

Mercy University Hospital Campus

A Plan for the Delivery of Expanded
Clinical Services and Facilities at
MUH (and Distillery Fields) Cork



January 2020

Chair's Foreword

There is clear proven evidence that the Cork hospitals, as currently configured, are unable to meet current and future growing demographic pressures and the needs of a burgeoning Cork economy. The profile of health service use and growth indicates that services in the region will become increasingly stretched over the next ten years. It is recognised that there are a number of options that can be considered for future investment in Cork healthcare. In this document we are putting forward, in a proactive manner, our proposal for the development of the Mercy University Hospital and its Distillery Fields site (the Mercy University Hospital (MUH) campus) to assist the South/South West Hospital Group (SSWHG), HSE and Department of Health in their strategic decision making processes for future healthcare investment in the region.

I am excited to introduce this study which outlines the scope and potential for service development on the Mercy University Hospital (MUH) Campus including the Distillery Fields site in Cork. It clearly outlines the substantial capital development capacity and service delivery potential of this city centre hospital which has over 16 acres available for development. This study outlines the hospital's vision for the development of the totality of the MUH site from both a clinical and infrastructural perspective, while creating options for future investments as medical interventions evolve in the years to come.

This study has identified a potential phased investment approach (maximum of 15 years), with each phase capable of being commissioned independently in conjunction with the continued operation of the existing hospital. The investment can be delivered in a shorter time frame if required.

The vision for the expanded MUH Campus incorporates a modern general hospital supporting a new elective facility. Separating elective and emergency care will deliver better outcomes for the SSWHG, optimising patient safety and patient experience and effectiveness of care and productivity of resources. All the above will build on a long reputable tradition of teaching and research, supporting the principle of a Group wide academic medical centre.

Healthcare in Cork can be transformed through the development of the MUH Campus, thus enabling a systems design approach to developing a pioneering healthcare campus scheme. This incorporates the implementation of new models of integrated clinical care and clinical pathways in line with Sláintecare objectives. This development will complement and support other healthcare providers in community and primary care in Cork which will significantly contribute to the successful operation of the SSWHG and future, planned Regional Health Areas.

This study outlines one development option, an option which recognises in its design the need to protect scheduled and unscheduled capacity, the phased implementation of Sláintecare in support of community services reconfiguration, and the development of the regional Trauma Centre at Cork University Hospital (CUH). The option selected allows for alternative design approaches in its flexibility. The study clearly demonstrates the future capability and capacity of the existing site while allowing for alternative design approaches in its flexibility, including the potential transfer of selected elective activities from other hospitals.

This document also details the ability of the MUH site to address its existing urgent infrastructural and clinical needs with further options for a schedule of expansion, all of which can be phased and accommodated to respond in a timely manner to current and future healthcare demand.

This investment will provide a unique opportunity for major transformational reform in how acute hospital care is planned and delivered in line with National Health policies (Sláintecare) and Project Ireland 2040. The investment will also assist University College, Cork in the delivery of its Strategic Plan 2017-2022.

The manifold advantages of investing in the MUH Campus Site:

- Addresses existing infrastructural and clinical service needs and risks;
- Builds on existing well-developed patient pathways and cross city networks;
- Maximises accessibility for the most deprived sections of the population;
- Provides optimum utilisation of the site capacity;
- Provides sufficient expansion capacity for future development on a phased basis (including services that may be transferred from other hospitals within the SSWHG);
- Enables affordable phased development whilst continuing to provide clinical services.

The Site is:

- Shovel ready and underutilised;
- A brownfield site designated for healthcare use, within an existing urban area;
- Capable of accommodating a multi storey car park to meet increased service demand;
- Accessible by existing and planned city infrastructure and public transport;
- In close proximity to Cork University Hospital (CUH), the regional Model 4 hospital and major trauma centre, and University College Cork (UCC), the academic partner in the Hospital Group;
- Centrally located and close to the Model 1 community nursing units in Cork and the city primary care centres.

I am confident that, with required investment, this hospital can and will deliver a modern general hospital supporting a new elective facility on the MUH Campus site.

Now is the time to invest ambitiously.



Mr. Neil O'Carroll
Chairman



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1. The Proposal

Current government and national healthcare policy has identified the requirement for a New Elective Ambulatory facility adjacent to a General Hospital in Cork.

This plan details the ability to develop the existing MUH site and the adjacent land on the Distillery Fields (together referred to as the MUH Campus) to incorporate both a General Hospital and a New Elective Ambulatory Care facility.

Any new hospital facility in Cork must function as part of a wider integrated health system for Cork and the wider region.

Figure 1.1 Expanded Capacity

Accommodation	Existing MUH	MUH Campus
Inpatient Beds	177	ca.400
Day Beds	51	ca.100
Mental Health Beds	50	ca.50
Consulting Rooms	16	ca.50 - 60
Operating Theatres	4	ca.15

Site Details	
Existing MUH Campus Site is	3.01 acres
Total of Distillery Fields site is	19.1 acres
Total of MUH/UCC site is	12.57 acres
Remaining UCC site is	6.53 acres

Expanded Capacity - MUH Campus	
Current capacity	22,000m ²
Post Phase 1	52,000m ²
Post Phase 2	69,400m ²
Post Phase 3	90,200m ²



2. The Vision

The Vision is.....

1. Transformation of healthcare delivery in Cork
2. Development of Mercy University Hospital in line with the principles of Sláintecare
3. Improved patient outcomes and patient experience at a sustainable cost

The vision is for the development of the MUH Campus to complement and support other healthcare providers in community and primary care in Cork. The development will support new pathways of care whilst also enhancing and supporting the establishment of the trauma centre in Cork University Hospital. Together these developments will give Cork and the region a modern, responsive and integrated healthcare system.

The MUH Campus will develop close partnerships to deliver care close to home where appropriate by embracing the concept of an 'hospital without walls'.

The MUH Campus plans to become the leading provider of:

- complex elective, surgical in-patient services;
- a wide range of surgical day-cases;
- specialist medical in-patient and day case work;
- specialist chronic disease ambulatory care across a wide range of services;
- urgent ambulatory care;
- a diagnostics centre for the region;
- telehealth schemes, particularly to provide access to chronic disease treatment and support for vulnerable groups;
- support to the HSE Mental Health Service

The shift in provision of care away from the current, predominantly unscheduled acute care, to organised planned elective and ambulatory care supports the reform deemed a requirement of the Health Service Capacity Review and Sláintecare. The vision is depicted in the graphic overleaf.

MUH is offering the hospital campus site of 16 acres for this development.

MUH Campus offers an opportunity to quadruple the size of the hospital. Phased development from 22,000m² to 90,200m² of clinical space with the option for ca.400 single occupancy rooms with ca.100 day case beds, ca.50 single occupancy Mental Health beds, ca.15 operating theatres, along with diagnostics and consulting rooms, allowing scope for potential to further expand the site over time.

Redevelopment of the existing MUH Campus:

- Responds to current and future population health needs;
- Supports the development of an integrated health system, in accordance with Sláintecare;
- Incorporates new ways of delivering healthcare by developing an elective/ ambulatory care centre.
- Optimises patient safety, effectiveness of care, productivity of resources and patient experience;
- Supports the National Planning Framework (Project Ireland 2040) by making use of a publicly owned brownfield site within an existing urban area;
- Provides sufficient capacity for further development over time;
- Is in close proximity to Cork University Hospital (CUH), the regional Model 4 hospital and the designated major trauma centre,
- Is centrally located and close to the Model 1 community nursing units in Cork and the city Primary Care centres;
- Is in close proximity to University College Cork (UCC), the academic partner in the Hospital Group;
- Maximises accessibility for the most deprived sections of the population;
- Utilises existing and planned city infrastructure and public transport;
- Enables affordable phased development whilst continuing to provide clinical services;
- Includes current capital developments, which are aligned with this plan.

The vision also aligns with and enables the delivery of critical policy and plans on a national level and as outlined in Chapter 8. A recurring theme across national policy and plans is the need for hospitals to alter their ways of working and function in a more integrated manner with other hospitals and healthcare services in their region.

“Together these developments will give Cork and the region a modern, responsive and integrated healthcare system.”

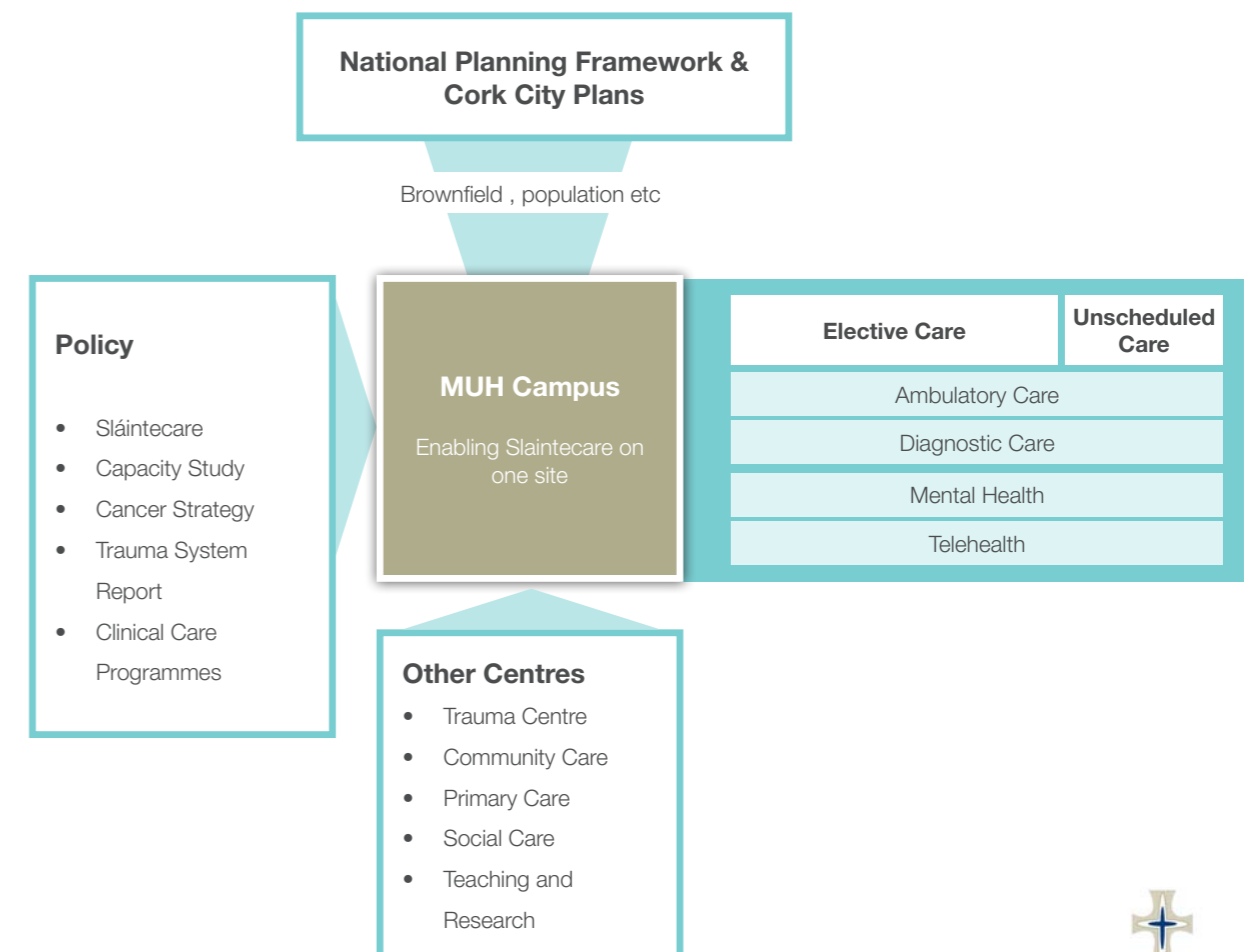


Figure 2.1 Realising the vision

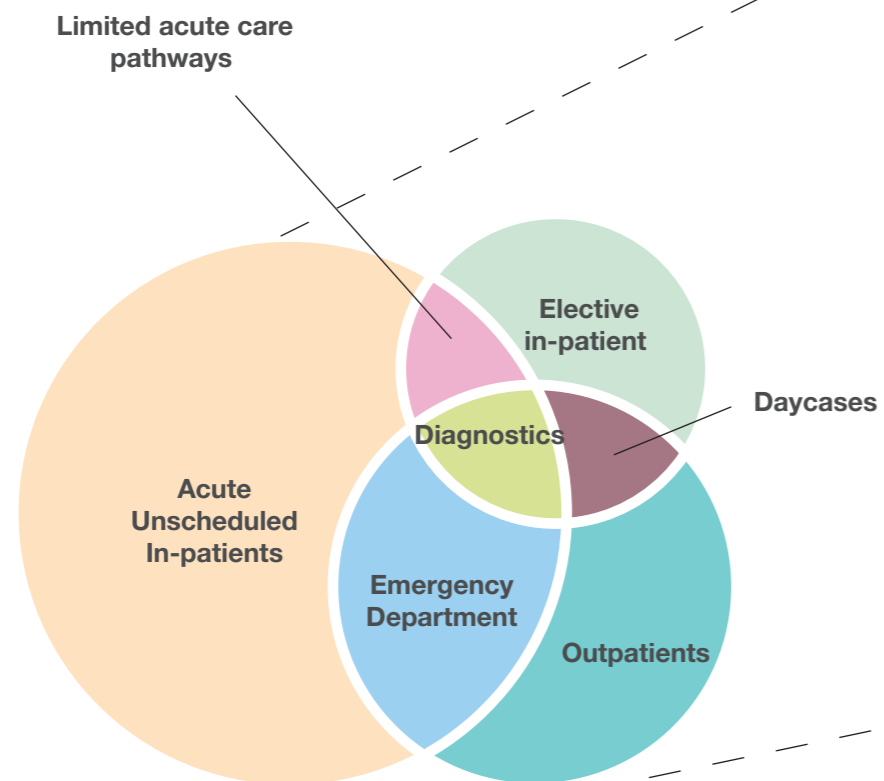
2. The Vision

Figure 2.2

Transformational Vision in Healthcare Provision

Note: Graphic is representative and demonstrates shift **from** current, predominantly unscheduled acute care **to** organised, planned, elective and ambulatory care.

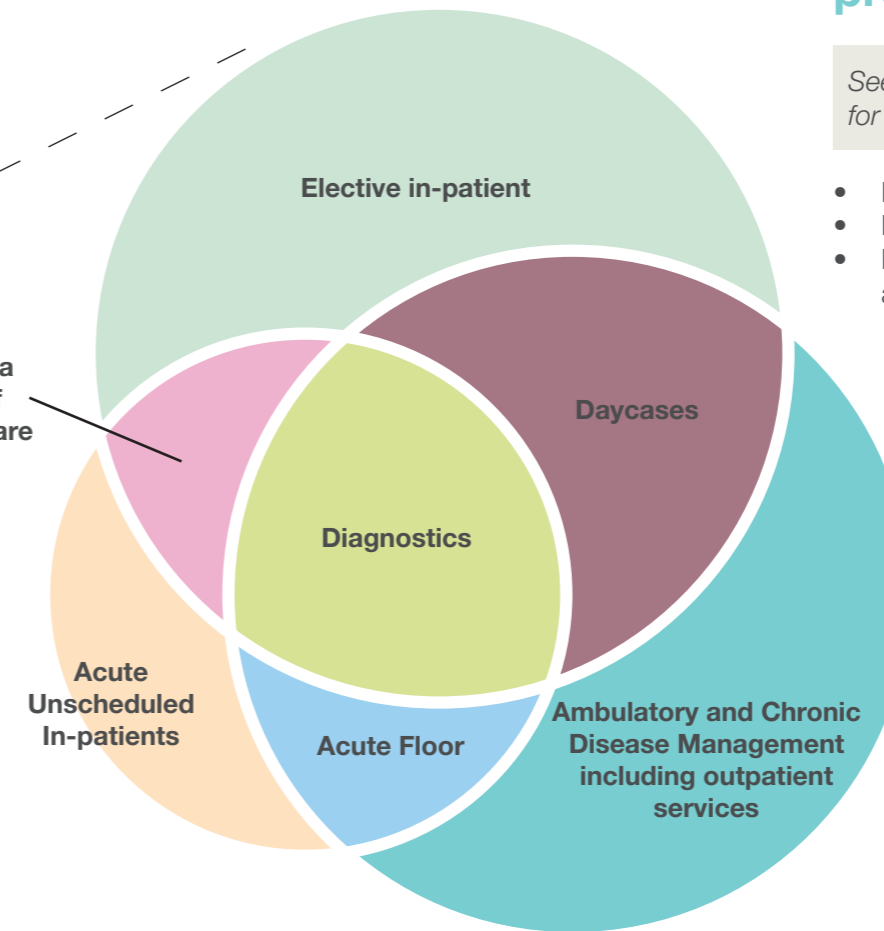
Current system of care provision at MUH



- Predominantly unplanned patient episodes;
- Hospital entry point predominantly through Emergency Department
- Minimal care pathways available

Scheduling the unscheduled into a greater number of planned patient care pathways

Implementing Sláintecare & Capacity Review Reforms



Future system of care provision at MUH

See **Section 3. Clinical Services Plan** for further details on this system of care

- Predominantly planned patient episodes;
- Multiple supported points of entry for patients;
- Multiple patient-centred pathways of care available

3. Clinical Services Plan

The main objective of the clinical services plan is to ‘think as one healthcare organisation’ in Cork, with an integrated service for patients between all community healthcare providers and the hospital sector. The transformation envisaged in the development of the MUH Campus will be key to fully supporting an end-to-end patient journey.



The development of MUH Campus would:

- Address systems risks in Cork healthcare (refer to Section 7: System Risks)
- Improve patient flow throughout the hospitals
- Improve the healthcare outcomes for the entire population served
- Improve the model of care centre around comprehensive community based services
- Improve patients’ experience of care both in terms of quality of care and satisfaction
- Improve the experience and well-being of the staff providing care

The clinical services plan is to transform the service provision in an incremental fashion from the current predominance of unscheduled, unplanned, reactive care provision to a predominantly proactive, person-centred service of organised planned elective and ambulatory care.

To achieve the overall vision the development of the MUH Campus incorporates comprehensive clinical services in the following areas:

- Unscheduled Care Incorporating an Acute Floor Model
- Elective Surgical Care
- Ambulatory Care for Chronic Disease Management
- Diagnostics
- Mental Health
- Telehealth



“The clinical services strategy is to transform service provision in an incremental fashion”

3. Clinical Services Plan

Unscheduled Care Incorporating an Acute Floor Model

The clinical services plan for the newly developed MUH Campus is to have an acute floor assessing urgent and emergency presentations with a focus on ambulatory same day management and supporting patients back into the community.

MUH Campus cannot transform and improve scheduled elective care in isolation from unscheduled care. Both are inter-related and inter-dependent. The clinical services plan for the newly developed MUH Campus will be to provide an acute service complementary to and supporting the development of an acute complex care and designated major trauma centre in CUH.

An appropriately designated acute floor facility on the MUH Campus will support a region wide transformation with only the most complex and sickest patients requiring hospital admission. The acute floor will co-locate a local emergency department in the MUH Campus, focusing on injuries of lesser severity and non-trauma related illnesses requiring urgent treatment, with an acute medical ambulatory care unit providing sub-speciality pathways and diagnostics.

The unit will aim to transform care provision working closely with general practice and primary care. GP's are the key enablers to this strategy. Telehealth solutions will be supported to enhance self-care and care in primary care. The unit will work closely with the National Ambulance Service to support and streamline pre-hospital care. With appropriate support and telehealth solutions from the acute floor the ambulance service will be enabled to assess, treat, discharge and refer patients without resorting to direct hospital care. This will also be enabled by the development of ambulatory services for chronic disease as outlined below.

The MUH Campus will continue to operate the Local Injury Unit on St Mary's Health Campus and with the further development of an 'hospital without walls' there may be opportunity to develop a further off-site local injury unit in the city.

The new acute floor will provide its own self-contained diagnostics giving a same day ambulatory assessment, diagnosis and management for the vast proportion of patients with no impact on the wider hospital capacity or capability.

The model of care will focus on "scheduling the unscheduled" where communication with referrers and patients will be key in ensuring all patients were placed in a supported, planned and proactive pathway as early as possible after contact with the hospital.

The acute floor will stream follow-up where required to chronic disease ambulatory and out-patient pathways or if necessary schedule further management within the elective pathways in a patient centred manner, supporting an end-to-end patient journey through the health service.

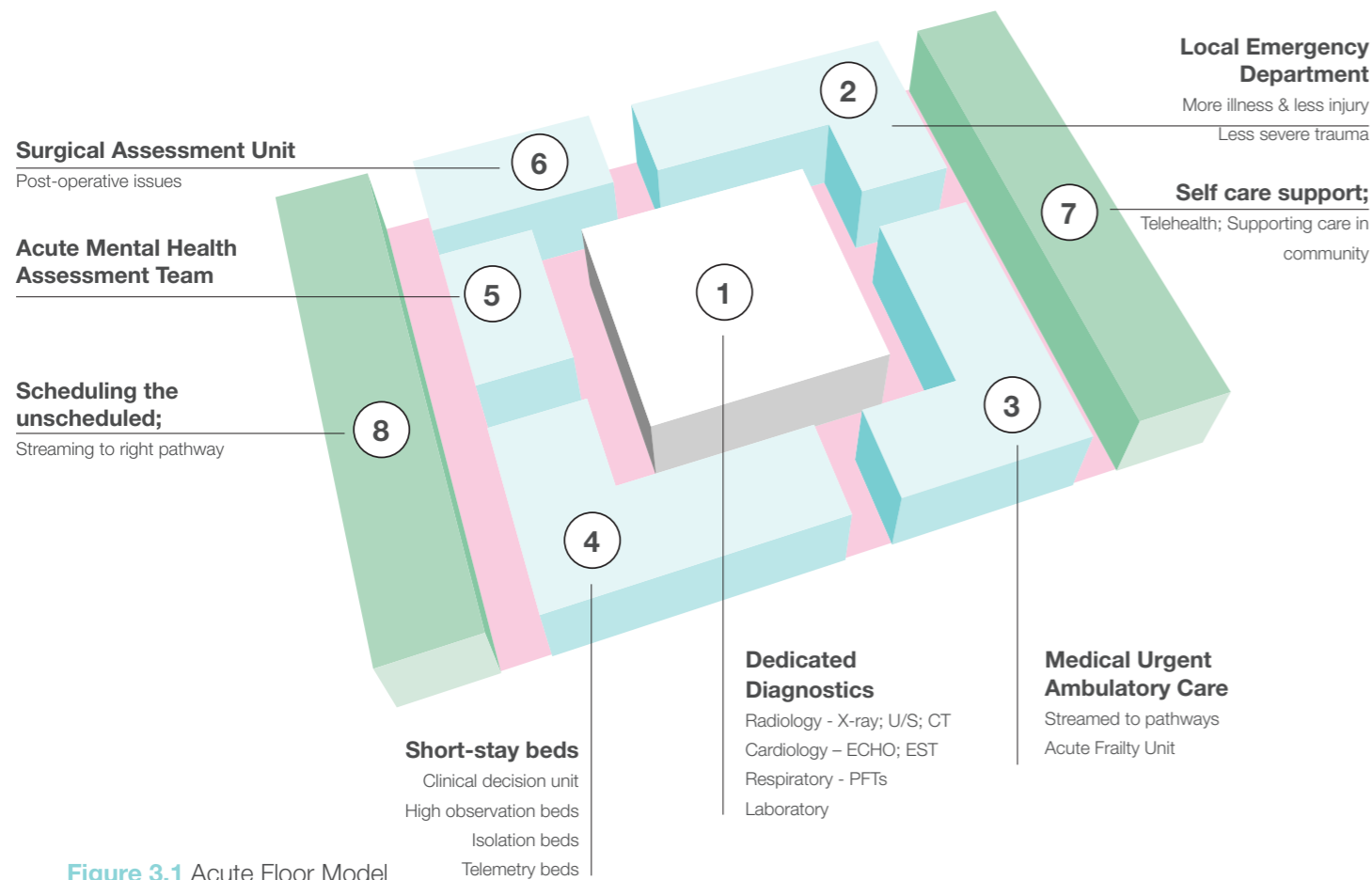


Figure 3.1 Acute Floor Model

Figure 3.2 Ambulatory Sensitive Conditions – Potentially Avoidable Admissions with Correct Pathway

Clinical Condition	Potential for admission avoidance
Deep venous thrombosis	Very high
Catheter-related complications	Very high
Feeding-tube related complications	Very high
Lower respiratory infection	High
Transient ischaemic attack (TIA)	High
Epilepsy – seizures	High
Gastroenteritis	High
Abnormal liver function tests	High
Anaemia	High
Hypoglycaemia	High
Cellulitis	High
Falls & syncope	High
Non-specific chest pain	Moderate
Headaches	Moderate
Urinary tract infection	Moderate
Acute mental health crisis	Low-Moderate

3. Clinical Services Plan

Elective Surgical Care

The clinical services plan for elective surgical care is to develop local care pathways so that a patient’s elective surgical journey is planned, efficient and predictable from start to finish and that care is provided to the highest clinical standards with the best possible outcomes. The strategy for elective surgery will be in keeping with the objective of “thinking as one healthcare organisation” in Cork, with all hospitals working together to provide the best elective surgical care for our population needs.

The newly developed elective hospital on the MUH Campus site will become the leading regional provider of elective in-patient surgery and a wide range of day case surgery. The newly developed site will work closely with CUH and the Model 2 hospitals in the region to provide a full range of surgical services. It is recognised that a range of complex surgery will continue to be provided within the planned regional trauma network at CUH. The plan allows for the centralisation of acute emergency surgical services to CUH. Lower complexity surgery will be provided in the Model 2 hospitals in Mallow or Bantry on a day surgery basis for appropriately selected cases. Current work in adjacent hospitals can be accommodated in the new MUH Campus as required over time. The new development will have the flexibility to provide all general adult elective procedures with an enhanced range of surgical complexity.

With respect to cancer services, the MUH Campus would have the capacity to develop scheduled care models integrated with the current designated Cancer Centre (if supported by the National Cancer Control Programme (NCCP)). Cancer care, from assessment to diagnosis and onto treatment, will most likely need to be provided across the Hospital Group in a coordinated and integrated fashion. The development of a new elective facility with enhanced diagnostic capabilities will allow for more timely assessment and diagnosis of potential cancer. The MUH Campus will also have the elective surgery capacity to support the scheduling of appropriate cancer surgery cases within a clinical network if required by the NCCP.

MUH will continue to build upon existing core elective surgical services in upper, mid and lower gastrointestinal surgery, vascular surgery, urology and men’s health and general surgery. The development of the MUH Campus will allow the flexibility in the region to incrementally grow elective surgery services and accommodate a much wider range of elective surgical work in day surgery, extended day surgery and moderately complex in-patient surgical services.

Ambulatory Care for Chronic Disease Management

The clinical services plan of the developed MUH Campus will see the hospital become the centre for the provision and support of ambulatory care services for chronic disease management.

Ambulatory care services can include outpatients, community based services, ambulatory diagnostic services and primary health care services. Ambulatory care services do not require an overnight stay in hospital. These services can encompass services ranging from primary care through to complex tertiary services. Ambulatory Care has as a principal aim the concept of providing care and treatment in a patient friendly environment, either in a patient’s home, or at another location as close to home as possible.

Ambulatory care for chronic disease management will focus on improving population health outcomes and improving experience of individual patients. This care must be provided in an integrated fashion between hospital and community providers. The development of a regional ambulatory hub in the developed MUH Campus will allow the provision of specialist assessment, diagnostics and treatment in a purpose-built centre. The hub will support the provision of more complex management in the community through outreach by specialist multidisciplinary teams and telehealth services. The hub will support general practice, primary care teams and other community healthcare providers in an integrated fashion through specialist clinical knowledge, training, research and education. Integrated information communication technology (ICT) systems and telehealth will be an important enabler.

On the Distillery Fields section of the MUH Campus a purpose-built ambulatory care centre for chronic disease management can be developed, separate but complementary to the development of in-patient services. The ambulatory centre will house its own diagnostic capability for areas in radiology, cardiac and respiratory tests. This will allow a separation of resources and would not impact on the ability to provide in-patient services. Services will be multidisciplinary with the development of advanced practice in nursing and discrete therapies.

Specialist reviews, infusion treatments, specialist minor procedures and complex assessments will be provided within the ambulatory centre. However, the ambulatory centre will also aim to support much care, assessment and management in the community and in patients’ homes.

The centre will act as a back-up for the usual primary care and offer pathways to prevent unnecessary admission. The ambulatory centre, through specialist knowledge, training and education will support the implementation of the *HSE Living Well with a Chronic Condition: Framework for Self-Management Support*.

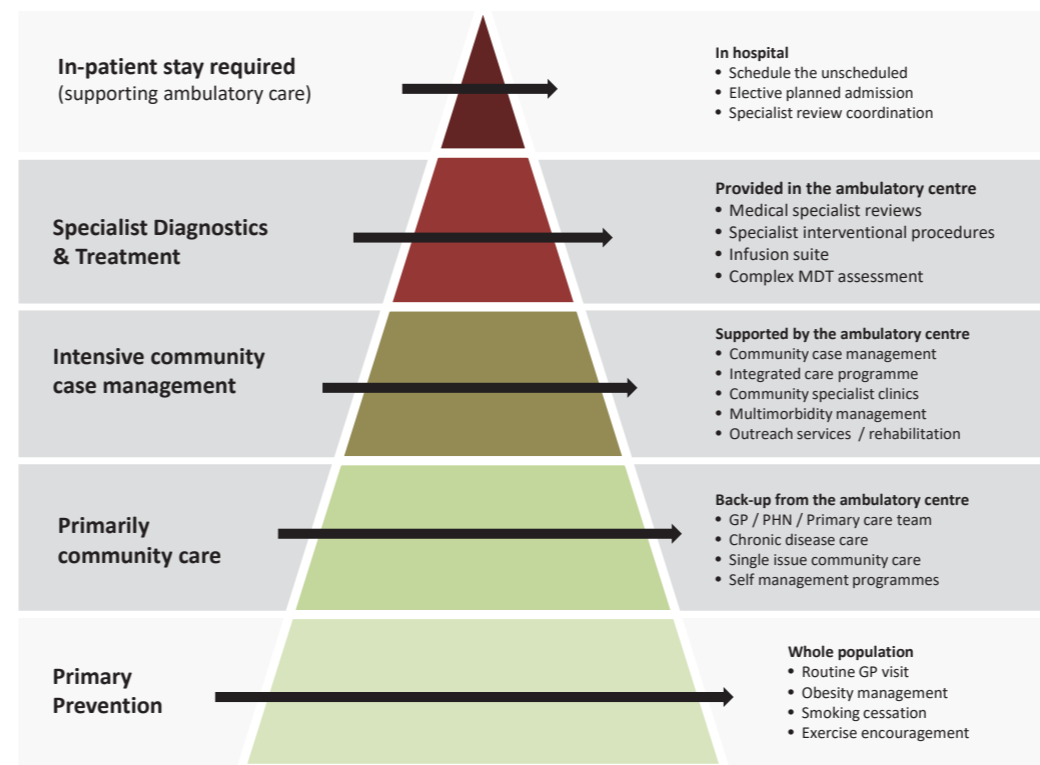


Figure 3.3 Proposed Model for Ambulatory Care for Chronic Disease

3. Clinical Services Plan



Diagnostics

The clinical services plan sees the developed MUH Campus becoming the diagnostic centre for the region. An expansion of radiological diagnostics, laboratory diagnostics, neuro-physiology, gastro-intestinal-physiology and cardio-respiratory diagnostics will be required to support the developing clinical services and the population needs. The MUH Campus will continue to establish itself as the regional centre for endoscopic diagnostics.

All three major components of the clinical services strategy (acute floor, elective surgery, and ambulatory care centre) will need appropriate timely diagnostic services. All three areas will have dedicated separate radiology services supported by a centralised reporting department. An expanded on site laboratory service will provide timely haematological, biochemical and microbiological services.

The expanded radiological and laboratory services will also support the establishment of integrated care pathways with the wider healthcare community services. An expansion of direct access diagnostics for general practice is envisaged. These pathways and direct access will support the ambulatory care and management of patients in the community without the requirement for hospital admission.

MUH is the Regional Centre for Gastroenterology. The clinical services plan supported by the development of the hospital site will allow the establishment of an accredited endoscopy unit that meets the endoscopic diagnostic and therapeutic needs of the population. The development will allow for the enlargement of the capsule endoscopy service and the establishment of an appropriately resourced GI physiology laboratory for the region on site.

The development of the MUH Campus will support the expansion of non-invasive cardiac testing to support the acute floor, elective surgery, and ambulatory care. Respiratory diagnostics including bronchoscopy services, pulmonary function testing, and sleep studies will also be expanded as part of the clinical services plan.

Mental Health

The clinical services plan for the MUH Campus accommodates an option for an acute mental health unit with modern facilities on the Distillery Fields site, providing care for the population we support in the North Lee catchment area. The development of the acute floor will support an acute mental health assessment team to provide urgent acute assessments where required.

The MUH currently cares for some very vulnerable people with complex health problems driven by addiction, mental health issues, socio-economic difficulties and social exclusion, including homelessness. The development of the MUH Campus will allow the establishment of integrated pathways between the hospital, mental health services, addiction services and primary care. It will allow the planned investment to take place within a managed and supported campus environment. The development of the MUH Campus will allow the realisation of an in-patient stabilisation unit for the addiction services supported by mental health and acute hospital services.

The developed MUH Campus envisages establishing appropriate proactive supportive pathways for these vulnerable groups. The hospital will expand its social inclusion services in an integrated manner with mental health and acute medicine. Developing the current hospital site will allow the growth of these existing services close to the groups of patients most in need.

Telehealth

The clinical services plan for the MUH Campus views telehealth as an important component of healthcare transformation. Telehealth involves the use of telecommunications and virtual technology to deliver healthcare outside of traditional healthcare facilities. Well-designed telehealth schemes improve healthcare access and outcomes, particularly for chronic disease management and for vulnerable groups. These schemes reduce demands on crowded facilities, create cost savings and make the health sector more resilient.

The developed MUH Campus will support the expanded 'hospital without walls' model through telehealth and 'virtual ward' models of care. Telehealth will be an enabler for acute unscheduled care reform, ambulatory care for chronic disease growth, and patient journey management in elective care.

A telehealth hub can be developed in conjunction with the ambulatory care centre on the Distillery Field site and have the size and capability to expand to meet the demands of the health service and population for telehealth solutions over the coming years.

4. The Site

The MUH Campus is offering the existing hospital site and the adjacent Distillery Fields site for development.

Following the phased delivery of the plan the site will quadruple the hospital capacity from 22,000m² to 90,200m².

The redeveloped MUH campus will include a combination of major new capital developments and the expansion, conversion and refurbishment of existing buildings. The end result will be a facility that:

- meets healthcare building standards;
- provides the necessary capacity;
- simplifies inefficient departmental adjacencies and flows that are the result of historical developments;
- creates clarity of function and accommodates the acute floor configuration described in Section 3;
- provides the opportunity to improve the public realm and create a new pedestrian area by closing to traffic the part of Henry St. that currently bisects the site;
- provides a direct line of sight to the new pedestrian bridge connection with the Distillery Fields site.

The Distillery Fields site was acquired 20 years ago and is jointly owned with UCC. As its name indicates, it was once a distillery, and is currently a mix of low rise, low density existing buildings and green space. Some buildings are currently utilised by UCC for various support functions whilst others are vacant. MUH and UCC also currently utilise this part of the site for staff car-parking. The Distillery Fields site is on the opposite bank of the river Lee from the main hospital and benefits from a long-curved section of the riverside. There is already a pedestrian bridge linking Distillery Fields to the main hospital and a second pedestrian bridge directly in front of the main hospital is within Cork City Council's development plans. A joint master plan has been developed with UCC and the MUH Campus study is complementary to this plan.

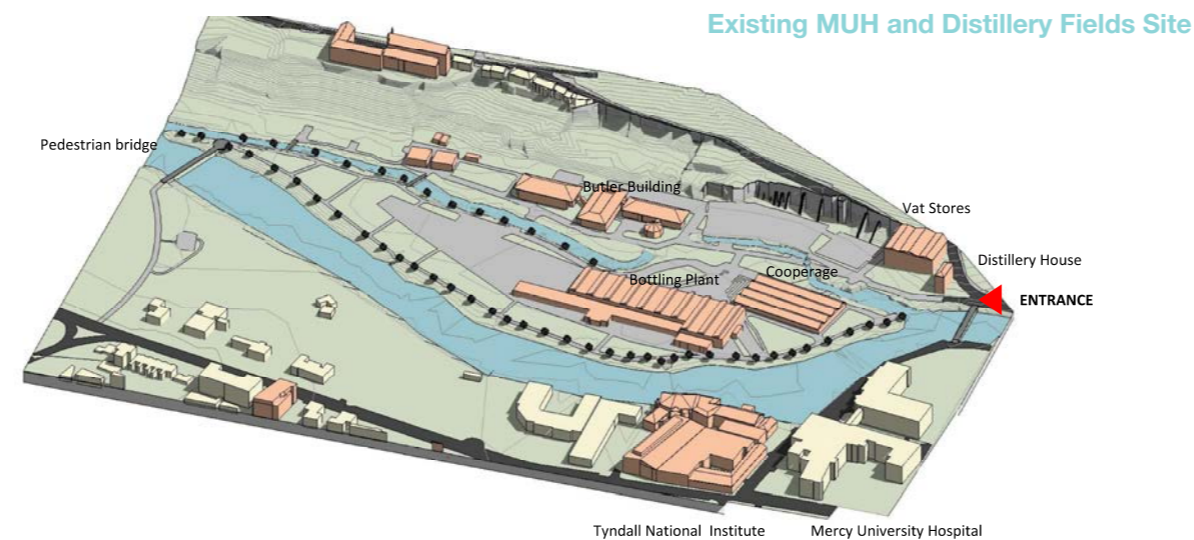


Figure 4.1 Expanded Capacity

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Remaining UCC site is	6.53 acres
Expanded Capacity - MUH Campus	
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Post Phase 1	52,000m ²
Post Phase 2	69,400m ²
Post Phase 3	90,200m ²

There is significant floor area available in the Distillery Fields that can provide flexibility in meeting MUH requirements. The ambition for the site is to locate a number of clinical buildings such as elective day case, outpatient clinics and ambulatory care units, and to the development of an integrated healthcare centre for academic teaching, research and training.

In anticipation of the healthcare needs of the region, MUH commissioned a concept study. This study led to a detailed capital estates plan. A high level summary of the phased implementation of this plan is included in Section 9. This plan demonstrates the ability of the MUH Campus to provide all of the services and facilities required to deliver the proposed MUH Campus model of care.

MUH are currently progressing a Mobility Management plan which is considering all alternative modes of travel for our staff, patients and visitor journeys to/from the campus. This plan will be updated regularly and will be informed by regular commuter surveys. This Mobility management plan will include a car parking strategy which will be developed in line with Cork city Development plan 2015-2021 and will be integrated as part of the overall mobility management plan for MUH.

Recognising the city centre location and the restriction on parking in the area the plan includes a proposal to build a multi storey car park incorporating the existing staff surface parking spaces, on street parking and providing for the significant increase in day patients from across Munster. The upper levels of the car park will be designed to allow for easy conversion to medical/administrative uses as the number of private cars reduces in the decades ahead.

It should be noted that MUH are aware of the ongoing OPW flood relief works but anticipate these to have a minor impact on development. Proposed flood protection is limited to the site boundary along the majority of the riverbank. The MUH Campus plan efficiently incorporates a small number of protected structures consistent with redevelopment of a city centre location.

5. Brief Description of Mercy University Hospital

“The Mercy” has been a household name in Cork City, County and beyond for over 163 years and will continue to be for many more to come. It began as a hospital with forty beds and has progressed to become a leading healthcare provider in Cork city. Many people refer to the MUH ethos of kind, compassionate, patient-centred care, which is one of its core strengths as a values-driven organisation.

MUH is a 16-acre city centre hospital site with good links and close proximity to UCC. It treats over 137,000 patients per annum. It has a visitor footfall of approximately 50,000 people per annum. The hospital has a long tradition of excellence in patient care, education, and research. The hospital enjoys a high standing in the community it serves, as evidenced in the 2019 National Patient Experience Survey where 90% of patients stated that they had either a good or very good overall experience during their hospital stay.

MUH has a workforce of over 1,200 staff providing complex diagnostic, medical and surgical services at local, regional and national levels. MUH has a strong academic and research portfolio and is a leading provider of professional healthcare education which is delivered in partnership with a range of academic institutions. It is a teaching hospital affiliated with University College Cork for both postgraduate and undergraduate clinical education and has links to the national GP training scheme.

The Centre for Nurse Education is the regional nurse training unit, providing both undergraduate and post graduate training for nursing professionals. The Health Research Board Clinical Research Facility, Cork’s (CRF-C) administrative centre and its Adult Research Unit are located in the MUH.

As an urban Model 3 hospital, the clinical services at MUH are vital for training clinical professionals in the region. MUH is affiliated with many of the post graduate training bodies and in recent years MUH consultant staff have held leadership roles at national level. The hospital is a leading provider of professional healthcare education in SSWHG and supports the community healthcare partner, Cork & Kerry Community Healthcare (CKCH), particularly in nursing post-graduate education.

The Mercy is committed to being an exemplar model of ‘one hospital on multiple sites’ and this is practiced through the governance of off-site MUH services on St Mary’s Health Campus including the Mercy Local Injuries Unit and the Transitional Care Unit. The hospital now extends into the wider community and continues to generate valuable and inclusive cross city links with a range of agencies. The hospital values the close working relationship with its GP colleagues and the primary care sector.

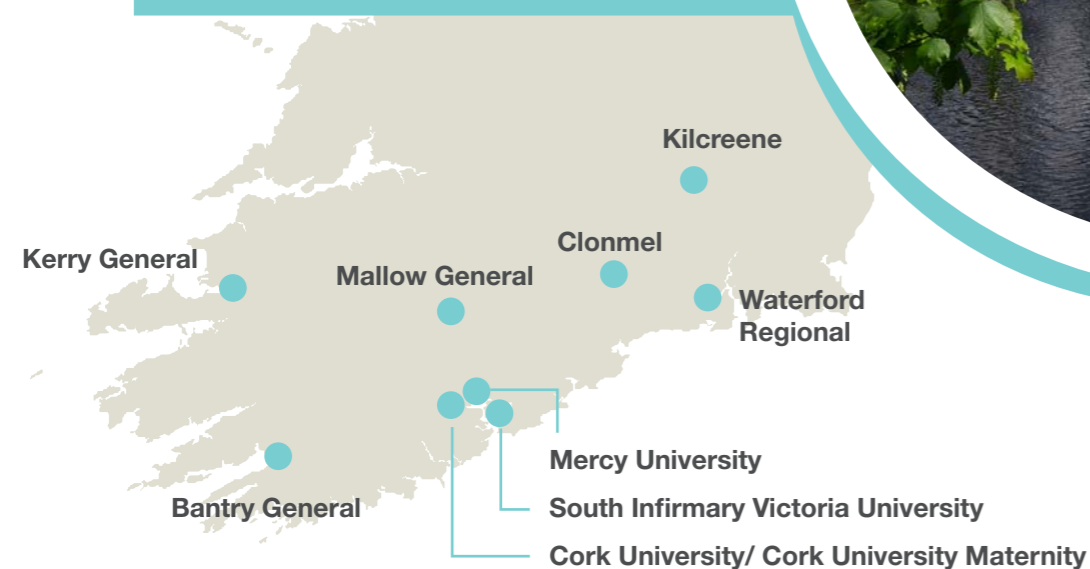
The hospital, by virtue of its ethos, heritage and geographical location, is primed to provide care to the most vulnerable and isolated in today’s society.

Its current operating costs are in excess of €120m. The hospital is a registered charity and a limited company. It is not for profit but relies heavily on state funding, income from private health insurers and generous public donations through the fundraising arm of the hospital - the Mercy University Hospital Foundation.

The affairs of the company are managed by a Board of Directors who are responsible to (and appointed by) a Trustee Company – Mercy Care South. MUH is a member of the South/South West Hospital Group (SSWHG) along with eight other hospitals in the region and is committed to ensuring that patients across the SSWHG receive the highest standard of care.



Figure 5.1 SSW Hospital Group Locations



“Mercy University Hospital is a 16-acre city centre hospital site with good links and close proximity to UCC”



6. Cork Healthcare System

In keeping with Sláintecare, the healthcare system in Cork must move towards one of an integrated acute hospital and community network which pioneers new forms of acute care. A key component is the separation of elective and emergency care, and the focussing of specialist care pathways and services towards the community with an emphasis on ambulatory care.

This MUH Campus plan highlights how the development of the new elective and ambulatory hospital on the MUH site can support the regional provision of healthcare, support the separation of scheduled elective and unscheduled emergency care and not compromise safe acute care in Cork city and county.

Following the publication of the Reconfiguration Roadmap for Cork / Kerry in 2010, a number of service moves were actioned that have resulted in the current position where CUH and MUH are the only two hospitals providing 24/7 emergency care for unselected, unscheduled, acute medical and surgical patients for Cork City and County. This has resulted in progressively increasing acute, emergency care attendances in both these hospitals and the resultant pressures on both hospitals affects their ability to provide the appropriate mix of unscheduled and scheduled care in a timely manner.

MUH will most likely be required to continue to provide a comprehensive range of services consistent with its status as the only Model 3 hospital (24/7 acute surgery, acute medicine and critical care) in Cork city and county for the foreseeable future. However, the acute unscheduled care in the Model 3 hospital needs to move more towards rapid diagnostics and an ambulatory provision of care. MUH already focuses to a model of 'one hospital on multiple sites' and this model will grow with the expanding ambulatory care services.

CUH is a large regional Model 4 hospital providing regional and supra-regional tertiary care services for Cork and regions well beyond. It is planned that those services currently at CUH that can be safely located at alternative city hospitals will be moved in order to allow CUH to become an efficient tertiary specialist hospital for those complex conditions – emergency and elective – that require inputs from multiple specialist services such as serious trauma, complex cancer, paediatrics and neurosurgery.

CUH is the only hospital in Ireland that currently has most specialties required to function as a Major Trauma Centre. However, there will be a need to enhance capacity before CUH can be formally designated as a Major Trauma Centre.

MUH, SIVUH and CUH also work closely together, with city wide departments for services such as geriatric medicine, cardiology, gynaecology, microbiology, plastic surgery, orthopaedics, ophthalmology and dermatology.

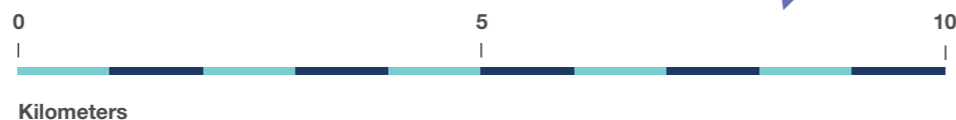
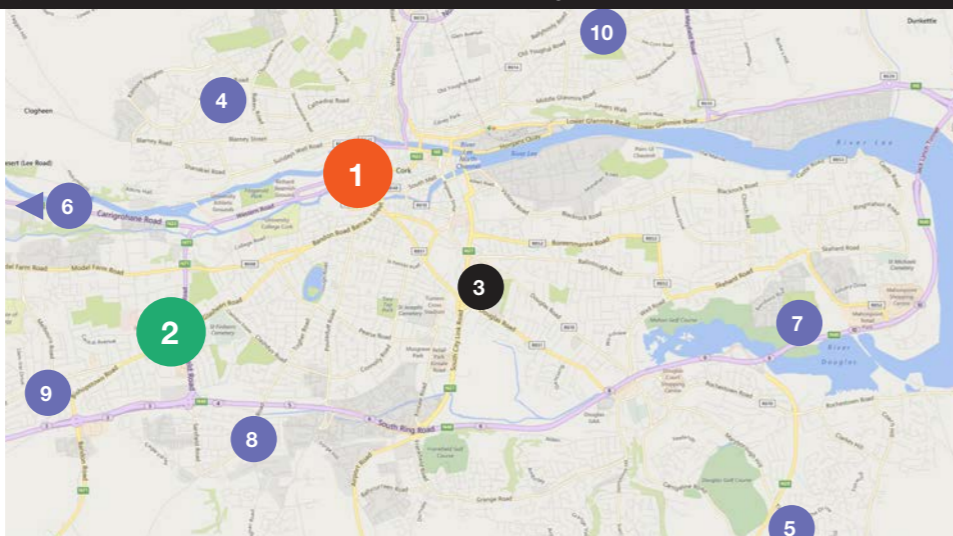
There are a number of initiatives already underway that evidence the move towards enhanced integrated care systems. Two examples are the jointly run integrated nurse training programme and shared admission privileges for acute medicine physicians.

Figure 6.1 Cork Healthcare System

The map shows the locations of existing and planned healthcare facilities across the city of Cork including the central location of MUH.

Centre Locations

1. Mercy University Hospital (MUH)
2. Cork University Hospital (CUH)
3. South Infirmary Victoria University Hospital (SIVUH)
4. Cork City North West Primary Care Centre
5. Carrigaline Primary Care Centre
6. Ballincollig Primary Care Centre
7. Blackrock Primary Care Centre
8. Togher Primary Care Centre
9. Bishopstown Primary Care Centre
10. Cork North East Primary Care Centre



The MUH Campus plan shows how the development of the MUH site can support the separation of elective and emergency care in the region while maintaining safe, acute urgent care across MUH and CUH. The MUH Campus will continue to provide a comprehensive range of services consistent with its status as a Model 3 general hospital that are complementary and often essential to support elective care. Co-locating close to the general services of the Model 3 hospital will allow a greater range and more moderately complex planned elective surgery to be supported.

In February 2018, the report on “A trauma system for Ireland” recommended that the HSE should designate CUH as the Major Trauma Centre for the South Trauma Network.

The MUH is centrally located in Cork city. It is an urban hospital that provides care to some of the most socio-economically deprived areas of Cork. It is ideally situated to support new integrated models of care with community partners. Its central location means that it is well situated to integrate and coordinate care with the existing and developing primary care centres. It is located close enough to CUH to provide complementary services and shared posts for the new elective and ambulatory hospital in Cork.

7. System Risks

There are significant risks associated with maintaining the status quo in terms of healthcare structures and provision in Cork. This section outlines some of the major risk concerns.

Population Trends

The Economic and Social Research Institute (ESRI) Report “Projections of Demand for Healthcare in Ireland” published in October 2017, has brought into sharp focus how the unprecedented future growth and increased ageing of the population will impact on the health system in Ireland. By 2030 there is an expected increase of 14-23% in general population terms with a 69% growth in the 65+ years category and a 90% projected increase in the 80+ years category. Despite the 65+ years patient cohort representing only 13% of the population, they received over 40% of day case procedures in 2016 and almost 50% of patients receiving care in the health system are aged over 65 years. Based on current trends and converting the population health needs into acute hospital service requirements, it is estimated that demand for inpatient bed days will increase by 37%, while Emergency Department attendances are projected to increase by over 25% by 2030.

Health issues in Cork broadly reflect the South/South West regional and national profile. Each year the total number of people over the age of 65 is growing by around 20,000. The population over 65 will more than double over the next 30 years with obvious implications for health service planning and delivery.

Developing the new elective and ambulatory hospital in close conjunction with a Model 3 general hospital on the MUH Campus will allow the range of services to be available to support the increasing older cohort of patients.

Social Deprivation Issues

MUH’s catchment area includes 28 of the most socially disadvantaged urban electoral districts in Cork City. These areas have high proportions of marginalised groups compared to national averages. Area deprivation and social marginalisation are known determinants of health, both physical and mental.

MUH’s urban setting, and social deprivation, influences the morbidity of the patients attending the acute services especially the emergency department. The psychiatric morbidity of the patients attending MUH is reflected in the annual reports of the Self-Harm Registry. The registry self-harm rate is a proxy indicator of the broader psychiatric morbidity of patients attending acute hospitals. In 2018 MUH had a very high weighted rate of self-harm presentations of hospitals nationally (weighted by bed capacity).

MUH has a strong affiliation with the North side of Cork city and is cognisant of the need to be embedded in the community it serves. It promotes the concept of a ‘hospital without walls’ and wishes to continue to build access through the primary care centres and in direct integration with community services.

In terms of healthcare provision and equity of healthcare access, it is important that healthcare facilities are provided as close as possible to those in most need. However, the “inverse care law” first reported by Julian Tudor Hart in *The Lancet* (1971) suggests that the availability of good medical or social care tends to vary inversely with the need of the population served. All too often healthcare facilities are not provided close to those with the greatest need thus adding to marginalisation and poor health for those most in need. This is no longer appropriate in today’s healthcare planning environment.

It is important that the development of any new healthcare facility in Cork is easily accessible to those most in need, especially the most socially disadvantaged areas. The MUH Campus gives this opportunity.



7. System Risks

Ongoing Capital Investment

MUH has made capital submissions to address infrastructural and equipment risks, however further clarity on the strategic direction of capital investment is required to progress necessary capital projects on both a small and large scale. This is leading to lengthening timeframes for informed decision making on optimum service configuration and capital investment. A robust planning process will enable the SSWHG to further define an integrated model of care and capital investment plan for the whole of the Group covering the short, medium and long term so that all stakeholders have a clear view on future infrastructural developments.

The impact of not addressing even the current deficiencies is having an impact on MUH's ability to provide appropriate direct patient healthcare to the people of Cork. There is also a risk that, without investment, the hospital will not be in a position to maintain current service, or to recruit, train and retain high calibre staff.

Capital investment is a scarce resource and one that needs to be made in an informed manner, and against the backdrop of recognised Government policy, such as the National Planning Framework (NPF). The approach outlined in the NPF recommends investment be mapped against projected population growth. The provision of modern, accessible and safe healthcare services is a key enabler when planning for people and place. MUH is ideally located in a central urban setting to develop in conjunction with the expected population growth in Cork.

Capacity

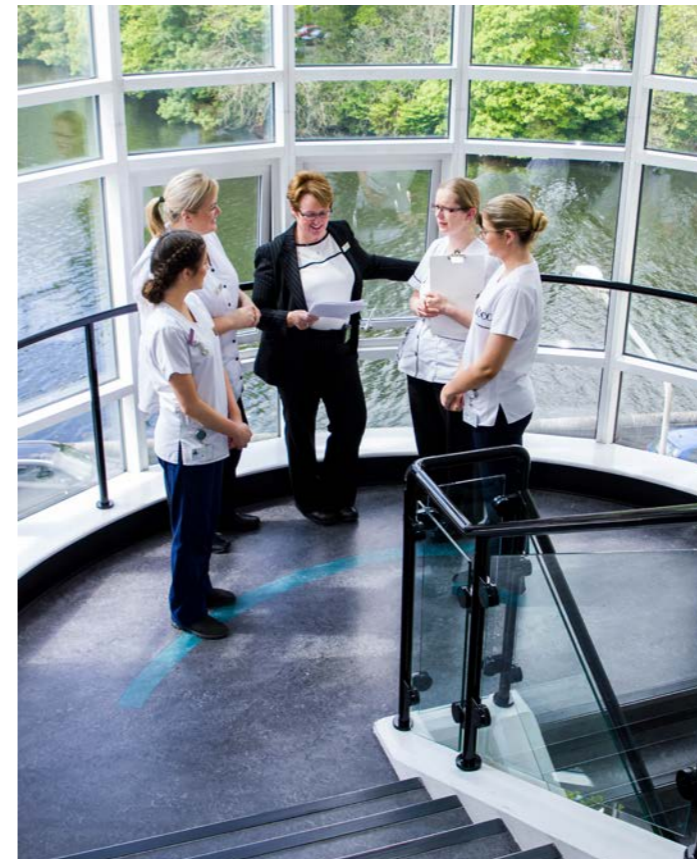
Detailed scenarios are outlined in the Department of Health's Health Service Capacity Review (2018) in terms of future bed requirements, which are stark if no reform takes place. Together, the baseline and reform scenario perspectives provide the extremes for a range of possibilities for the capacity needed within the system.

The profile of health service use and growth indicates that our hospital services in Cork city are becoming increasingly stretched. Our hospitals are already experiencing a significant capacity issue which will worsen if significant reforms in service provision do not occur and if there is not significant investment to support these reforms.

The increasing number of patients attending in an unscheduled fashion to emergency departments across Cork city is unsustainable in the longer term. Currently, significant numbers of patients remain for prolonged periods on emergency department trolleys and there is also the significant unseen impact of cancelled elective cases or cases not scheduled due to of the lack of beds. As a result of the lack of alternative pathways, many patients with conditions suitable for urgent ambulatory care pathways are currently admitted to either MUH or CUH.

The MUH Campus plan to develop the new elective ambulatory hospital includes measures to support the reforms and scenarios outlined in the Health Service Capacity Review (2018) and will allow transformation from a service focused on unscheduled and unplanned care to more scheduled and ambulatory care. This will allow the service provision reforms occur together with the investment in the new elective and ambulatory hospital. This will maximise the return in service provision for the capital investment.

“it is important that healthcare facilities are provided as close as possible to those in most need.”



8. Policy

The MUH Campus plan presented in this report is aligned with and supports policy and plans on a national level. A recurring theme across national policy and planning reports is the need for hospitals to alter their ways of working and function in a more integrated manner with other hospitals in their region. These reports are prompted by population health needs that are prevalent across the country and include the unprecedented future growth and increased ageing of the population.

The Sláintecare Implementation Strategy Report, published in August 2018, is the most pertinent of all the strategies. It identifies four overarching goals as central to reforming the health system, which are outlined below:

Figure 8.1 Sláintecare Goals

4 Goals		MUH Campus Alignment with Sláintecare
Goal 1	Deliver improved governance and sustain reform through a focus on implementation.	MUH has developed a phased implementation plan that will ensure patient pathways and hospital operations are not disrupted during the reform process.
Goal 2	Provide high quality, accessible and safe care that meets the needs of the population.	The MUH Campus will facilitate the implementation of new models of integrated clinical care and clinical pathways, separating elective and emergency care, thus delivering better outcomes for the SSWHG and optimising patient safety, effectiveness of care, productivity of resources and optimum patient experience.
Goal 3	Ensure the health system is financially sustainable.	Unnecessary acute bed occupancy and inappropriate emergency department entry carry huge costs for hospitals. The MUH Campus – and the integrated healthcare system it enables – will prompt an improvement in patient flow that will see patients accessing care appropriate for their needs.
Goal 4	Enable the system to deliver its goals.	The MUH Campus supports the development of an integrated health system, in accordance with Sláintecare

Figure 8.2 Relevant Policy Frameworks



8. Policy

The Sláintecare Report

The Sláintecare Report (Committee on the Future of Healthcare, May 2017) recommends that healthcare provision shift from the current hospital-centric system to an integrated model, with more care provided in community and primary care settings. It also recommends that the focus of healthcare should be on planning for the increasing prevalence of chronic disease such as heart failure, diabetes and COPD which are expected to rise by over 20% within the next 5 years and account for the majority of GP visits and acute hospital bed days' utilisation. The plans for the MUH Campus align well with Sláintecare as it is a positive step in the direction of Cork's health system becoming more efficient and cost effective and service reconfiguration would mean less demand on acute hospitals.

The Health Service Capacity Review

The Health Service Capacity Review published in 2018 sets out the crisis within the acute hospital system and the need for urgent reform. Bed occupancy is running at almost 100% consistently which is above acceptable international trends and represents an increasing risk of harm to patients and staff. Although it is acknowledged that more beds are needed in the short and longer term, significant change to working practices is the only way of preventing current trends from continuing or worsening.

The review expresses the view that increasing capacity alone is likely to be counterproductive as new beds are likely to be occupied by current unmet need and simply increasing capacity may hinder much needed reform and improvements in the ways of working that a modern healthcare system demands. The strategic case for the MUH Campus supports a regional adoption of an Ambulatory Care Model from the newly developed Model 3 hospital. This allows the maximum use of capacity in the MUH and supports the CUH in releasing bed capacity to develop as the major trauma centre.

The Report of the National Acute Medicine Programme

The Report of the National Acute Medicine Programme (2010) recommends four generic hospital models. The purpose of these models is to provide a clear delineation of hospital services based upon the safe provision of patient care within the constraints of available facilities, staff, resources and local factors. The level of service that can be safely provided in any hospital will determine which model applies. There will be a named physician with responsibility for patients on all aspects of their pathway. It is recognised that streaming of patients for some medical conditions is already in existence and these practices should continue where they are operating safely and effectively and be incorporated into the acute medicine programme locally.

The report recommends the development of an acute floor concept (in Model 3 and 4 hospitals) comprising a co-located emergency department, acute medicine unit, and clinical diagnostics unit. In Cork following reconfiguration of services there was a greater move of patients towards the Model 4 hospital, CUH, that would ideally be managed in a Model 2 or Model 3 hospital.

In order for CUH to develop as the supra-regional major trauma centre and tertiary centre for complex care then MUH must be supported to remain as Cork's Model 3 hospital and adopt an appropriate acute floor model on its expanded site.

Trauma System Report of the Trauma Steering Group for Ireland

The Trauma System Report of the Trauma Steering Group for Ireland (2018) recommends the establishment of an inclusive trauma system and sets out key recommendations for the organisation of trauma care and the provision of patient-centred trauma services. The recommendation suggests the adoption of two regional hub-and-spoke Trauma Networks, each with a designated Major Trauma Centre (MTC) for the treatment of major trauma that requires access to specialised trauma care that will provide the appropriate structures to meet the needs of trauma patients in Ireland.

It also suggests the establishment of two Major Trauma Centres corresponding to the two Trauma Networks (Central and South) to be located in the most populated areas, naming Cork city directly for the south and recommending CUH as the MTC, contingent upon it meeting the recommended designation criteria. This is due to Cork University Hospital being the only hospital in Ireland that currently has most of the specialities required to function as an MTC. The development of the MUH Campus complements the plan for the trauma centre. The new hospital will channel more elective and ambulatory patients appropriately away from the CUH, allowing CUH to realise the designation criteria and act as the region's MTC.

The National Cancer Strategy 2017-2026

The National Cancer Strategy 2017-2026 describes the incidence and mortality of cancer in Ireland as above OECD averages. Its goals, therefore, are to reduce the cancer burden by providing an integrated model of high-quality patient-centred care. This whole-population based approach aims to ensure that aspects of cancer services are delivered in a planned way across the eight designated cancer centres in Ireland.

The National Cancer Control Programme (NCCP), will work with the HSE and the Department of Health to develop a rolling capital investment plan, to be reviewed annually, with the aim of ensuring that cancer facilities meet requirements.

The clinical model for the MUH Campus will deliver specialist chronic disease ambulatory care across a wide range of services and will be the main diagnostic centre for the region, aligning efficiently with the National Cancer Strategy and networked to the Regional Cancer Centre.

8. Policy

Planning Policy

Sustainability

All developments at MUH Campus will be in line with best practice in sustainable development and adhere to the principles in the Government's Climate Change Plan.

MUH is firmly committed to the principles of sustainability. MUH has a proven record of achievement as a member of the Public Sector Energy Efficiency programme where MUH has achieved the target improvement in energy efficiency of 33% in advance of the 2020 deadline. Recognising that our activities impact upon the environment, society and economy through our operations, our infrastructural development and our influence on the wider community of which we are a part; we are cognisant of our responsibilities in local, national and global terms. We will endeavour to implement a measured programme of continuous improvement towards sustainability in all activities to achieve our stated mission, vision and strategic goals.

The National Planning Framework

February 2018 saw the Government publish the National Planning Framework (NPF), entitled "Ireland 2040 – Our Plan". This publication is essentially the long-term strategic planning framework for Ireland's future growth and prosperity. As per the NPF, it is the Government's intention that:

"Ireland 2040 – Our Plan will guide national, regional and local planning opportunities throughout Ireland together with investment decisions for at least the next two decades."

To ensure the plan's ability to deliver, the Government has also confirmed their intention to align spatial planning matters identified in the NPF with investment decisions. Again, taken from the NPF:

"By aligning the National Development Plan with a ten-year National Investment Plan – we will for the first time have a meaningful planning framework that people can have confidence will deliver for their communities."

Also, and consistent with the above, in September 2017 the Department of Finance (DoF) confirmed that the Government would publish a new ten-year National Investment Plan by the end of 2018. This new investment plan will run until 2027. The DoF confirmed as part of this announcement that:

"It was a priority to have the next National Investment Plan align with the National Planning Framework."

In effect, the planning of large scale public infrastructural projects (such as new hospitals) will need to be aligned with the objectives of the National Planning Framework (and in turn, the National Investment Plan) if they are to succeed.

Contained within the Project Ireland 2040 National Development Plan 2018 – 2027 relating specifically to healthcare, are a number of health reform initiatives which include: 2,600 additional acute hospital beds to be delivered across all Hospital Groups. This includes new dedicated elective-only hospitals in Dublin, Cork and Galway to tackle waiting lists and provide access to diagnostic services.

Major investment projects and programmes include Trauma Strategy Capital Developments and Acute Hospital developments including a new hospital for Cork, and under Higher Education and Further Education and Training (FET), for UCC, a new business school, student accommodation, Innovation Park and ICT services, upgrade and expansion of the Tyndall National Institute and a new dental hospital.

The new hospital in Cork has been formally announced by Government and included in the Government's new Capital Plan.

Regional Spatial and Economic Strategy

Arising under the Local Government Reform Act (2014) the Southern Regional Assembly assumed a number of new functions. Chief among these responsibilities is the preparation of a Regional Spatial and Economic Strategy (RSES) for the Southern Region. Following publication of a first draft in early 2019 and a consultation period, the final draft of this Strategy is imminent at the time of writing this report. It provides a long-term regional level strategic planning and economic framework for the period 2019-2031 in support of the implementation of the National Planning Framework, for the future physical, economic and social development of the Southern Region.

The draft RSES includes a policy objective to seek investment in health service infrastructure to meet existing and future regional population growth including facilities for CUH and other existing hospitals, and the sustainable development of a new acute hospital and new elective hospital to service the increasing population of the metropolitan area and wider Southern Region

Cork City Council and Local Authority Plans

Once the RSES is confirmed, a Metropolitan Area Strategic Plan (MASP) for Cork City will be developed. This is a high level and long term strategic vision, to identify critical priorities for the sequencing and delivery of growth that supports the core city area.

In the interim, the following themes from the NPF are noted as particularly relevant to Cork city.

A central theme contained in the NPF is "compact (or smart) growth". The NPF goes on to describe this as:

"Making better use of underutilised land, including 'infill' and 'brownfield' and publicly owned sites".

A central concern outlined in the NPF is the current trend towards "greenfield sprawl that extends the physical footprint of our urban areas, and when it is the principal form of development, works against the creation of attractive, livable, high quality urban places in which people are increasingly choosing to live, work and invest."

The NPF states as an objective that it will target:

"A significant proportion of future urban development on infill/brownfield development sites within the built envelope of existing urban areas.

"This means encouraging more people, jobs and activity generally within our existing urban areas, rather than new development mainly taking place on the fields outside and requires a change in outlook."

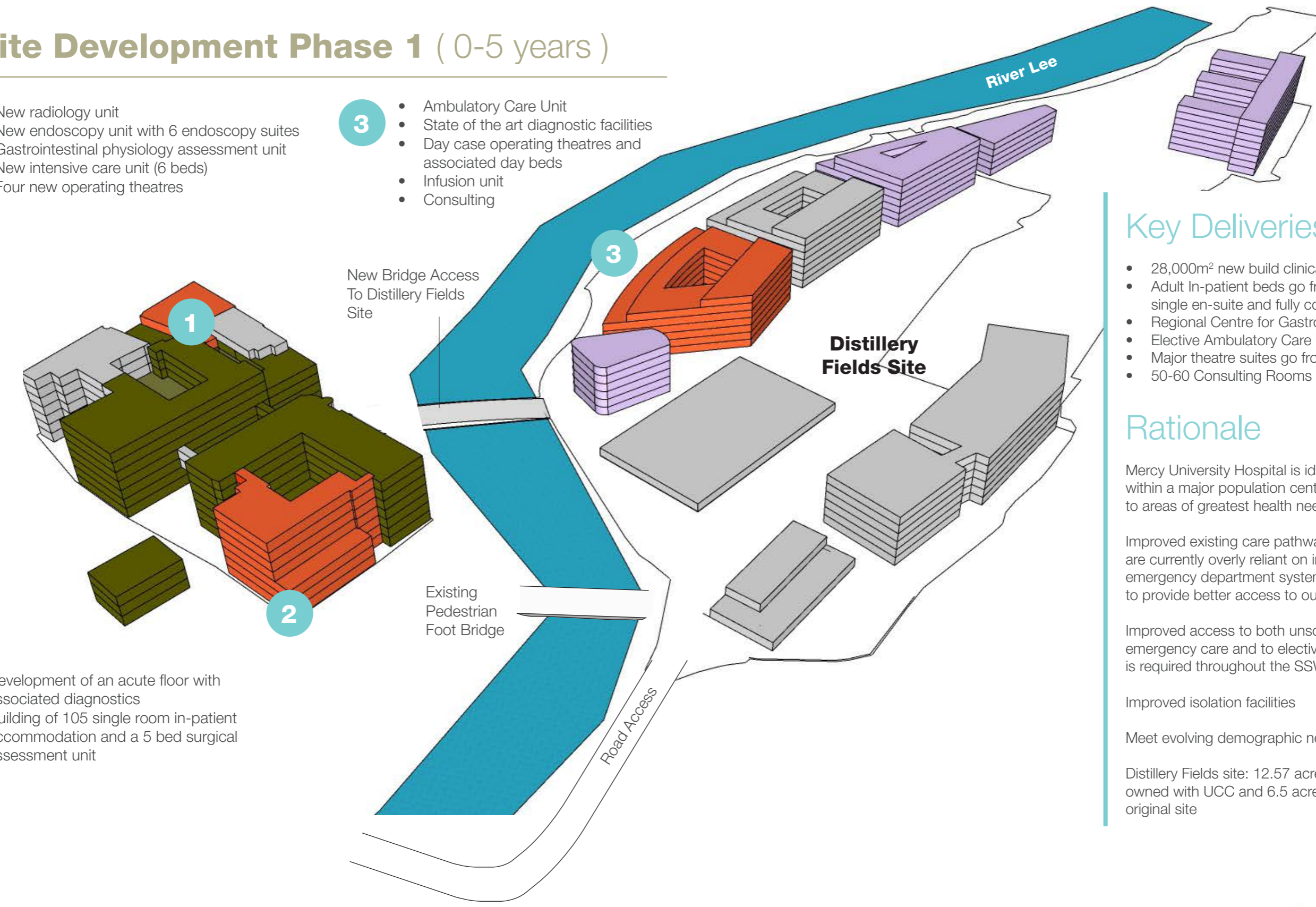


9a. Site Development Phase 1 (0-5 years)

- 1**
- New radiology unit
 - New endoscopy unit with 6 endoscopy suites
 - Gastrointestinal physiology assessment unit
 - New intensive care unit (6 beds)
 - Four new operating theatres

- 3**
- Ambulatory Care Unit
 - State of the art diagnostic facilities
 - Day case operating theatres and associated day beds
 - Infusion unit
 - Consulting

- 2**
- Development of an acute floor with associated diagnostics
 - Building of 105 single room in-patient accommodation and a 5 bed surgical assessment unit



Key Deliveries

- 28,000m² new build clinical buildings
- Adult In-patient beds go from 177 to 282 (105 single en-suite and fully compliant with HBN)
- Regional Centre for Gastroenterology
- Elective Ambulatory Care Unit
- Major theatre suites go from 4 to 8
- 50-60 Consulting Rooms

Rationale

Mercy University Hospital is ideally located within a major population centre and close to areas of greatest health need

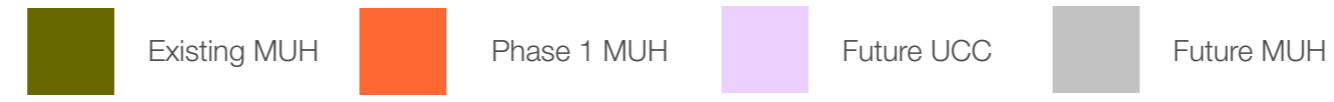
Improved existing care pathways for patients which are currently overly reliant on in-patient beds and emergency department systems. This must change to provide better access to our patients

Improved access to both unscheduled emergency care and to elective treatments is required throughout the SSWHG

Improved isolation facilities

Meet evolving demographic needs

Distillery Fields site: 12.57 acres jointly owned with UCC and 6.5 acres UCC original site

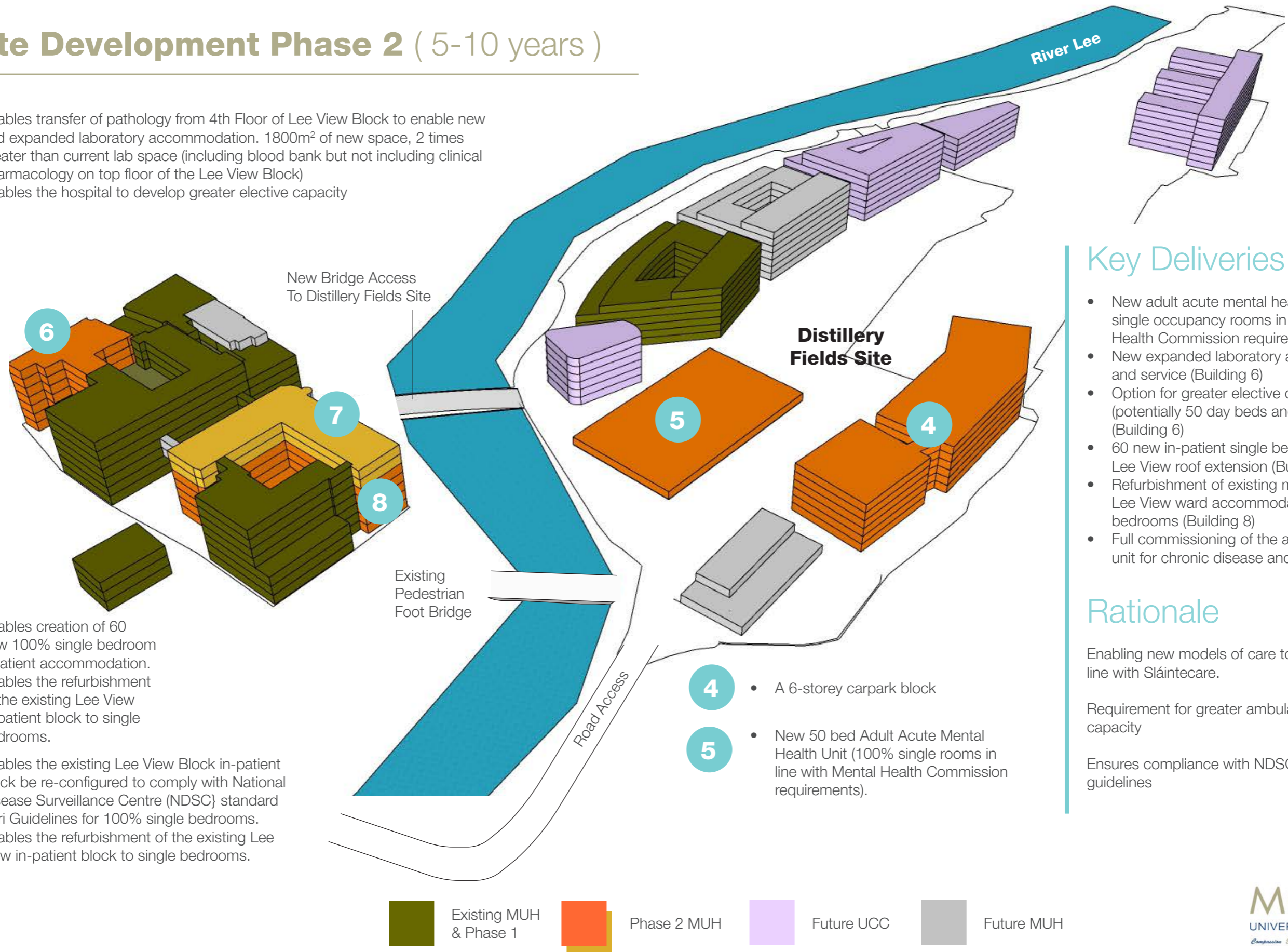


9b. Site Development Phase 2 (5-10 years)

- 6** • Enables transfer of pathology from 4th Floor of Lee View Block to enable new and expanded laboratory accommodation. 1800m² of new space, 2 times greater than current lab space (including blood bank but not including clinical pharmacology on top floor of the Lee View Block)
- Enables the hospital to develop greater elective capacity

- 7** • Enables creation of 60 new 100% single bedroom inpatient accommodation.
- Enables the refurbishment of the existing Lee View in-patient block to single bedrooms.

- 8** • Enables the existing Lee View Block in-patient block be re-configured to comply with National Disease Surveillance Centre (NDSC) standard Sari Guidelines for 100% single bedrooms. Enables the refurbishment of the existing Lee View in-patient block to single bedrooms.



Key Deliveries

- New adult acute mental health unit with 50 single occupancy rooms in line with Mental Health Commission requirements (Building 5)
- New expanded laboratory accommodation and service (Building 6)
- Option for greater elective capacity (potentially 50 day beds and 6 day theatres) (Building 6)
- 60 new in-patient single bedrooms on the Lee View roof extension (Building 7)
- Refurbishment of existing multi-bedded Lee View ward accommodation into single bedrooms (Building 8)
- Full commissioning of the ambulatory care unit for chronic disease and tele-health centre

Rationale

Enabling new models of care to be delivered in line with Sláintecare.

Requirement for greater ambulatory elective capacity

Ensures compliance with NDSC infection control guidelines

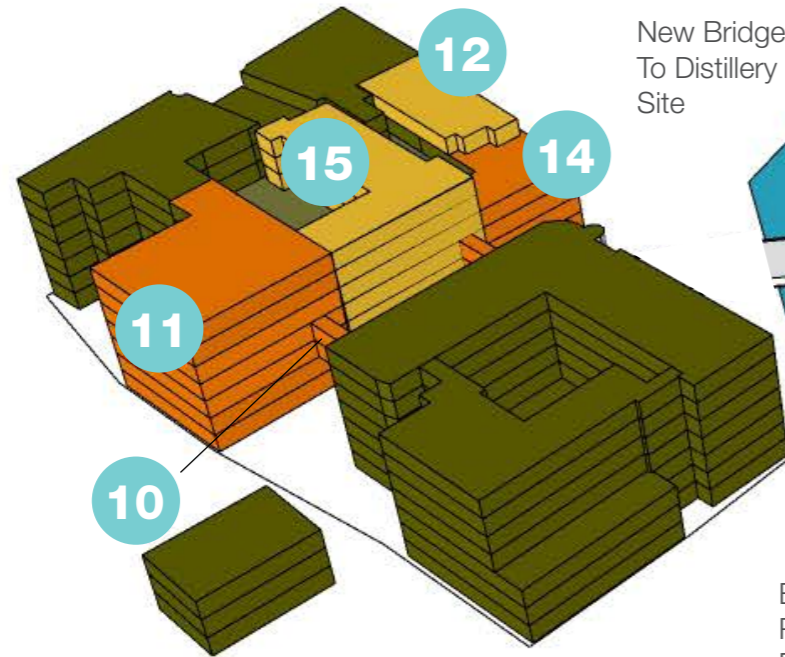
9c. Site Development Phase 3 (10-15 years)

15 Enables the reconfiguration of public spaces and accommodation for Allied Health Services supporting in-patient activities.

12 Enables the further expansion of Radiology, Medical Day Beds, ICU and Operating Theatres.

14 Enables the restoration and conservation of the Mansion House for administration use.

13 Enables the re-location of existing research and training centres to a common environment, and development of new research facilities in collaboration with University College Cork.



New Bridge Access To Distillery Fields Site

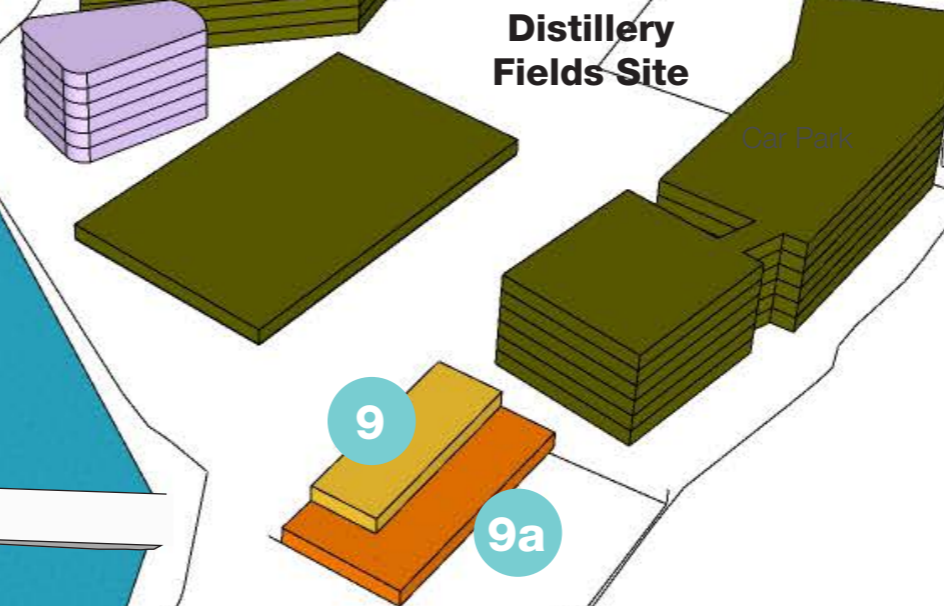
Existing Pedestrian Foot Bridge

Road Access

10 Enables the creation of a clinical link between the two inpatient blocks and the separation of public circulation space from staff/patient circulation routes.

Enables the development of a new main entrance and public realm.

11 Enables the expansion of 110 inpatient bedrooms in accordance with NDSC Standard for in-patient accommodation.



9 Re-location of offices/admin to allow development of Inpatient block 2 to meet future bed expansion (Existing on-site 5,200m²)

9a Enables opportunities to bring Building 9 from 5,200m² to 9,200m² which is 70% increase over current capacity.

Key Deliveries

- Administration block (Building 9)
- New main entrance & public areas (Building 10)
- Further 110 in-patient bedrooms (Building 11)
- Expansion of ICU (Building 12)
- Expansion of radiology, medical day-beds and operating theatres (Building 12)
- Academic and training centre with potential expansion for clinical services (Building 13)
- Mansion House Block (Building 14)
- Catherine McAuley Block (Building 15)

Rationale

Full geographical division of elective care, acute unscheduled care and ambulatory care into three areas across one site

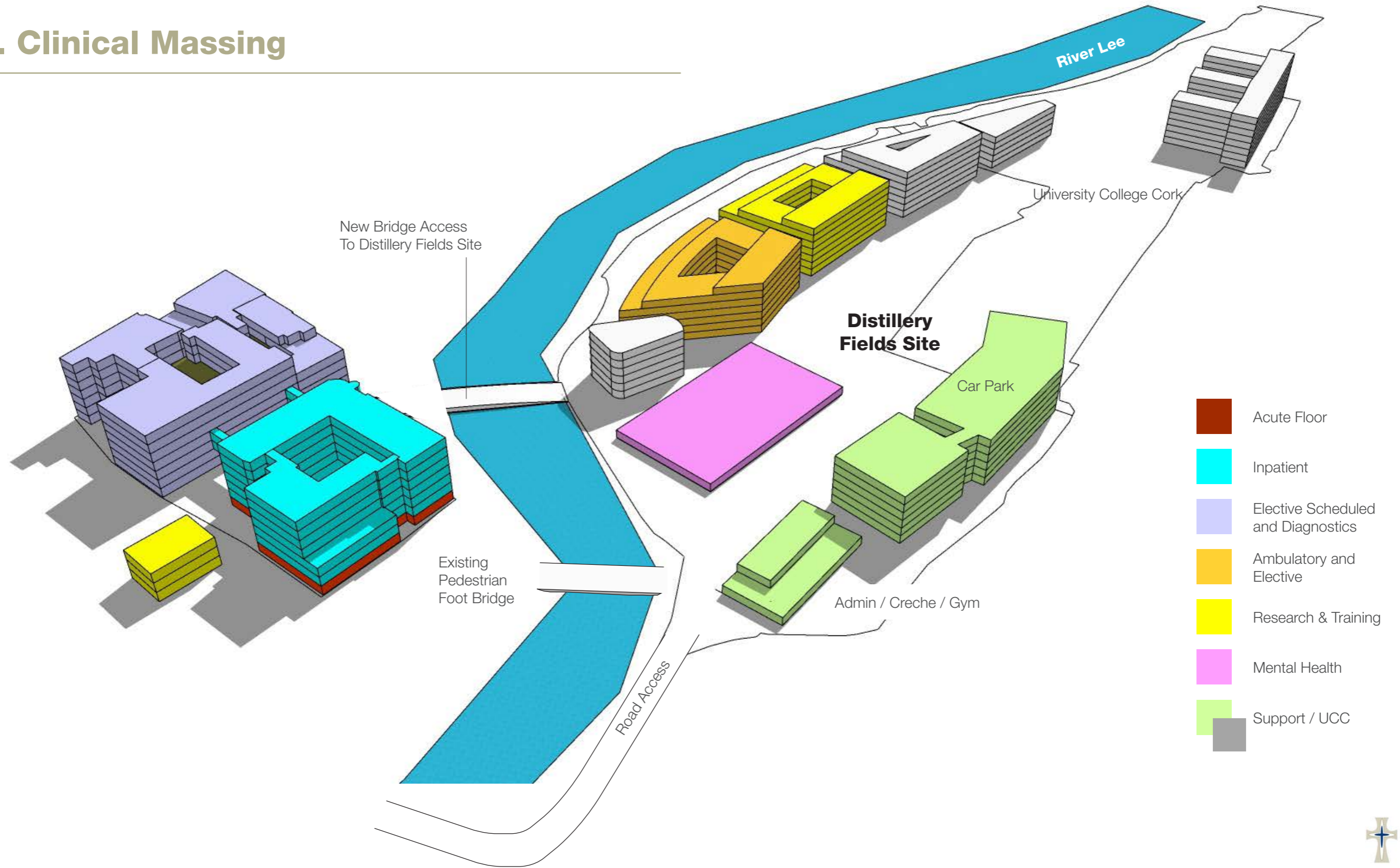
Existing MUH & Phase 1 & 2

Phase 3 MUH

Future UCC

Future MUH

9d. Clinical Massing



11. International Benchmarking and Examples

Successful redevelopment of existing city centre hospital sites | Increased city residential development requires adjacent medical facilities | Demonstrates urban healthcare strategy

Hospital del Mar, Barcelona, Spain

The Hospital del Mar is situated on the waterfront in the centre of Barcelona, next to the docks and on the site of the 16th century 'House of Health', an ominous-looking building where people were quarantined against infectious diseases that continually plagued the busy port city. The modern hospital has a history of over 100 years and for a long time, its focus continued to be infectious disease. This was expanded in the 1970s to include addiction, illnesses related to substance abuse, and mental health issues. Significant remodelling took place in 1986, as the hospital was the primary healthcare centre for the 1992 Olympic Games.

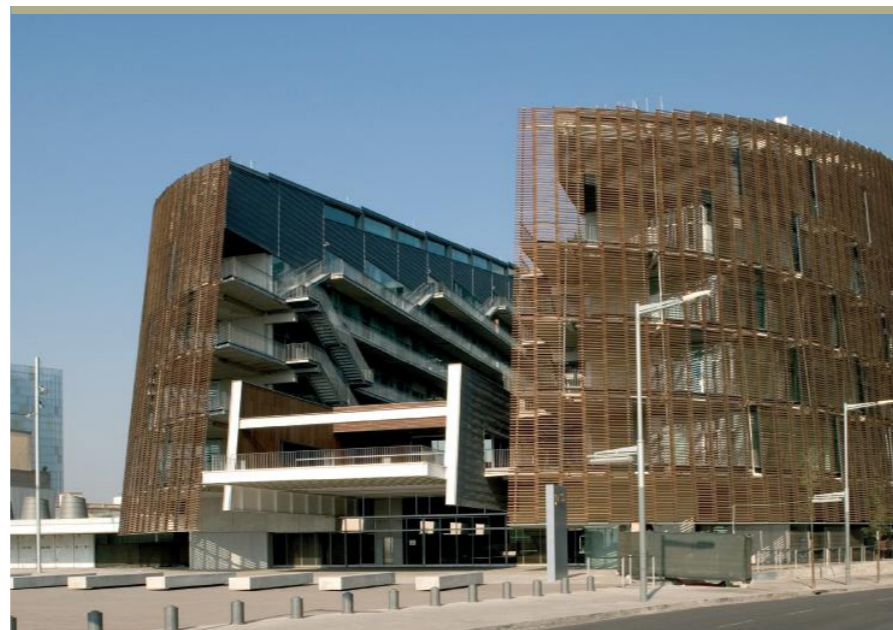
Today, the hospital has 400 conventional beds and 20 critical beds, 35 day beds, 21 multi-purpose emergency rooms, 10 operating theatres and 2 delivery rooms. It is in the midst of a phased expansion process that will double its size on its existing urban site and will allow it to continue to provide services to the local population.

The first phase of this adds 14,228m² to the hospital's current 28,620m² floor space. The facilities will accommodate several services (ER, radiology, gynaecology and obstetrics, outpatient care and pulmonology, among others).

Queen Mary's Hospital, Sidcup, Kent, UK

The Queen Mary's Hospital in Sidcup is an acute district general hospital with 430 beds treating 40,000 patients a year. Whilst in Kent, Sidcup is within the outer suburbs of London and is a relatively urban environment. In 2014, a £30m redevelopment project was funded by the UK National Health Service (NHS). The redevelopment was required as a lack of investment in previous decades lead to the closure of the Accident and Emergency and Maternity services. Without the redevelopment the hospital was likely to close. The objectives of the redevelopment were to provide care closer to home, improve management of long term conditions, prevent crises and readmissions into hospital, and lower operating costs.

Hospital del Mar, Barcelona, Spain



The Western General Hospital, Edinburgh

The two main general services hospitals in Edinburgh are the Royal Infirmary of Edinburgh and the Western General Hospital. Both are in an urban setting, with the Western General Hospital being more central (3.3km from the main railway station, as opposed to 5.3km).

The Royal Infirmary is the larger facility, with over 900 beds and has a 24-hour A&E service. The Western General Hospital has circa 570 beds (including day beds) and treats 150,000 patients a year. It provides a comprehensive range of general services, as well as selected specialist services. It does not have an Accident and Emergency, but instead has a nurse-led Minor Injuries Clinic. Staff in the clinic treat more than 20,000 patients a year for a wide range of minor injuries and ailments. The clinic is open daily from 8am to 9pm.

Istituto Clinico Humanitas, Milan, Italy

Istituto Clinico Humanitas is a private hospital in Rozzano, a municipality 9 km south of Milan, with a population of around 42,600. Humanitas created a design and management system that emphasises optimising patient throughput and utilisation of all of the hospital's facilities.

The hospital complex was completed in 1996 and consists of a main building and two other buildings for outpatient clinics. In 2001, following the need for expansion, Humanitas purchased from the town of Rozzano an area of about 20,000 m² north of the existing complex. In 2003, the first aid unit, the radiotherapy unit and three new hospitalization plans were completed. There was a further expansion which opened in 2008 including: 120 beds for post-acute rehabilitation, an auditorium, an underground car park, a multimedia library, an area for applied research and classrooms for graduate students in medicine and surgery, in nursing and of the specialised degree in biotechnology.

The hospital now has 18 departments and a total of 747 beds, over an area of approximately 65,000 m². The beds are divided as follows: 647 ordinary, 72 day beds and 28 intensive care. In 2017 a total 175,000 patients were treated.



11. Benefits of the Site

