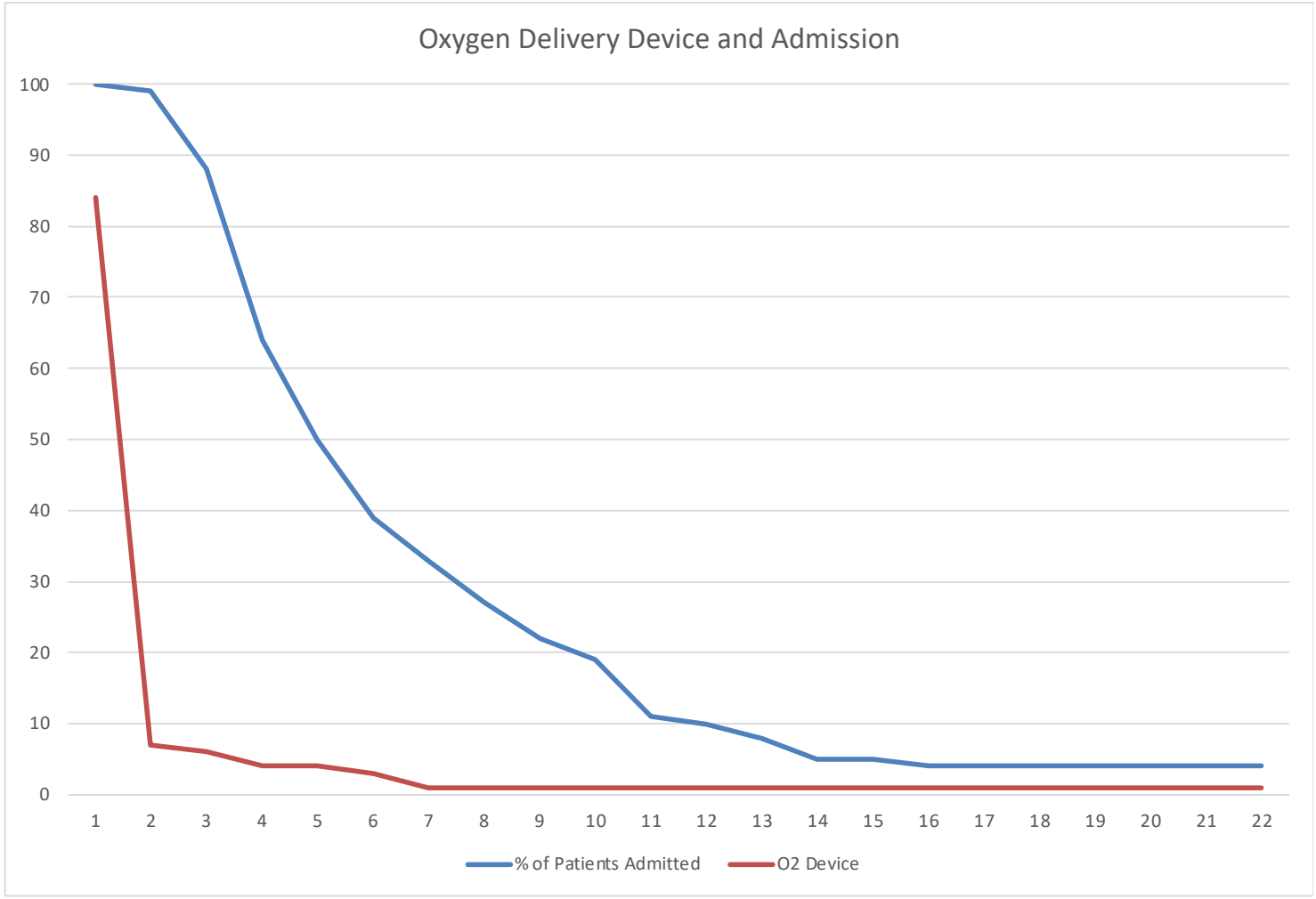
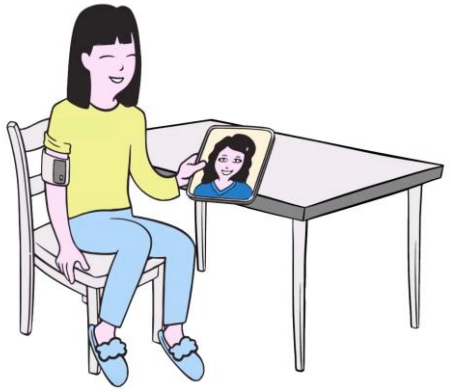
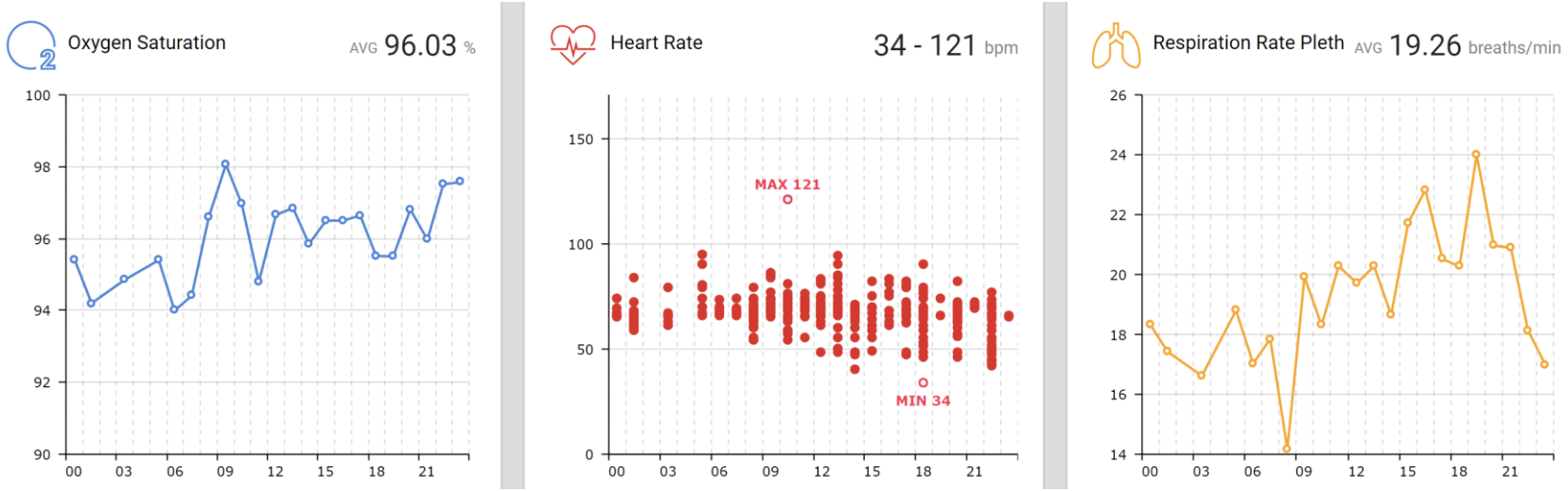
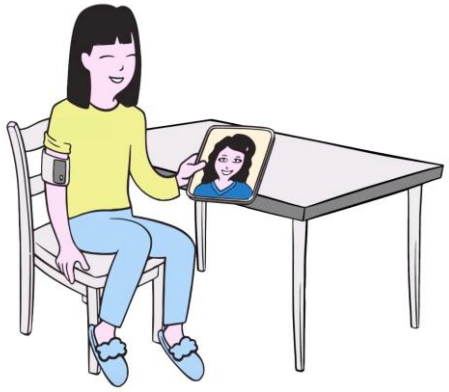
Identifying the gap, seeing opportunity





Identifying the gap, seeing opportunity





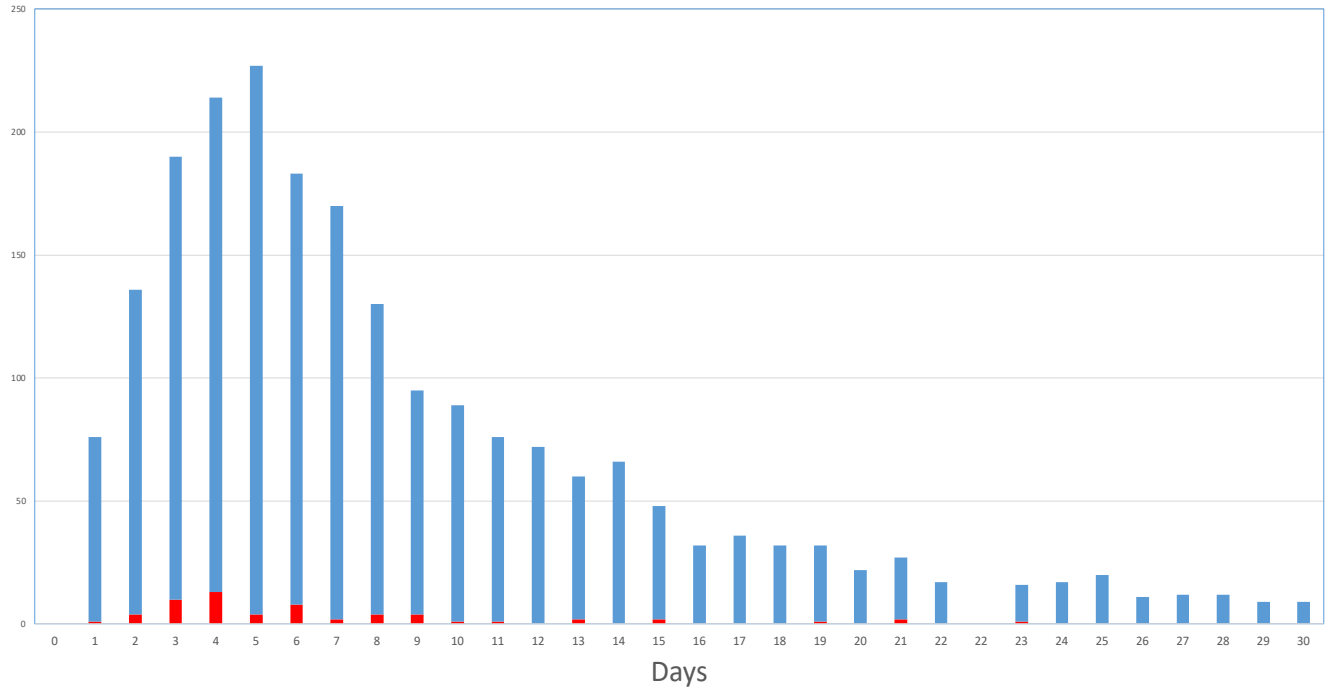
The importance of scale?

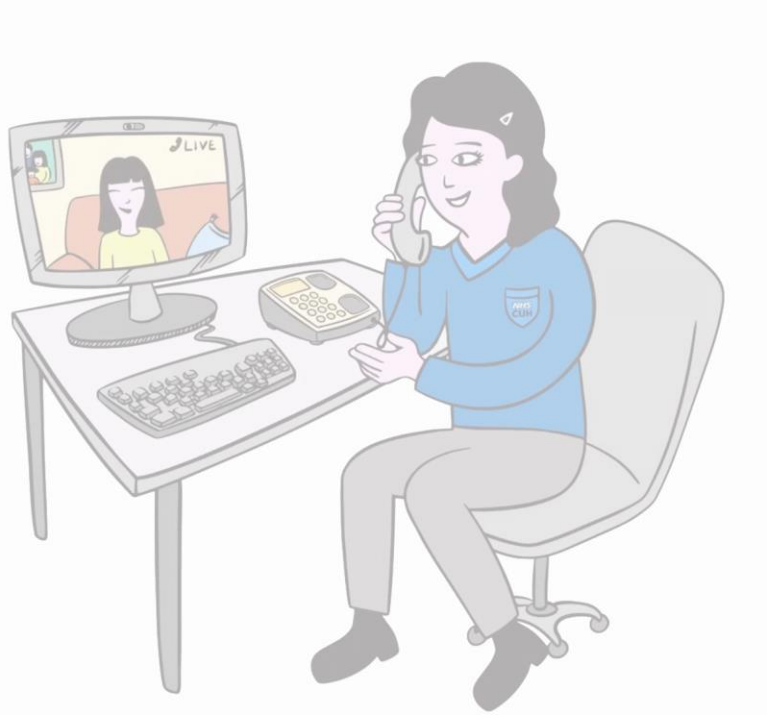
- Inpatient bed equivalence needs to exceed demand
- Reducing the VW length of stay requires experienced and confident health care professionals
- Increased numbers of patients necessitate effective utilisation of continuous monitoring.

	DAY 0	DAY 1	DAY 2	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
INPATIENT	£350	£350	£350	£350	ELECTIVE PROCEDURE +£3,000			
VIRTUAL WARD					£100	£100	£100	£100

The importance of scale?

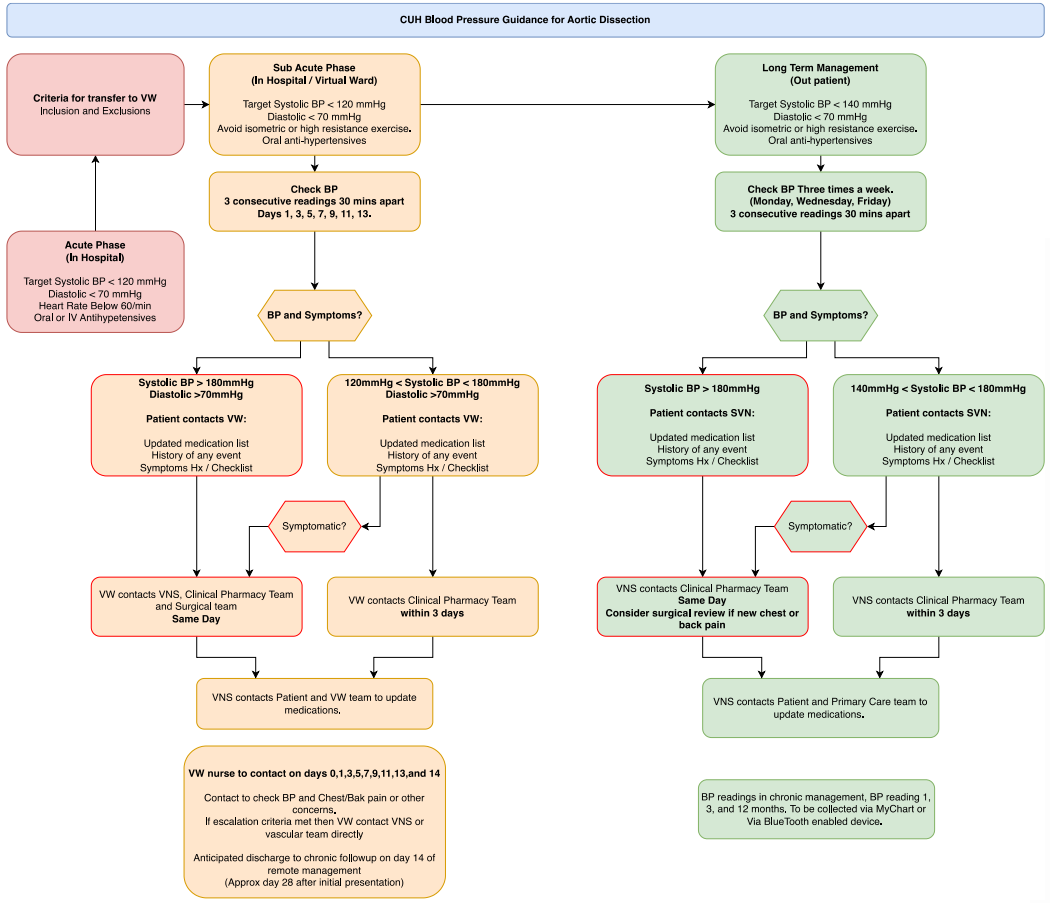
- VW needs to become standard care





The importance of scale?

- VW needs to become standard care



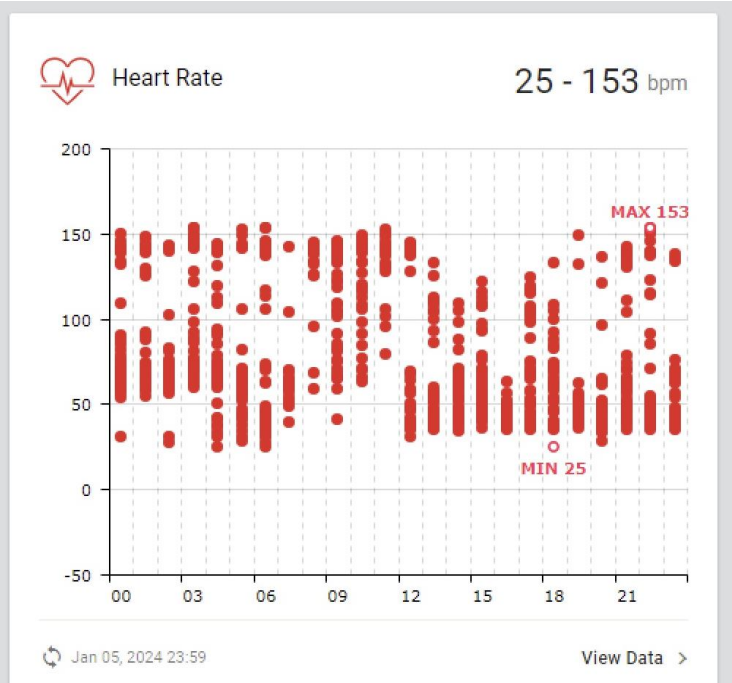
The importance of scale?

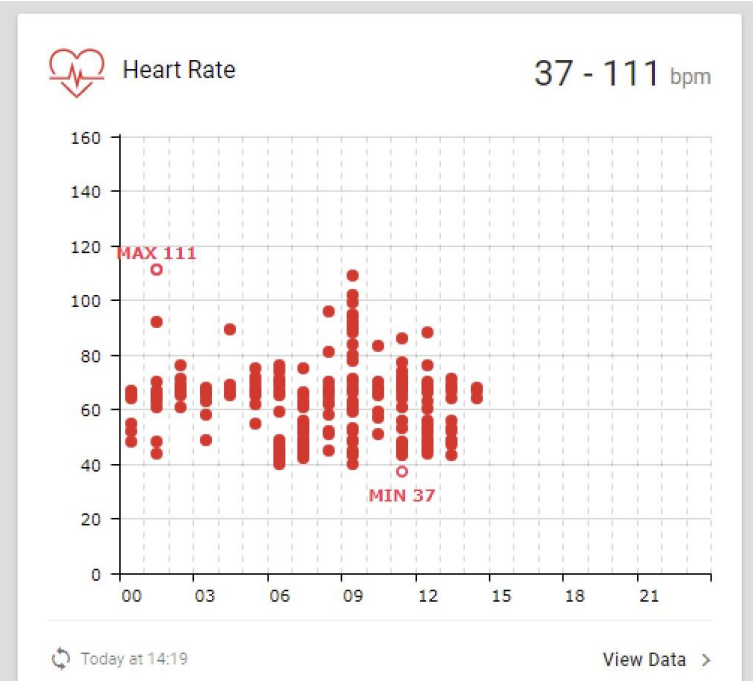
- VW needs to become standard care

	Day of Admission	Day 1 Virtual Ward	Day 3 Virtual Ward	Day 5 Virtual Ward	Day 7 Virtual Ward	Day 9 Virtual Ward	Day 11 Virtual Ward	Day 13 Virtual Ward	Day 14 Virtual Ward
Timeline	DD/MM/YYYY								*Discharge*
Nursing	**Diagnosis Confirmed:** ❑ Type B Dissection ❑ Non-A Non-B Dissection ❑ Intra Mural Haematoma ❑ Penetrating Aortic Ulcer **Issues at presentation** ❑ Pain ❑ Blood pressure ❑ Organ malperfusion ❑ Other ..... **Surgical intervention:** ❑ No ❑ Yes	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Normal diet ..... ❑ Pain assessment ..... ❑ Mobilising to the baseline ..... ❑ BP check ..... ❑ Taken medications	❑ Equipment collection ❑ Pain assessment ..... ❑ BP check ..... ❑ TTO Medications ❑ Discharge Summary ❑ Safety net and long-term follow-up instructions ❑ VNS Informed
Medical	**Plan** ❑ Follow-up CTA ❑ Outpatient Clinic ❑ Safety net	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain ❑ Write TTO	**Vasc team to be contacted:** ❑ SBP > 120 mmHg ❑ Worsening or new pain
Pharmacy	❑ Meds Rec / TTO							❑ Meds Rec / TTO	

Safety netting and prioritisation and continuous data?

- UCH 2,000 inpatients monitored by 4 nurses
- Deterioration prioritisation – delay or aggregate?





The importance of scale?

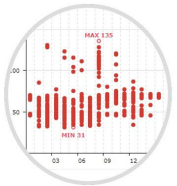
- Dashboards and command centre
- Trends, alarms and algorithms
- Clear escalation plans

UCH command centre for virtual monitoring

UNIVERSITY OF CAMBRIDGE

NHS
Cambridge University Hospitals
NHS Foundation Trust

Digital enablement, can facilitate efficient staffing ratios, and enable scale while also freeing the team to focus on kind and effective treatment for those who require it.



Cambridgeshire & Peterborough Integrated Care System

Fireside Chat…

Ruth Chauhan
Virtual Ward
Lived Experience

Speaking Now…

Chris Prada
Virtual Ward Service Lead Northampton General Hospital

Chris Johnson
Head of Patient Experience & Engagement - Northampton General Hospital

Canapés, Drinks and Networking

Thank you for attending The Virtual Wards Conference!

CONVENZIS

Register for the next Virtual Wards Conference in July 2024…