



Acute Virtual Wards for the Irish Health Service

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Acute Virtual Ward Programme



Background and context



Significant Emergency Department (ED) wait time issues, with **~42% of patients waiting 6+ hours** and **26.1% waited longer than 9+ hours**



Waitlist continues to grow, reaching **~83k in October 2023** (+4% YoY)



Demographic growth is estimated to be **~33.5% amongst 65+ y/o** over the next 10 years



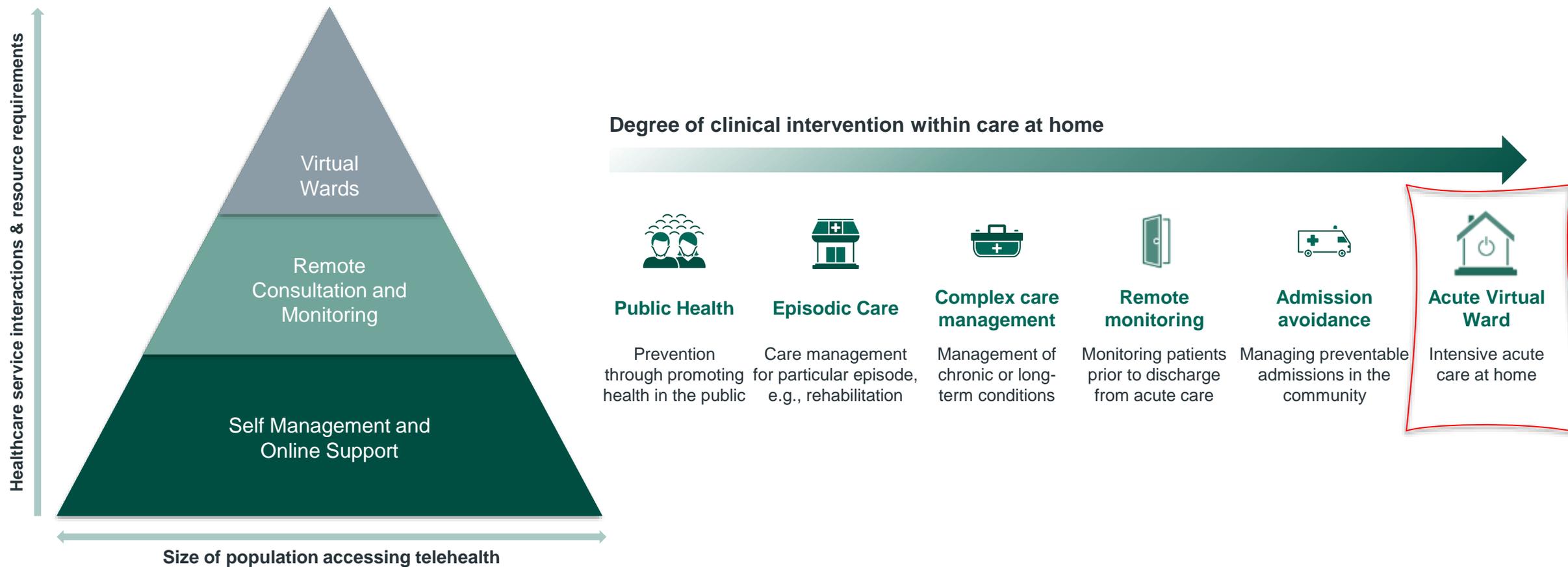
392 patients on trolleys (20th Nov), an **increase of 55%** from the same day two years ago

The Irish health system is facing **significant pressures**

Acute Virtual Ward Programme

What are Acute Virtual Wards?

Acute virtual wards support patients who would otherwise be in a hospital bed, to be remotely monitored and receive treatment in their homes



Acute Virtual Ward Programme

Key features of Acute Virtual Wards

- ✓ **Acute care led** and a managed alternative to in-patient hospital care that is enabled by technology
- ✓ **A time-limited service**, supporting patients who would **otherwise be in hospital** to receive acute care
- ✓ Enables the delivery at home of acute care, monitoring, and treatment to **prevent admissions or support early discharge**
- ✓ Uses a variable combination of **technology, remote monitoring, and face-to-face care**



Acute Virtual Ward Programme

Programme overview and progress to date

Programme overview

The HSE, under the governance of the CCO's Office, have commenced the mobilisation of a programme to develop and implement a national model for AVWs in acute hospitals nationally

Progress to date



National steering
group established



ICT procurement
in progress



Workforce model
defined



Pathway mapping
in progress

Acute Virtual Ward Programme

Programme vision and objectives

An ambitious programme...

- ✓ Establish acute virtual wards in two acute hospital sites initially in 2024 and evaluate for impact
- ✓ Develop an operating model for AVWs that will be applied nationally
- ✓ Develop plan for national AVW roll-out and monitor, oversee, and evaluate implementation
- ✓ Oversee technology procurement and deployment for AVWs



That will be high impact...



Quickly increase acute hospital bed capacity



Reduction in readmissions



Reduced patient treatment costs



Reduced HCAIs and faster recovery for some patient cohorts



Patricia O’Gorman
Nursing & Midwifery Information Officer



Benefits for Patients and Hospitals



Patients

- VW patients have seen lower incidence of complications:
 - Incident delirium fell from 24% to 9%⁴
 - Bowel complications fell from 16% to 9%⁴
- VW patients ~3x more likely to be satisfied with overall care²
- VW patients had lower depression and anxiety scores¹



Hospitals

- VW patients experience 15-45% fewer readmissions^{1 2 3 4}
- VW reduces treatment cost by 20-30%^{2 3 4}
- VW patients generate fewer diagnostics & consultations:
 - ~ 3x fewer imaging & ~ 5x fewer lab orders³
 - ~ 15x fewer consultations³



Staff

Workforce benefits are less evidenced across the literature to date, however anecdotal evidence across NHS Virtual Wards prove the value:

“ *The VW has definitely enhanced my role ... we can put our clinical skills to best use and it's offers a level of flexibility for nurses*

“ *It's an amazing feeling when we treat someone with delirium at home and they improve within the hour*

Acute Virtual Ward Programme

Model of care for acute virtual wards



What does the AVW model look like for the Irish Health Service?

- ✓ **Acute care led** and a managed alternative to in-patient hospital care that is enabled by technology
- ✓ **A time-limited service**, supporting patients who would **otherwise be in hospital** to receive the acute care, monitoring and treatment they need in their own home or place of residence
- ✓ Will scale to be **25 bedded wards** at each acute hospital site
- ✓ **Cardiology and Respiratory specialties** are to be included in the initial Phase 1 implementation
- ✓ Enables the delivery at home of acute care, monitoring, and treatment to **prevent admissions or support early discharge**
- ✓ Uses a variable combination of **technology, remote monitoring, and face-to-face care**, and may incorporate remote monitoring, for example, through apps, technology platforms, wearables and devices such as pulse oximeters

Workforce model

Core clinical resourcing requirements

The AVW model has a clinical staff component, similar to an acute ward in a hospital, with acute clinical care delivered by a MDT if clinically appropriate, with clear lines of clinical responsibility and governance.

A core clinical staffing model has been developed (based on international experience and tailored to the Irish system), outlining a requirement for 15 WTE to be recruited per local acute hospital site to stand up and operationalise AVWs.

Grade	WTE required	Role overview
Clinical Nurse Manager 3	1.0	Provide oversight and governance for the project and safe and professional standard of care in the AVW
Clinical Nurse Manager 1	6.5	Responsible for the management, care, education, and treatment of service users, to ensure that the optimum standard of care is provided 24/7 within the AVW. Provision of nursing clinical governance 24/7 for the acute virtual patient
Enhanced Nurse	6.5	Support the 24/7 operations in the AVW hub. Patients will be supported to avoid hospital admission by having skilled staff in the hub to provide service (for example venepuncture/cannulation, IVA) if required to maintain the patient at home
Administrative Support (GV)	1.0	Provide administrative support to support the AVW hub and operations
Total	15.0	

Key assumptions:

- Existing staffing will be required at local sites e.g., Two Advanced Nurse Practitioner (Cardiology/Respiratory) operating Monday to Friday
- Existing staff will be required to deputise as required for core clinical staff on acute virtual wards e.g., annual leave cover

Partnerships to support delivery



CLINICAL EXPERTISE

Provide a dedicated multidisciplinary clinical team

Clinical risk management

Named Consultants

Rapid access to appropriate clinical support & advice

Prescribing, including controlled drugs

Community teams - GP's, PHN's CIT's, ECC roles

ANP's CNS's

Practice development



IN-PERSON CARE

Face to face clinical assessment when required

Face to face diagnostics

Face to face therapies

Robust access to existing health and care providers of face-to-face services



REMOTE MONITORING & CARE

Collection of remote monitoring data

Interpretation of monitoring data

Provide regular patient clinical review

Support of self-management

Provide agreed escalation pathways for 24hr safety netting

Provide agreed inclusion and exclusion criteria



MANAGING OPERATIONS

Co-ordination of delivery of patient services

Co-ordination of staffing and deployment

Co-ordination with existing health and care providers

Manage department budget

Manage service contracts

Service review and improvement



MANAGEMENT OF MONITORING EQUIPMENT

Assess patient suitability to use equipment

Educate patients in equipment use

Determine suitable equipment on personalised basis

Deliver equipment to patient

Support use of equipment when deployed

Retrieve equipment

Maintenance of equipment



CORPORATE SERVICES

Human Resources (HR)

Technology and data

Finance

Governance

Technology

A core AVW component will be a comprehensive fully vendor managed (end-to-end) remote monitoring technology solution, including the provision and support of a suite of web-based application(s) and clinical measurement equipment, to facilitate acute clinical care delivered remotely by a multidisciplinary team and with clear lines of clinical responsibility and governance.

Change management

- Clinical leadership and digital champions
- Standard Operating Procedures
- Training
- Data governance
- Clinical safety
- Interoperability
- Data capture – clinical and operational



Local site requirements

The input and support of local sites is critical in order to facilitate the timely implementation of AVWs



Key next steps

- ❖ **Establish Local Implementation Group (LIG):** stand up a LIG responsible for local planning, implementation, and oversight of the AVW. LIGs to encompass SVUH lead, contact points for AVW workgroups, governance and reporting procedures etc.
- ❖ **Agree and schedule key workshops:**
 - Proposed workshop dates - 6th Dec and 19th Dec
 - Develop attendee list for workshops
 - Agree workshop schedule for January (detailed pathway mapping workshops)
- ❖ **Progress the completion of key project activities and deliverables** required for the establishment of AVWs:
 - Recruitment (to start early January)
 - Pathway mapping
 - Operational readiness



Evaluation



1. What are the core components of the virtual ward models?
2. What factors have supported the successful implementation of the virtual wards?
3. What have been the barriers to implementation?
4. Who are the patients being admitted to virtual wards?
5. What is patient engagement with the remote monitoring technology?
6. What is patient experience of the virtual ward models?
7. How do staff engage with and work on virtual wards?
8. What is staff experience of the virtual ward models?
9. What patient outcomes are associated with the ward models?
10. What are the overarching benefits to hospitals and patients?

Thank You

