



UL Hospitals Group Patient Flow Report

SEPTEMBER 2022

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The information contained in this report has been compiled by Deloitte and includes material obtained from data provided by the ULHG and Midwest Community Healthcare, as well as through discussions with the Executive Leadership Team, the five Directorates, the clinical teams across ULHG and the Heads of Service within Midwest Community Healthcare. Information supplied to Deloitte by ULHG, Midwest Community Healthcare and other parties has not been independently verified.

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ULHG Patient Flow Report May 2022

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Glossary

Acronym	Description
ACD	Associated Clinical Director
ADON	Assistant Director of Nursing
AHP	Allied Health Professional
ALOS	Average Length of Stay
AMU	Acute Medical Unit
ANP	Advanced Nurse Practitioner
ASAU	Acute Surgical Unit
CCD	Chief Clinical Director
CDONM	Chief Director of Nursing and Midwifery
CDU	Clinical Decision Unit
CEO	Chief Executive Officer
CNM	Clinical Nurse Manager
COO	Chief Operations Officer
CSO	Central Statistics Office
Ct	Cycle threshold
CQC	Care Quality Commission
DoH	Department of Health
DTOC	Delayed Transfer of Care
ECC	Enhanced Community Care
ED	Emergency Department
GP	General Practitioner
HCA	Healthcare Assistant
HIQA	Health Information and Quality Authority
HSCP	Health and Social Care Professionals

Acronym	Description
HSE	Health Service Executive
ICPOP	Integrated Care Programme for Older Persons
IEHG	Ireland East Hospital Group
IPC	Infection Prevention and Control
IPMS	Integrated Patient Management System
KPI	Key Performance Indicator
IU	Injury Unit
MDCIT	Multi-Disciplinary Community Intervention Team
MDT	Multi-Disciplinary Team
NCHD	Non-Consultant Hospital Doctor
NIV	Non-Invasive Ventilation
OPD	Outpatient Department
OT	Occupational Therapist
PET	Patient Experience Time
PHN	Public Health Nurse
PT	Physiotherapist
RCSI	Royal College of Surgeons of Ireland
SHO	Senior House Officer
SpR	Specialist Registrar
UHL	University Hospital Limerick
ULHG	UL Hospitals Group
WTE	Whole Time Equivalent

1 | Executive Summary

Context & Background

This report presents a review of UL Hospitals Groups unscheduled care pathways, focusing the analysis across the five fundamental areas within the Unscheduled Care Improvement & Change Programme under development by the HSE. It presents key findings and recommendations across these five areas for consideration by the ULHG.

UL Hospitals Group (ULHG) provides emergency, surgical and medical services on an inpatient and outpatient basis to a population of almost 390,000 people in Limerick, Clare and North Tipperary via its six hospital sites. The population in the region is also served by Midwest Community Healthcare in terms of the provision of community based services and the Midwest Community Healthcare and Hospital Group work closely together on many elements of service delivery in the region. The population served by ULHG and Midwest Community Healthcare has a high proportion of citizens aged over 65 years (15%) who are high consumers of healthcare and has some of the most challenging socioeconomic circumstances with the highest % of people classified as disabled, lowest level of 3rd level education and highest % of population (2.3%) classed as 'extremely disadvantaged'.

This report highlights some of the challenges faced by ULHG in managing the demand for unscheduled care. These challenges come against a backdrop of increasing demand for healthcare services nationally as a result of growing, aging population, the lack of bed capacity to meet the demands, the impact of the Covid-19 pandemic and the long waiting lists for scheduled care.



Increasing demands for healthcare services

- **2016 Population:** 384,998, 15% of the population over 65 years
- Forecasted by 2045 the MW Region will have the **joint oldest age profile** (along with the West) within the proposed health regions
- Health Service Capacity Review **forecasts that 2,100 beds** would be necessary to meet the demand nationally by 2031 even with significant reform. This equates to an additional **210 beds in Midwest region**. This broadly aligns with the projections in this report indicating a requirement for an additional 202 beds.
- Demand has continued to increase following the Covid-19 pandemic with **7% increases in ED attendances** comparing 2022 to 2019



Unique challenges in the Mid-West region:

- **Highest ED attendances** in the country at almost 76.5k attendances in 2021
- The **lowest number of open beds** per 1000 population (2.02) compared to proposed health region
- Lowest private hospital bed base in the country
- Lowest consultant, NCHD, nursing and HSCP staffing levels across all the hospital groups - 100 – 175% lower across staff categories.
- Old, unsuitable infrastructure with 199 of UHLs beds on nightingale wards which are high risk from an infection prevention and control perspective and lead to operational issues in managing unscheduled care

Overview of Key Findings (1/3)



This report sets out the key processes and governance structures in place in ULHG for managing unscheduled care. It identifies the trends in terms of activity across the care pathway and highlights areas of constraint as well as opportunities to improve processes, governance or staffing to either reduce demand on services or increase capacity to meet the demand.

The report describes the continued trend of a growing demand for emergency care in acute hospitals demonstrating a 7% increase in ED attendances between 2019 and 2022, a growth rate far in excess of demographic growth. This demand demonstrates an increasing reliance on acute hospital care and is associated with an increase in self-referrals to the ED as capacity constraints in primary care and particularly within general practice continue. This is increasing pressure on the ED resulting in increased triage times for patients which poses a clinical risk. Increases in activity have also been seen in the Model 2 hospitals Injury Units and Medical Assessment Units indicating an overall increase in demand rather than a shift towards the Model 4 site. Increasing demand for ED services also comes against the backdrop of significant investment in services in the Community such as ICPOP hubs and increases in step-down and rehab beds in the region. Staffing in the ED has not increased to meet the additional demand.



The requirement to implement Covid-19 streaming pathways for patients in the ED has resulted in significant changes to the acute care pathways. At the outset of the COVID-19 pandemic there was a national directive for emergency departments to implement streaming for COVID-19 patients. The introduction of COVID-19 streaming in the ED in UHL resulted in patients with 'COVID-19 like symptoms' being streamed for assessment to two Zones within the ED (Zones B&C) and patients without these symptoms streamed to Zone A. Zone A had previously been used for the assessment of ambulatory patients meaning that there was a high throughput of patients through this area. Another significant change that was implemented with this COVID-19 streaming was the direct referral of patients from triage to the AMU and ASAU without prior assessment by an ED doctor and the removal of access for GP referrals to these units.



The implementation of this streaming has resulted in a reduction in the rate of discharge home from the ED and an increase in referrals to the AMU and ASAU directly following triage. This is resulting in undifferentiated patients being assessed by medical and surgical registrars, with a high admission rate from the AMU in particular which increases the overall admission rate and demand for inpatient beds.



The combination of increasing demand and increasing admissions has resulted in additional pressures on inpatient beds. This report sets out the demand for inpatient beds and the capacity required to meet that demand. Occupancy rates in ULHG are far in excess of the 85% best practice and there is currently a deficit of circa 87 beds, with population growth projections this deficit will be 202 by 2036. The current deficit of circa 87 beds is in line with the recent report from the DoH '*An Analysis of Healthcare Infrastructure Capacity*'¹ which indicates that an additional 81 beds is required within RHA E to meet the 2019 demand. Lack of capacity to meet the current demand results in occupancy rates of 105% in UHL in 2022.

With the growing, aging population the bed capacity required by 2036 is an additional 202 adult inpatient beds for the Group. In addition, greater than 50% of the inpatient accommodation in UHL is made up of multi-occupancy wards with large 'nightingale' areas some of which have up to 14 inpatient beds within them. These wards are inappropriate for a hospital of this category significantly inhibiting the hospital's ability to provide the required level of care to meet patient needs and comply with current SARI / HTM guidelines and a variety of national standards and guidelines of relevance to inpatient accommodation. In order to refurbish these wards and reduce the bed occupancy a total of an additional 100 replacement beds is required, bringing the total bed complement required to 302 inpatient beds.

¹ [gov.ie - Minister for Health Stephen Donnelly welcomes the publication of the fourth and fifth research papers in the 'Healthcare Capital Investment in Ireland' series \(www.gov.ie\)](https://www.gov.ie/en/minister-for-health-stephen-donnelly-welcomes-the-publication-of-the-fourth-and-fifth-research-papers-in-the-healthcare-capital-investment-in-ireland-series/www.gov.ie/)

Overview of Key Findings (2/3)



The high volume of patients being admitted through the ED in UHL and the lack of capacity to meet this demand means that patients are often spread across a large number of wards on the UHL site. As a result ward rounds can be quite long and discharges tend to happen in the afternoon, 35% of discharges happening between 2pm and 4pm and 29% happening between 4pm and 7pm. This means that by the time beds are turned around it is past the peak ED attendance period which is from 10am to 4pm, resulting in increased patients awaiting beds during the day.



Staffing on the wards is also impacting patient flow, there is a staffing shortage in all HSCP disciplines and this is based on historical low levels of funding for staffing in these areas. There are numerous wards with no OT or Medical Social Work staffing funded when the national staffing ratios are 1:10 for OT and 1:20 for Social Work. The lack of these disciplines can impact timely discharges as patients need to be reviewed before being discharged. Each year between 5,000 and 9,000 bed days are lost due to delayed transfers of care (DTOC). This was highest in 2022 in UHL with a projected 8,538 bed days when pro-rata for the full year. There are multiple factors that can influence this including pathways and criteria for accessing rehab beds, discharge planning for complex patients as well as access to home support and fair deal schemes.



Given inpatient activity is constrained by the bed capacity, it is unsurprising to find that elective activity has reduced by 4% between 2019 and 2021, with the increase in emergency attendances & admissions. This has resulted in increasing waiting lists for elective care. ULHG has put a significant focus on addressing these waiting lists and a total of five initiatives are now in place within the UL Hospital Group and are designed to target both the longest waiters and urgent time critical patients. The initiatives are a mix of virtual and face to face consultations, procedures and diagnostics and are supported by numerous specialities across the Hospital Group. These include:

- ✓ Advanced Clinical Prioritisation (ACP) initiative has delivered 8,047 virtual consultations and is expected to achieve 13,600 by year end.
- ✓ The National Treatment Purchase Fund (NTPF) initiative is on target to achieve over 4,500 consultations across ten specialities by year end.
- ✓ The Scheduled Care Transformation Programme (SCTP) was introduced this year and is a once off funding initiative providing out of hours consultations for additional activity within the Hospital Group. It is supported by twelve specialties and since starting in April of this year, has delivered 4,048 consultations and procedures.
- ✓ Safety Net Agreement (SNA) initiative has delivered 6,802 consultations and procedures to date and is due to cease on the 20th of the month.
- ✓ Access to Care was introduced in July of this year and will provide additional support to patients, including inpatient and day cases.



Given the scale of activity and demand across ULHG, robust technology could play a role in increasing efficiency and streamlining patient flow however, the technology throughout the hospital is outdated by international standards for a Model 4 hospital. There is a lack of an integrated, single patient record, a lack of functionality such as order comms and minimal integration between the existing systems which leads to clinical risk as well as increased administrative tasks. It is estimated that there are over 300 clinical systems in use across the mid-west, most of which are standalone and require individual log ins, requirements to enter basic patient information into multiple systems and requirements for clinicians to access multiple systems to get a full view of the patient's history and diagnostic results.

Overview of Key Findings (2/3)



Leadership capacity and capability to deliver high quality care: UL Hospitals is governed by the Executive Management Team led by a CEO who reports to the Acute Hospitals Division HSE. There is a strong Executive Management Team reporting to the CEO which includes corporate functions (HR, Finance, Operations, Head of Strategy, Director of Communications), clinical leadership in the CDONM and CCD and Academic Leadership from the CAO. Services are delivered across the six sites under the leadership of six directorates namely, Medicine Directorate, Cancer Directorate, Perioperative Directorate, Diagnostic Directorate, Maternal and Child Health Directorate and Operational Services Directorate. There is a strong mix of skills and experience within the Executive Management Team with many of the team having completed management and leadership training including, PhDs, Executive MBAs and other leadership programmes in addition to their clinical and operational experience. Leadership demonstrated throughout the consultation process they are knowledgeable about issues and priorities for the quality of services, understanding of what the challenges are. One area where this is particularly evident is in addressing the bed capacity deficit with 98 additional inpatient beds delivered by the end of 2020.



Reporting Lines: The Clinical Directorate structure within UL Hospitals Group provides clear reporting lines for the clinical services. The CD for each Directorate is accountable to the EMT for that Directorate and report both professionally and operationally to the CCD. It was noted that there can be multiple lines of escalation for operational issues arising from the Directorate. It was also noted that autonomy at all levels could be improved with improved clarity of what needs to be escalated vs what could / should be resolved within the Directorates.



A clear vision & a credible strategy: UL Hospitals Group Strategic Plan 2018 – 2022 translates the clear statement of vision and values to a robust strategy. There is a clear set of strategic priorities outlined in the strategy and enablers identified. The strategy is aligned with national policy objectives such as the delivery of integrated care as outlined in Slaintecare. There is a robust process in place for the development of the strategy and given the timeframe of the previous strategy it was under review as this report was being developed. The process to review the successes and challenges associated with the 2018 – 2022 strategy is being overseen by the Head of Strategy. The Head of Strategy has also established an internal process to facilitate alignment between the corporate strategy and directorate or departmental strategies. Many of these have yielded significant benefits for the organisation.

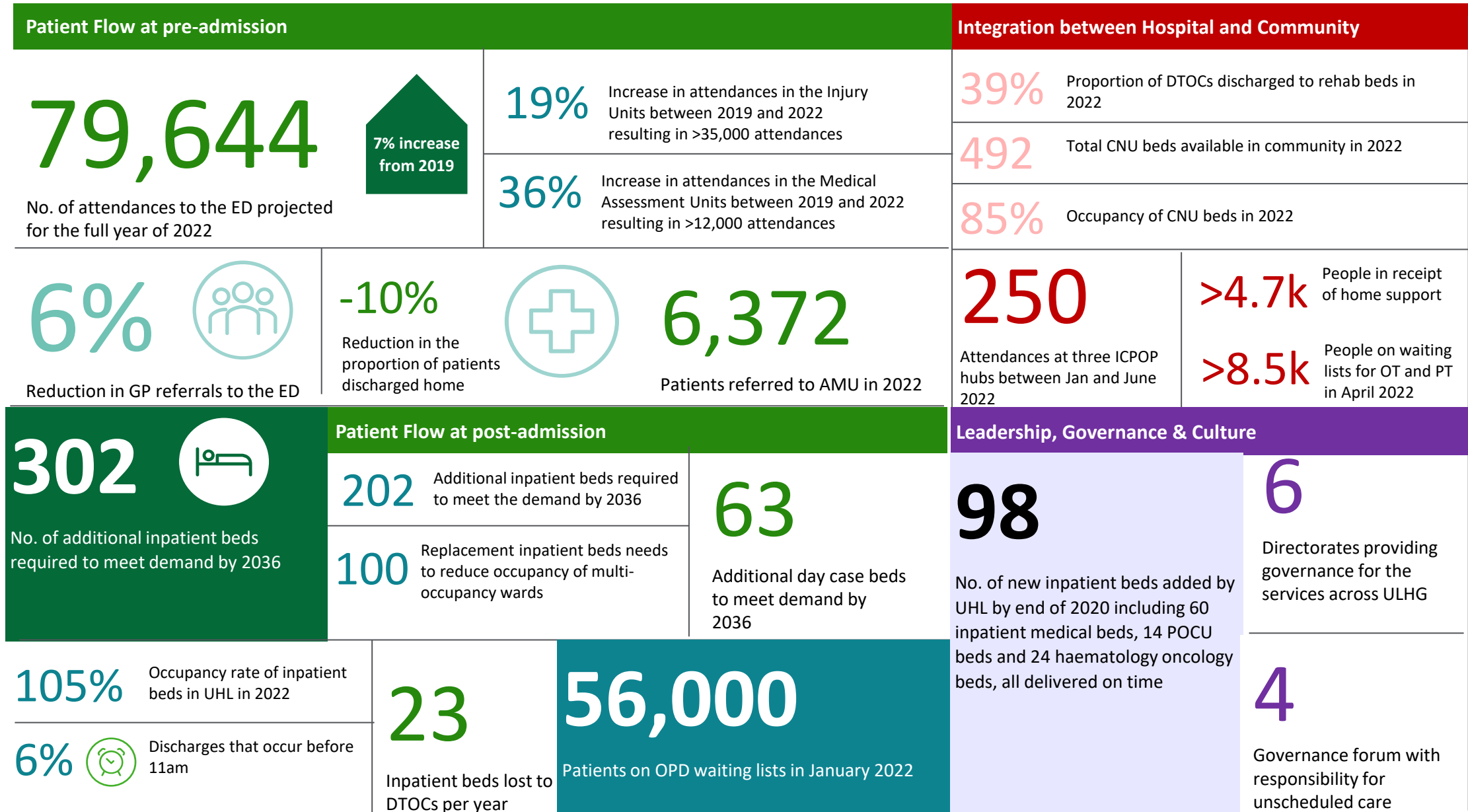


Culture: Many stakeholders are proud of ULHG and quality of clinical care provided and the leadership which was evident in the consultation process. There is also evidence of fatigue among staff due to consistent pressures on the system which is impacting their pride and positivity in the organization. There is also a strong emphasis on Health & Wellbeing at executive level. Performance achievement has been rolled out widely and staff are having performance conversations with their line managers.



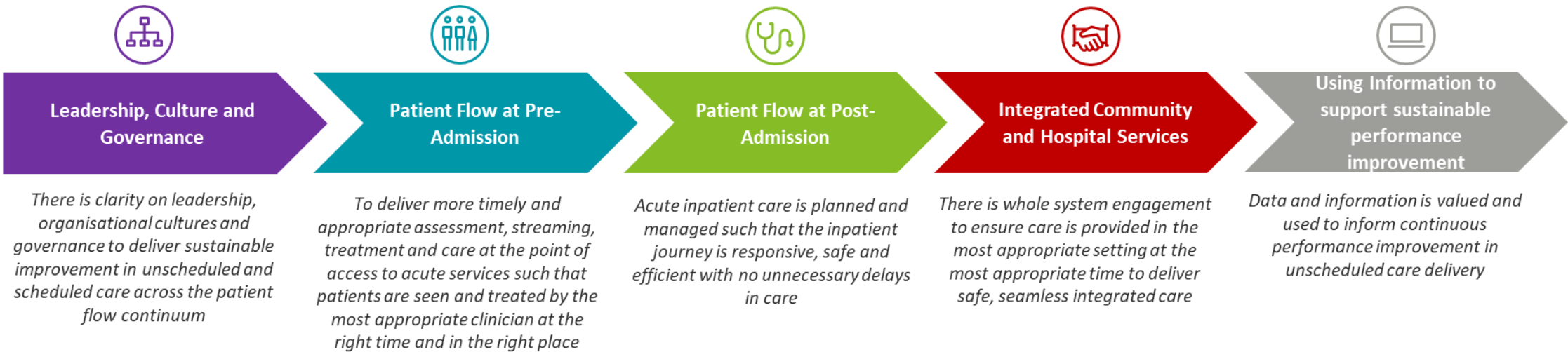
Quality & Risk : Another strength of UL Hospitals Group is the Quality & Patient Safety department which has developed considerably over the past two years. The Director of Quality & Patient Safety reports directly to the CCD who is the Executive with responsibility for quality and risk. A detailed organogram has been developed for the future structure for QPS and identifies a number of vacant roles that there are plans to fill.

ULHG Unscheduled Care Key Findings in Numbers



Recommendations

Patient flow within UHL and across ULHG is a complex and multi-faceted issue which requires a response across a number of areas. The recommendations laid out below are based on the findings from the Current State Analysis. The recommendations are aligned with the 5 fundamentals framework focussed on:



Change in complex systems is dependent on both a structured approach to implementation with timelines and dependencies managed and a benefits framework agreed and tracked as well as a robust approach to change management. Change is fundamentally dependent on the buy-in of the people within the process and achieving buy-in particularly from senior leaders within the clinical teams. The implementation plan should therefore be accompanied by a structured and robust project and change management plan that is adequately resourced and funded, as the staff across the hospital are already working in high pressure and full-time roles so new change resources will be required to support it. We would recommend that a formal programme structure be established to manage the implementation plan with dedicated project management and project support resources including a dedicated PM with acute hospital operations experience and clinical leadership involvement. We would also recommend a more detailed review of staffing, leadership & culture to be undertaken and for any recommendations arising from this review to be incorporated into the overall implementation plan. It would also be beneficial to seek patient feedback and to better understand the patient experience and to identify the key challenges from the perspective of the patient.

As described in the findings there is a requirement for an **302 additional inpatient beds and 63 day beds**. There are a number of options for how this additional capacity could be configured including additional bed capacity on the UHL site, a standalone model 3 hospital, an elective only facility or a combination of the above. We would recommend a detailed options appraisal to arrive at the option that would deliver maximal benefits.

There are a set of recommendations outlined in this document that could deliver benefits in terms of admission avoidance and improved egress. The total quantum of bed savings that could be realised from these benefits is estimated to be 30 beds. **This means that there remains a large gap between capacity and demand even if significant efficiencies can be gained.** There are detailed in the next section of the document

Recommendations Summary

➤ Leadership & Governance

It is recommended that the role of the Head of Operational Service for the UHL site which has been recently recruited be embedded into the governance structure to take on additional operational responsibility from the Directorates and allow for them to play more of a strategic role. It is also recommended that the CDs are supported to have additional capacity through a strengthened and formalised ACD role and provision of admin support for them in their role. The reporting and escalation requirements from the Directorates need to be clarified and clearly communicated to reduce duplication of escalation and drive autonomy at Directorate level. The culture of ULHG is mixed with evident staff fatigue following a difficult number of years. It is recommended that a targeted programme of staff engagement (such as that being initiated by the HR Director) strive to address staff issues or concerns where this is possible and also to celebrate successes and share future development plans with staff. The development of a transformation office including Change and PMO would further support the Strategy function with the implementation of key strategic initiatives. Finally, the QPS department has developed a detailed future org structure which requires funding for key posts. Given the strong role this department plays in driving quality and patient safety it is recommended that funding be provided for these posts.

➤ Patient Flow at Pre-Admission

A review of the AMU / ASAU referral process and ED pathways should be conducted to align with national guidance. The current model of referrals to the AMU and ASAU should be reviewed and re-aligned with national guidance to re-introduce access for GPs to the assessment maintain referrals from the ED following assessment by the ED team. Staffing in the ED, AMU and ASAU will be required to implement this recommendation. A range of ED avoidance measure have been identified in the recommendations section of this document including consultant assisted triage in the ED, documentation of ED avoidance pathways for NCHDs, improving OPD access and providing AMU access for GPs. All of these measures could help with increasing demand. ED staffing needs to be increased to manage the increased demand, particularly Consultants and NCHDs.

➤ Patient Flow at Post-Admission

A number of measures have been identified to improve timely discharge including speciality cohorting on wards, Increased nursing involvement in ward rounds & care planning, implementation of criteria led discharging for common conditions, streamlining ward rounds and increasing HSCP staffing on wards. Implementation of some of these measures could be considered immediately, others such as speciality cohorting will require reduced inpatient occupancy rates through additional bed capacity to be successful. Renewed measures to reduce DTOCs such as focus on discharge planning from admission and streamlined access to rehab beds could help to reduce bed days lost due to DTOCs. Similar to the ED, additional staffing is required on the wards particularly HSCP staffing and bed management resources. Bed capacity needs to be increased to meet demand. To address the immediate demand of circa 87 beds would be required to bring the occupancy rate to 80%. By 2036 202 additional beds are required and an additional 100 replacement beds, a total of 302 inpatient beds. There are a number of options for how these beds could be configured including additional beds, a detailed options appraisal is required to arrive at the most appropriate solution.

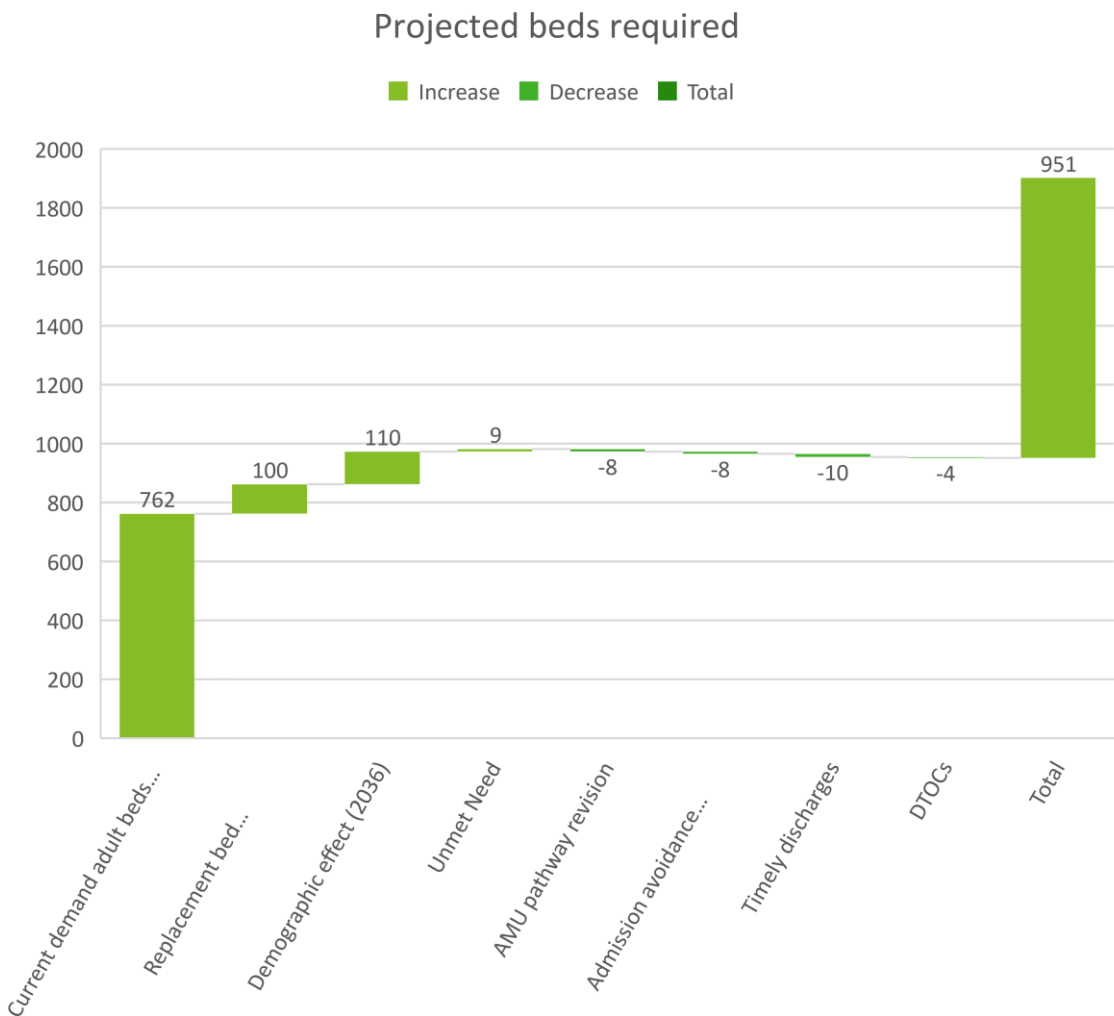
➤ Integrated Community and Hospital Services

The impact of enhanced community services on inpatient admissions has not been quantified as the proposed impact of the measures is not yet clear nor is the timeline for these benefits to be seen. To date implementation of initiatives such as the ICPOP hubs has not been correlated with a reduction in ED attendances. There are challenges nationally in accessing primary care and solutions to address this at a national level would be beneficial. In addition, ramping up and increasing throughput in existing funded community services would be useful. It would also be beneficial to evaluate the impact of increased community services on demand for acute services.

➤ **Improve technology to improve efficiency & quality of care** While this is largely outside of the control of ULHG and Midwest Community Healthcare locally, it is recommended that the eHealth systems across the hospital and CHO are upgraded to a fit-for-purpose single electronic healthcare record to improve visibility, efficiency and quality of care as has been demonstrated in numerous studies internationally. The lack of a single patient record is having significant impacts on patient flow. Interim measures as also recommended such as implementation of order comms and upgrading the ICT infrastructure.

Recommendations Impact on Bed Requirements

Based on the demand analysis there is a requirement for an additional 302 inpatient beds by 2036 based on current demand, demographic growth, unmet need and the requirement to replace multi-occupancy ward beds. It is difficult to estimate the potential impacts of the recommendations outlined in this document it has been estimated at a total bed saving of 30 beds. This means that even if all of the recommendations outlined in this document are successfully implemented a total of 273 inpatient beds are required.



Bed requirements

- As per the 2021 activity across the group there is a requirement for 762 adult inpatient beds (excl. paed and maternity). There are currently a total 679 adult inpatient beds meaning there is a gap of circa 87 beds currently
- An additional 100 replacement beds are required to replace the beds on the multi-occupancy wards
- Applying demographic growth there will be a requirement for an additional 110 beds to accommodate the growth to 2036
- An additional 9 beds will be required to address the unmet need
- This equates to a total of 981 adult inpatient beds required by 2036
- Taking into bed designations described previously this equates to a requirement for an **additional 302 inpatient beds**

Adjustments based on recommendations

- Review AMU pathway:** opportunity to reduce the emergency admissions by 10% (2,625), these admissions are likely to be associated with a shorter ALOS (1 day) equating to a potential bed **saving of 8 beds**
- Admission avoidance measures:** 30% of emergency admissions have an ALOS of 1 day. Implementation of admission avoidance measures could have an impact on these admissions. Assuming a further 50% of these 1 day admissions could be prevented there would be an additional saving of 8 beds.
- Timely discharges:** Implementation of the measures described in this document to improve timeliness of discharges could be expected to reduce the ALOS by 3 hours. If this was achieved it would save 10 beds
- DTOCs:** Earlier and improved discharge planning and use of standardised processes for accessing step down and rehab beds could reduce the ALOS of medically discharged DTOCs. If there was a reduction by 2 days from 15 days to 13 days this would save 4 beds per year.

2 | Context & Background

UL Hospitals Group Overview

ULHG provides emergency, surgical and medical services on an inpatient and outpatient basis to a population of almost 390,000 people in Limerick, Clare and North Tipperary

UL Hospitals Group is made up of six hospital sites in the Midwest:

- University Hospital Limerick (UHL) is the designated Model 4 hospital for the Mid-West in accordance with the Report of the National Acute Medicine Programme. Emergency services, acute general medicine and critical care services are centralised in UHL for the entire region.
- Ennis and Nenagh are Model 2 hospitals with IUs and Medical Assessment Units (MAUs) and providing noncomplex day surgery and endoscopy services to the local population.
- St John's is a voluntary hospital in Limerick which provides services similar to that of Ennis and Nenagh for the local population in Limerick with a 5-day surgical service.
- Croom is a specialist orthopaedic hospital for adults and children which operates five days per week for elective orthopaedic activity.
- University Maternity Hospital Limerick provides obstetrics services to women in the region and oversees in excess of 4,500 births per annum.

The six sites function as a single hospital system, with over 5,760 staff (HSE Workforce Hospital Group Report) providing emergency, surgical & medical services on an inpatient and outpatient basis for a population of over 390,000 people in Limerick, Clare & North Tipperary. There will be a total of 785 inpatient beds, 216 day beds, 46 critical care beds and 24 theatres.



- **2016 Population:** 384,998
- 15% of **population over 65** (average is 13%)
- 1.5% of **population over 85** (average is 1.4%)
- The **smallest population** within the new health regions
- The **lowest level of 3rd Level education**
- The **highest % of people classified as disabled**
- The **highest % of population (2.3%)** classed as 'extremely disadvantaged' (average is 1.7%)
- The **lowest number of open beds** per 1000 population (2.02) compared to proposed health regions
- Forecasted by 2045 the MW Region will have the **joint oldest age profile** (along with the West) within the context of the newly proposed health regions

HSE Mid West Community Healthcare Overview

The Mid West Community Healthcare Organisation is one of nine CHO areas across the country and provides a broad range of services across healthcare, social care and health & wellbeing to the population of the Mid West. to the people of Limerick, Clare and North Tipperary. It is geographically aligned with ULHG

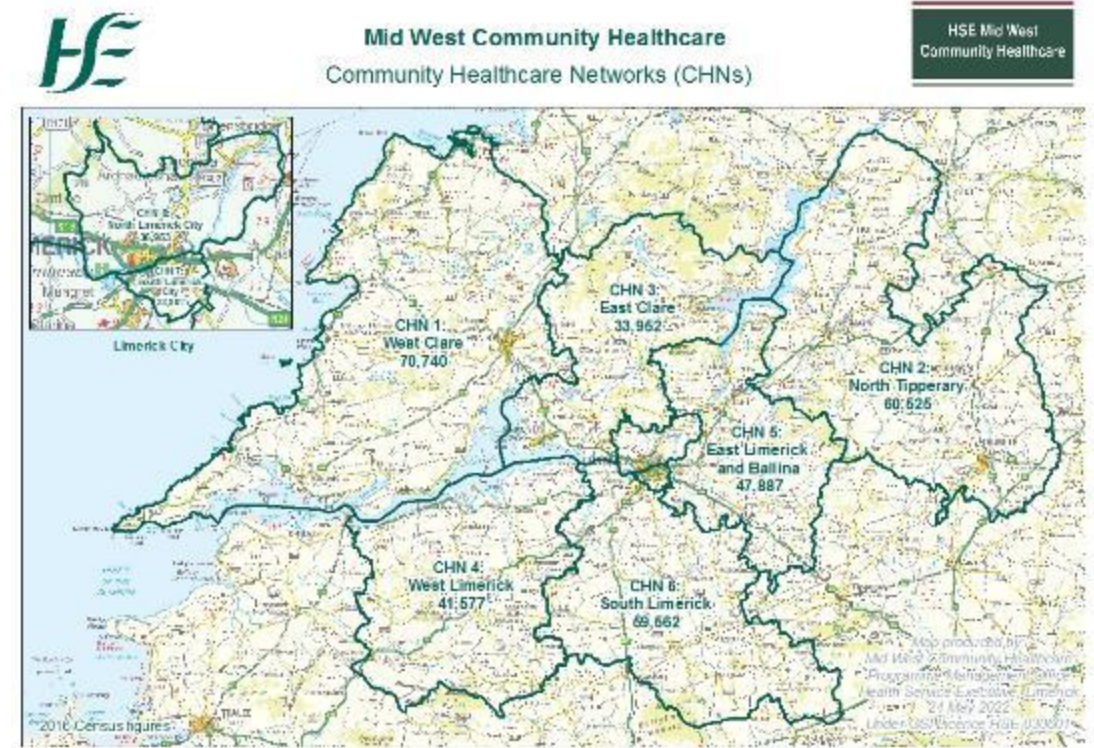
Community healthcare services in the Mid-West include:

- Health and Wellbeing services
- Mental Health services
- Disability services
- Primary Care services
- Older Persons services

Primary Care Services are provided by GPs, PHNs, and HSCPs through eight Community Healthcare Networks (CHNs), made up of 41 Primary Care Teams (PCTs). These Services work in collaboration with Health & Wellbeing Services to meet the health needs of the population. In addition, specialist services are available from Mental Health Teams, Disabilities Teams and Older Persons Services.

Under Sláintecare and the Enhanced Community Care Programme, significant additional funding was made available for HSE Mid West Community Healthcare during 2021. This provided an opportunity to enhance community services in the Mid-West by shifting appropriate care away from the hospital to the community. The major developments included the roll out of Community Healthcare Networks, the Integrated Programme for Chronic Disease Management, Enhanced Home Supports, Integrated Care Programmes for Older Persons and additional community bed capacity.

Collaboration and partnership with ULHG, Public Health, the National Ambulance Service and University of Limerick (UL), will play a key part in the delivery of these projects.



Map of the Mid-West Community Healthcare showing Community Healthcare Networks

Increasing demand for health services nationally

The growing, aging population continues to drive increases in demands for health services across Ireland

UL Hospitals Group has consistently encountered challenges in meeting the demand for services in the region. However, this is not unique to ULHG; across the country there has been a growing demand for hospital services with increases in attendances to ED, inpatient admissions and bed utilisation. Multiple and varied challenges have been experienced by hospitals in meeting these demands. Patients awaiting beds in EDs across the country, particularly in the winter months, is common and there are lengthy waiting lists for elective care. The increases in demand are at least in part being driven by the growing and ageing population in Ireland. The CSO population data estimates that the population nationally has increased by:

- 3.8% between 2011 and 2016 for total population
- 19.5% for people aged 65-84
- 15.6% increase in people aged over 85

This demonstrates that the population is growing overall which would lead to increased demand for services but is also ageing with higher increases in the older age cohorts. The change in the demographic is likely to account, at least in part, for the increased demand on health services as older cohorts are the highest users of health services across the majority of specialities. For example in 2019, even though they only represented 16% of the population, 34% of people on an inpatient / day case waiting list were over the age of 65.

In 2018 the DoH published the Health Service Capacity Review which forecast that 2,590 beds would be necessary to meet the demand by 2031¹ even with significant reform. These reforms include significant enhancements to homecare and community supports. While many of these reform initiatives have commenced in terms of their implementation, in many instances their benefits have yet to be realised. In addition, the bed base across the country has not increased significantly over the period from 2018; the open bed report indicates that there was a total of 13,096 inpatient and day beds open in 2018, and by 2021 this has had only increased by 337 (a 2.6% increase) to 13,433.

Over the past two years this has been further exacerbated by the COVID-19 pandemic which saw significant changes to how patient flow was being managed in the system and a prioritisation of emergency care and curtailments to elective activity which has resulted in large waiting lists. In January 2021 there were over 622,000 patients on outpatient waiting lists, an increase of 20% since 2019 and over 81,500 patients on inpatient / daycase waiting lists, an increase of 13% since 2019. In tandem, there have been challenges in accessing primary care services both in GPs and in community settings. The full implications of these curtailments to care are not currently known however there may be increased acuity of patients when they present, delayed diagnosis and increased demand for emergency services, some of which is already being seen in ULHG with a 7% increase in attendances to the ED in 2021 compared with 2019. 2020 data has been impacted significantly by the Covid-19 pandemic and is therefore not considered representative of demand for services.

In addition, in common with many other countries around the world the re-direction of community resources to pandemic management activities has impacted availability of community services over this period. This has impacted the speed to deliver many of the Slaintecare initiatives meaning that many are at very early stages of operations or development and similar to hospital services there are considerable waiting lists.

Unique challenges in the Mid-West region

ULHG faces some unique challenges compared with other hospital groups

ULHG faces the same challenges as are experienced nationally in terms of a growing, ageing population, under-developed community services and the impact of the COVID-19 pandemic. However ULHG also faces some unique challenges. It is the only Hospital Group that has one Model 4 Hospital and no Model 3 Hospital with therefore, a single ED, serving the entire population. This puts significant pressures on the Model 4 hospital at times of high demand for emergency care as there is no other site in the region to share the burden.

ED attendances at UHL are among the highest in the country at almost 76.5k in 2021, the Mater has a higher total number of attendances however this data includes the Injury Unit attendances. ULHG also has the lowest absolute number of inpatient beds compared with the other Model 4 hospitals and the lowest number of inpatient beds per head of population. Within this bed base (in the table below) ULHG also manages secondary care paediatrics which the Dublin adult hospitals do not and paediatrics account for approximately 25% of the population. Therefore when comparing to the Mater, SVUH or SJH the 49 paediatric beds in ULHG should be excluded making the comparison even less favourable.

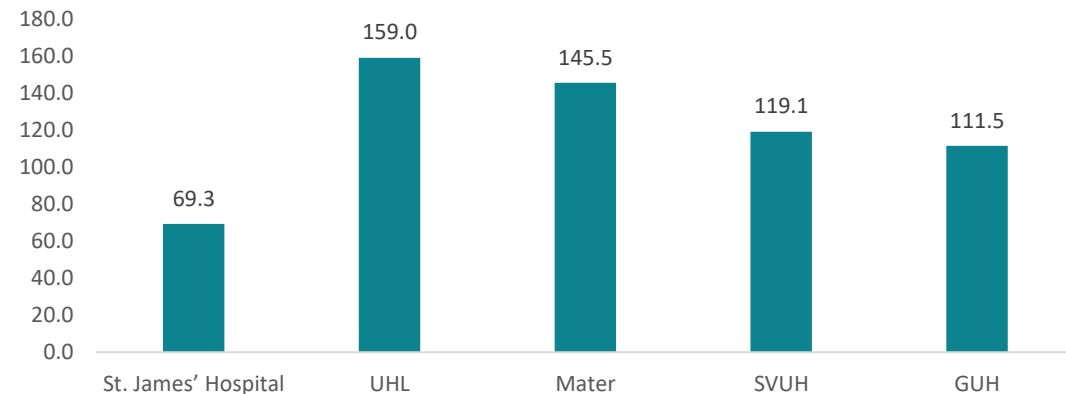
In addition, the region is underserved by private healthcare; private hospital bed capacity in the Mid-West is the lowest in the country with currently only 50 beds within the Bon Secours in Limerick, compared with the > 250 beds available in Galway and >600 beds in the South / South West catchment area.

The lack of inpatient bed capacity compared with demand is evident from the ED attendances to inpatient bed ratio which is higher in UHL than in all other Model 4's excluding the Mater where there is a similar ratio. Comparing UHL with GUH, demonstrates that GUH have 88 beds more (equates to an additional 32,120 inpatient bed days), despite having 7,586 attendances less than UHL in 2021.

UHL inpatient bed capacity cannot meet the current demand for elective and emergency care for the population of the Mid-West region which has resulted in high inpatient bed occupancy often with trolleys on wards and surge capacity in operation whereby day wards are used to manage inpatients and elective services are cancelled. The cancellations of elective care further exacerbates the issue with no alternative pathways for patients and increasing numbers attending the ED. Overcrowding in the hospital is impacting the experience for both staff & patients.

Hospital	No: of In-patient Beds	ED Attendances 2021	ED attendances to inpatient bed ratio
St. James' Hospital	698	48,397	69.3
UHL	481 (excl. 49 paed beds)	76,473	159.0
Mater	614	89,335	145.5
SVUH	510	60,748	119.1
GUH	618	68,887	111.5

ED attendances to Inpatient bed ratios



Unique challenges in the Mid-West region

Staffing deficits

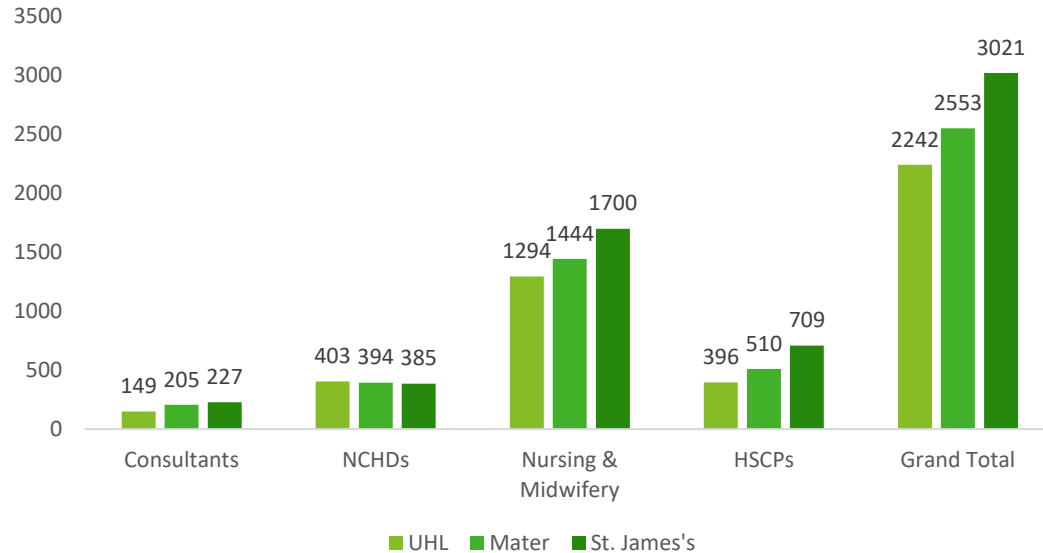
As described previously ULHG has the busiest ED in the country in terms of attendances per year and the lowest number of inpatient beds. ULHG also has the lowest number of consultants both at hospital level and at a Group level. Comparing consultant staffing in UHL to the Mater, UHL has 38% less consultants and 52% less than SJH.

Given the Group is smaller in terms of numbers of hospitals we have looked at the staffing ratios of UHL compared with the Mater and SJH. UHL has the lowest nursing WTE and the lowest HSCP WTE with almost 50% less than SJH. This is likely as a result of the lower number of inpatient beds described previously

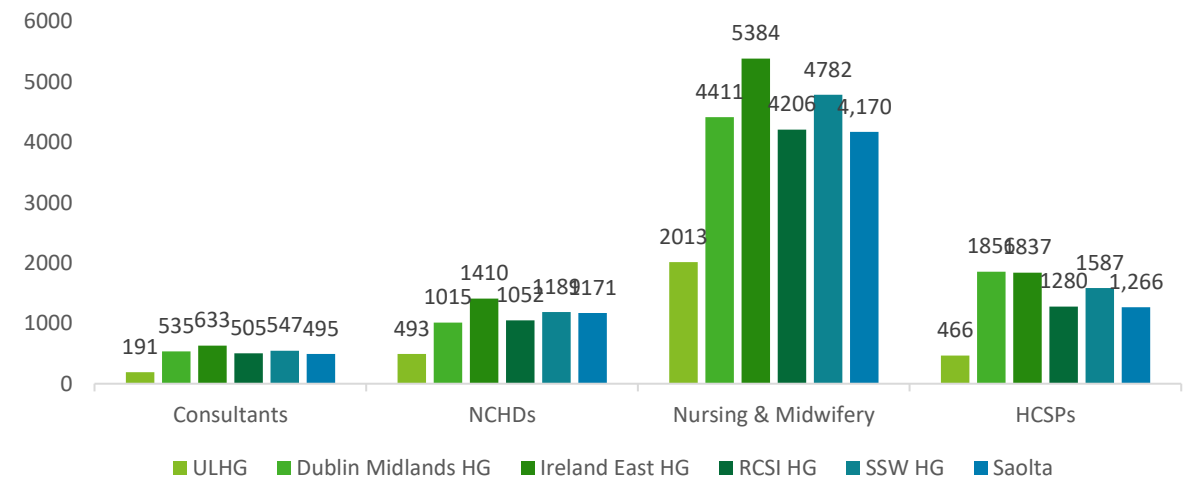
At a hospital group level ULHG has the lowest number of staff across all categories but the deficit is particularly stark in the consultant staffing where ULHG has 165% less than the next lowest group (RCSI) and HSCP where ULHG has 174% less than RCSI.

These staffing deficits are largely a result of a lack of approved and funded posts rather than a recruitment issue. There was a total of 925.9 WTE new development post recruited as part of Winter Plan 2021, 1,200 posts were also recruited in 2021 and there is a huge focus on recruitment and retention in UHL. There are some disciplines such as sonographers and pharmacists where there are challenges both nationally and globally in terms of recruitment however for the most part the lower staffing is not due to unfilled posts.

Hospital Staff WTE



Hospital Group WTE



Unique challenges in the Mid-West region

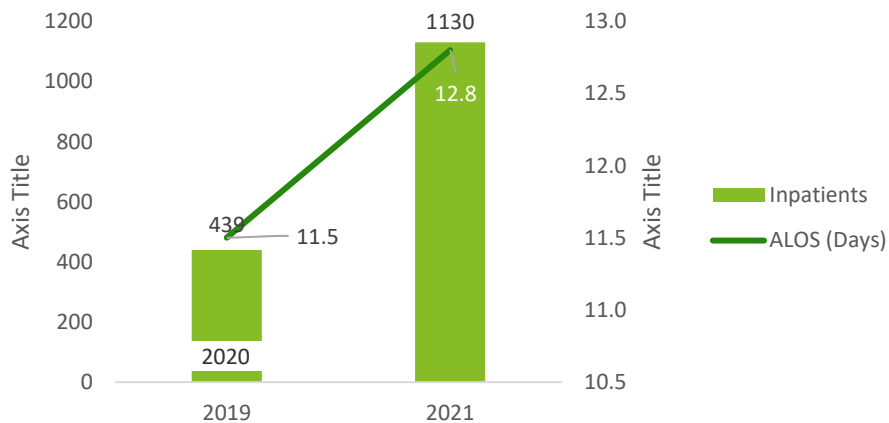
Old infrastructure and the Covid-19 pandemic

Inpatient bed capacity in UHL currently cannot meet the demand requirements of the region which has been **exacerbated by the COVID-19 pandemic**. The past two-years has seen reductions in access to alternatives to the ED with reduced access to GPs due to increased demand for their services in managing COVID-19 or the vaccination programme, virtual only appointments in an effort to reduce cross infection and curtailments to community based care as a result of lockdowns or staff shortages. The ED has remained open to patients seeking treatment throughout the pandemic and has seen increases in demand for COVID-19 but also non-COVID-19 care. The number of inpatients with Covid-19 for example doubled between 2020 and 2021 and the ALOS is increasing.

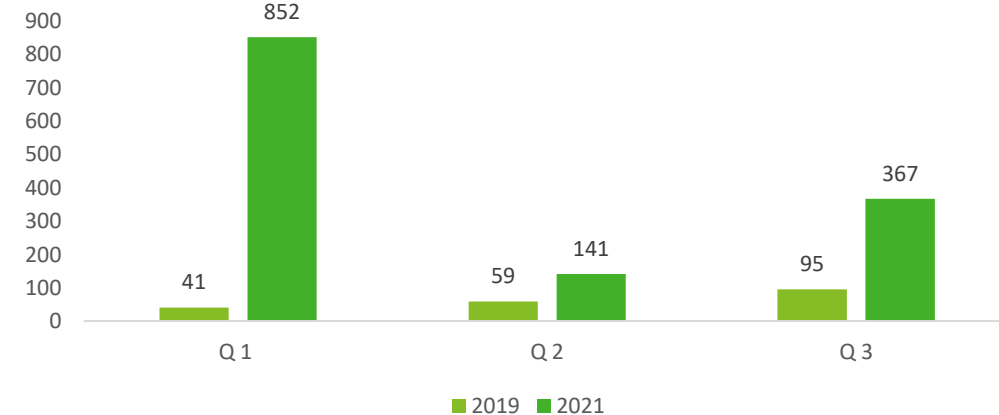
At the same time as demand has been increasing COVID-19 outbreaks across ULHG has impacted bed availability. **199 of UHLs bed capacity are nightingale ward beds, 80 of which are in the large nightingale areas which are high risk from an infection prevention and control perspective**. These areas are open plan and have up to 14 beds with often a single bathroom. The open plan nature of these wards often results in large numbers of beds being closed to manage an outbreak. This provides daily challenges on an ongoing basis against the backdrop of the significant pressure on isolation facilities in UHL. The graph below relays **exponential growth in Infection & Prevention & Control (IPC) cases requiring isolation at UHL** for the first 3 quarters of 2021 compared to the same period in 2019 due to Covid-19 but also increased IPC requirements as a legacy impact of the pandemic.

Both the increasing demand and the bed closures have knock on implications for elective activity, **83% of inpatient bed days are taken up by emergency admissions in UHL** and there are frequently cancellations of elective care to manage surge capacity leading to long and growing inpatient/ day-case waiting lists. The COVID-19 pandemic and the large volume of multi-occupancy wards has also added to the complexity in managing patient flow in UHL with wards having complex admission criteria and patients often being moved during their stay to create capacity in specific wards.

Positive Covid Inpatients UHL 2020 & 2021 (Jan to Oct)



Total Isolation required in ULHG for 2019 v 2021



ULHG response to address overcrowding

In response to the increasingly challenging issues faced by ULHG, there have been consistent and continual efforts to improve patient flow and address overcrowding by the ULHG Management Team.

ULHG continues to respond to the increasing demand and challenges with unscheduled care via a number of response measures which have been underway prior to this review being conducted and outlined in a paper by ULHG entitled '*UL Hospital's Response to Alleviate Patient Flow and Address Overcrowding*'. These measures are described in more detail in Appendix A.

- **Clinical response:** introduction of speciality hand-back to reduce the volume of patients under the care of each individual clinical team, improve safety and efficiency
- **Maximise discharges & transfers:** Implementation of an electronic patient flow system that assists in managing flow on a daily basis by focusing on predicted date of discharge, discharges, transfers and identifying complex discharges early and ensuring discharge plans are in place for all patients, holding discharge meetings to escalate any actions that will support discharge
- **Maximised capacity for emergency care:** including significant curtailments to elective care and opening all available surge beds
- **Opening of surge capacity:** As part of the escalation plans and in order to minimise the numbers of patients waiting beds in ED, there two areas of surge capacity open, as well as utilising surge on the Model 2 sites
- **Escalation Plans:** ULHG hospitals have a suite of department, directorate and an overall hospital escalation framework to be adhered to in order to address the increase in unscheduled care demand, such as the introduction of a "No Refusal Policy" for transfers to the Model 2 hospitals and clarifying the steps at which patients should be moved to ward trolleys in order to minimise numbers waiting in the ED.
- **Establishment of new governance and oversight groups** such as Hospitals Group teleconference, Hospitals Crisis Management Team, Acute Floor Group, the Medicine Oversight Group, Weekly Discharge Teleconference with Midwest Community Healthcare, Weekly senior review of patients with a LOS > 30 days, Unscheduled Care Committee, and the Winter Preparedness Team & Enhanced Community Care Forum, Unscheduled Care Integrated Steering Group, Long stay Tuesday Meetings, and Daily Operational Safety Huddle
- **COVID-19 pathways:** COVID-19 streaming and designation of COVID-19 zones within the ED allowed for easy segregation of COVID-19 pathway and Non-COVID-19 pathway patients
- **Additional MRI capacity:** A second MRI scanner was also installed in the UHL site to manage the demand for scans and reduce delays for patients waiting an MRI
- **Additional Critical Care Capacity:** HSE investment has enabled UHL to significantly increase critical care capacity during the pandemic with two additional ICU beds and six additional HDU beds being added to UHL since the beginning of the pandemic
- **New inpatient infrastructure:** A total of 98 new beds were added to UHL by the end of 2020. The development of the new four-storey, 96 single bed acute inpatient ward block extension at UHL is due to commence building works in 2022. It is envisaged that when the new 96-bed block opens, approximately half the beds will be used to replace older bed stock on the UHL site in an effort to move away from nightingale wards to single en suite rooms.

Patient Flow Project Objectives

Given the challenges in managing unscheduled care and patient flow in ULHG, an independent review of patient flow has been undertaken to determine if there are any further measures that could be taken to alleviate the pressures on the system

This project is intended to provide an independent and comprehensive overview of patient flow through the ED at UHL - including the unscheduled patient journey as well as the implications and interface with scheduled care - whilst highlighting the current resources, processes and any potential constraints. The primary objective of this report is to summarise the analysis of patient flow across ULHG to:

- 1. Define and describe the source(s) of flow challenges experienced within the ED and UHL;**
- 2. Determine and comment on possible opportunities to enhance the existing patient flow approach; and**
- 3. Reflect on the effectiveness and impact of patient flow initiatives introduced to date by UHL.**
- 4. Reflect on the leadership and governance structures and processes in place to support patient flow and the effectiveness of these**

Critical enablers to achieving the above include:

- Leveraging UHL data to profile and measure patient flow challenges experienced within the ED and providing evidence for the conclusions / recommendations detailed within the final report
- Consulting with UHL stakeholders (such as the Bed Management team, key clinical leads and senior management in ULHG) to inform findings with respect to the as is, opportunities for improvement, and recommendations
- Consulting with Community and Primary Care stakeholders and provision of data from these stakeholders.
- The report provides an independent and comprehensive overview of patient flow through the ED at UHL

Project Approach

The method to delivering this report was delivered in 3-phased approach over a period from March - May 2022. These phases ran in parallel over the period and including detailed analysis of the activity data, patient flow mapping and extensive stakeholder consultation followed by drafting of the findings and report.

Activities & Scope

Phase 1: Data Analysis & Discovery

- ED and inpatient activity data was analysed from 2019 – 2022. This included over 20 data points provided to us from ULHG and Midwest Community Healthcare teams
- The following analysis was completed:
 - Trends in activity over the 3-year period
 - Referral sources and triage categories in ED
 - Discharge destinations
 - PET times, triage times & time to be seen by clinician
 - Trends in ED attendances by day of the week and time of the day
 - Occupancy rates
 - Projected demand for inpatient beds out to 2036
 - Delayed transfers of care
 - Bed closures
 - Trends in admissions & discharges
 - Analysis of waiting lists
 - Community data including activity levels, waiting lists and bed numbers
- The data was used to verify / validate findings from consultations or to inform key questions for consultations with key stakeholders
- Specifically in relation to Leadership, Culture & Governance 23 documents were reviewed including organograms, TOR, Balanced Score Cards and SOPs

Phase 2: Pathway Mapping & Review

- Consultation was completed with 25 different stakeholder groups across ULHG including:
 - All of the Directorate management teams
 - Patient flow / bed management
 - CNMs
 - ULHG Executive Management Team
 - ED team
 - Midwest Community Healthcare Heads of Service
 - GP representatives
- These consultations focussed on:
 - Current processes for managing patient flow
 - Impact of COVID-19 on patient flow
 - Drivers for increased activity
 - Interface with the community
 - Integration across Group
 - Challenges / issues in managing flow
 - Quality improvement initiatives undertaken to improve flow
- Mapping of the existing ED pathway / patient flow model through UHL was also completed to identify any capacity constraints or areas for improvement
- Two updates were provided to the HSE team during this process
- While elements of leadership & governance were covered throughout the consultation process, we also completed 9 consults specifically related to Leadership, Culture & Governance centred around the 'Well Led Framework' from the UK healthcare regulator Care Quality Commission (CQC) & NHS [Well-led_guidance_June_2017.pdf \(england.nhs.uk\)](#)

Phase 3: Final Report

- Complete final report documenting key findings and recommendations
- Recommendations are structured in terms of the 5 fundamentals of unscheduled care:
 - **Patient Flow at Pre-Admission:** treatment & care at the point of access including those related to process, staffing and infrastructure
 - **Patient Flow at Post-Admission:** treatment & care in the inpatient setting including those related to process, staffing and infrastructure
 - **Integrated Community and Hospital Services:** recommendations re further integration between hospital & community
 - **Using Information to support sustainable performance improvement:** recommendations regarding improved use of technology & data to support decision making and performance
 - **Leadership, Governance & Culture:** recommendations regarding improvements to leadership / governance structures related to unscheduled care

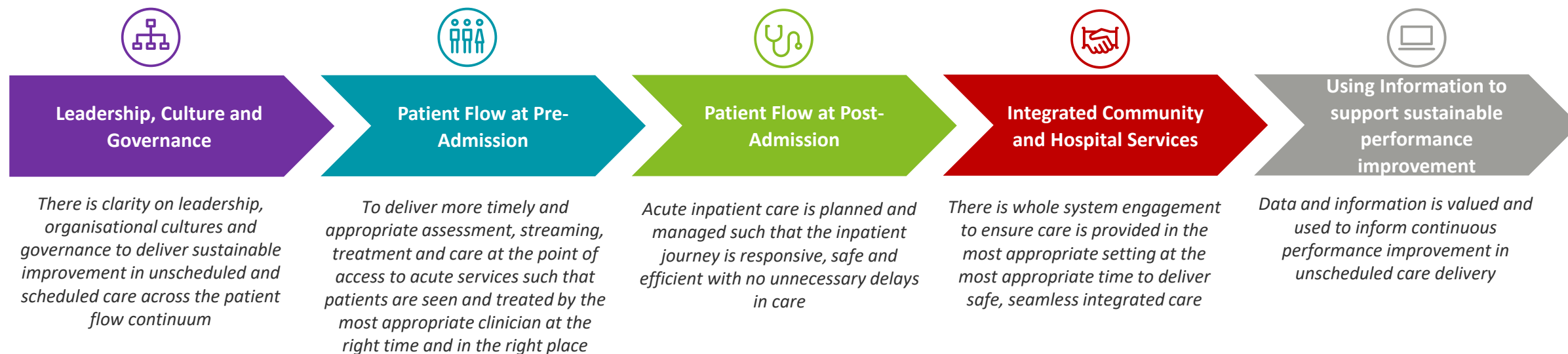
3 | Current State Analysis

Current State Analysis Overview

The current state analysis in this report is aligned with the Unscheduled Care Five Fundamentals Framework

There is a 3-year Unscheduled Care Improvement & Change Programme under development by the HSE which provides a framework for delivering improvements in five fundamental areas. This review was centred around Unscheduled Care Patient Flow across these Five fundamentals.

We present the Process Maps for Patient Flow Pre-Admission, Post-Admission and the associated bed management processes. We also present the key findings across these areas. Throughout the processes we highlight integration with the community and key findings in this area. There are dedicated sections on the current states and key findings related to Leadership, Culture and Governance and the Use of Information.



3 | Current State Analysis

A. Leadership, Governance & Culture

A. Leadership, Governance & Culture | Summary of Key Findings

Below are the key findings associated with the Leadership and Governance arrangements within UL Hospitals Groups, specifically in relation to unscheduled Care. These are described in more detail with associated data in the following slides.

1. Leadership capacity & capability: The EMT are cohesive and have a strong mix of skills and capabilities across strategy and operations developed by the CEO. The Directorates provide the governance structure for the Group. All Directorates have dedicated leadership capacity from Directors of Nursing and General Managers with full time capacity to Directorate leadership. There is variability regarding the capacity of the Clinical Directors based on the size of the Directorates and their ability to find appropriate backfill for their clinical commitments. Outside of the Directorates the leadership capacity has evolved during the review and a Head of Operational Service role has been approved during this time which further strengthens the leadership capacity on the site in UHL. Leadership has been shown in taking steps to address critical issues within ULHG.

2. Clarity of roles & reporting lines: There are very clear operational reporting lines within the Directorates and professional reporting lines for medics and nurses. There are also strong governance structures / forums implemented to account for pathways that involve multiple Directorates. It will be important to ensure that as new roles are established there is clarity around reporting and accountability. There are also governance forums to support integrated care between hospital & community such as the Enhanced Community Care (ECC) forum which has oversight for all of the ECC initiatives.

3. Culture: many of the stakeholders interviewed were proud of the care delivered in UHL however there is fatigue among staff due to consistent pressures on the system which is impacting their pride and positivity in the organization. Similarly, while there were many examples of collaboration and teamwork there were also areas where this could be improved. There is a strong focus on performance achievement and health & wellbeing, particularly from the EMT.

4. Clear Vision & Credible Strategy There is a clear statement of vision and values and this has been translated to a robust strategy (Strategic plan 2018 – 2022). This is currently being reviewed & updated and many of the objectives within the strategy have been achieved. There is a very strong strategy department within UHL with a Head of Strategy who sits on the exec. The strategy department drives initiatives and strategic plans alongside the Directorates & there are numerous examples of how these have made a positive impact.

5. Quality & Risk: There is a very strong and well-structured quality & patient safety department. There are very clear processes around managing risk which are well understood across the organisation. The audit capability is in the earlier stages of development and requires additional resources. The Patient Advocacy and Liaison service is extremely strong within UHL

6. Employee engagement & recruitment: There are significant challenges with recruitment and retention in the health sector in general however there is a number of initiatives being progressed within UHL to mitigate against this including a focus on recruitment, employee engagement through the establishment of the employee forum and support for frontline managers on all aspects of People Management

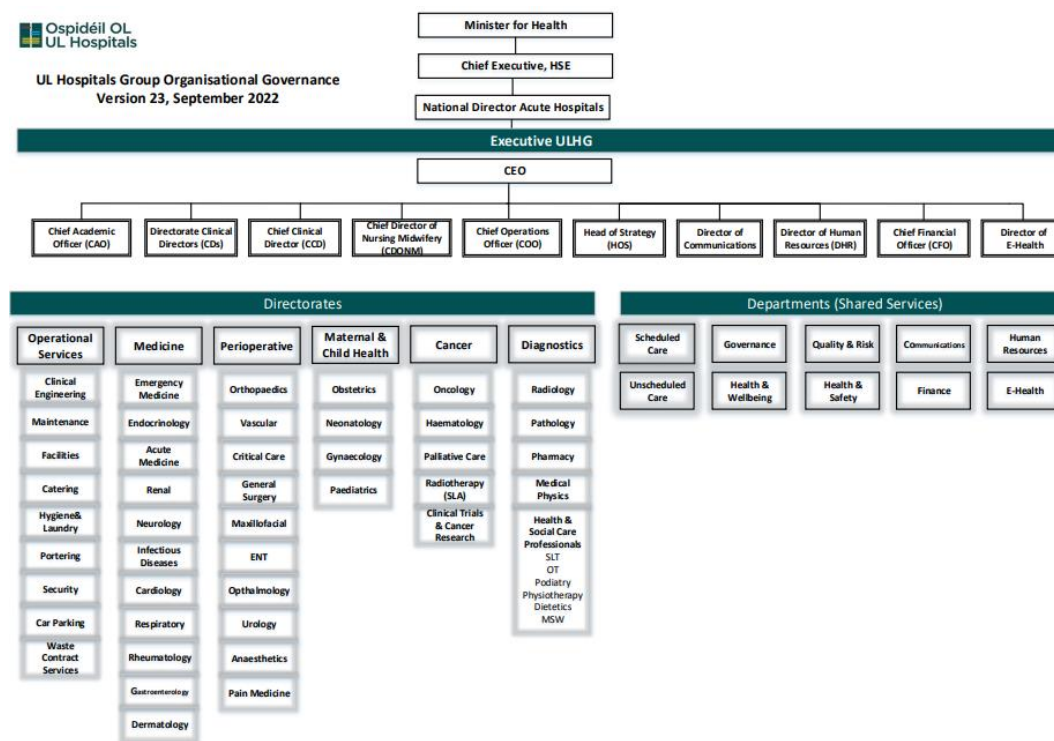
A. Leadership, Governance & Culture | Key Findings

1. Leadership Capacity & Capability

UL Hospitals is governed by the Executive Management Team led by a CEO who reports to the Acute Hospitals Division HSE. There is a strong Executive Management Team reporting to the CEO which includes corporate functions (HR, Finance, Operations, Head of Strategy, Director of Communications), clinical leadership in the CDONM and CCD and Academic Leadership from the CAO. The governance structure for the Group has evolved under the leadership of the CEO to include unique capabilities within Strategy with the Head of Strategy role being appointed to the EMT. The CEO and the CCD have also overseen the development of the governance and quality and patient safety departments which are discussed later in the report.

Services are delivered across the six sites under the leadership of six directorates namely, Medicine Directorate, Cancer Directorate, Perioperative Directorate, Diagnostic Directorate, Maternal and Child Health Directorate and Operational Services Directorate. Each Directorate is led by a team of staff bringing Clinical, Managerial and Financial expertise together to provide quality driven safe services, focused on the experience and outcomes for the patient.

There is a strong mix of skills and experience within the Executive Management Team with many of the team having completed management and leadership training including, PhDs, Executive MBAs and other leadership programmes in addition to their clinical and operational experience. There are also leadership development programmes offered to CDs, ACDs, DONs and CNMs. The CEO is very supportive of leadership development and actively invests in this for staff at all grades. HR have also invested in development for staff including the establishment an e-learning platform which includes standard training but also HR skills programmes which is a people management course for line managers. HR Clinics are also run for Line Managers and staff to provide advice and guidance to staff on all HR related matters as well as engagement with Union colleagues on the delivery of services. The Learning & Development Dept. have developed a strong collaboration and partnership with the University of Limerick and every year Front line Managers are sponsored on various educational programmes with the University.



The Clinical Directorates also have strong leadership from the Triumvirate (CD, GM and DON). The GM and DON are full time roles dedicated to providing leadership to the Directorates giving them capacity for leadership of the Directorate. There is variance in the capacity of the CDs within the Directorates as a result of the clinical workload they hold and whether they can find appropriate backfill. The CD of the diagnostics directorate for example doesn't have backfill and carries a full clinical caseload, the CD of the perioperative directorate has a very significant brief with over 100 consultants within the Directorate. The role of the associate CD could be strengthened to provide support for the CDs across the larger briefs with assignment of dedicated portfolios and responsibilities to them. The ACDs also carry a full clinical caseload so this remains a challenge in practical terms. More capacity for the CDs would provide an opportunity for a more strategic focus for the Directorate.

A. Leadership, Governance & Culture | Key Findings

1b. Leadership Capacity & Capability

Leadership demonstrated throughout the consultation process they are knowledgeable about issues and priorities for the quality and sustainability of services, understanding of what the challenges are and take action to address the. One area where this is particularly evident is the leadership of the CEO in addressing the bed capacity deficit.

As highlighted in this report the infrastructure on the UHL site is not fit for purpose and requires replacement. In addition, there is a gap between capacity and demand for inpatient beds as described. The CEO and the Executive Management Team have taken steps to address this critical issue. As highlighted in the recent report from the DoH 'An Analysis of Healthcare Infrastructure Capacity'¹ there has been an increase in bed capacity in RHA E (ULHG catchment area) by 16% over the period 2017 – 2021 which is a significant improvement.

This is largely as a result of the leadership of the organisation driving capital projects in conjunction with HSE Estates. In total 98 new beds were added to UHL by the end of 2020 these include:

- **A 60-bed medical inpatient block** which is three wards of single ensuite rooms. This block was established to provide a rapid build interim solution to begin to address the bed capacity issue at UHL in response to the National Capacity Review by the Department and was opened in phases in late 2020/early 2021.
- **A 24-bed Haematology Oncology unit** comprising of all single patient rooms. This ward also provides assessment bays which allow for an ED avoidance pathway for oncology patients whereby patients are assessed in the oncology ward rather than waiting in the ED.
- **14 additional single patient rooms with seven allocated to Post-Operative Care (POCU).** This was a critical response during Covid-19 which had the positive effect of allowing for additional capacity within ICU and HDU.

In addition, over the past year further efforts to reduce the gap between capacity and demand have been undertaken with the **design and planning of a 96-bed medical block** which will provide 48 new single ensuite medical beds and 48 replacement beds. Construction is due to commence in October 2022.

There has also been significant development of **Croom orthopaedic hospital with the development of four new theatre suites, 24 new inpatient beds and a pain centre.**



60 bed block UHL

A. Leadership, Governance & Culture | Key Findings

2a. Clarity of Roles & Reporting Lines: Directorate Structure

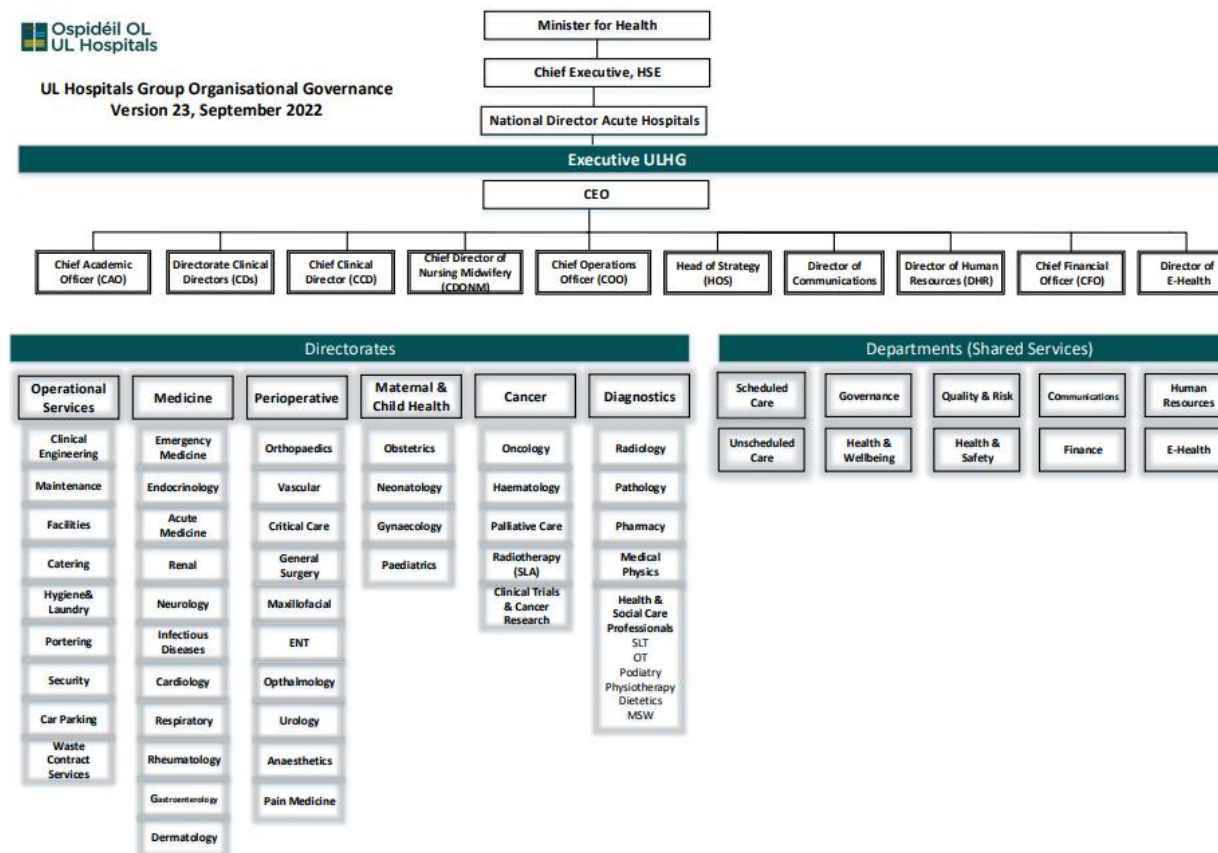
The Clinical Directorate structure within UL Hospitals Group provides clear reporting lines for all of the clinical services. The CD for each Directorate is accountable to the Executive for that Directorate and report both professionally and operationally to the Chief Clinical Director. The DON and GM within the Directorate have professional reporting lines to the CDONM and COO respectively. The CD reports to the Exec using a Balanced Score Card for their Directorate which provides clarity on performance of the Directorate across the key domains of finance, HR, Access & Quality and Patient Safety.

It was noted that there can be multiple lines of escalation for operational issues arising from the Directorate with the CD escalating to the CCD and the DON and GM escalating to the CDONM and COO respectively. It was also noted that autonomy at all levels could be improved with improved clarity of what needs to be escalated vs what could / should be resolved within the Directorates or the services.

Governance structures are Group wide and the ULHG truly operates as a Group structure with integrated governance across the six sites. This can be seen across the Directorates and within specific services such as pharmacy and laboratory services where there are single managers responsible for these services across the sites.

The site governance for Model 2 hospitals is led by a DON for the site. SJH, as a voluntary hospital, has its own CEO and Board. A Model 2 clinical lead has also been appointed at consultant level.

There is also a jointly chaired Enhanced Community Care Steering Group attended by hospital and community stakeholders. This Steering Group has oversight of all of ECC initiatives, spanning a range of areas and in the early stages of development. The Steering Group ensures that there is integrated oversight and accountability for ECC programme implementation and delivery of benefits.



A. Leadership, Governance & Culture | Key Findings

2a. Clarity of Roles & Reporting Lines: Governance Forum

An organisation chart depicts reporting lines, the ladder of authority and responsibility for decisions and tasks as they exist between people and functions. This represents 'vertical integration' which, when combined with workforce planning, creates the overall shape and span of an organisation's structure. Another key aspect is '**horizontal integration**'; **how work is coordinated, how problems are solved and decisions are made between functions** that must work together to produce their output. A deliberate sequence of meetings that draw on key personnel plays a crucial role in that integration. This **horizontal integration can be achieved through the appropriate governance forums** and is particularly important in the area of unscheduled care which spans across the Directorates. There are a number of governance forums which have been established to manage unscheduled care at a cross Directorate level which are described below. These groups provide good horizontal integration both for operational and strategic management of unscheduled care.

Forum	Frequency	Attendees	Purpose
ED Huddle	Twice Daily	ED Team, Patient Flow, GM unscheduled care	Operational huddle to understand the 'state of play' in the department and identify the priorities for beds based on set criteria. The huddle is centred around data incl. numbers awaiting beds, PET times, staffing, beds available and ensures that patient flow are aware of the critical priorities. This huddle is a core part of the patient flow process described elsewhere in the document.
Daily Operational Safety Huddle	Daily	HOS; DON, CDs, Senior Community Representatives; Diagnostics; USC Lead; Patient Flow; Lead HSCP;	Following the morning ED huddle there is now a DOSH huddle which includes attendees from the six hospitals and Midwest Community Healthcare. This huddle focuses on bed availability across the system, DTOCs and aims to support patient flow through the unscheduled care pathway.
Unscheduled Care Steering Group	Fortnightly	COO (Chair); GM USC; CCD; CDONM; GMs; DONs; CDs; DONs Model 2 sites; ED consultant reps; Allied Health Lead; PPBI	The purpose of the meeting is for management to discuss the daily situation report and effect solutions to address patient flow. This meeting will provide a forum to question workflows where blockages are identified. This meeting provides the opportunity to improve and document the actions required to resolve highlighted issues.
Acute Floor Collaboration	Fortnightly	<ul style="list-style-type: none"> ED, surgical & medical clinicians AMAU & ASAU reps GM unscheduled care AHP rep Diagnostics rep 	To foster and maintain close working relationships between the individual units that make up the Acute Floor to ensure optimal patient management. This Collaboration was set up as a result of the USC Steering Group to address the patient flow challenges arising from the requirement to implement Covid streaming within the ED and the implications of that on the ASAU and AMAU.

A. Leadership, Governance & Culture | Key Findings

3. Culture

The culture of UL Hospitals Group was observed throughout the consultation process. Specifically looking at the culture of the organisation through some of the Key Lines of Enquiry set out in the Well-Led Framework, a mix of very positive observations and areas for improvement have been identified as outlined below.

- 1. Do staff feel positive and proud to work in the organisation?** Many stakeholders are proud of ULHG and quality of clinical care provided and the leadership which was evident in the consultation process. Stakeholders spoke of the high quality clinical care provided to patients and with pride in how the organisation was managing in difficult circumstances. This was more evident in certain areas (e.g. oncology, paediatrics, medicine) but was expressed in the majority of consultations about aspects of clinical care e.g. perioperative service expressed pride in Croom and the efficient and effective service delivered there. There is also evidence of fatigue among staff due to consistent pressures on the system which is impacting their pride in the organization. There were areas where staff were disappointed by the persistent lack of capacity and the impact this was having in terms of their ability to care for patients. This was expressed by medical staff in the difficulties of caring for patients on trolleys in ED, managing admitted patients in the MAU and nursing staff in consistently having additional patients on trolleys on wards. There was frustration expressed at the perception of the organisation nationally when staff felt they were doing their best to care for patients without the necessary resources to do so
- 2. Does the culture encourage, openness and honesty at all levels within the organisation, including with people who use services, in response to incidents?** There is an extremely robust quality & patient safety department within ULHG with the CCD as executive lead which provides leadership in terms of reporting incidents. There is regular training provided to all staff on reporting risks and incidents. It was noted that there may be under-reporting of incidents within specific areas as there have been times when an incident may have been discussed by the team but was not formally reported. This is being actively promoted and worked on by leadership.
- 3. Are there mechanisms for providing all staff at every level with the development they need, including high quality appraisal and career development conversations?** The HSE's performance achievement process has been implemented across ULHG to varying degrees. At the executive level, objectives are set as a collectively and career development conversations take place with the CEO. The EMT have all implemented the performance achievement framework with their teams. Within nursing performance reviews take place with all staff to CNM I three times per year. Staff are also encouraged to complete Professional Development Plans (PDPs) which are voluntary but support staff in identifying their longer term career goals. There are other programmes to support nursing development such as shadowing programmes, leadership programmes and the Magnet Journey whereby learnings from international hospitals are incorporated. For medical staff the CCD has introduced performance achievement with the CDs and their teams however the uptake among medical staff is not as consistent as in the other professional areas. Consultants all have agreed work plans based on their contracts however it was noted that these could be strengthened with more of a focus on outcomes.
- 4. Is there a strong emphasis on safety and well-being of staff?** Health & Wellbeing falls under the remit of the Head of Strategy with staff in this area reporting under the Strategy pillar. The exec place a strong emphasis on Health & Wellbeing and respond to specific initiatives as requested by staff. In 2021, a Health & Wellbeing centre was opened on the UHL site with exercise classes, showers and quiet spaces for staff. H&WB initiatives are communicated to staff through multiple channels.
- 5. Are there co-operative, supportive and appreciative relationships among staff? Do staff and teams work collaboratively, share responsibility and resolve conflict quickly and constructively?** While there is evidence of significant collaboration within and across certain teams there is also evidence of a lack of collaboration in certain areas. For example, there is one team that do not participate in speciality hand-back, an initiative aimed at ensuring a fair workload across medical teams and therefore a high quality of care for patients. There is also evidence of a lack of collaboration with one speciality utilising a different IT system for their patients which reduces visibility for staff within the directorate on the resources available.

A. Leadership, Governance & Culture | Key Findings

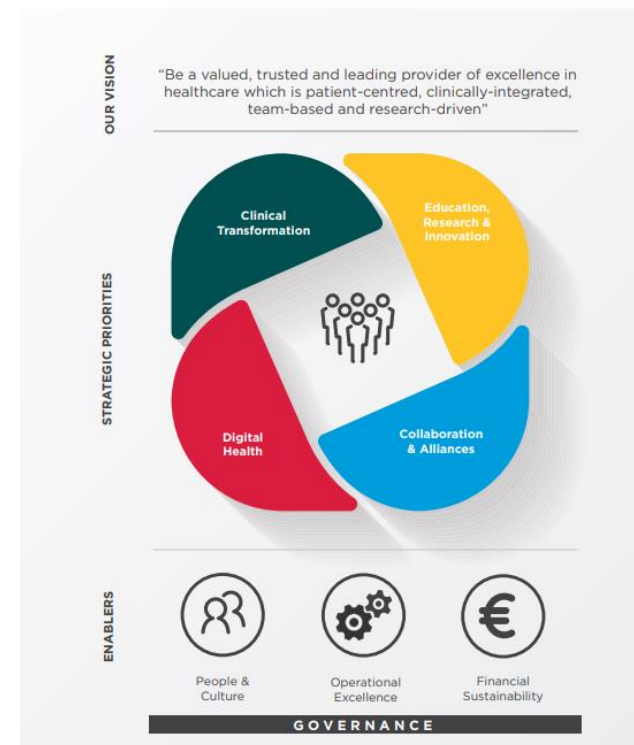
4a. Clear Vision & Credible Strategy: UL Hospitals Group Strategic Plan

UL Hospitals Group Strategic Plan 2018 – 2022 translates the clear statement of vision and values to a robust strategy. There is a clear set of strategic priorities outlined in the strategy and enablers identified. The strategy is aligned with national policy objectives such as the delivery of integrated care as outlined in Slaintecare. There is a robust process in place for the development of the strategy and given the timeframe of the previous strategy it was under review as this report was being developed. The process to review the successes and challenges associated with the 2018 – 2022 strategy is being overseen by the Head of Strategy. The Vision and Strategy are widely understood and referenced by stakeholders across the hospital and of note, strategy updates are included as a standing agenda item on the CEO Exec Forum.

The Head of Strategy has also established an internal process to facilitate alignment between the corporate strategy and directorate or departmental strategies. Business cases developed by specialties or services must be aligned with the current strategic framework and the priorities therein when being submitted for consideration to the EMT. The work of the strategy department and the multi-disciplinary teams within the Directorates has resulted in a number of successful initiatives including:

- **Implementation of the Acute Fracture Unit:** The Acute Fracture Unit is an innovative Model of Care that provides alternative care pathways for specific cohorts of patients who would have previously attended the ED, Fracture Clinics or for day case procedures. It aims to 'deliver assessment and early definitive management of a patient's extremity ambulatory musculoskeletal injury from their first presentation'. The vision for this also includes the expansion of ANP led virtual fracture clinics to UHL and SJH improving access and experience for patients. The MDT management of patients is aligned with the priorities in the strategic specifically to '*value and develop the workforce to deliver the best possible care and services to the people who depend on them*'. While implementation has commenced significant additional resources are required to deliver on the full model of care.
- **Dedicated pain management centre:** the dedicated pain management centre was developed to free up capacity in the surgical day ward, reduce the number of review appointments through the availability of diagnostic imaging and an MDT in the pain centre, improve patient experience and productivity by collocating services and teams in an integrated manner. The business case for this initiative again references the strategic alignment with '*The Peri-operative Care Directorate Strategic Plan*'
- **Robotic assisted surgery (RAS) program:** commenced in June 2016 as a partnership between the ULHG and UL and has since been implemented across colorectal surgery, urological surgery and gynaecology. The RAS program has led to significant reductions in length of postoperative inpatient stay and improved clinical care for patients. The RAS program has been bolstered since inception by the highest level of governance. This emphasis has been developed and operationally led by the Head of Strategy with a clinical lead as chair of the robotic surgery forum.

These are just some of the strategic initiatives that have arisen from the strategy process in ULHG and many more have been described as part of the process. The strategy in UL Hospitals Group is something that has been operationalised by these initiatives and is owned by the teams on the ground.



A. Leadership, Governance & Culture | Key Findings

4b. Clear Vision & Credible Strategy: Strategy Department

One of the strengths of UL Hospitals Group from a leadership and governance perspective is the presence of Head of Strategy at the executive level and thereby driving a strategic focus for the Group. This role was appointed by the CEO and is somewhat unique as a leadership role within a Hospital Group structure. The Head of Strategy has driven the strategy development, monitoring and most recently the review and update which has led to many of the positive outcomes described previously.

The Strategy department also oversees the Head of Governance who plays a crucial role in the ability of UL Hospitals Group to respond to areas of concern in governance or leadership terms quickly, to complete strategic reviews of governance and to support the teams to implement recommendations. This function was developed by the CEO initially.

The remit of the Head of Governance role includes the identification of any deficits in terms of governance structures / processes and the provision of advice in terms of how best to improve said structures / processes to drive improved governance.

Specific initiatives are undertaken either in response to concerns or to support in terms of general governance improvements. Some of the initiatives that have been driven from the work that are relevant include:

- Implementation of **Balanced Score Cards** for each of the Directorates to drive reporting against KPIs thereby ensuring there is clarity on the Directorates situation regarding finances, HR, access and quality and allowing **evidence based decision making to drive improvement**
- **Alignment with HIQA standards:** Working with the Director of Quality and Patient Safety, to ensure alignment with HIQA standards including implementing multi-disciplinary teams on site to support measurement of KPIs.
- **Departmental reviews:** Completes reviews of departments from a governance perspective and supports teams to drive improvements. For example, in Radiology a system (Qgenda) was implemented to manage equal distribution of workload aligned with their governance structure. The system produces KPIs which are reviewed at weekly meetings and has resulted in being able to demonstrate that the team is very high performing.

This dedicated governance role is an asset to UL Hospitals Group in terms of continuous improvement in their governance and leadership structures.

Cancer Directorate-Summary										
Quality Dimension with KPIs	Target	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	YTD Current	YTD Previous
Finance										
No of Business Cases										
Non-pay (Stock consumables)										
Pay										
Agency spend										
Overtime spend details										
HR										
Total no of wte in Cancer services										
Humans Resources										
Medical										
Nursing										
H&SCP's										
Pharmacists										
Clerical										
Support Staff										
Sick leave										
Annual Leave										
Unfilled vacancies										
Activity										
Lung RAC Attendance										
Prostate RAC Attendance										
SBU RAC Attendance										
NP'S parenteral systemic therapy DW										
Rectal Cancers Attendances										
Number of MDM's										
No of patients discussed at MDM's										
Shared decision making meetings										
total number of Clinics										
Clinical trials in Progress										
prep/Completion of reports										
Quality and Patient Safety										
No of incidents for the month										
No of complaints										
No of risk assessments										
No of new risks										
No risks escalated to the corporate risk register										
No of Audits										
No of new PPPG's developed										
No of QIP's developed										
No of QIP's implemented										

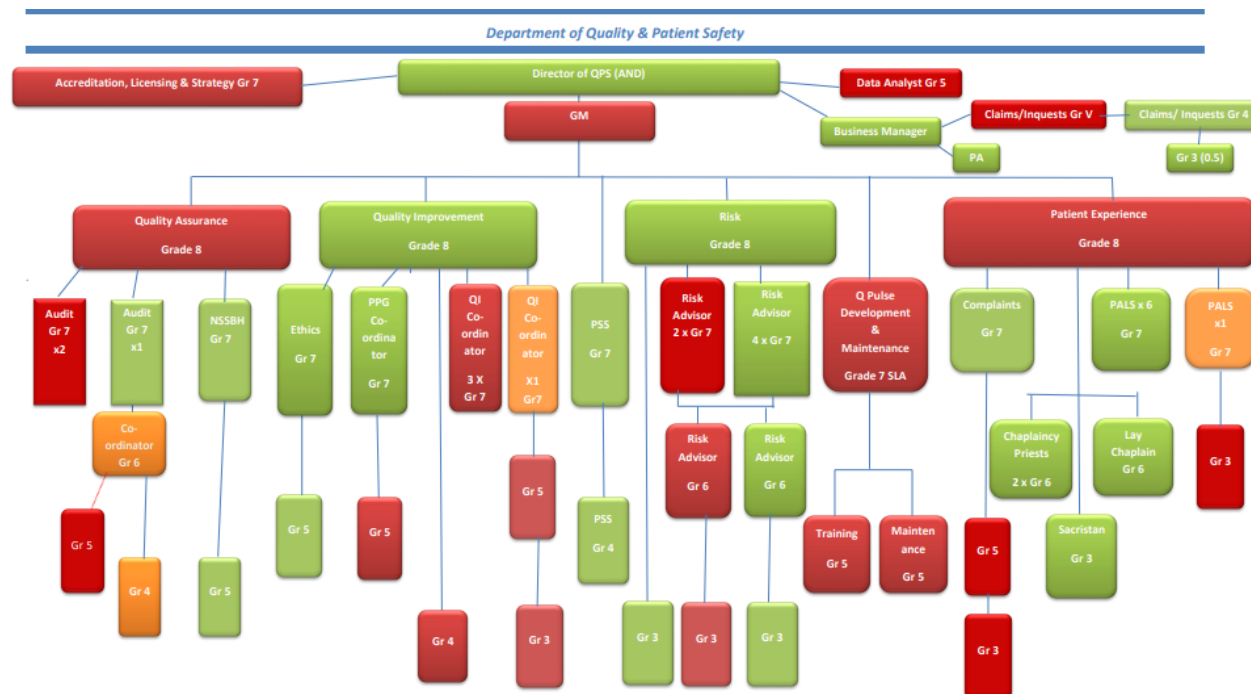
A. Leadership, Governance & Culture | Key Findings

5. Quality & Risk

Another strength of UL Hospitals Group is the Quality & Patient Safety department which has developed considerably over the past two years. The Director of Quality & Patient Safety reports directly to the CCD who is the Executive with responsibility for quality and risk. The organogram to the right shows the future structure for QPS and identifies the vacant roles that there are plans to fill.

Risk and Incident Management: There are clear and effective processes to identify, monitor and address risks. These were well understood by all stakeholders consulted during the review. All staff can raise incidents or risks on Qpulse, training is provided for staff (by HCI) and they are actively encouraged to log risks and incidents. There is approximately 700 incidents / month but only 2-3 category 1, majority are category 3 near misses. Incidents are then logged on the national system. All risks and incidents logged are QA'd by the risk advisors and incidents are categorised as category 1,2 or 3 based on level of harm. Category 1 incidents are SREs to be resolved within five working days and these trigger an unscheduled SIMT, once the facts are established. Category 1 incidents also trigger a Systems Analysis/Review with MDT input relevant to the incident. All areas have risk registers, risks are raised by individuals and brought to the Directorate risk meeting for review and consideration, may be added to risk register, mitigations discussed. Directorates have risk meeting every second week to resolve or mitigate and there is a Group SIMT every 6- 8 weeks with the Group risk register being reviewed with the same frequency. There are both risk and incident management policies that describe this.

Complaints management: Complaints are also logged on Qpulse once received and the Patient advocacy liaison (PALs) team may make contact directly with patient if appropriate to acknowledge and discuss the complaint. A letter of acknowledgment is issued also and there is a target to close complaints within 30 days. There are Complaints officers in each of the Directorates (Grade VIIIs) who are provided with training monthly. They liaise with the relevant team to resolve



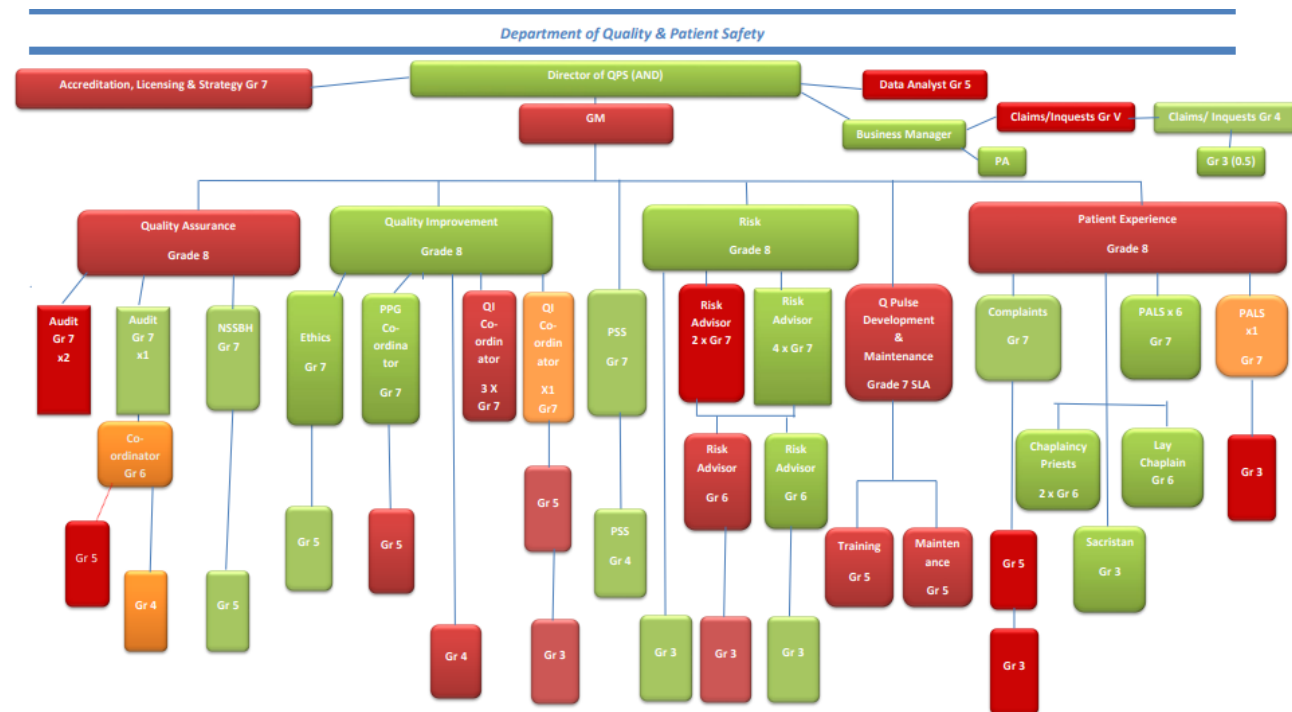
Quality improvement: Quality improvement is a fundamental part of the risk and incident management process. There is currently only one quality improvement coordinator so this is developing from a low base. This team currently support in the implementation of recommendations from incidents or audits and are involved in all category 1 incidents in terms of developing a quality improvement plan and monitoring their implementation. They also conduct patient safety walk arounds, prepare QIPs following HIQA visits and provide training and support to staff in implementing QIPs.

A. Leadership, Governance & Culture | Key Findings

5. Quality & Risk

Patient Experience: there is a very well developed Patient Advocacy Liaison team within UHL with 7 WTE within the team. Two of these team members are based in ED to support and advocate for the needs of patients there. The remainder of the team support across a number of areas including:

- Complaints resolution
- Providing a service to the Model 2 sites
- Monitoring and responding to the dedicated email and providing support for patients who reach out
- Providing designated liaison support for every serious incident, with a team member liaising with the family on process
- Providing advocacy support to drive changes / improvements. An example of some of these changes include a re-design of pathways through ED and OPD for patients with profound Intellectual Disability to reduce the distress felt by these patients of being in a busy waiting area in ED or OPD.
- **Audit:** the audit capability also sits under quality and patient safety department. This area is still in development and with some vacant or unfunded posts. Currently the team provide support to the Directorates and clinical teams in completing audits through the provision of audit clinics. There is an ambition to develop the audit structure similar to the risk structure whereby advisors are assigned to the Directorates to support them. An audit committee has been established with Directorate involvement where audits are presented and actions are agreed to be implemented. There is also an audit policy in development.
- **PPGs:** there is also a function under QPS with responsibility for driving the implementation of the national standards. This was only recently resourced with a single resource and they have focused on developing a training programme and guidance for staff on the national standards and developed audit tools to audit against standards.



6. Employee engagement & recruitment

There are significant challenges with recruitment and retention in the health sector in general and some specific challenges in ULHG. Provision for workforce supply is a challenge for ULHG and increasing future supply to address current demand pressures will require focussed attention for policymakers given the recognised difficulties with health workforce recruitment and retention both nationally and internationally.

As noted in the Context & Background section of the document ULHG has significantly less staff when compared with the Model 2 Hospitals across the disciplines. Some of this arises from the fact that the UHL has a smaller bed complement compared with the other Model 4 sites however there is a lack of funded posts, particularly in terms of consultants, NCHDs and HSCPs. This staffing deficit is largely a result of unfunded posts as opposed to vacancies. There are specific areas where there are challenges in filling posts such as sonographers where there is a global shortage and pharmacists where staff are leaving for posts in the private sector. Attrition has become a challenge for a number of reasons including staff leaving to take up posts abroad once this became possible again after the pandemic. Another factor impacting attrition rates in the hospital is the significant number of new posts within the community with staff leaving posts in the acute hospital to take up posts in the community.

An WTE & Budgetary Control Executive Oversight Group was established to provide oversight and governance to the recruitment process and is chaired by the CEO. This group are responsible for tracking and monitoring the recruitment of all funded posts and ensuring there is ongoing oversight of the financial performance of the Group in respect of financial plans and targets. The Group includes CFO, DHR, COO, Head of Strategy, CCD and the eHealth Director. This group is accountable to ensure that posts are filled in a timely manner and there is prioritisation of the recruitment needs. This focus and the efforts of the HR team has resulted in over 925.9 WTE hired year to date through recruitment campaigns both here and internationally.

The HR department is also very focussed on employee engagement and has established the employee engagement forum which will be responsible for developing quality improvement plans in response to some of the issues raised as part of the national staff survey. There is fatigue among staff following the pandemic and with the consistent shortages in bed supply despite the uplifts in terms of bed base and there are practical items that may be addressed to improve the staff experience.

3 | Current State Analysis

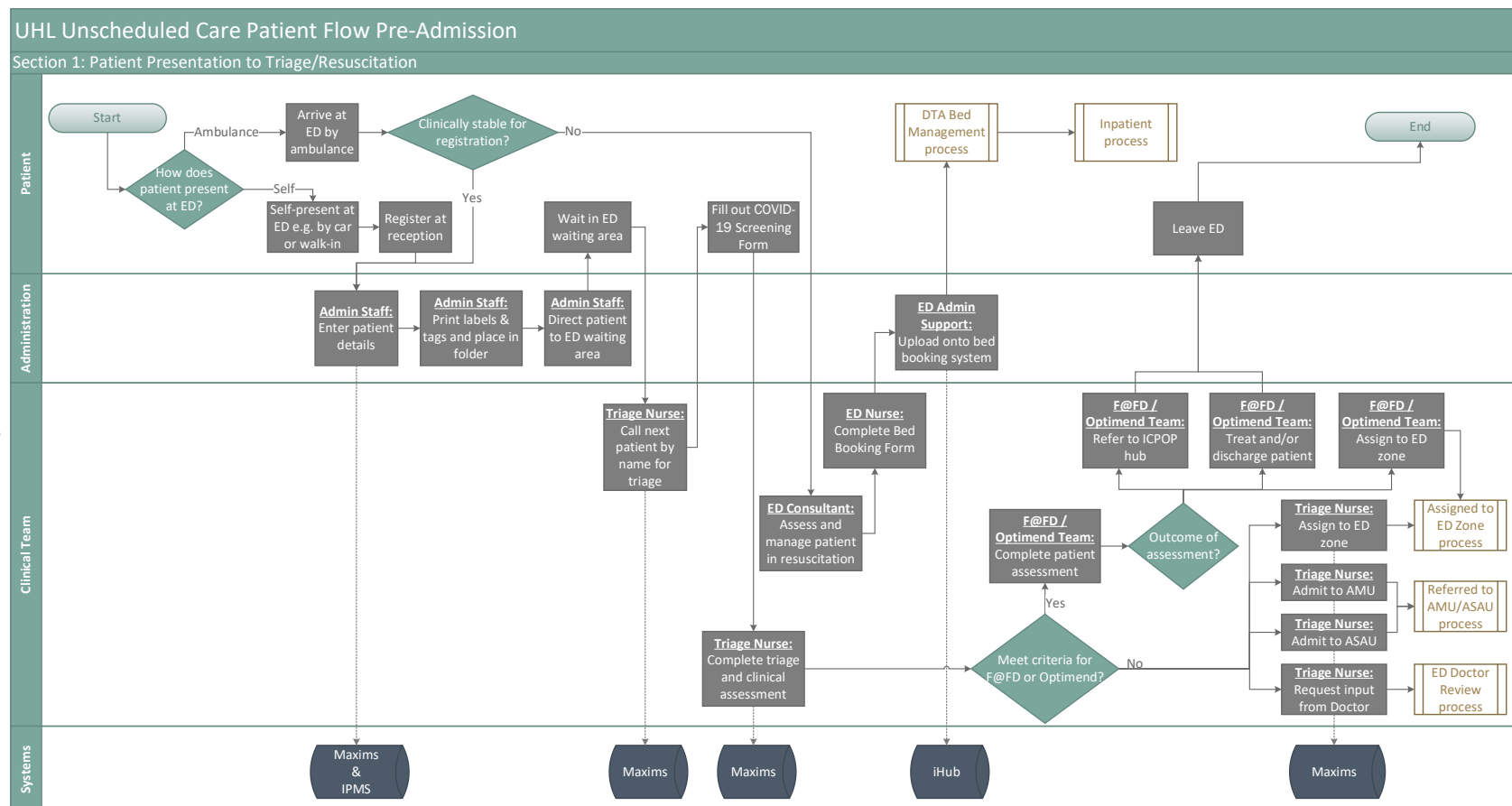
B. Patient Flow at Pre-Admission

B. Patient Flow at Pre-Admission | Process Map

Below is a snapshot of the Pre-Admission process **from patient presentation at ED to triage**. Included is a high-level description of the process that is captured in this section of the process map. The key findings that relate to this process are highlighted in the following pages in this section.

Section 1: Patient Presentation to Triage

1. The patient presents to ED either by ambulance or as a walk-in. Oncology patients are the exception - if they require emergency care, they have the option of calling ahead to the oncology team to be assessed straight away at the day ward.
2. Patients have details taken at registration, unless they're not clinically stable in which case they're managed in Resuscitation. A nurse then requests an inpatient bed for these patients, if required (see ED Bed Management process).
3. Patients wait in the ED waiting area until they are called for triage by the Triage Nurse. The Triage Nurse calls patients based on their wait times.
4. The patient fills out the COVID-19 Screening form. The Triage Nurse completes the triage using the Manchester triage system and records the triage category into Maxims. If the patient meets the criteria for Optimend or Frailty at the Front Door, they are referred to the dedicated AHP team.
5. The Triage Nurse then either refers the patient to AMU or ASAU, requests input from a doctor, or assigns the patient to an ED Zone (see other processes for continuation).
6. Consultant-assisted triage has been implemented whereby at the point of triage consultant input is provided in order to ensure patients are seen in the most appropriate setting.

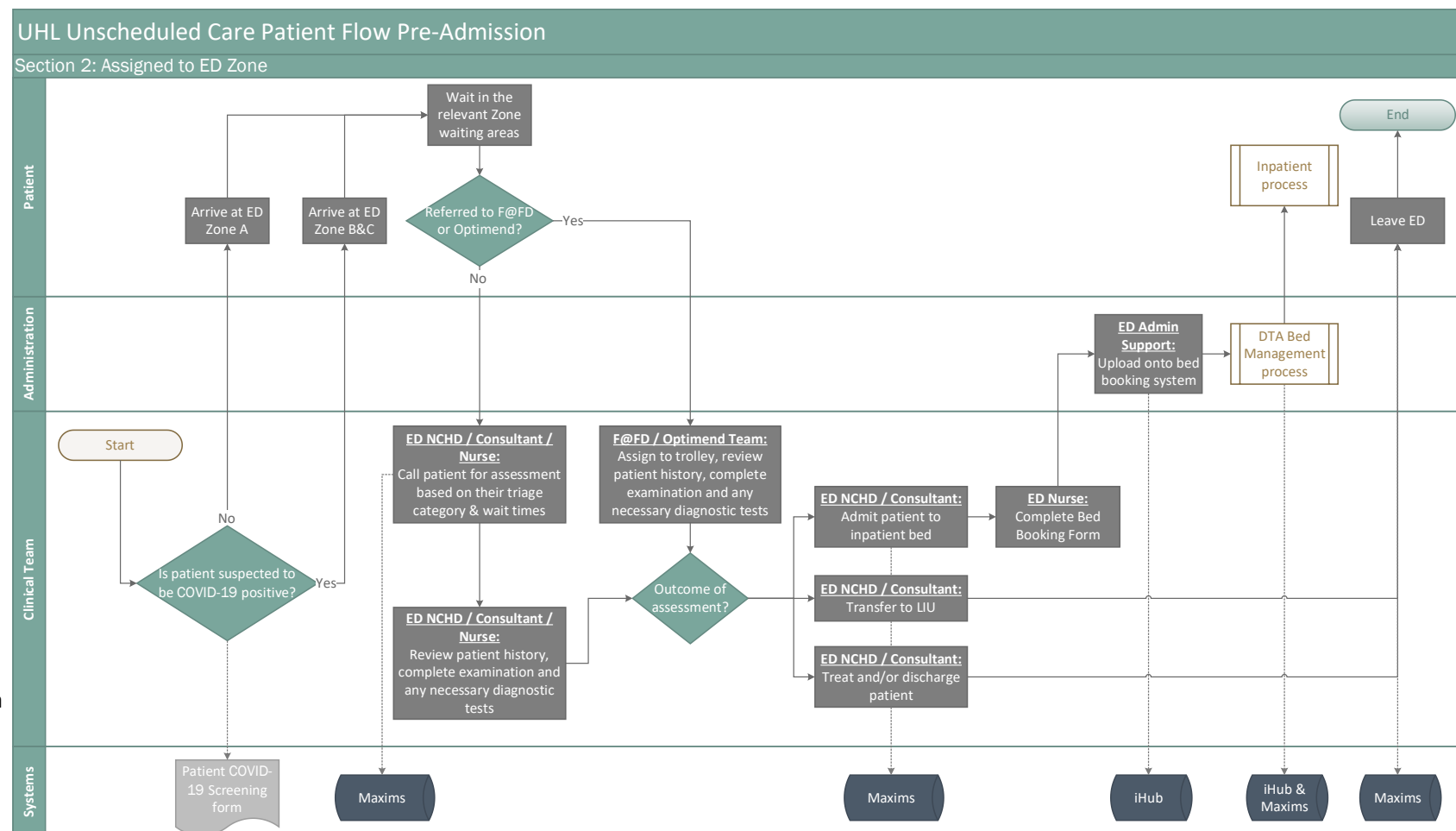


B. Patient Flow at Pre-Admission | Process Map

Below is a snapshot of the ED process **from where a patient is referred to ED from triage**. Included is a high-level description of the process that is captured in this section of the process map. The key findings that relate to this process are highlighted in the following pages in this section.

Section 2: Triage to ED

1. Patients are streamed to certain ED zones depending on whether they are suspected to have COVID-19. If suspected to be COVID-19 positive, they are streamed to Zone B&C. All other patients (who have not been referred to AMU / ASAU) are streamed to Zone A – the non-COVID-19 zone.
2. Patient waits in the relevant waiting areas to be called for assessment by the medical team in ED, based on their triage category & wait times. If the patient was referred to Optimend or Frailty at the Front Door at triage, the associated AHP team manages the patient to provide rapid assessment, treatment and often discharge.
3. The ED medical team calls the patient for assessment, take a history, complete an examination and any necessary diagnostic tests.
4. Depending on the outcome of this assessment, the patient can either be treated and/or discharged or admitted to an inpatient bed in which case a nurse submits a request for a bed. Patients who are coming from resuscitation also have a request for a bed submitted for them.
5. The Bed Management team are responsible for allocating a bed to the patient (see section 5 for subprocess detail).

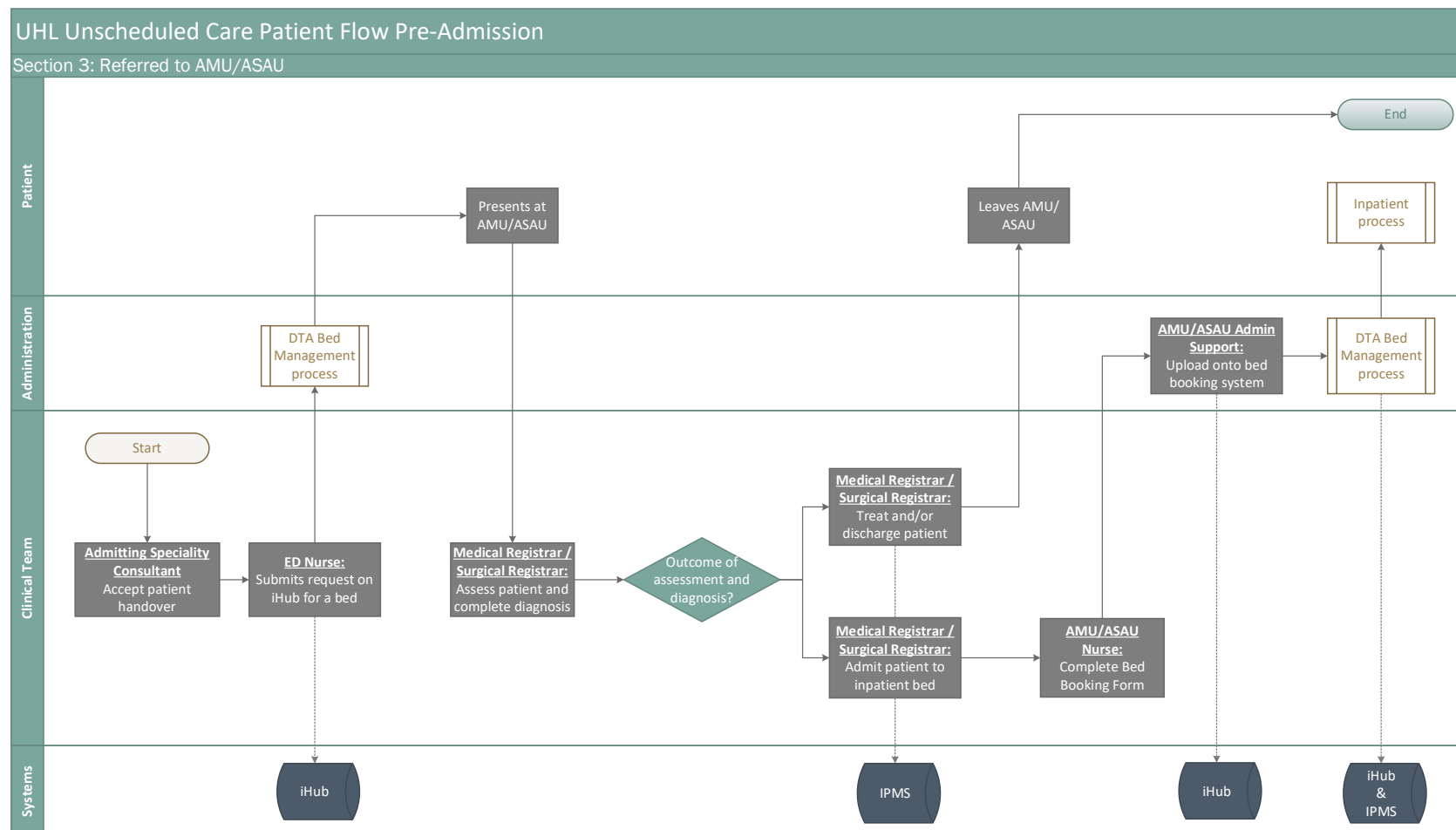


B. Patient Flow at Pre-Admission | Process Map

Below is a snapshot of the ED process from where a patient is referred to the AMU or ASAU from triage in ED. Included is a high-level description of the process that is captured in this section of the process map. The key findings that relate to this process are highlighted in the following pages in this section.

Section 3: Triage to AMU/ASAU

1. Following triage, a patient can be referred to the AMU/ASAU for assessment if they are not suspected of having COVID-19 and in Triage category 3 or 4 and meet the criteria.
2. Once the decision to refer is made to AMU/ASAU, the nurse submits a request on iHub for a bed / trolley in the relevant unit. If a bed / trolley is unavailable patients wait for one to become available.
3. The Bed Management team are responsible for allocating a bed to the patient (see section 5 for subprocess detail). Once the bed management team have allocated a bed for the patient, the patient is admitted to the bed in AMU/ASAU.
4. If a bed or trolley is not available the patient remains in the ED and often the medical or surgical Registrar from the relevant unit will assess the patient in the ED.
5. A medical or surgical Registrar assesses the patient and completes their diagnosis. The patient is either treated and discharged or admitted to an inpatient bed in which case a nurse submits a request for a bed.
6. Once the bed management team have allocated a bed for the patient, the patient is admitted to the inpatient bed (see section 5 for subprocess detail). If an inpatient bed is not available patients are managed in the AMU / ASAU, sometimes for the duration of their episode of care

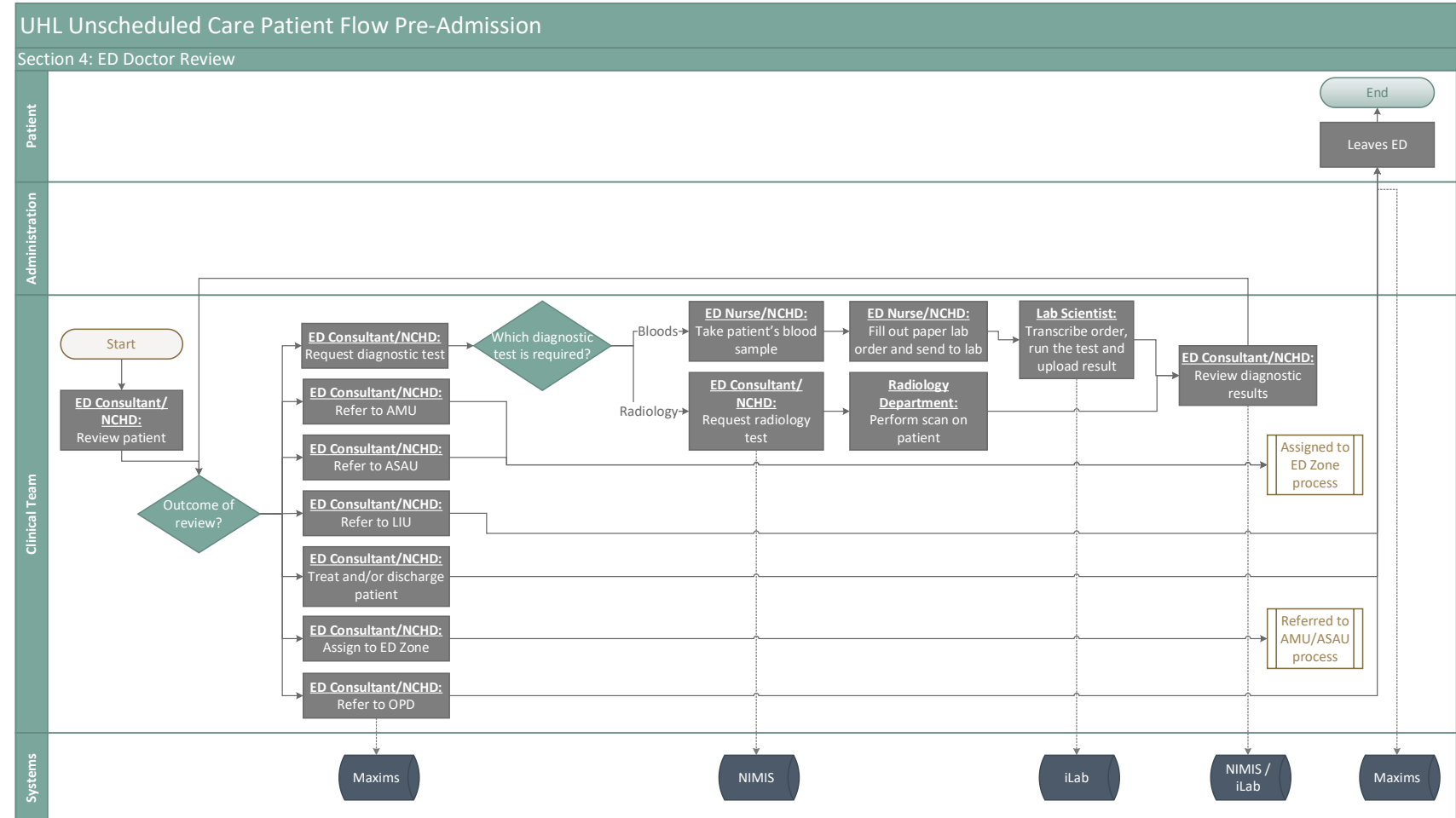


B. Patient Flow at Pre-Admission | Process Map

The below is a snapshot of the ED process from where the Triage Nurse requests input from an ED Consultant or NCHD. Included is a high-level description of the process that is captured in this section of the process map. The key findings that relate to this process are highlighted in the following pages in this section.

Section 4: Triage to Review by ED Doctor

- Following triage in ED, the Triage Nurse may request input from an ED Consultant or NCHD.
- Upon reviewing the patient, the ED Consultant or NCHD does one of the following
 - Request further diagnostic tests. If a blood test is required, paper order forms are filled out and sent to the lab. The results are then uploaded and viewed on iLab. If a radiology scan is required, a request is logged and viewed on NIMIS
 - Refers the patient to the AMU/ASAU (see section 3 for continued process)
 - Transfers the patient to a IU
 - Treated and/or discharges the patient
 - Assign to an ED Zone (see section 2 for continued process)
 - Refer to OPD



B. Patient Flow at Pre-Admission | Process Map

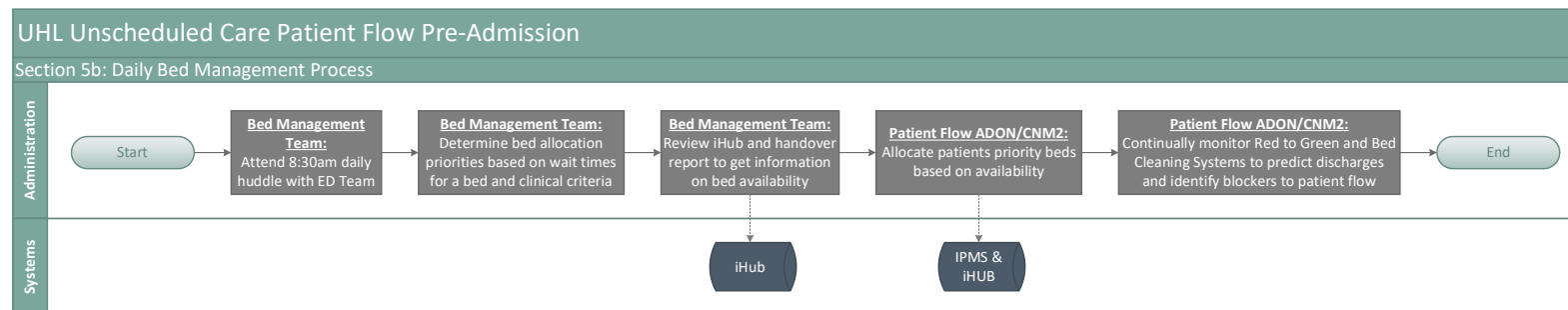
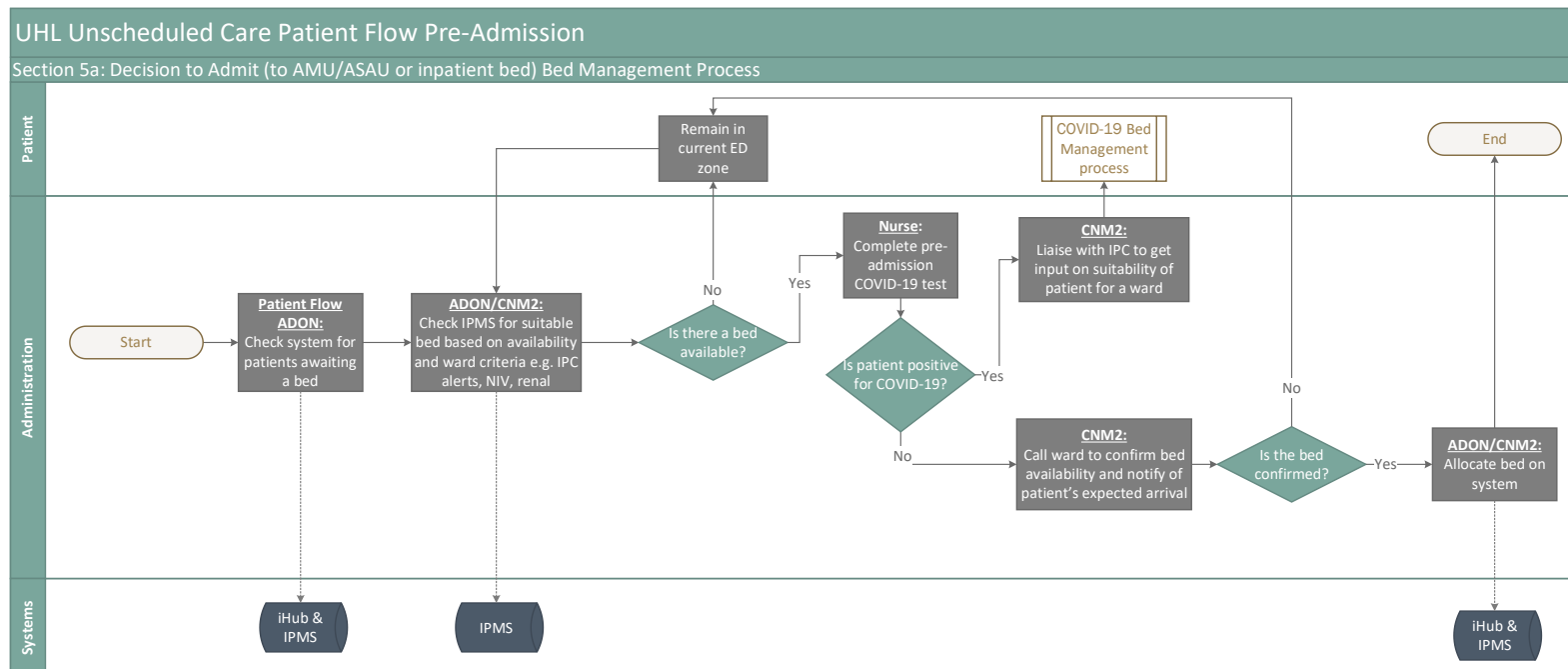
Alongside the process for managing patients in the ED, there is also a parallel process which supports patient flow through the hospital. The **Bed Management Team** undertake a number of steps each day to ensure there is continuous active management of patient flow through ED.

Section 5a: Bed Management Process following DTA

1. Following the nurse submitting a request on iHub for a bed, the request is then picked up by the ADON. The ADON works with the CNM2 who is responsible for bed allocation to check IPMS for a suitable bed to admit the patient.
2. If a bed is available on the system, the CNM2 calls the ward to confirm the bed availability and notify of the patient's arrival time. If the patient has any IPC alerts, IPC input is first provided.
3. If there is no bed available on the system, the patient waits in their current bed or trolley.
4. The Ward Nurse confirms the availability of the bed and the speciality Consultant who is admitting the patient accepts the patient handover. The bed is then allocated on the system.

Section 5b: Daily Bed Management Process

1. This process is carried out on a daily basis independent of the patient's journey.
2. Each day the Bed Management Team attends an 8:30am huddle with the ED team to determine bed allocation priorities based on wait times for a bed and clinical criteria. A Handover Report is also shared to get further information on bed availability.
3. The team continually monitor the Red to Green and Bed Cleaning systems throughout the day to predict discharges, determine availability of beds, and take action to streamline patient flow.



B. Patient Flow at Pre-Admission | Summary of Key Findings

Below are the key findings associated with the Pre-Admission Process that has been described in the previous pages. These are described in more detail with associated data in the following pages.

1. Increased activity & self-referrals: There continues to be an increase in both ED (**7% increase 2019 – 2021**) and Injury Unit (IU) activity (**4% 2019 – 2021**), as well as an increase in self-referrals (by 6% between 2019 -2021). Based on the increases in self referrals and consultations with GPs there appears to be a lack of timely access for patients to GPs due to GP staffing deficits, this is an issue that is reflected nationally.

2. Triage:

- **Patient acuity:** there has been a reduction in the proportion of patients attending the ED in Triage category 2 (**by 5% between 2019 and 2022**) indicating a reduction in acuity
- **Triage times:** the average time patients are waiting to be triaged is above the national KPIs (increased from 16 mins in 2019 to 27 mins in 2021, in the **first 4 months of 2022 triage times are 39 mins**)
- **Consultant assisted triage:** has been partially implemented to allow for early access to senior decision makers to streamline patient flow

3. ED ALOS reduction measures: Initiatives aimed at reducing ALOS in ED and admission to hospital such as Optimend & frailty at the front door have been successful for particular cohorts of patients. Optimend results in **70% of patients being discharged home but sees a low number of patients per day.**

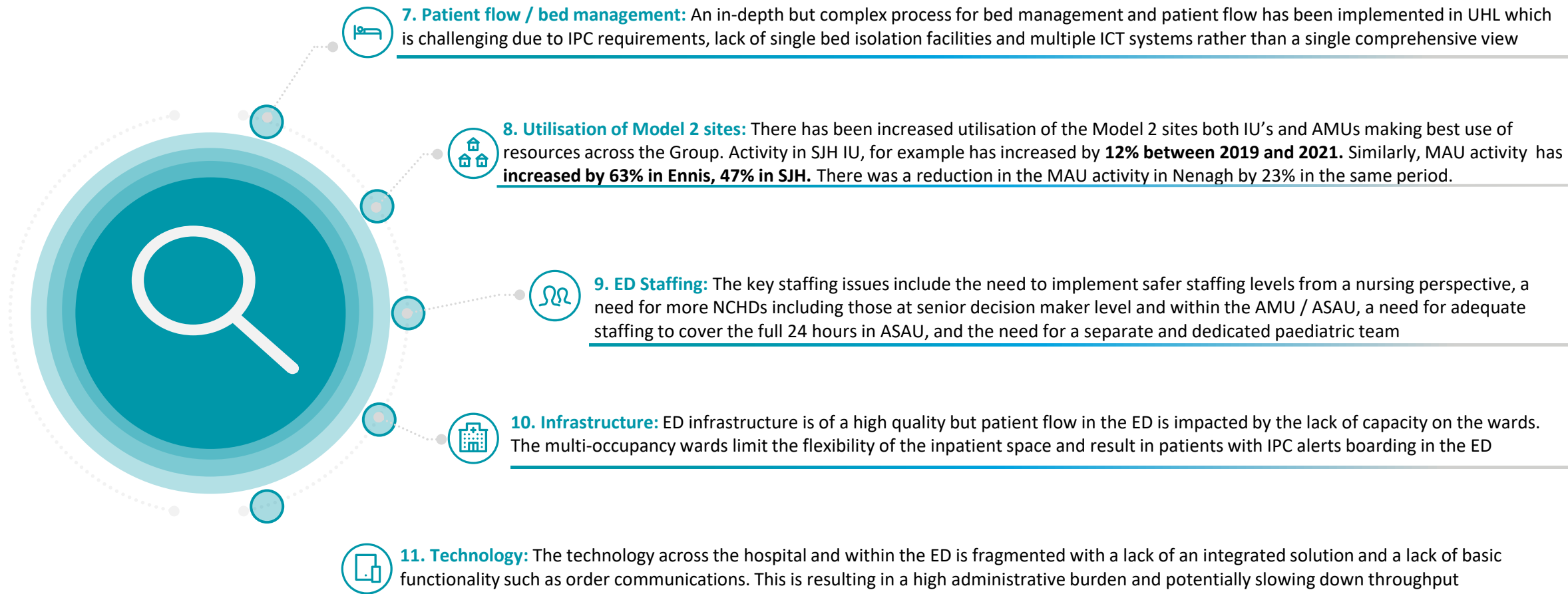
4. Discharges home: There has been a **reduction** in the **proportion of patients discharged home when comparing 2019 to 2021 (by 10%)** and an increase in the proportion of patients referred to the AMU & ASAU. There is a high admission rate from the AMU in particular which is driving an increase in admissions

5. COVID-19 streaming & AMU pathways: The ED processes were completely changed with the onset of the COVID-19 pandemic which has had a number of implications on patient flow

6. Reduction in PET times in ED: Despite the increase in attendances at the ED, there hasn't been a similar increase in PET times – they have actually **reduced from approx. 10 hours in 2019 to 8.5 hours in 2021**

B. Patient Flow at Pre-Admission | Summary of Key Findings

Below are the key findings associated with the Pre-Admission Process that has been described in the previous pages. These are described in more detail with associated data in the following pages.



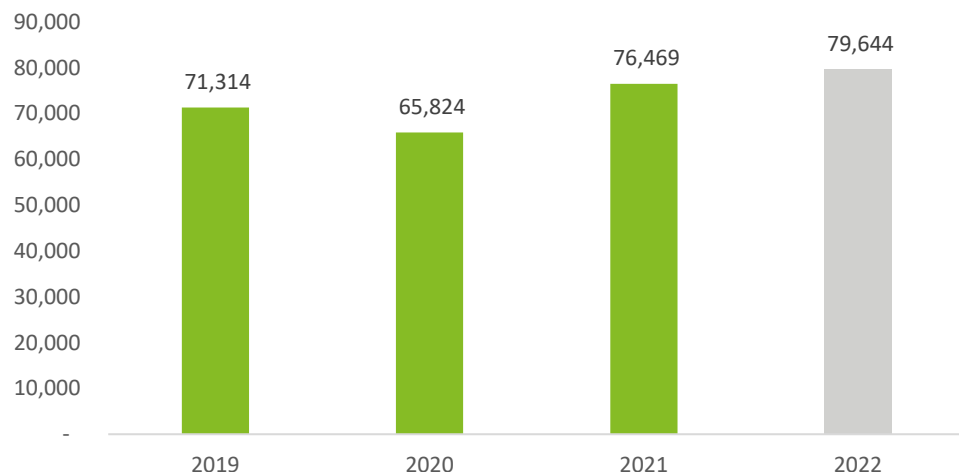
B. Patient Flow at Pre-Admission | Key Findings

1a. Increased activity & self-referrals

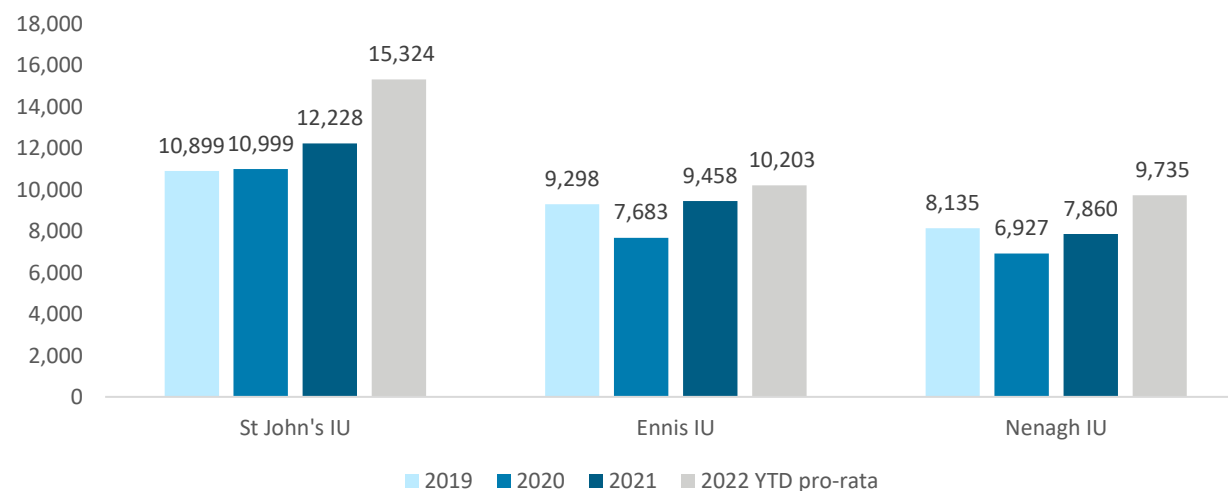
There was a total of **76.5k ED attendances in UHL in 2021**. This represents an increase of over **5,000 attendances or 7%** per year compared with 2019. There were significantly less attendances in 2020 which can be attributed to the COVID-19 pandemic and associated societal restrictions. There is now an average of 210 attendances per day in the ED. In addition to the increase in ED attendances there has also been an increase in attendances to the IU's, demonstrating that overall there is an increase in demand rather than a shift in activity to the Emergency Department. This is particularly evident in St John's IU, the closest unit to UHL, where the activity has **increased by 12%** between 2019 and 2021 or over 1,300 additional attendances per year. The curtailments to elective care over the past 2-years have resulted in reduced access for patients to scheduled care pathways potentially delaying treatment and driving up ED attendances as it is often the only remaining route to access care.

Using YTD data for ED attendances for 2022 to May 17th and pro-rata for the full year it is estimated that attendances will increase by a **further 3,000 attendances this year or another 4%**. Similarly in the **IU's attendances increased across the board by between 8% and 25%**.

ED cases per year



IU attendances per year



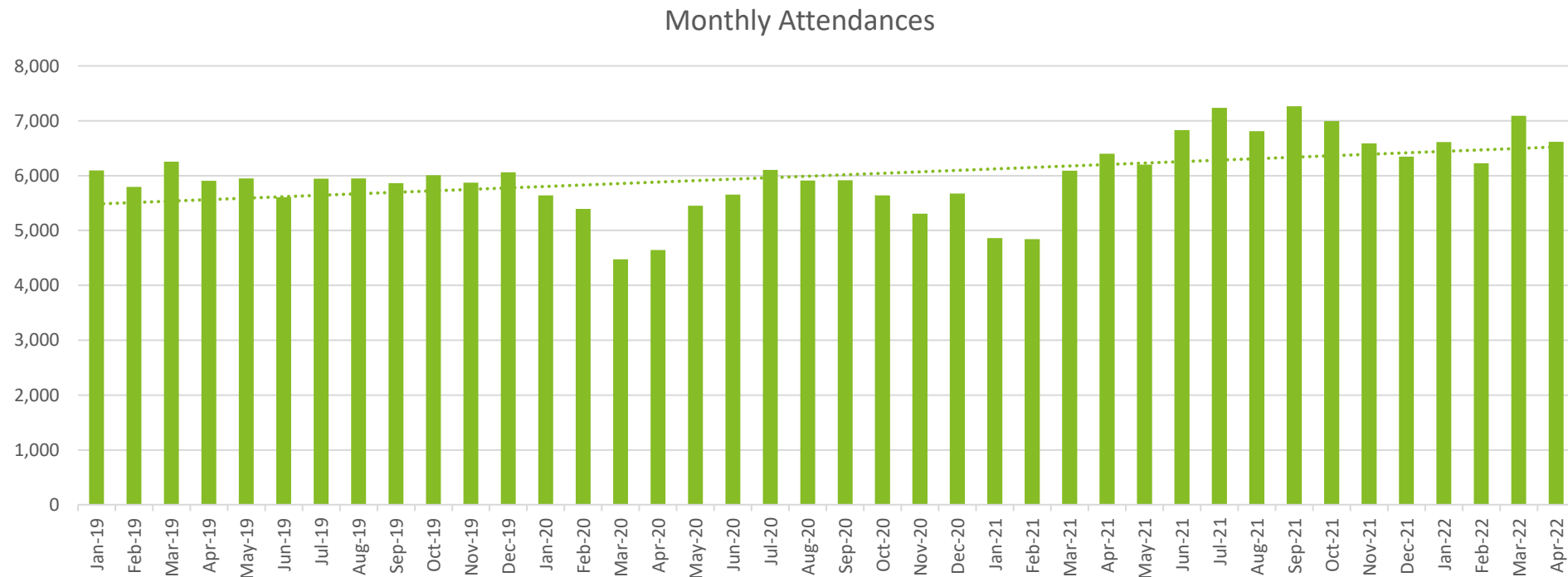
■ 2019 ■ 2020 ■ 2021 ■ 2022 YTD pro-rata

NB: 2022 data YTD April projected for full year

B. Patient Flow at Pre-Admission | Key Findings

1b. Increased activity & self-referrals

In line with the annual increases in attendances seen in the ED in UHL the trend of monthly attendances has been increasing steadily since 2019 with the drop off in 2020 as a result of the pandemic. Monthly attendances were on average 5,900 in 2019 this increased to 6,300 in 2021 and 6,600 for the first 4 months of 2022.



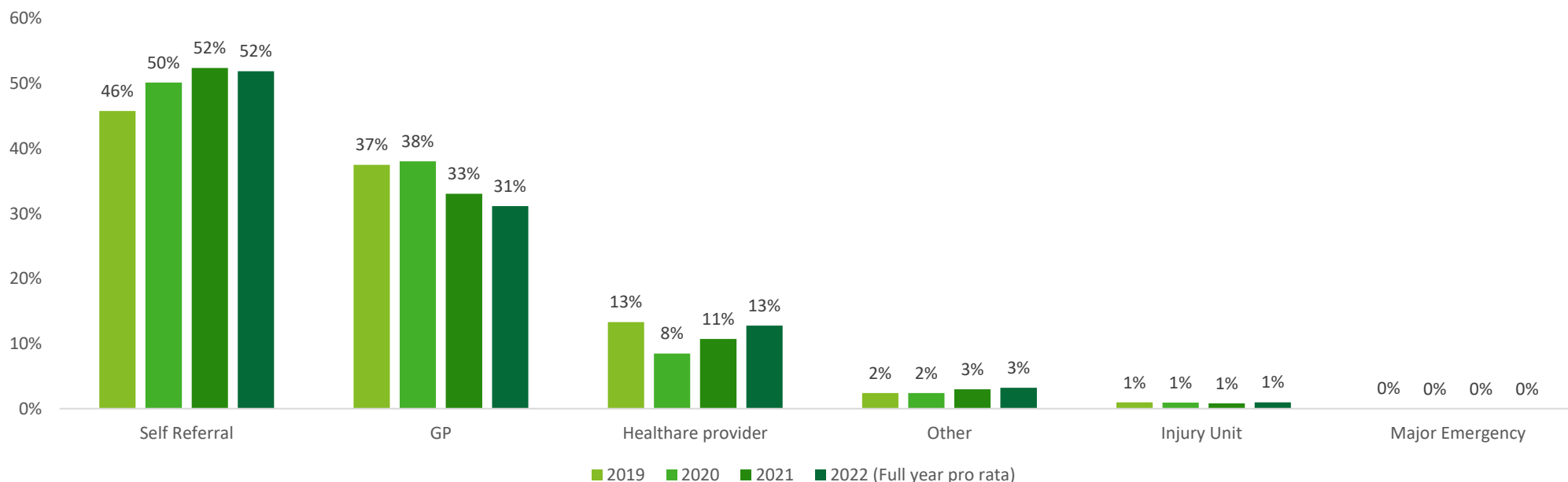
B. Patient Flow at Pre-Admission | Key Findings

1c. Increased activity & self-referrals

There has been a reduction in GP referrals to the ED between 2019 and 2021 by 6% and a commensurate **increase in the proportion of ED attendances that are self-referrals** by 6% in the same period. This equates to over 2,000 attendances per year who have not been seen by their GP prior to attending. This has been attributed to reduced access to GPs for patients based on consultations with GPs in the region, this is known to be a national issue. This may be influencing the higher proportion of patients attending in the lower triage categories but is also a risk for patients attending who haven't been seen by a doctor and may experience long wait times.

In 2022, this trend continued with a reduction in the proportion of attendances referred by their GP by another 2% . Consultation with GPs and other stakeholders has indicated there is a significant challenge with GP staffing in the region and there is a large population who do not have and cannot get a GP. In addition, the demand for GP services has increased and GPs are at maximum capacity and often unable to provide same day or next day appointments.

Referral Source % Total attendances



B. Patient Flow at Pre-Admission | Key Findings

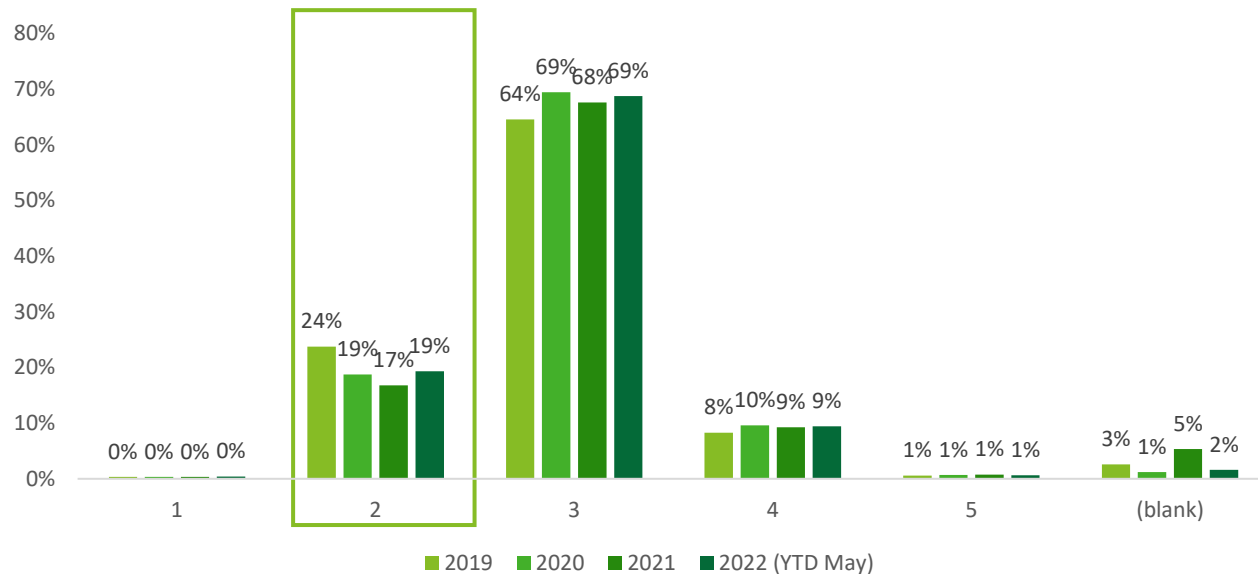
2. Triage

Triage times: Time to triage has been increasing as ED attendances increase, the average time to triage has increased from 16 mins in 2019 to 27 mins in 2021. Within the last 6 months of 2021 this increased to 31 mins and in **the first 4 months of 2022 it increased to an average of 39 mins**. A lack of triage trained nurses was noted in the consults.

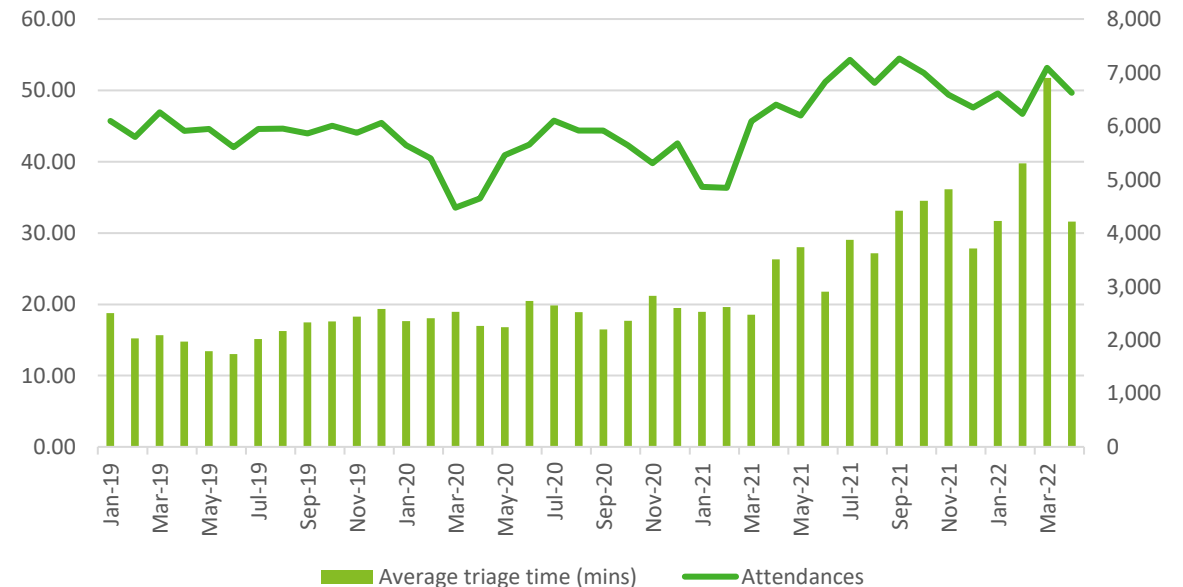
Consultant assisted triage: is a beneficial initiative to streamline flow in the ED by discharging or re-directing patients who could be more appropriately seen elsewhere early in the journey. However, the process has not been clearly defined yet and there is variation in how it is applied.

Acuity: There has been a reduction in the proportion of attendances to ED in Triage category 2 by 5% (2019 – 2022) and an increase in the proportion of attendances in triage categories 3 & 4 when comparing 2019 and 2022 indicating patients attending are generally lower acuity. This is potentially a result of a reduction in the proportion of patients who are seeing their GP prior to attending.

Triage Category as proportion of attendances



Comparison ED attendances and time to triage



B. Patient Flow at Pre-Admission | Key Findings

3. ED ALOS reduction measures

Within the ED there are a number of initiatives and measures that are focussed on avoiding patients spending time in ED for assessment and indeed avoiding admission to inpatient beds. These initiatives are focussed on the older and more vulnerable population and include:

Optimend: this is an initiative whereby early assessment and intervention is completed by a dedicated team of HSCPs in the ED for a cohort of patients who are likely to benefit from avoiding waiting in the ED for assessment. This was implemented as a trial in 2018 where patients aged 65 + who presented with lower urgency complaints to the ED were assessed by a HSCP team comprising a senior medical social worker, senior OT, and senior PT. The trial was successful at reducing ED ALOS by almost 50%, reducing admissions and improving patient experience². Based in the success of the initial pilot the Optimend team are now part of the ED pathway for suitable cohorts of patients. Over the course of the first 11 months of 2021 the Optimend team saw almost 750 patients and discharged almost 70% of these patients home.

Frailty at the front door: is an initiative under Sláintecare with a similar objective to the Optimend team of assessing patients attending ED who are vulnerable with an aim to reduce the time they spend in ED. Patients included in the criteria for frailty at the front door are slightly different to Optimend in that they have higher frailty scores and may require medical input. The team is comprised of a registrar, ANP and physio assistant. The team has links to community based services and can refer patients for follow on assessment with the MDCIT which is a multi-disciplinary crisis intervention team based in the community or ICPOP hubs based in Limerick, Ennis or Thurles.

There is a slightly different service provided to the patients meeting the criteria for each of these teams due to the different composition of the teams. Optimend for example has a physio, OT and social worker whereas there is only a physio assistant in the frailty at front door team. There is also no MDT assessment teams in the AMUs or IUs in the Model 2 sites at present.

Oncology direct admission pathway: another very successful ED avoidance measure for a vulnerable patient cohort. Patients under the care of the oncology team in UHL if they are acutely unwell can contact the oncology team directly, avoid ED and be assessed by the team in the day ward or on the inpatient ward in an assessment bay. The pathway had been in place prior to the COVID-19 pandemic however in line with national guidance over the past 2-years all patients were assessed in the ED. The oncology team have now reverted back to the direct admission pathway which not only reduces pressure on the ED but also improves quality of care for vulnerable patients allowing them to avoid waiting in the ED for assessment.

[2\) Impact of assessment and intervention by a health and social care professional team in the emergency department on the quality, safety, and clinical effectiveness of care for older adults: A randomised controlled trial - PubMed \(nih.gov\)](#)

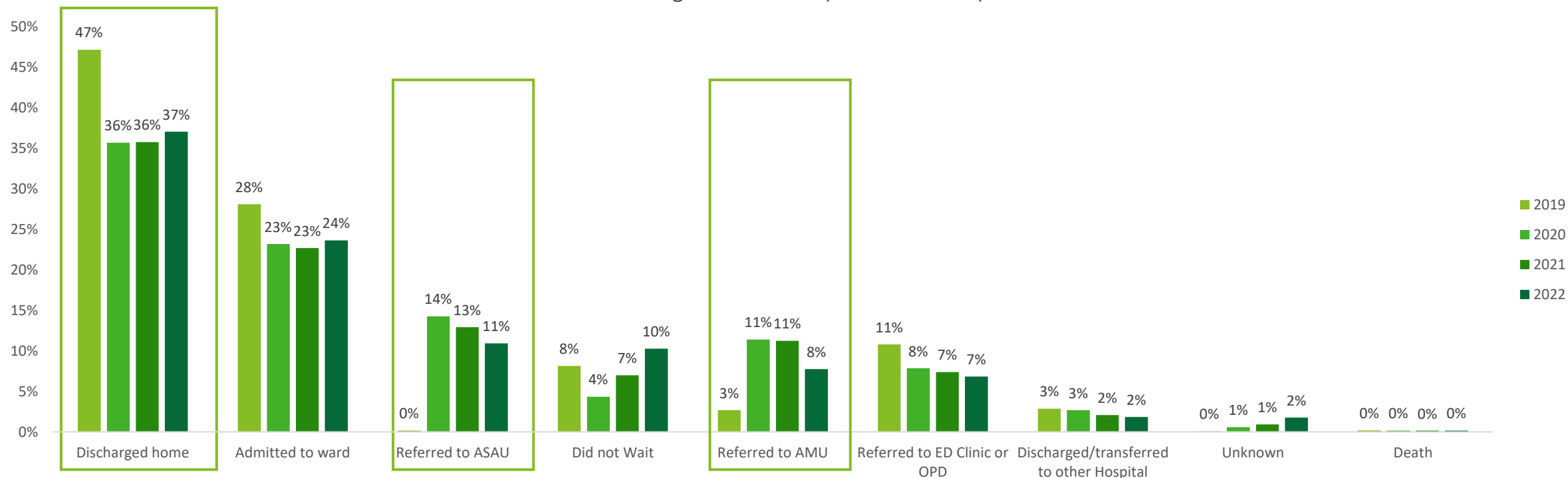
B. Patient Flow at Pre-Admission | Key Findings

4a. Discharges Home

There has been a reduction in the **proportion of patients discharged home from ED between 2019 and 2022 by 10%**. This is likely a result of the change in the workflow that was implemented during the COVID-19 pandemic whereby patients are referred to AMU or ASAU prior to being assessed and treated in the ED. **Referrals to AMU increased by 5%** and **referrals to ASAU increased by 11%**. This is despite the reduction in patients in Triage Category 2 as a proportion of overall attendances with an increase in the proportion of attendances in Triage category 3&4.

There is a lack of clarity among NCHDs regarding admission avoidance pathways such as referrals to ICPOP hubs, rapid access clinics or criteria for transfer to Model 2 hospitals. This is a particular issue out of hours when there is reduced staffing in the ED. There is also a lack of standardised and criteria based rapid access pathways which support discharge and rapid follow up. ICPOP Hubs that have been established under SlainteCare are currently in the implementation phase and will take time to establish further before achieving their full expected impact on admission avoidance.

Discharge Destination (% attendances)



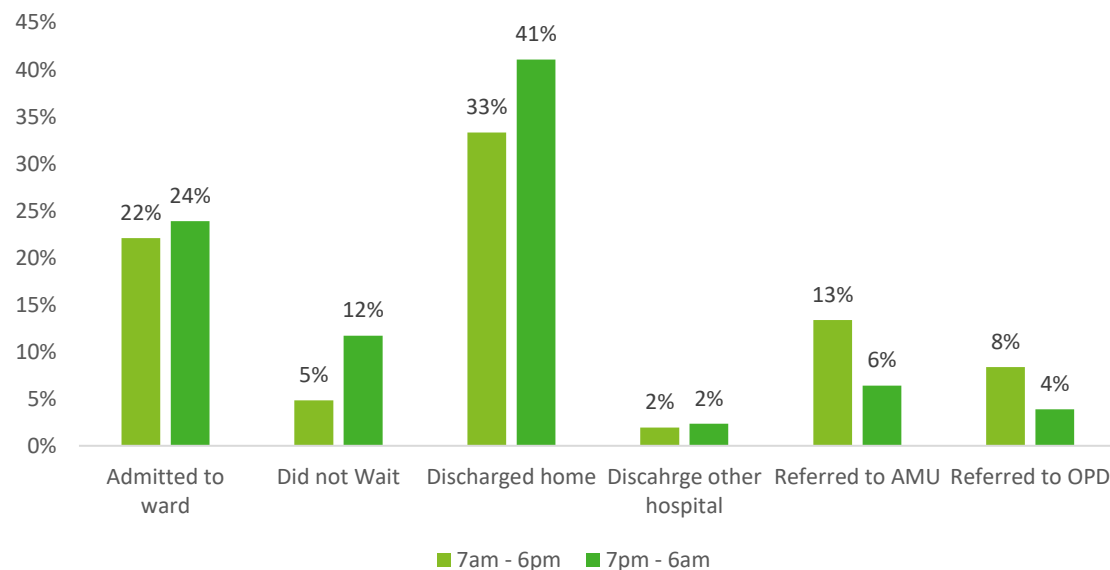
B. Patient Flow at Pre-Admission | Key Findings

4b. Discharges Home

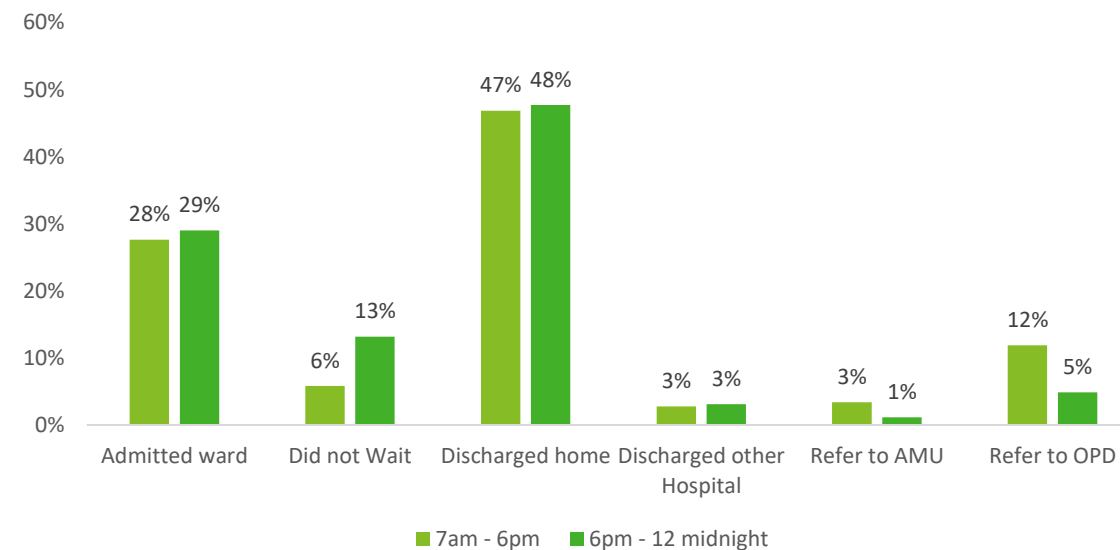
Given the AMAU is not operational out of hours, discharge destination by time of the day was analysed. It was found that discharges home were higher out of hours between 7pm and 6am at 41% compared with 7am and 6pm at 33%. This would indicate that lower referrals to the AMU out of hours (6% compared with 13%) reflects more patients being seen by the ED team following triage and an increase in the proportion of patients discharged home.

This is evidenced by the fact that there was no real difference in the proportion of patients discharged home in hours vs out of hours in 2019 when all patients were seen by an ED clinician following triage.

Discharge Destination by Time of Day (2021)



Discharge Destination by Time of Day (2019)



B. Patient Flow at Pre-Admission | Key Findings

5. COVID-19 Streaming & AMU pathways

At the outset of the COVID-19 pandemic there was a national directive for emergency departments to implement streaming for COVID-19 patients. The introduction of COVID-19 streaming in the ED in UHL resulted in patients with 'COVID-19 like symptoms' being streamed for assessment to two Zones within the ED (Zones B&C) and patients without these symptoms streamed to Zone A. Zone A had previously been used for the assessment of ambulatory patients meaning that there was a high throughput of patients through this area. Another significant change that was implemented with this COVID-19 streaming was the direct referral of patients from triage to the AMU and ASAU without prior assessment by an ED doctor and the removal of access for GP referrals to these units.

The implementation of this streaming has resulted in a number of impacts

- **Volume of patients in Zone A:** There are now particularly high levels of non-COVID-19 patients in Zone A many of who are elderly and on trolleys and while there are considerable numbers of patients in Zone B & C the distribution is now unequal.
- **Cubicles for IPC:** as a result of the lack of single room inpatient accommodation on the wards and the more modern facilities within the ED, including single room cubicles, admitted patients with IPC alerts are often boarding for long periods within the ED and within these cubicles. This has implications for the functioning of the ED as the availability of assessment cubicles to see and assess ED patients can become constrained. It can also mean that patients being assessed in the ED or awaiting diagnostics are often on trolleys in the department.
- **AMU / ASAU:** A large volume of patients are now being referred directly from the ED to these units without having been seen and assessed by an ED doctor. This is resulting in undifferentiated patients being assessed by medical and surgical registrars respectively, with a high admission rate from the AMU in particular. There are also no slots within the AMU or ASAU for GP referrals since the new processes have been introduced which may be impacting on the increase in attendances at the ED due to lack of alternative pathways. The AMU is also only operating restricted hours of 8am – 9pm due to staffing constraints. Patients referred to the AMU after 9pm are managed by the medical teams in the ED. This often results in delays for these patients being assessed by a doctor as there is only one Registrar on-call for the inpatient wards and covering the patients in ED also.
- AMUs in the Model 2 sites continue to provide access for patients via GP referral or referral from the UHL site. These referrals are made via the Bed Bureau which is managed by the patient flow team.

The National Acute Medicine Programme Report, 2010, indicates that

- *An acute medical unit (AMU) is a facility whose primary function is the immediate and early specialist management of adult patients (i.e. aged 16 and older) with a wide range of medical conditions who present to a model 4 (tertiary) hospital.*
- ***Ideally patients will be referred directly from primary care but a proportion will be onward referrals from other sources including the emergency department (ED), out-patient department and other care settings, co-ordinated by the case manager. Patients presenting to hospital without GP referral will be seen in the first instance in the ED – not the AMU.***
- *It is envisaged that AMUs will operate on a 24/7 basis.*

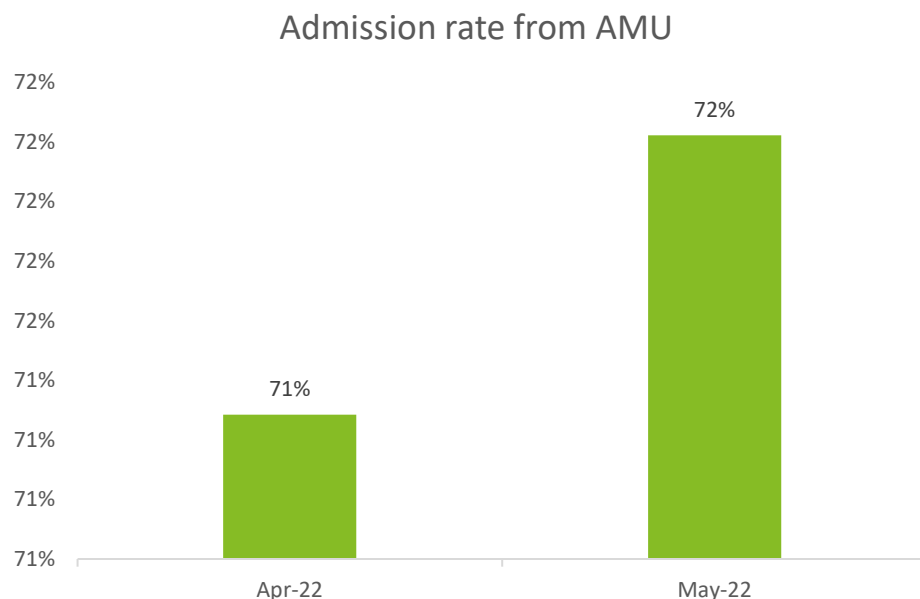
The AMU Model that has been implemented in UHL is therefore not currently in line with national guidance.

B. Patient Flow at Pre-Admission | Key Findings

5b. COVID-19 Streaming & AMU pathways

As a result of the change in the pathways as described there is a high volume of patients being referred to AMU in UHL following triage but prior to assessment by an ED consultant. These patients are being seen by a medical registrar in the AMU with different training and skill set compared with the ED team and a tendency towards admitting patients rather than discharge. The admission rate from the AMU is difficult to calculate as many patients admitted from the AMU remain in the unit for their entire inpatient stay due to a lack of inpatient bed capacity. These patients are not recorded as an admission on the IT system.

We therefore utilised data gathered over a period of 2 months in 2022 which the team believe is representative of the admission rate from the unit. The admission rate is over 70% for both months. With 11% of ED attendances being referred to the AMU this means there is a total of almost 5,900 admissions from the AMU every year.



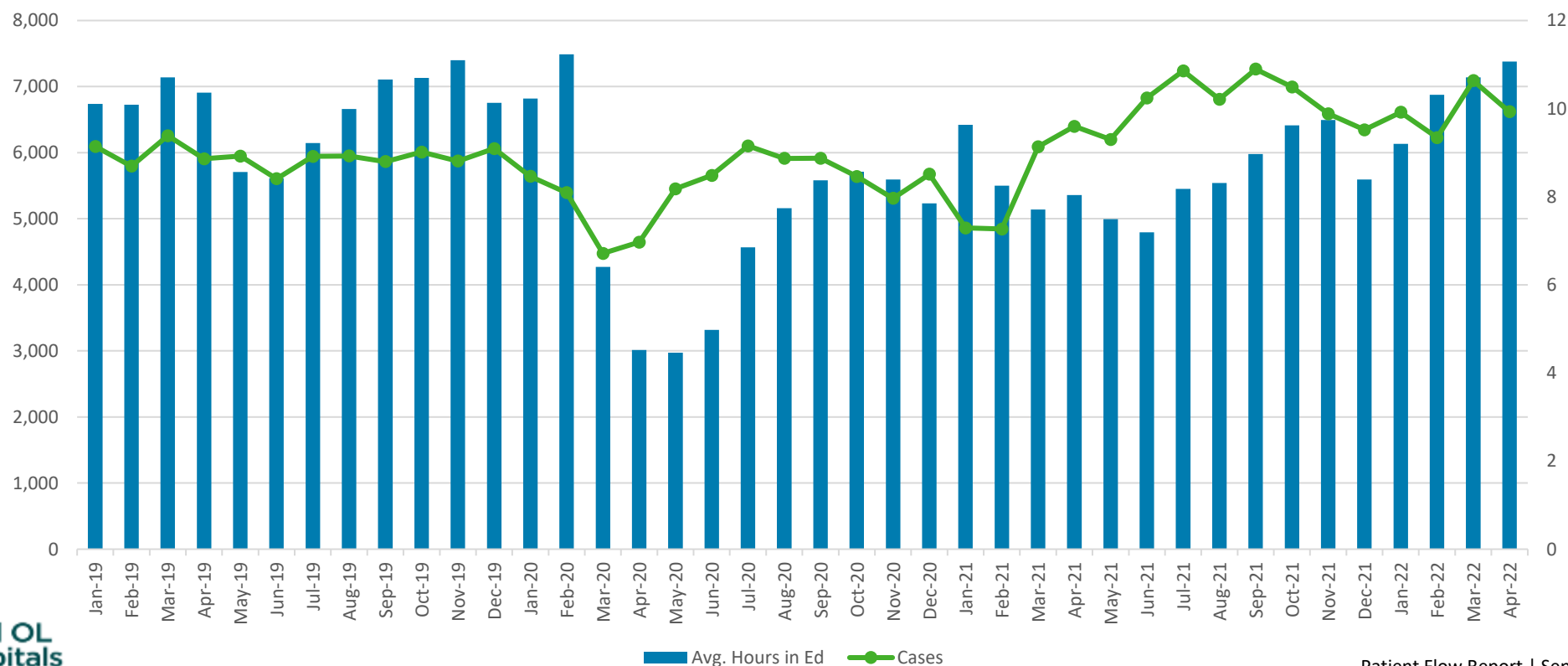
B. Patient Flow at Pre-Admission | Key Findings

6. PET in ED

Reduction in PET times in ED (2019 – 2021): ED attendances have increased significantly since 2019 however PETs in ED had **reduced from approx. 10 hours in 2019 to 8.5 hours in 2021**. This is likely as a result of the change in workflow which was implemented during COVID-19 which saw a large number of patients (20k per year) streamed to AMU or ASAU following triage. These patients are not assessed in ED and therefore there is a likely a reduced average PET time. With the continued increase in ED attendances in 2022 **PET times have started to increase again and for the first 4 months of 2022 they were an average of 10.3 hours**.

Despite the lower PET times in 2021 they remain long and admitted patients are often boarding in ED due to lack of suitable inpatient bed availability. There can be over 40 patients in ED awaiting a bed with no suitable bed available

Comparison of ED cases and PET times



B. Patient Flow at Pre-Admission | Key Findings

7. Patient Flow & Bed Management

The patient flow / bed management team in UHL are a small team that proactively manage patient flow across ULHG. The team has seven WTE CNM 2s with an allocation of two resources during daytime hours and one resource out of hours. The team during the day manage bed allocation and transfers.

The team take a proactive and group wide approach to bed management and patient flow to try to maximise the beds across the group. They attend the ED huddle and hospital wide huddles in the morning to ensure they have a view on the priority patients for bed allocation based on clinical criteria (end of life, NIV requirements, theatre requirements etc.). The team member responsible for bed allocation will then determine if there are suitable beds available for priority patients. While this is a process of checking bed availability on the systems it also involves engagement with wards to determine plans for discharges for the day to 'soft book' patients to those beds. The team manage this process throughout the day working with ED teams and CNM's on the wards to ensure the flow continues to move and patients can be allocated beds.

The team managing bed allocation will also ensure there is an up to date view on bed availability by checking the various systems including the bed cleaning app, iHub, IPMS and Maxims

There are a number of benefits associated with the approach to bed management;

- There is a single view on priority patients for beds as they become available – this is important to ensure there is equity for patients based on wait times and clinical criteria
- The team take a proactive approach and support the engagement between ED and the wards to ensure there is an early view on beds that are likely to become available
- There is a focus on quality improvement and support for improvement initiatives such as the introduction of the bed cleaning app to improve visibility on when beds become available

However, the process is associated with a high administrative burden, multiple phone calls and checking bed availability on multiple systems which takes considerable times and resources. The process has become more complex due to the COVID-19 pandemic which has implications for criteria for admission to wards, as well as requirements to transfer patients between wards to free up suitable beds. Staff resourcing have not kept pace with the increasing demands on the service. Finally, the team support in discharge planning where possible but due to the absence of enablers (such as an integrated case management system and a single assessment tool) there is a high administrative burden associated with engagement with structures outside of the hospital, e.g. home care packages, Fair Deal scheme applications, engagement with community services and rehab facilities which adds to the workload for the team.

B. Patient Flow at Pre-Admission | Key Findings

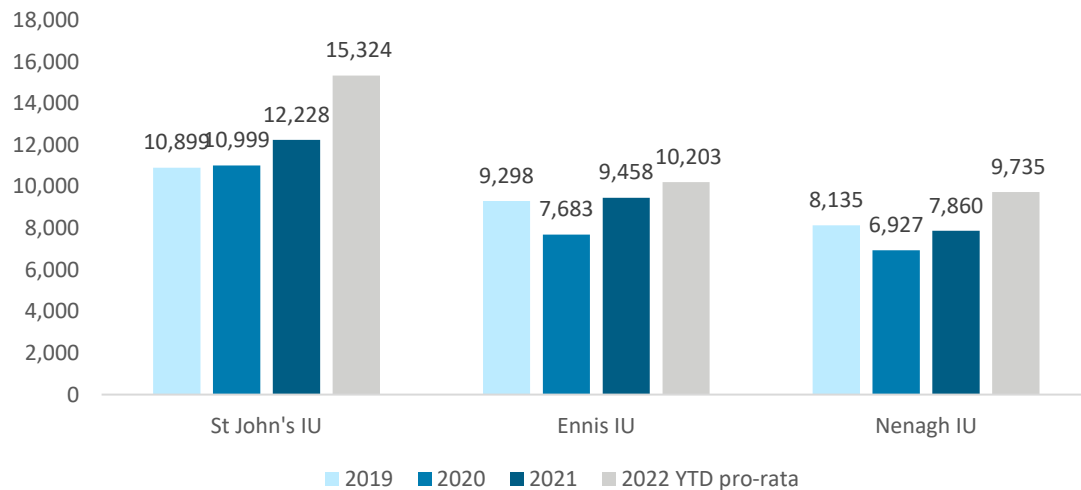
8. Utilisation of Model 2 sites

UL Hospitals Group is in a unique scenario compared with other hospital groups across the country in that there is a single Model 4 hospital and no Model 3 hospitals. There are limitations with regard to the utilisation of the Model 2 sites due to the medical and surgical cover and acuity of patients who can be appropriately managed in this hospitals in line with national guidance for Model 2 sites. There has however been a concerted effort to maximise the utilisation of the inpatient beds, IUs and AMUs in the Model 2s to take the pressure off the Model 4 site where possible. From an IU perspective the activity has increased between 2019 and 2021. This is particularly evident in St John's IU, the closest unit to UHL, where the activity has **increased by 12%** between 2019 and 2021 or **over 1,300 additional attendances** per year. This is as a result of a concerted effort by the teams to increase public awareness of the IU in St. John's Hospital.

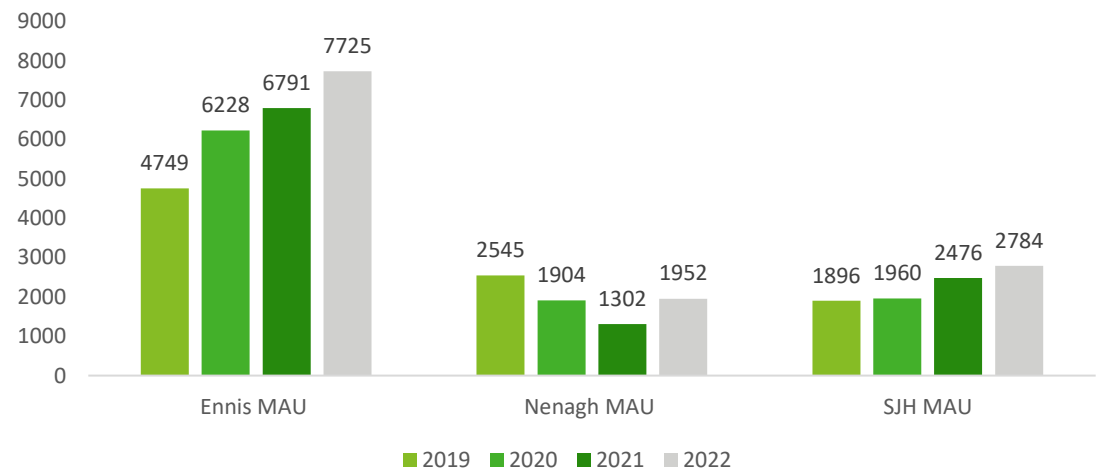
Regarding the AMUs there has been an increase in the activity across Ennis and St. John's Hospital over the period between 2019 and 2022, with an **63% increase in Ennis and a 47% increase in SJH**. There was a reduction in the activity in Nenagh over this period.

The use of inpatient beds in the Model 2 sites is also maximised with very high occupancy rates.

IU attendances per year



AMU Activity



B. Patient Flow at Pre-Admission | Key Findings

9a. ED Staffing

It should be noted that a comprehensive staffing review was not undertaken as part of this review and that the findings herein relate to information that has been gathered from consultations with the wide range of stakeholders, walk throughs in the department and supporting data analysis where relevant (such as time to see a clinician in ED).

Nurse staffing

From a nursing perspective, staffing levels have been implemented on the wards in line with the 'Framework for Safe Nurse Staffing and Skill Mix in General and Specialist Medical and Surgical Care Settings in Ireland 2018' ensuring there is sufficient cover for annual leave and sick leave. Approximately 30 staff nurses would be required and under 2016 LRC agreement an uplift of approximately 9 staff nurses will be required for admitted patients to ED. Triage times are a challenge in ED (as described previously) and this is linked to a lack of triage trained nurses on each shift. Additional triage trained nurses are also required and while work is underway to train more nurses this takes time.

Medical staffing

Medical staffing for the ED is for a demand of 180 patients per day or 65,000 patients per year. Almost 76,500 patients attended in the ED in UHL in 2021 which equates to approximately 210 patients per day. An additional 20 WTE NCHDs are required for the ED (10 Registrars and 10 SHOs) to improve the doctor patient ratio and improve the times to be seen by a clinician. There is also a low ratio of SpRs to Registrars in the hospital which impacts availability of senior decision makers, particularly out of hours.

From an AMU and ASAU perspective, there is a shortage of senior decision makers on these units which are predominately staffed by NCHDs. In addition, **the AMU is not staffed 24/7** and closes to admissions from 9pm which leads to patients referred to AMU remaining in the ED and can result in delays in these patients being seen and assessed. There are no geriatricians in Model 2 sites which impacts on the number of transfers of elderly patients from UHL to Model 2s. There is also no surgery on-call in the Model 2 sites and no emergency surgery completed which, while appropriate for a Model 2 hospital means that transfer of patients is limited.

Paediatric staffing

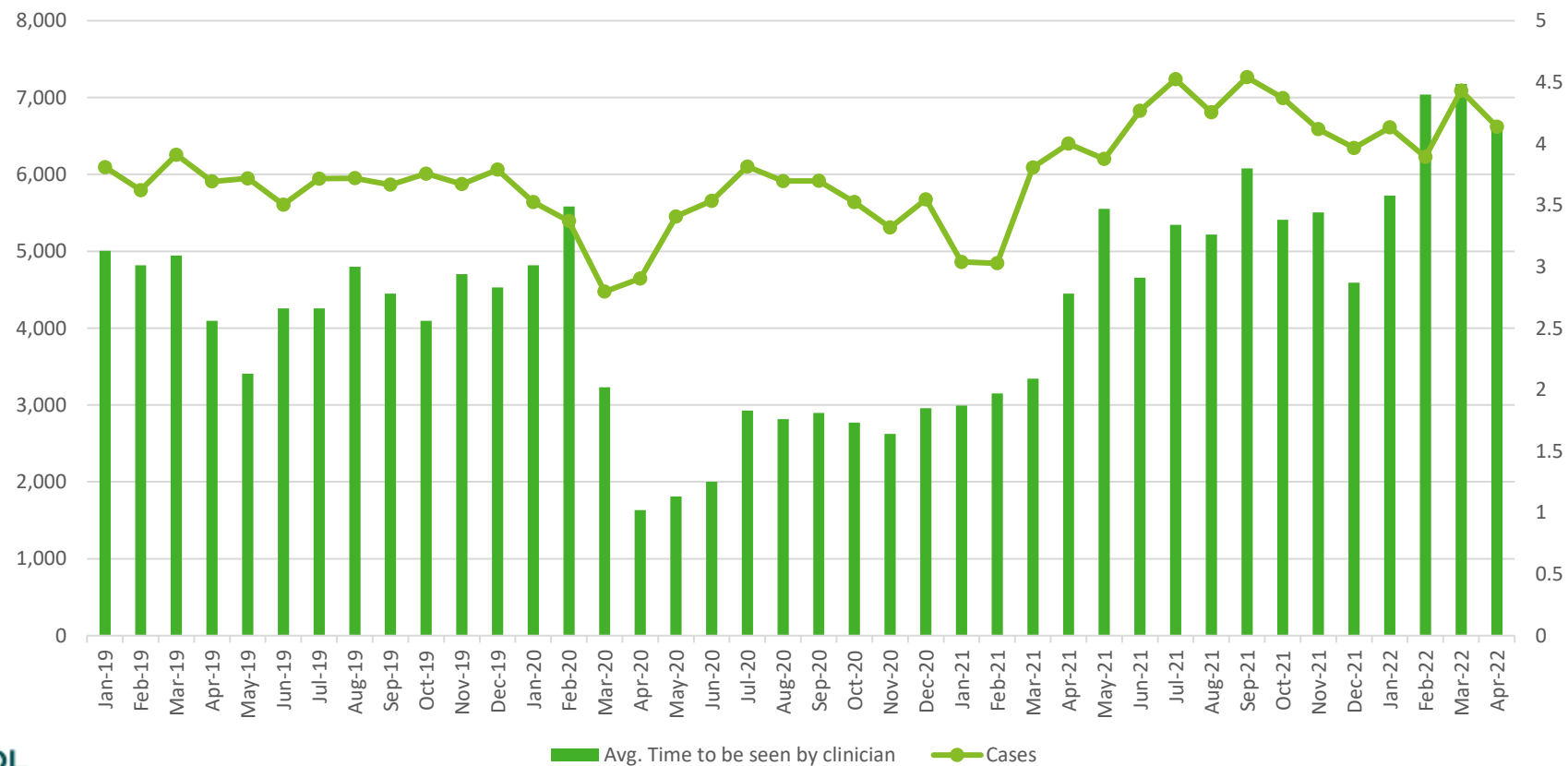
There is a separate and dedicated paediatric area within the ED but there is only one dedicated paediatric emergency medicine consultant and therefore there are limited senior decision makers from a paediatrics perspective in the ED. There is funding for two additional consultants which will improve the cover in the ED. NCHD staffing is a challenge for the paediatric ED particularly out of hours where there is one SHO and one registrar on-call for the wards and ED. There is also no dedicated paediatric nursing staff for the ED. The staff are part of the wider ED nursing pool and this means there is rotation of staff between paediatrics and the adult ED which impacts the skills mix. In addition, only a very small number of the nursing staff are paediatric trained.

B. Patient Flow at Pre-Admission | Key Findings

9b. ED Staffing

ED attendances have increased significantly since 2019 while staffing has not increased to meet this demand. This has resulted in an associated increase in the average time to see a clinician which increased from an average of 2.8 hours in 2019 to 2.9 hours in 2021. **Within the last 6 months of 2021 this increased to 3.3 hours as attendances continued to increase and by the first 4 months of 2022 this has risen to an average of 4.2 hours.**

Comparison ED attendances and time to be seen by clinician



B. Patient Flow at Pre-Admission | Key Findings

10. Infrastructure

Since the establishment of the new ED in May 2017, the infrastructure of the department is relatively new and of a high standard with all single room cubicles and a dedicated paediatric area including paediatric waiting spaces as recommended in the National Model of Care. However, the capacity of the ED was built for a projected future demand of approximately 70k attendances per year. In 2021 there were over 76k attendances. There is, also, insufficient inpatient bed capacity which is impacting the patient flow through the ED and resulting in high numbers of patients boarding in the ED. This is described in more detail in the following section.

11. Technology

The technology throughout the hospital is outdated by international standards for a Model 4 hospital. There is a lack of an integrated, single patient record, a lack of functionality such as order comms and minimal integration between the existing systems which leads to clinical risk as well as increased administrative tasks. It is estimated that there are over 300 clinical systems in use across the mid-west, most of which are standalone and require individual log ins, requirements to enter basic patient information into multiple systems and requirements for clinicians to access multiple systems to get a full view of the patient's history and diagnostic results.

In the ED specifically, there is no obvious rationale for two EPR type systems – IPMS and Maxims. This results in duplication of and complexity in administrative functions in the ED e.g. users are required to discharge patients from Maxims and ensure the patient is registered as an inpatient in IPMS. This presents a risk of error and increases the administrative overheads within a very busy department. In addition, the lack of order comms for e.g. laboratory tests, also has implications for patient flow in the ED. Laboratory orders must be completed on paper forms and brought to the lab where the details are manually entered on the iLab system. Following completion of the tests, the results need to be manually entered into iLab for the ED to check. There is no electronic results acknowledgement or standardised order sets. This slows down the process in terms of both ordering tests and accessing results. The lack of standard order sets results in a high volume of tests being ordered impacting on lab capacity. The lack of an order comms solution also impacts other areas such as internal referrals.

2 | Current State Analysis

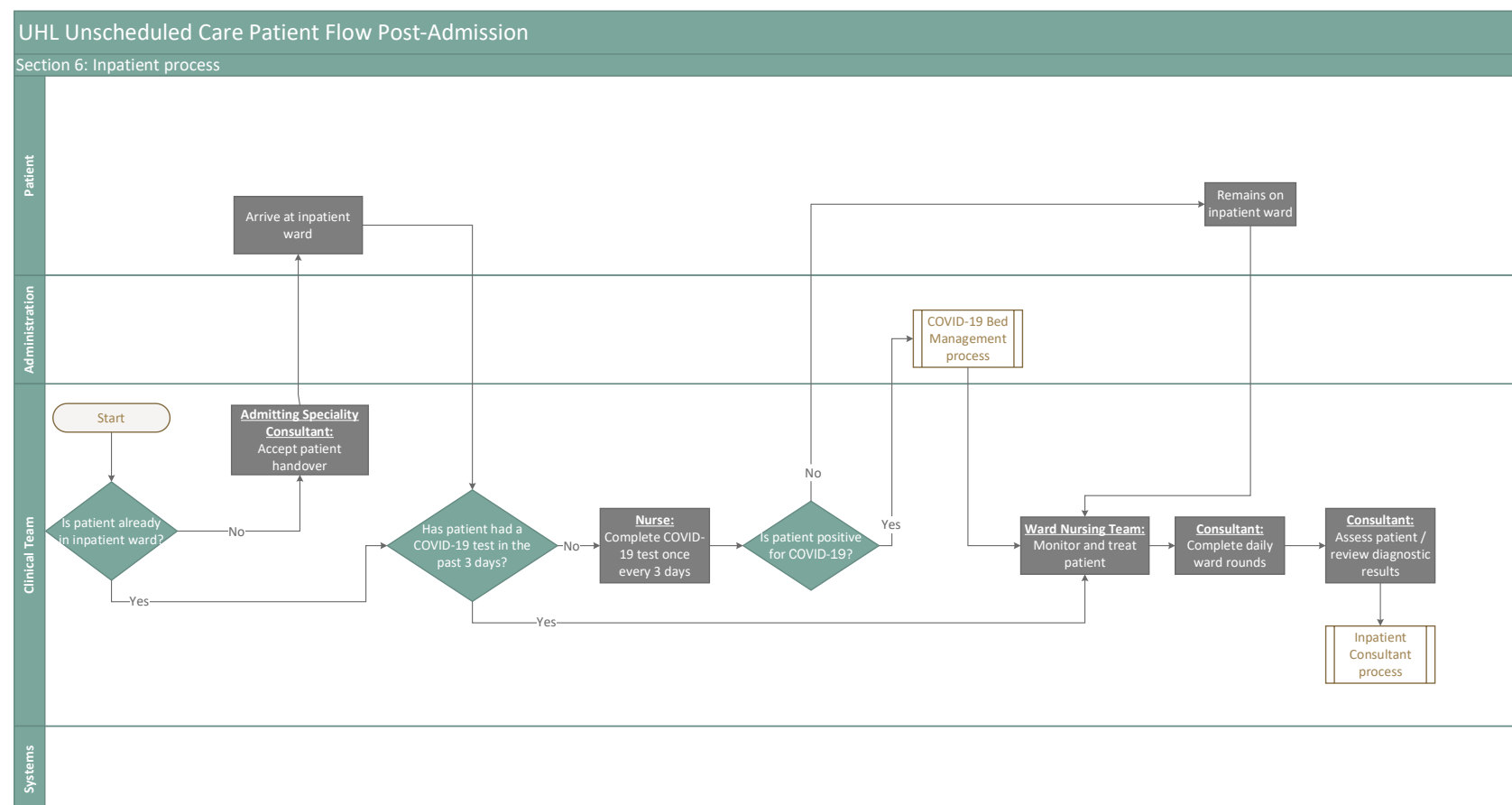
C. Patient Flow at Post-Admission

C. Patient Flow at Post-Admission | Process Map

The below is a snapshot of the Post-Admission process **from arrival at the ward to Consultant assessment**. Included is a high-level description of the process that is captured in this section of the process map. The key findings that relate to this process are highlighted in the following pages in this section.

Section 6: Inpatient Process

1. Following the Decision to Admit Bed Management process where a bed is allocated to the patient on the system, the Admitting Specialty Consultant accepts the patient handover, and the patient arrives at the inpatient ward.
2. The patient completes a COVID-19 test upon admission. If the patient is already in the inpatient ward and is continuing their treatment (from section 7), then the patient skips step 1 and goes straight to this step.
3. If the patient tests positive for COVID-19, the patient is transferred to the COVID-19 ward (see section 8a).
4. The ward nursing team continues to treat the patient on the inpatient ward until the Consultant reviews and assesses the patient (continued in section 7).

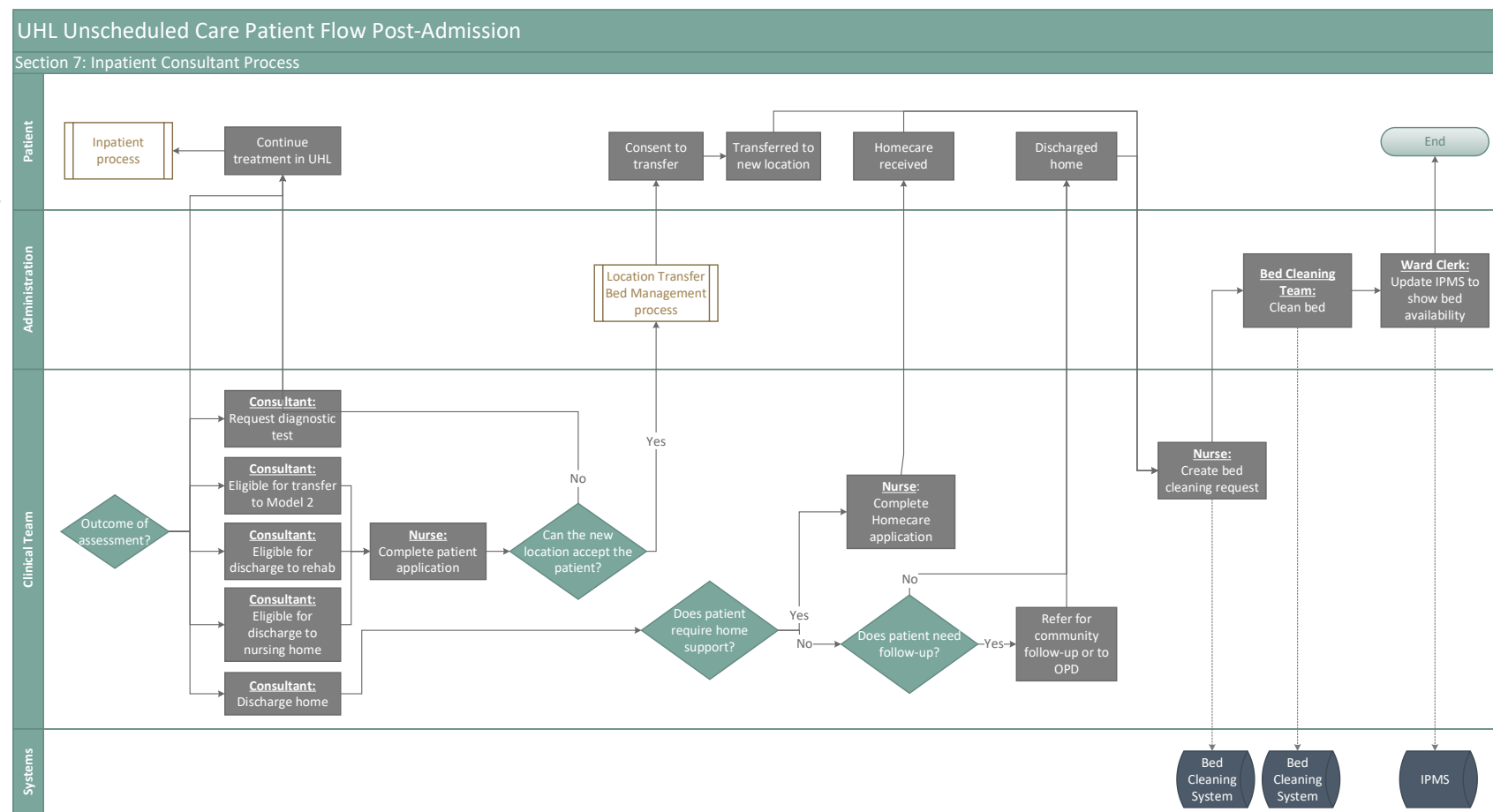


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Section 7: Inpatient Consultant Process

- Following the assessment of the patient, the Consultant may request further diagnostic tests and the patient continues treatment in the inpatient ward until results are reviewed.
- Eligible patients may be transferred according to need to a Model 2 hospital, a rehab unit or a nursing home to continue their treatment, thereby freeing up inpatient bed capacity in UHL (see section 8b).
- If the patient is discharged by the Consultant, a Homecare application may be completed by the Nurse if the patient requires home support. If the patient requires follow-up, they can be referred to the community healthcare services or to the OPD.
- Once a patient is discharged home, the Nurse creates a bed cleaning request on the Bed Cleaning System. The Bed Cleaning Team then clean the bed and update IPMS to show bed availability.



C. Patient Flow at Post-Admission | Process Map

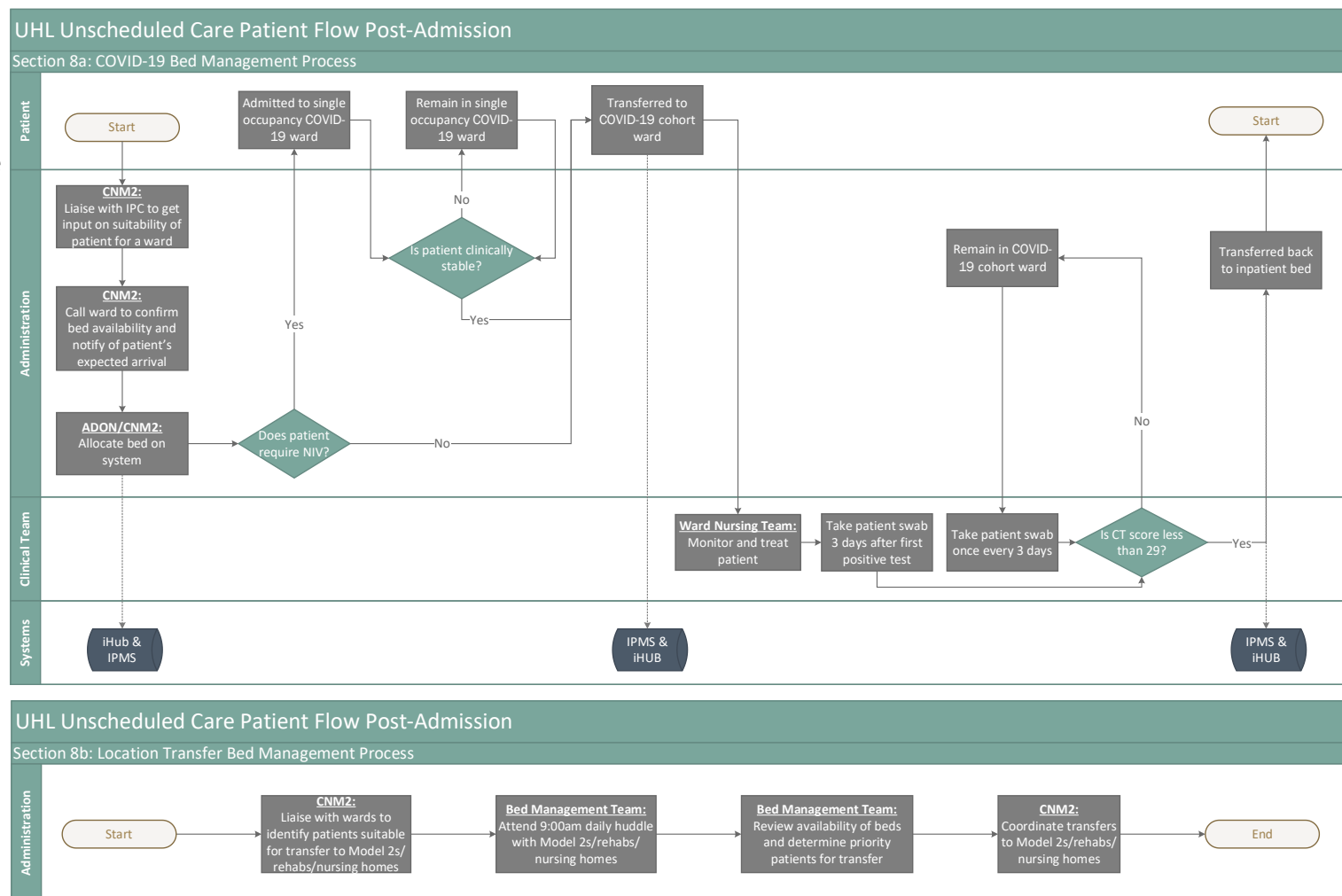
Alongside the process for managing patients in inpatient wards, there is also a parallel process which supports patient flow through the inpatient beds. The **Bed Management Team** undertake a number of steps each day to ensure there is continuous active management of patient flow through the inpatient wards.

Section 8a: COVID-19 Bed Management Process:

- Following a positive COVID-19 test result for a patient prior to their admission to an inpatient bed, a decision is made on whether the patient requires NIV. If so, they are admitted to a single occupancy COVID-19 ward. The remain remains here until they are clinically stable to return to the COVID-19 cohort ward.
- If the patient does not require NIV, they go directly to the COVID-19 cohort ward.
- The patient is tested 2-3 days after their first positive test and every 3 days after that until a Ct score of <29 is confirmed. The patient is then transferred back to the non-COVID-19 inpatient ward.

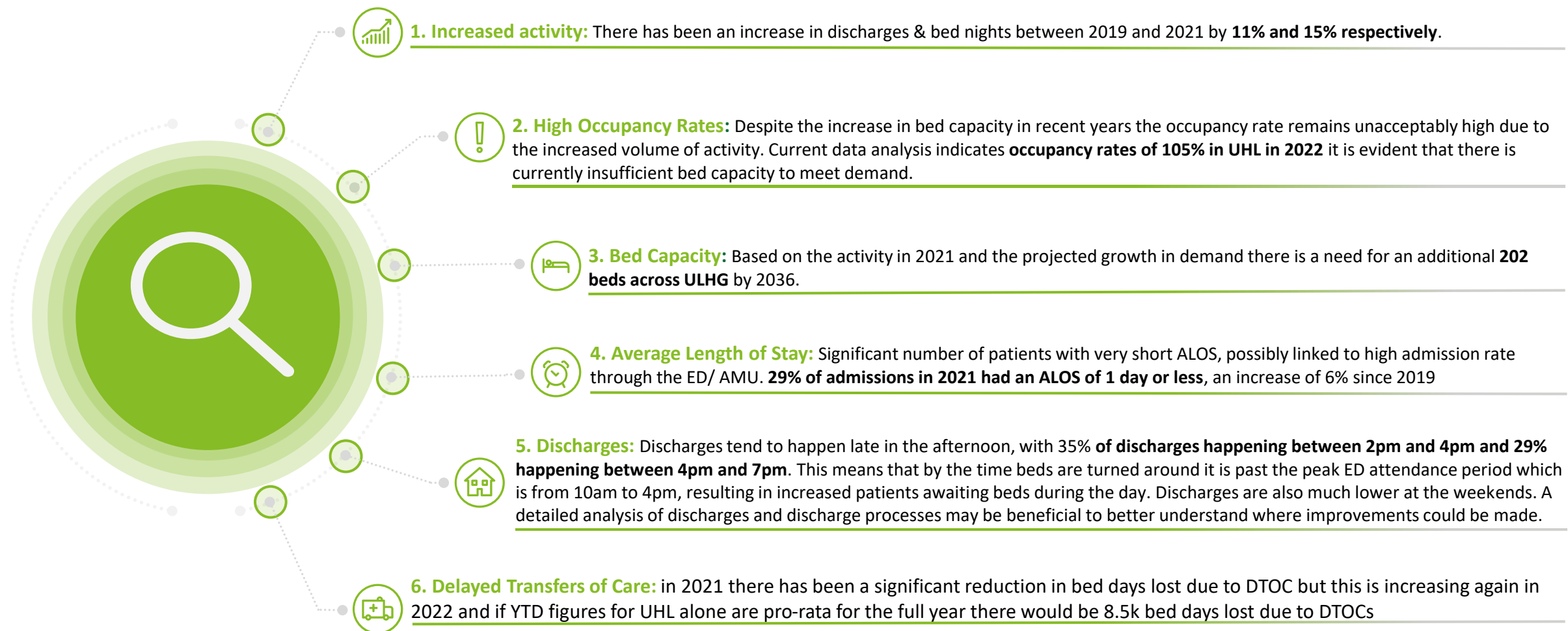
Section 8b: Location Transfer Bed Management Process:

- Following the decision by the doctor to make the patient eligible for transfer to a Model 2 hospital, the CNM2 from the Bed Management Team liaises with wards to identify patients suitable for transfer to Model 2s.
- The Bed Management Team attends their daily 9:00am huddle with the Model 2s to review their availability of beds and determine the priority patients for transfer.
- If there are no beds available, the patient continues treatment in UHL.
- If there are beds available, the patient must consent to transfer and then the CNM2 coordinates the patient's transfer to the Model 2 hospital.



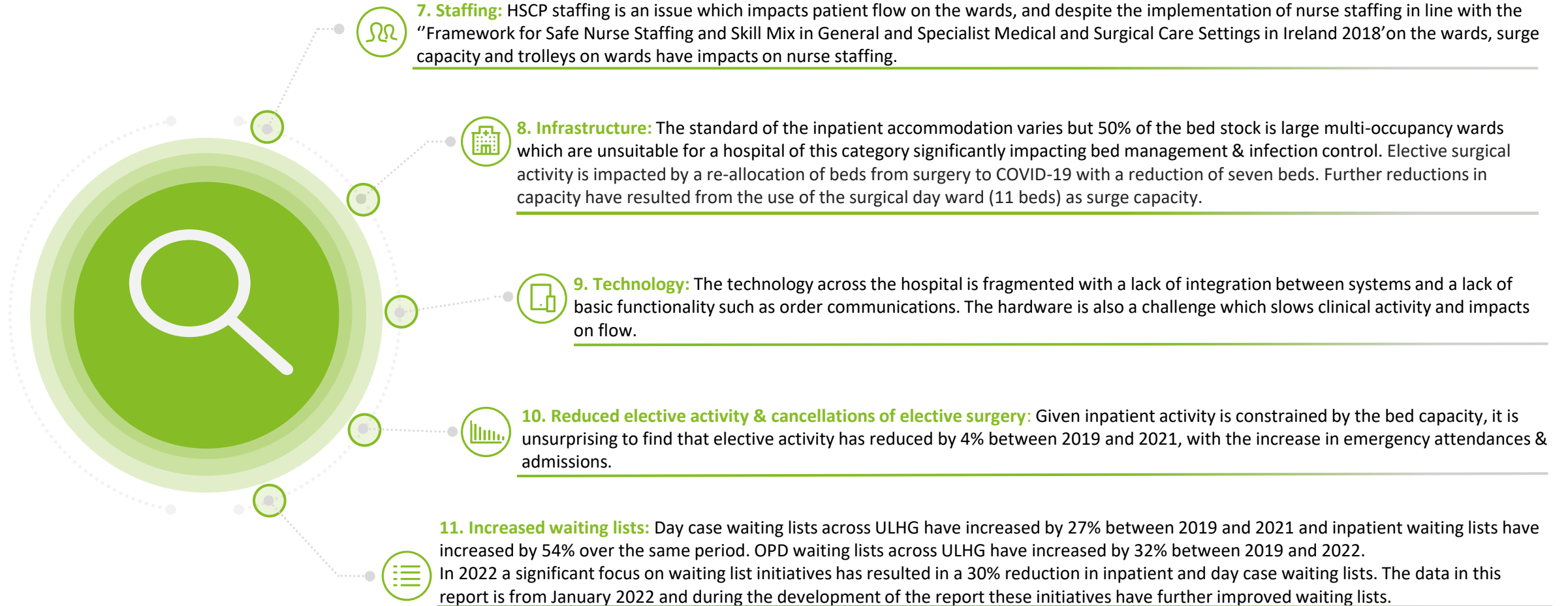
C. Patient Flow at Post-Admission | Summary of Key Findings

The below are the key findings associated with the process following decision to admit from the ED that has been described in the previous pages. These are described in more detail with associated data in the following pages.



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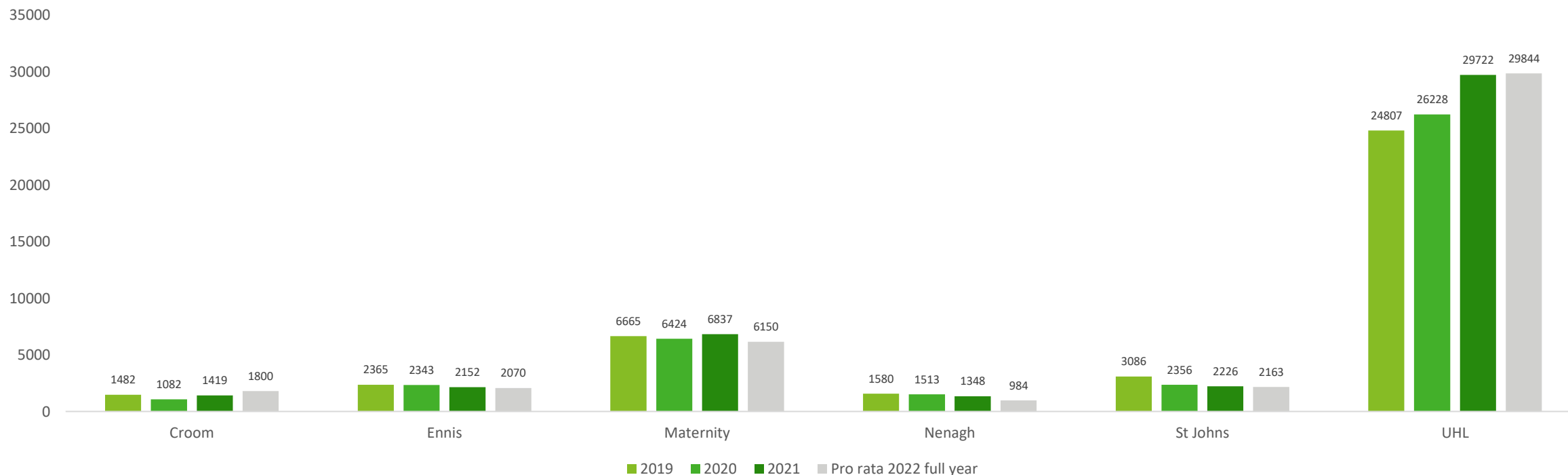


C. Patient Flow at Post-Admission | Key Findings

1a. Increased Activity

There was a total of 43.7k inpatient admissions in 2021 across the Group, inpatient admissions across the Group have increased by 9% between 2019 and 2021 with the largest increases seen in UHL where there was a 20% increase. This is a combination of increased admissions from the ED described earlier and higher patient volumes. Using the 2022 data up to the end of April 2022 to project admissions for the full year it is estimated that there will be a slight reduction of approximately 2% with reductions projected in Maternity, Ennis, SJH and Nenagh and increases projected in UHL and Croom.

Admissions per site



C. Patient Flow at Post-Admission | Key Findings

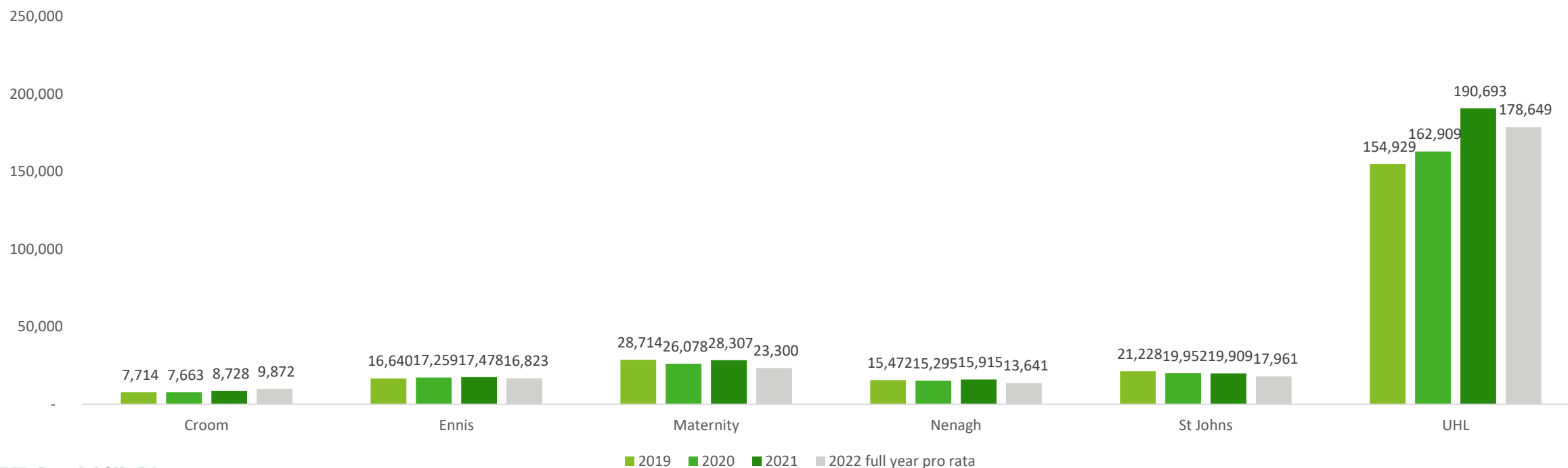
1a. Increased Activity

There was a total of **281k bed days used** across the Group in 2021 for almost **43k inpatient discharges** and an ALOS of **6.4 days**. When maternity is excluded this increases to 6.9 days.

Bed nights have increased by 15% between 2019 and 2022. ALOS has increased slightly over the period. The **growth is primarily driven by emergency admissions** with elective admissions reducing to accommodate this growth. The projection for the full year for 2022 based on the YTD to April 2022 estimates a reduction in bed days by 7% based on a reduced ALOS to 6 days

As described previously 83% of admissions are emergency admissions and >170k of the bed nights in UHL or 92% in 2021 related to emergency admissions through the ED.

Bed Nights per site



C. Patient Flow at Post-Admission | Key Findings

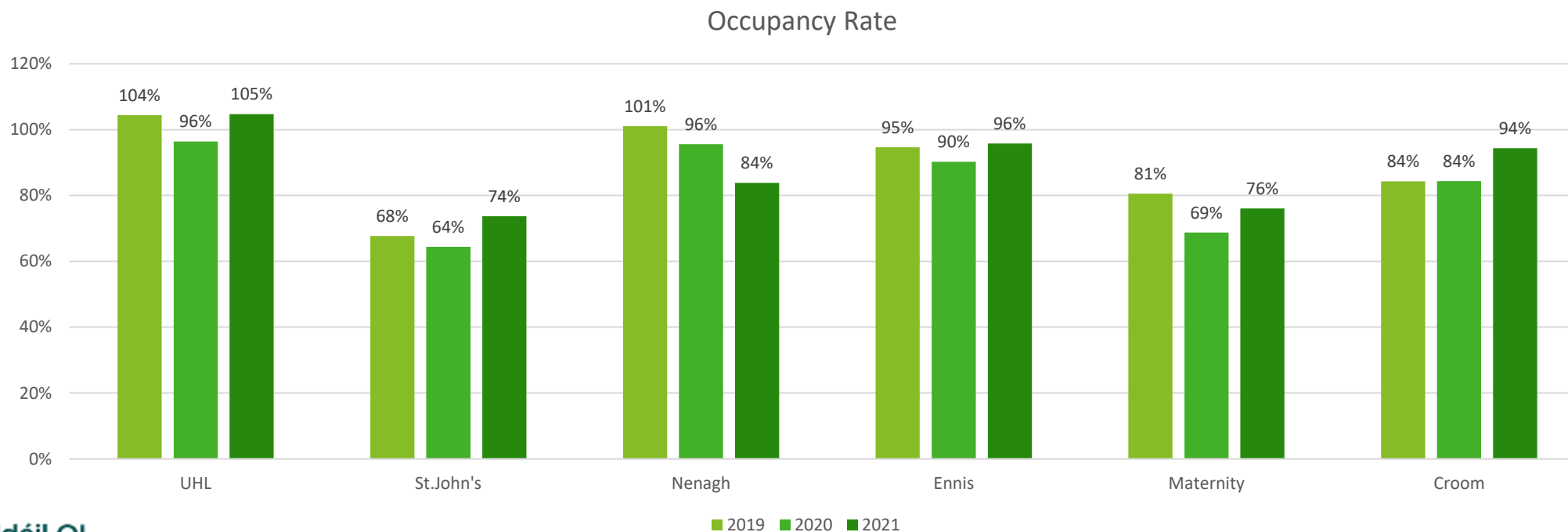
2. High Occupancy Rates

Bed occupancy for each site was calculated, assuming a 5 day per week service in Croom (250 working days) and 7 day per week service across the other sites.

Occupancy across all sites dropped in 2020 as admissions and bed nights dropped due to the restrictions associated with the COVID-19 pandemic. In **2019 the occupancy was on average 89% and was over 100% in both UHL and Nenagh and 95% in Ennis demonstrating the capacity constraints across the system.** In 2021 bed occupancy was similar in UHL at 105% , 96% in Ennis and 84% in Nenagh.

This demonstrates that despite an increase in bed capacity with the addition of the 60-bed block, available data suggests that there remains insufficient inpatient bed capacity to meet the demand.

Bed occupancy should ideally be 85% for inpatient wards and 80% for critical care, in order to accommodate turnover cleaning etc. and also to allow head room for variance in attendance / admission patterns to manage surges. This issue is further exacerbated by the multiple occupancy wards which leads to particular beds being unusable when there is an infectious or immuno-compromised patient requiring a bed.



C. Patient Flow at Post-Admission | Key Findings

3a. Bed Capacity – Inpatient

Designation	Specialty	2021 bed nights (actual)	2036 Projected Bed nights	% Change
Medicine	Geriatric Medicine	6,796	9,915	46%
Medicine	Nephrology	5,230	6,367	26%
Surgical	Ophthalmology	832	1,010	25%
Surgical	Vascular	6,226	7,360	23%
Haem / Onc	Oncology	6,728	7,946	22%
Haem / Onc	Haematology	3,973	4,599	22%
Medicine	General Medicine	127,581	149,521	21%
Medicine	Cardiology	5,822	6,659	19%
Medicine	Respiratory Medicine	4,262	5,217	16%
Surgical	Otolaryngology (ENT)	2,453	2,832	15%
Medicine	Endocrinology	1,896	2,095	14%
Surgical	Orthopaedics	18,659	20,704	14%
Medicine	Gastroenterology	4,168	4,635	12%
Medicine	Neurology	2,050	2,297	10%
Medicine	Rheumatology	343	421	9%
Surgical	Urology	5,397	5,693	7%
Surgical	General Surgery	25,200	26,483	7%
Surgical	Maxillofacial	747	798	6%
Medicine	Dermatology	37	40	6%
Medicine	Emergency Medicine	1,323	1,359	4%
	Gastro-Intestinal			
Surgical	Surgery	16	16	4%
Surgical	Gynaecology	2,085	2,140	2%
Paediatrics	Paediatrics	7,296	6,902	-6%
Obstetrics	Obstetrics	21,358	20,204	-6%
Obstetrics	Neonatology	6,919	6,545	-6%
Paediatrics	Paediatric Cardiology	3	3	-100%
Surgical	Dental Surgery			-100%
Total		280,466	315,180	15%

As demonstrated by the high occupancy rates there is insufficient bed capacity to meet the current demand across UL Hospitals Group. This is resulting in admitted patients boarding in trolleys in the ED as well as additional trolleys (up to three) being accommodated on each ward. Given the demand has increased by 15% in terms of bed nights between 2019 and 2021 there will likely be considerable increases in demand beyond the demographic growth in the region. This is also likely to be exacerbated by the curtailments to services due to the COVID-19 pandemic which is predicted to result in delayed diagnoses and further increases in the demands on services.

In order to project the future demands for inpatient beds in the region demographic growth was applied to the 2021 inpatient activity data. The 2021 data was used as this is full year data and likely to be more accurate than pro-rata of the 2022 data. This was based on the health atlas population for the mid-west region and the CSO population growth projections for each age group out to 2036. In addition, an uplift was applied for unmet need based on the growth in waiting lists over the past 5 years.

The projected demand in 2036 is shown below by speciality. It is estimated that between 2021 and 2036 there will be an increase in demand of 15% in inpatient bed days based on demographic growth and unmet need uplifts.

The specialities with the largest forecast growth are those with the highest proportion of >65s on the waiting lists and where there is the greatest unmet need and high conversion rate from OPD these include geriatric medicine, nephrology, ophthalmology & oncology.

A total of over **315k bed days will be required to meet demand in 2036**. This includes the critical care bed days utilised by patients admitted under the various specialities

C. Patient Flow at Post-Admission | Key Findings

3b. Bed Capacity – Inpatient

There is a total of 847 beds currently available across the group however the beds in Croom are only available 250 days per year, reducing the beds available 365 days per year to 830 beds. Based on the projections there is a requirement for a total of 992 beds, a gap for 162 inpatient beds.

However, there are sufficient maternity and paediatric beds to meet current and future projected needs therefore when these are excluded from the calculation a total of 202 inpatient beds are required to meet the demand by 2036.

This does not account for:

- Unsuitable infrastructure: many multi-bed wards which result in reduced available bed utilisation where multi occupancy is not appropriate and ultimately a need to replace this unsuitable infrastructure
- Acuity – Beds available accounts for the total number of beds available across all hospitals in the group, however for reasons of acuity beds in UHL (model 4) may be the only beds that are suitable for use for specific patients. This is of particular relevance given the occupancy rates in St. John's Hospital are lower than the rest of the Group meaning these beds are not currently fully utilised

We also note the recent report published by the DoH 'An Analysis of Healthcare Infrastructure Capacity'¹ the requirement for RHA E (the ULHG catchment is an additional 81 beds to meet the 80% occupancy. This is based on the 2019 activity data without any projections for population growth or uplifts for unmet need and therefore addresses the bed complement required to meet the demand in 2019 which was lower even than the 2022 activity.

Inpatient operational assumptions		Designation	Beds available	Bed required	Gap	Designation	Beds available	Bed required	Gap
Days per year per bed	365	Haem / Onc	24	41	-17	Haem / Onc	24	41	-17
Croom days per year available for existing beds	250	Medicine (incl. Critical Care)	462	620	-158	Medicine (incl. Critical Care)	462	620	-158
Utilisation (includes critical care)	80%	Paediatric	49	23	26	Surgical	193	220	-27
		Surgical	193	220	-27				
		Obstetrics / Neonatology	102	88	14				
		Total	830	992	-162	Total	679	881	-202

C. Patient Flow at Post-Admission | Key Findings

3c. Bed Capacity – Day beds

Speciality	2019 Actual Bed nights	Total projected bed nights 2036	% Change
Anaesthetics	1	1	0%
Cardiology	707	862	18%
Haematology	374	928	19%
Clinical Neurophysiology	0	0	-100%
Dental Surgery	180	180	0%
Dermatology	212	235	11%
Emergency Medicine	0	0	0%
Endocrinology	1	1	13%
Gastroenterology	997	2033	8%
Gastro-Intestinal Surgery	8	8	0%
General Medicine	264	320	21%
General Surgery	1352	1508	6%
Geriatric Medicine	3	4	37%
Gynaecology	304	307	0%
Maxillofacial	199	212	1%
Nephrology	35	45	24%
Neurology	12	13	7%
Oncology	712	870	22%
Ophthalmology	1487	1902	22%
Orthopaedics	304	346	14%
Otolaryngology (ENT)	330	359	5%
Paediatric Surgery	1	1	-6%
Paediatrics	213	201	-6%
Pain Medicine	181	273	13%
Plastic Surgery	52	58	10%
Radiology	0	0	0%
Respiratory Medicine	350	426	16%
Rheumatology	103	129	9%
Urology	704	752	7%
Vascular	172	205	19%
Dialysis Treatment	3225	4003	24%
Total	12482	16183	16%

In addition there is insufficient day bed capacity to meet the needs across the group.

In order to project the future demands for day beds in the region demographic growth was applied to the **2019 daycase activity data**. The 2019 data was used as there was significant curtailments to elective care throughout 2020 and 2021 due to the Covid-19 pandemic and using 2021 as a baseline for day case which is predominately elective care was likely to underestimate the bed capacity requirement. This is evidenced by the fact that there was 17% less day case activity in 2021 compared with 2019. Population growth projections were then applied based on the health atlas population for the mid-west region for each age group out to 2036. In addition, an uplift was applied for unmet need based on the growth in waiting lists over the past 5 years.

The projected demand in 2036 is shown in the table by speciality. It is estimated that between 2021 and 2036 there will be an increase in demand of 16% in bed days based on demographic growth and unmet need uplifts.

The specialities with the largest forecast growth are those with the highest proportion of >65s on the waiting lists and where there is the greatest unmet need and high conversion rate from OPD these include geriatric medicine, nephrology, & dialysis.

A total of over 161k bed days will be required to meet demand in 2036

C. Patient Flow at Post-Admission | Key Findings

3b. Bed Capacity – day case

Using the operational assumptions outlined below the number of day beds required to meet the forecast demand is 266. There is a total of 216 beds currently available across the group including endoscopy beds. This means that overall there is a gap of 50 beds. However, some beds are designated for specific specialities such as haem / onc or paediatrics and are therefore not available for all admissions.

This means that with no reconfiguration of beds (e.g. reconfiguring paediatric day beds to adult beds) there is a need **for 63 additional day beds**.

Operational Assumptions		Designation	Beds available 2021	Beds required 2036	Deficit
Sessions per day	2	Medical	17	57	40
Length of session	240	Cardiology	9	14	5
Days per week	5	Paediatrics	7	3	-4
Weeks per year	42	Dialysis	24	66	42
Occupancy	85%	Haem / Onc	29	30	1
		Surgical (including endoscopy)	115	90	-25
		Orthopaedics	15	6	-9
		Total			50
		Total with no reconfiguration			63

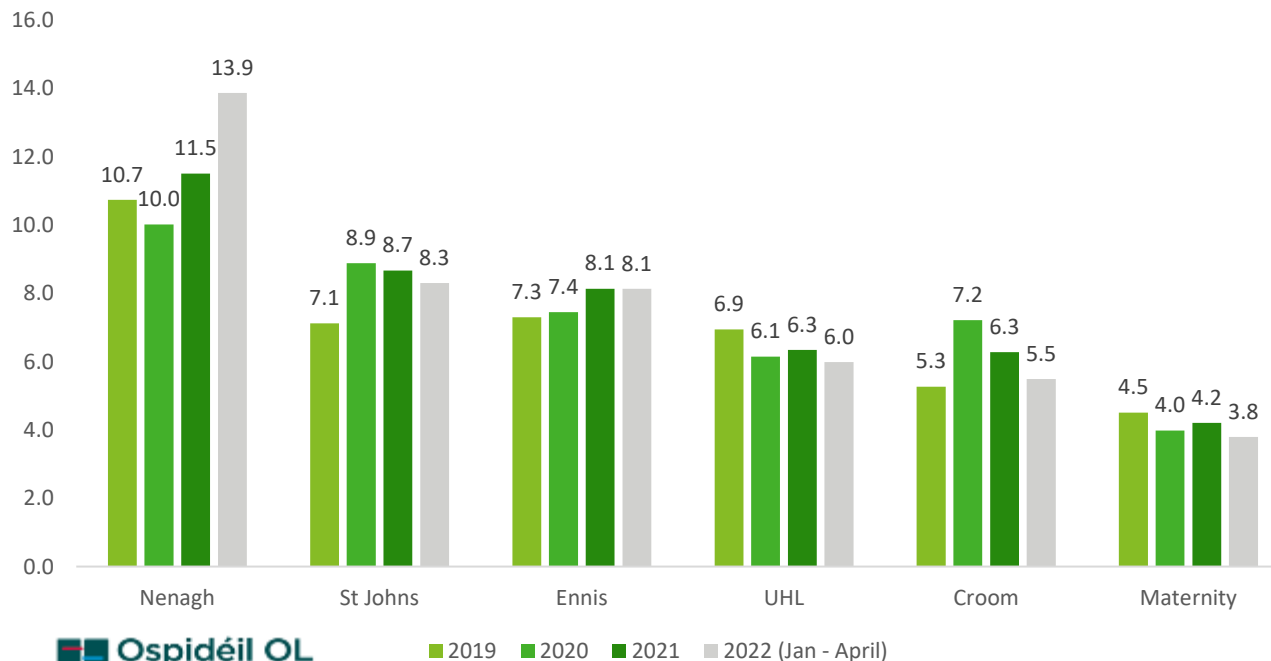
C. Patient Flow at Post-Admission | Key Findings

4. Average Length of Stay

There has generally been a trend towards an increase in the ALOS across all sites excluding UHL and the Maternity Hospital between 2019 and 2021. Ennis, Nenagh, St. John's Hospital and Croom have all seen increases of up to 1 day in the ALOS between 2019 and 2021. This further increased in the first 4 months of 2022 in particular in Nenagh where the ALOS increased to 13.9 days.

In UHL the ALOS has reduced, possibly as a result of the increased admissions from the AMU. A higher admission rate and a lower ALOS suggests there is admission of patients who are lower acuity. There has also been an increase in the proportion of patients with an ALOS of 1 day in UHL between 2019 and 2022, an increase of 8% for emergency admissions

Average Length of Stay by Site



ALOS (emergency admissions	2019	2020	2021	2022
1 day	23%	29%	29%	31%
2 days	17%	15%	14%	11%
3-5 days	27%	25%	24%	19%
6-10 days	18%	16%	17%	14%
11 - 20 days	10%	9%	10%	9%
22 - 30 days	2.90%	2.80%	2.90%	2.2%
>30 days	2.90%	2.70%	2.80%	2.1%

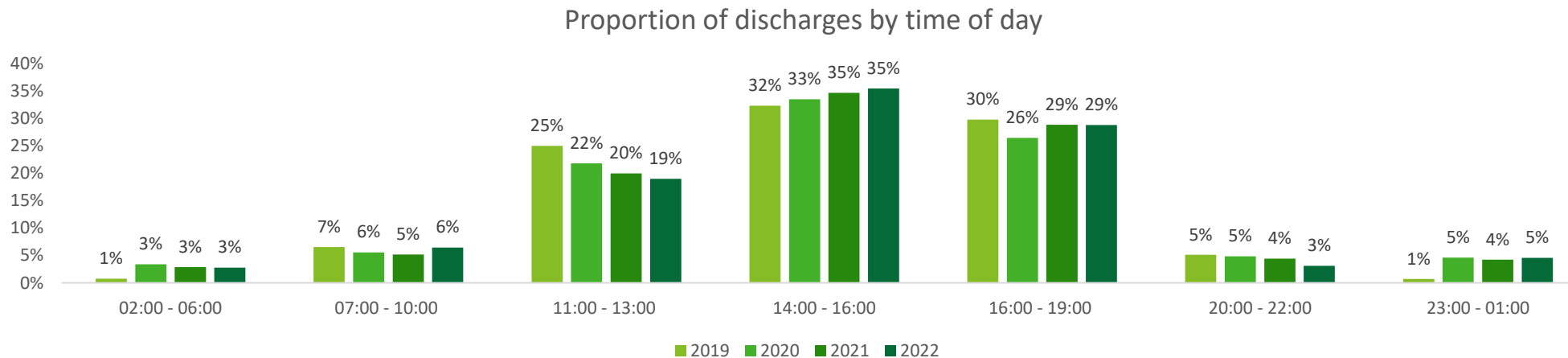
C. Patient Flow at Post-Admission | Key Findings

5a. Discharges

Discharges tend to happen late in the afternoon in UHL with over almost 35% occurring between 2pm and 4pm and 29% between 4pm and 7pm. Following discharge the bed or room needs to be cleaned and turned over resulting in beds not becoming available until late in the evening. This is a challenge in terms of patient flow as the majority of ED attendances occur between 10am and 4pm when there is a low number of discharges meaning there is a build up of patients waiting for beds. The proportion of discharges occurring in the late afternoon is also increasing with increased ED attendances

There are a number of reasons why this may be the case including

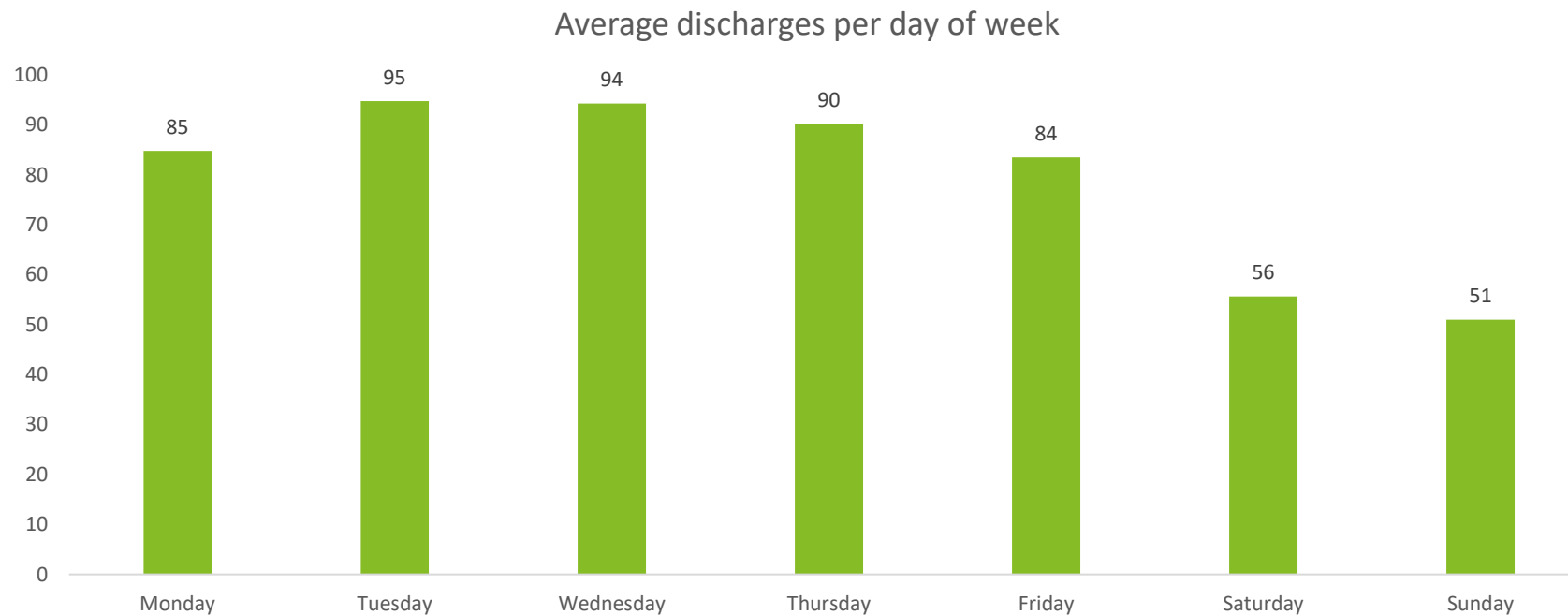
1. There is **lack of speciality cohorting** of patients on the wards outside of the renal, cystic fibrosis and oncology units which can lead to patients under the care of a team being distributed throughout the hospital. This leads to long 'safari' ward rounds and patients ready for discharge may not be seen until later in the day. There are also multiple teams rounding on each ward as a result.
2. Following ward rounds, if **diagnostics are required prior to discharge** they are being **ordered following completion of ward rounds** later in the day impacting the time to discharge.
3. **Nursing staff are not routinely present on all ward rounds** and often do not have visibility of the plan for patients including the expected date of discharge hampering efforts to plan for timely discharge including active involvement from family members in planning for step-down, rehab or home care if required. This is likely impacted by the multiple teams rounding on each ward and therefore challenges in attending.
4. **Bed turnover:** following discharge there are often delays in bed turnover either as a result of patients waiting on transport, delays in portering to transport patients or delays in cleaning beds due to the high volume of discharges at the one time.



C. Patient Flow at Post-Admission | Key Findings

5b. Discharges

There is a reduced average number of daily discharges at the weekends to just over 50% of daily discharges on weekdays. This is likely due to reduced staffing over the weekends, including consultants, specialist nurses, HSCPs, and staff in the community that support discharge e.g. medical officers in CNU's. A detailed staffing review has not been undertaken to verify this and is recommended for completion.



C. Patient Flow at Post-Admission | Key Findings

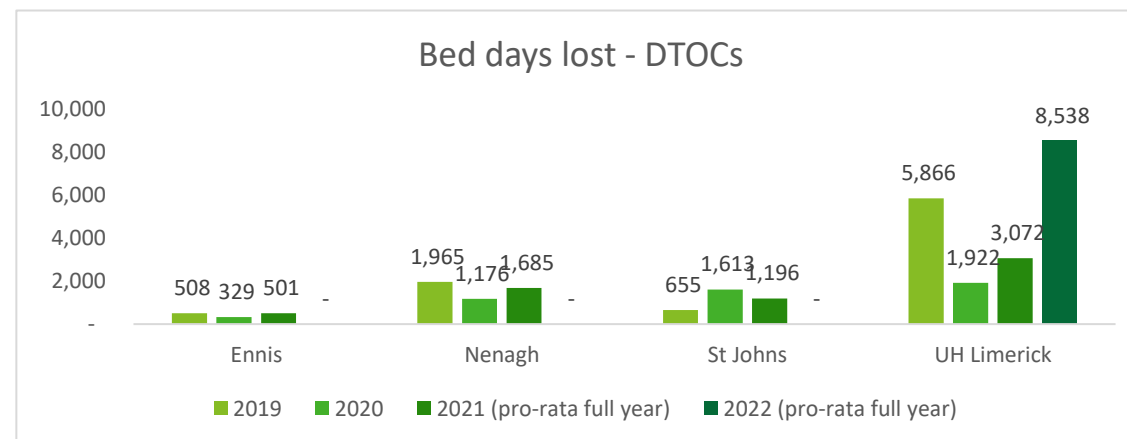
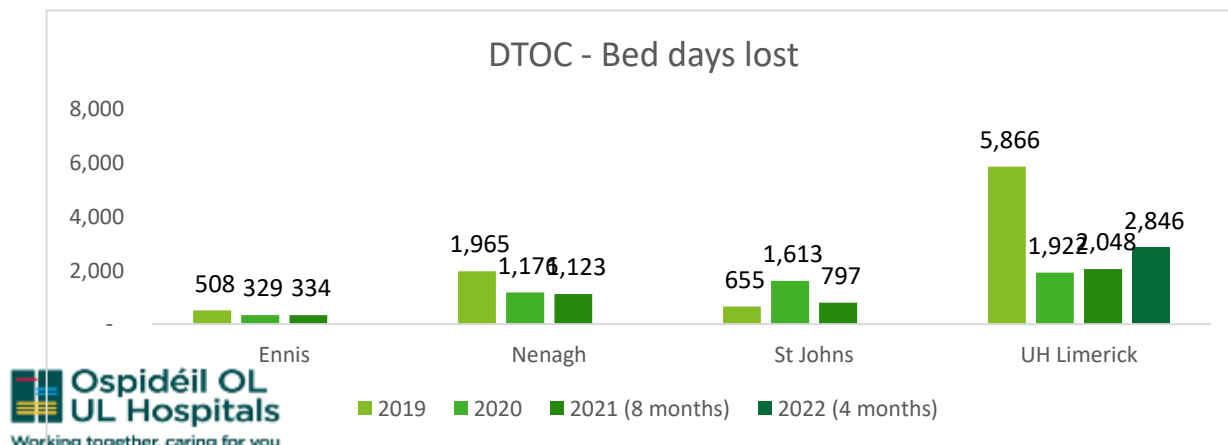
6. Delayed Transfers of Care

Each year **between 5,000 and 9,000 bed days are lost due to delayed transfers of care (DTOC)**. This was highest in 2022 in UHL with a projected 8,538 bed days when pro-rata for the full year. The highest volume of bed days lost are in Nenagh and UHL.

The Bed Days lost reduced for both 2020 and 2021 were significantly reduced when compared with 2019 however this is likely due to reduced admissions for long-stay patients such as those with acquired brain injury during Covid-19 pandemic rather than a true reduction in DTOCs. It should also be noted that data is only available for 8 months of 2021 due to the Cyber attack in this year.

Using the 8,538 bed days projected to be lost in 2022 in UHL, this means there could be up to 23 inpatient beds lost due to DTOCs on the UHL site alone. There are multiple factors that can influence this including:

- **Access to rehab beds:** there are multiple rehab units available for patients in the region, however the criteria for each unit is different and the processes for admissions is different. There can be delays due to the frequencies of decision making within the units on the acceptance of patients
- **Discharge planning:** Discharge planning: due to the absence of enablers (such as an integrated case management system and a single assessment tool) there is a high administrative burden associated with engagement with structures outside of the hospital, e.g. home care packages, Fair Deal scheme applications, engagement with community services and rehab facilities which adds to the workload for the team.
- **Access to home support & fair deal:** While very few bed days are lost due to DTOCs awaiting home supports there are some individual cases whereby patients require a high level of support and there can be challenging to staff especially in rural areas
- **Access to model 2 step down:** There can sometimes be delays in transferring patients to Model 2 hospitals particularly if the patient has an IPC alert. The beds in St. John's Hospital in particular may not be fully utilised as the occupancy rate there remains under the 85% recommendation. It is recognised that the infrastructure in St. John's Hospital is poor and the governance of the hospital is separate to the Group as it is a voluntary facility.



C. Patient Flow at Post-Admission | Key Findings

7. Staffing

Nurse staffing

From a nursing perspective, safer staffing levels have been implemented on the wards, ensuring there is sufficient cover for annual leave and sick leave. However, surge capacity is frequently in place which requires re-deployment of staff to cover areas that are not staffed 24/7 but are in use during surge such as the surgical day ward. Surge plans also involve having three trolleys per ward resulting in an additional clinical workload for staff. Frequently there are also 1:1 care requirements on wards requiring agency staffing or re-deployment to manage.

Medical staffing

From a medical team perspective there are very high volumes of patients admitted from the ED each day. There is now **40 patients admitted on average each day** under the medical teams. Given the high volume of patients ward rounds can be lengthy slowing down patient flow. A system of speciality hand-back has been implemented which has numerous benefits in getting patients to the right team, reducing investigations and spreading the workload more evenly among teams. However, there are considerable numbers of teams rounding on wards which has other implications for patient flow. In general the hospital has a very low number of SpR's for a Model 4 hospital which means there is a lack of senior decision makers, particularly out of hours.

HSCP staffing

There is a staffing shortage in all AHP specialities in UHL. There are numerous wards with **no OT or Medical Social Work staffing funded** when the national staffing ratios are 1:10 for OT and 1:20 for Social Work. The lack of these disciplines **can impact timely discharges as patients** need to be reviewed before being discharged. Full MDTs are required in the Model 2 hospitals also, there are no OTs or dieticians, for example, in Ennis. There is a lack of funded posts in this area and also challenges in recruitment in particular areas that are reflected nationally and globally such as sonographers.

Bed management / Patient flow

There is currently a team of seven WTE managing patient flow and bed management in UHL and across the Group. This staffing includes two staff during the day, one managing bed allocation and the other managing transfers to Model 2s and a single resource on overnight. Out of hours staffing is a particular issue given the high volume of patients who require a bed out of hours as a result of discharges often happening late in the evening. Management of patient flow during the pandemic has increased complexity significantly due to the criteria for admission to wards and the need to transfer patients between wards to ensure there is single room capacity. Patients who require oxygen support for the treatment of COVID-19 are admitted to the COVID-19 ward in single room accommodation, there is also cohorting of COVID-19 patients to another ward. These patients can then transferred to non-COVID-19 wards once their swabs have an appropriate CT value that indicates they are no longer at risk of cross infecting other patients. There are also criteria for admission to wards based on IPC alerts, all of which results in a high degree of complexity associated with bed allocation. Resourcing in the bed management team has not changed since pre-COVID-19, the team are managing with the same resources but a much more complex process.

There is also no dedicated resources associated with discharge planning to support the nursing staff on the wards. There is a high administrative burden associated with discharge planning including completing applications for Fair Deal scheme, home care packages etc. and given the high patient volume on wards with trolleys on each ward the nursing staff find this workload challenging

C. Patient Flow at Post-Admission | Key Findings

8a. Inpatient Infrastructure

There is a total of 473 inpatient beds in UHL (excluding the 46 critical care beds and 11 CDU beds). Within this the standard and condition of existing physical infrastructure varies significantly. There are seven wards in the hospital consisting of nightingale accommodation designed in the 1930s and opened in the 1950s. Nightingale wards consist of one large room without sub-divisions and with multiple beds side by side and shared bathrooms. Greater than 50% of the inpatient accommodation is made up of these multi-occupancy wards and some of the nightingale areas within these wards have up to 14 inpatient beds within them.

These wards are completely unsuitable for a hospital of this category inhibiting the hospital's ability to provide the required level of care to meet patient needs and comply with current SARI / HTM guidelines and a variety of national standards and guidelines of relevance to inpatient accommodation. These wards are associated with continual outbreaks of COVID-19 and Carbapenemase Producing Enterobacteriaceae (CPE) and when there is an outbreak the majority of patients on the ward are affected. In addition, due to the large number of patients in these ward areas there is a large burden associated with contact tracing and there is often a large number of beds blocked due to a single infection as deep cleans are carried out which has further knock-on implications for bed capacity, bed management & patient flow. There are specific admission criteria for each ward and often there are requirements to transfer patients between wards during their stay as a result of the lack of single patient rooms. This adds to the complexity, the workload and slows down the flow through the hospital.

In 2019 there was over 1,300 bed nights lost due to bed closures, equating to 4.3 beds at the appropriate occupancy rate. In 2020 this rose to over 2,700 bed nights or 8.7 beds and in 2021 it has reduced to 726 bed nights or 2.3 beds. Using the first 4 months of 2022 and pro-rata for full year there is estimated to be 1,600 bed days lost in 2022 or 5 beds. These closures were predominately on the large multi-occupancy wards



C. Patient Flow at Post-Admission | Key Findings

9. Technology

The technology throughout the hospital is outdated by international standards for a Model 4 hospital. From a bed management perspective there are multiple systems that are used and required to manage patient flow due to a lack of single integrated system. This limits visibility of bed availability and demand across the hospital and increases the administrative burden for both the bed management team and also the ward staff in maintaining and updating these systems. Additionally, some of these systems have been developed by in-house resources but they are unsustainable and pose a corporate risk on a number of fronts.

Overall, the systems include:

- **iPMS:** the main Patient Administration System (PAS) used across the group; iPMS supports numerous EDs across Ireland and the NHS
- **Maxims:** an alternative ED system that is deployed in UHL only i.e. Nenagh and Ennis IUs and St. Johns use iPMS
- **IPC system:** Used to determine if there are any IPC alerts for the patient which would result in specific ward / bed requirements
- **Bed booking system (BBS):** An in-house developed system that users access via iHub, and it is used to book a bed for patients
- **Red to green system:** An in-house developed SharePoint tool called 'Red to Green' is used to show patients awaiting diagnostics, review or transfer to continue on with their clinical treatment to timely discharge. If a patient is awaiting a diagnostic test or physio review, for example, this is updated on the system and the patient is highlighted as 'red' on the system. This allows bed management to follow up and progress actions for these patients to ensure patient flow continues. Operational use of the system to manage patient flow is low;
- **Bed cleaning app:** An in-house developed bed cleaning app has been introduced where ward staff can log a bed for cleaning and the app is then updated by cleaning staff to show the bed cleaning in progress or bed cleaning complete. The bed management team use the app to determine if beds are available following cleaning. Operational use of the system is low;

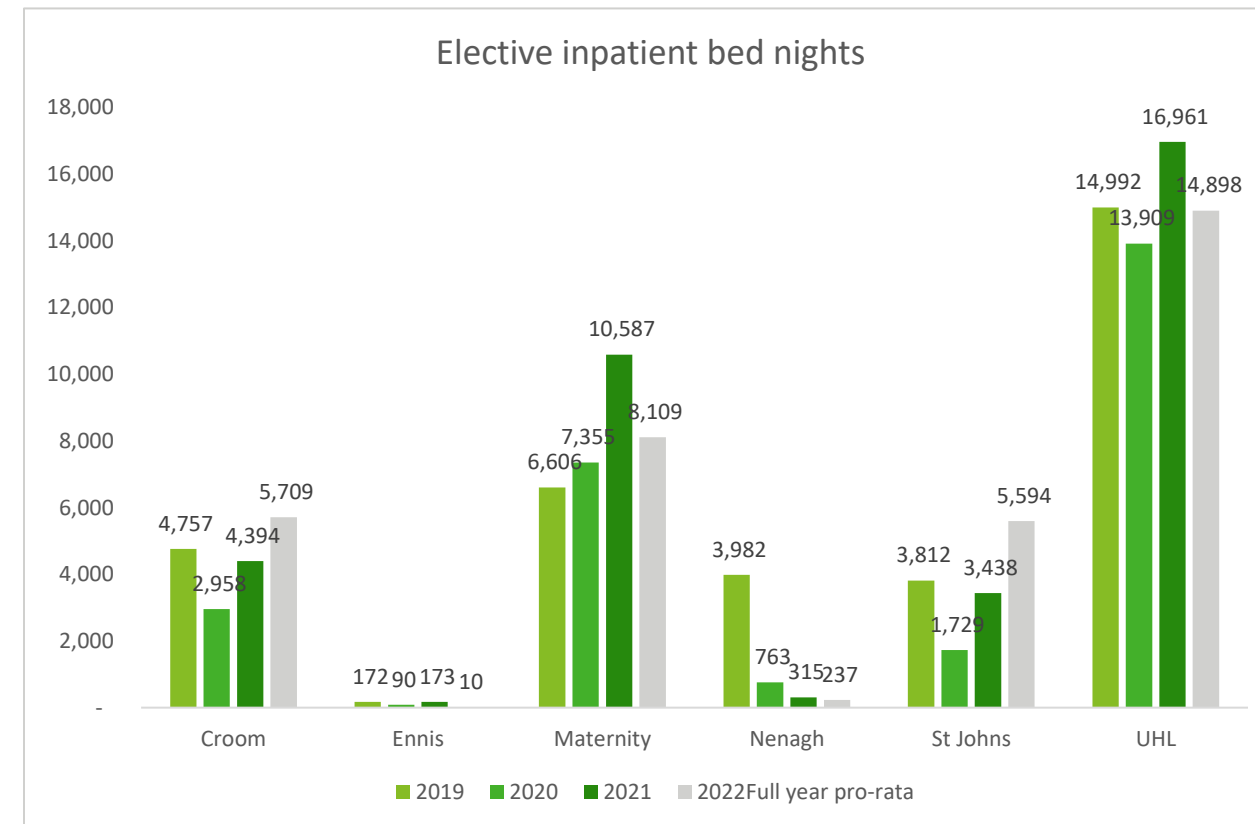
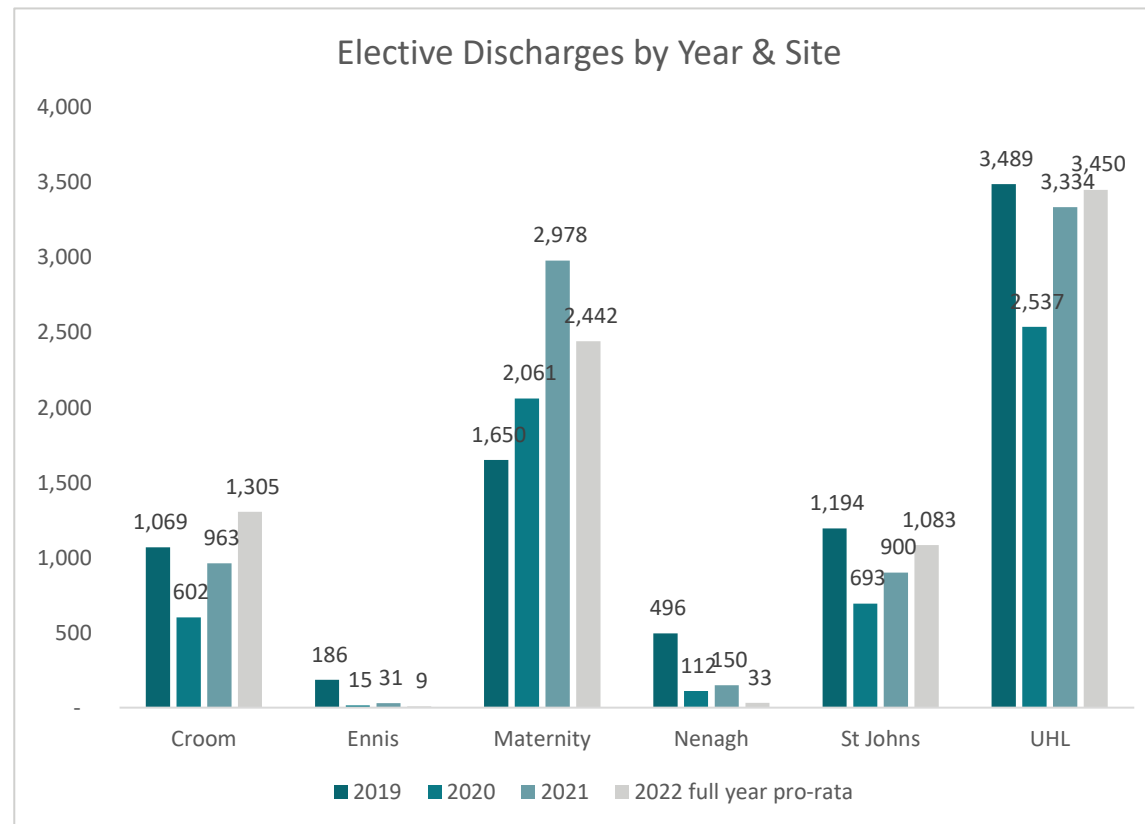
The lack of order comms for e.g. labs (described previously), has impacts of patient flow at ward level as well as in the ED. NCHDs are completing multiple paper order forms for patients for their laboratory tests, increasing the administrative overhead and the efficiency with which patients can be managed.

Finally, the hardware across the hospital impacts on the efficiency of patient management and therefore flow. There are insufficient numbers of PCs and PACS monitors across the hospital for use by clinical staff and the PCs that are available have restrictions in terms of the software that runs on them. This means that, in order to access lab results, radiology results and the IPMS system clinicians are often logging into multiple PCs across the hospital. This impacts the timely management of patients. A hardware refresh programme is in-flight as this is a joint endeavour between the local ICT team and the OoCIO. Currently, details of the plan and benefits realisation outcomes are yet to become available.

C. Patient Flow at Post-Admission | Key Findings

10a. Reduced Elective Inpatient Activity

Elective activity has reduced across all sites between 2019 and 2021, likely as a result of cancellations due to surge capacity and lack of inpatient beds. In UHL the **reduction in elective discharges was 4%** between 2019 and 2021 and by 2022 discharges are almost back up in line with 2019 levels. Between 2019 and 2021 the bed nights actually **increased by 13% due to an increase in the ALOS of 0.8 day**. This is likely to reflect an increase in the acuity of patients who are admitted electively. In 2022 which a higher volume of discharges the bed nights were more in line with the 2019 elective bed night numbers.



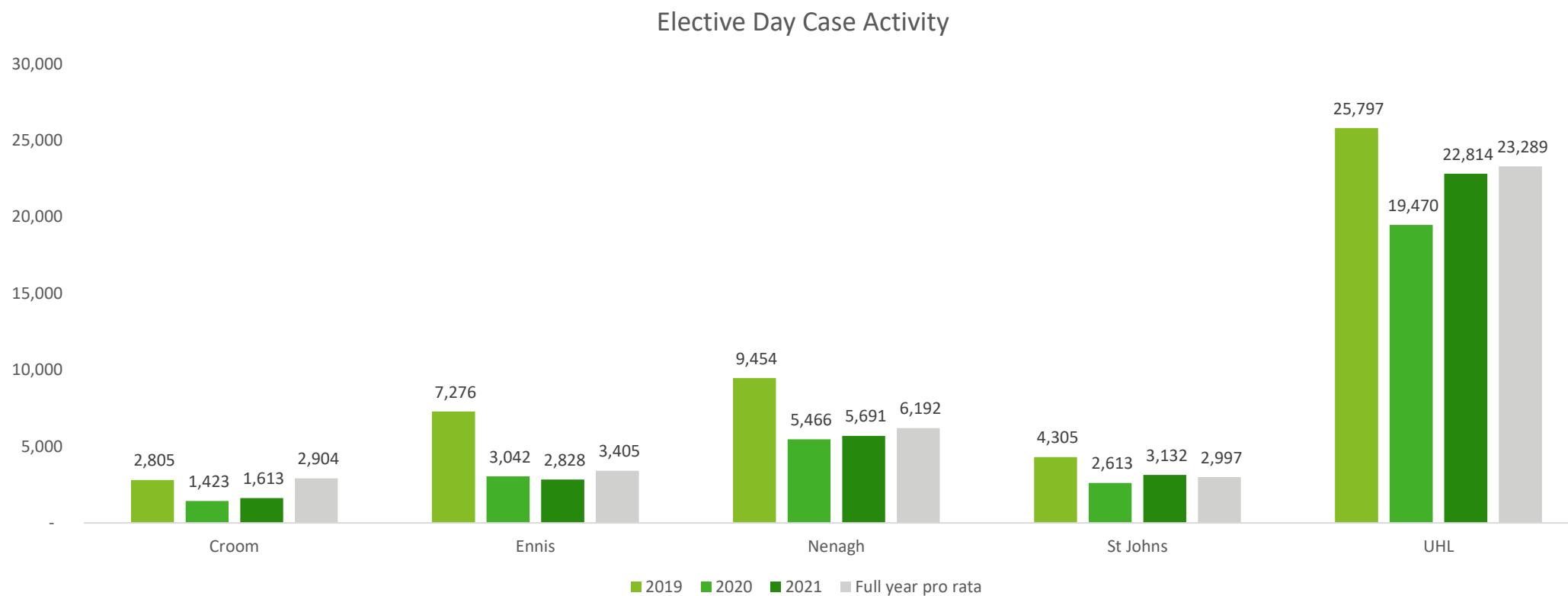
C. Patient Flow at Post-Admission | Key Findings

10b. Reduced Elective day case Activity

Elective activity has reduced across all sites between 2019 and 2021, likely as a result of cancellations due to surge capacity which resulted in utilisation of day beds for surge activity.

Overall there was a reduction of 27% between 2019 and 2021 and in UHL there was a reduction of 12%.

Projecting the elective day case activity for the full year 2022 based on the first 4 months of this year shows a slight increase in activity **but projects that it will remain 22% below 2019**

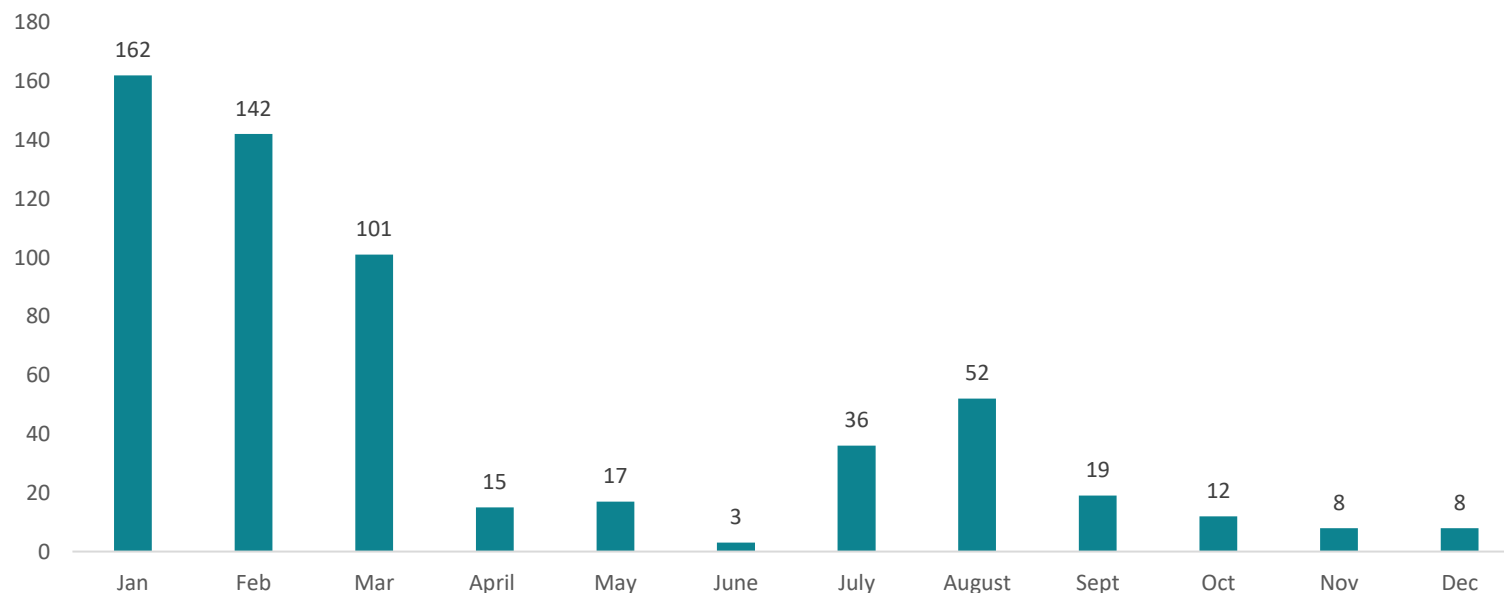


C. Patient Flow at Post-Admission | Key Findings

10c. Cancellations of elective surgery

High bed occupancy leads to the requirement to cancel elective activity due to lack of bed availability. In UHL in 2021 there **were 574 elective theatre lists cancelled due to COVID-19 impacts on bed capacity or initiation of surge capacity due to lack of bed availability**. This has implications for patients in terms of the quality of their care, patients who have been reviewed by a consultant and deemed to require surgery often already have considerable waiting times due to the lengthy waiting lists and cancellations of surgery further exacerbate this. Patients can deteriorate and require emergency surgery impacting on ED attendances and inpatient admissions or when they do have surgery may require a longer stay due to their acuity as evidenced by the increased ALOS for elective admissions described above. This also has implications for cost, staff utilisation and ability to attract and retain surgeons who require dedicated theatre time to support and maintain their surgical competencies. Outsourcing elective activity has its own challenges as patients often have to leave the region for their surgery, this means patients may need to travel to Cork or Galway for their pre-assessment and return the next day for surgery and again for follow up leading to very poor experience for patients in the region.

Theatre lists cancelled due to surge / COVID-19 in UHL (2021)



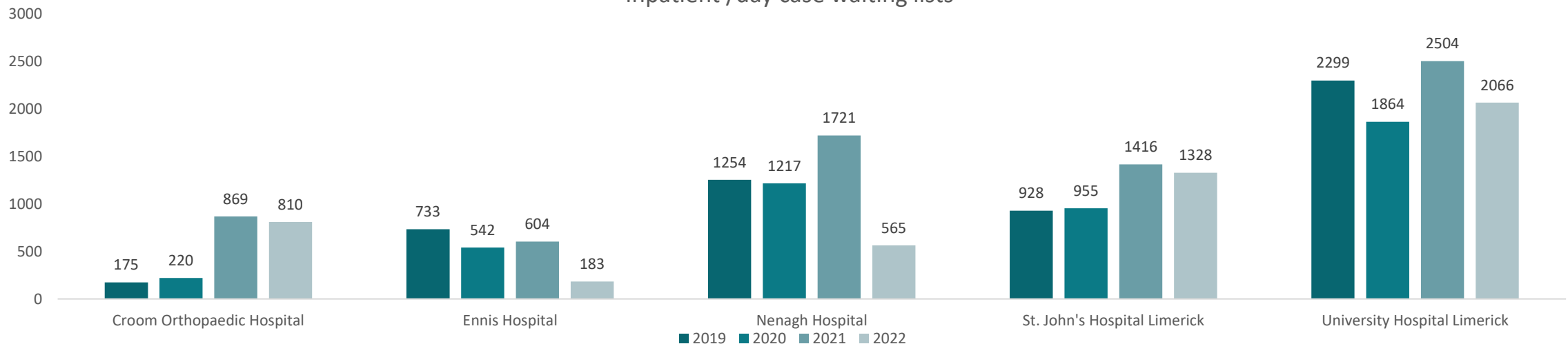
C. Scheduled Care | Key Findings

11a. Increased inpatient day case waiting lists

Inpatient / day case waiting lists across ULHG have **increased by 27% between 2019 and 2021** and inpatient waiting lists have increased by **54% over the same period**. **2022 saw reductions in the waiting lists by 30% as a result of a range of initiatives that have been undertaken by ULHG**. A total of five initiatives are now in place within the ULHG and are designed to target both the longest waiters and urgent time critical patients. The initiatives are a mix of virtual and face to face consultations, procedures and diagnostics and are supported by numerous specialities across the Hospital Group. The Advanced Clinical Prioritisation (ACP) initiative to date has delivered 8,047 virtual consultations and is expected to achieve 13,600 by year end. The National Treatment Purchase Fund (NTPF) initiative is on target to achieve over 4,500 consultations across ten specialities by year end. This initiative is supported by outsourcing to private hospitals. The Scheduled Care Transformation Programme (SCTP) was introduced this year and is a once off funding initiative providing out of hours consultations for additional activity within the Hospital Group. It is supported by twelve specialties and since starting in April of this year, has delivered 4,048 consultations and procedures. Safety Net Agreement (SNA) initiative has delivered 6,802 consultations and procedures to date and is due to cease on the 20th of September 2022. Access to Care was introduced in July of this year and will provide additional support to patients, including inpatient and day cases. In summary, the initiatives in place to date have performed well and are making a significant difference in tackling the Groups long waiting lists.

In May 2022, there remained almost 5k people waiting for an inpatient or day case admission. Curtailments of OPD services over this period mean that this is likely to be an under estimate as there are patients waiting to be seen in outpatient who will convert to the inpatient / day case list

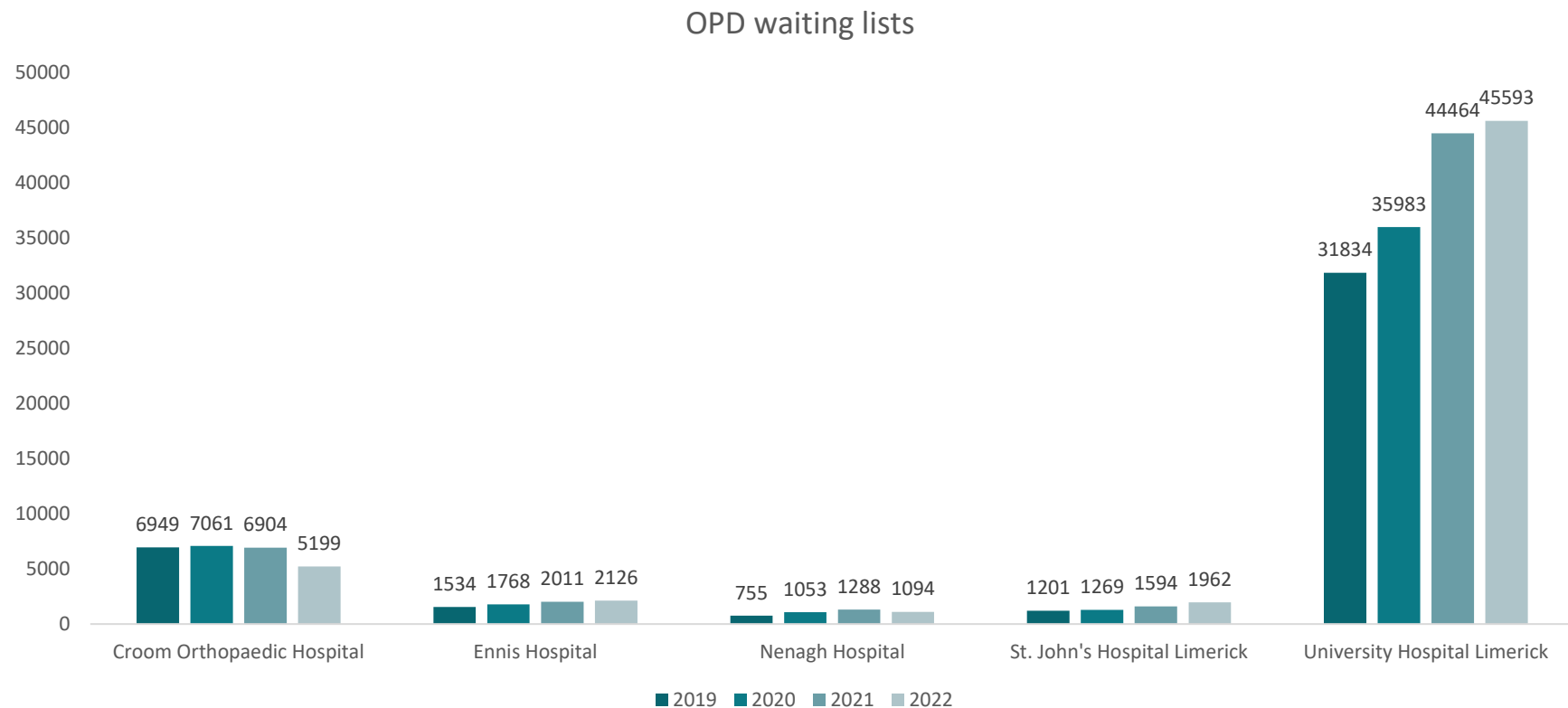
Inpatient /day case waiting lists



C. Scheduled Care | Key Findings

11b. Increased OPD waiting lists

OPD waiting lists across ULHG have increased by 32% between 2019 and 2022. As of January 2022 **there was almost 56k patients on the OPD waiting lists**. These increases have been seen across all sites in the Group with the exception of Croom. **In UHL waiting lists have increased by 43% in this period.** There is a conversion of patients seen in OPD to inpatient or day case which means that the demand for inpatient and day case services will increase considerably when the OPD waiting lists can be addressed. If even 1% of OPD appointments convert to a requirement for an inpatient or day case appointment this would result in an additional 560 appointments in addition to the existing waiting lists.




2 | Current State Analysis

D. Integrated Community and Hospital Services

D. Integrated Community and Hospital Services | Summary of Key Findings

The below are the key findings associated with the process following decision to admit from the ED that has been described in the slides above. These are described in more detail with associated data in the following slides.

- 
- 1. DTOCs:** there is good integration between hospital and the community in terms of managing DTOCs, including discharge coordinators from community 'case finding' in the hospital and DTOC meetings jointly between hospital & community. Despite this DTOCs have increased again in 2022 and are estimated to be >8.5 bed days lost in 2022 (or 28 beds). The majority of DTOCs are discharged to rehab or residential care centres in the community.
 - 2. ECC at early stages of development:** enhanced community care is supported by integrated governance across hospital & community however services are at the very early stages of development and will take some time to see the impact they can have in terms of hospital activity
 - 3. ICPOP Hubs:** ICPOP hubs have been established in three locations in the Mid-West with good feedback from patients. The hubs provide high intensity assessment and intervention for a specific cohort of patients. The overall number of patients referred to this new service across the three hubs in the first five months of 2022 was 370 patients, and is unlikely to reduce ED attendances in the short term.
 - 4. Residential Care:** there are a range of step-down, rehab, long and short-stay beds in the community aimed at supporting discharge from the hospital for suitable patients and there are established pathways for accessing these beds. Total of 492 Community Residential Care beds in 2022 a reduction of 37 beds since 2019 due to HIQA requirements regarding multi-occupancy wards. Despite this occupancy rates have reduced across all the units at the same time as there has been an increase in DTOCs
 - 5. Technology & availability of Data:** there is a lack of ICT systems within the community to support service delivery and also to capture the data on demand and capacity to allow for informed service planning
 - 6. Curtailed community activity & long waiting lists :** there is a lack of ICT systems within the community to support service delivery and also to capture the data on demand and capacity to allow for informed service planning .
 - 7. Community Intervention teams:** There is strong interaction between the Community Intervention Teams (CIT) and the hospital. Community CIT Services including Multi-Disciplinary CIT (MDCIT) services, facilitate early hospital discharges and admission avoidance by extending the multi-disciplinary team across the Mid-West and activity has increased since 2019

D. Integrated Community and Hospital Services | Key Findings

1. Delayed Transfers of Care

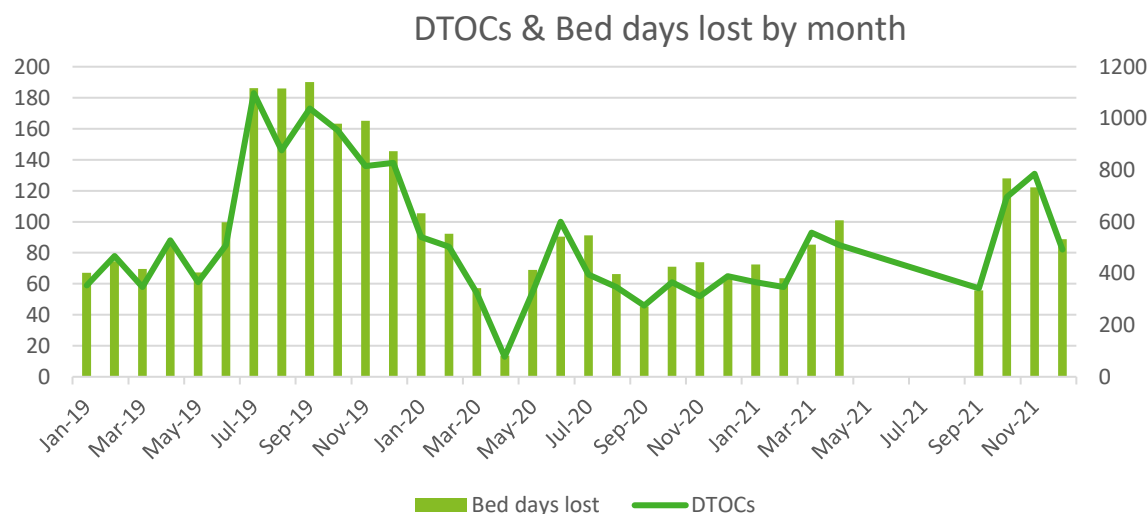
Delayed Transfers of Care require extensive collaboration between hospital and community in order to ensure patients can get access to the community services they need once they are medically fit for discharge. Midwest Community Healthcare and ULHG work collaboratively on DTOCs and have a weekly DTOC meeting with attendees from both hospital and community. Each DTOC is discussed and plans made for them. In addition there are two WTE discharge coordinators from the community who go into the hospital to support and coordinate discharges who need community support.

It has been observed that the complexity of DTOC cases is increasing and the cost associated with the packages required is also increasing and there has been cases where packages of up to 500k are required. There are also challenges with home support with gaps in resources in particular areas, 140 WTE have been hired by the community with another 40 in progress.

The majority of DTOCs in 2022 were discharged to rehab beds (39%), Step Down Care (17%) and Nursing Home Support (12%)

While there were significant reductions in DTOCs during 2020, these have increased during the first 4 months of 2022. The drop off in 2020 and 2021 is likely due to an overall reduction in attendances and admissions due to the Covid-19 pandemic as the DTOCs have increased again in 2022 to 2019 levels.

This is despite an increase in residential beds in the community including 25 additional high value rehab beds provided in 2021. This may reflect an increase in the complexity of the cases, the challenges in providing home care packages in certain geographical areas due to staff availability.



Discharge destination	Total number of	
	patients	Bed Days Lost
Care transferred to designated older persons rehabilitation bed	76	768
Care transferred to Step Down Care	34	501
Care transferred to Nursing home (NHSS)	24	346
Home to pre-existing levels of supports	15	158
Care transferred to other Rehab bed	12	148
Care transferred to Intermediate Care	5	34
Home with new Home Support package	5	138
Care transferred to Transitional Care Bed prior to Nursing Home admission	3	39
Ward of Court - Care transferred to Transitional Care bed	3	221
Care Transferred to Community Nursing unit	2	26
Care transferred to Mental health service	2	80
Care transferred to Nursing home (Self pay)	2	55
Other	12	552
Total	195	3066

D. Integrated Community and Hospital Services | Key Findings

2. Enhanced Community Care at early stages of development

Enhanced Community Care (ECC) is an initiative under Sláintecare and there is close collaboration between UHL and Midwest Community Healthcare regarding the governance of ECC in the region. There is an ECC governance group attended jointly by hospital and community stakeholders – the **ECC Integrated Forum**. This group has oversight for all of the ECC initiatives. The initiatives span across a range of areas and are at the very early stages of development. In the case of health & wellbeing services centred around health promotion and disease prevention the impact of these initiatives will not be seen for a considerable period. The services being planned include:

- **ICPOP:** Three Ambulatory Care Hubs in Limerick, Ennis & Thurles operational and taking referrals from GPs and hospitals that meet the criteria. The teams have been operational since December 2021 (with the Ennis team operational since May 2021) however they are not fully staffed with each team being short 3 – 5 clinical staff members that are actively being recruited for.
- **Frailty at front door:** as described previously, hospital based team with community resources who provide assessments for >75s attending the ED who meet the criteria in terms of frailty and medical needs with an aim of reducing time spent in the ED and supporting discharge home
- **Contracted beds:** 70 Egress and Short Stay Therapeutic Beds are now in contract and operational across the region, the utilisation of these beds falls under national and local governance.
- **Rehab pathways:** Standardisation of criteria and admission pathways for rehab beds is an initiative between the hospital and the community to simplify the process for admission.
- **Community Health Networks (CHNs):** - At present, three of the eight CHNs are live, and three more will become operational in October 2022 across HSE Mid West Community Healthcare. The CHNs will act as a central hub for the delivery of enhanced community care services including services historically only available in acute environments such as diagnostics
- **Chronic Disease Management hubs** Chronic Disease Management Programme, which has three streams - respiratory, diabetes and cardiology. This Programme has commenced across the Mid West. Community-based pulmonary rehabilitation classes have commenced in Limerick, which is currently providing classes to patients who were previously on the UHL waiting list. Waiting times have been reduced from 104 weeks to 15 weeks. The diabetic stream has also commenced, however the consultant clinical governance arrangements are not funded. The cardiology stream is in the early stages of development.

Health & Wellbeing services

- The **Living Well Programme** is a free group self management programme for adults with long-term or chronic health conditions that runs for six weeks. These patients tend to use the hospital the most. Four Living Well Programmes have been completed since Autumn. In Person/Face-to-Face events have commenced with five community-based (Hospital, Ballynanty, Ennis, Nenagh, Thurles – 80 participants) and two online programmes underway. Further courses are planned for Limerick and other locations commencing in November.
- **Sláintecare Healthy Communities** promotes the implementation of an enhanced Health & Wellbeing Programme in areas that have the greatest levels of disadvantage and highest proportion of young families. The pilot site started in 2022 with; **Social prescribing** commencing in May and seeing 37 clients; **Healthy Food Made Easy** on track to meet KPI of 14 programmes to be delivered in 2022; **Two We Can Quit** stop smoking support groups starting in coming weeks (22 participants signed up); **One Parents Plus** programme complete and one more planned for 2022
- **Health Promotion and Improvement programmes** have commenced including; Quit Mid West (19 stop smoking clinics running); Integrated stop smoking clinic for pregnant women launched in May with 24 women seen to date and Minding Your Wellbeing with one programme delivered per month and 73 course participants to date in 2022
- **Social Prescribing in the Community Programme** provides non-clinical routes for support to people who may otherwise use GPs or the ED frequently. It is a means of enabling healthcare professionals to refer people to a range of community, local, non-clinical programmes and services, through a community based Social Prescribing link worker.

D. Integrated Community and Hospital Services | Key Findings

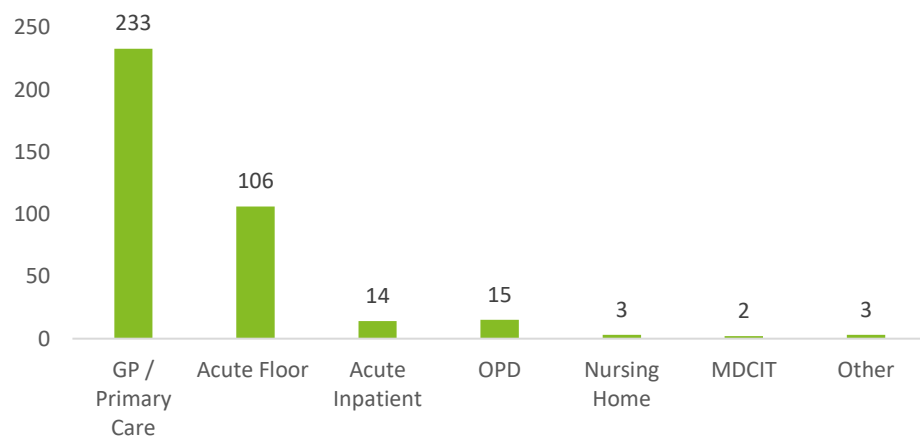
3. ICPOP Ambulatory Hubs

As described on the previous slide, ICPOP ambulatory hubs have been established under the Enhanced Community Care programme. The three hubs planned for the Mid-West are operational in Limerick, Ennis & Thurles and are accepting referrals based on the established criteria. The criteria includes that patients are over 75, have had a recent change in their welfare that requires assessment and have a referral from a doctor. The Limerick and Thurles hubs have been operational since December 2021 while the Ennis hub is operational since May 2021. there has been a total of 376 referrals to the three hubs between January and June 2022, an average of 100 – 150 per hub. As shown in the data referrals are mainly from GPs - 60% of total referrals

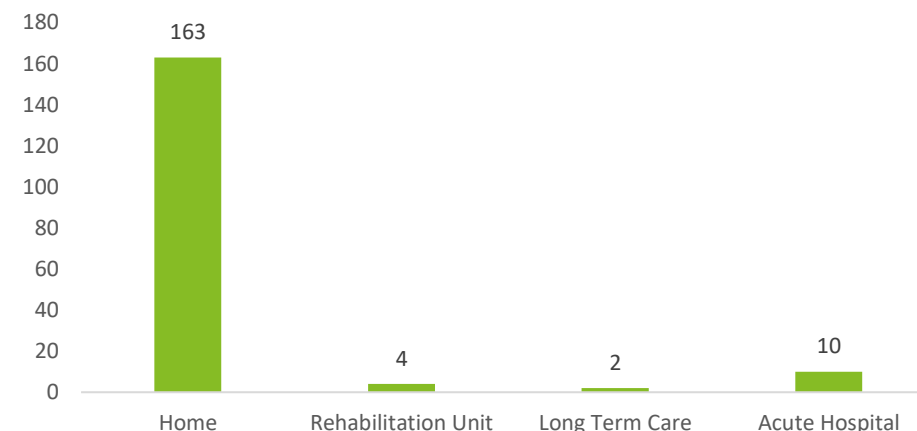
There was a total of almost 250 attendances to the ICPOP hubs up until mid-June 2022 or 50 attendances per month. These attendances generated almost 3,000 assessments and interventions across the three hubs or average of 1,000 per hub. The ICPOP hubs have large multi-disciplinary teams of 12 clinical staff (consultant geriatrician, registrar, CNS, CNM II, Physio, Physio assistant, OT, OT assistant, SLT and dietician, social worker and ANP) when fully staffed. Most of the hubs have a staffing complement of 8 -10 of these staff members at present

ED attendances continued to increase quite significantly over the first five months of the year in UHL despite the activity in the ICPOP hubs which would indicate either the hubs are not replacement activity from the ED or there is an overall increase in demand for services which equates to the activity in the hubs as well as the activity in the ED.

ICPOP Source of Referral
(Week 0-24, 2022)



ICPOP Discharges
(Week 0-24, 2022)



D. Integrated Community and Hospital Services | Key Findings

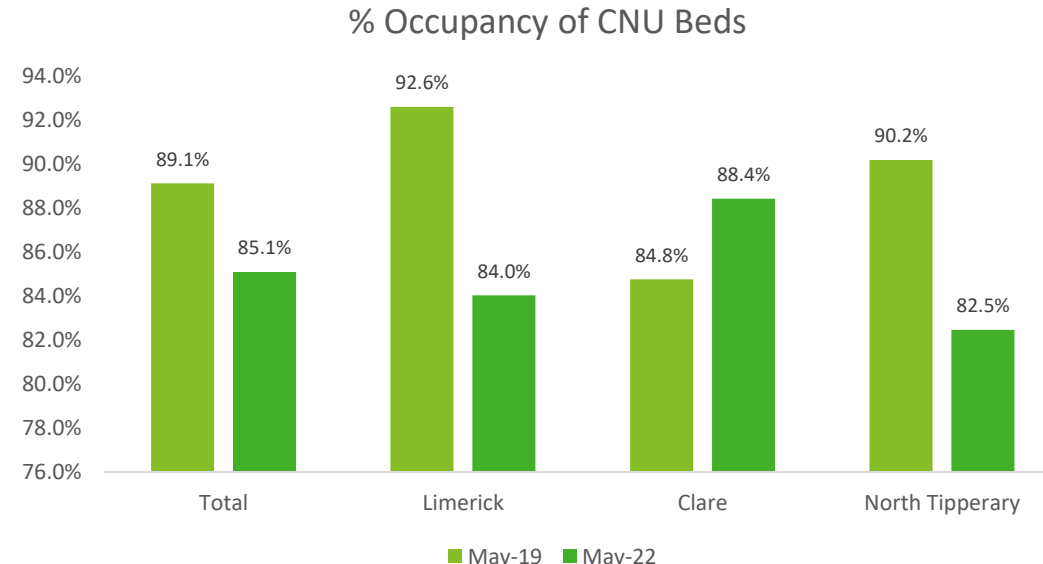
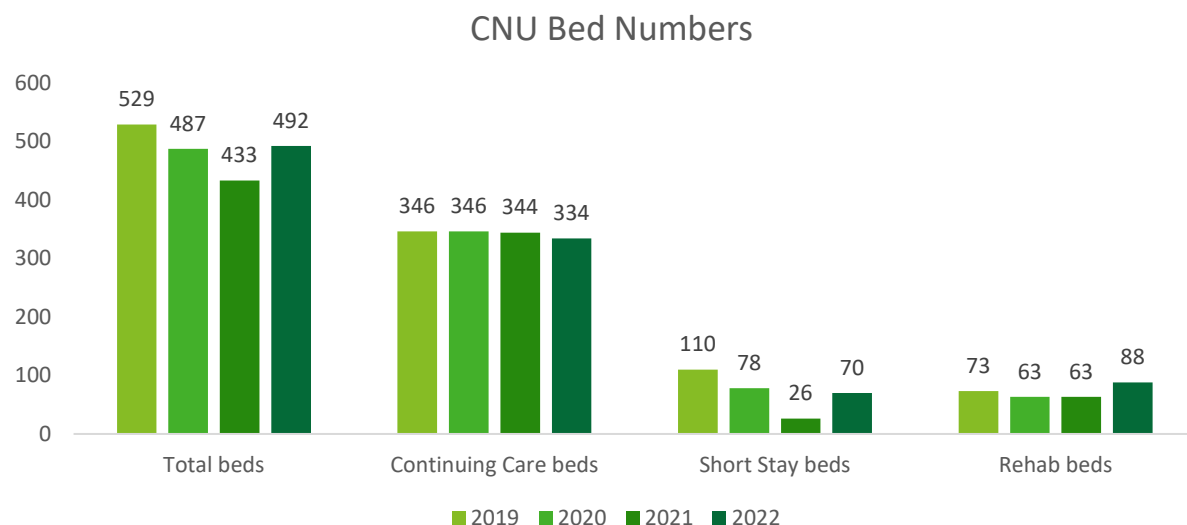
4a. Residential Care

There are a range of rehab, long and short-stay beds in the community aimed at supporting discharge from the hospital for suitable patients and there are established pathways for accessing these beds. There has been an overall reduction in community bed capacity compared with 2019 by 37 beds or 7% largely as a result of repurposing multi-occupancy wards for isolation and to meet the HIQA requirements. There is an ongoing programme of major capital investments to both maintain and improve facilities in Community Nursing Units.. The occupancy rates of CNU beds have reduced significantly across all areas with the exception of Clare (described further on next page)

The beds available in the community to support egress from acute hospital sites, include:

Total of **492 Community Residential Care** beds in 2022 a **reduction of 37 beds** since 2019, this includes:

- 88 Rehab beds in St Ita's Hospital, St Camillus Community Hospital, St Joseph's and Community Hospital of the Assumption including high-value rehab beds which have been added in 2021 and allow for the management of patients requiring more intense intervention
- 70 short stay beds, a reduction of 40 beds or 36% since 2019
- 334 Continuing Care Beds a reduction of 3% since 2019



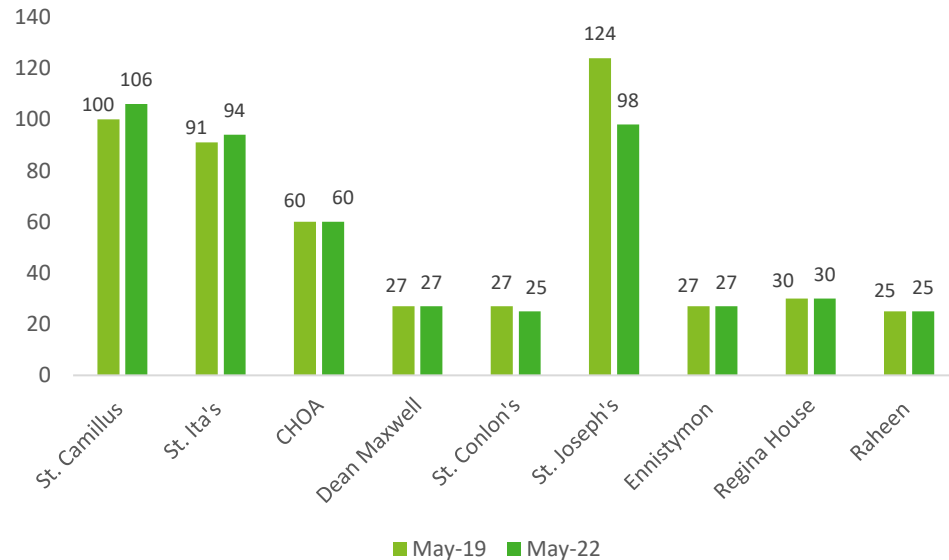
D. Integrated Community and Hospital Services | Key Findings

4b. Residential Care

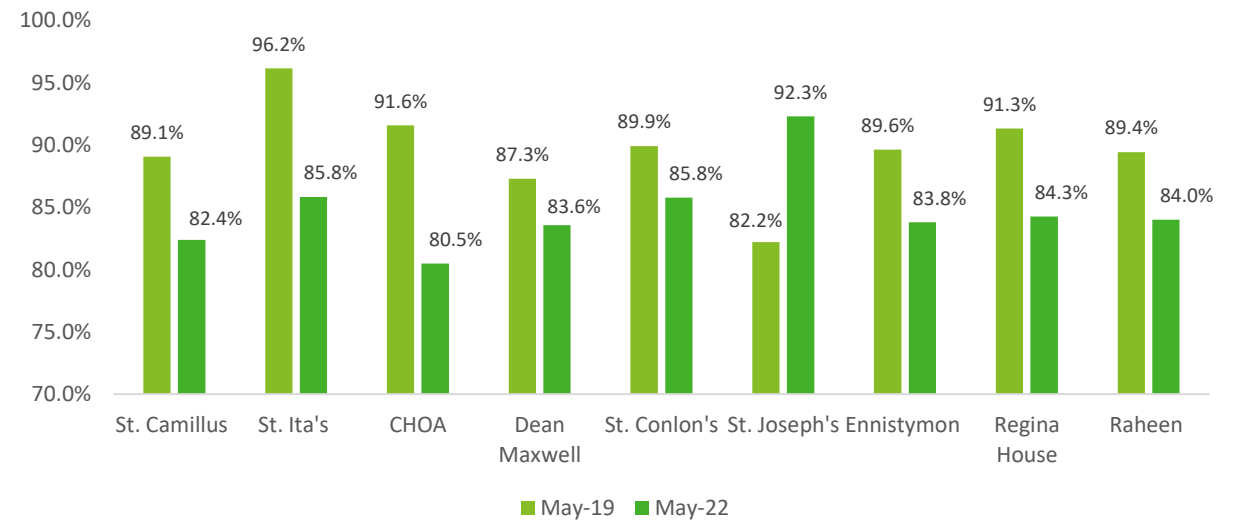
The occupancy rate of all of the Community Nursing Units was above the recommended 85% in 2019 with some units having occupancy rates of >95%. This has reduced across the board for the same period of 2022 with occupancy rates dropping by almost 10% in most places to around 80 – 85%. The only hospital unit that experienced an increased occupancy rate is St. Joseph's which is likely due to the loss of 26 beds since 2019.

The reduced occupancy rate across the units may represent a reluctance on the part of patients to enter residential care following the pandemic.

Number of CNU Beds by Unit



% Occupancy by Unit

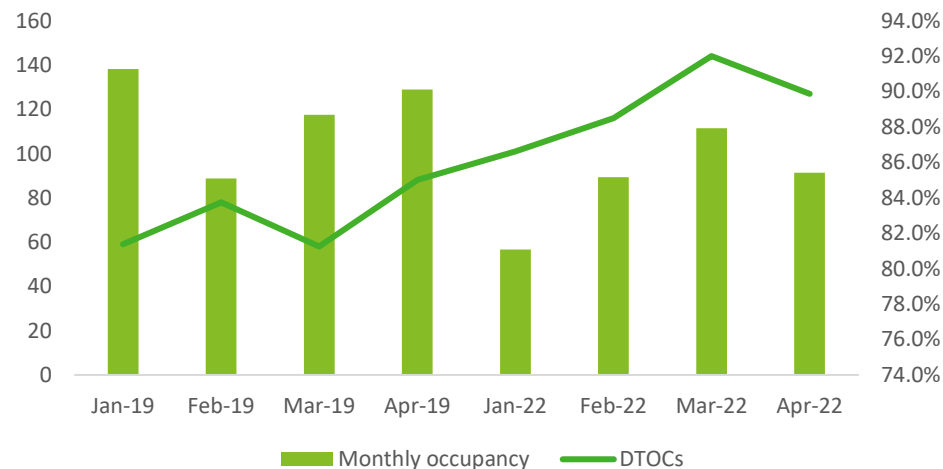


D. Integrated Community and Hospital Services | Key Findings

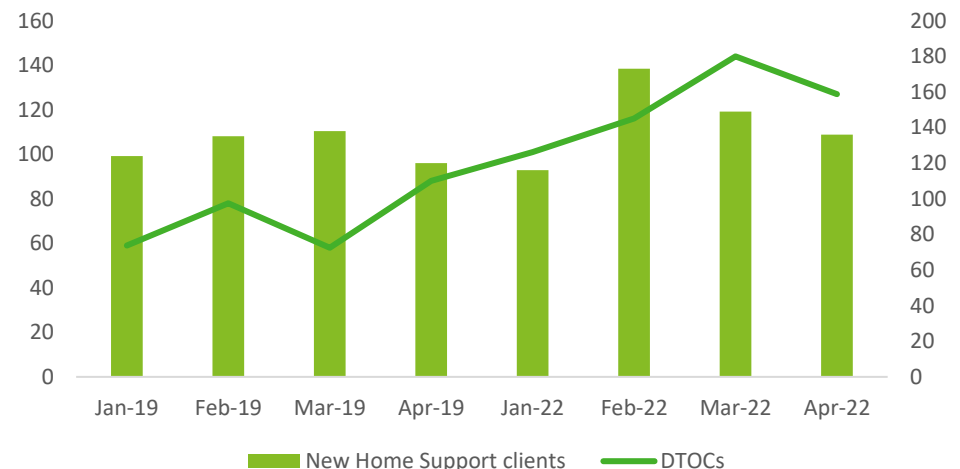
4c. Residential Care

The occupancy rate of all of the Community Nursing Units does not appear to be correlated with the Bed Days Lost due to Delayed Transfers. DTOCs have been increasing 2022 while the occupancy rate of CNUs has reduced suggesting that CNU bed availability is not the driver for DTOCs. Similarly, the number of new home support clients has increased in 2022 compared to 2019 indicating that home support access may not be the driver for the increase in DTOCs.

% Occupancy of CNU Beds Vs DTOCs



New Home Support Clients Vs DTOCs

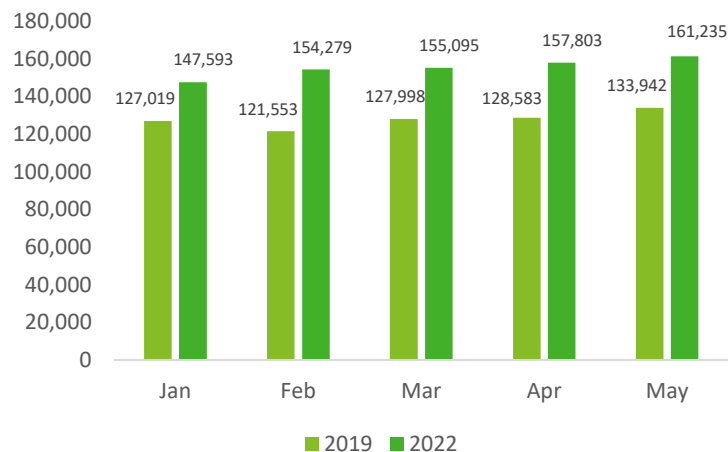


D. Integrated Community and Hospital Services | Key Findings

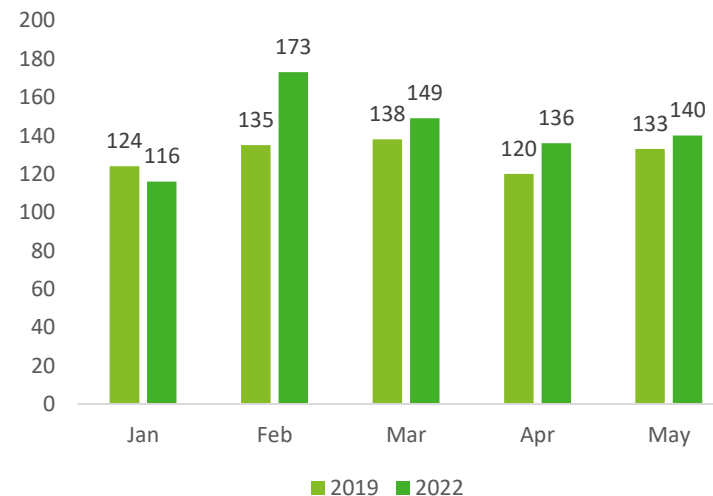
4d. Residential Care – Home Support

The number of Home support hours provided from January to May 2022 increased by 21.4% when compared to during the same period in 2019. The number of people in receipt of Home Support has increased by 2.8%, and the number of new clients increased by 9.8%.

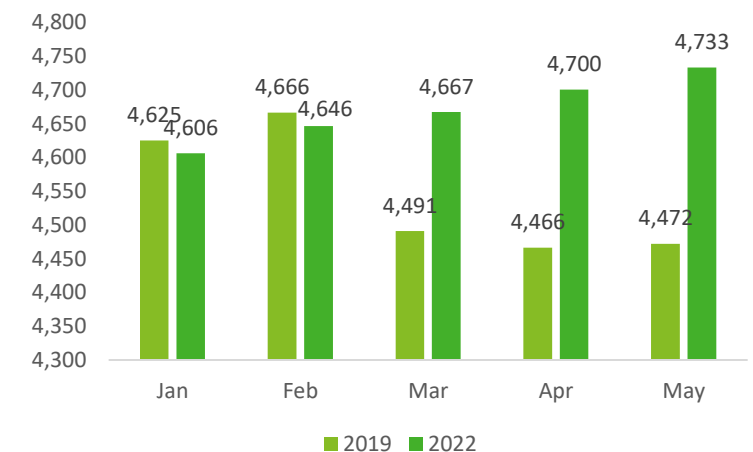
Number of Home Support Hours provided



Number of new Home Support Clients



Number of people in receipt of Home Support Service



D. Integrated Community and Hospital Services | Key Findings

5. Technology & availability of data

Similar to the situation across the country, the community services are underserved by technology and do not have a basic patient administration system to record patient information, referrals, attendances at the services etc. This is true for both outpatient services such as primary care but also for inpatient services including mental health services and rehab services. Given deficits in ICT infrastructure in community services there is also a lack of integration between the hospital and the community services from an ICT perspective. This means the community services do not have visibility of patients previous or planned attendances at the hospital, discharge information or diagnostic results. Similarly the hospital has no visibility of whether patients are already attending community services and the types of interventions that have taken place. This lack of ICT integration results in a lack of full and complete patient information for both hospital and community services making it difficult to provide fully integrated care.

The lack of systems in the community also has an impact on the ability of community services to record patient information in an accurate and timely manner resulting in poor data available for community services. This poses a number of difficulties for community services from an operational efficiency perspective in that there is a process of manually recording data and completing national KPIs information manually etc. it also poses a difficulty in terms of understanding the demand for services in the community, impact of community service provision on outcomes and hospital activity as well as determining where capacity constraints are to inform operations and service planning.

During the course of this review the community services found it challenging to easily access a single source of data for inpatient activity in the Community Nursing Units, Inpatient Mental Health facilities as well as outpatient attendances at primary care and older persons services. This means trend analysis of referrals, attendances, new: review ratios and average length of stay for the services was difficult and in some cases not possible. Identifying areas for improvement is largely dependent on having accurate data to inform these recommendations and this is being hampered by the lack of information available on community services.

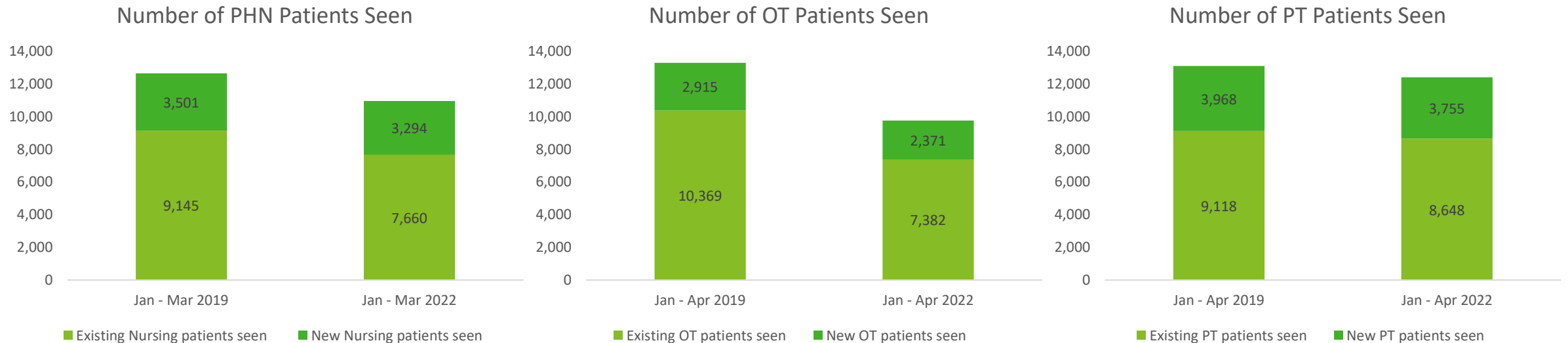
As the community services continue to grow and develop service planning in the absence of a robust data set will only become more difficult. In addition, the value or benefit of the new services will be difficult to track and measure in the absence of accurate recording of data and information.

D. Integrated Community and Hospital Services | Key Findings

6. Curtailed community activity & long waiting lists

The community teams played a huge role in the Covid-19 response with teams re-deployed to manage test centres and complete Covid swabbing as well as staff vaccination centres. This has resulted in curtailments to activity within the community over the past two years. There is limited availability of trend data for this period but we know that staff were re-deployed to Covid testing and vaccination centres and scheduled care was curtailed. The activity across a number of core services in 2022 remains below the same period in 2019 demonstrating this impact.

For example the number of patients seen by PHNs was down by 13.4% this year compared with the same period in 2019. Similarly, over the same period, the number of patients seen by OTs was down by 26.6%, and the number of patients seen by PTs was down by 5.2%.

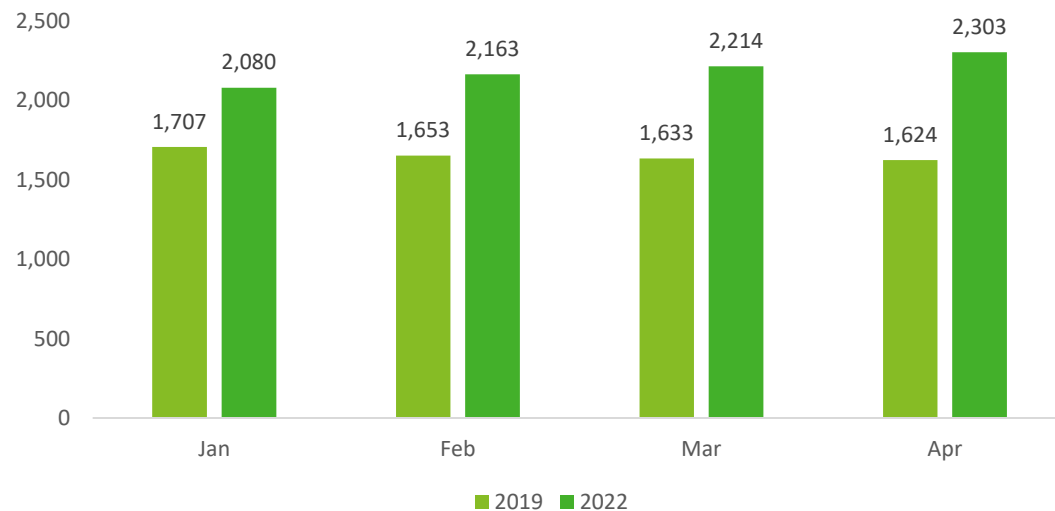


D. Integrated Community and Hospital Services | Key Findings

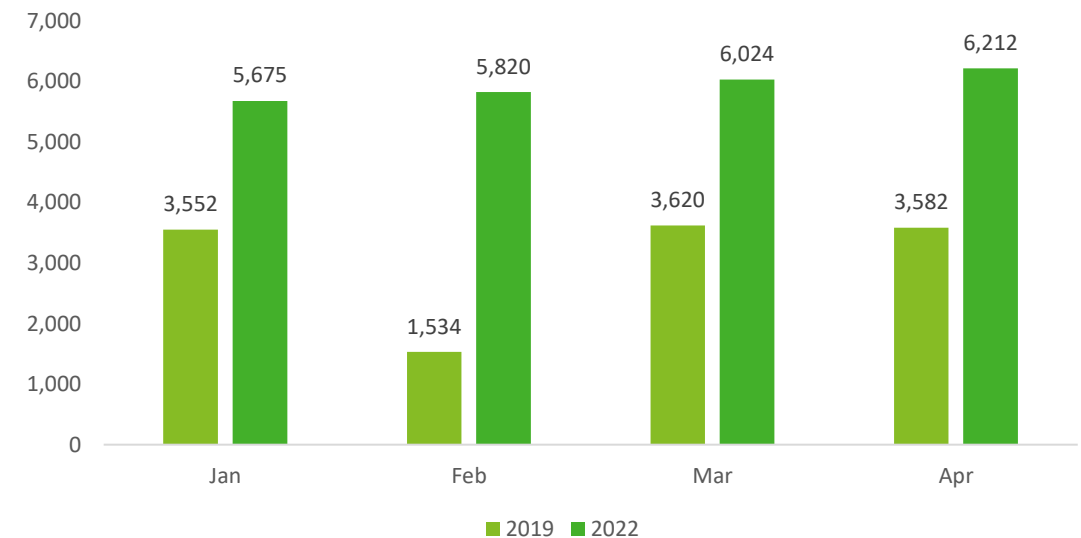
6b. Curtailed community activity & long waiting lists

The curtailments to service delivery in the community over the last two years as described previously have resulted in significant waiting lists in the community for services. This includes OT where there has been an increase of 35% since 2019 and physiotherapy where there has been an increase of 75% since 2019.

Total Number of Users on OT Waiting Lists



Total Number of Users on physiotherapy Waiting Lists



D. Integrated Community and Hospital Services | Key Findings

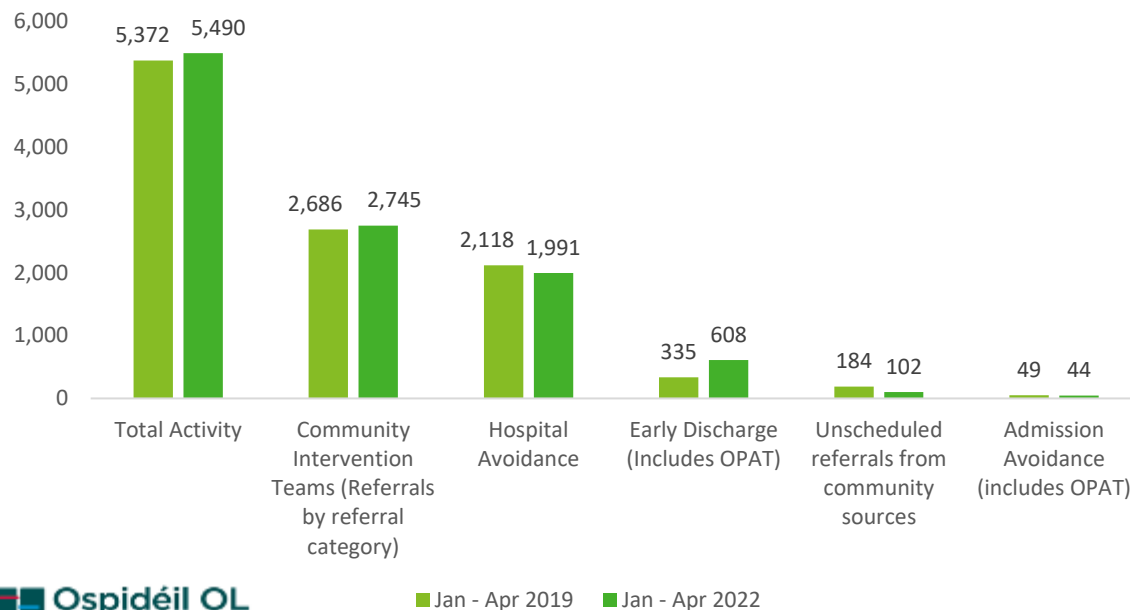
7. Community Intervention Teams

There is strong interaction between the Community Intervention Teams (CITs) and the hospital. CIT Services including Multi-Disciplinary CIT (MDCIT) services, facilitate early hospital discharges and admission avoidance by extending the multi-disciplinary team across the Mid-West. CIT Liaison nurses work closely with the hospital to support this pathway. CIT liaison nurses focus on admission avoidance and patient flow by working with staff in ED, SAU and inpatient wards to facilitate referrals promptly. The total referrals to the CIT team in Q1 2022 has exceeded the referrals in Q1 2019.

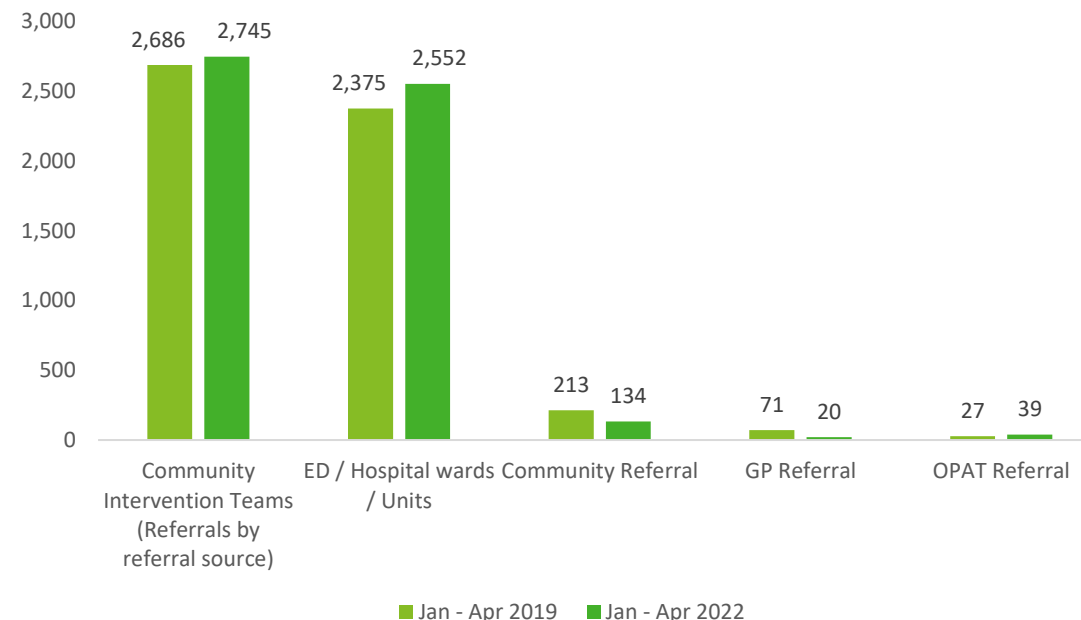
The MDCIT team primarily supports orthopaedic patients who need MDT input post surgery and the primary source of referrals has been Croom however they are also now accepting referrals directly from ED and the OPTIMEND team for patients who would benefit from the multi-disciplinary input to avoid admission or support discharge.

The total number of cases that were managed by CITs increased by 118 cases from January – April 2019 compared to the same period in 2022 - an increase of 2.2%. There was a significant 81.5% increase in the amount of early discharges supported by the CIT team over this period. A significant proportion of referrals to the CIT teams came from the hospital (46%) and there was a significant reduction in the volume of referrals from GPs over this period.

CIT Activity



CIT Referral Source

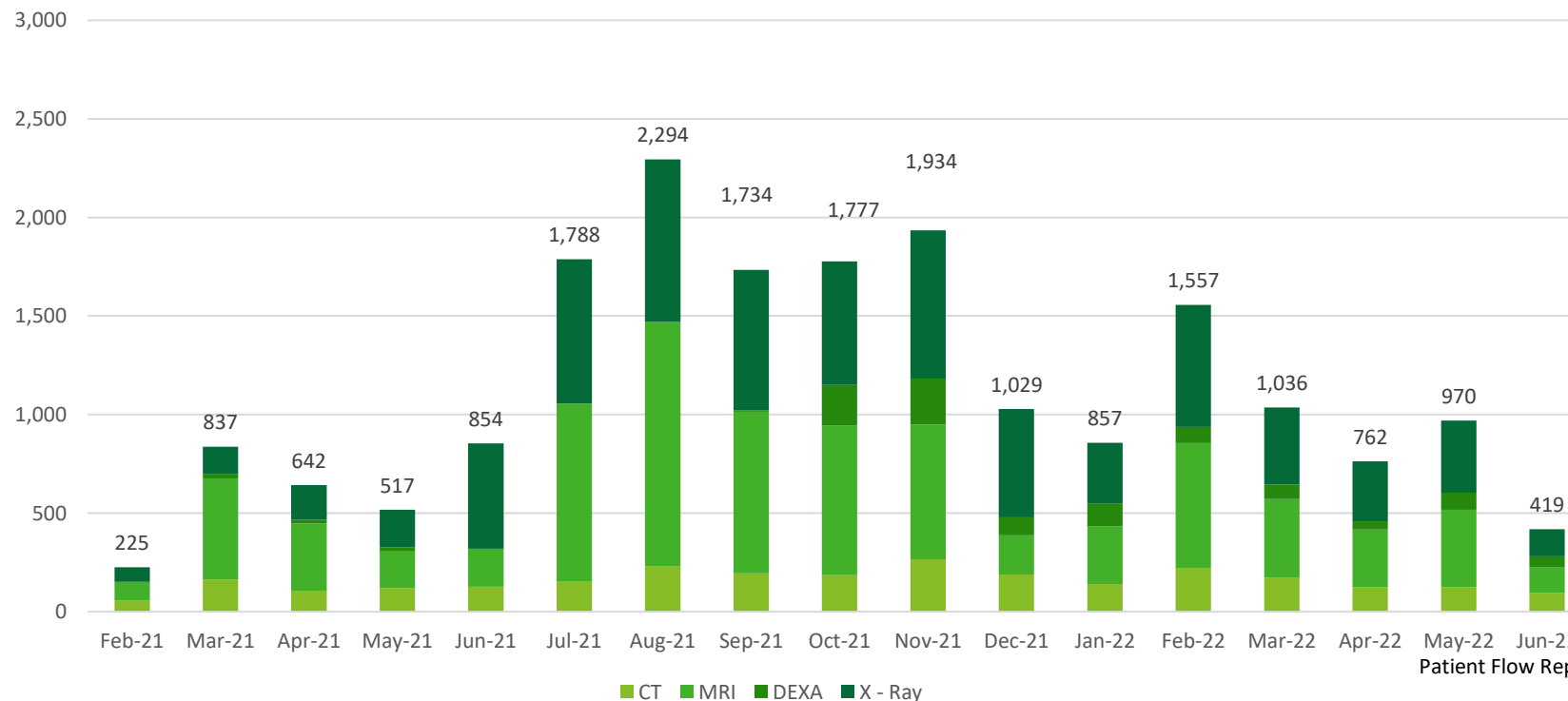


D. Integrated Community and Hospital Services | Key Findings

8. Community Diagnostics Activity

In 2021, GPs were provided with additional direct access to diagnostics through the private provider Allianz which includes MRI, DEXA, X-ray and CT. Affidea, another private providers also provide access to ultrasound from St. Camillus Hospital. In line with the development of the Integrated Care Programme for Chronic Disease, it is planned to extend access to GP's for Bp Echo and Spirometry. Since its establishment, it has delivered 19,232 scans to patients in the community. The total number of scans from February – June 2021 compared with the same period in 2022 has increased by 1,669 scans– a 54% increase. It has been noted that there is now very good access to diagnostics for GPs which is potentially at odds with the outpatient diagnostic access that is available to consultants for patients who are being discharged from an inpatient setting.

Community Diagnostics Activity



4 | Recommendations

Recommendations Overview

Overarching recommendations

Patient flow within UHL and across ULHG is a complex and multi-faceted issue which requires a response across a number of areas. The recommendations laid out in the next number of pages are based on the findings from the Current State Analysis as well as Drivers for Change more broadly within healthcare.

The recommendations are aligned with the 5 fundamentals framework focussed on:

- Leadership, Governance & Culture
- Patient flow at pre-admission,
- Patient flow at post admission
- Integrated community and hospital services
- Using information to support performance improvement

Within each of these areas we have made recommendations related to the process itself, the supporting infrastructure, staffing and / or ICT.

Some of the recommendations outlined in the report can be implemented locally by ULHG and others require an integrated response with the community. While a comprehensive staffing and ICT review were not undertaken we have made some recommendations related to these areas which will require HSE support and funding to implement.

Change in complex systems is dependent on both a **structured approach to implementation with timelines and dependencies managed** and a **benefits framework agreed and tracked** as well as a **robust approach to change management**. Change is fundamentally dependent on the buy-in of the people within the process and achieving buy-in particularly from senior leaders within the clinical teams. The implementation plan should therefore be accompanied by a structured and robust project and change management plan that is adequately resourced and funded, as the staff across the hospital are already working in high pressure and full-time roles so new change resources will be required to support it. We would recommend that a formal programme structure be established to manage the implementation plan with dedicated project management and project support resources including a dedicated PM with acute hospital operations experience and clinical leadership involvement.

We would also recommend a more detailed review of staffing to be undertaken and for any recommendations arising from this review to be incorporated into the overall implementation plan. It would also be beneficial to seek patient feedback and to better understand the patient experience and to identify the key challenges from the perspective of the patient.

1. Enhance Leadership Capability & Capacity



1

The new Head of Operational Service role which has been appointed within UL Hospitals Group with responsibility for operations on the UHL site will provide additional leadership capacity to the organisation. It will be important that this role is embedded in the most effective way within the organisation structure and has clear reporting lines and accountability. Consideration could be given to the GM for unscheduled care reporting directly to this individual, for example. With the Head of Operational Service taking operational responsibility for the site should provide more capacity to the GMs within the Directorates to focus on strategic direction within the Directorates and delivering against the strategy.

The GM for unscheduled care currently plays a very significant role in the day to day management of the patient flow and bed management processes. There is an opportunity to increase the capacity for the GM to take on a more strategic role in the end to end oversight of the USC improvement plan by increasing the capacity within the bed management team. The Head of Operational Service could then have oversight of both Unscheduled Care and Scheduled Care via the two GM leads.

The Associate Clinical Director role could provide a more formal support to the Clinical Directors from a capacity perspective by taking ownership of specific briefs, particularly within the larger Directorates such as Medicine and Peri-operative. These ACDs carry a full clinical workload so it is challenging for them to take a significant leadership responsibility however formal engagement in work planning for the ACDs in terms of briefs, expectations and accountability could be used to build additional leadership capacity. Given the scope of the brief for the Clinical Directors admin support for them in their role may also be beneficial

From a capability development perspective the leadership teams have significant development opportunities in terms of formal learning. There is potentially an opportunity to complete a training needs assessment for the team around capabilities required within their roles such as strategy, business case development, implementation planning and audit to determine if there are a set of short capability development sessions that could be run with the Directorates teams to further enhance capability, improve autonomy and allow the teams to focus on strategy development, implementation and monitoring within their Directorates in addition to the operational work.

2. Clarity on reporting and escalation arrangements from Directorates to EMT



2

As mentioned in the findings section the CD within each Directorate is accountable for the Directorate as they sit on the EMT. However, given the professional reporting arrangements of the GMs and DONs further clarity could be brought to the Directorate reporting arrangements to ensure that escalation routes and decision making within the Directorate and to the EMT is clear, documented and understood by all parties. This may help to reduce escalation to the EMT and bring more autonomy to the Directorates.

3. Developing UL Hospitals Group Brand Internally



3

As mentioned within the key findings there is considerable pride expressed by many stakeholders in the quality of clinical care that is provided across UL Hospitals Group. Many people are also proud that UL Hospitals Group truly acts as a Group and in the collaboration across the sites. There are also specific successes that stakeholders are proud to have been involved in developing and implementing such as the Pain Centre, the AFU and the further development of the Croom site. However, there is also a sense of fatigue among staff who have worked through an incredibly difficult two years during the Covid-19 crisis and are seeing huge increases in ED activity and demands for beds as well as the associated negative coverage in the media.

As part of the development of the new strategic plan for UL Hospitals Group there is an opportunity to build the brand identity of ULHG and celebrate the many successes over the lifetime of the previous plan. There is an opportunity to also communicate with staff the plans for the development of ULHG including the additional 96 beds that have been approved for the site and what impact that will have for them on the ground. Mobilising staff by celebrating these successes but also demonstrating that management is planning to tackle the larger issues which are sources of concern for them could support ULHG with staff recruitment and retention among other benefits.

4. Developing the Transformation Office



4

The strategy department within ULHG is very strong and drives the corporate strategy but also the Directorates strategies and business cases for specific initiatives and ensures these are all aligned. The strategy department also oversees the Governance function which completes governance reviews and works with teams in implementing recommendations. The strategy department currently works very closely with the PMO to implement the outputs from the strategy and governance processes. The PMO could be strengthened and there is merit to developing a transformation office which would include change management and communications support. Consideration could also be given to having the transformation officer within the strategy department to ensure there is a consistency in implementation approach.

5. Quality & Risk

5

The Quality & Patient Safety department is very strong and has established robust policies and processes around risk and incident management in particular. They also have a very strong patient liaison team who have driven benefits for patients. There are a number of areas that could be strengthened within this function with the additional roles that are currently described in the organogram but are not yet funded. These include a lead for Quality Assurance which would help to strengthen the audit function along with a number of additional roles in audit to enable ULHG to roll out audit to the same extent and consistency as risk and incident management. Similarly there is a need for some additional resources in the QI function to strengthen and further develop this.

6. Review the AMU / ASAU referral process and ED pathways



A review of the AMU / ASAU referral process and ED pathways should be conducted to align with national guidance. The current model of referrals to the AMU and ASAU should be reviewed and re-aligned with national guidance to **re-introduce access for GPs to the assessment units** via booking slots with the Bed Bureau and **maintain referrals from the ED following assessment by the ED team** – both of which will require clearly defined criteria.

There are a number of possible benefits associated with reverting to this model:

- ✓ **Increased quality of care for patients** as patients have assessment and diagnosis completed by the ED team who have specialist skills in managing undifferentiated patients and ensuring these patients are directed to the most appropriate location for their ongoing care.
- ✓ **Reduce admissions and increase discharges home from the ED:** In 2021 there was an 11% reduction in discharges home from the ED compared with 2019 as a result in the change in the model as evidenced by an increase in referrals to AMU / ASAU. This will have benefits for patients improving their experience and avoiding unnecessary referrals to AMU and further wait times for treatment but will also have benefits for patient flow. Within the AMU, there has been an increase in admissions by 20% since the implementation of this new model. This means more patients are being referred to AMU and ultimately more patients are being admitted to inpatient beds putting further pressure on inpatient bed capacity. In 2021, there was an additional 2,900 patients admitted from AMU compared with 2019; this represents 10% of the total emergency admissions to UHL. Reverting back to the original model is likely to reduce inpatient admissions overall - **possibly by as much as 10%** . This could save 2,625 bed days or 8 inpatient beds.
- ✓ **Improve the operational efficiency of the AMU** by referring only patients who need assessment in the AMU. This should improve the turnover of patients in the unit and reduce the inpatients in beds in the AMU awaiting an inpatient bed.
- ✓ **Improve the quality of care for patients requiring an AMU assessment:** Currently the turnover in the AMU is low as there is a high number of admitted patients in the AMU awaiting a bed which results in patients who are referred to AMU following triage awaiting AMU beds in the ED. These patients have not been seen or assessed by a doctor and could be awaiting assessment from the AMU team who already have a full patient caseload. Improving turnover in the AMU and reverting to a model whereby beds are allocated via the bed bureau will ensure there are no AMU-referred patients awaiting assessment in the ED.
- ✓ **Improve the utilisation of the ASAU beds:** Given that the admission rate to the ASAU has actually reduced from 41% to 28% over the period 2019 – 2021 with the implementation of the new model, it would suggest that there is an increase in referrals to ASAU for patients who are less acute.
- ✓ **Providing access for GPs to AMU / ASAU may reduce ED attendances:** There is currently very limited alternative options for GPs in accessing rapid assessments for patients who they think require it. Re-introducing access to the AMU via the Bed Bureau may result in reduced referrals to ED by GPs.

6

6. Review the AMU / ASAU referral process and ED pathways



In order to implement Recommendation 1, there are a number of risks that need to be mitigated by implementing a series of recommendations in parallel to ensure it is a success

Risk	Recommendation
<p>6i</p> <p>Risk of increased PET times: ED attendances have increased by 7% or 5,000 between 2019 and 2021. During the same period, PET times have reduced from 10 hours to 8.5 hours. This is likely to be as a result of referral of almost 20,000 patients per year to the AMU following triage. There is a risk that reverting to the model that requires patients to be assessed by the ED team prior to referral to AMU will result in increased PET times in ED.</p>	<p>In order to mitigate this risk, a number of measures will be required to improve the capacity of the ED to see additional patients. In particular, the capacity of the AMU and ASAU to assess patients who are referred from ED should be retained and strengthened. The AMU should be open and staffed 24/7 as recommended in the national guidelines. This will ensure this pathway remains for suitable patients who have been assessed by the ED team. Finally, inpatient bed capacity needs to be strengthened as per Recommendation 12 in order to ensure patients who have been admitted can be allocated a suitable inpatient bed.</p>
<p>6ii</p> <p>Risk of increased time to be seen by a clinician: There is a risk that the time to see a clinician in ED will further increase if this change is implemented. Unlike PET times in ED, time to see a clinician has increased between 2019 and 2021. There is a risk that this will increase further with all of the patients attending the ED being seen by the ED team.</p>	<p>In order to mitigate this risk, it is recommended that a review of staffing will be required to ensure doctor : patient ratios are optimised on each shift and there are sufficient NHCDs to see and assess patients with senior decision makers available to make decisions to discharge, refer to AMU / ASAU or admit. Recommendation 8 outlines the additional staffing required. In addition, the physical space required to assess patients in ED will be required and again is dependent on there being sufficient inpatient bed capacity - particularly single room capacity.</p>
<p>6iii</p> <p>Risk of overcrowding in Zone A in ED: There is a risk that the non-COVID-19 assessment Zone A becomes further overcrowded as it is the only pathway for assessment of non-COVID-19 patients. Given the epidemiological situation, it is likely that COVID-19 presentations to hospitals will reduce further over the coming months.</p>	<p>In order to mitigate this risk, it is recommended that a review of COVID-19 streaming pathways take place. It is understood that national guidance is being revised and that local risk assessments may be a viable option in the future based on the advice and guidance nationally. Without a change to COVID-19 streaming, the implementation of this recommendation would pose a risk to overcrowding in Zone A.</p>

7. Implement & strengthen ED avoidance and diversion measures



Attendances at the ED continue to increase as do attendances at the IU's - most notably in St. John's Hospital, the closest IU to UHL. In addition, there is an increase in self-referrals and a reduction in ED referrals as well as a reduction in the acuity of patients as measured by triage categories. These increases are outstripping demographic growth. ED attendances in UHL increased by 7%, IU attendances at the Model 2 sites increased by 4% whereas population growth over this period, in the region, was estimated from the CSO projections to be 1.15%. An additional 5,000 attendances per year converts to approximately 1,500 additional admissions and almost 10k additional bed nights (based on current ALOS of 6.6 days for an emergency admission). In order to manage this increased demand, alternative pathways for patients are needed. The below recommendations should further strengthen the ED avoidance and diversion measures that are in place. Quantifying the impact of these measures is difficult but assuming they could reduce admissions with an ALOS of 1 day by 50%, this measure would save 2,625 bed days or 8 inpatient beds.

7i

Strengthen and standardise consultant-assisted triage: A system of consultant-assisted triage has been implemented with the aim of having senior decision makers available to review patients as early as possible in their journey which can for example increase the volume of patients that re-directed to IUs. It is recommended that this system is strengthened further with defined processes and procedures for consultant involvement at the point of triage. It is also recommended that a set of criteria is defined for re-directing patients to IUs or referring to AMUs in Model 2 hospitals.

7ii

Document admission avoidance procedures: There are admission avoidance measures available, such as transferring to Model 2s or rapid access pathways for certain illnesses, however there would be value in formally documenting these pathways and the associated criteria. Given NCHDs are the decision makers out of hours and rotate through the hospitals with less familiarity with local services, formal documentation would benefit with admission avoidance out of hours.

7iii

Establish & strengthen admission avoidance models: Rapid access pathways for defined conditions, such as first seizure and chest pain, should be established including a protocol for assessment and safe discharge for patients with rapid follow-up. Models that have been implemented and proven successful such as the Frailty at the Front Door and Optimend programmes should be strengthened to include additional HSPC resources for Frailty at Front Door and expansion to the Model 2 sites. However, it has long been acknowledged that hospital-centric care can't continue and that improved investment in community services is required to ensure the health system is sustainable. Under the implementation of Sláintecare, many initiatives have started and it will take time for these to have an impact but some specific recommendations are detailed in **Recommendation 14**.

7iv

Improve OPD access: The volume of patients on the OPD waiting lists (almost 56K) as of Jan 2022 as well as the long waiting times (almost 22k patients waiting 18+ months) means there are limited alternatives for patients to attending the ED and limited alternatives for clinicians in treating patients outside of admitting them to hospital. It is recommended that a programme be implemented to clear the backlog of OPD waiting list in order for there to be improved access for patients in the region and the implementation of rapid access pathways.

7v

AMU / ASAU access for GPs: As described in **recommendation 6** the pathways from the ED to AMU / ASAU in UHL should be revised to align with the national model rather than as part of the non-Covid pathway. In addition, direct access to slots in the AMU and ASAU for same day or next day appointments. This should provide improved access for patients who have seen GPs and reduce attendances to the ED.

8. Improve staffing across ED



8

ED Staffing: a detailed review of ED staffing, rosters and how they align with demand is required and was not undertaken as part of this review. However, there are some areas that have been apparent as part of this review. Many of the below will be required in order to successfully implement the previous recommendations.

- 1. Nurse staffing:** the introduction of safer staffing in the ED for nursing is required to ensure there is consistently appropriate levels of nursing staff to manage the high levels of ED attendances. We understand this has been requested and sanctioned as part of the next phase of funding.
- 2. NCHD staffing:** Additional NCHDs are also required to improve the time to be seen by a clinician in ED. It will be essential to ensure this is in place prior to the implementation of Recommendation 1 as this will increase the volume of patients assessed in the ED and if there is not sufficient clinicians available to see these patients in the ED time to see a clinician and PET times will increase. Medical staffing for the ED is for a demand of 180 patients per day or 65,000 patients per year. Almost 76,500 patients attended in the ED in UHL in 2021 which equates to approximately 210 patients per day. An additional 20 WTE NCHDs are required for the ED to improve the doctor patient ratio and improve the times to be seen by a clinician. There is also a low ratio of SpRs to Registrars in the hospital which impacts availability of senior decision makers, particularly out of hours.
- 3. Consultant staffing:** As described above the attendances at ED have increased very significantly over the past three years and have been managed only by utilising the non-Covid pathways of AMU and ASAU to see patients. An additional four consultants is required to meet the additional demand and allow for the implementation of recommendation 1.
- 4. AMU staffing:** alongside reverting back to the model for AMUs which aligns with the national model of care as described in recommendation 1 it is recommended that the AMU be appropriately staffed to be open and fully operational for the full 24 / 7 hours. It is also recommended that the unit have a senior decision maker presence throughout this time in the form of an SpR at a minimum.
- 5. Senior decision makers in the ED:** it is recommended that the senior decision makers in the ED be maximally utilised in providing input to patientcare on the floor at triage as well as in terms of making decisions regarding treatment, admission or discharge.
- 6. Paediatric staffing:** There is only one dedicated paediatric emergency medicine consultant and therefore there is limited senior decision makers from a paediatrics perspective in the ED. There is funding for two additional consultants which will improve the cover in the ED. NCHD staffing is a challenge for the paediatric ED particularly out of hours where there is one SHO and 1 registrar on-call for the wards and ED. There are also no dedicated paediatric nursing staff for the ED. The staff are part of the wider ED nursing pool and this means there is rotation of staff between paediatrics and the adult ED which impacts the skills mix. In addition, only a very small number of the nursing staff are paediatric trained.

Recommendations | Patient Flow at Post-Admission

Discharges often occur late in the day in UHL and are reduced at weekends. There are a number of measures which may improve timely discharge. If all emergency admissions had a reduction in their ALOS by 3 hours there would be a saving of 3,281 bed days or 10 inpatient beds.

9. Improve timely discharging



9i

Speciality cohorting: There is lack of speciality cohorting of patients on the wards outside of the renal, cystic fibrosis and oncology units which can lead to patients under the care of a team being distributed throughout the hospital. Given the volume of patients admitted each day which can be up to 70 emergency admissions the lack of cohorting can lead to long 'safari' ward rounds resulting in patients being seen later in the day and therefore discharged later in the day. It is recommended that patients are cohorted as far as possible to align with the speciality teams clinically responsible for them. This can work well in conjunction with the recently implemented 'speciality hand back' which provides for a more even spread of patients across the medical teams but also ensures patients are under the most appropriate speciality. The benefits of speciality cohorting beyond reducing the time spent on ward rounds also include the reduction in the number of teams rounding on a particular ward which should facilitate increased nursing involvement in ward rounds with the nursing teams having more oversight of the plans for each patient to allow them also complete tasks to prepare for discharge such as contacting family members, involving the community teams or supporting with the completion of documentation for home care packages etc. However it is acknowledged with the existing capacity constraints and the lack of single patient rooms, full implementation of speciality cohorting will not be feasible to achieve. This recommendation should be considered in conjunction with increasing inpatient bed capacity

9ii

Increased nursing involvement in ward rounds & care planning: As described above, nursing staff often do not have visibility of the discharge plan for patients which hampers efforts to plan for timely discharge, including active involvement from family members in planning for step-down, rehab or home care if required. In tandem with speciality cohorting it is recommended that the CNM2 on the ward attends the ward rounds and plans for discharge for patients with a concerted effort to get patients home earlier in the day.

9iii

Criteria led discharging: Criteria Led Discharge (CLD) refers to the discharge of patients by nursing, midwife, allied health and junior medical staff who have the necessary knowledge, skills and competencies to review patients and initiate inpatient discharge. The process is supported by predetermined criteria which are developed with multi-disciplinary agreement and approved by the Authorised Admitting Practitioner (consultant or other) who has the ultimate clinical responsibility for the patient. The implementation of criteria led discharge for common conditions should be considered to increase to opportunities for discharge and ensure patients can be discharged when they are clinically suitable.

9iv

Streamline ward rounds: Another measure that could help to streamline ward rounds and improve timely discharges is the ordering of diagnostic tests (lab & radiology) during ward rounds as required rather than at the end of the ward rounds. This could be supported by sufficient NCHDs on each team to assign a team member to this task during rounds, by e-ordering during the round. Additionally improved technology could support this including lab order comms and access to all clinical systems on the available hardware on the wards. At present paper based ordering for labs and a lack of access to all of the systems on the hardware is causing inefficiencies on ward rounds.

9v

HSCP staffing: another area that can result in delays in discharges is the lack of the full complement of HSCP staff supporting each ward. There are several wards with no OT or Medical Social Workers which impacts the ability to support safe and timely discharges as patients need to be reviewed before being discharged.

Recommendations | Patient Flow at Post-Admission

DTOCs account for approximately 23 lost inpatient beds per year and have an ALOS of 15 days. Reducing the ALOS associated with DTOCs by two days by implementing the below recommendations could be expected to save four beds per year.

10. Delayed Transfers of Care



10i

Discharge planning: Bed days lost due to DTOCs have increased again in 2022 to 2019 levels with 2,846 bed days lost Jan – May 2022 in UHL alone. If this continues at the same rate for 2022 a total of >8,500 bed days this year in UHL equating to 23 beds. The majority of DTOCs were ultimately transferred to designated older persons rehabilitation beds (39%), step-down care (17%) or nursing homes (12%). The bed days lost associated with the DTOCs awaiting a rehab bed is approximately 10 days and step down care or nursing home support is approximately 14 days. Given bed availability this year in step down, rehab and nursing homes does not appear to be the driver, the process for discharge planning should be reviewed and where possible streamlined. Consideration should be given to a dedicated discharge coordinator within the patient flow team.

10ii

Rehab beds: Criteria for access to rehab beds is not consistent across the units which provides a lack of clarity of patients that are suitable for admission to the rehab units. It is recommended that criteria be standardised and made available to senior nurses, medical teams and HSCPs across the hospital to build awareness of those patients who are suitable. It is also recommended that the process for admission to rehab based for suitable patients be streamlined to ensure timely discharge of suitable patients

11. Improve staffing across inpatient care



11i

Staffing: As with the recommendations made in the previous section it should be noted that a comprehensive review of staffing and relevant national standards and ratios was not completed as part of this review. It is recommended that this be undertaken. However, during the course of this review and as referenced in previous recommendations there are a number of staffing deficits that are impacting patient flow post-admission – as follows:

- NCHD staffing:** the NCHD staffing should be reviewed to ensure it is sufficient for the patient volumes through the hospital, the ratio of SpRs to Registrars should also be reviewed to ensure there is sufficient senior decision makers in the hospital in line with national averages.
- HSCP staffing:** It is recommended that a review of HSCP staff is conducted to bring numbers in line with national standards with a particular focus on OT and Medical Social Work staffing for each ward, the recommended ratios are 1:10 for OT and 1:20 for medical social work. There are some wards in UHL which have no MSW or OT staffing which can result in challenges with timely discharges for patients requiring an OT review, direction for self care at home and for patients with complex situations requiring medical social work input.
- Bed Management :** in the short-term, given the bed capacity does not align with demand and there is insufficient single room capacity to meet the isolation requirements, the bed management process will remain complex. The staffing of this team has not been increased during the period of the last two years and it is therefore recommended that a review of this team is completed from a staffing perspective however an additional staff member to support with discharges would be a valuable resource.

12. Inpatient & Daycase infrastructure



12i

Increase bed capacity: There is currently insufficient inpatient bed capacity to meet demand with occupancy rates of >100% in UHL each year for the past three years resulting in requirements to have trolleys on wards and patients boarding in ED. The issue of high bed occupancy is due to UHL being the only Model 4 hospital in the region, the absence of any Model 3 hospital in the region, and the limited private inpatient capacity. The projected inpatient bed requirements for 2036 is 202 additional inpatient beds in the region to manage the projected emergency & elective demand. The demand projections are described in this document and are based on 2021 activity, population growth projections for the region from the CSO and an uplift for unmet need based on the gap between demand (referrals) and capacity to provide services.

In addition, 50% of the existing inpatient bed capacity is in the form of multi-occupancy wards including nightingale accommodation designed in the 1930s and opened in the 1950s. Some of the nightingale areas within these wards have up to 14 inpatient beds within them. This results in restrictions in access to wards, complexities in managing patient flow and bed closures due to outbreaks. There is a need to replace the existing infrastructure with a higher standard of accommodation consisting of single patient rooms. It is estimated that an additional 100 inpatient beds would be required to be replaced and a significant refurbishment programme undertaken to move towards a maximum of 4 beds in a multi-occupancy area in line with national guidance.

These additional bed requirements do not take consideration of risks in terms of demand such as the delayed diagnosis, latent demand and possibly increased acuity of presentation from Covid or the continued increases in activity that are seen above and beyond the demographic growth that we have factored in. This is because quantifying these impacts with any certainty is challenging. Similarly, these projections do not account for a 'shift left' to community as quantifying these effects and how much of the community activity will be replacement activity is currently unknown as is the timeframe for these effects to be seen.

This means there is a total of **302 additional inpatient beds** are required to meet the demand in the region. There is a masterplan for the UHL site which demonstrates the site has capacity for 3 96-bed blocks on the site. The first of the inpatient blocks, has been approved and construction is due to start in October 2022. This will be comprised on 50% new beds and 50% replacement beds, this build once complete will therefore provide 48 additional inpatient beds meaning that an additional 255 beds will be required thereafter.

There is also a requirement for an additional **63 day beds for the region** to meet the growing requirements in terms of medical daycase (oncology, cardiology, dialysis).

There are a number of options for how these beds could be configured including additional beds on the site at UHL, dedicated elective beds or a Model 3 hospital. A detailed options appraisal is required to arrive at the most appropriate solution. Additional activity modelling will be required to determine the feasibility of various options and the benefits and risks of each option considered.

Recommendations | Integrated Community and Hospital Services

The impact Enhanced Community Care on unscheduled care has not been quantified and the proposed impact of the measures is not yet clear nor is the timeline for these benefits to be seen. To date implementation of initiatives such as the ICPOP hubs has not been correlated with a reduction in ED attendances for example. This may be due to the fact that the service is not a direct alternative for ED attendance and hospital admission or it may be that the demand for services is increasing above and beyond what is being seen in ED and some of this is being catered for in the community. It is recommended that as community services are implemented their effects on the hospital are monitored and time horizons for the impacts / benefits are projected and agreed.

13. Improve GP Access and GP pathways



13i

Improved access to primary care: As described in recommendation 2iii, attendances at the ED and IUs continue to rise and there has been an increase in self-referrals, indicating a lack of access to both primary and scheduled care which has been reflected in patient engagement in the ED in UHL and engagement with GPs locally. It is estimated that a portion of the local population do not have a GP and it has been noted that there is not a sufficient number of GPs in the region for patients to access GPs. Measures will be required to reduce the volume of patients attending the ED, some of which will be outside the direct control of ULHG but may be influenced at a national level. This includes improved access to primary care for patients as in 2021 60% of patients attending ED had not been referred by their GP. This is a national issue requiring a solution at a national level.

13ii

Pathways for GPs: GPs have access to diagnostics via an arrangement with the private hospital in the region which has been a huge support in terms of reducing requirements to send patients to ED or onto OPD waiting lists. This would likely have a bigger impact on hospital avoidance if patients in the region had better access to GPs. There is also an opportunity to expand access to diagnostics for GPs in line with the requirements under the Chronic Disease Management programme that GPs have undertaken such as for example Echo.

14. Embedding existing community services and measuring their efficacy



14

Embedding existing community services and measuring their efficacy: The community services have been largely curtailed as they have resourced the Covid-19 response from both a vaccination and test & trace perspective. Services are re-commencing across the board and are working to implement the new initiatives under ECC, this brings with it intensive recruitment and service planning and development. There is a need to embed the services and new staff within the community system and to baseline and measure the impact of the new services that have been implemented such as ICPOP etc. on both patient experience and outcomes but also on hospital activity.

15. Improve technology to improve efficiency & quality of care



15i

Implement a single integrated EHR across the region: While this is largely outside of the control of ULHG and Midwest Community Healthcare locally, it is recommended that the eHealth systems across the hospital and community are upgraded to a fit-for-purpose single electronic healthcare record to improve visibility, efficiency and quality of care as has been demonstrated in numerous studies internationally. The lack of a single patient record is having significant impacts on patient flow including:

- **Additional administrative and tasks being required across all area:** for example patient data is entered on multiple systems including IPMS, Maxims and IPC systems. Each system then needs to be updated to reflect the stages of the patient journey – this also impacts of the quality of care and poses a risk in terms of patients being removed from one system and not entered into another as they move through their journey
- **Complex bed management process:** the bed management process requires checking multiple systems to determine bed availability and there is a lack of real time information regarding what beds are available which could potentially impact flow and timeliness of patients accessing beds
- **Inefficient lab ordering process:** the lack of lab order comms has implications for the timely diagnosis and quality of clinical care for patients. Completing manual paper based lab order forms has the risk of incorrect ordering, paper forms being mislaid and blood tests not being ordered and slowing down the process of patient diagnosis due to the high administrative overhead associated with ordering which could impact the timely discharge of patients both from the ED and from Inpatient wards impacting on patient flow. Lab order comms should be implemented to improve efficiency, quality and reduce burden associated with paper order forms. The ability to electronically order lab tests would reduce the admin burden for clinicians, improve the tracking & visibility of orders thereby improving patient care and reduce the burden on the labs with the implementation of decision support and standardised test bundles. It would also improve Turnaround Times for samples to ED and ultimately patient's flow. The iPMS supplier can provide the order comms solution.
- **Slower ward rounds & therefore patient flow:** lack of access to patient information in a single source is impacting the efficiency of ward rounds, access to all patient information and diagnostics in a single record at the point of care would improve the efficiency of ward rounds as well as the quality of care for patients

ULHG and Midwest Community Healthcare are in the unique position of having complete geographical alignment and being part of the same future RHA. There is an opportunity to implement a single EHR for both the hospital group and the community services. The lack of ICT systems within the community setting for accurately and easily capturing activity and demand data for services is impacting their ability to plan service delivery. Systems are in place such as manual data capture using spreadsheets and other systems. The system therefore does not have access to the data required to drive decision making. It is difficult for the community to extract activity for any of the services in the level of detail required and trending over a specific timeframe. This means that it may be difficult to evaluate where the demands for services are, what capacity is required and the impact that capacity within one service can have on another. With the implementation of the Slaintecare initiatives the volume of services delivered in the community will increase significantly. It is recommended that there is engagement nationally regarding the timeframes for the implementation of a community ICT. Ultimately integration between the hospital and community EHRs is best practice and will deliver maximum value.

15. Improve technology to improve efficiency & quality of care



15ii

Develop an infrastructure upgrade plan: It is recommended that there is clarity regarding the roles and responsibilities of the OoCIO and the local ICT team regarding infrastructure and that the HSE and the hospital group work together to develop an ICT infrastructure upgrade plan. It is recommended that the required funding is put in place as a priority to upgrade the networks and devices across the hospital group and Midwest Community Healthcare to ensure there is sufficient capacity and capability for clinicians to access and record patient information. It is also recommended that funding is provided to upgrade any hardware required to ensure there is seamless access to all existing software systems on all devices. This would streamline diagnosis, ward rounds, ordering of tests and ultimately improve patient flow

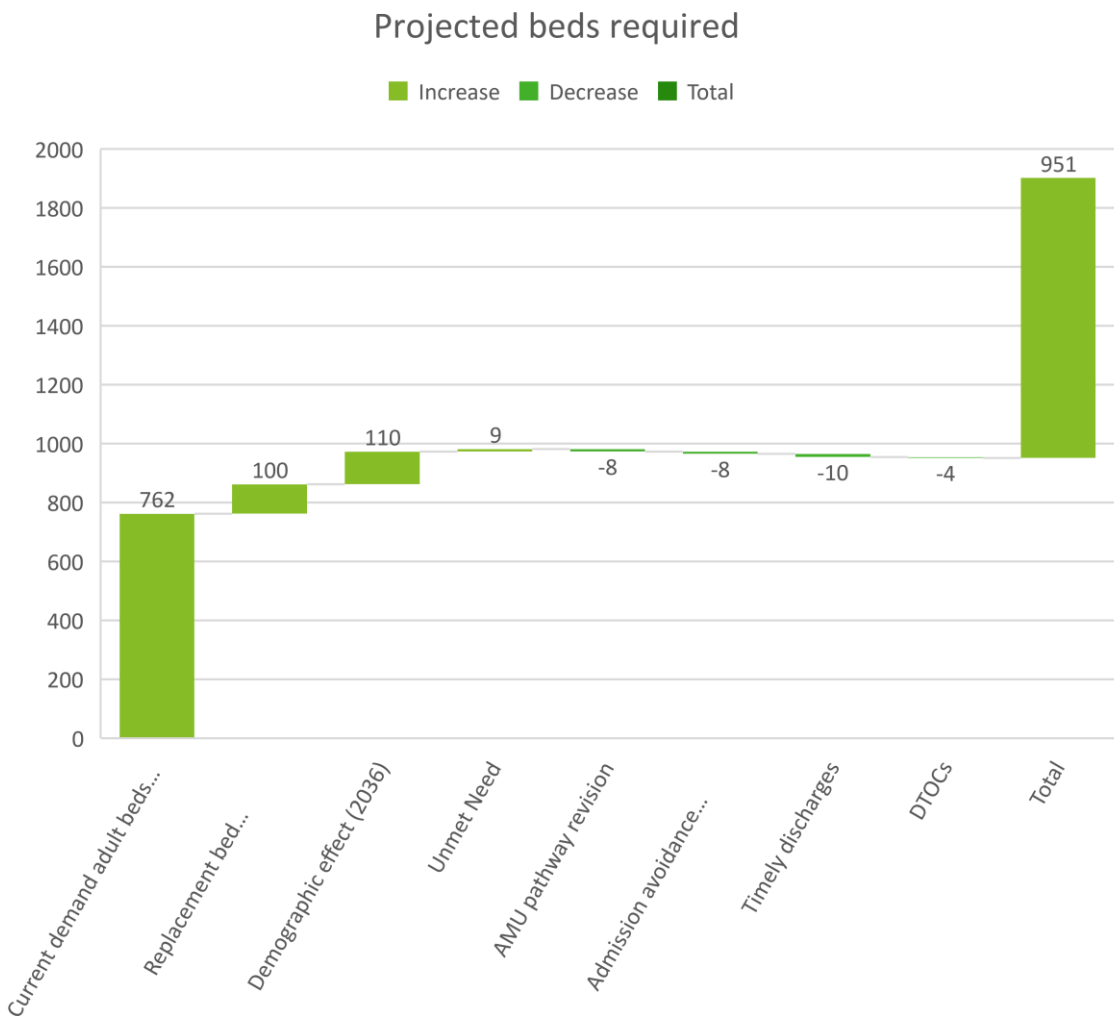
15iii

Develop & Implement a digital transformation roadmap: Given the timeline to implement an EHR following national approval to proceed is significant. It is recommended that an interim plan or digital roadmap be developed outlining the short and medium term priorities to improve the eHealth enablement within the hospital and the community to improve efficiencies, safety and patient flow. Some of the priority areas include:

1. **Order comms:** implement order comms for labs and cross-referrals to allow for electronic ordering with the inclusion of order sets. This would improve efficiency and safety of ordering, reduce the administrative overhead and improve patient flow both in the ED and in the wards. This is currently being explored by the hospital as a priority.
2. **Single patient record across ED & inpatient:** there is an opportunity to explore a single system and single record across the ED and main PAS and determine if this can be achieved without losing any functionality. This would reduce the admin burden of dual registration, reduce the risk of patients being 'lost' between the systems and also of errors being made during data entry. Only if a single system cannot provide all the functionality required should the organisation look towards more complex integration between the two different EPRs that co-exist in the ED.
3. **Electronic Document Management System:** Implementation of an EDMS to provide a scanned digital record of the patients chart and notes in the absence of a full EHR. This would provide clinicians with access to a single view of the patient record electronically without the requirement to source a paper chart.
4. **Community Patient administration system:** extend ULHGs instance of iPMS into the community to allow the services to record patient information, referrals and activity thus reducing the admin burden in the community, improving the data available to the region in terms of planning and improving the quality of information available to the clinicians
5. **Patient Flow Analytical Command Centre:** Should the data depth and breadth allow, the region should look to develop an Analytical Command Centre as observed in other health jurisdictions. This would work in a similar way to airport Air Traffic Control and display live information about patients throughout their journey, from incoming patients travelling via ambulance to patients waiting for discharge from a hospital or from community services.

Recommendations Impact on Bed Requirements

Based on the demand analysis there is a requirement for an additional 302 inpatient beds by 2036 based on current demand, demographic growth, unmet need and the requirement to replace multi-occupancy ward beds. It is difficult to estimate the potential impacts of the recommendations outlined in this document it has been estimated at a total bed saving of 30 beds. This means that even if all of the recommendations outlined in this document are successfully implemented a total of 273 inpatient beds are required.



Bed requirements

- As per the 2021 activity across the group there is a requirement for 762 adult inpatient beds (excl. paed and maternity). There are currently a total 679 adult inpatient beds meaning there is a gap of circa 87 beds currently
- An additional 100 replacement beds are required to replace the beds on the multi-occupancy wards
- Applying demographic growth there will be a requirement for an additional 110 beds to accommodate the growth to 2036
- An additional 9 beds will be required to address the unmet need
- This equates to a total of 981 adult inpatient beds required by 2036
- Taking into bed designations described previously this equates to a requirement for an **additional 302 inpatient beds**

Adjustments based on recommendations

- Review AMU pathway:** opportunity to reduce the emergency admissions by 10% (2,625), these admissions are likely to be associated with a shorter ALOS (1 day) equating to a potential bed **saving of 8 beds**
- Admission avoidance measures:** 30% of emergency admissions have an ALOS of 1 day. Implementation of admission avoidance measures could have an impact on these admissions. Assuming a further 50% of these 1 day admissions could be prevented there would be an additional saving of 8 beds.
- Timely discharges:** Implementation of the measures described in this document to improve timeliness of discharges could be expected to reduce the ALOS by 3 hours. If this was achieved it would save 10 beds
- DTOCs:** Earlier and improved discharge planning and use of standardised processes for accessing step down and rehab beds could reduce the ALOS of medically discharged DTOCs. If there was a reduction by 2 days from 15 days to 13 days this would save 4 beds per year.

5 | Appendix

Appendix A

Recent Initiatives to Improve Patient Flow

Leadership, Culture and Governance Initiatives

New governance groups and forums have been established to improve communication and collaboration in regards to patient flow



Establishment of New Governance Groups

- The Bed Management and ED Teams attend a **patient flow huddle at 8:30am each morning** to review capacity, unscheduled care demand and discharge planning to inform bed allocation priorities based on wait times for beds and clinical criteria. The Bed Management Team also attend a **huddle with staff from the Model 2s at 9:00am each morning** to review their availability of beds and determine priority patients for transfer to these hospitals.
- **Twice daily group huddles** to continue chaired by the GM for USC and at weekends by the Exec on Call
- The **Acute Floor Group** consists of ED, AMU, and ASAU clinical staff along with directorate leads, the Bed Management Team and HSCP team members. They meet every two weeks with the aim of improving efficiencies across the acute floor and to establish an acute floor comprising of the three departments as envisioned by Sláintecare.
- There is a **Weekly Discharge Teleconference** to manage and agree plans for patients who are Delayed Transfers of Care, as well as planning for complex discharges
- Introduced **ADONs for patient flow in both ED and paediatric ED**
- **Other groups** that have also recently been established include the
 - Hospitals Crisis Management Team
 - Medicine Oversight Group
 - Weekly Discharge Teleconference with Midwest Community Healthcare
 - Unscheduled Care Committee
 - Winter Preparedness Team & Enhanced Community Care Forum

Patient Flow Initiatives at Pre-Admission

Several admission avoidance initiatives have been introduced in efforts to alleviate the pressure resulting from the increased ED attendances. Recent improvements to pre-admission infrastructure capacity have also been introduced.



Admission Avoidance Initiatives

- **Optimend** is a programme that aims to provide early assessment and intervention in ED to patients over 75 years of age by a dedicated HSCP team to reduce the risk of admission to hospital, reduce ED Length of Stay, and improve patient satisfaction. Findings support the effectiveness of this interdisciplinary model of care on this patient cohort and their ED outcomes.
- **Frailty at the Front Door** was setup in December 2021 as a trial to enable early identification of ED patients over the age of 65 years to provide quick assessment and discharge by a HSCP team or to transfer patients to ICPOP hubs for follow-up. This programme supports approximately two patients per day who benefit by experiencing reduced PET times or admission avoidance.
- **Pathfinder** is due to commence in Q2 2022. This collaborative project between the National Ambulance Service and OTs/PTs from UHL aims to treat low acuity, elderly patients (aged 65+) in their own home rather than the patient attending at ED for assessment.
- **A Communications to the Public Campaign** was established to increase public awareness of accessing treatment through alternative routes such as at the IU in St John's Hospital to take the pressure off the Model 4 site where possible. Activity has increased by 12% between 2019 and 2021 in St John's IU, or over 1,300 additional attendances per year. However, this may also be due to an overall increase in demand.



Infrastructure

- As part of the escalation plans and in order to minimise the numbers of patients waiting beds in ED, all available **surge beds** have been opened (ten Surgical Dayward and ten surgical short stay beds), as well as moving patients from ED to wait for their bed on **ward trolleys**
- **Increased the number of ASAU beds** from 8 to 16

Patient Flow Initiatives at Post-Admission

Several discharge planning initiatives have been introduced in efforts to address the recent increases in PETs and ALOSs as a result of the changes to the workflow that was implemented during the COVID-19 pandemic.



Inpatient Discharge Planning Initiatives

- **Speciality handback** was established in late 2021 where the responsibility for the care of a patient is 'handed-back' to a Consultant who specialises in the area of the patient's diagnosis. This model has led to more equal distribution of workload, patients being seen quicker by the specialised consultant, a reduction in investigations due to subspecialty expertise, and eases the burden of numbers post call.
- An **additional five MRI slots** have been introduced at weekends to allow patients be discharged early during the week and return within a few days for their follow-up MRI scan.
- An **Oncology pre-assessment clinic** has been introduced as part of a 2-day model for chemotherapy treatment for cancer patients. The clinic includes a pre-assessment clinic on the first day where patient comes to the clinic to get their bloods done and return the next day for their chemotherapy. It has improved patient flow by allowing for an extra 10-15 patients per day on the day ward due to reduced ALOS.
- A pilot scheme began in April 2022 which opened **two Unscheduled Assessment Bays in the haematology / oncology inpatient wards** to operate out of hours to 'pull' patients post triage from ED to Haematology/Oncology Services.
- Established **active engagement and communication between Midwest Community Healthcare staff and discharge coordinators** regarding the availability of egress supports and community based services to aid hospital discharge.



Staffing

- Staffing shortfalls at NCHD, nursing, HCA and HSCP levels have been a significant issue in ULHG's ability to safely manage emergency and inpatient care demand. To address some of the challenges with nurses and HCA staffing, **361.29 WTE nurses** (286.12WTE in UHL, 42 WTE in Croom, 20.57 WTE in Ennis, 12.6WTE in Nenagh) and **65 WTE HCAs** were recruited in 2021 to support the opening of additional capacity and services across ULHG alongside the replacement of positions that became vacant.
- There has also been increased focus on aligning staffing levels in wards with the **Safer Staffing Framework for Nursing**. Out of the 18 wards, 10 wards are aligned with the recommended staffing levels, with four that are yet to be staffed in line with the framework, and the other four wards where the framework does not apply (e.g. oncology ward).

Patient Flow Initiatives at Post-Admission

Despite the high quality infrastructure that exists in ED and in wards, capacity constraints remain a key issue in regards to managing patient flow in UHL due to a shortage of inpatient beds. However, there have still been several recent initiatives which have made improvements to the post-admission infrastructural capacity of UHL.



Infrastructure

- In 2020, a **total of 98 new beds were added to UHL**. A suite of 24 single rooms were completed on the UHL site and is a dedicated Haematology Oncology Unit. A separate temporary 14-bed single room block has also been completed. These beds have been allocated for POCU which has enabled increased critical care capacity. In addition, a new 60-Bed Block which comprises four stories, with three inpatient wards of 20 ensuite single rooms over a basement level were added to provide a rapid build interim solution to begin to address the bed capacity issue at UHL in response to the National Capacity Review by the Department. Although these new beds have allowed to keep the hospital safe by isolating COVID-19-positive patients in a way that results in a minimum number of beds blocked due to IPC guidelines, it is unfortunate that the additional bed capacity has not had a more significant impact in reducing the number of admitted patients waiting for a bed.
- An **additional 25 rehab beds** have been delivered in the four rehab units in the region. This has contributed to the reduction in DTOCs which was at its highest in 2019 at 8,994 and has reduced to 4,302 in 2021.
- A **business case for an additional 96 beds** on the UHL site was submitted in March 2022 and has been approved, construction is due to commence in October 2022. The development of the new four-storey, 96 single bed acute inpatient ward block extension at UHL is in the design phase. It is envisaged that when the new 96-bed block opens, approximately half the beds will be used to replace older bed stock on the UHL site in an effort to move away from nightingale wards to single ensuite rooms.
- HSE investment has enabled UHL to significantly **increase critical care capacity** during the pandemic with two additional ICU beds and six additional HDU beds being added to UHL since the beginning on the pandemic
- **Additional MRI capacity:** A second MRI scanner was also installed in the UHL site to manage the demand for scans and reduce delays for patients waiting an MRI
- The ongoing **Roche Project** is upgrading lab equipment in UHL to make it one of the most modern labs in the country

Integrated Community and Hospital Services Initiatives

Several initiatives that involve improving discharge planning and pathways to the community have been introduced in efforts to reduce reliance on UHL services.



Community Discharge Planning Initiatives

- The use of **specialist community supports such as ICPOP** as a means for admission avoidance and early discharge
- There is **early supported discharge for stroke patients who are stable** to their home where they are then followed-up with AHP staff from the community
- There are **two Community Discharge Coordinators** focused on supporting discharges to the community
- **Multidisciplinary Community Intervention Teams (MDCITs)** have been successful in improving patient flow by creating a pathway for patients to be referred to for follow-up post-discharge
- Introduced **CIT Liaison posts** on site in UHL (Wards, MAU, ED) seven days per week to improve patient flow to Primary Care
- **Communication campaign to Primary Care Teams** regarding referral pathways to community based egress, therapeutic and rehab beds.

Using Information to Support Performance Improvement

The technology across the UHL is fragmented with a lack of integration and functionality, resulting in a high administrative burden and impacts on flow. New systems and reports have been introduced to support measurement and monitoring of KPIs to improve efficiencies in patient flow.



ICT

- The **Red to Green System** is an electronic patient flow system that gives a snapshot view of the status of patients in bed to help improve efficiency for those patients that are already in beds. It enables the Bed Management and nursing teams to focus on maximising patient flow within inpatient wards by predicting the date of discharge and transfers, identifying complex discharges early, and ensuring discharge plans are in place for all patients. This also ensures there is a hospital wide focus on ensuring flow from ED, AMU and ASAU.
- The **Bed Cleaning System** has recently been launched and is still being developed. It is used by ward teams and the Bed Management Team to log requests to the Bed Cleaning Team for a bed to be cleaned. The aim of the system is to enable prioritisation by the Bed Management Team to inform where the cleaning team should focus and improve patient flow as a result.



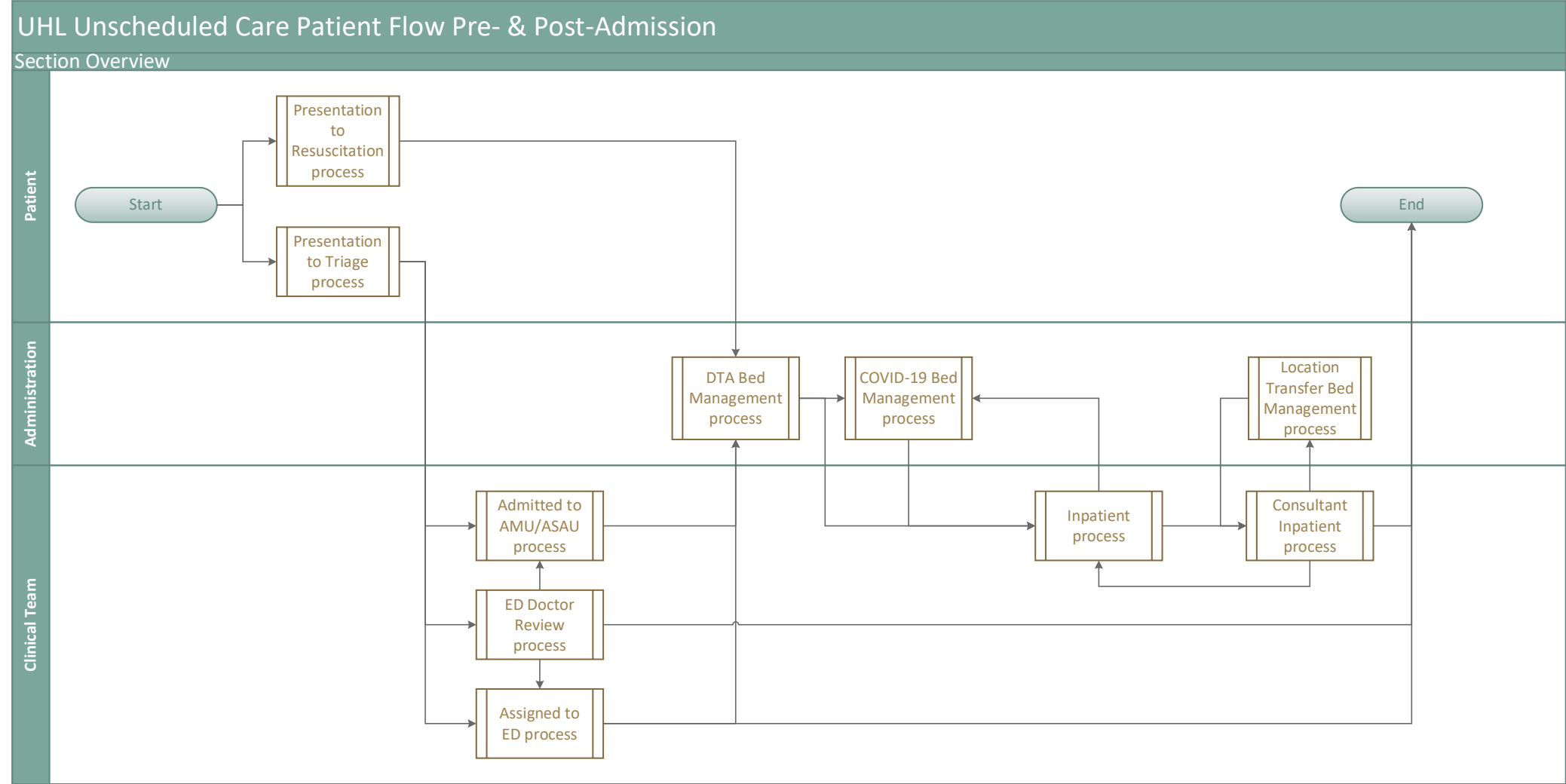
New Management Reports

- Developed **report on bed cleaning turnaround times** to be used as a baseline report to drive improvement
- Developed **weekly report on ICPOP referrals from ED** to be reviewed at weekly USC meeting.
- Developed **weekly report on OPTIMEND admission avoidance numbers** to be reviewed at weekly USC meetings.
- Developed **new report on pre-1pm discharges** to be discussed at weekly USC meetings and to circulate to both wards and Consultants

Appendix B

Process Map Overview

Section Overview of Patient Flow Process Map



Appendix C

List of Stakeholder Consultations

List of Stakeholder Consultations

Directorate / Team	Stakeholders	Where	When
Bed management	<ul style="list-style-type: none"> Ms Tina Fitzgerald – Head of Unscheduled Care Ms Linda Mullane – Assistant bed manager Ms Evelyn Morris – Patient Flow Team / ADON 	UHL	29 th March 2022 12:00-13:30 31 st March 2022 11:30-12:30
Head of Strategy	<ul style="list-style-type: none"> Ms Suzanne Dunne 	UHL & City Gate House	29 th March 2022 13:45-15:00 12 th April 14:00=15:00
Medicine Directorate	<ul style="list-style-type: none"> Ms Fiona Steed – General Manager of Medicine Directorate Mr Alan O’Gorman– ADON Medicines Directorate Dr Eoin Nocton – Endocrinology Consultant and Assistant Clinical Director Dr Gareth Quinn – ED Consultant and Assistant Clinical Director 	UHL	29 th March 2022 15:15-16:15
	<ul style="list-style-type: none"> Prof. Sandy Fraser - Clinical Director Dr Anne Marie Sweeney – NCHD Lead Ms Fiona Steed - Medicine Directorate GM 	City Gate House MS Teams	12 th April 2022 16:15-17:15 13 th April 2022 10:00-10:30
ED Team	<ul style="list-style-type: none"> Dr Gareth Quinn – Consultant ED Dr Cormac Mehigan -Consultant ED Mr Alan O’Gorman – ADON Ms Helen Naughton – ADON 	UHL	29 th March 2022 16:30-17:30 30 th March 2022 09:00-11:00
Perioperative Directorate	<ul style="list-style-type: none"> Mr Finbarr Condon – Consultant Orthopaedics Mr Donal O’Carroll – GM of Perioperative Ms Ber Murphy – Director of Nursing Ms Maria Quirke – Surgical Access Manager 	UHL	30 th March 2022 11:15–12:15
Diagnostic Directorate	<ul style="list-style-type: none"> Ms Niamh O’Grady – Diagnostic Directorate Manager 	UHL	30 th March 2022 13:15-14:15
Cancer Services Directorate	<ul style="list-style-type: none"> Ms. Breda Duggan – General Manager Ms Mairead Cowan – Director of Nursing 	UHL	30 th March 2022 14:30-15:30

List of Stakeholder Consultations

Directorate / Team	Stakeholders	Where	When
Child and Maternal Health Directorate	<ul style="list-style-type: none"> Dr Naro Imsha – Consultant Obstetrician/Gynaecologist Ms Claire Hartnett – General Manager Maternal & Child Health Directorate Ms Eileen Ronan – Assistant Director of Midwifery 	MS Teams	30 th March 2022 15:45-16:15
	<ul style="list-style-type: none"> Dr Siobhan Gallagher - Clinical Director Ms Jeane Moloney – ADON Dr Orla Neylon – Paediatrician Dr Javaid Saeed – Paediatrician Ms Teresa Joyce 	MS Teams	28 th April 2022 15:00 – 16:00
Operational Directorate	<ul style="list-style-type: none"> Mr William Shire – General Manager, Operational Services Directorate (confirm he was at meeting) Mr Niall Joyce – Building Services Manager 	UHL	31 st March 2022 09:00-10:00
	<ul style="list-style-type: none"> Ms Noreen Spillane - Chief Operations Officer 	City Gate House	12 th April 2022 15:00-16:00
CNM2s	<ul style="list-style-type: none"> Ms Edel Buttery – CNM2 Ms Aisling Keogh – CNM2 	UHL	31 st March 14:00-14:30
Lab Team	<ul style="list-style-type: none"> Ms Maria Carr – Lab Manager for UHL, Ennis and Nenagh 	MS Teams	5 th April 2022 15:00-15:30
Allied Health Group	<ul style="list-style-type: none"> Ms Shirley Real – Group Lead Allied Health 	MS Teams	6 th April 2022 15:00-16:00
Nursing	<ul style="list-style-type: none"> Ms Margaret Gleeson - Chief Director of Nursing 	City Gate House	12 th April 2022 09:00-10:00
Governance	<ul style="list-style-type: none"> Dr Marti Lotter - Group Head of Governance 	City Gate House	12 th April 2022 10:15-11:15
ICT	<ul style="list-style-type: none"> Mr Robert Forde - Regional Area eHealth Director 	City Gate House	12 th April 2022 13:00-14:00
Executive Team	<ul style="list-style-type: none"> Prof. Brian Lenehan - Chief Clinical Director 	MS Teams	13 th April 2022 16:00-17:00

List of Stakeholder Consultations

Directorate / Team	Stakeholders	Where	When
IPC	<ul style="list-style-type: none"> Dr Patrick Stapleton – Consultant Microbiologist Ms Sarah Kennedy – IPC 	MS Teams	28 th April 2022 16:00 – 16:45
Operational ADONs	<ul style="list-style-type: none"> Mr Pat Evans 	Phone Call	6 th May 2022 16:00 – 16:30
UHL AMU Consultants	<ul style="list-style-type: none"> Dr Michael Watts Dr Diarmuid Hilton 	MS Teams	11 th May 2022 11:00-12:00
HSE Midwest Community Healthcare Management Team	<ul style="list-style-type: none"> Ms Maria Bridgeman - Chief Officer Ms Niamh Wallace - Head of Service, Health and Wellbeing Ms Nuala Kelly - Head of Service, Mental Health Mr Maurice Hoare – Head of Service, Disability Services Ms Margaret Costello – Head of Service, Primary Care Services Ms Aisling Ryan – Head of Service, Older Persons Services 	Webex	30 th May 2022 12:30-13:00
HSE Midwest Community Healthcare Health and Wellbeing	<ul style="list-style-type: none"> Ms Niamh Wallace - Head of Service, Health and Wellbeing Mr Anthony Floyd – Acting Chief Officer (<i>while Maria Bridgeman was on leave</i>) Mr Brian Malone – GM PMO Office 	MS Teams	8 th June 09:00-09:30
HSE Midwest Community Healthcare Mental Health	<ul style="list-style-type: none"> Ms Nuala Kelly - Head of Service, Mental Health 	MS Teams	8 th June 09:45-10:15
HSE Midwest Community Healthcare Primary Care	<ul style="list-style-type: none"> Ms Margaret Costello – Head of Service, Primary Care Services Ms Carmel McLoughlin - GM, Primary Care Services 	MS Teams	10 th June 11:30-12:00
HSE Midwest Community Healthcare Disability Services	<ul style="list-style-type: none"> Mr Maurice Hoare – Head of Service, Disability Services 	MS Teams	10 th June 12:45-13:15
HSE Midwest Community Healthcare Older Persons Services	<ul style="list-style-type: none"> Ms Aisling Ryan – Head of Service, Older Persons Services Ms Angela Frawley - GM for Community OPS Ms Sheila Ryan – GM for Residential OPS 	MS Teams	8 th June 13:00 – 13:30
General Practitioners	<ul style="list-style-type: none"> Dr Miriam Callanan 	MS Teams	15 th June 09:30-10:00

List of Stakeholder Consultations

Directorate / Team	Stakeholders	Where	When
CEO	▪ Prof Colette Cowan, CEO	MS Teams	11 ^h August 2022 12:00 – 13:00
COO	▪ Ms Noreen Spillane, COO	MS Teams	26 th August 2022 11:00 – 12:00
Head of Strategy	▪ Ms Suzanne Dunne, Head of Strategy	MS Teams	26 th August 2022 12:00 – 13:00
CCD	▪ Prof Brian Lenehan, CCD	City Gate House	24 th August 2022 12:00 – 13:00
Quality & Patient Safety	▪ Ms Paula Cussen – Director of Quality & Patient Safety	City Gate House	24 th August 2022 10:00 – 11:00
Perioperative	▪ Mr Finbarr Condon – Clinical Director, Peri-Operative Directorate	City Gate House	24 th August 2022 11:00 – 12:00
CDONM	▪ Mr Declan Mc Namara – Interim Chief Director of Nursing & Midwifery	City Gate House	24 th August 2022 12:00 – 13:00
Medicine	▪ Dr Gareth Quin – Clinical Director Medicine	City Gate House	24 th August 2022 16:00 – 17:00
Diagnostics	▪ Dr Tim Scanlon Clinical Director, Diagnostics	Phone call	26 th August 2022 9:30 – 10:00
HR	▪ Ms Lorraine Rafter, DHR UL Hospitals Group	Phone call	13 th September 2022, 15:00 – 16:00