Welcome to the NHS Virtual Care Strategy Conference



5th November 2026
etc.venues, Manchester, 8th Floor, 11 Portland Street, M1 3HU

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Stay Connected Beyond Today

Join the **HES Integrated Care, Patient Flow & Workforce WhatsApp Community** to stay connected with the people, ideas and conversations shaping this space. Receive relevant updates, access focused peer discussion groups, share practical insight and be first to hear about future events, resources and opportunities.



HESUK

Scan the QR code to join the Community

Chair Morning Address



Gurnak Singh Dosanjh
GP & ICB Deputy Chief Clinical Information Officer
Leicester, Leicestershire & Rutland ICB

Keynote Presentation



Rachel Binks
Clinical Director, Out-of-Hospital Care
Airedale NHSFT

CareAnywhere

Digitally Enabled Hospital at Home

Digital Care Hub

Marie Buchan
Head of Digital Care Hub

Rachel Binks
Nurse Consultant, Digital & Acute Care



Strategic Vision and Alignment

Where we want to be





Overview



Vision for Digital Care Hub

The Digital Care Hub strategy aims to expand and enhance system wide remote care through digital technologies by 2030.

Alignment with NHS Plan

The strategy aligns with the government's 10 Year Health Plan focusing on sustainable healthcare delivery and prevention.

Shift from Hospitals to Communities

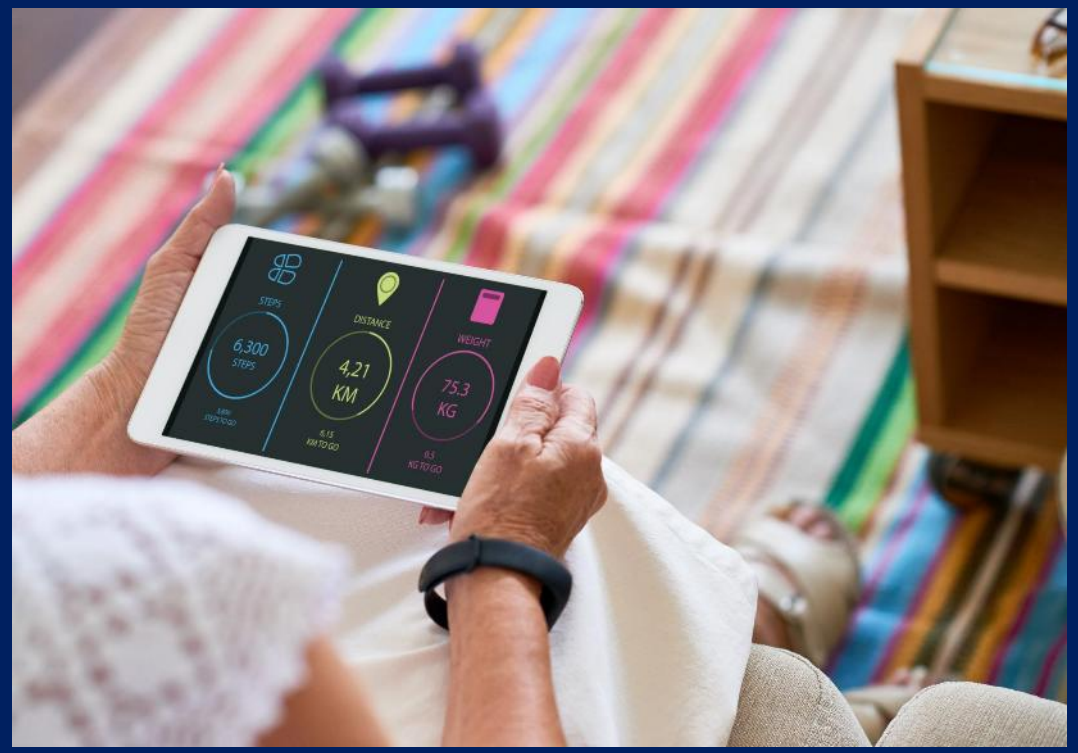
Emphasises shifting care delivery out of hospital for improved accessibility.

Focus on Prevention

Prioritises preventive care enabled by digital solutions to recognise deterioration, supporting long-term health outcomes.

Vision for Remote Care

Airedale NHS Foundation Trust



Virtual-First Care Approach

Prioritise virtual-first care to enable urgent and emergency services and triage remotely for patients.

Managing Complex Patients at Home

Support complex patient management at home utilising existing integrated multidisciplinary teams.

Strategic Ambition

The Strategy:

- Facilitates the three major transitions essential for ensuring a sustainable future for the NHS
- Acts as a key enabler for the Trust's Urgent and Emergency Care Improvement Plan
- Enhances our capacity to deliver services efficiently within a reduced hospital footprint

The Digital Care Hub plans to:

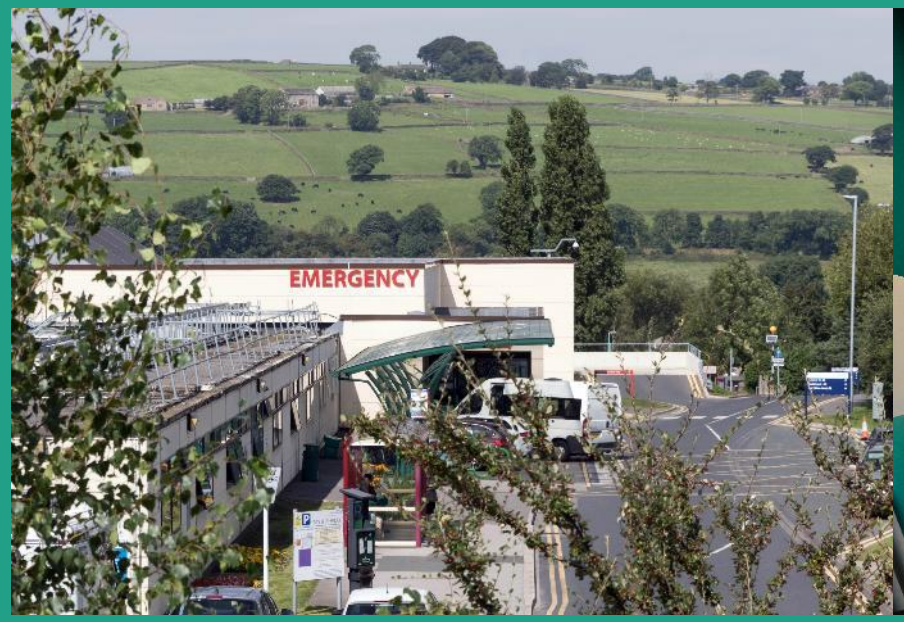
- Expand conditions for service support
- Increase referrals to virtual wards and MyCare24
- Collaborate/co-locate with community teams
- Leverage academic partnerships for evaluation

Aiming to support system-wide health improvements and financial sustainability.



Current Context

Where we are now

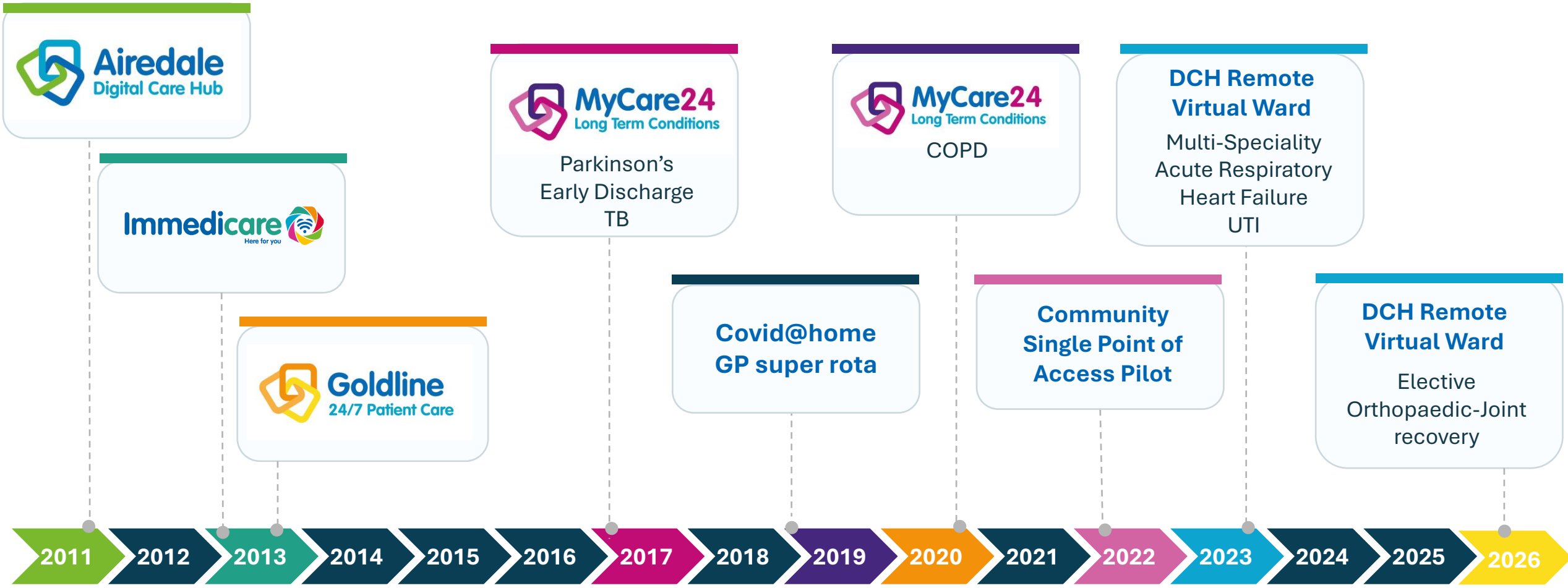




Our Development

NHS Airedale NHS Foundation Trust

Over 15 years experience in delivering telemedicine and remote monitoring services.



Digital Care Hub

NHS Airedale NHS Foundation Trust

Uniqueness	So……	Value to Urgent & Emergency care
24/7 immediate access to a clinical assessor from a **patient's home**, via phone, App or video.	**Always there** to offer advice, assurance or emotional support to a patient fearful about their health/condition **at the time they need it**, providing an alternative to calling 111, 999 or attending the Emergency Department.	**Reducing attendance** at the Emergency Department and **admissions** to the bed base, freeing up capacity for other patients.
24/7 remote monitoring & **oversight** of patients' vital signs observations by a clinical assessor while the patient remains at home.	Offering **early identification of deterioration and intervention** when people need additional help and support.	Safe **step-up and step-down 24/7** to remote Virtual Wards, up to 14 days LoS, enabled by technology
Trained and competent workforce Senior, registered health care professionals/Non-medical prescribers with a wide range of clinical backgrounds and expertise.	Providing a **safety net** and proactive, clinical follow-up virtually.	**Freeing up time for community teams** to focus on patients requiring in-person face to face care.

The Case for Change

Airedale NHS Foundation Trust

Current pressures

1. Growing demand across health and care services
2. Fragmented access and inconsistent pathways
3. Delays from pathway complexity and service handoffs
4. System pressure: more care needs to be delivered closer to home

Strategic response

NHS 10-year plan: 3 shifts

INH is driving the case for safe, sustainable, out-of-hospital care across Bradford District and Craven.

Earlier **Closer to home** **Digital productivity**

- ✓ Intervene earlier and support care closer to home
- ✓ Reduce unnecessary attendance with flexible routes to the right care or service
- ✓ Reduce avoidable escalation and improve system flow
- ✓ Enable coordinated access and navigation across services
- ✓ Improve workforce productivity through digital consultations, monitoring and clinical oversight

Trust Context

Airedale NHS Foundation Trust

Strategic shift

Care closer to home

Airedale is re-organising services around out-of-hospital care and digital delivery.

Trust Restructure

Largest directorate:
Out of Hospital Care & Therapy Services

- Digital Care Hub
- Community Services
- Patient Flow
- Therapy Services

Marie Buchan-Associate Director for Out of Hospital Care and Therapy Services
Rachel Binks- Clinical Director

New Hospital Programme

Airedale is also in wave 1 of the New Hospital Programme.

This is another driver to move care closer to home and embedding digital care



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Current Service Portfolio

Immedicare
Here for you

Goldline
24/7 Patient Care

MyCare24
Long Term Conditions

DCH Virtual Wards





Immedicare
Here for you

NHS
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NHS Foundation Trust

Our joint venture with a technical company, has been supporting care homes since 2013, reaching approximately 800 facilities nationwide at the height of the pandemic.



Need:
Care home residents have complex healthcare needs and higher emergency admission rates, with workforce shortages impacting care.

Provides:
Immedicare provides 24/7 video clinical support, managing health needs onsite and reducing pressure on emergency services.

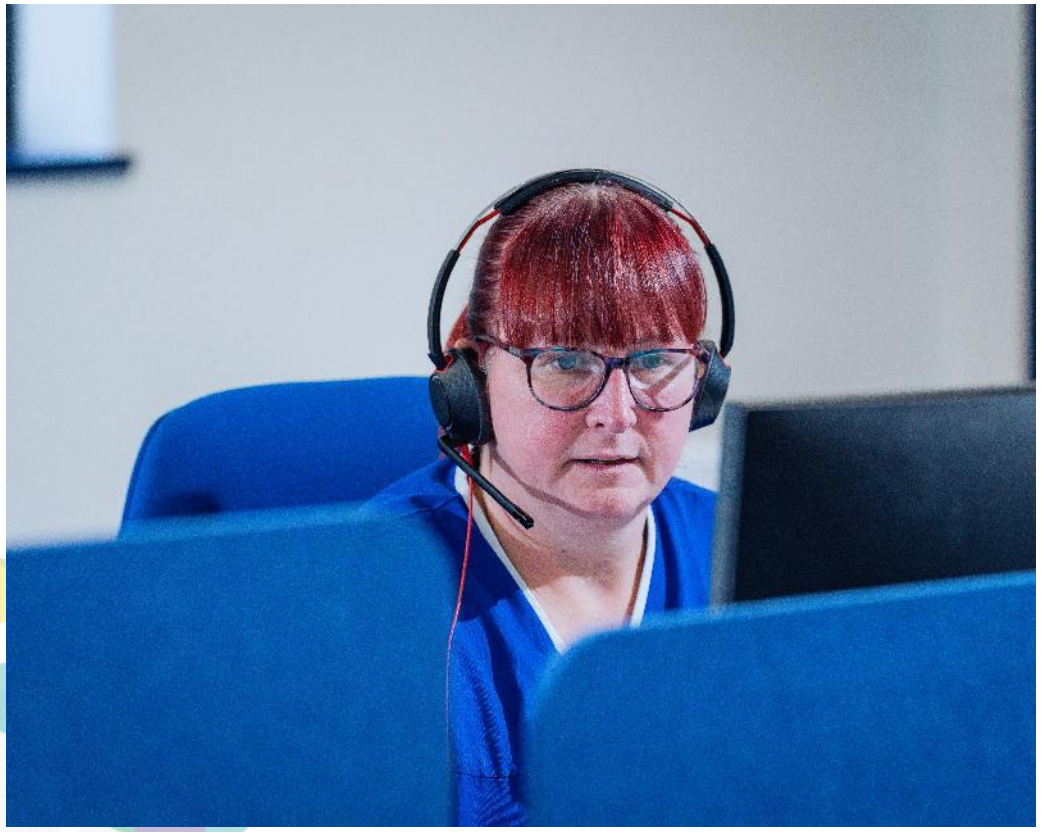
Positive Impact :
90% of residents stay in their care homes after Immedicare calls, significantly lowering ambulance conveyance rates.

One local General Practitioner (GP) described the service as **“The greatest change in 15 years to reduce workload.”**

Goldline
24/7 Patient Care

NHS
Airedale
NHS Foundation Trust

Our End-of-Life service has provided 24/7 support to end-of-life patients since 2014, now including Harrogate.



Need:
Most people wish to die at home, yet many face repeated hospital admissions and die in hospital.

Provides:
Goldline offers 24/7 single contact support coordinating care for patients and families to enable end-of-life choices.

Positive Impact :
Less than **20% of Goldline patients die in hospital versus 46% nationally.** The program reduces unplanned admissions by 23%—delivering £2 ROI per £1 spent—and reaches those often excluded from specialist care, with **58% having non-cancer diagnoses**.

Impact

Helping patients to die on their own terms in the place of their choosing

57%

of calls received out-of-hours, providing vital round the clock support

Less than **20%**

of Goldline deaths occurred in hospital (**43%** ONS England av. 2023)

36%

of calls required no onward referral (only 15% referred on to a GP)

49%

of all deaths in Bd&C ICB were supported by Goldline at the time of their death

38%

Supported by Goldline not known to specialist palliative care teams: reducing inequalities in end of life care.

69%

of Goldline deaths in usual place of residence (**49%** ONS England av. 2023)

Data from Bradford District and Craven Goldline annual report 23/24

MyCare24 Long Term Conditions

NHS Airedale NHS Foundation Trust

MyCare24, launched in 2018, delivers remote monitoring and proactive support for complex health needs, expanding from Parkinson's disease to also cover COPD and TB.



Need:

Hospital admissions due to lung disease have increased at three times the rate of all other admissions over the past seven years (Source: NHS Long Term Plan).

Provides:

MyCare24 offers immediate clinical support to high-risk patients, enabling early detection and timely interventions to reduce emergencies.

Positive Impact :

- COPD patients have reported an improvement in confidence with self-management from 61% to 82%.
- Unplanned contact with healthcare providers decreased from 42% to 32% within just 30 days of enrolment, supporting system-wide efforts to manage seasonal demand pressures.

MyCare24 – Consultations

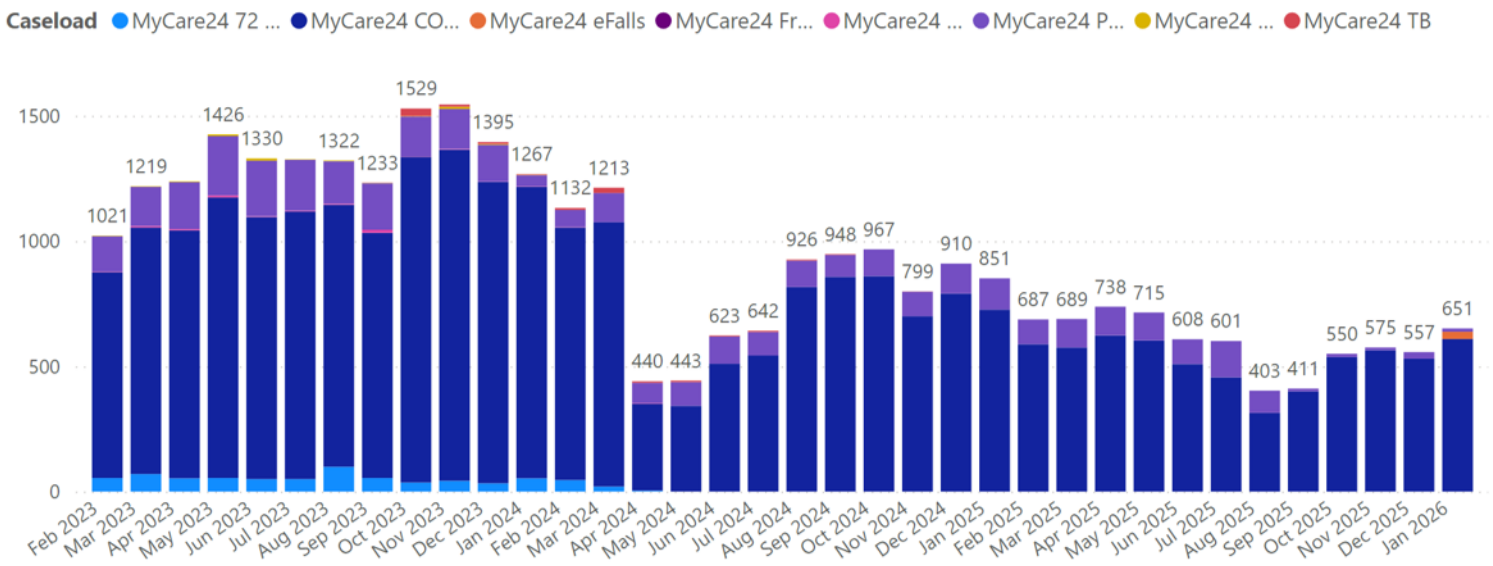
Airedale NHS Foundation Trust

Last | 36 | Months (Calendar)

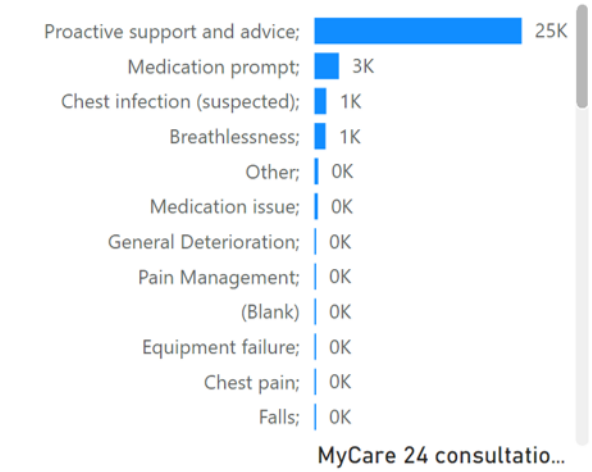
01/02/2023 - 31/01/2026

Group, Caseload

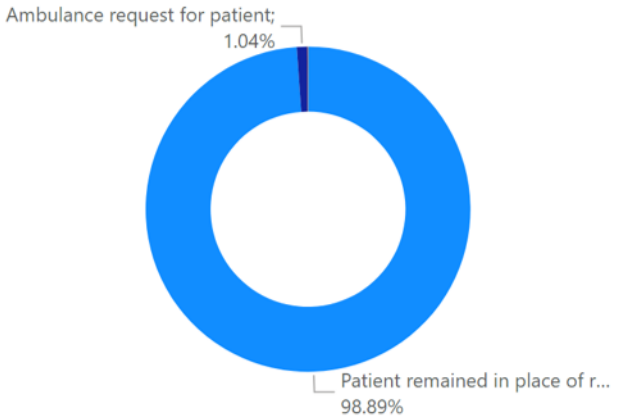
MyCare 24



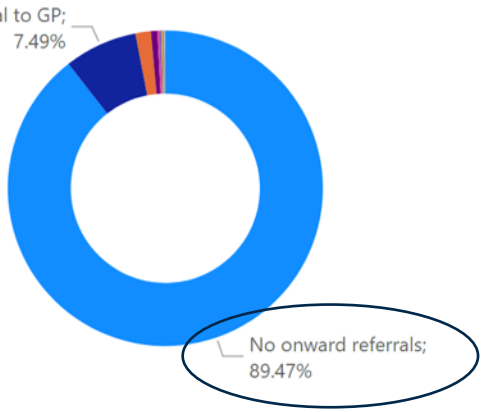
Call clinical purpose



Outcome

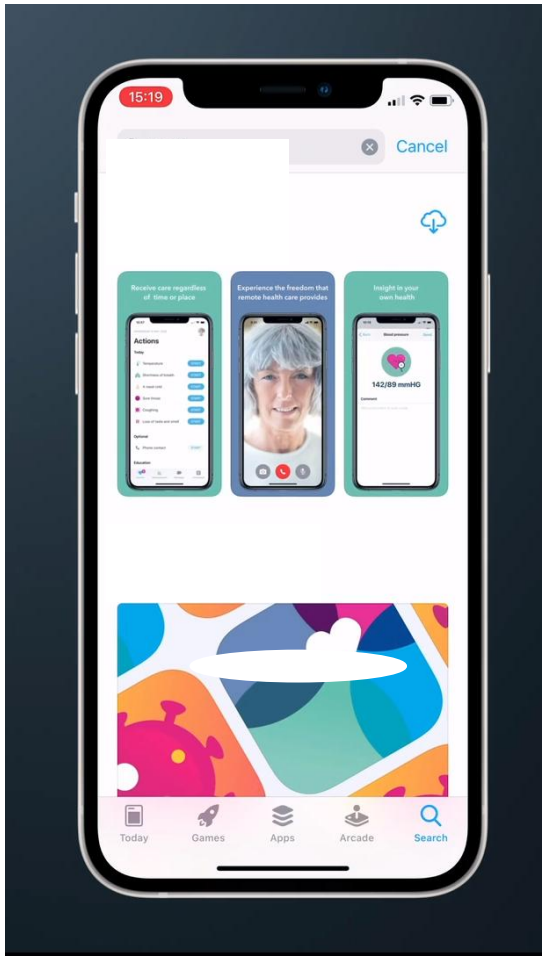


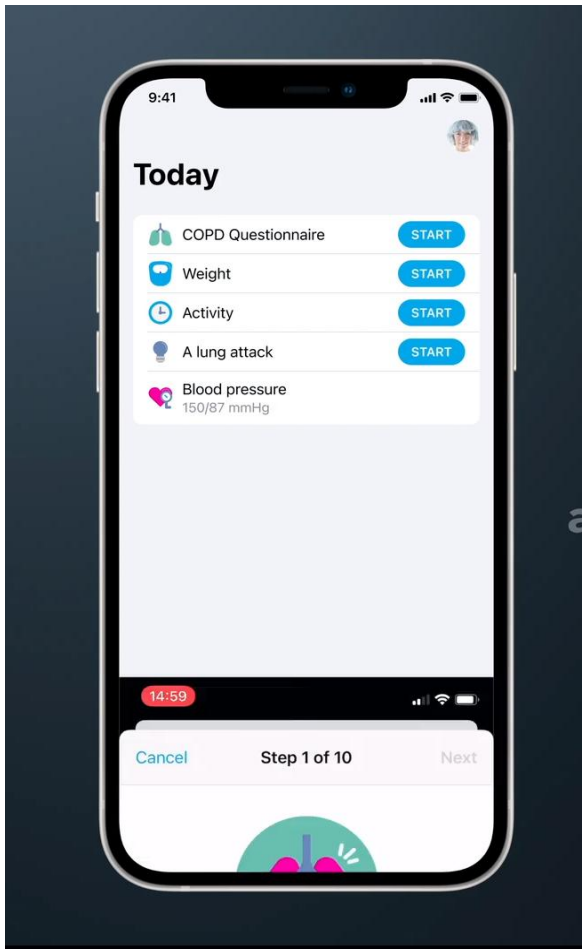
Onwards referrals

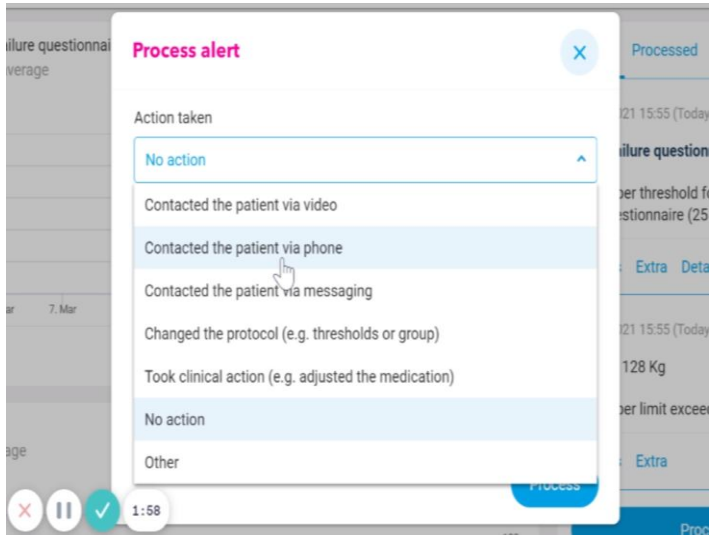


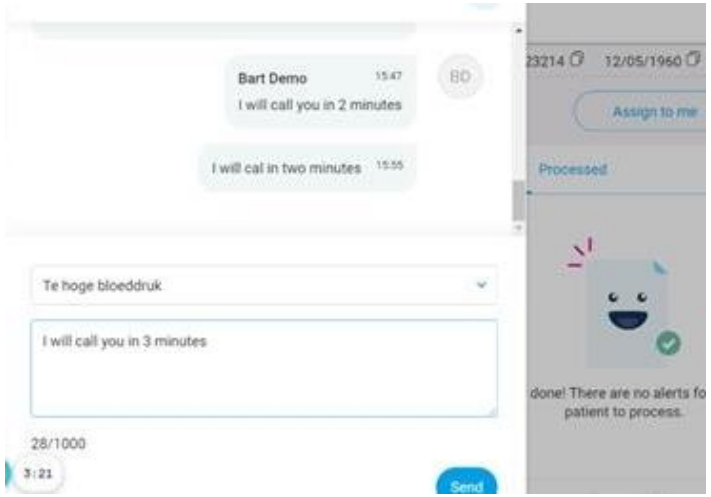
(Self) Managing any Long-Term Condition

Patient View of App







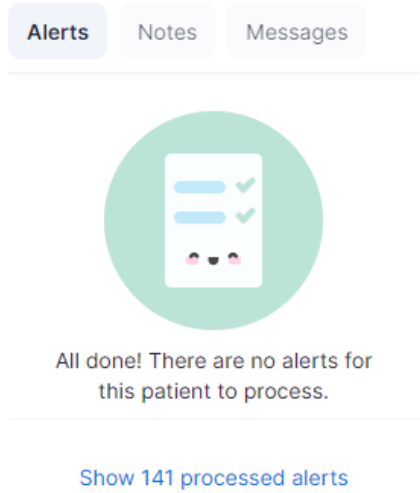


Clinician's View

Supporting patients with COPD at home: right care, right time, right place

NHS Airedale NHS Foundation Trust

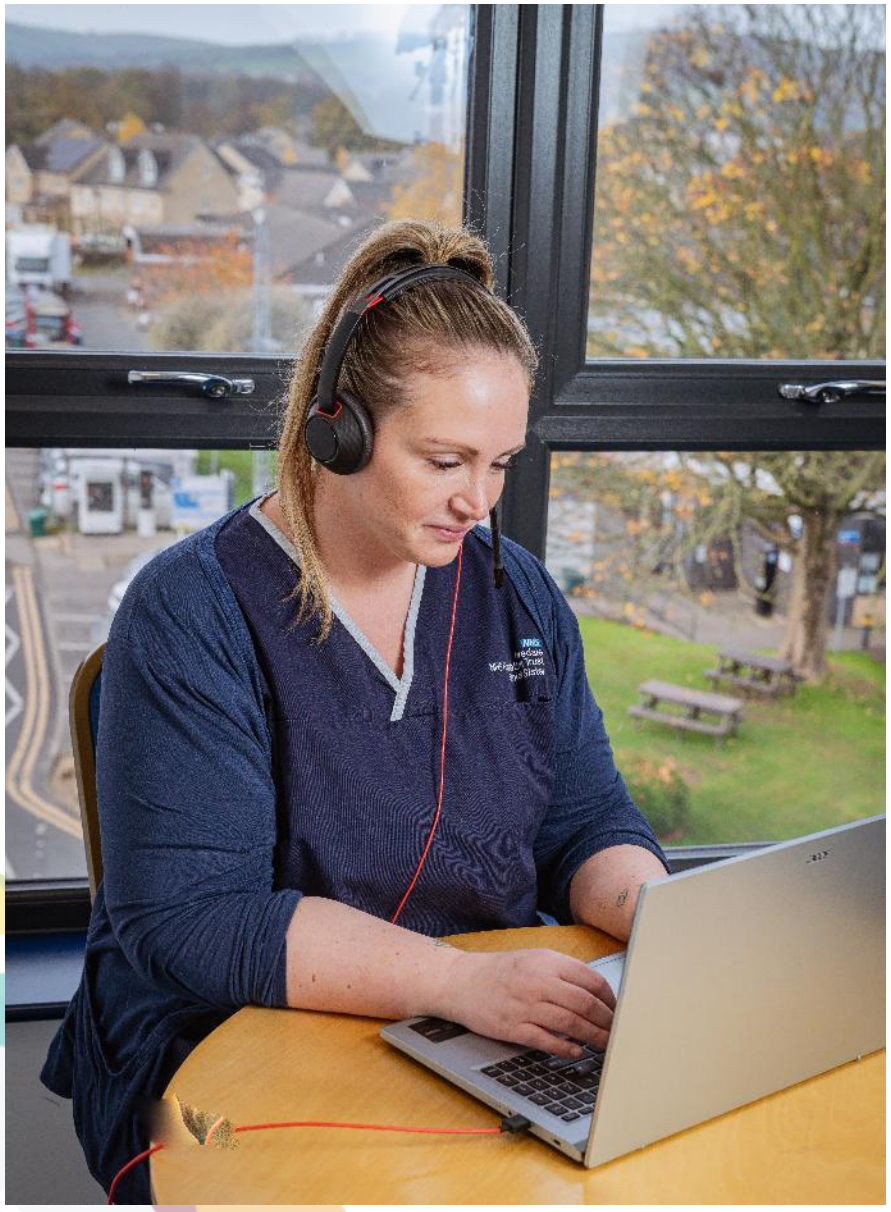




MyCare24 Long Term Conditions

Monitoring, especially via the App, helps us understand a patient's condition allowing early identification and intervention if required.

Remote Virtual Ward



Established in 2021 to provide step-up and step-down care outside hospitals.

Now includes Multi-specialty, Acute Respiratory, Heart Failure, and Urinary Tract Infection (UTI) virtual wards.

Need:
Many emergency patients can be safely monitored at home, reducing unnecessary hospital admissions.

Provides:
24/7 remote care provided via Luscii app supports patients at home, minimising hospital stays and visits.

Positive Impact :
Avoidance of admissions and early supported discharge, which help manage patient flow and capacity in both hospital and community settings.

Scaling Remote Monitoring

NHS Airedale NHS Foundation Trust

Initial cohort

2,000

people with the highest UEC use and unplanned admissions

- COPD
- Heart Failure
- Diabetes

What we scale

1. **Remote monitoring**
   Use the platform to identify deterioration earlier.
2. **Self-management**
   Help people understand and manage their conditions.
3. **Gateway to Care**
   Develop one access model for services across BD&C.

Wider opportunity

85,000

people across the district live with these long-term conditions

Business cases

NHSE: equipment for 4-year scale

HCP: workforce for first 2,000

Place-wide expansion linked to Gateway to Care

Traditional Pathways and System Pressures



Healthcare System Challenges

Traditional healthcare required travel and faced overcrowded facilities, leading to long waits and stretched services.

Workforce Shortages Impact

Shortages of healthcare workers strained resources, making timely and effective care difficult to provide.

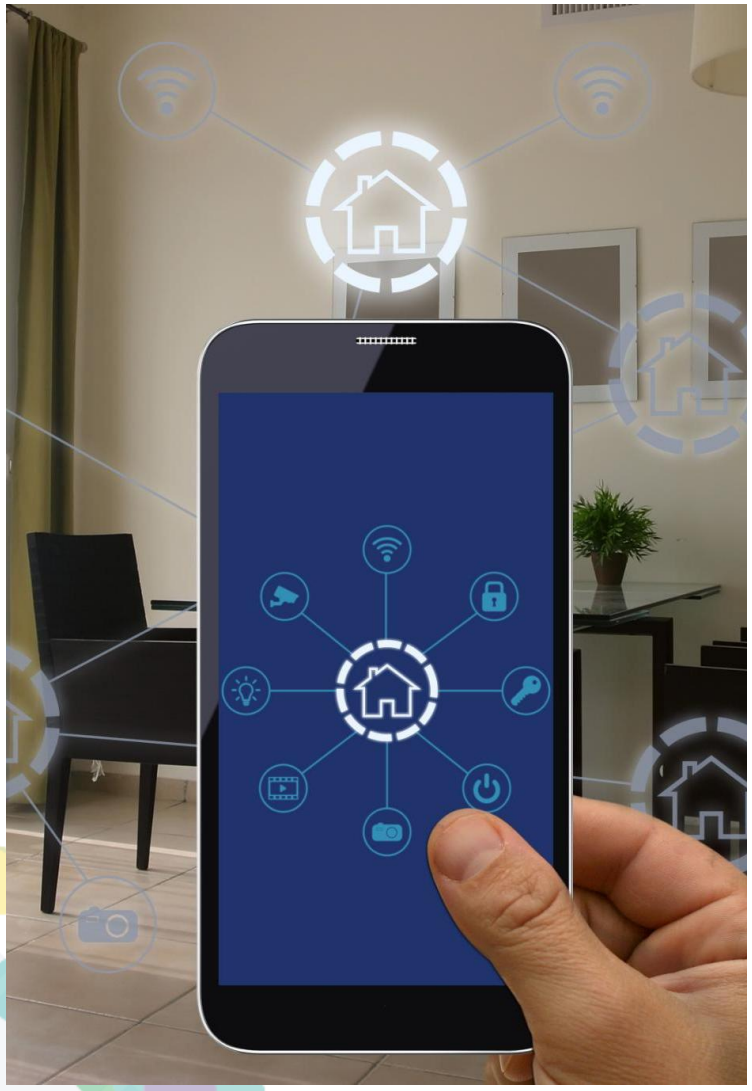
Limitations of In-person Care

Relying on in-person visits limited proactive chronic disease management and increased burden on patients and clinicians.

Technology-enabled Solutions

Digital tools and decentralized care help alleviate pressures and improve access and patient engagement.

Structured Clinical Oversight at Home



Virtual Wards Overview

Virtual wards provide structured clinical oversight at home, reducing hospital admissions and bed occupancy.

Remote Monitoring and Communication

Remote monitoring, video consultations, and digital documentation ensure patient safety and continuous care.

Benefits for Chronic and Post-Acute Care

Virtual wards effectively manage chronic conditions and support early discharge and readmission prevention.

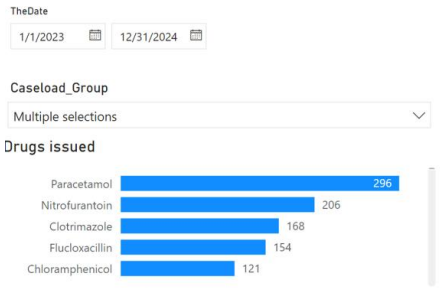
Integrated Patient-Centred Care

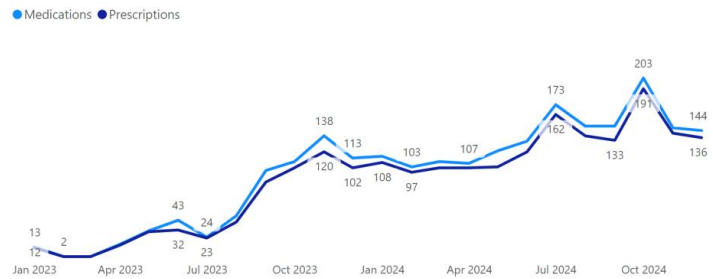
Virtual wards contribute to integrated, patient-centred care pathways improving overall health outcomes.

Governance/Quality

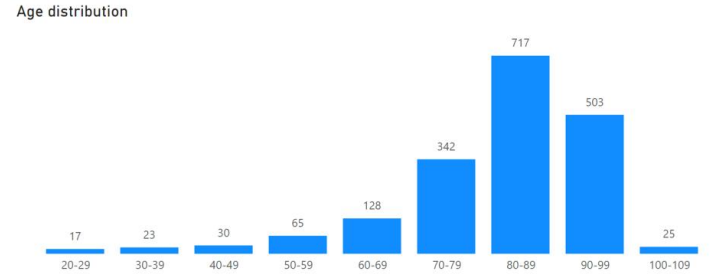
- Senior Clinical Leadership
- Call management system including recording of incoming calls
- Quarterly audit of a random number of calls by Team Leader
- Health professional feedback forms completed and logged
- Patient feedback
- Monthly Governance meeting
- Escalation of issues to Directorate and Divisional Board

Prescriptions Summary

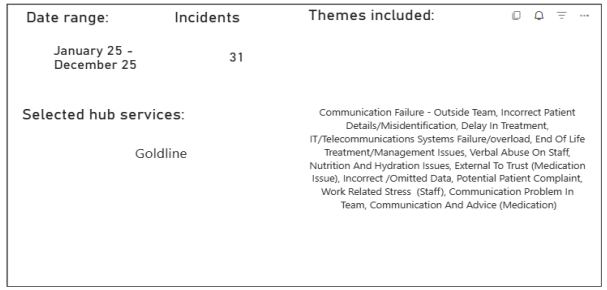


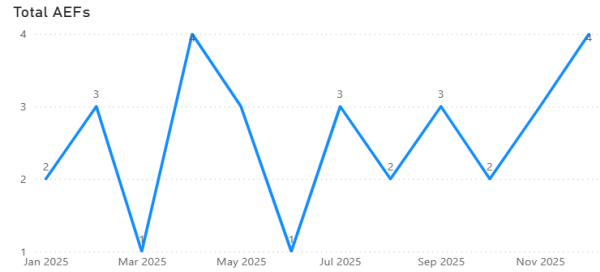


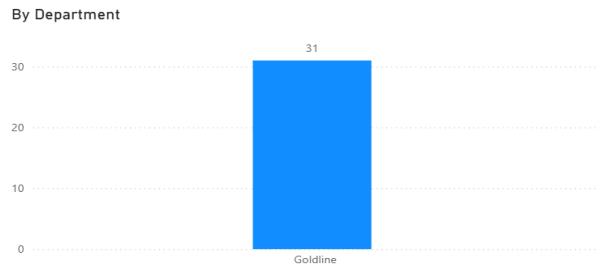


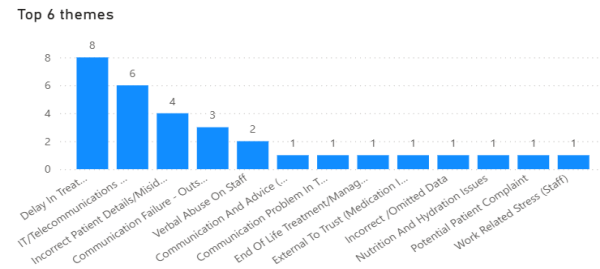


Incidents

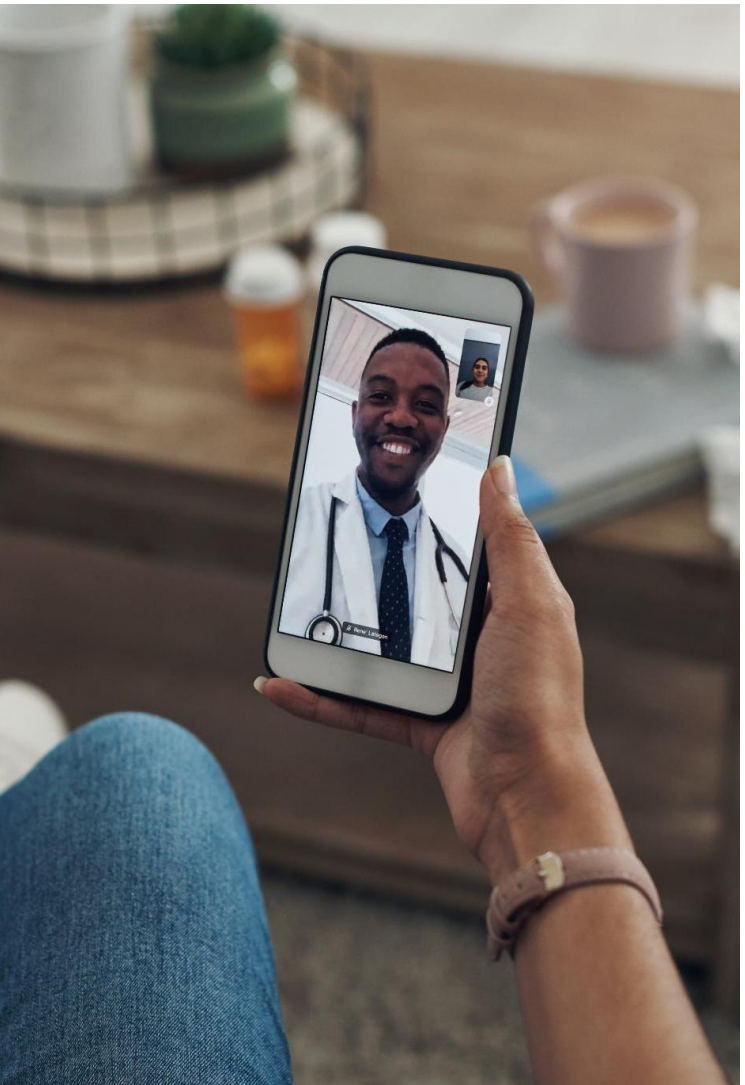








Outcomes of Digitally Enabled Services



Improved Healthcare Performance

Digital services reduce ambulance conveyance and hospital stays, enhancing patient flow and care efficiency.

Enhanced Staff Wellbeing

Reduced administrative tasks through technology improve healthcare staff wellbeing and job satisfaction.

Patient Satisfaction and Outcomes

Patients experience higher satisfaction, confidence in managing their health, and improved health outcomes.

Economic Benefits

Cost savings and positive return on investment demonstrate the financial value of digital health solutions.

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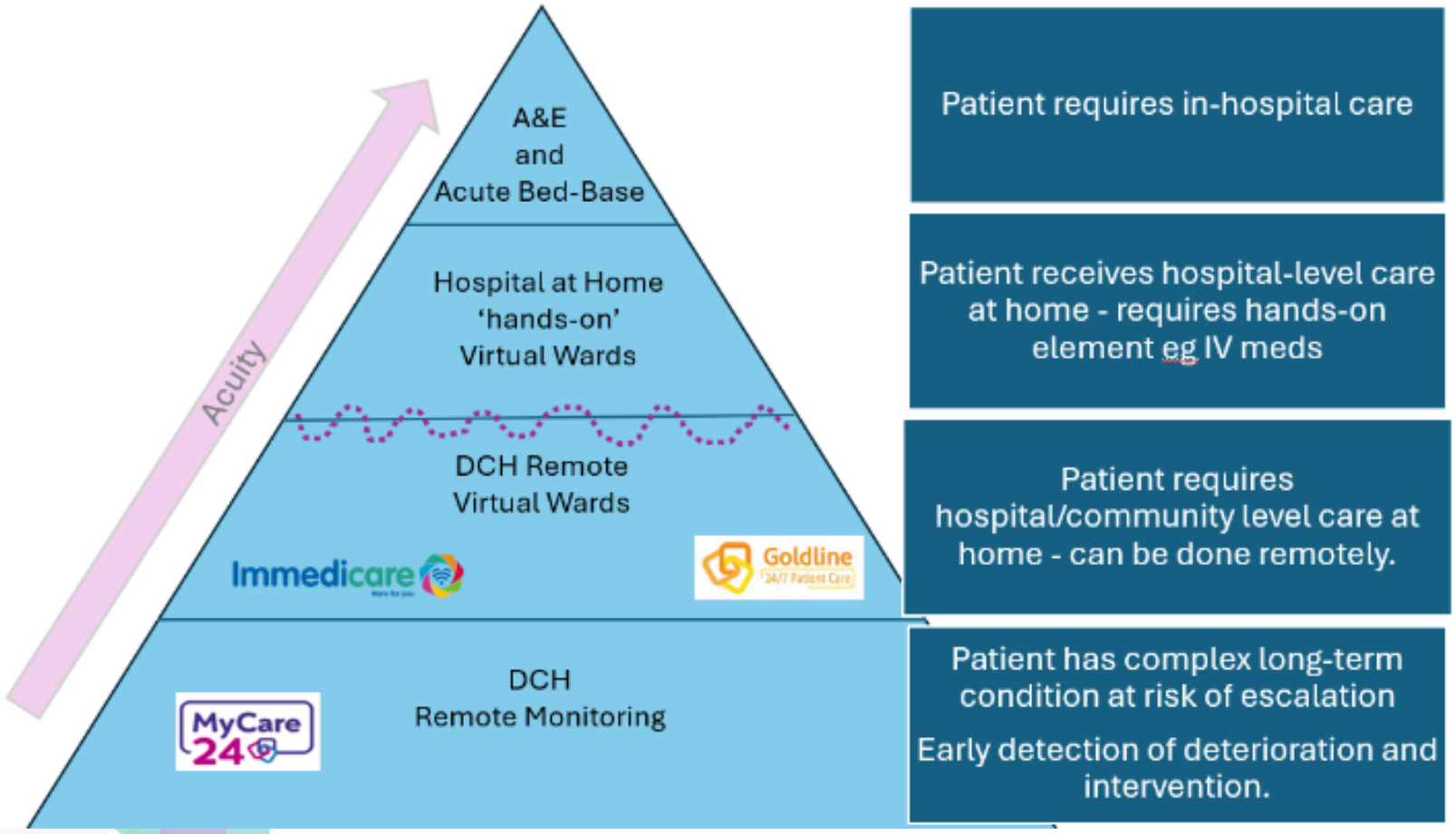
Future Vision and Ambition

How we will get there





Vision – Out of Hospital Care Co-ordination



- **Digitally Enabled Remote Care:** We will focus on virtual-first, remote care for urgent and emergency needs, ensuring safe support at home.
- **Collaboration and Integration:** We'll work with community teams to expand blended virtual services, participate in the Neighbourhood Health Model with multidisciplinary home care, and increase pharmacy support for all virtual services.
- **Sustainability and Growth:** We aim to scale up safe, sustainable out-of-hospital care in line with New Hospital Programme (NHP) goals.

Gateway to Care/DCH

Airedale NHS Foundation Trust

Gateway to Care is a strategic enabler for service redesign across Bradford District and Craven, not just a digital infrastructure investment

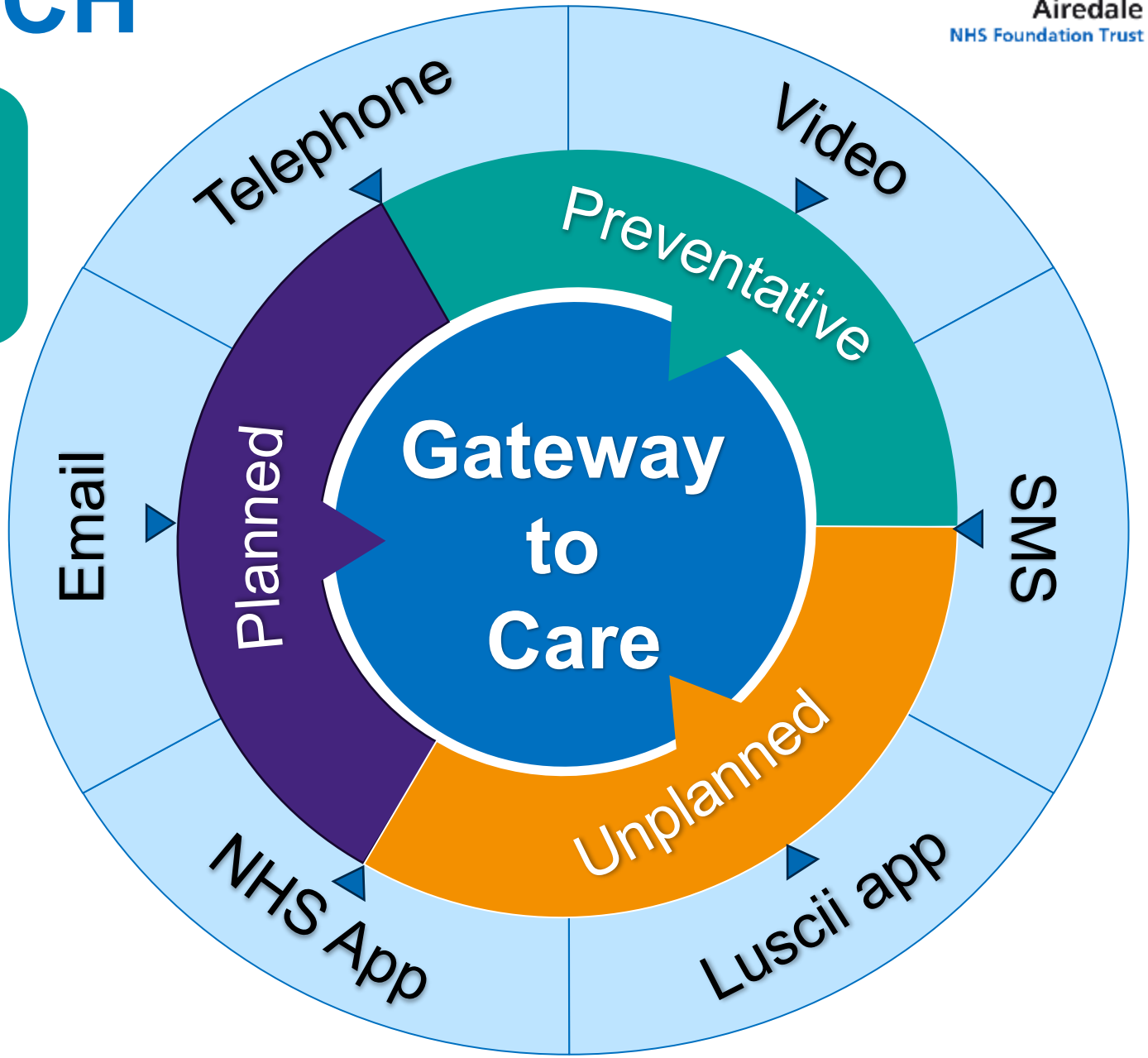
1. **Simplify access**
   Consolidate 50+ local access points where possible.

ED front door

2. Patients will be encouraged to call the gateway to care before going to ED and pathways will be in place with 111

3. **Automate routine tasks**
   AI supports admin and signposting.

4. **Guide service options**
   Directory suggests service options to clinicians.



What Next



Enabling safe, sustainable, out of hospital care through place-based digital transformation

- **Single Point of Access**
  One clear route into services at Place
- **Gateway to Care – Patient Navigation**
  4-year transformation programme

RtCS Bid
AI-enabled cutting edge technology & partners (inc. NHS App intelligent navigation team)

4.2% uplift in community services productivity monies

Workforce Transformation

Year 1

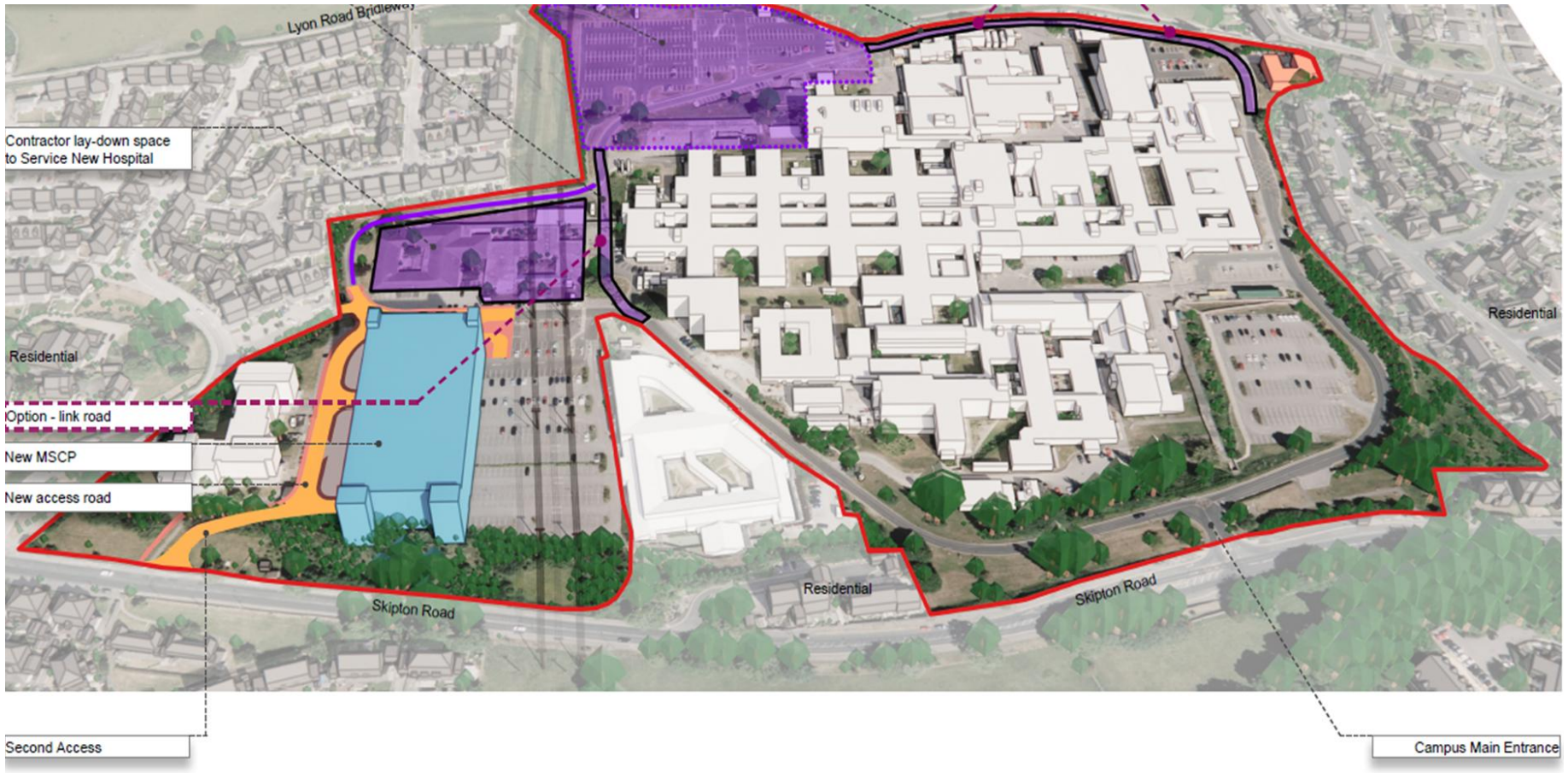
- Discovery & service design
- Clear delivery roadmap
- Procurement & partner selection

Strategic Alignment

- Neighbourhood Health Model
- Left-shift to community care
- NHS 10-Year Plan
- Digital transformation priorities

New Hospital Program 2030 and beyond

- Focus on the future
- Services need to be future proofed, digital and aimed at community care and prevention



Morning Skills Clinic



Laura Harper
Group Manager
Royal Wolverhampton NHS Trust



Rachel Williams
Associate Chief Operating Officer
South Warwickshire University FT

Sophie Edwards
Consultant Geriatrician, Lead for Camden Hospital@Home and NCL SPOA, CNWL

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Refreshments & Networking



Chair Morning Reflection



Gurnak Singh Dosanjh
GP & ICB Deputy Chief Clinical Information Officer
Leicester, Leicestershire & Rutland ICB

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Case Study

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Case Study



Dee Lowry
Assistant Director, Value and Efficiency
Cwm Taf Morgannwg University Health Board, Wales NHS

CTM 2030
Ein Hiechyd
Ein Dyfodol
DATBLYGU CYMUNEDAU
IACHACH GYDA'N GILYDD

CTM 2030
Our Health
Our Future
BUILDING HEALTHIER
COMMUNITIES TOGETHER

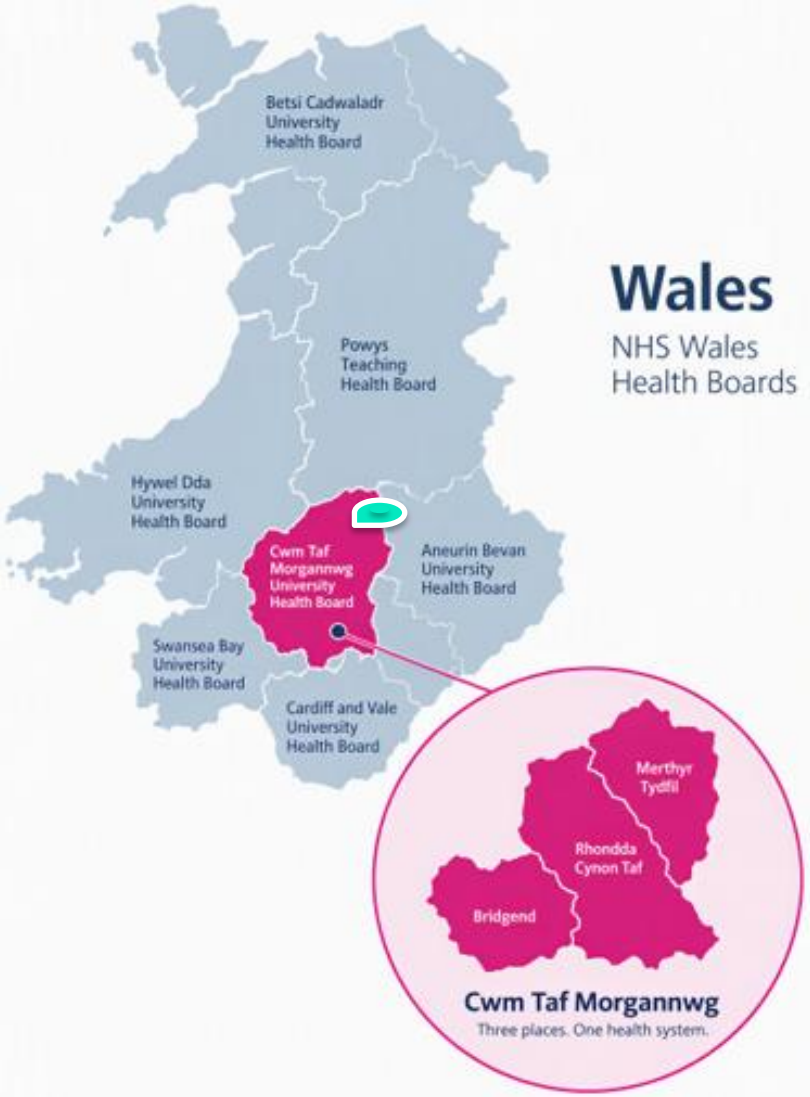
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From Strategy to Better Care:
Designing a Healthier, More Proactive and Connected System in Cwm Taf Morgannwg

Dee Lowry

Assistant Director: Value & Efficiency

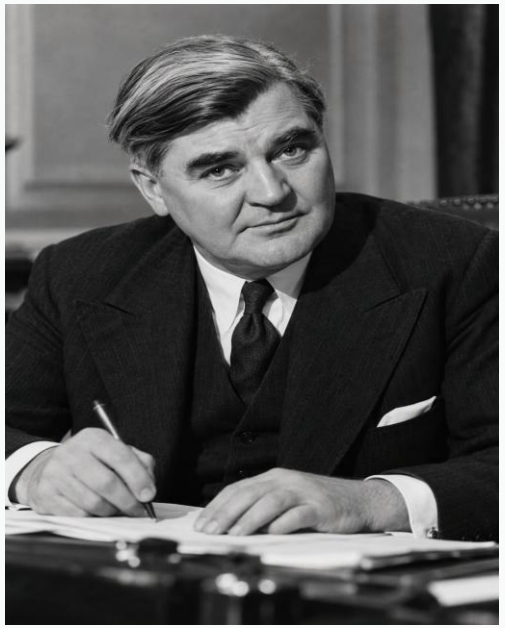
Cwm Taf Morgannwg University Health Board



Wales
NHS Wales
Health Boards



449k Population



> **No society can legitimately call itself civilised if a sick person is denied medical aid because of lack of means.**

Aneurin Bevan
In Place of Fear, 1952

SHWMAE
"shoo-my" Hello

BORE DA
"bor-eh dah" Good morning

CTM 2030
Ein Hiechyd
Ein Dyfodol
DATBLYGU CYMUNEDAU
IACHACH GYDA'N GILYDD

CTM 2030
Our Health
Our Future
BUILDING HEALTHIER
COMMUNITIES TOGETHER

STARTING WELL

GROWING WELL

LIVING WELL

AGEING WELL

DYING WELL

Reducing health inequalities
Equal focus on mental and physical health
Supporting our communities
Being a healthy organisation

CREATING HEALTH



IMPROVING CARE

Delivering safe and compassionate care
Developing new models of care
Digital transformation for patients and staff
Ensuring timely access to care

Becoming a green organisation
Ensuring our services financial sustainability
Embedding value based healthcare
Ensuring our estate is fit for the future

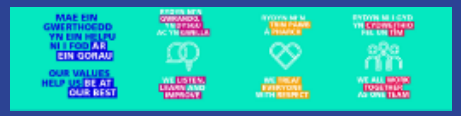
SUSTAINING OUR FUTURE

INSPIRING PEOPLE

Visible and inspiring leadership
Promoting diversity and inclusion
Embedding our values and behaviours
Encouraging local employment

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board

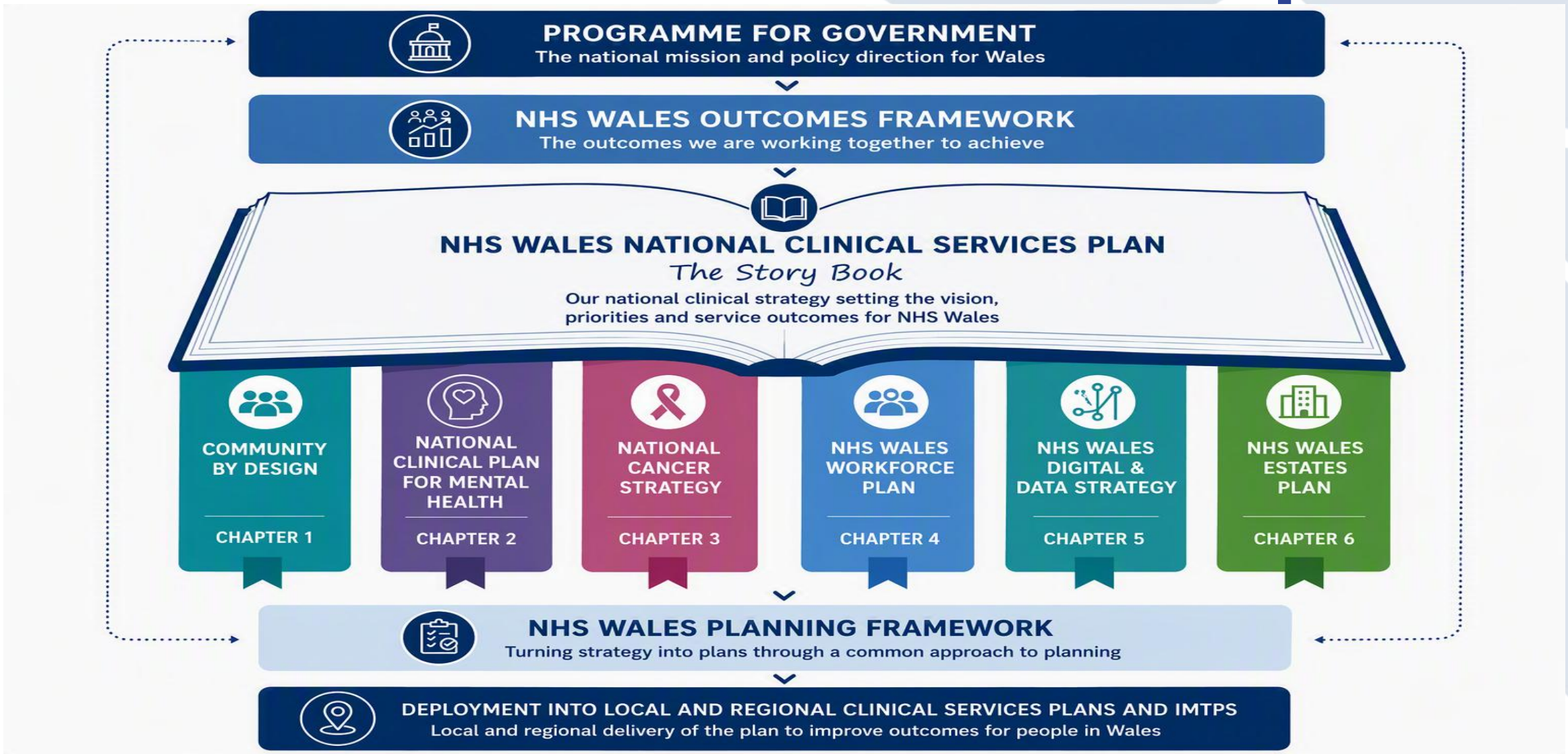
CTM 2030 Ein Hiechyd Ein Dyfodol DATBLYGU CYMUNEDAU IACHACH GYDA'N GILYDD
CTM 2030 Our Health Our Future BUILDING HEALTHIER COMMUNITIES TOGETHER



CREATING HEALTH
IMPROVING CARE
INSPIRING PEOPLE
SUSTAINING OUR FUTURE

ctmuhb.nhs.wales

National clinical services plan



Rising demand, inequality & capacity pressures make the case for change

Population growth

3.2%
CTM population growth, 2014–2024

Significant health inequalities

53%
live in the two most deprived Welsh quintiles

58%
live in the two most health-deprived quintiles

Rising demand and backlog

~6,000 to ~9,000
red ambulance calls, 2021 to 2024

>82,000
open referral-to-treatment pathways, May 2026

Capacity under pressure

79%
of 671,929 outpatient slots are follow-up

72.1%
adjusted utilisation of 4,083 elective theatre sessions

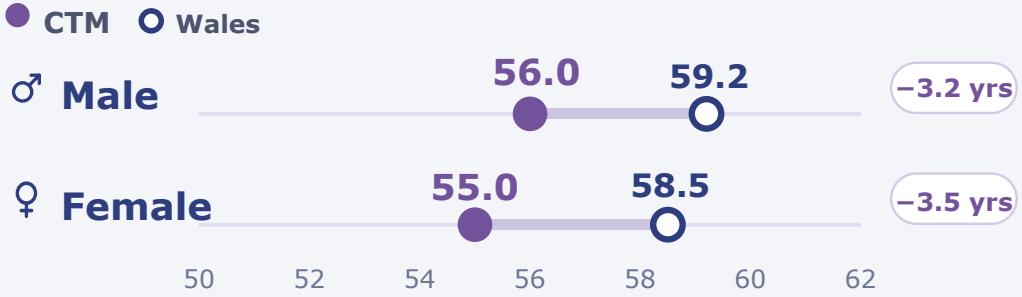
Four pressures, one conclusion: the current model cannot meet future need on its own

People are falling into ill health earlier & need varies sharply across CTM

CTM residents live fewer years in good health than the Wales average, and deprivation is far from evenly spread

Healthy life expectancy, 2022–2024

Years lived in good health



More than 3 years earlier: on average, CTM residents lose good health well before the rest of Wales.

Need varies sharply by community

25% to 80%

of residents live in the two most deprived quintiles, depending on the area



3.2 × the share of residents in the most deprived areas, Rhondda vs Bridgend East

Earlier prevention and support matched to local need are essential to improve outcomes equitably

Prevent earlier

Close the gap

Match to local need

Access has improved, but patients still face substantial waits

The planned care backlog is shrinking, yet mental health access and emergency waits remain behind Wales

Planned care is recovering

Open referral-to-treatment pathways



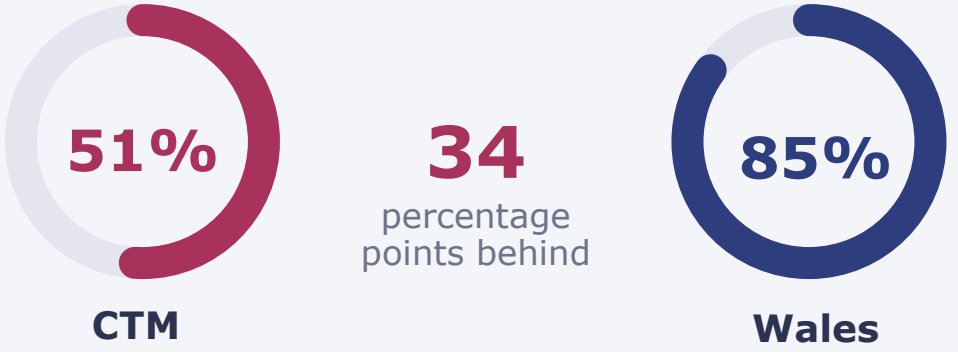
↓ ~25%

About 27,000 fewer open pathways

Progress, not yet recovery: the backlog remains substantial

Mental health access still lags Wales

Local Primary Mental Health Support Services: assessed within 28 days, March 2026



Only half of CTM patients are assessed within 28 days

Long waits persist across pathways

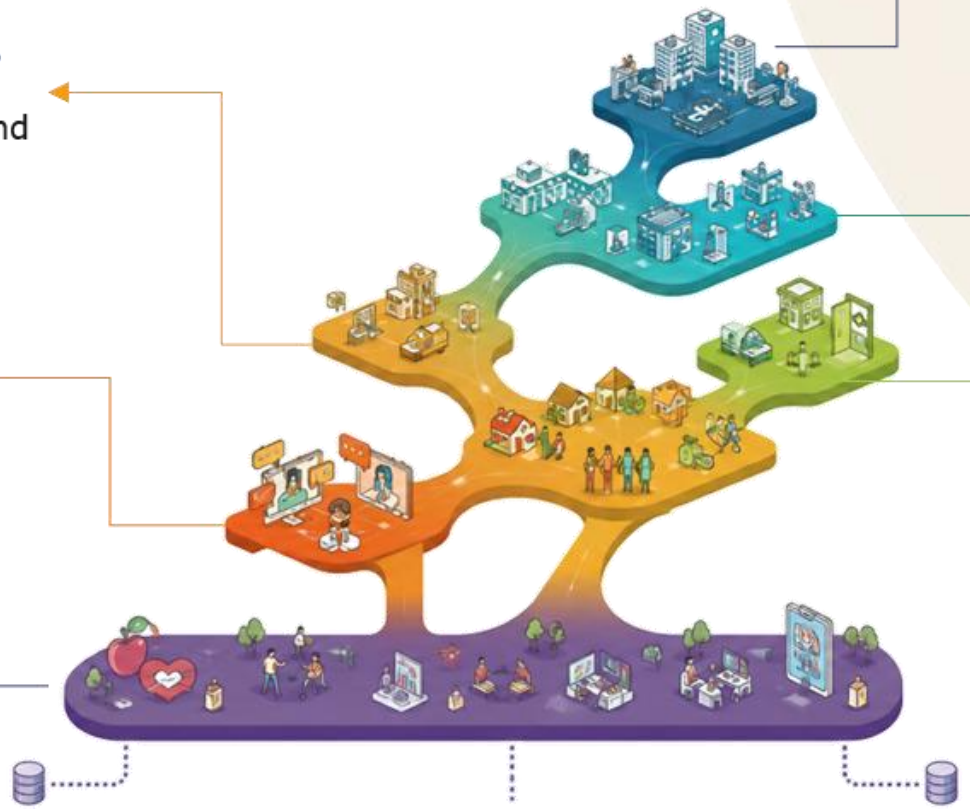
Emergency-department mean time also exceeded Wales for most of January 2024 to June 2026

CTM 2030 - A Preventive, Connected & Responsive System of Care

Community Urgent Access
Rapid response and urgent care centres designed to absorb demand without hospital admission

Virtual Access
The system's 'front door' featuring online advice, digital GPs and early triage

Prevention
Proactive, personalised and population-based prevention to keep people well for longer and reduce future demand



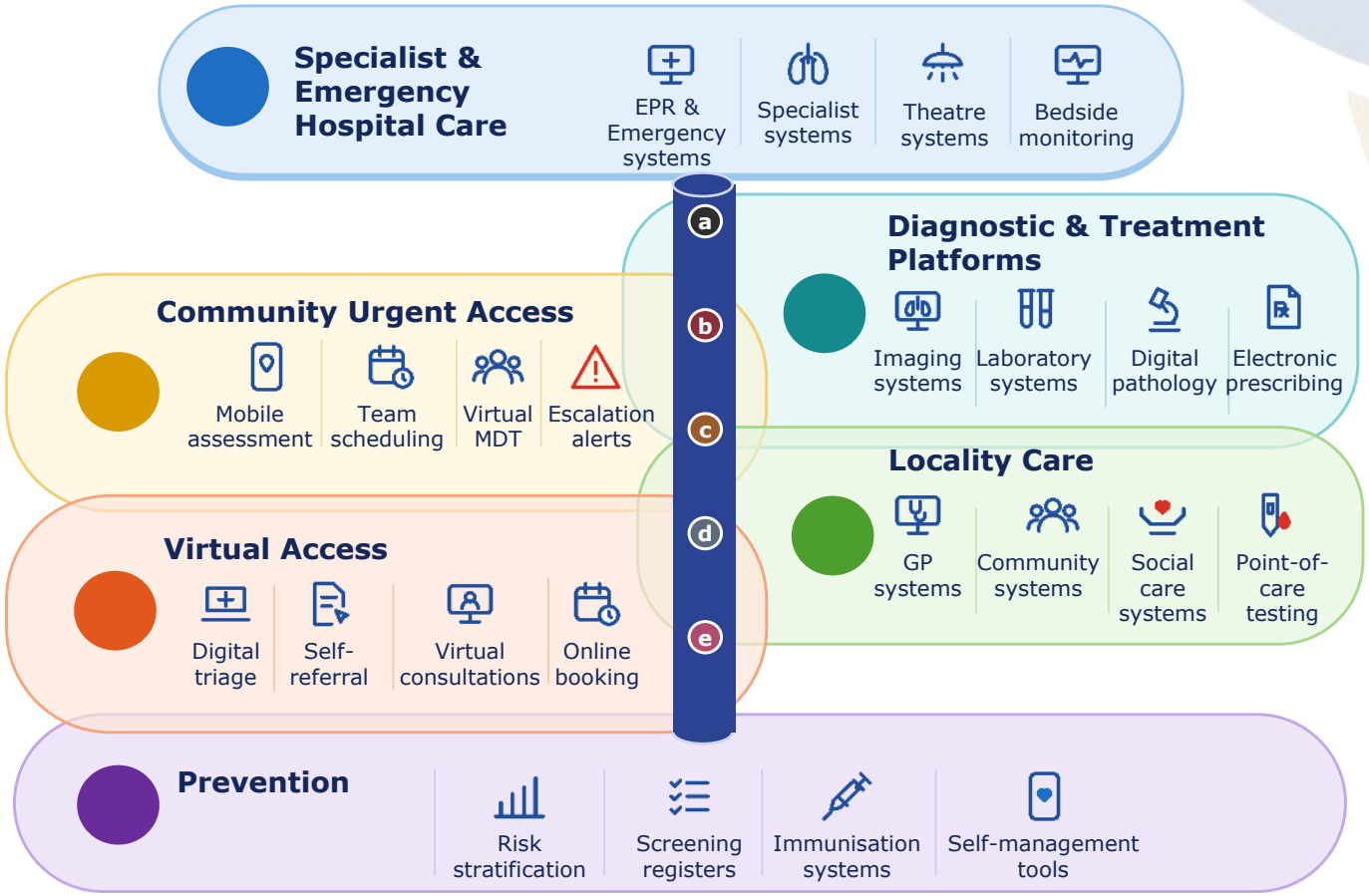
Specialist & Emergency Hospital Care
Hospitals transition from the "default location" to a component reserved for complex and critical care

Diagnostic & Treatment Platforms
Community diagnostic centres and facilities operating at scale outside of traditional hospital infrastructure

Locality Care
Integrated primary, social, and preventative care teams supporting patients in their own homes

Shared Digital Foundations

Digital & Data Supporting the Future Care Model



Shared Digital Capabilities

Available across the care layers

a — Digital Access
NHS Wales App, portal and patient messaging

b — Shared Care Information
Records, results and medicines

c — Care Coordination
Referrals, care plans and handovers

d — Remote Monitoring
Home observations and clinical alerts

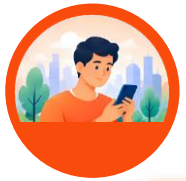
e — Analytics, AI & Decision Support
Population insight and clinical decisions

Systems and data connect care across settings

Shared Digital Foundations

Connected Data, Common Standards & Governance

- Interoperability
- Identity & Access
- Cybersecurity
- Networks, Cloud, AI and Devices



Virtual Access

Refer & Access Services

Allow people to refer themselves and access the right services

- Patient self-referral
- Patient care portal
- NHS Wales App

Check, Access & Guidance

Enable people to check symptoms, get digital assessment and find the right care

- Digital front door/ Symptoms triage
- Self checking/ Digital way finding
- POA digital screening



Access advice, assessment & support remotely

Manage Appointments

Enable people to book, manage and access appointments digitally

- Booking system/ Online appointment
- NHS Wales App
- Patient portal

Receive Virtual Care

Provide remote consultations and ongoing support, including care closer to home

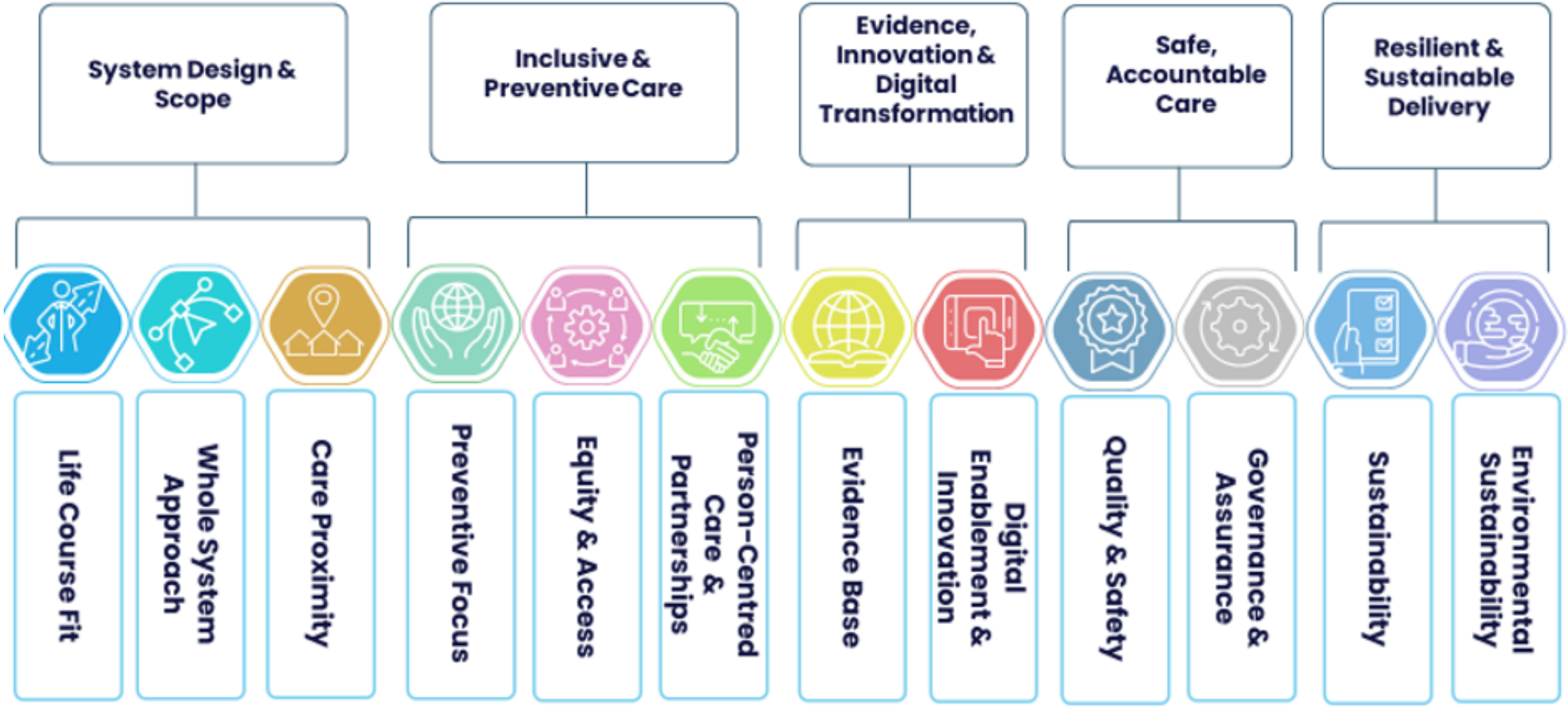
- Virtual consultations
- Wearables and remote monitoring

Stay Informed

Provide personalised information, reminders and ongoing engagement

- Patient-focused messaging

Service Design Principles



Our developing tiered model for technology-enabled care

A proportionate, outcomes-focused approach to using technology across our population — From simple monitoring to complex, acute care at home — integrated with existing NHS services.

Our principles

Person-centred	Right care, at the right level, for the right person
Evidence-based	Driven by outcomes and value
Integrated	Across primary, community and secondary care
Equitable	Accessible to all, with choice and support

ACUTE CARE AT HOME • two complementary routes, with movement in either direction as need changes

Increasing intensity and immediacy of care

6 Acute care at home: step-down

e.g. post-discharge observations, wearables, symptom tracking, video review and digital rehabilitation

Earlier discharge with clinically led care at home

- From ED, SDEC, AMU, acute or community wards
- Remote + face-to-face monitoring, treatment and recovery
- Clear clinical responsibility, escalation and transition

5 Acute care at home: step-up

e.g. SpO2, BP, pulse, temperature, ECG, video assessment and home diagnostics

Hospital-level care that can safely be delivered at home

- Access via Navigation Hub, community, WAST or acute front door
- Rapid MDT assessment, monitoring, diagnostics and treatment
- Clear thresholds for escalation into hospital care

4 Population-level proactive care

e.g. risk stratification, multi-condition monitoring, population intelligence and proactive outreach

Proactive, personalised, multi-condition support

- Population health intelligence to identify and prioritise cohorts
- Proactive outreach, monitoring, health coaching, medication optimisation
- Data-driven escalation into NHS and partner services

- Learning from models such as Royal Free, adapted for our population
- Requires robust evidence, workforce capacity and sustainable funding

3 Partner-supported proactive care

e.g. connected observations, symptoms, coaching, medication review and clinical triage — current COPD model

TEC with partner clinical monitoring

- Patient-generated observations and symptom reporting
- Outreach, onboarding, monitoring, health coaching and medication review provided by an external partner

- Escalation to CTM services when clinical input is required
- Additional layer around existing care, not a replacement

2 Connected device monitoring

e.g. continuous glucose monitoring, hybrid closed-loop systems, pacemakers and connected therapeutic devices

Device-enabled monitoring

- Data generated directly from medical devices
- Continuous or automated data flow
- NHS clinical teams interpret and respond

- Requires device-specific governance, clinical engineering and integration
- Supports Data-Informed Follow-Up (DIFU)

1 Patient-generated remote monitoring

e.g. BP, weight, pulse, glucose, peak flow and symptoms

Remote monitoring with NHS clinical review

- Patients submit defined observations and/or symptoms
- Reviewed by NHS teams using agreed protocols

- Supports Data-Informed Follow-Up (DIFU)
- Based within existing pathways (e.g. heart failure)

Data-Informed Follow-Up (DIFU) Use data across levels to intervene earlier and reduce unnecessary routine contacts.

Referral / transition routes Navigation Hub • community • WAST • ED • SDEC • AMU • wards

Technology reflects clinical need, intensity of support and pathway response — not the device alone.



Dewi

A 54-year-old living in Pontypridd, living with COPD

"I want to stay active, independent and manage my condition at home"

Specialist & Emergency Hospital Care
Specialist assessment, inpatient care, surgery and complex treatment

Diagnostic & Treatment Platforms
Imaging, pathology and other diagnostic services to confirm diagnosis and guide treatment

Community Urgent Access
Rapid community assessment and intervention to manage exacerbations and avoid hospital admission

Locality Care
GP and primary care, community services and ongoing local support

Virtual Access
Remote advice, monitoring and self-management support

Prevention
Population health, early identification of risk and proactive support

1 Staying active and managing risk factors
Advice, exercise, vaccination and self-management support.
NHS Wales App

2 Seek advice for worsening symptoms
Contact GP or local service for assessment and advice.
NHS Wales App

2a Digital symptom assessment and self-care
Online symptom checker, self-care advice and guidance.
NHS Wales App

3 GP assessment and personalised care plan
Review of symptoms, medication and referral if needed.
EMIS (shared record)

3a Community services and rehabilitation
Pulmonary rehab, smoking cessation and community support.
Community record

4 Community urgent response at home
Rapid assessment and treatment to manage exacerbation.
Doccla (remote monitoring)

4a Diagnostic tests (as needed)
Imaging, pathology and lung function tests.
PACS/RIS

4b Hospital admission (when clinically needed)
Acute assessment, treatment and stabilisation.
Nervecentre ED
EPR

4c Specialist review and procedures (if required)
Advanced diagnostics and interventions if needed.
PACS/RIS (imaging)

5 Recovery and step-down to locality care
Discharge to GP and community services with a tailored care plan.
EMIS (shared record)

6 Ongoing monitoring and self-management
Track symptoms, receive alerts and advice.
NHS Wales App

6a Flare-up and deterioration detected (if needed)
Automatic alerts or worsening symptoms trigger response.
Doccla

7 Long-term management and staying well
Continues proactive care, monitoring and lifestyle support to prevent future flare-ups.
NHS Wales App

Shared information, care plan and clinical ownership
Information follows Dai across all services, with coordinated handover

Early awareness and prevention
Initial contact and assessment
Diagnostic investigation and confirmation (when needed)
Treatment and intervention (in hospital or at home)
Ongoing management and monitoring
Flare-up and escalation (if needed)
Recovery and long-term management

Potential Routes

Implemeting a technology-enabled proactive care model designed to impact non-elective bed-days in partnership with Doccla

ASSERTIVE OUTREACH

Tech-enabled enrolment

- → AI predictions of at-risk cohort inform the patient list and prioritisation.
- → Multichannel outreach including letters, SMS and phone.
- → Hands-on assistance with onboarding including wearables and monitoring devices shipped to patients homes.

Health Coaching & Navigation

- Conversations grounded in data and early warning signs, not patient recall.
- The Patient App surfaces personal goals and progress.
- Care gaps identified and closed proactively.
-Patients see progress, trends and goals in their own app and get nudged to close gaps in care.

RPM-supported Medication Support

- Titration informed by weeks of home BP, HR and SpO2, not a single clinic reading.
- Pharmacist or nurse sees the response to changes in real time.
- Adherence visible through submission patterns and trends.

Smarter Data-Driven Escalations

- Every referral reaches the MDT with full context: current observations, baseline and trajectory.
- The receiving clinician knows what normal looks like for that patient based on longitudinal RPM data.
- Data shared via the Patient App, EPR integration and GP Connect.

ANTICIPATORY CARE

24/7 remote monitoring

- → Personalised thresholds, NEWS2 scoring and longitudinal observations inform AI-enabled caseload management.
- → Qualitative measures including EQ-5D and Health Confidence Score.
- → 24/7 phone line for patients who feel unwell

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One Team. One Pathway. Better Flow. Better Outcomes.

Coordinating frailty, admission avoidance and discharge across CTM

through shared operational oversight and collective accountability.

PATIENT ENTERS THE SYSTEM



Ambulance Arrival



ED / Front Door



People living with frailty

FRONT DOOR FRAILTY NAVIGATION TEAM

- Early Frailty Assessment & Comprehensive Geriatric Assessment
- Admission Avoidance Where Appropriate
- Early Discharge Planning Starts Day One
- Care Navigation Right care, right place, right time
- Deconditioning Prevention and Functional Support

FOUR PATHWAY OPTIONS FROM THE FRONT DOOR

HOME FIRST
- Admission Avoided
- Support at Home

Stay well at home with the right support

HOSPITAL@HOME (VIRTUAL WARD)
- Active Treatment in the Community
- Hospital Level Care at Home

Equivalent care, closer to home

COMMUNITY HOSPITAL (DIRECT ADMISSION)
- Step-Up / Step-Down Care
- Rehabilitation Environment
- Shorter Stay

Right care in the right environment

ACUTE ADMISSION (ONLY WHEN REQUIRED)
- Only when necessary
- Shortest Stay Possible
- Shocharge Focused from Day One

Acute care when it is needed



VIRTUAL FRAILTY NAVIGATION TEAM

Bringing together a range of services and professionals

- **Hospital@Home MDT** — Community clinicians, nursing, medical and support teams
- **Therapies** — Rehabilitation, reablement and functional recovery
- **Social Work** — Care assessments and care planning
- **Complex Discharge Team** — Specialist discharge planning and coordination
- **Discharge Hub** — Central coordination, tracking and escalation
- **Community Services** — District nursing, community teams, equipment and support
- **Care Homes & Community Support** — Alternative pathways and support

The Virtual Team does not require complex organisational restructuring.

Professional governance and line management remain unchanged, whilst services work together through shared operational oversight and collective accountability.

DELIVERING WHAT MATTERS

- Better outcomes for people living with frailty
- Fewer avoidable admissions
- Reduced delayed discharge days
- Improved patient flow and system capacity
- Improved ED performance
- Reduced ambulance handover delays
- Better patient and carer experience
- Stronger system resilience

ENABLERS OF SUCCESS

- Executive Sponsorship and Visible Leadership
- Community Capacity & Infrastructure
- Dedicated Flow & Discharge Leadership
- Partnership Working across Health, Social Care and Third Sector
- Shared Outcomes & Performance Frameworks
- Workforce Engagement & Clinical Leadership to Support Change

THE RISK OF INACTION

Without earlier frailty intervention and coordinated discharge planning, hospital flow will remain constrained, reducing available bed capacity, worsening Emergency Department performance and increasing ambulance handover delays.

THE PATIENT JOURNEY – RIGHT CARE, RIGHT PLACE, RIGHT TIME

1. **Front Door Assessment** — Welcoming, frailty identification and screening
2. **Comprehensive Assessment** — Frailty assessment, CGA and care planning
3. **Right Pathway Decision** — Home first, Hospital@Home, Community Hospital or Acute if needed
4. **Integrated Treatment** — Coordinated MDT care in the right setting
5. **Discharge Planning Starts Day One** — Clear plan, goals and support arranged early
6. **Recovery at Home / Community Hospital** — Rehabilitation and ongoing support in the community
7. **Sustained Independence** — Better outcomes and quality of life



Preventing unnecessary admissions | Reducing deconditioning | Discharge starts Day One | The right patient, in the right place, at the right time

Better for patients.
Better for families.
Better for our system.

Cysylltu Trawsffurfio Cymell ICTM Connect Transform Motivate
Value Based Health Care

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How does CloudCare work?



Digital Health Assessment and Experience Timeline

Baseline	Follow-up	Yearly follow-up
When the patient got uploaded to the Promptly system	12 months (Year 1)	Years 2–10
Patient Survey T1DDS EQ5D-5L	Patient Survey T1DDS EQ5D-5L **PES (People Experience Survey)**	Patient Survey T1DDS EQ5D-5L **PES (People Experience Survey)**
PROM message 7 days before baseline date	**PROM/ PREM message** 1 day before the 12-month follow-up	

These are not these patients to the system manually via a spreadsheet.

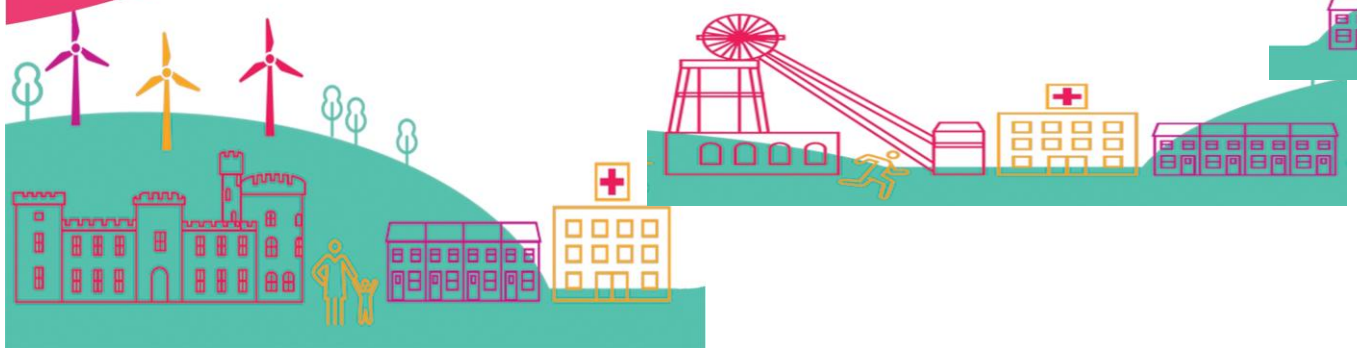
Cwm Taf Morgannwg
University Health Board
Case for Change Evidence review
October 2026

DRAFT V for DISCUSSION
(released 15 October 2026)

CTM 2030: **Model for change**
September 2026

CTM 2030 **Strategic Vision for the Future Model of Care**
September 2026

Draft for discussion



Three ‘products’ to support engagement on the model & provide the basis for changes

DIOLCH YN FAWR

Thank you

From strategy to better care

Dee Lowry

dee.lowry@wales.nhs.uk

CONVENZIS

Case Study

Ortus-iHealth

CareAnywhere



Case Study



Dr Debashish Das
Consultant Cardiologist at Barts Heart Centre
CEO of Ortus-iHealth

CareAnywhere

One infrastructure.
Planned and unplanned care.

Building the infrastructure beneath the virtual hospital

Dr Debashish Das
Consultant Cardiologist, Barts Heart Centre
CEO, Ortus-iHealth



A virtual hospital needs outpatients and wards

VIRTUAL OUTPATIENTS · PLANNED

Waiting lists, pre-op, medicines titration, follow-up, long-term conditions

VIRTUAL WARDS · UNPLANNED

Admission avoidance, step-up, early supported discharge, hospital at home

Most virtual care has been built for unplanned care. Most patients are in planned care, and the same patient moves between the two.

Every level of acuity, one platform

LOWER ACUITY → HIGHER ACUITY

Tracked and connected

Pathway management and connected care: waiting lists, pre-op readiness, questionnaires, routes back in

Step-up, step-down, optimisation

Titration, pre- and post-procedure monitoring, waiting for surgery

Virtual wards and hospital at home

Patients who would otherwise be in a bed

THE PLATFORM

One platform. Four capabilities.



MANAGE

Keep every patient moving

A waiting list shows who is waiting. Ortus shows why, and what's next: every step tracked, milestones and overdue actions flagged.

CONNECT

Stay with patients between appointments

App or web. Information, questionnaires, PROMs, symptom reporting, routes back in.

MONITOR

Know when to intervene

BP, HR, weight, SpO2, ECG and symptoms from home, colour-coded against clinician-set thresholds.

AUTOMATE

Extend workforce capacity

OVIA, our AI voice agent, handles routine calls and surfaces the exceptions.

VIRTUAL OUTPATIENTS VIRTUAL WARD

From the waiting list to home, on one pathway

PLANNED

1

Referral and listing

Added to the elective cardiac surgery pathway

PLANNED

2

Waiting safely

Monitored at home while on the list

URGENT

3

Urgent step-up

Awaits urgent CABG at home under daily monitoring, not in a bed

STEP-DOWN

4

Surgery, step-down

Virtual ward support after the operation

STEP-DOWN

5

Recovery

PROMs, symptoms and remote review replace routine clinics

MANAGE

Pathway management

Live view of every patient on the pan-London elective surgery list: tests, scans, readiness, overdue steps

CONNECT

Patient app

Pre-op information, digital consent, PROMs and a route back in

MONITOR

Remote monitoring

Daily vitals, symptoms and ECG, with escalation on clinician-set thresholds

AUTOMATE

OVIA voice agent

Waiting-list contact and pre-op check-ins

One screen for the whole pathway

Pre-operative cardiac surgery pathway — 6 PATIENTS

PATIENT	SYMPTOMS	PROMS	CONSENT	BLOODS	CT	ECHO	MDT
Patient A	Stable	Done	Done	Done	Done	Done	Due 12 Nov
Patient B	Alert (3)	Done	Done	Done	Overdue (1)	Due 12 Nov	Due 19 Nov
Patient C	Review	Done	In progress (2)	In progress	Due 12 Nov	Due 14 Nov	Due 19 Nov
Patient D	Stable	Done	Done	Done	Done	Done	Done
Patient E	No reply	Overdue	Overdue	Overdue	On hold	Due 21 Nov	Due 26 Nov
Patient F	Review	Done	Done	Done	Done	Overdue	Due 19 Nov

Steps turn Overdue automatically when the target date passes. Illustration, not a screenshot.

1. **Every step, every patient**
   Bloods, CT, echo and MDT tracked against target dates. Delays flag themselves.

2. **Ready before clinic**
   PROMs and consent completed digitally before the appointment, not in it.

3. **Changes flagged early**
   Symptom questionnaires show who has deteriorated while waiting.

SPREADSHEET, EMAIL AND PHONE

A list someone has to keep up to date. The patient has no input, and copies multiply.

→

ORTUS

A live pathway the patient helps keep current, one shared record, and every action tracked.

Replaces spreadsheets and chasing with one live view of every patient, so teams spend less time on admin, get patients surgery-ready sooner, and know no one is being missed.

Safe at home, from elective to urgent

ELECTIVE WAITING LIST

71%
lower pre-operative mortality (0.6% vs 2.2%)

51%
fewer unscheduled admissions (2.1% vs 4.3%)

1,164 patients; 799 (69%) engaged with monitoring. Effect held after propensity matching.

Kirupananthavel A, et al. Eur Heart J Digit Health 2026; ztag166.

URGENT · WATCH VIRTUAL WARD

0%
pre-op MACE

0%
30-day mortality

~1,150
bed-days released

95%
felt safe at home

Patients awaiting urgent CABG wait at home with daily monitoring, not in a hospital bed.

128 patients, three UK centres. Kirupananthavel A, et al. Open Heart 2026;13:e003568.

No app, no login. Just a phone call.

Patients who never engaged digitally had the worse outcomes. Taking 29% of our 400-patient waiting list onto weekly 10-minute OVIA check-ins frees:

19
nurse hours / week

84
nurse hours / month

~1,000
nurse hours / year

From clinic-paced to data-paced titration

BEFORE **Standard care**	Discharged on starter doses	→ Clinic review every 8–12 weeks	→ 15–30 min appointment, one titration	→ Repeat: 10–12 patients a week	**179** median days to optimal therapy
AFTER **Ortus**	**Monitor** Daily heart rate, BP and weight from home	→ **Manage** Pharmacist reviews twice a week, asynchronously, <5 min each	→ **Connect** Local bloods, script to local pharmacy, letter via AccuRx	→ **Repeat** 60–80 patients a week, titrated at every review	**52** median days to optimal therapy

THE CLINICAL OUTCOME

127 days
faster to optimal therapy (more than 4 months)

93% vs 23%
reached all four pillars

30% → 44%
mean LVEF, 3 months after optimisation

0 vs 25%
HF hospitalisations, vs 30-day readmission in standard care

Medians and four-pillar rate: STaRT-HF multi-centre evaluation, n=192 vs historical controls n=174 (observational). LVEF, hospitalisation and process data: Barts Health STaRT-HF service.

What faster titration freed up

Outpatient capacity

50%

shorter waits for new heart failure patients

- £15 vs £125 per titration consultation
- 60–80 vs 10–12 patients a week
- 1,133 remote appointments: ~£125k saved

Fewer devices

~£12.5k

saved per ICD avoided (device plus 5 years of follow-up)

- Meeting ICD criteria: 59% → 16%
- One-third fewer implants (48 → 33, Jan–Aug)
- ~£150k on devices; ~£37k follow-up over 5 years

Fewer admissions

£285k

year-one saving, with 435 bed days avoided

- Zero HF hospitalisations over 13 months
- vs 25% 30-day readmission, £3,000 per admission
- Echo use cut threefold: ~£45k saved

Patients: 100% very satisfied · 57% saved more than 2 hours' travel · 22,850 miles and ~6.5 tonnes CO2 avoided

Barts Health STaRT-HF service data. ICD saving = (£150k devices + £37,350 follow-up) ÷ 15 avoided implants; excludes device infection risk.

VIRTUAL OUTPATIENTS VIRTUAL WARD

Step up, step down, without changing system

1	2	3	4	5
PLANNED	PLANNED	URGENT	STEP-DOWN	PLANNED
Long-term monitoring	**Early warning**	**Virtual ward**	**Stabilised**	**Back to long-term**
COPD, bronchiectasis, ILD, asthma monitored at home	Symptoms and SpO2 cross personal thresholds	Stepped up to the short-term virtual ward, same app and record	Admission avoided or shortened	Steps down, not discharged into a cycle of readmissions

MANAGE
Pathway management

One view across stable, at-risk and virtual ward patients

CONNECT
Patient app

Symptom questionnaires, education and self-management

MONITOR
Remote monitoring

Personalised alerts; red alerts answered within 12 hours on the virtual wards

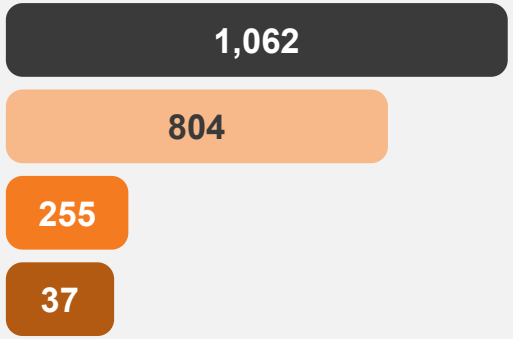
AUTOMATE
OVIA voice agent

Routine check-in calls, including patients who can't or won't use an app

Sicker patients, managed at home

60 patients on long-term monitoring · **2,971** symptom questionnaires completed at home · **77%** of patients flagged red at least once

WHAT HAPPENED TO 1,062 ALERTS



- every alert triaged by the team
- resolved without the patient being seen, often by message (76%)
- patient seen face to face or virtually (24%)
- escalated to a consultant (3%)

STEPPING UP AND DOWN

Long-term monitoring ⇄ RLH virtual ward

19 step-ups to the virtual ward when patients deteriorated (13 patients, some more than once)

~380 days of virtual ward care at home, about 20 days a stay

7 virtual ward patients moved onto long-term monitoring when discharged

AGAINST NATIONAL RATES

Same exacerbations. Treated at home.

Up to 21 hospital admissions expected for this high-risk group

→ **0** hospital admissions

→ **19** deteriorations treated on the virtual ward instead

→ **~£50k** and ~76 hospital bed days saved

Already pays for itself against nursing time and technology costs. **Monitoring more patients at once, with capacity the team already has, grows the return significantly.**

Ortus platform data, Sep 2025–Oct 2026. Expected admissions: GOLD D rate of 0.84 COPD-related admissions per patient-year (Merinopoulou et al, Int J COPD 2016;11:697–709; CPRD-HES, n=44,201) × ~25 patient-years monitored. Cost £2,632 per COPD admission; ~4-day average stay (Asthma + Lung UK, 2023).

Routine calls the nurses no longer have to make

BEFORE

ARCARE nurses phoned or visited each of their 26 long-term respiratory patients to check how they were.

NOW

OVIA phones each patient at a set time, runs the check-in and flags anyone who needs a nurse.

296 full check-ins completed by OVIA, not a nurse

26	patients reached, none remotely monitored before
18 hrs	of conversation with patients
78%	of calls answered in October

NURSE PHONE TIME REPLACED, 11 MAY–3 NOV

296 check-ins × 10 min a call	**49 hrs**
365 further call attempts handled × 2 min	**12 hrs**
Total nurse phone time saved	**~62 hrs**

So far (6 months): about 8 working days of one nurse's time, ~£2,600

PER PATIENT · PER YEAR

~5 hrs

of nurse time freed
= ~15 extra 20-min reviews

ALL 60 BARTS RESPIRATORY PATIENTS ON OVIA

~300 hrs

of nurse time a year
~40 working days · ~£12,600

Illustrative: 10 minutes per check-in call, 2 minutes per further attempt, £42 per nurse hour (PSSRU, Band 5, 2023/24). Per-patient rate = 62 hrs over ~25 weeks, annualised, ÷ 26 patients. Home visits not included. OVIA call report, RLH ARCARE, 11 May–3 Nov 2026.

Same team, same platform, growing cohorts

1. **Short-term virtual wards**
   Royal London and Newham
2. **Long-term monitoring**
   Trust-wide: COPD, bronchiectasis, ILD, asthma
3. **Biologics** NOW
   Severe asthma on biologic therapy. Same platform, new pathway, no new system

THE BIOLOGICS PATHWAY

Manage

Eligibility work-up (eosinophils, FeNO, spirometry, CT), panel approval, homecare set-up, first dose and response review, tracked with overdue steps flagged

Connect

Asthma control questionnaires (ACT or ACQ) and education through the app

Monitor

Exacerbations, steroid courses and side effects between reviews

Automate

OVIA check-ins on injection adherence and symptoms

Biologics are high-cost drugs. Knowing early who is and isn't responding protects the patient and the budget.

A virtual clinic for every treatment cycle

BEFORE
Standard clinic

Patient books bloods before each cycle → 20-minute clinic or phone appointment → Toxicity and bloods reviewed in the slot → Prescribed, next cycle booked

20
minute clinic slot, every patient, every cycle

AFTER
Virtual clinic

Connect
Questionnaire and bloods reminder sent 4 days before the cycle →

Automate
OVIA calls non-responders and patients without a smartphone →

Manage
Tuesday virtual clinic: batch triage of ePROMs and bloods →

Outcome
Green: prescribed asynchronously. Amber or red: clinic, results in hand

58%
of questionnaires green so far (11 of 19)
~5 min vs 20 min

SAFETY BUILT IN

Severe toxicity
Grade 3–4 symptoms go straight to the 24/7 chemotherapy hotline

Back to clinic when needed
Toxicity, progression or non-engagement returns the patient to clinic; back onto ePROMs once settled

Never out of sight
Face-to-face review at least every 6 months, with imaging and bone health dates tracked

SO FAR · JUL–OCT 2026 · 22 PATIENTS

11 green	5 amber	3 red

11 green: up to 11 slots freed, ~2.75 hrs clinician time (20 → 5 min)
8 flagged for clinical attention, each seen with results in hand

IF SCALED TO THE FULL CLINIC (ILLUSTRATIVE)

~23
clinic slots freed a week

~6 hrs
clinician time saved a week

~1,100
slots freed a year

Assumes 40 reviews a week (SOP), 58% green (early data), 5-minute asynchronous review, 48 weeks

CONDITION-AGNOSTIC

The specialty changes. The infrastructure doesn't.



Cardiology
SHOWN TODAY



Cardiac surgery
SHOWN TODAY



Cancer
SHOWN TODAY



Respiratory
SHOWN TODAY



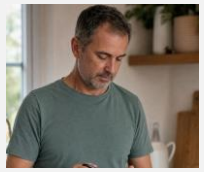
Paediatrics



Frailty



Surgical waiting lists



Diabetes

Also: orthopaedics, general and vascular surgery, women's health, community and neighbourhood care

Manage **Connect** **Monitor** **Automate** ONE PLATFORM

Four point solutions mean four contracts, logins, trainings and integrations. One infrastructure means one, and patients move between planned and unplanned care without changing system.

BUILT ON EPR integration via HL7 and FHIR (Oracle Health, Epic, EMIS) · DTAC · DSPT · Cyber Essentials Plus · ISO 27001 · MHRA Class I (monitoring dashboard) · G-Cloud 15 and Spark DPS

Your question: which of your cohorts moves between planned and unplanned care? That's your second pathway, on the same infrastructure.

Start with a pathway.
Scale into infrastructure.

1
Design
Pathway workshop

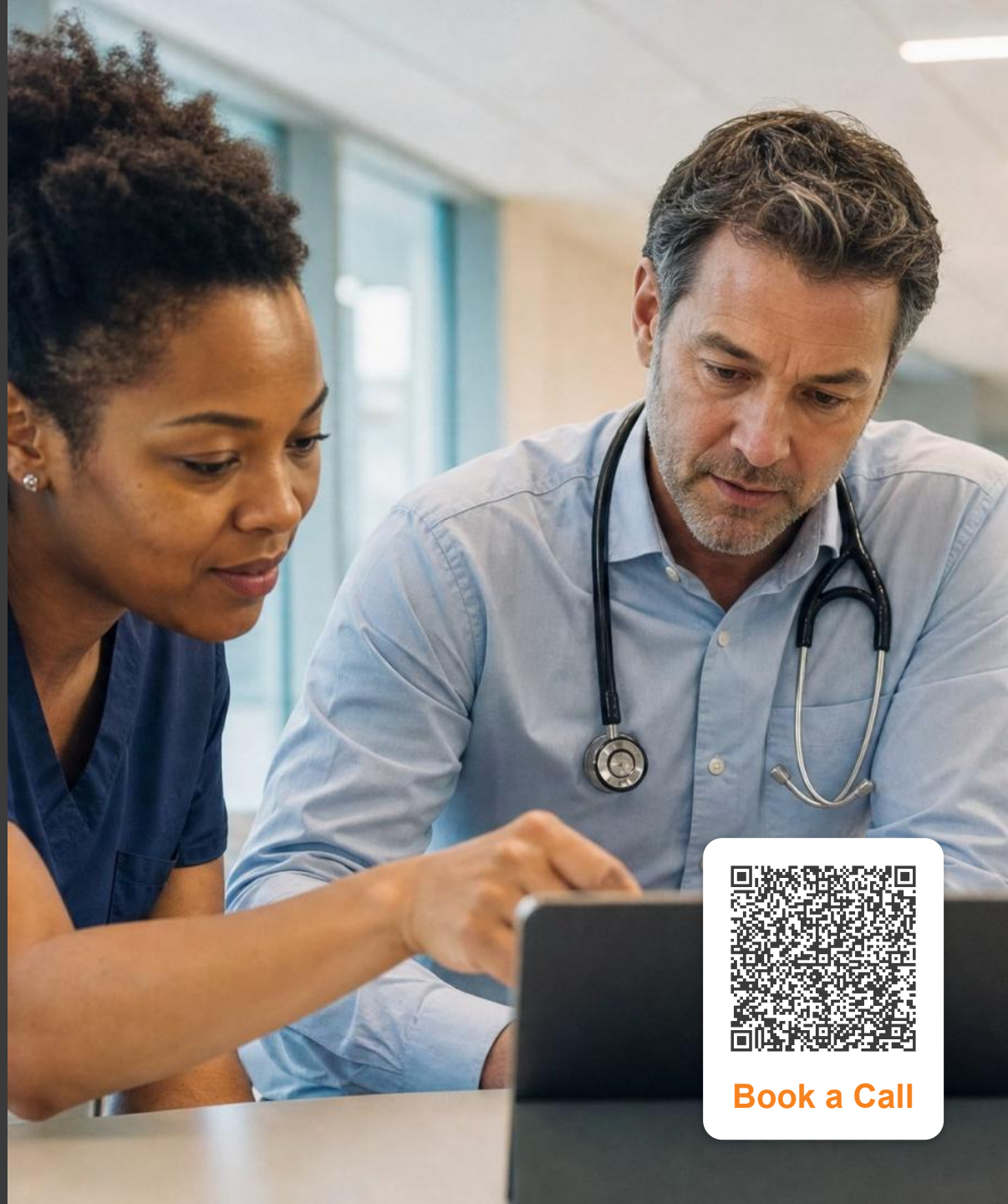
2
Build and train
Your thresholds

3
Go live
First cohort

4
Scale
Next pathway

Live in six to eight weeks

ortus-ihealth.com · info@ortus-ihealth.com
Visit our stand today



Book a Call

Fireside Interview



Andy Bailey
Operations Manager
Cambridge University Hospitals



Case Study

Luscii
an OMRON Healthcare Service



Case Study



Amy Wright
Matron – Virtual Clinical Care Team
Northamptonshire Healthcare NHS FT

From Reactive to Proactive

The impact of remote monitoring for care homes in Northamptonshire

Amy Wright
Matron, Virtual Clinical Care Team

NHS
Northamptonshire Healthcare
NHS Foundation Trust



Graphnet Transforming Care

Luscii an OMRON Healthcare Service

WHO WE ARE

The Virtual Clinical Care Team at Northamptonshire Healthcare

2022
Established

7 days
07:30 to 23:30

451
Beds open to remote monitoring

- 240 Community Patients + 11 Care Homes
- Graphnet Remote Monitoring *Powered By Luscii*
- Class IIa medical device





WHY CARE HOMES

Why care homes matter

- High risk, high impact
- Carers are our eyes
- Care homes *are* homes

HOW WE BUILT IT

How do care homes recognise deterioration?

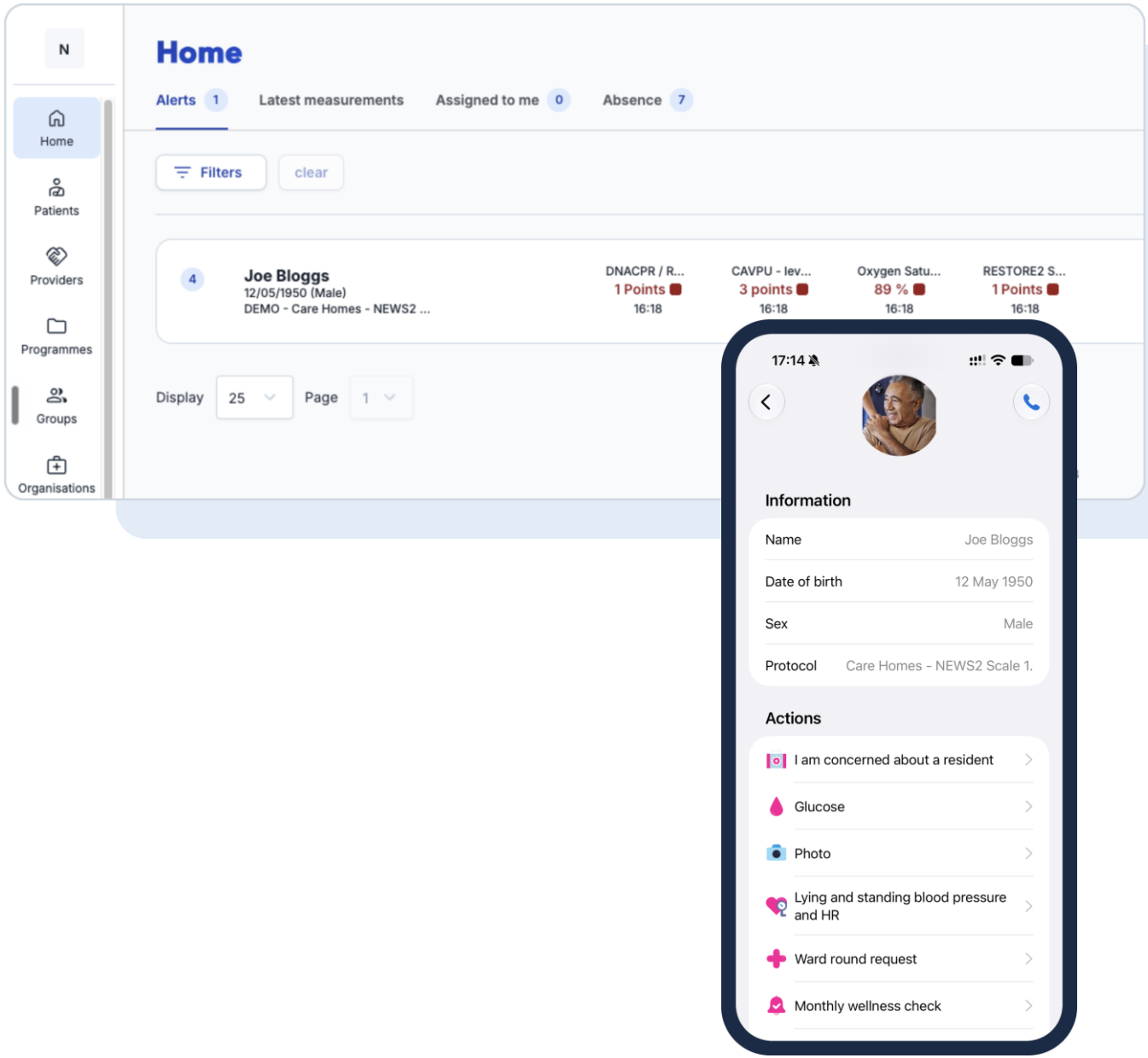
- Built on RESTORE2
- Soft signs matter
- Complements, never replaces



HOW WE BUILT IT

Live across 11 homes, and always improving

- Collaboration with GP
- Dedicated Senior Nurse (Band 7)
- Training & Kit
- Improvements shaped by carer feedback

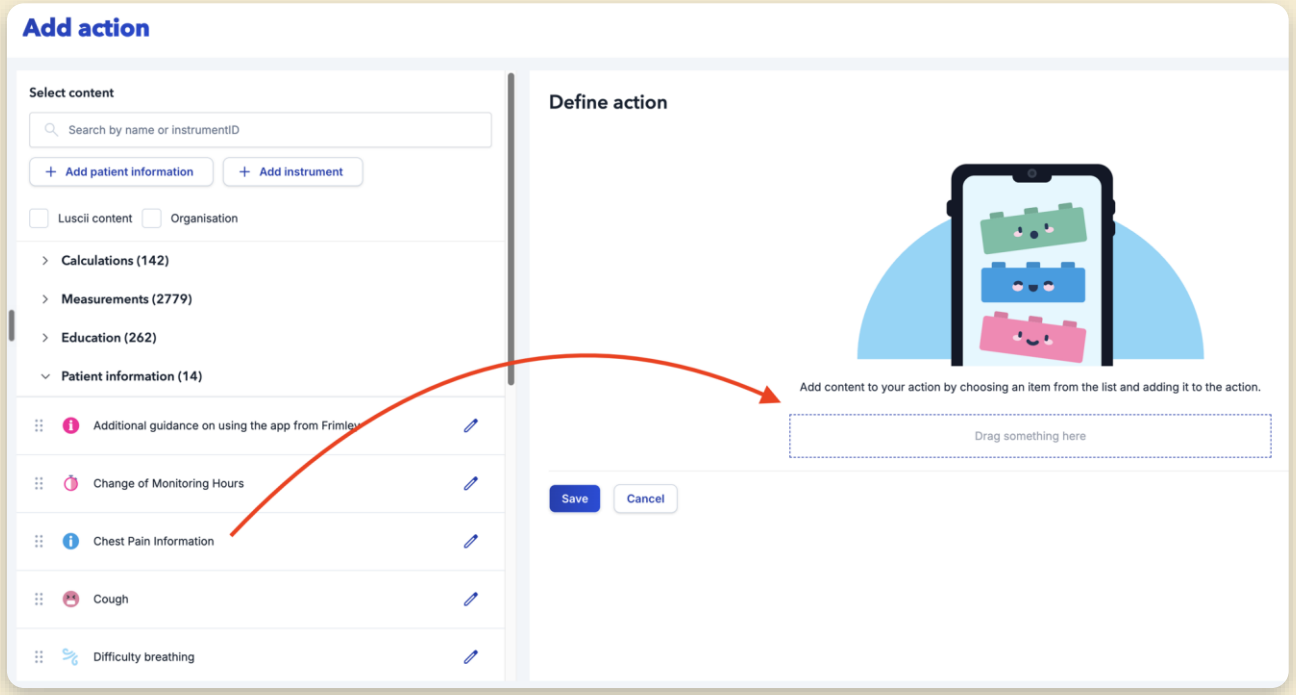


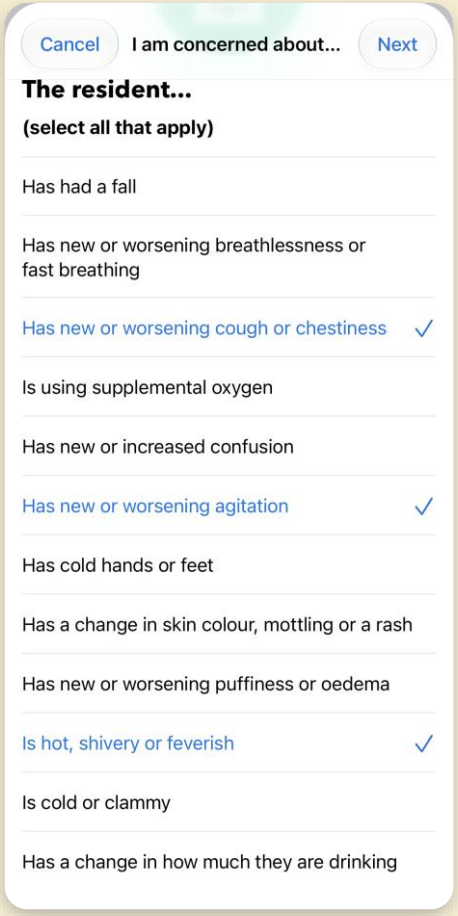
ALWAYS IMPROVING

Improvements shaped by carer feedback

Built like Lego bricks

Drag and drop to adapt the programme as fast as the homes need.





Shorter question set

“I’m concerned about a resident” was too long. Now it’s one tick-list.

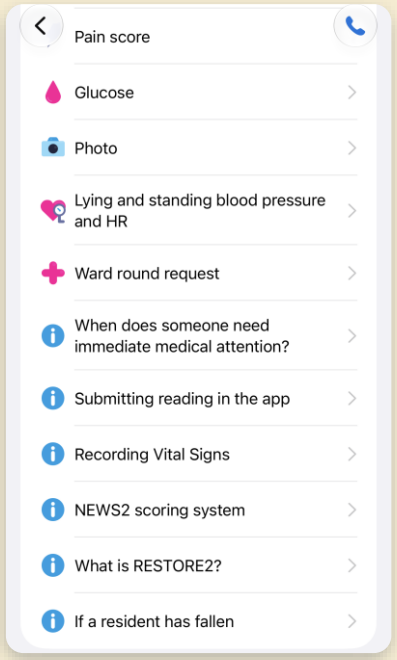
Video calling

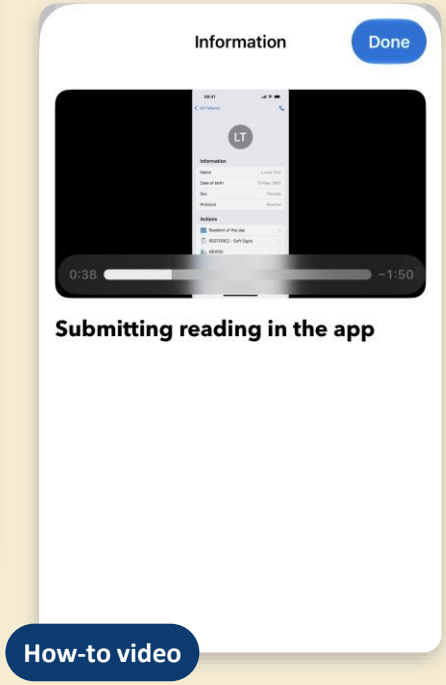
Dedicated devices mean the hub can video call residents.

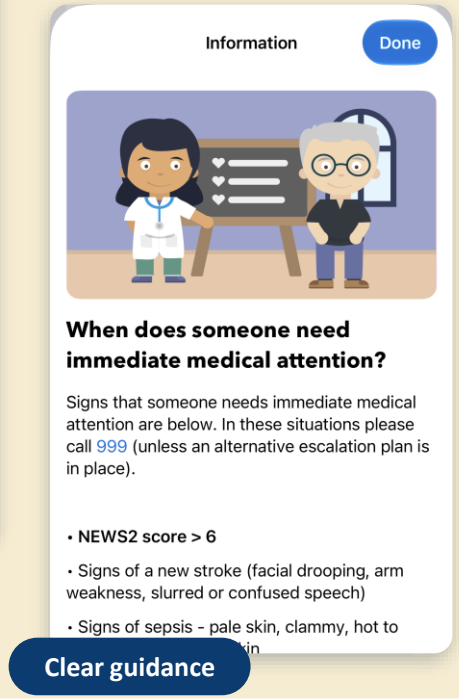


Help in the app

How-to videos and guidance on hand for carers at any time.







OUR MODEL

Small team, big impact

The VCCT care home model in five simple steps



01

Onboard and equip

With the home and GP



02

Observe and assess

RESTORE2 and soft signs



03

Monitor and review

Trends, not single readings



04

Intervene and support

Right service, right time



05

Evaluate and improve

Train, learn, refine

THE IMPACT

What changed as a result

Earlier observations +15%
Residents alerting per day: 16.9 → 19.5

Better clinical data compliance +33%
Residents flagged in the month: 126 → 168

Sustained response times 28mins
Red alerts median time, even as activity increased

Positive user feedback





THE IMPACT

In their words

*"I just wanted to say how **invaluable I think the service is** that the virtual care team provide us here at Ashdown House...*

*The **staff are always friendly,** there have been many occasions where they've sought help for our residents really quickly from the right services...*

*The Luscii system is **very easy to use**....the service provided is so beneficial to our residents, and also gives their relatives **peace of mind** that help can be arranged quickly."*

Christie
Registered Manager, Ashdown House

LOOKING AHEAD

What's next for the service?

- Onboard more care homes
- Exploring UCR Virtual Ward
- Knowledge sharing across NHS
- Shared Care record, both ways





Thank you

Any questions?

Come and see us over lunch
at the Graphnet-Luscii stand

NHS
Northamptonshire Healthcare
NHS Foundation Trust

Graphnet
Transforming Care

Luscii
an OMRON Healthcare Service

Lunch & Networking



Chair Afternoon Address



Gurnak Singh Dosanjh
GP & ICB Deputy Chief Clinical Information Officer
Leicester, Leicestershire & Rutland ICB

Case Study



Case Study



George Hewitt
Head of Technology
WhiteSpider



whitespider®

CareAnywhere 2026

When care leaves the hospital: Is your network ready?



Agenda



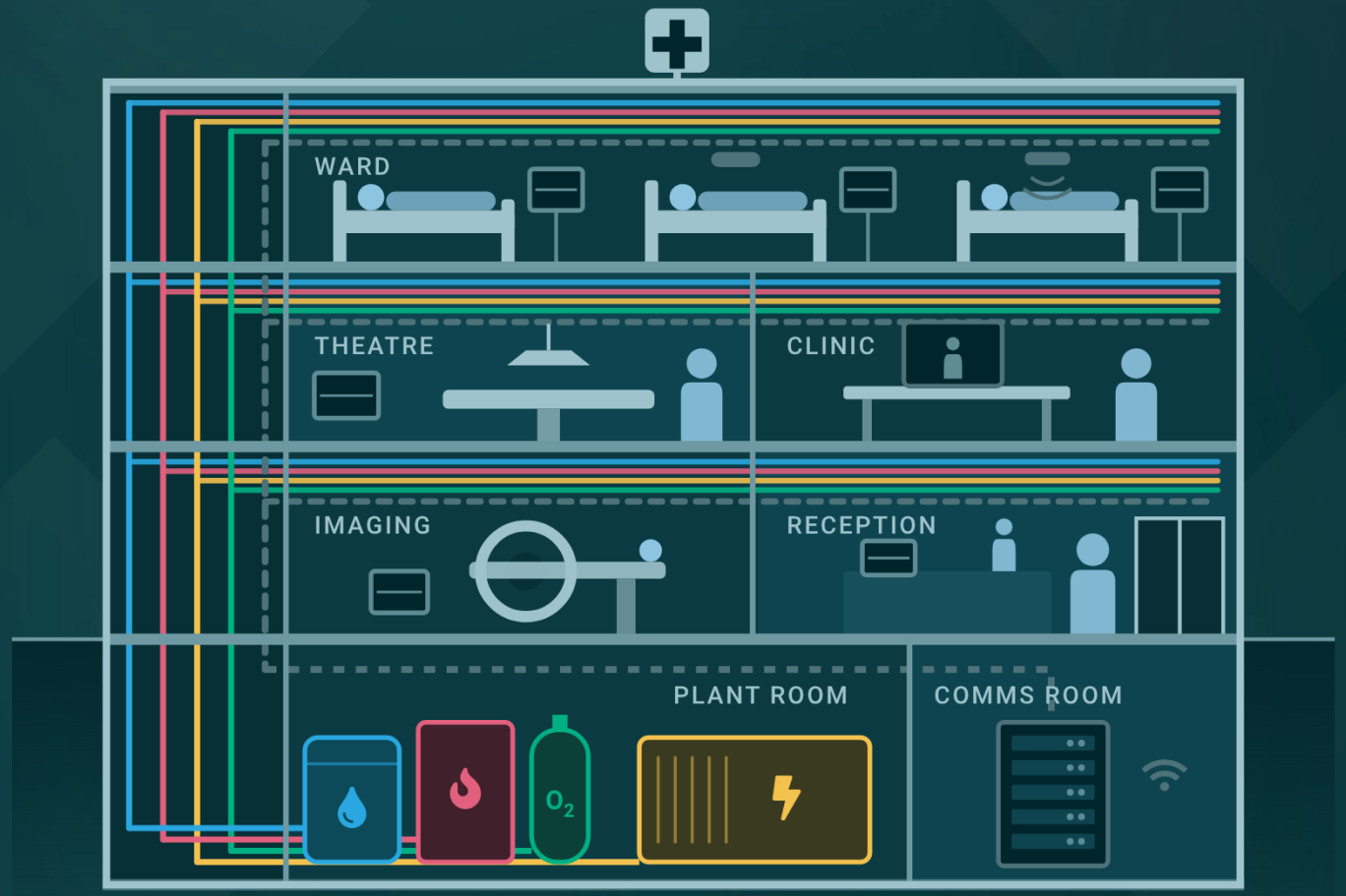
1. What you'll leave with
2. Challenges of Care Evolving
3. Four foundations of CareAnywhere
4. How WhiteSpider help NHS trusts today
5. Patient journey, network evolution
6. Your readiness test

Public text (sensitivity)

Critical Infrastructure

What a live patient service can't run without today.

- Electricity
- Water
- Heating
- Medical gases
- ?

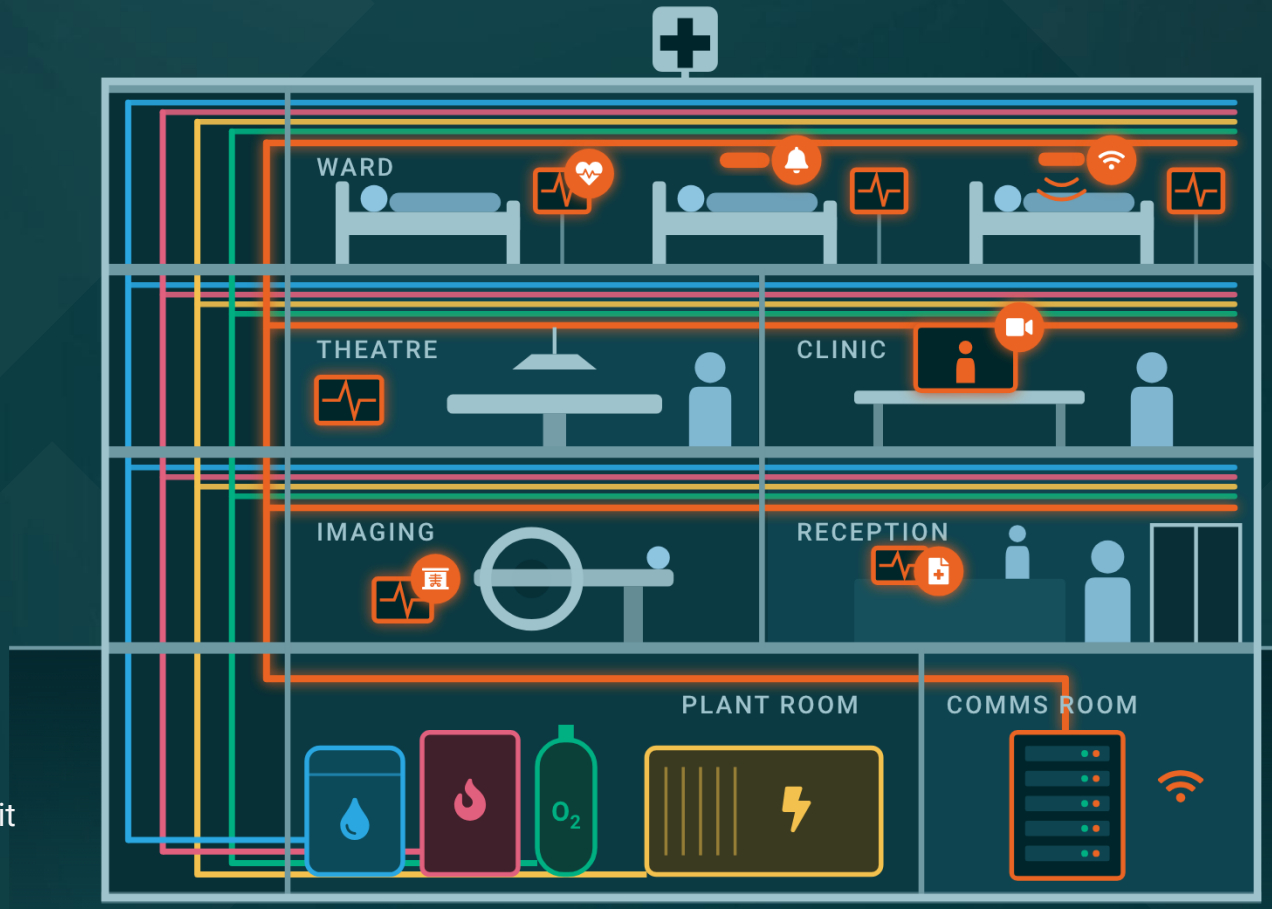


But there's one more.

Critical Infrastructure

What a live patient service can't run without today.

- **Electricity**
- **Water**
- **Heating**
- **Medical gases**
- **Network**
  Everything depends on it



- **Patient monitoring**
- **Nurse call and alarms**
- **Imaging and results**
- **Video consultations**
- **Patient records**
- **Patient Wi-Fi**

The network is now as critical as the other four. It should “Just Work”

What you'll leave with

By the end of this session, you should be able to ask four questions of your own IT capability

If you lose a Data Centre or Central Office, can care continue?	RESILIENCE
Are you finding problems, or are your users reporting the P1/P2s?	OBSERVABILITY
Do people and devices get only the access they need to each service?	SECURITY
Does the experience hold up wherever care is delivered?	PERFORMANCE

Care is changing. Does every service you run consider all four?

whitespider®

Challenges of care evolving

Care is changing and the IT demands are moving constantly.

CARE CHALLENGE	WHAT THE NETWORK NEEDS TO PROVIDE
Fragmented services that need to be supported	A standardised, secure network that runs critical services today and supports new ones tomorrow
Remote monitoring integrated into clinical systems	See every device, app and connection at home, in hospital and in the community
Patient services carry on, even when something critical fails	Resilience, failover and periodic disaster recovery testing
Cybersecurity, data protection and clinical safety	The boundary is no longer the building: segment the network, control access by identity, and link into the NHS CSOC

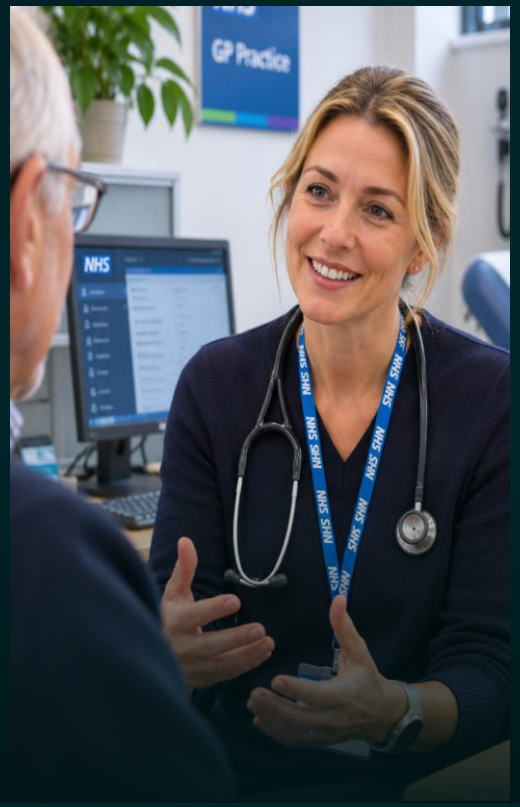
The network is one piece of the puzzle

It should “Just Work”

Four digital foundations for care anywhere











The patient should feel the care, not the complexity.

Resilience
Care remains available when things fail.

Observability
Spot issues before they impact care.

Security
Right access, wherever care happens.

Performance
Consistent performance across every setting.

One patient journey, multiple care settings

Network

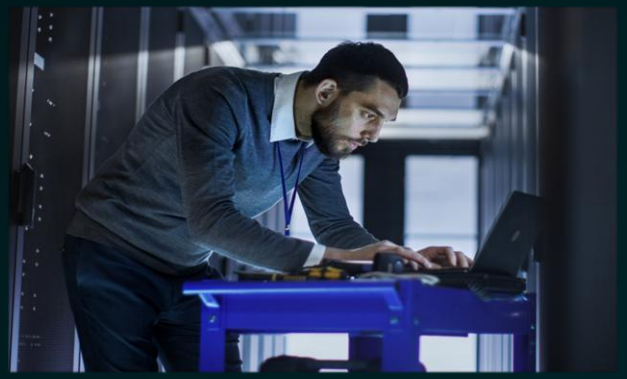
- Resilience
- Observability
- Security
- Performance





For digital leaders, this is a large-scale, multi-site WAN supporting one joined-up patient journey

Three lessons from our work across the NHS



Map every dependency before you change anything

Core network migration for a major NHS Trust, done in one weekend with no impact on patient care.



Standardise before you merge Trusts

A two-year NHS partnership became a long-term programme saving millions.



Segmentation across multiple users and devices

Identity-based access and segmentation for an NHS and a university research organisation.

Some of our existing clients:

NHS The Clatterbridge Cancer Centre NHS Foundation Trust

NHS Northern Care Alliance NHS Foundation Trust

NHS Manchester University NHS Foundation Trust

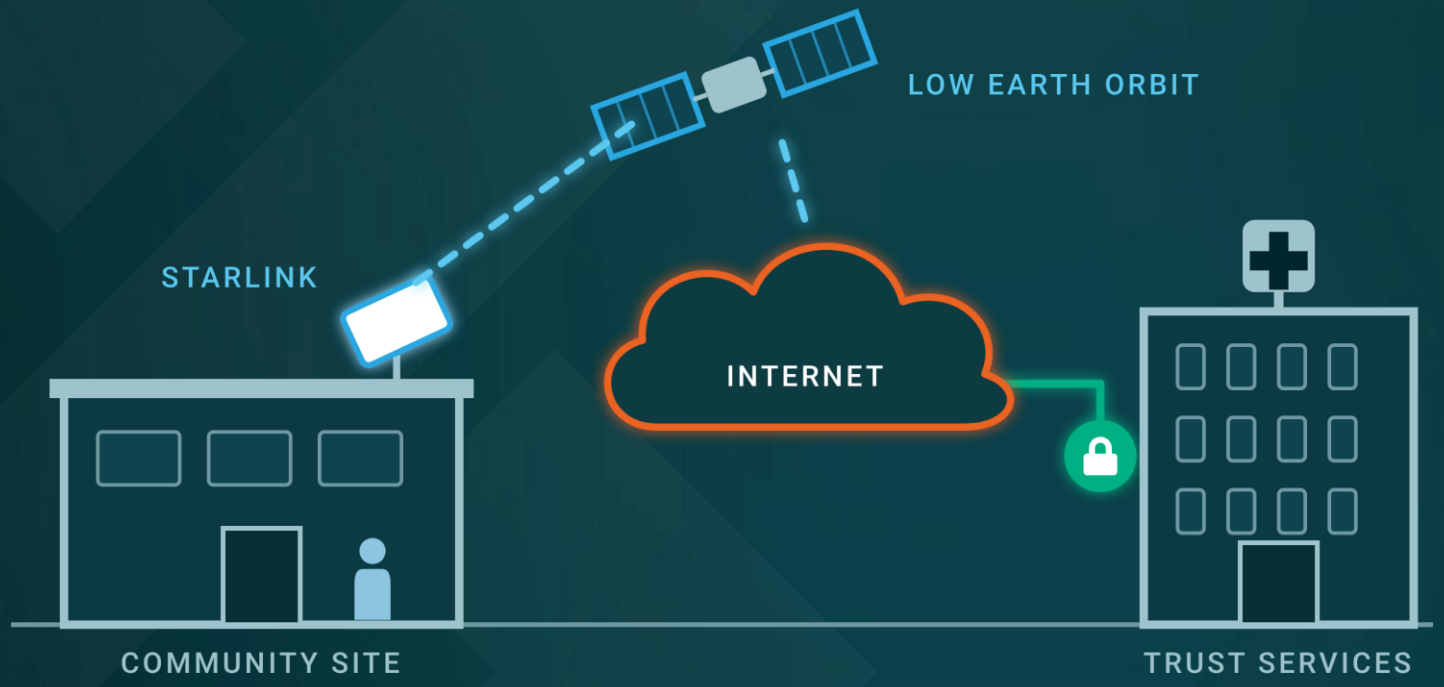
NHS Alder Hey Children's NHS Foundation Trust

NHS North London NHS Foundation Trust

NHS CASE STUDY

Urgent community sites – COVID

Live on Starlink, without waiting for a fixed line.



THE NEED

Urgent sites. No time to wait for a circuit to be installed.

THE FIX

Starlink, with a secure link back to the Trust.

THE RESULT

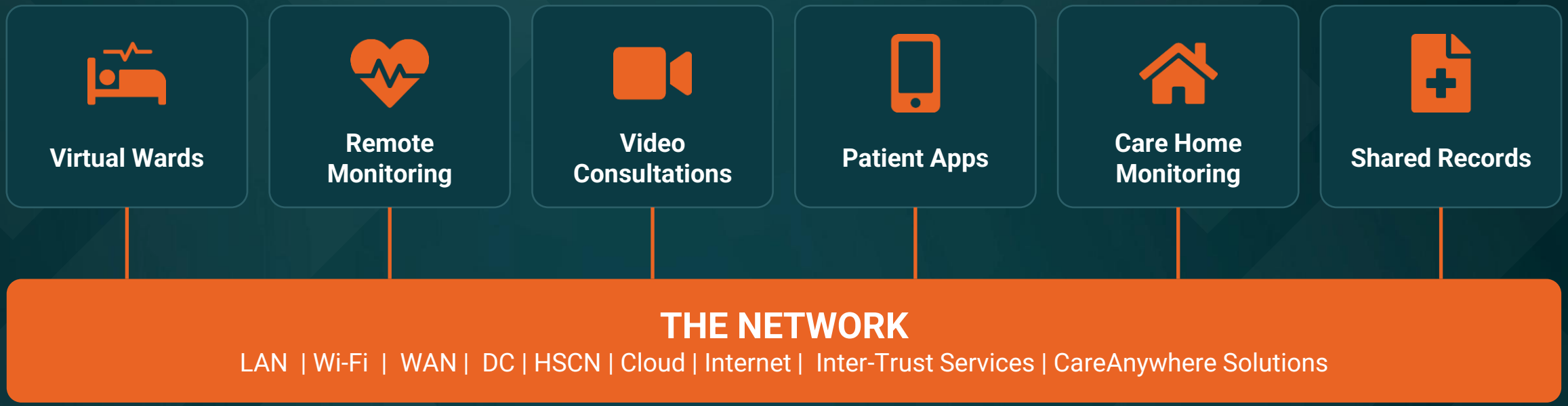
Sites live fast. Care closer to home.

If the network can't reach the patient, neither can the care.

whitespider

NHS England

Every service you've seen today relies on the network



Nobody claps when the lights come on. It just has to work.

whitespider®

Achieving connected care

Could you answer “yes” to all four?

A 30-second readiness test we’d like you to ask yourself

1	**If connectivity or a critical component fails, can care continue?**	**Resilience**
2	**Would your team know about a problem before a patient or clinician reports it?**	**Observability**
3	**Can you control who and what connects, wherever care is delivered?**	**Security**
4	**Are there challenges with user experience because of the network today?**	**Performance**

If the answer is “not sure”, you have found a useful place to start

Same care, everywhere

Built on the right digital foundations



Resilience



Observability



Security



Performance

Let's make the network just work

Come chat with us at the WhiteSpider stand!

whitespider®

whitespider®



George Hewitt, Head of Technology

Telephone: 07772410282

E-mail: george.hewitt@whitespider.com

George Hewitt | LinkedIn

CYBER ESSENTIALS PLUS

bsi ISO/IEC 27001 Information Security Management CERTIFIED

bsi UKAS MANAGEMENT SYSTEMS 0003

NHS Deep Dive



Kate Townsend
Sustainability Manager
Bristol Foundation Trust



Rebecca Housley
Consultant Nurse, Virtual Healthcare
Hamshire Hospitals NHSFT



David Cruttenden-Wood
Clinical Director, Virtual Healthcare. Acute, General & Colorectal Surgeon. NHS England Regional Clinical Advisor (UEC)
Hamshire Hospitals NHSFT

CareAnywhere

Exploring the Carbon Impact of virtual wards

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NHS Hampshire Hospitals NHS Foundation Trust

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Partner with us | Work at BMJ Group | Librarian hub | Our impact | Media hub

BMJ Group

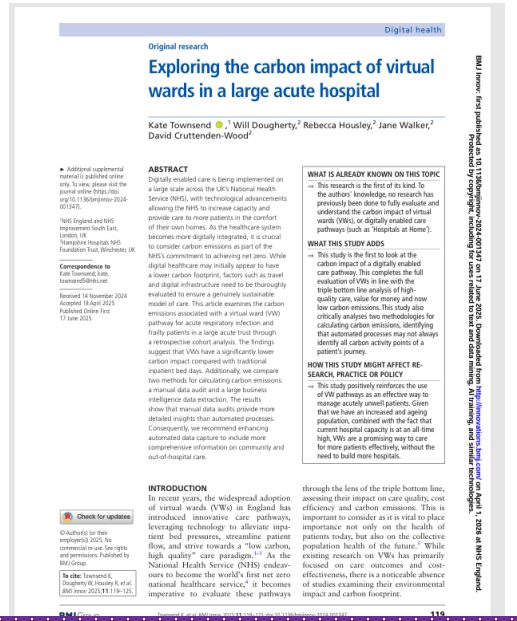
Publishing & Events | Careers & Learning | Digital health | About us | Contact us



Home / Posts / Press release / BMJ Innovations / 'Virtual ward' bed uses 4 times less carbon than traditional inpatient bed

These wards have the potential to reduce need to build more high-carbon impact hospitals

A virtual ward bed uses 4 times less carbon than a traditional inpatient bed, so helping the NHS achieve its net zero target by 2045, finds the first **study** of its kind, published in the open access journal ***BMJ Innovations***.



Digital health

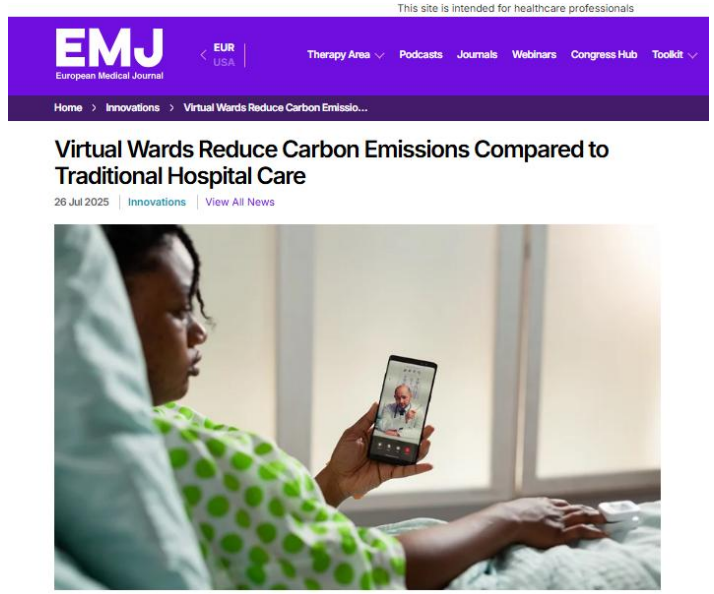
Original research

Exploring the carbon impact of virtual wards in a large acute hospital

Kate Townsend, Will Dougherty, Rebecca Housley, Jane Walker, David Cruttenden-Wood

ABSTRACT

INTRODUCTION



This site is intended for healthcare professionals

EMJ European Medical Journal

EUR USA | Therapy Area | Podcasts | Journals | Webinars | Congress Hub | Toolkit

Home > Innovations > Virtual Wards Reduce Carbon Emissio...

Virtual Wards Reduce Carbon Emissions Compared to Traditional Hospital Care

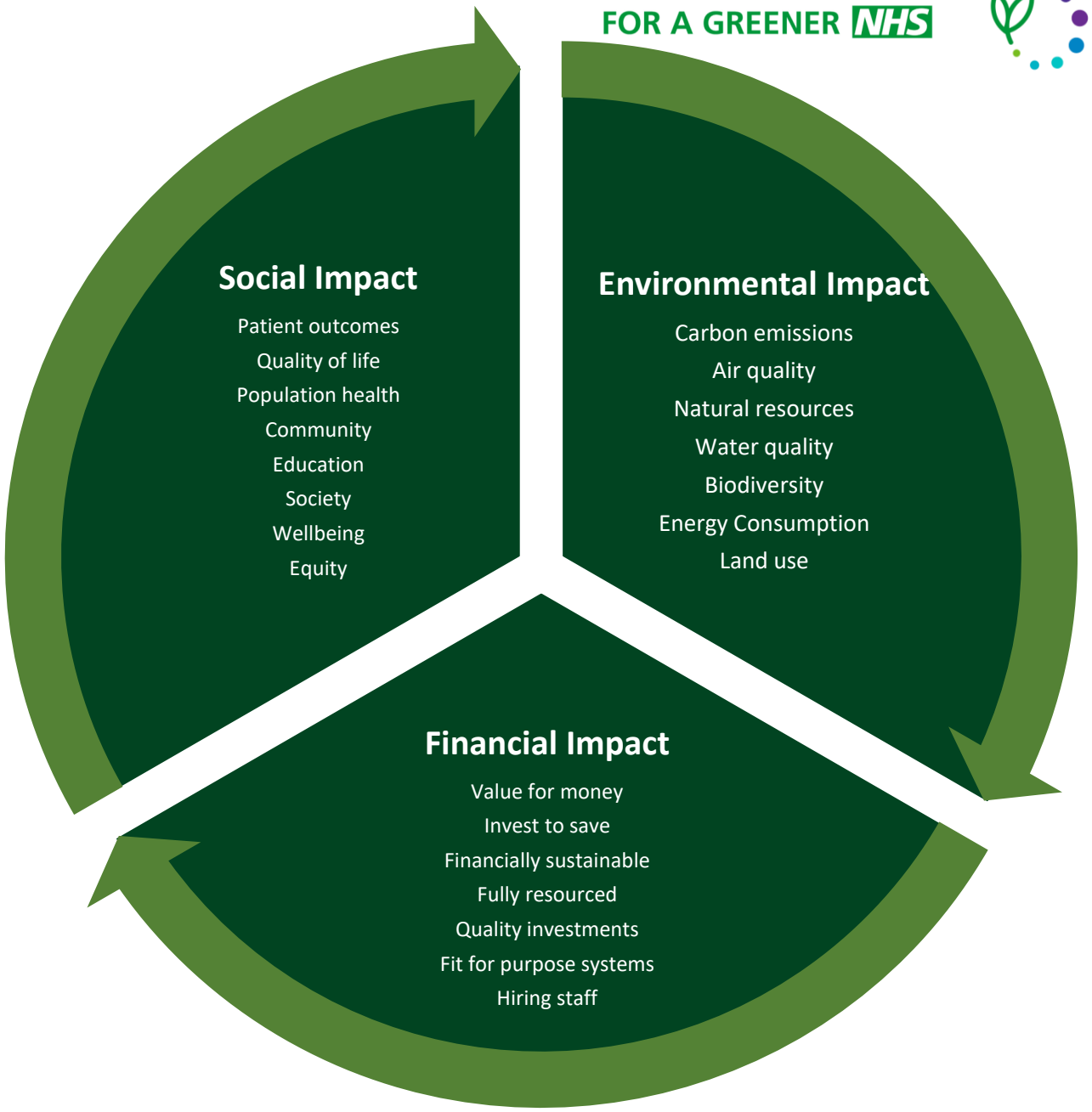
26 Jul 2025 | Innovations | View All News

Sustainable Healthcare

FOR A GREENER NHS

Climate action Hampshire Hospitals

- Advancing into a rapidly evolving digital healthcare era
- Significant changes and new care models require robust evaluation
- Assess across three key domains:
  - Social impact
  - Financial impact
  - Environmental impact
- These factors shape patient outcomes and wider population health

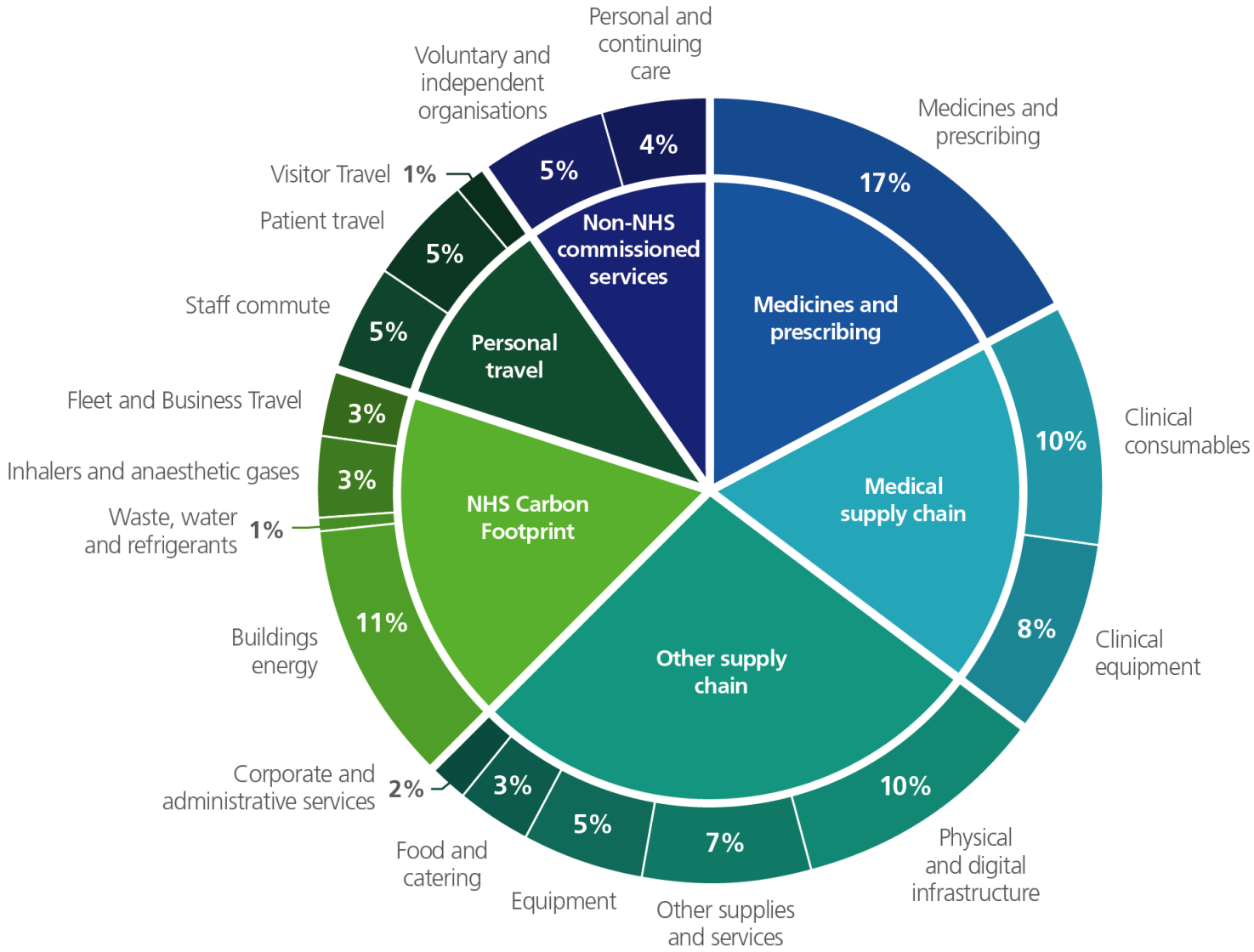


Greener NHS: National Context

FOR A GREENER NHS

Climate action Hampshire Hospitals

Sources of Carbon Emissions by Proportion of NHS Carbon Footprint



Source: [NHS England » Five years of a greener NHS: progress and forward look](#) (2025)

What Is a Virtual Ward?

FOR A GREENER NHS

Climate action Hampshire Hospitals

A safe and efficient **alternative to NHS bedded care.**

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

Virtual wards can **prevent avoidable admissions** into hospital, or **support early discharge** out of hospital.

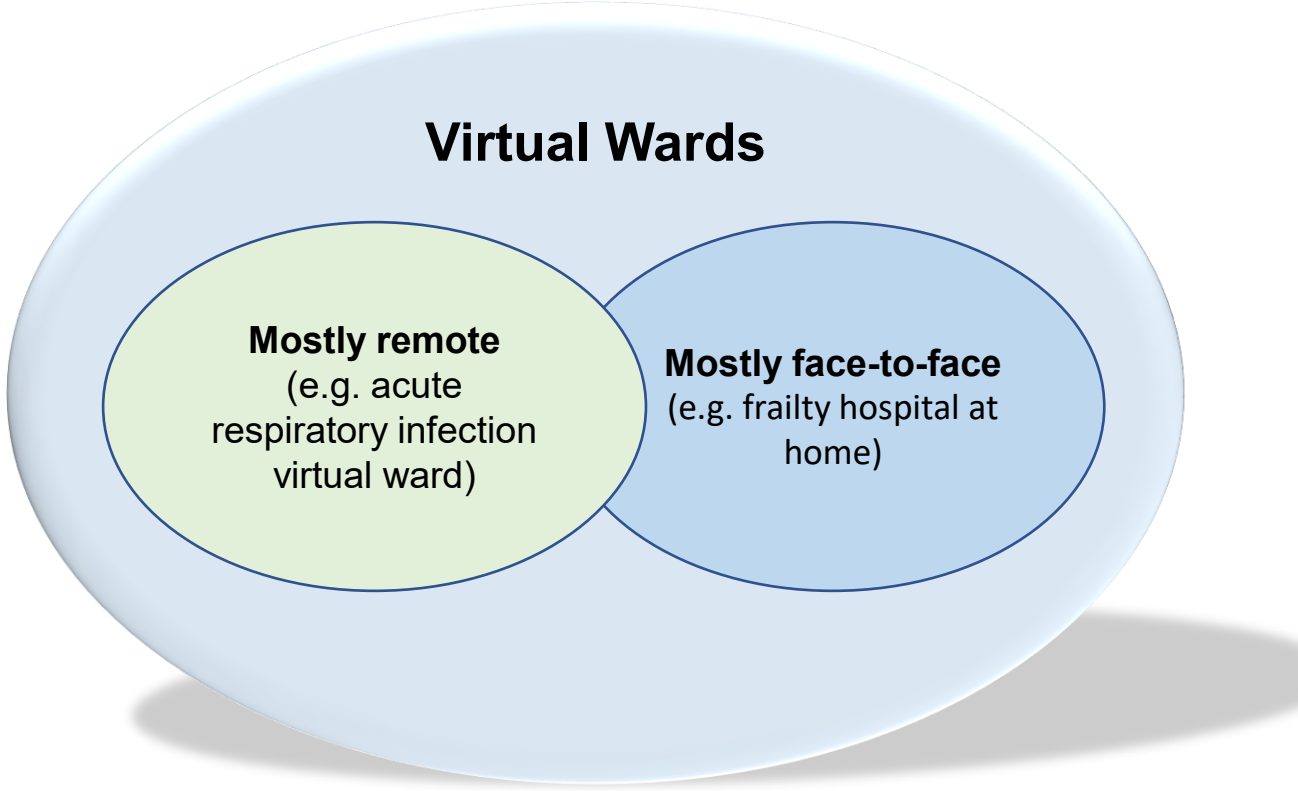


Figure: NHS Digital Virtual Ward description

Objectives

FOR A GREENER NHS

Climate action Hampshire Hospitals

1. Understand the carbon footprint (CO2e) of a virtual ward

2. Establish the avoided carbon emissions compared with a traditional impact bed day, and identify the carbon hotspots.

3. Identify the methodological differences in calculating the carbon emissions of a virtual ward pathway



National Toolkit

FOR A GREENER NHS

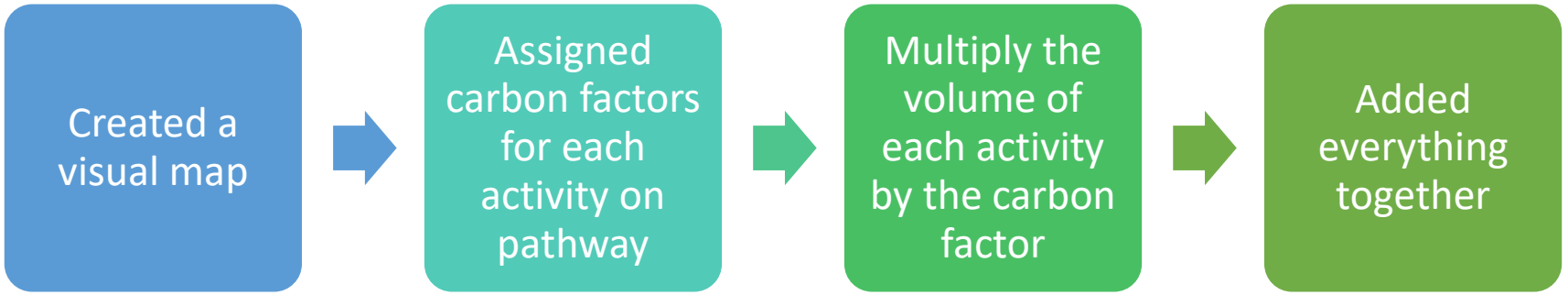
Climate action Hampshire Hospitals

Purpose:
A document that offers guidance on how to estimate and reduce the carbon impact of Virtual Ward pathways. This is done by demonstrating:

1. How to assess the carbon impact of Virtual Ward care
2. How to identify carbon intensive activities and comparisons for pathway redesign
3. Examples of further opportunities to reduce carbon emissions



Step by step process:



Patient pathway example - Frailty

FOR A GREENER NHS

Climate action Hampshire Hospitals



Patient at home	Patient in Emergency Department	Inpatient	Virtual ward
Ambulance Transport	Diagnostics	Length of stay, transport, diagnostics	Length of stay, heating, equipment, PPE, Interaction with clinicians
56 Kg CO_2e	14 Kg CO_2e	580 Kg CO_2e	141 Kg CO_2e

Total

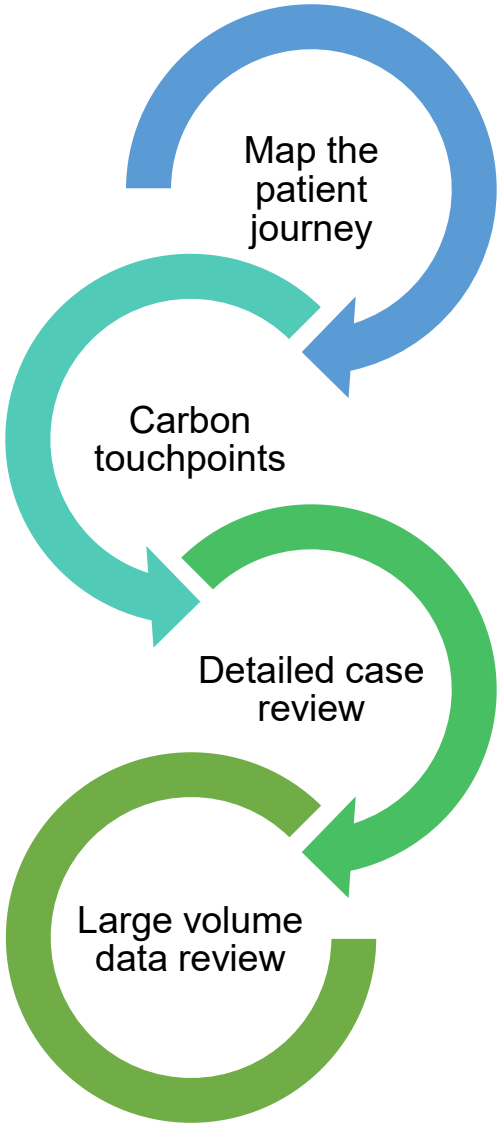
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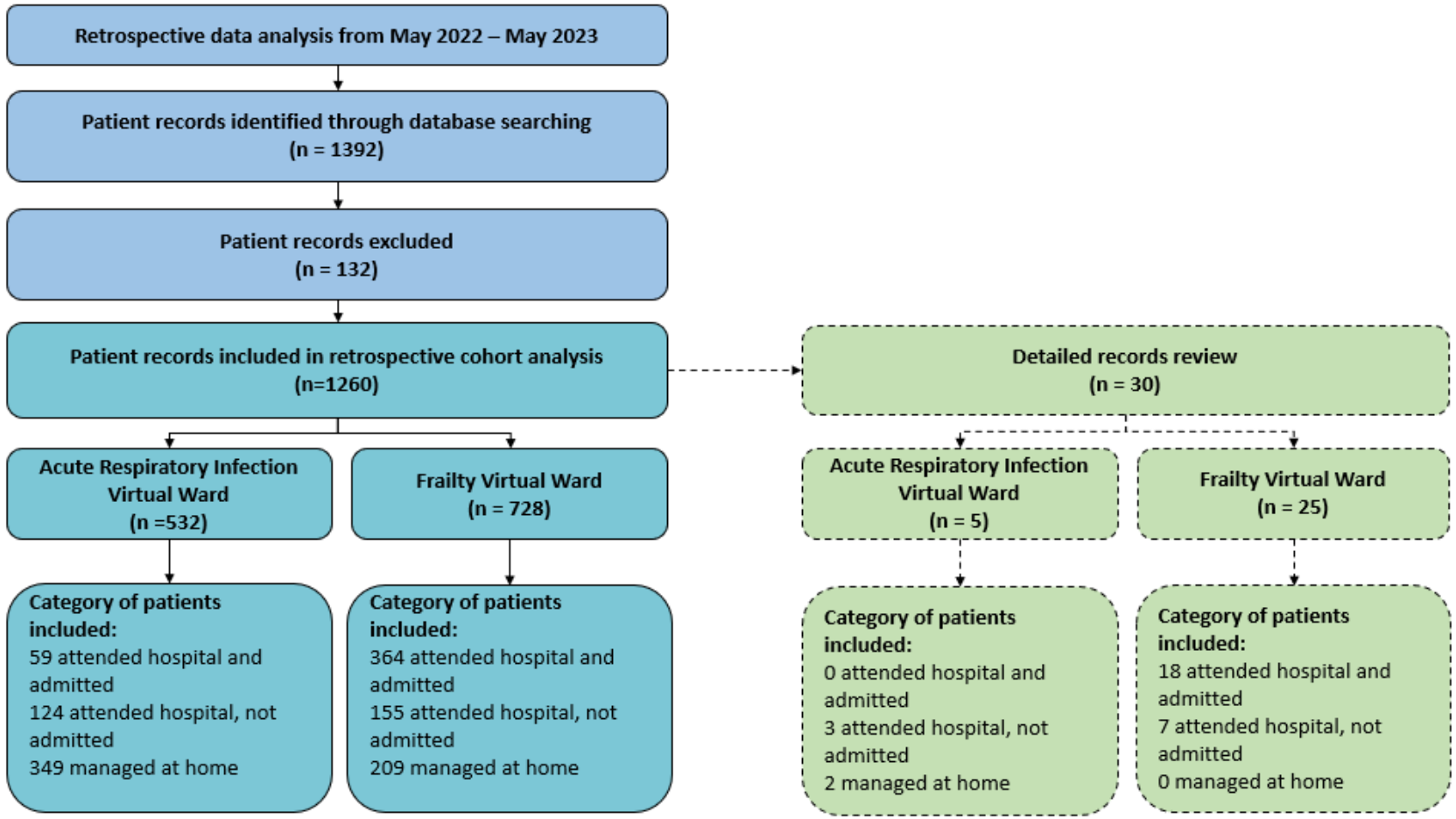
Kg CO_2e

Methodology: Phase 1

FOR A GREENER NHS

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FOR A GREENER NHS

Climate action Hampshire Hospitals

Findings: Average Kg CO_2e per patient day

Average Kg CO_2e	National Toolkit Kg CO_2e	Detailed Case Review Kg CO_2e	Large Scale Analysis Kg CO_2e
In Hospital High Dependency Ward	**89.5**	N/A	N/A
In Hospital Inpatient Ward	**37.9**	Toolkit	**48.5**
Patient Pathway Hospital to Virtual Ward		**24.1**	**18.1**
Virtual Ward Only		**8.8**	**7.4**

Findings: Prevented Carbon Emissions

FOR A GREENER NHS

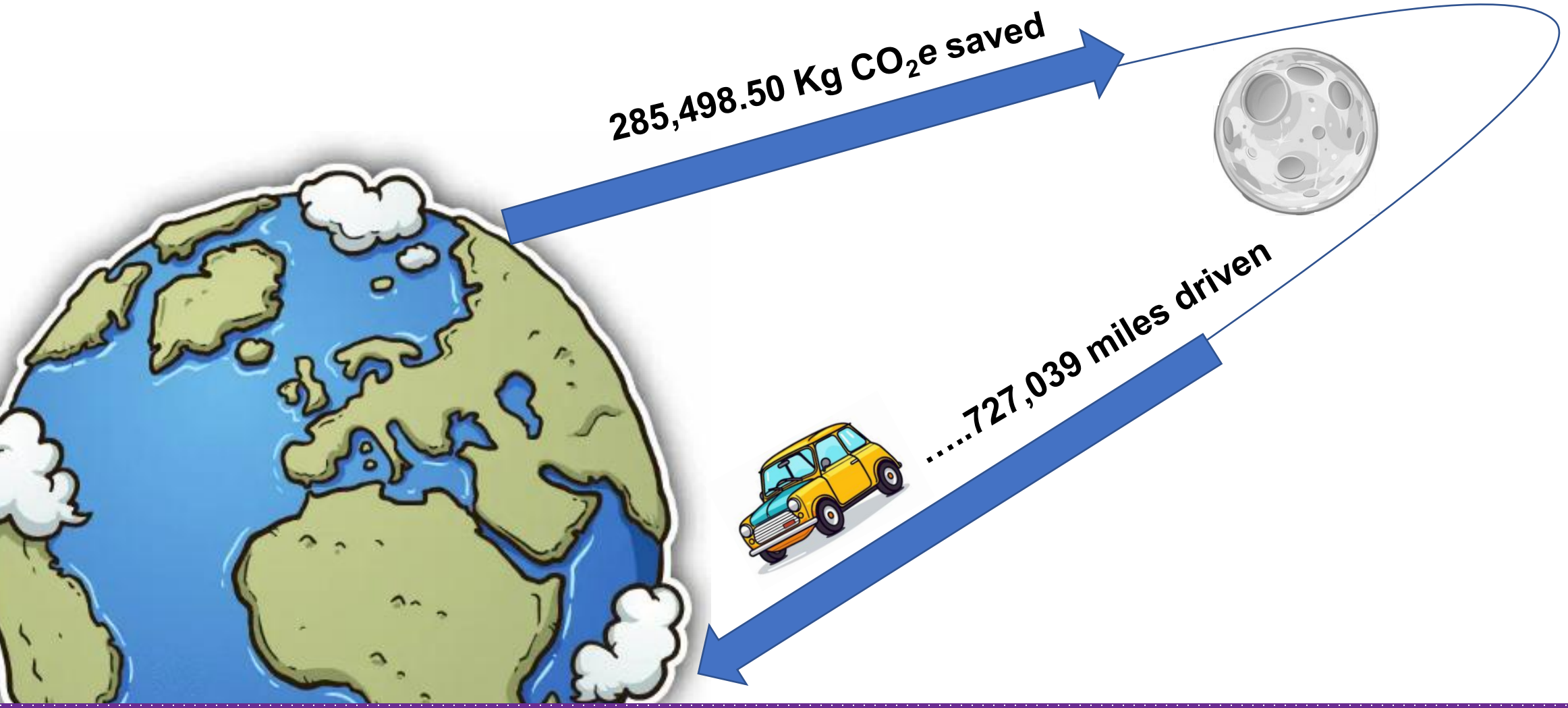
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Virtual Ward	No. Patients	Category		Bed Days Saved	Average Kg CO_2e per day HOPSITAL	Average Kg CO_2e per day HOME	Combined Kg CO_2e
Acute Respiratory Infection	59	Attended	Admitted	**229**	61.19	7.4	**12,313.13**
	124	Attended	Not Admitted	**714**	14.24	7.4	**38,402.55**
	349	Home		**1,974**	N/A	7.4	**106,181.24**
Frailty	364	Attended	Admitted	**1,096**	48.26	7.4	**35,794.17**
	155	Attended	Not Admitted	**876**	54.84	7.4	**48,007.50**
	209	Home		**1,175**	N/A	7.4	**57,113.04**
TOTAL	**1,260**	All		**6,064**	**48.5**	**7.4**	**285,498.50**

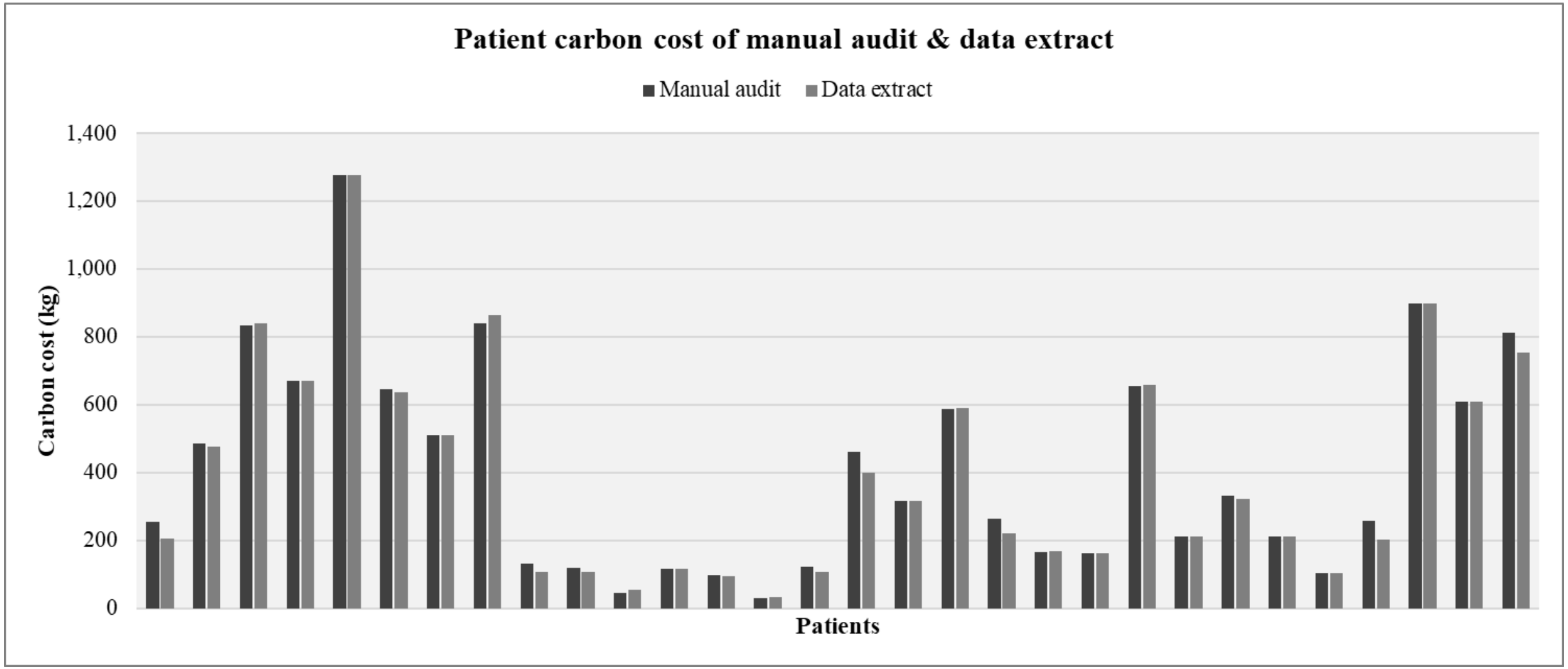
To the moon and back…..

FOR A GREENER NHS

Climate action Hampshire Hospitals



Findings: Methodological differences



Carbon Hotspots

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Ambulance journey

21,504 Kg CO_2e





Accident and Emergency Department

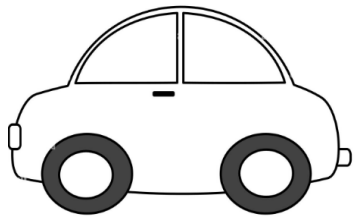
7,783 Kg CO_2e



Transportation of diagnostic tests

19,710 Kg CO_2e





Limitations

1. Measuring carbon emissions, or creating a carbon footprint is a **highly complex process**, particularly for something as complex as a care pathway.

2. **Data quality needs to be improved** with carbon in mind. Elements such as PPE usage, GP/community call out (travel) not always available

3. **Impact of technology not fully recognised**. Health monitoring applications largely not noted down and impact/outcomes unavailable



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Conclusions

1. Virtual Wards are a lower carbon model of care
2. Manual data analyses is more accurate than large-scale BI data analysis
3. Validated methodology of National Toolkit



Next Steps:

Further Research

Implement Recommendations Locally

Spread Learning Across Virtual Ward Networks



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NHS Hampshire Hospitals NHS Foundation Trust

Thank you for your time

Any question?

CONVENZIS

Afternoon Networking



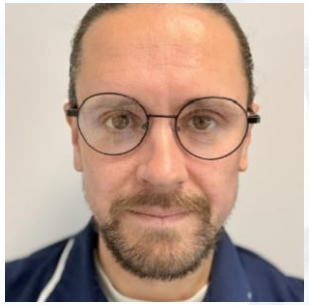
Leadership Lessons



Rob Taylor-Ball
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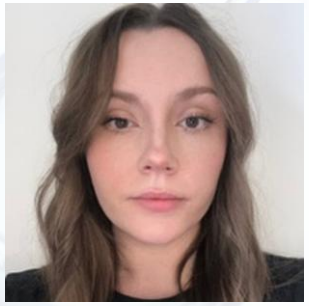
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Leadership Lessons from the Front Line - Virtual Care Collaboration

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The Evolution of One Dorset Hospital at Home Service

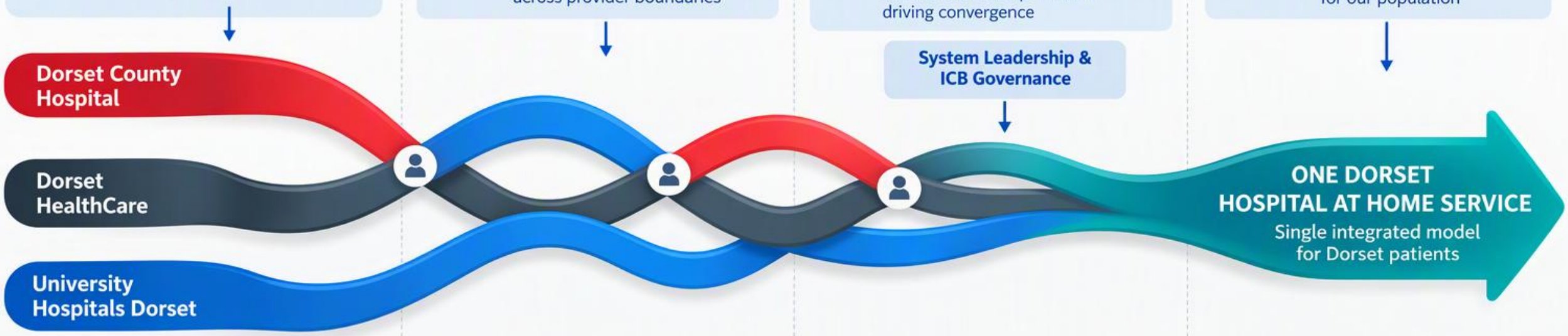
From separate services to a single, integrated model – improving patient experience, safety and outcomes

1 Separate, coexisting services
Occasional contact, limited coordination

2 Shared Patients & Collaboration
Increasing partnership working across provider boundaries

3 Shared Governance & Alignment
ICB-led governance, shared priorities and standardised processes driving convergence

4 One Dorset Hospital at Home Service
A single integrated service for our population



Risks for patients

- Duplication of assessments
- Handover risk
- Variable access and standards
- Fragmented patient experience

Emerging opportunities

- More shared patients
- Increased communication
- Joint decision-making
- Growing trust and understanding

System enablers

- ICB governance arrangements
- Shared performance oversight
- Agreed clinical standards
- Shared operational processes

Improved outcomes

- Single, consistent patient offer across Dorset
- Shared workforce and governance
- Reduced variation
- Safer, higher quality care
- A more resilient Dorset system

From organisational boundaries to a single Dorset service

Dorset Healthcare Hospital@Home and Dorset County Hospital Acute Hospital (AHAH) at Home Joint working - Pilot Proposal

Introduction

The Dorset Integrated Care System (ICS) is committed to delivering care closer to home wherever it is clinically appropriate, improving patient outcomes and reducing avoidable hospital admissions. Hospital@Home services play a vital role in achieving this ambition by providing hospital-level assessment, treatment, and monitoring within a patient's usual place of residence. This model of care supports patients to remain independent, reduces the risks associated with hospital admission, and improves the overall patient experience.

Both Dorset HealthCare University NHS Foundation Trust (DHC) and Dorset County Hospital NHS Foundation Trust (DCH) currently provide Hospital@Home services for patients with frailty and other acute healthcare needs. While these services have developed successfully within their respective organisations, there is increasing recognition that closer integration would enable more effective utilisation of workforce capacity, reduce duplication, and improve resilience across the system.

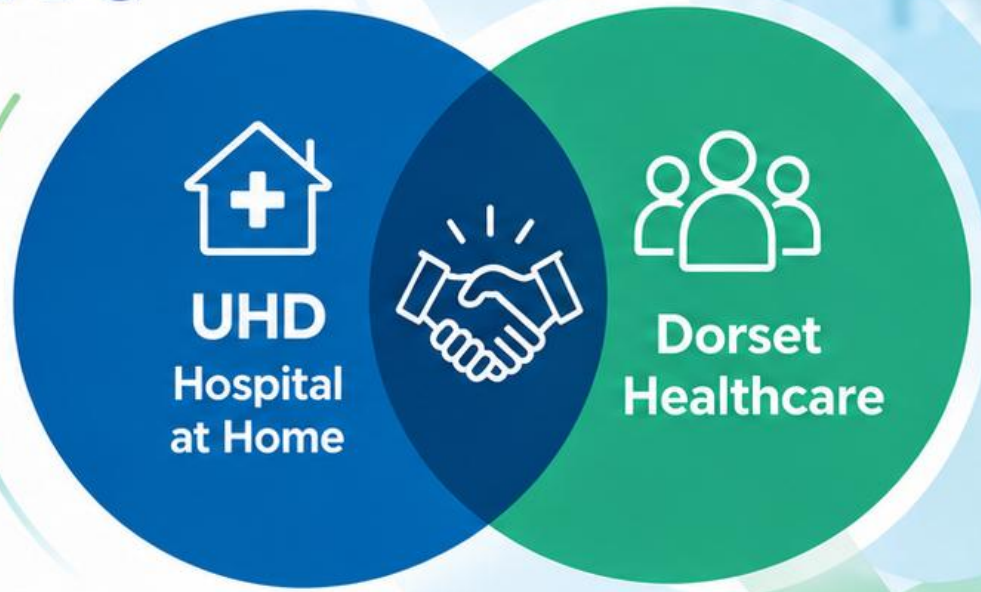
This proposal sets out a three-month pilot to establish enhanced joint working arrangements between the DHC Hospital@Home teams operating across West and North Dorset and the DCH Acute Hospital at Home (AHAH) service. Through a coordinated approach to caseload management, visit allocation, and clinical support, the pilot aims to maximise available Hospital@Home capacity, improve responsiveness to patient need, and develop a more integrated and sustainable model of care.

The pilot supports national priorities outlined in the NHS Urgent and Emergency Care Recov
Plan Term Pl

CASE STUDY

Working together around the patient

Joint support from UHD Hospital at Home and Dorset Healthcare to avoid hospital admission



Clinical Scenario

91 year old female

1 Presentation to hospital

- Fall.
- Diagnosed with LRTI.
- Postural hypotension.
- Considered for hospital admission.

2 Treatment in ED

- IV fluids.
- Started on oral antibiotics for LRTI.
- Discharged home with UHD H@H.

3 Further fall at home

- Further fall.
- Ongoing postural hypotension.
- Patient does not want re-admission to hospital.

4 Concerns of mobility and skin integrity

- Increased concerns regarding mobility.
- Large Category 1 pressure sore identified.

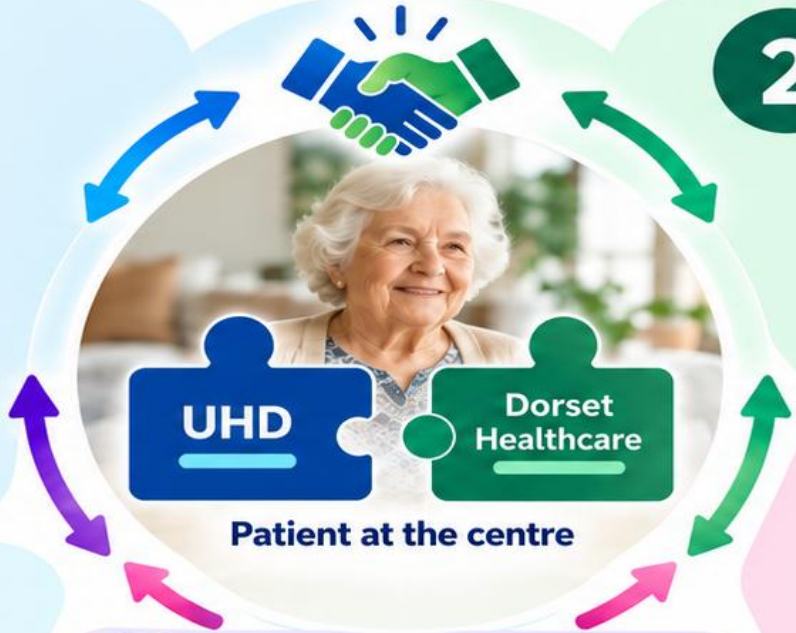
Working together around the patient

Joint support from UHD Hospital at Home and Dorset Healthcare to avoid hospital admission

Right care, right place, right time.

1 UHD Hospital at Home medical oversight

- Weekend medical oversight
- Daily clinical review and blood tests
- Improving results



2 Dorset Healthcare therapy support

- Therapy to maximise independence and function

3 Bridging package of care

- Community rehab support while care package increased

4 Awaiting increased official care package

- Continued joint support at home

5 Full care passed to Dorset Healthcare

- Ongoing monitoring at home

Outcome: Hospital admission avoided

Maintained independence | Received the right care at home | Supported ongoing wellbeing

What went well?

01 Care in the right setting

Patient remained at home.

Right care, right place, right time.

02 Shared commitment

Both teams demonstrated enthusiasm to work together around the patient.

Challenges

01 Digital systems

Different IT interfaces between services limited shared visibility of patient information.

02 New ways of working

The shared-working concept was new, with limited opportunities for teams to shadow each other.

03 Communication

Patient updates and concerns relied heavily on email and telephone, resulting in cumbersome communication and delayed handover.

Where are we now?

01 Governance & pathways

Further alignment of governance and clinical pathways is needed.

02 Clear accountability

Full care is passed to one provider wherever possible.

03 Daily coordination

Huddles review capacity, locality and weekend cover, discuss patients and facilitate transfers.

04 Stronger collaboration

Better understanding of each service. Improved trust between providers. enabling faster, more frequent referrals.

05 Future improvements

Co-creating standardised clinical pathways; a new IT interface is anticipated to improve information sharing.

Enhanced Single Point of Access (SPoA)

Our Dorset

NHS
Our Dorset
Provider Collaborative

What is SPoA?

- Senior Clinical Decision Maker (SCDM) accessible to ambulance teams and all health professionals
- Admission avoidance – keeping patients safely at home
- Ensuring patients receive the right care, efficiently and safely looking at alternative pathways





Who can refer?

- Ambulance service
- Integrated Urgent Care service clinicians
- Community nursing / medical / therapy teams
- Acute hospital teams
- GPs
- Social care services

Call 03000 334 000

Access urgent health and social care pathways	Prevent unnecessary attendances to Emergency Department	Tailored community support – right service, time and place	Hospital at Home and Urgent Community Response Service

SPoA core hours – 8am-11pm, Mon-Sun

SPoA SCDM hours – 8am-8pm, Mon-Sun

SPoA case scenarios

- Patient requires urgent medical advice from SCDM. Referral to frailty SDEC to avoid attendance to ED.
- Patient has a new issue with a catheter or wound care that requires same day intervention.
- Concerns about patient's speech or swallow and needs speech and language therapy.
- Concerns regarding patient managing own medication.
- Requires therapy to improve mobility and transfers post-discharge from acute setting.
- Ambulance crews on scene requiring urgent medical advice and social care for patient to remain at home safely.

Chair Closing Remarks



Gurnak Singh Dosanjh
GP & ICB Deputy Chief Clinical Information Officer
Leicester, Leicestershire & Rutland ICB