Moving Forward Together:
Building Future Health and Care Services
NHS Greater Glasgow & Clyde

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InnoScot Health

GCU
Glasgow Caledonian University
School of Health and Life Sciences

Healthier Scotland
Scottish Government

Session Speakers

Chair
Jane Grant, *Chief Executive*

1. Planning for Transformation
Fiona MacKay, *Director of Planning*

2. New Clinical Models of Care
Dr Jennifer Armstrong, *Medical Director*

3. Digital
Denise Brown, *Director of Digital Services*

4. Infrastructure
Prof Tom Steele, *Director of Estates & Facilities*

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Thanking our staff   #NHSScot75

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Moving Forward Together

This is an ambitious programme to transform health and care in GGC, where people will access the care they need.

The future is already here – tomorrow has arrived! Technology is driving change

Grasp the future and use these beginnings.
Be pro-active and build confidence in our staff and patients.

Moving Forward Together:
MFT Implementation Strategy
Background

In 2018 NHS Greater Glasgow & Clyde published a vision for its Clinical Strategy which is described in the **'Moving Forward Togethe**r' blueprint. The key driver is to achieve transformational change in services by creating:

- Less dependency on hospital beds by developing services in communities
- A tiered model of care with a small number of specialist centres and provision of care in homes and communities.

Moving Forward Together.
A tiered approach

In 2018 NHS Greater Glasgow & Clyde published a vision for its Clinical Strategy which is described in the **'Moving Forward Togethe**r' blueprint.

Significant clinical engagement contributed to this vision.

The key driver is to achieve transformational change in services by creating:

- Less dependency on hospital beds by developing services in communities
- A tiered model of care with a small number of specialist centres and provision of care in homes and communities
- Cross system working – primary care, mental health services, secondary care and community care.
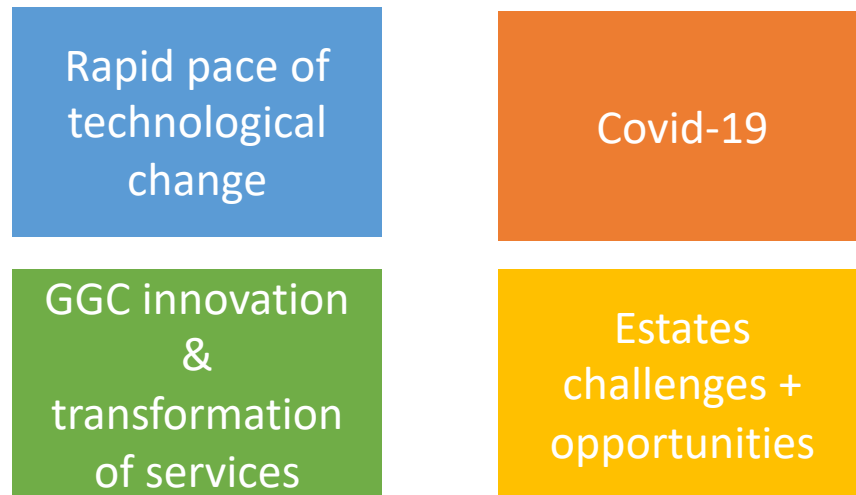

Vision: to have tiered model of care – Majority of care in local locality but recognition that specialist care is better delivered in a smaller number of sites.

MFT Implementation Strategy

Since 2018 we've experienced significant change in healthcare delivery that we need to respond to:

Rapid pace of technological change	Covid-19
GGC innovation & transformation of services	Estates challenges + opportunities

Clinical & Estate Transformation

In 2021 we recognised that:

- MFT needed to be updated to reflect learnings from COVID-19, the impact of eHealth on service delivery and to scale-up innovation that is already being delivered across GGC.

- An MFT **Implementation Strategy** was required to further develop MFT and provide the estates response

- The response needs to be data driven, system wide, and reflective of the then emerging Digital Strategy

- A Clinical Roadmap is being developed as a working document to capture the further development of MFT post pandemic and 4 years further on.
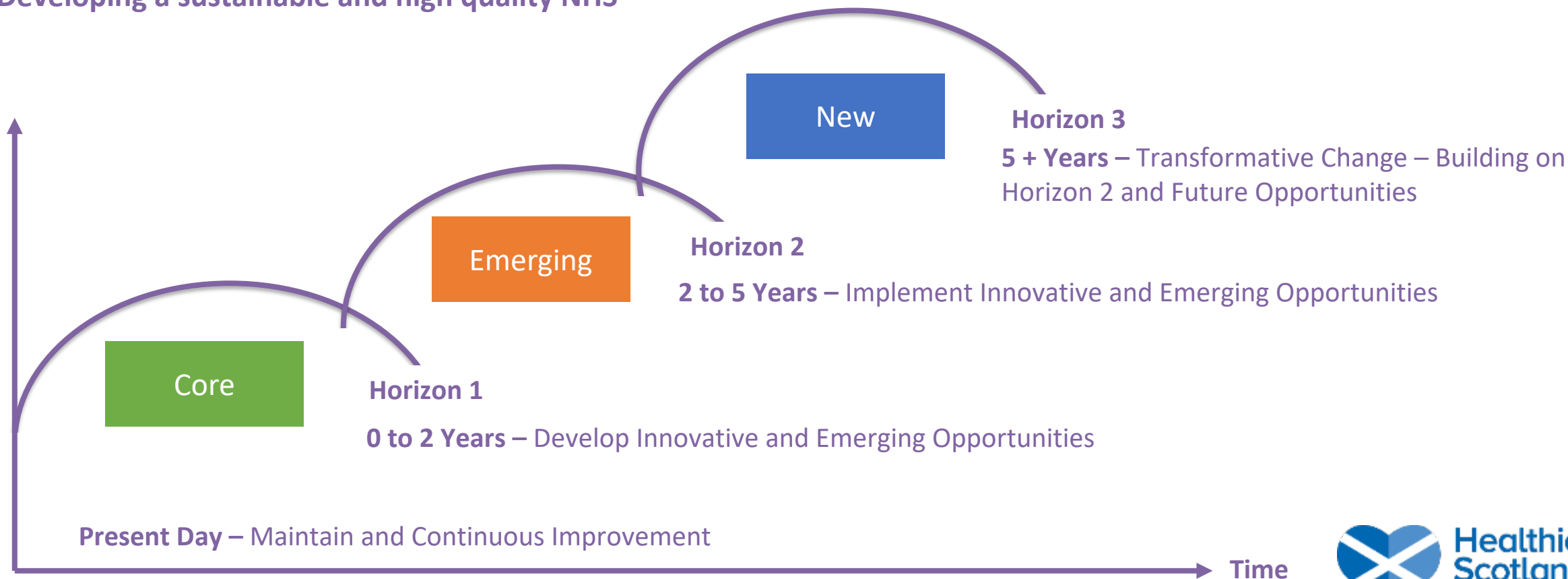
The MFT Implementation Strategy is a pathfinder to this evidence based approach to clinically driven estates planning for the Scottish Government and other NHS Scotland Health Boards.
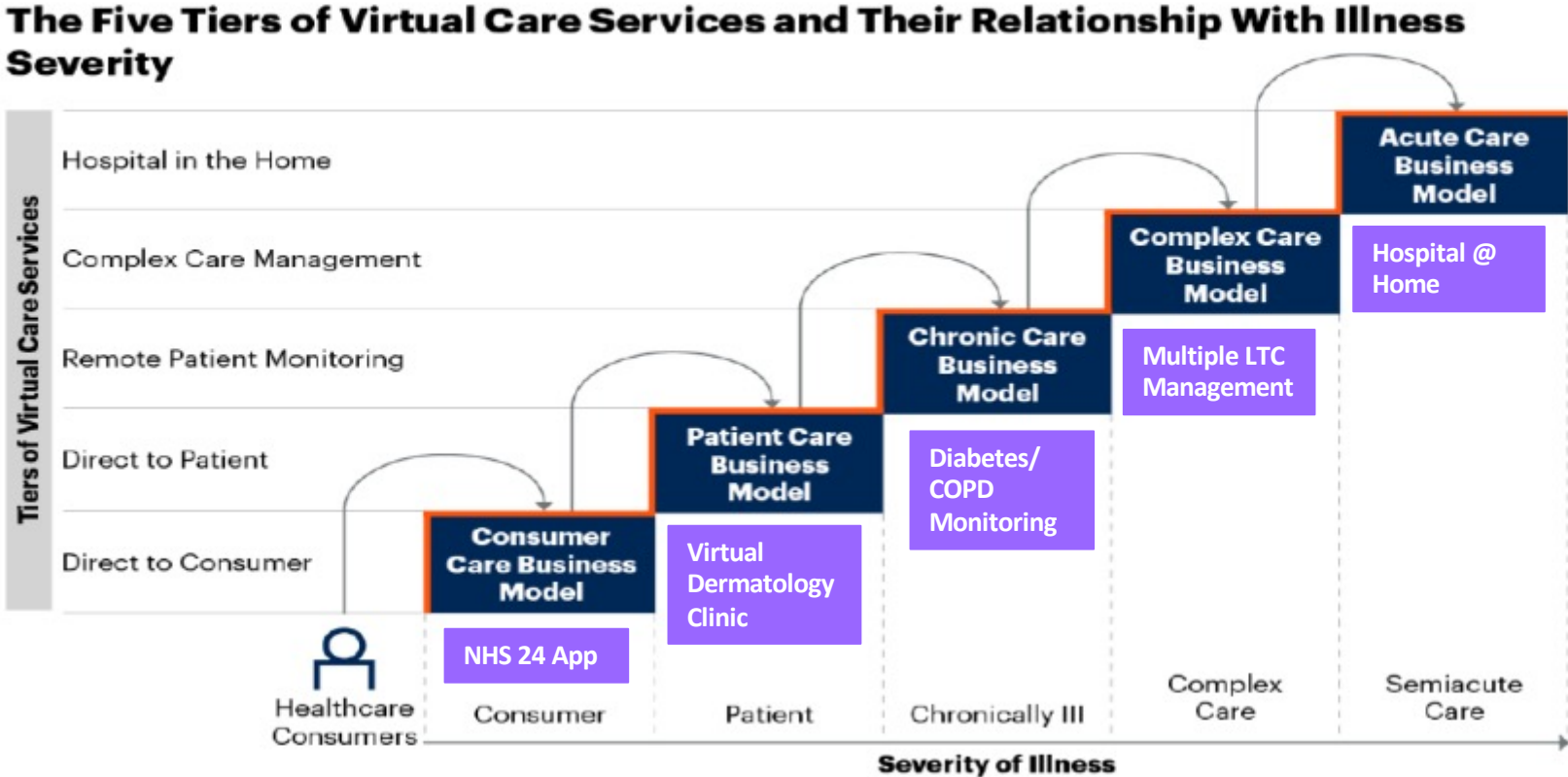
New Clinical Models of Care

Virtual Care

Figure 1: The Five Tiers of Virtual Care Services and Their Relationship With Illness Severity

Source: Gartner 734459 C

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Patient Experience
Virtual NHS GGC Flow Navigation Centre

- 97% of people who used the service said they would use it again

- The service is used by all ages (from under 16 to over 75)

- Over the past four months, the service has seen 5,501* patients virtually

- 80% of consultations are done using Near Me

- 91% of people had a positive experience.

"I avoided an unnecessary visit to A and E – calling 111 first was definitely the right decision. The whole process was less than an hour in total, rather than sitting in a busy waiting room for hours."

"For me, being heard and understood by the call handler and nurse, especially as I was anxious about my child, was important. The call handler and nurse were lovely and approachable. This also helped me stay calm."

What will GGC look like in 10+ years time?

Homes

In homes across GGC, patients are active and equal partners in care:

- Public health messaging and education

- Prevention messaging and people confident to promote their own health

- Confident and understand chronic conditions, know triggers for escalation

- Remote monitoring of known conditions, with pathways for escalation and strategies for managing concerns

- Quick and easy access to increased levels of care

- Care reaching into people's own homes e.g. Home First Response Team, virtual wards and Hospital@Home.

What will GGC look like in 10+ years time?
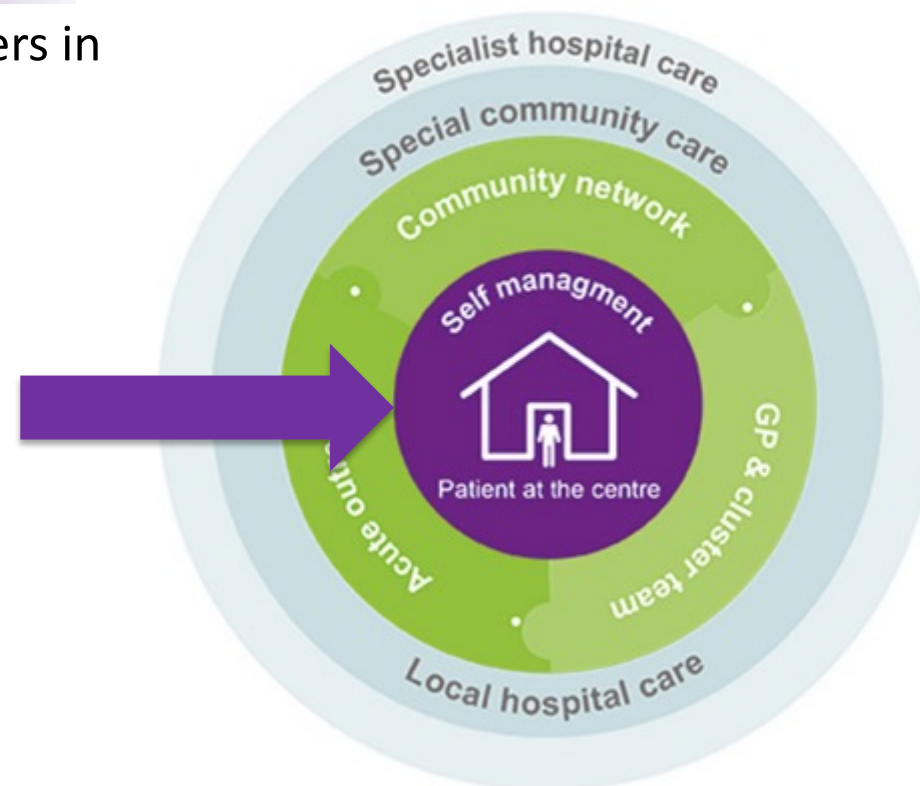
Virtual GGC

- This is based on international models from North America

- Telehealth and telemedicine have developed into a new concept – the Virtual Hospital

- Virtual Hospitals are those where clinicians can provide remote care to patients based in another location through a number of smart monitors and AI devices

- The services could be provided from a centralised command centre

- We would be able to manage physical acute and community beds, and virtual wards from a single central command centre

- Provides benefits of scale and avoids duplication, inconsistency and inefficiency across the system by bringing teams physically close together.

What will GGC look like in 10+ years time?

Community Hubs (100k-150k pop.)

- Multi purpose clinical spaces with extended access days and times, flexible and shared rooms and spaces

- Services to include:

  - AHPs and rehabilitation

  - Comprehensive assessment and measurement

  - Secondary care input

  - Mental Health

- Health improvement and prevention services in partnership with the Third Sector

What will GGC look like in 10+ years time?

Mental Health

- Patients supported to be partners in care planning

- Some specialist Board/Regional/National services provided on a single site

- Optimisation of Mental Health inpatient units providing adult admission and IPCU services

- 2 Mental Health Assessment Units

- Community mental health teams and primary mental health services

- Computerised CBT Services and app based services

- Health and wellbeing hubs in communities

What will GGC look like in 10+ years time?

Social Care

- Optimising use of technology to support independence

  - Wearables

  - Overnight monitoring

  - Alarms and sensors

- Rehabilitation Services reaching into acute services and into homes

- Intermediate care beds in local communities

- Smart homes and future proofing homes for frailty and dementia

- Resilient home care services and Care Home sector

What will GGC look like in 10+ years time?

Acute Care

Elective Centres

- Protecting elective capacity, and maximising productivity

- A tiered model of surgical services

Specialist Centres (GGC population and wider)
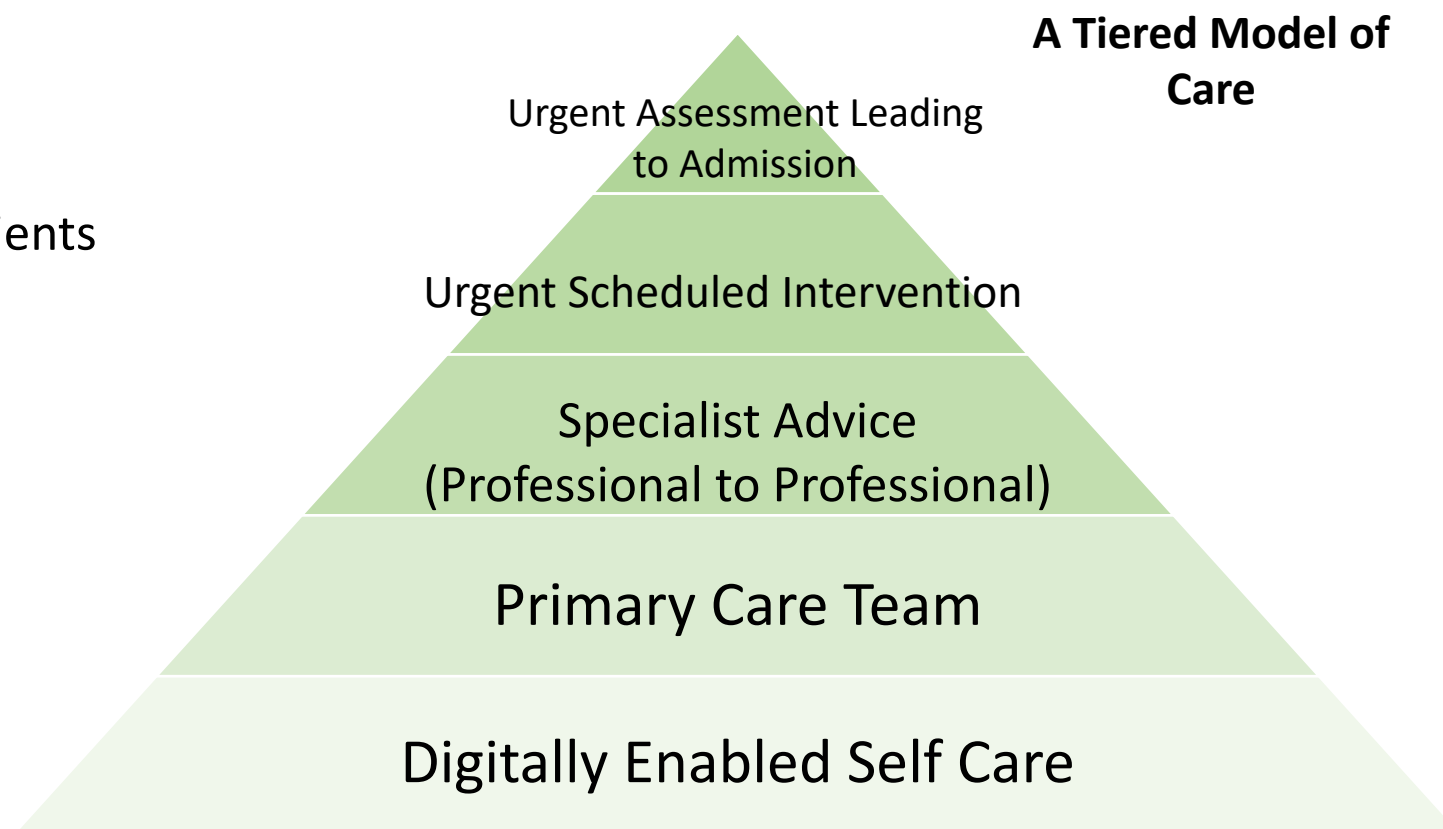
- Examples include Dental Hospital, Beatson and INS

Other Acute Services

- QEUH single highly specialised acute site acting as Trauma Centre for West of Scotland, and providing all specialist tertiary services (pop. 1.2m+). Also providing general acute services for South sector.

- GRI and RAH as Trauma Units and major acute hospitals providing services to the North and Clyde sectors

- IRH as a local Emergency Hospital, providing a range of services for a population which is more deprived and distanced from major acute sites, also providing elective care for wider GGC population.

Unscheduled Care - An Example

Principles

- Call Before Convey

- Schedule urgent care when possible

- Simple access to urgent care for patients

- A co-ordinated urgent care service

A Tiered Model of Care

Urgent Assessment Leading to Admission

Urgent Scheduled Intervention

Specialist Advice (Professional to Professional)

Primary Care Team

Digitally Enabled Self Care

Unscheduled Care - An Example

Horizon 1 – Core: Continuous Improvement

Key Activities:

- Consistency among services and sites
  - Pathways
  - Services
  - Rapid Assessment and Care Unit (RACU)

- Appropriate redirection

- Real time data to support direction

- Professional to Professional

- NHS 24 App

Digital approaches are beginning to change the way we deliver services. There are some bottlenecks and inconsistencies in our systems. Patients are beginning to use technology to improve flow.

Unscheduled Care - An Example

Horizon 2 – Emerging: Innovative and Emerging Opportunities

Key activities:

- Coordinate the virtual offering

- Co-locate urgent care and share responsibility
  - GP OOH
  - FNC
  - ED
  - SAS
  - MIU

- Team Service Planning

- A digital front door, supported by Apps

Our digital offering is becoming more co-ordinated. Patients are increasing in confidence to manage their own conditions and to access support as it is needed.

Unscheduled Care - An Example

Horizon 3 – New: Transformative Change

Key activities:

- eHealth nerve centre

    - based on international models

- Use of artificial intelligence for triage/first point of care – a digital front door

- Only ambulance patients or those seriously ill/injured attend EDs unappointed

- Maximise use of Hospital @ Home and virtual wards

- Supporting self-care and CTACs

We will offer a coordinated route into urgent care. Our patients will understand the range of care available and will be able to step up and down the tiers as appropriate.

Tomorrow is already here!

Key messages

Our Population

- Educated, empowered and supported by strong public health messaging to manage their own health

Our Patients

- Co-participants in decisions about their care and in monitoring health

Our Staff

- Continue to focus on care and compassion, as staff are supported to work in new ways and enjoy a fulfilling working life

NHSGGC Digital Strategy 2023-28 Digital on Demand

Strategic themes

- Data and clinical informatics
- Digital clinical safety
- Remote practice
- Citizen access
- Safer use of medicines
- Workforce digital literacy and skills
- Regulatory and cyber security

Priority programmes

- Digital health and care records
- Innovation and systems development
- Safer diagnostics
- eMedicines programme
- Decision support
- Technology estate

www.nhsggc.scot/downloads/digital-health-care-strategy-digital-on-demand-2023-2028

Enabling Strategies

- Adopt, influence and support national solutions

- West of Scotland Innovation Hub, testbed for new ideas and scale innovations

West of Scotland
Innovation Hub
- NHS Scotland Regional Test Bed (WoS)
- Living Laboratory (UoG)
- Health Data Exchange (DHI, Grampian, Lothian)
- NHSGGC AI Programme

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Virtual Care - Citizen Access

- Providing short-to-medium term solutions in NHSGGC and feeding into the national Digital Front Door developments, focused on sustainability

- Progressing with PatientHub
  - Digital-first outpatient appointment notifications and attachments
  - Online pre-op assessment data collection / questionnaires, started with ENT Tonsillectomy
  - Regular results (HIV viral load, Lithium)

Further information:
https://www.nhsggc.scot/hospitals-services/visiting-hospital/patient-hub/
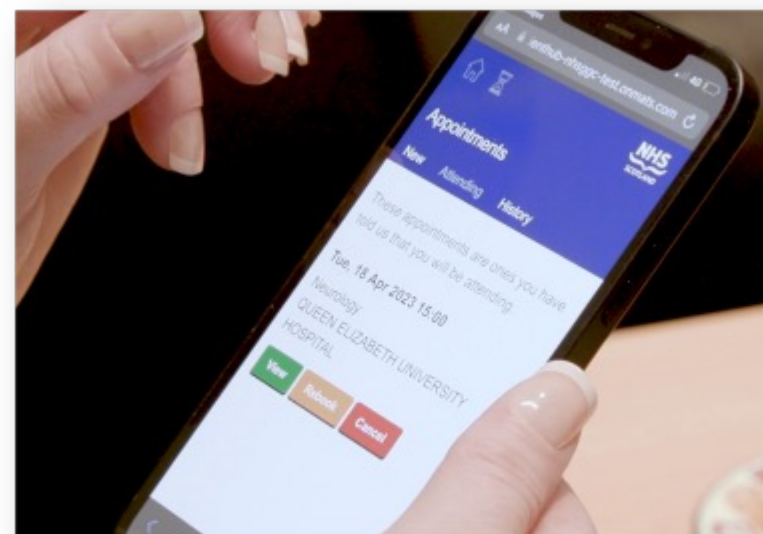
Virtual Care - Blood Pressure Monitoring

- Primary Care pathway for blood pressure collection to support diagnoses, intervention, treatment, and ongoing monitoring

- Built on nationally procured digital solution for remote pathways

- Patients use standalone small basic medical equipment to take readings, enter on phone app, submits to clinical teams

- Live since December 2022 - 25% of NHSGGC GP Practices engaged with 1,050 patients opted-in

- Tests of change underway with same technology for community Heart Failure, Prostate Cancer pathway and IBD pathway

Further information: https://tec.scot/programme-areas/connect-me/connect-me-clinicians/pathways/national-blood-pressure-service

Virtual Care – COPD (Dynamic Scot)

- Based on the sustained patient use, reduction in hospital admissions and range of improved secondary outcomes observed in RECEIVER trial and the DYNAMIC-SCOT COVID-19:
  - Co-designed digital service across clinical pathways.
  - Empower patients to better manage their condition at home.
  - Improve clinician's access to data and proactive personalised management for patients with COPD.

- Long-term condition management underpinned by early diagnosis, co-management, recognition and management of associated conditions, early response to deteriorations.

- Plus grown into further areas of digitally enabled service innovation:
  - Dynamic Scot - SG and NHSGGC funded for 2 year NHSGGC scale-up and NHS Lothian test-of-change (Mid-Lothian HSCP)
  - POLARIS Spirometry Astra Zeneca collaboration
  - NHS Scotland / CfSD ANIA pathway assessment

Digital Pathology

- Collaborating and supporting research and innovation partnerships which bring external funding to build NHS capabilities

- InnovateUK funded iCAIRD programme focused on AI research in Pathology and Imaging, but also enabled service benefits

98% of histopathology slides at NHS GGC are being routinely scanned; 80% primary reporting is digital

Nearly 2m slides scanned, increasing by 50,000 per month.

£2m capital investment (and growing) by Philips; third largest Philips site globally

70 pathologists validated to report digitally; remote reporting trial underway

2PB of historical data - 600TB added each year – with resilient storage for a total of 7PB (5 years data)

Living laboratory with separate research environment, scanner and artificial intelligence integration capability

Quadruple national award-winning

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Cancer MDT

- A regional / national service with medical and diagnostic staff from over Scotland using the same platform

- There are two regional cancer MDT's live – Molecular Tumour Board (MTB) and Gyn with the system with two more planned for 2023 – Head & Neck and Pancreatic Cancer

- 3000 Gyn patients so far

- In-house developed on Microsoft Teams and Microsoft Power Platform tools

- Development approach - matrix development team across Boards
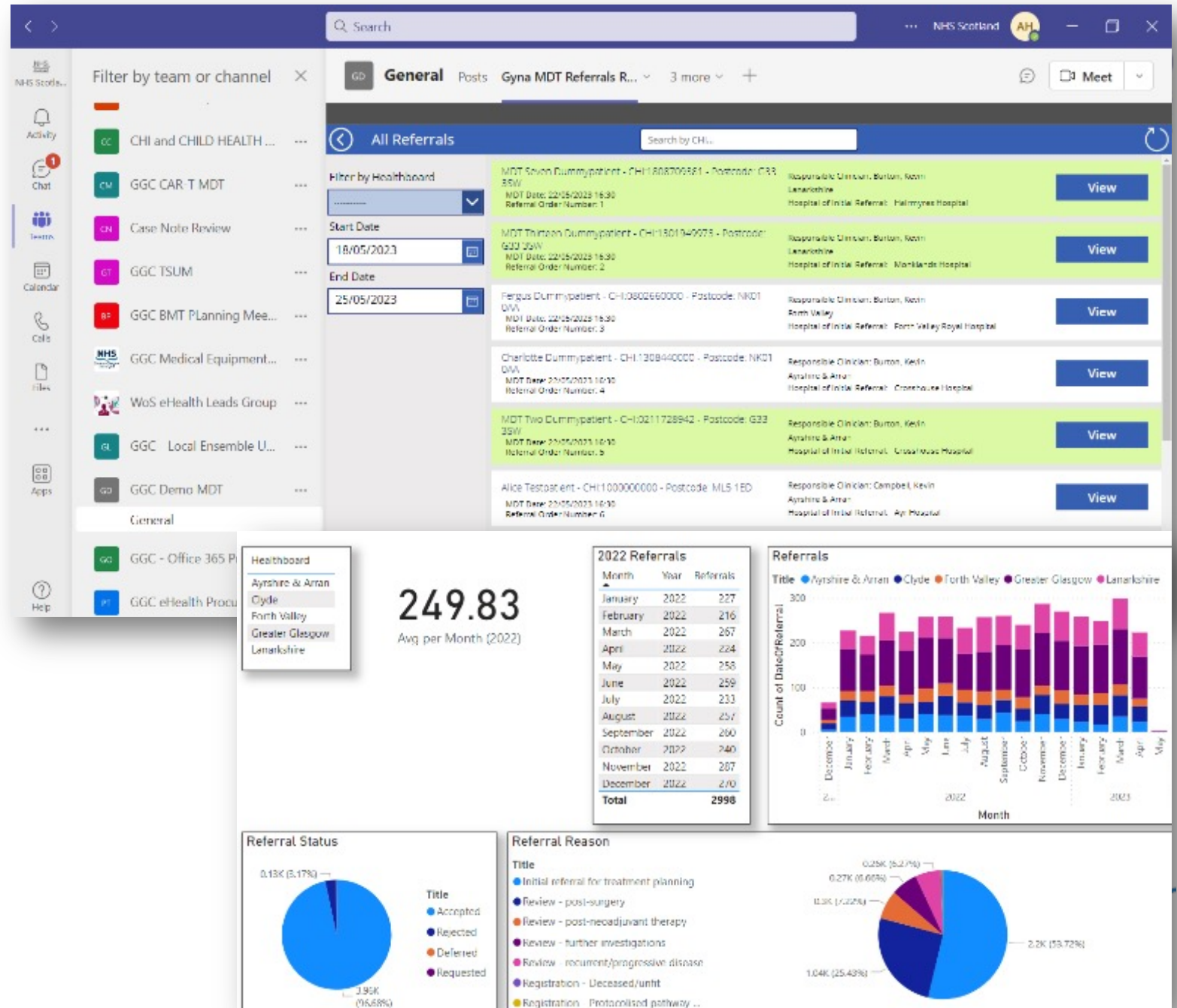
Artificial Intelligence

- Artificial Intelligence (AI) potential to improve efficiency of services, improve patient outcomes and automate tasks

- The NHSGGC Digital Strategy 2023-28 seeks to establish a wider plan for exploiting, adopting, operationalising, and investing in AI

- Future AI Strategy for NHSGGC

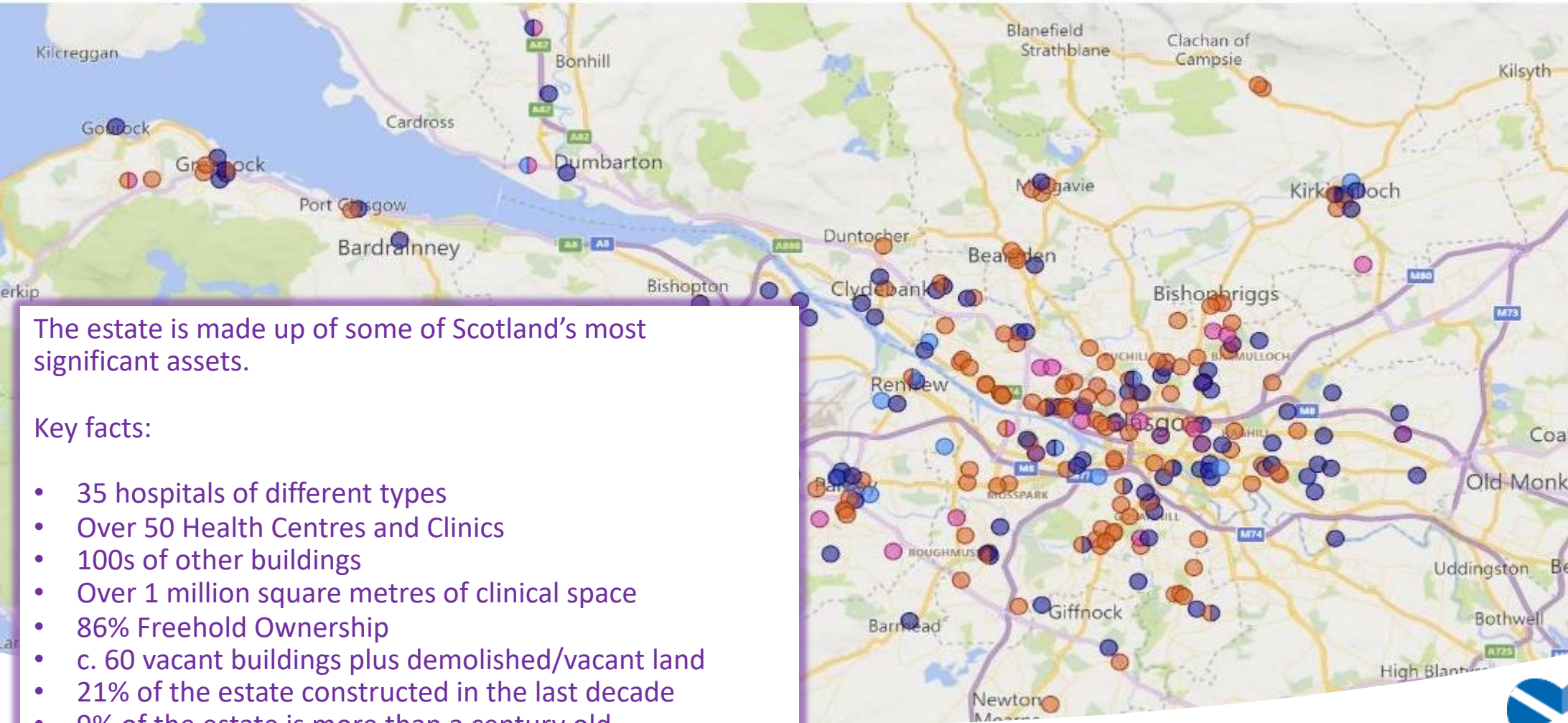- Portfolio of projects covering research, innovation, and significant focus on operationalisation of AI solutions – Referral Triage, Predicted Date of Discharge and Diagnostic Imaging

Infrastructure

MFT Implementation Strategy

Type ● Acute ● Admin/support ● Commiunity ● Primary ● Specialist

The estate is made up of some of Scotland's most significant assets.

Key facts:

- 35 hospitals of different types
- Over 50 Health Centres and Clinics
- 100s of other buildings
- Over 1 million square metres of clinical space
- 86% Freehold Ownership
- c. 60 vacant buildings plus demolished/vacant land
- 21% of the estate constructed in the last decade
- 9% of the estate is more than a century old
- 14 PFI/DBFM = c. 10% of total GIA (124,313 sqm)

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1800's

1900's

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Glasgow Royal Infirmary

Dykebar Hospital

GP Premises

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1950's

1960's

1970's

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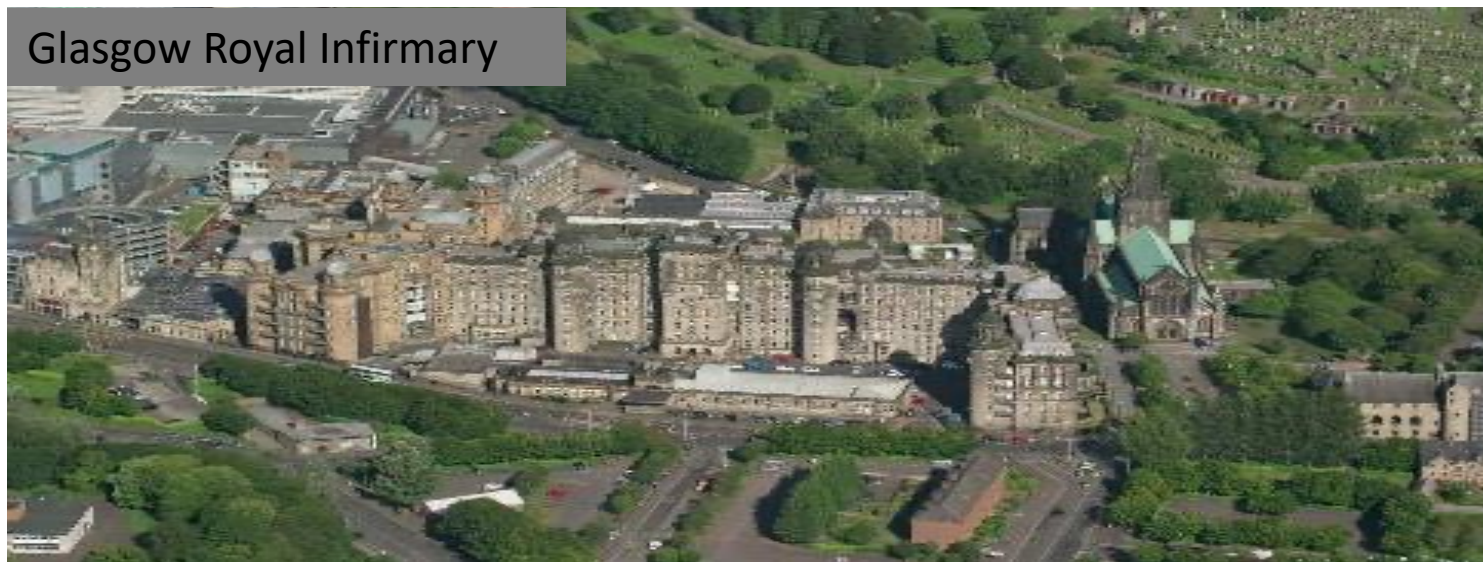
Vale of Leven

Inverclyde Royal Hospital

Gartnavel General

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1980's
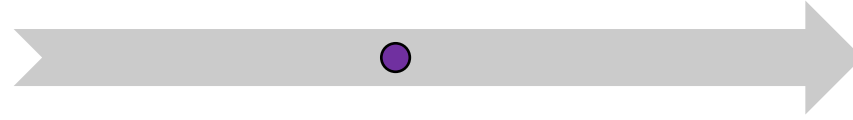
Royal Alexandra Hospital

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Gartnavel Royal Hospital

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1990's

2000's

Centre for Integrated Care, Gartnavel

Beatson West of Scotland Cancer Centre

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2010's
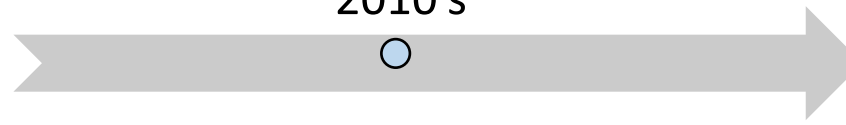
New Victoria Ambulatory Care Hospital

Queen Elizabeth University Hospital Campus

Stobhill Ambulatory Care Hospital

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2020's

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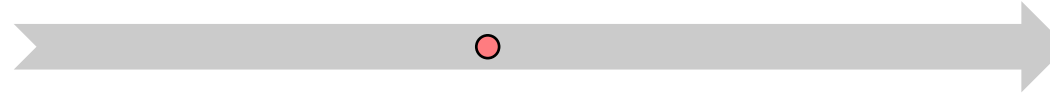
Greenock Health & Care Centre

Maryhill Health & Care Centre

Clydebank Health & Care Centre

Stobhill Mental Health Facilities

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Gro Garden, QEUH

Orchard View, Inverclyde Royal

"Forget me not" mural, RAH

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Infrastructure Aims

 Board wide, Programme Initial Agreement

 Reflecting clinical and service need

 Effective use to support digital and make our estate an enabler for this transformation
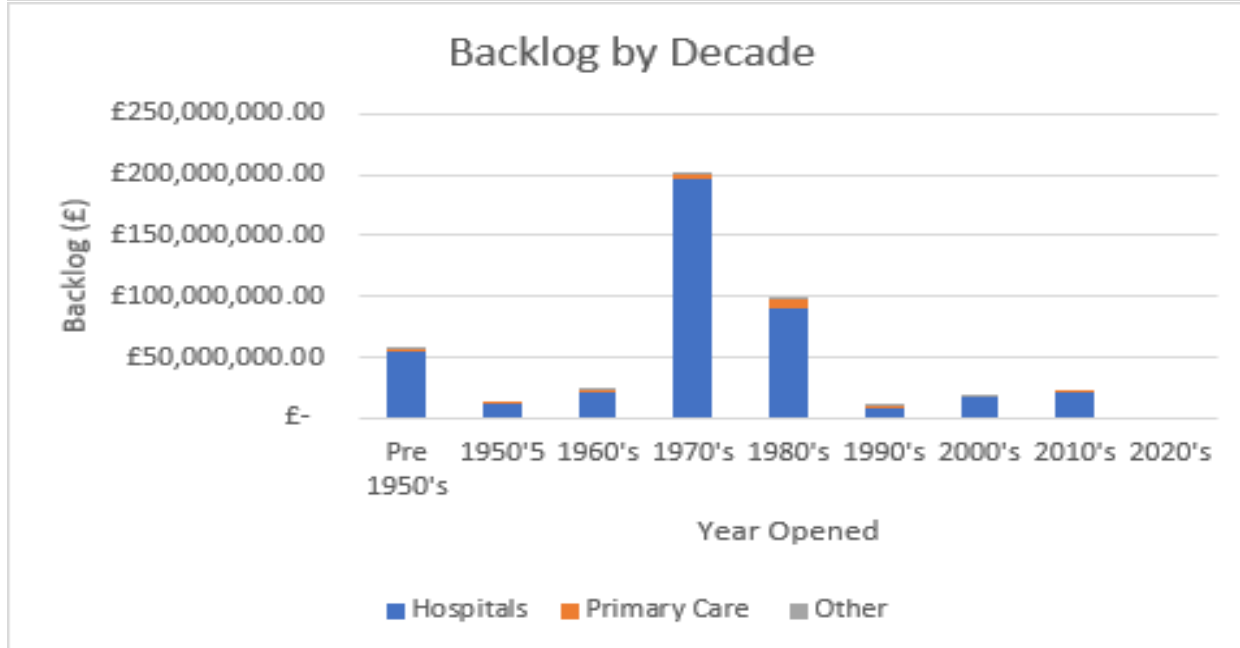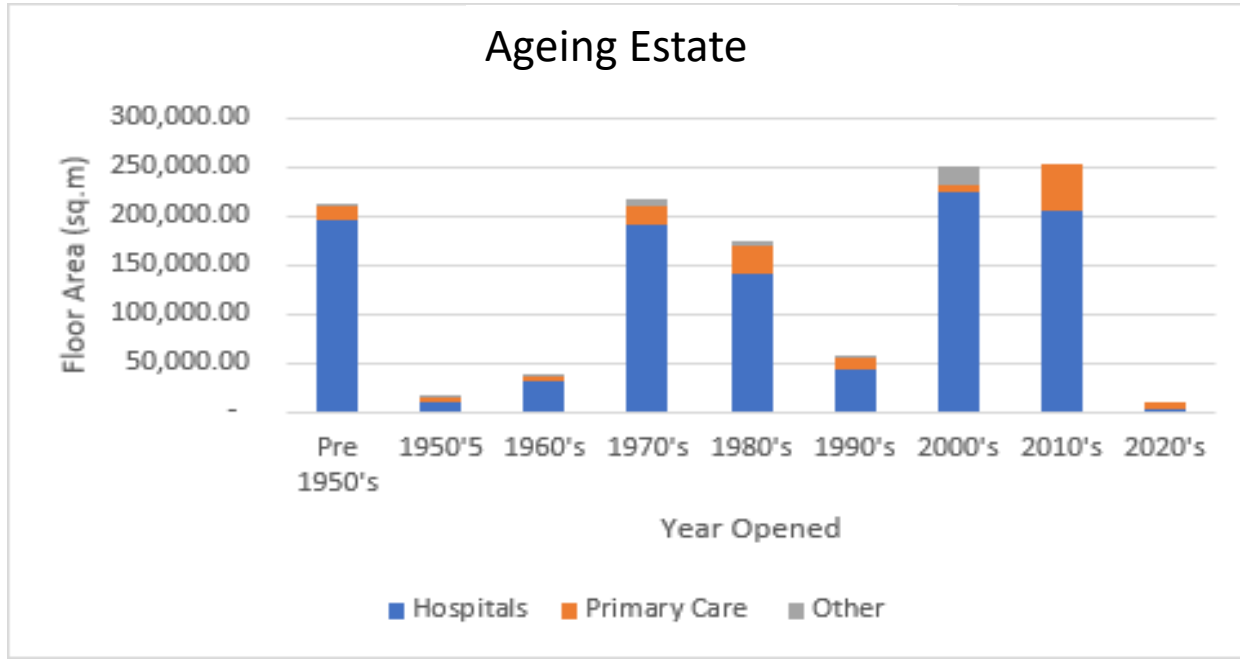
 Prioritised projects

 Make best use of what we currently have – we are aiming to make progressive improvements over the next 20 years to our estate

 Support the 3 clinical horizons for developing a sustainable and high-quality estate infrastructure
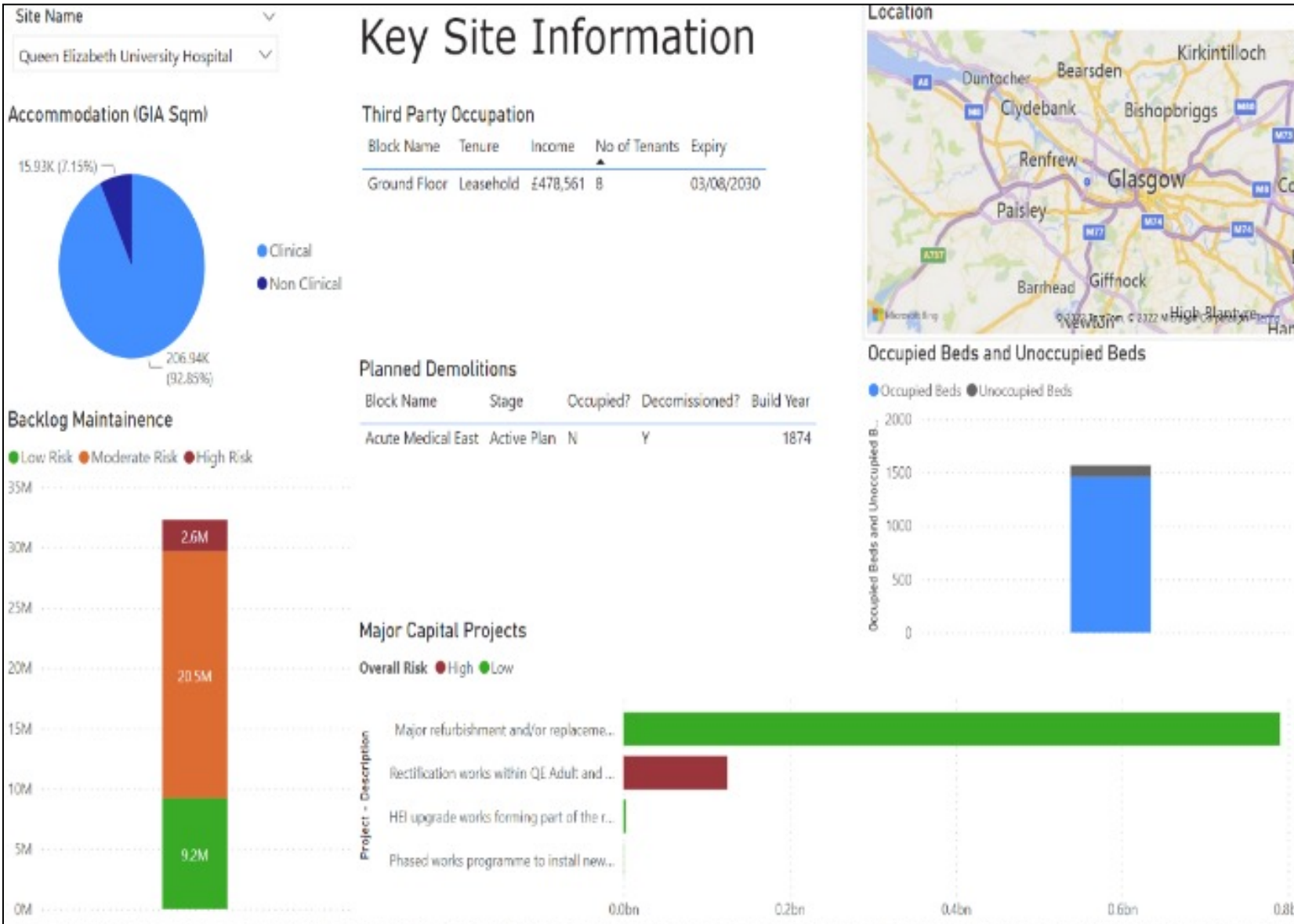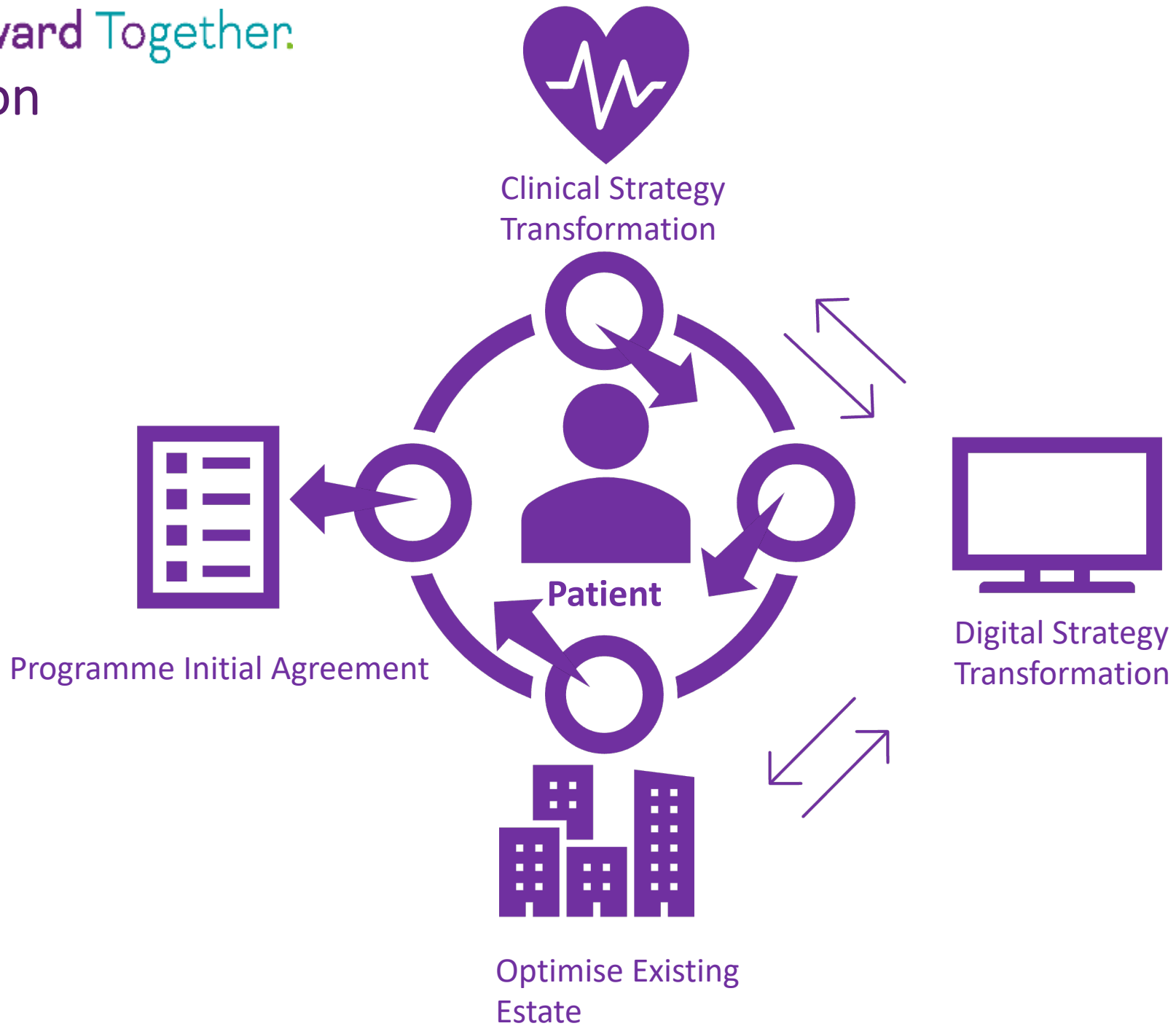
Programme Initial Agreement

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Our existing data…

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Ageing Estate

Backlog by Decade

Electricity – KWh Usage across Acute Sites

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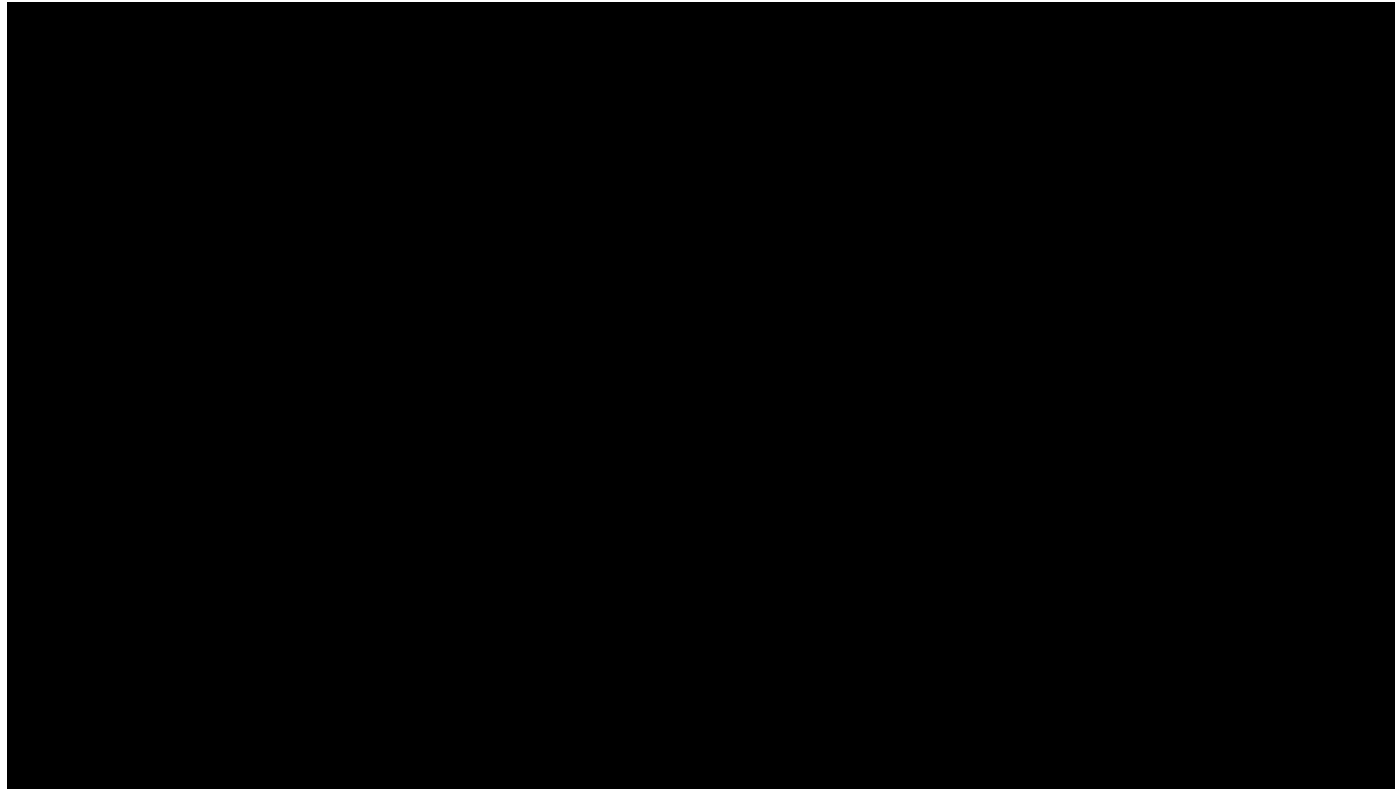Scottish Government
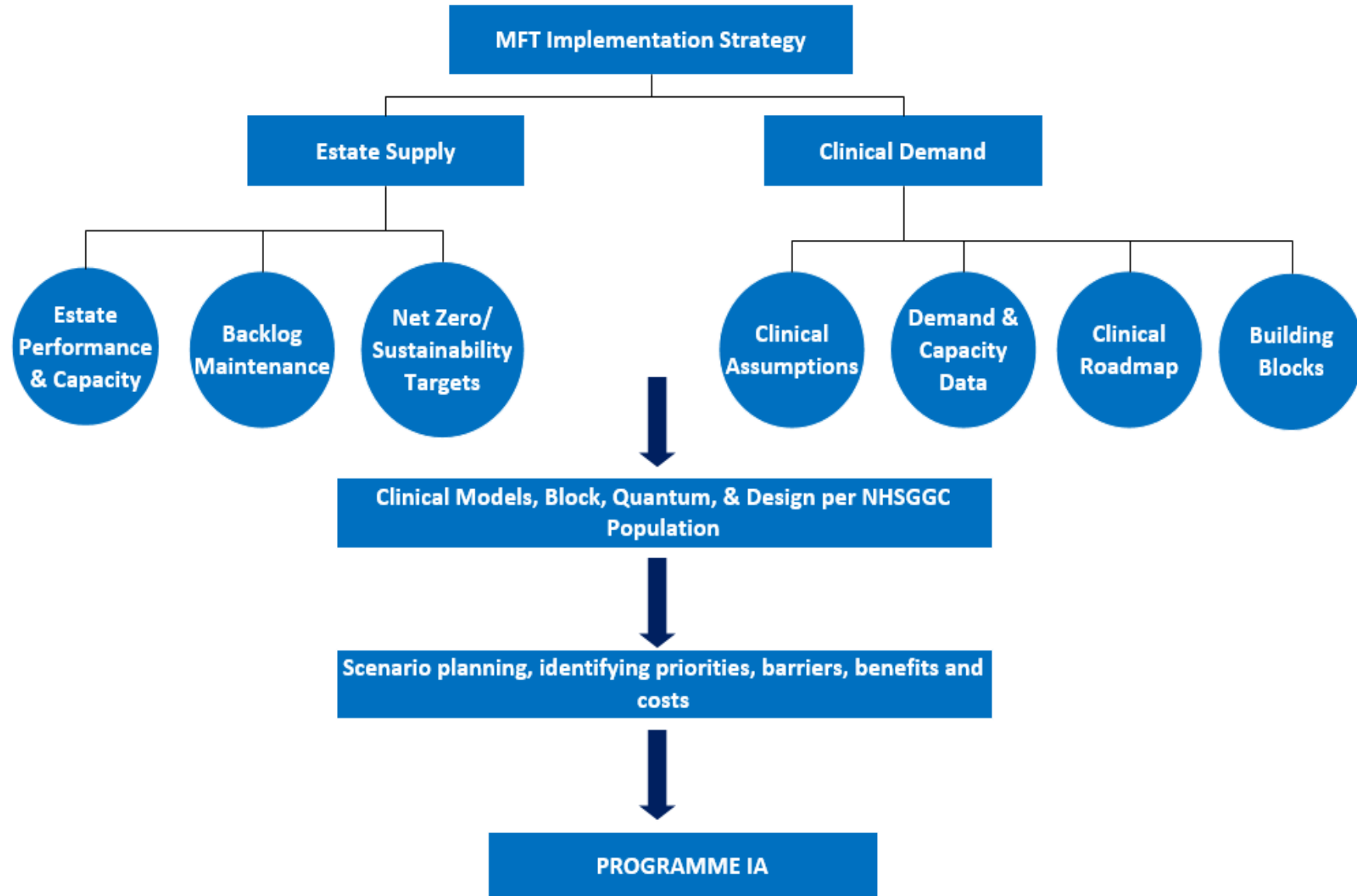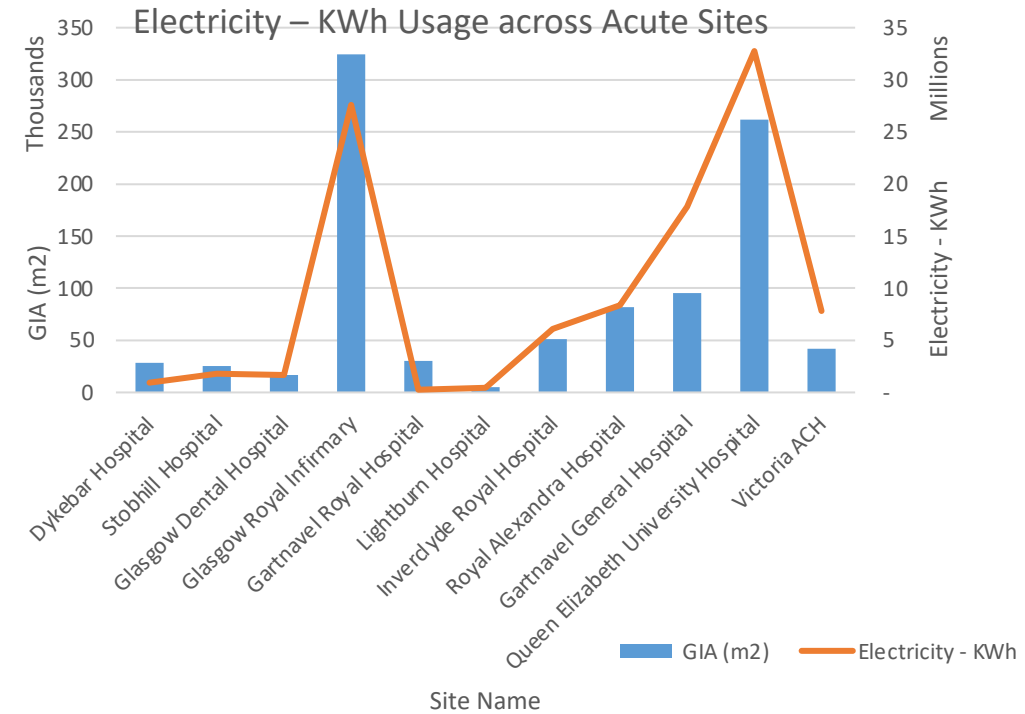
Moving Forward Together. Data Dashboard

- **Quality Assessments** incl. block / site functional suitability
- Estates **Compliance / Risk Assessments**
- **Building / Block Running Costs** e.g., utilities, FM, business rates, etc
- **Backlog Maintenance** per site / block
- **Energy/carbon utilisation & cost** per site / block
- **Bed and Room Utilisation**
- Recent and planned **capital investment**

Virtual Care - Dynamic-Scot COPD

Further information:
https://support.nhscopd.scot/