UL Hospitals Response to Alleviate Patient Flow and Address Overcrowding

Ospidéil OL
UL Hospitals
Working together, caring for you

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Contents

Executive Summary

University Hospital Limerick (UHL) continues to deal with record volumes of patients attending its Emergency Department (ED), a pattern that has been sustained over a number of months and is evident in other Hospital Groups across Ireland.

This paper sets out to describe the consistent and continual efforts at UL Hospitals Group to alleviate patient flow and address overcrowding. It includes the following:

Section 1: Overview of the current situation
Section 2: Analysis as to why this has occurred
Section 3: Measures enacted to address the situation
Section 4: Covid-19 related absences at UL Hospitals Group, an overview of the current situation
Section 5: Redeployment of Nurses and HCA's in Response
Section 6: Recruitment Update on Nurses and HCA's for 2021

The ED in UHL is the second busiest in the country and has some of the longest PET times. ED overcrowding is symptomatic of a wider issue of capacity within the hospitals. As outlines in the table below, UL Hospitals Group has the lowest inpatient bed capacity when benchmarked per population and per patient attendances against the other Hospital Groups.

Hospital	**No: of In-patient Beds**	**ED Attendances 2021**
St. James' Hospital	698	48,397
UHL	530	76,473
Mater	614	89,335
SVUH	510	60,748
GUH	618	68,887

UL Hospitals Group also manages secondary care paediatrics within the bed base which the Dublin adult hospitals do not and paediatrics account for approximately 25% of the population. In addition, private hospital bed capacity in the Mid-West is also the lowest in the country with currently only 50 beds within the Bon Secours in Limerick, compared with the > 250 beds available in Galway through Galway Clinic & Bon Secours Galway and >600 beds in the South / South West catchment area. A recent demand analysis for UHL indicates there is a need for an additional 203 inpatient beds to meet the demand. The implications of a lack of inpatient capacity include:

- Longest PET times in ED in the country
- 83% of inpatient bed days are taken up by emergency admissions through the ED leaving limited capacity for elective activity and resulting in long and growing waiting lists
- Cancellations of elective activity when there is an increase in demand for emergency care
- Long and increasing inpatient and day case waiting lists

Furthermore, 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. Even prior to the Omicron variant there has been a 157.4% increase in Covid-19 positive cases in UHL alone from January to October 2021 compared to the same period in 2020, these patients also have a longer length of stay by 1.3 days during this timeframe (See Section 2). There has also been 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 (See Section 2).

About UL Hospitals Group

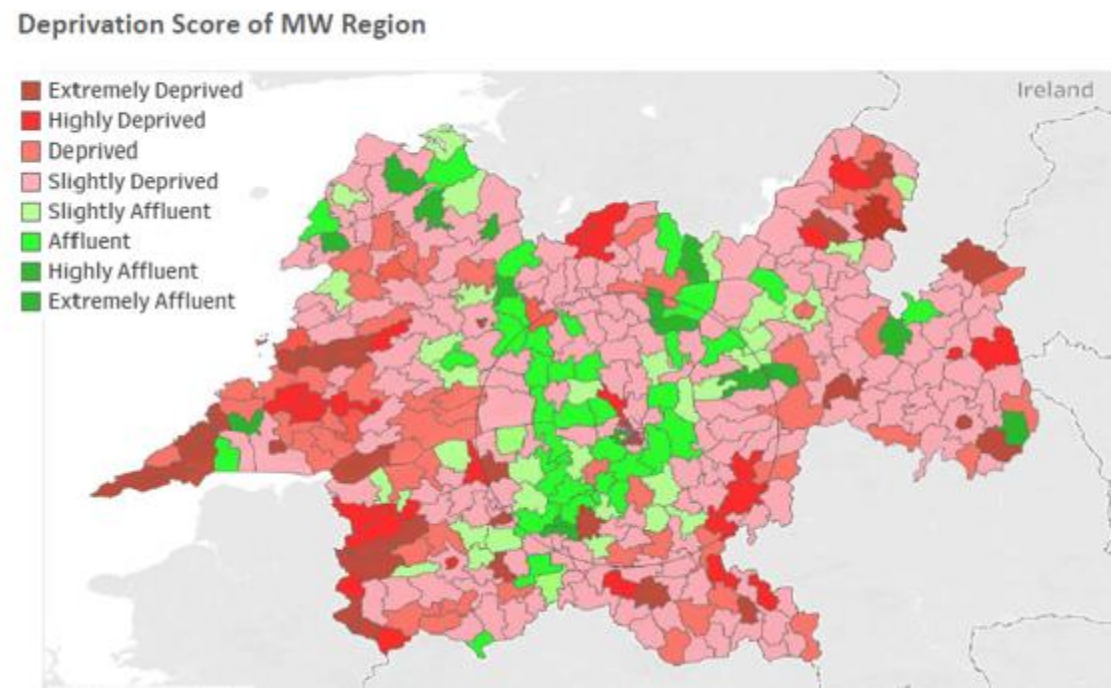
UL Hospitals Group compromises of six different hospital sites:

- University Hospital Limerick (UHL)
- University Maternity Hospital Limerick (UMHL)
- Nenagh Hospital
- Ennis Hospital
- Croom Orthopaedic Hospital
- St. John's Hospital (Voluntary)

The six sites collectively function as one single hospital system, over 5,500 staff providing a range of emergency, surgical and medical services on an inpatient and outpatient basis to a population of over 380,000 people in the Mid-West. The University of Limerick is the Hospitals Groups academic partner.

Deprivation Rate and Index for the Mid-West

It is worth noting the deprivation rate recorded for the Mid-West in 2019 (most recently published) was 16.8%. This is the third lowest deprivation rate in the country from a regional viewpoint. At 21.4%, the border region has the highest rate recorded in the context of healthcare that the deprivation index for Mid-West indicates that Limerick county is significantly more deprived than other areas in the MW Region. Evidenced based research intimates this has a direct impact on health, in particular chronic disease.



Section 1: Overview of the Current Situation

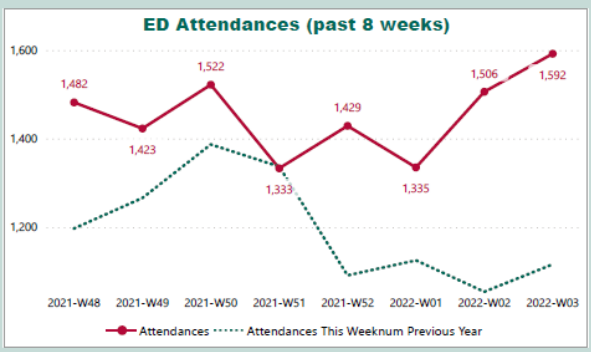
Section 1 provides an overview of the current situation on the date of January 26th 2022, and demonstrates an increase in ED patient presentations over the last three weeks in particular. Furthermore, there has been a change in how patients present to the ED, with many patients presenting to ED without having first consulted their GP. There is also an increase in the acuity of patients presenting to the ED and an increasing aging profile. This week has seen an increase in the delayed transfers of care (DTOC's) and an increase in the number of patients in hospital greater than 30 days.

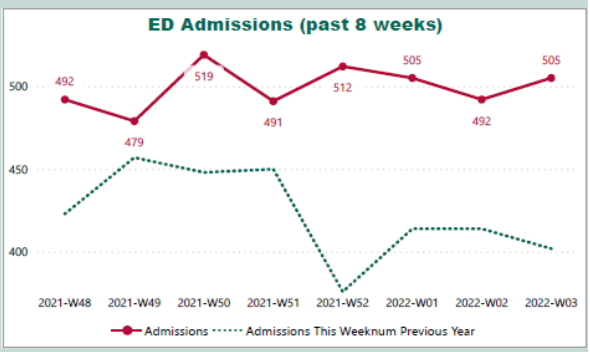
UHL on January 26th 2022

The total number of admitted patients in UHL on January 26th 2022 was 430 Medical, 168 Peri-Op and 41 Paediatric, a total of 639 patients. In the ED there were 51 admitted patients with 12 in designated clinical spaces(ED Cubicles), 39 admitted patients on trolley's in the ED on corridors. AMU had 23 admitted patients with 13 patients in Beds in designated bed spaces and 11 admitted patients on trollies. In the ASAU there were 23 admitted patients, 16 admitted patients were in designated clinical space and 7 admitted patients on trollies. There were 16 Ward Trollies at this time. Both Surge areas were open with 10 patients admitted to the SAU and a further 10 patients admitted in the Short Stay Surgical Unit (these were beds not trolley's). As per SDU Trolleygar reporting template the total number of "trolley's" was 73 not 111 as reported by the INMO.

Increase in Presentations:

The last three weeks have seen an upward trend in the number of patients presenting to the Emergency Department (ED) at University Hospital Limerick (UHL), following average attendances over the Christmas period. The first week of January saw 1,335 attendances, it increased to 1,506 the second week of the year and the upward trend continued last week with 1,592 attendances. This week is continuing with high patient numbers presenting to the ED, with 265 on Monday and 251 on Tuesday. The data below highlights an increase in last week's attendances growing by 5.7% on the previous week, up 42.7% compared to the same week last year. There was a corresponding increase in admissions.





1,592 patients **attended** EDs last week

+5.7% on the previous week

+42.7% on the same week last year

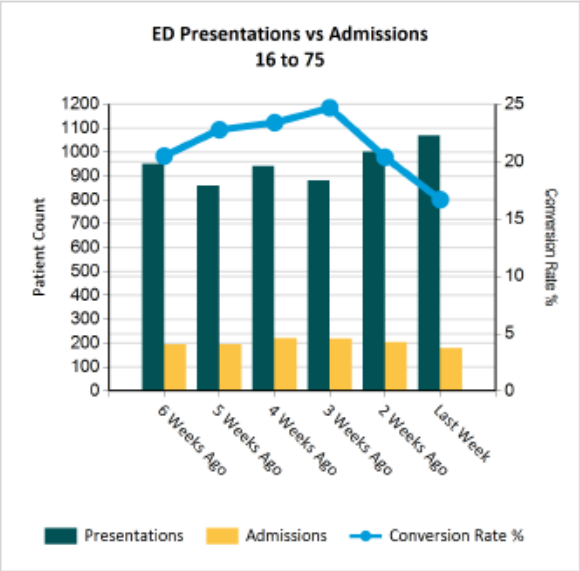
505 patients were **admitted** from our EDs last week

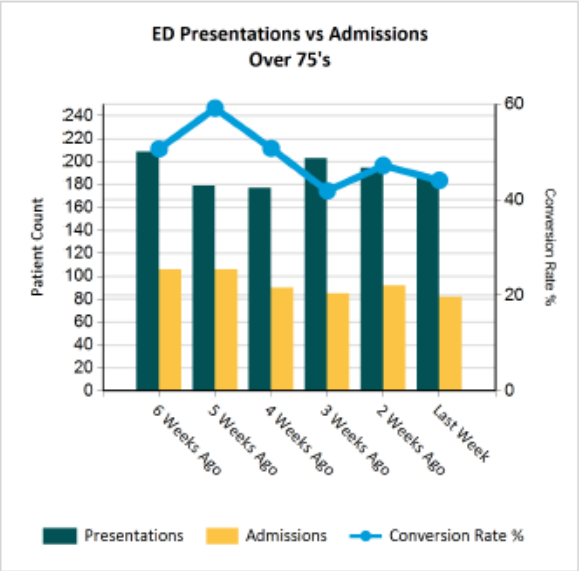
+2.6% on the previous week

+25.6% on the same week last year

Change in Patient Presentations to the Emergency Department

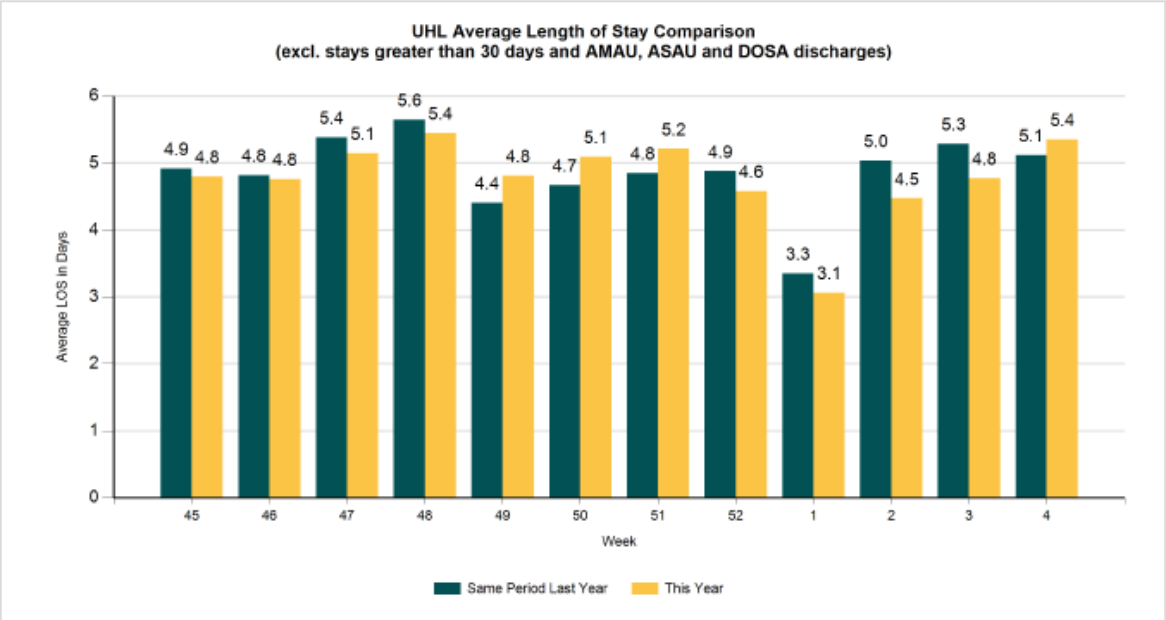
Comparing patient attendance data for the first 25 days of January 2022 with the same time period in 2021, and there was a noticeable increase in both GP & self-referrals to ED for the period. When compared to 2021 an additional 383 patients attended ED having been referred by their GP. This was coupled with an increase in those presenting to ED without having first consulted their GP, an additional 578 self-referrals compared to January 2021. Despite this significant increase in ED attendances, as per the data in the graphs below, conversion to admission rate which peaked five weeks ago in the >75yrs cohort, then fell and has held steady over the past three weeks. In the 16 – 75yrs age bracket, the conversion rate is trending downwards on the past three weeks.





Increase in Patient Acuity

Feedback from the staff in ED and the in-patient wards is staff are seeing an increase in the acuity of patients presenting, particularly over the last two weeks. As evidenced in the graph below, while over the preceding four weeks UHL had a reduced AVLOS compared to the same four weeks last year, last week saw an increase in our AVLOS, which too reflects the increase in the acuity of patients who are admitted to UHL.

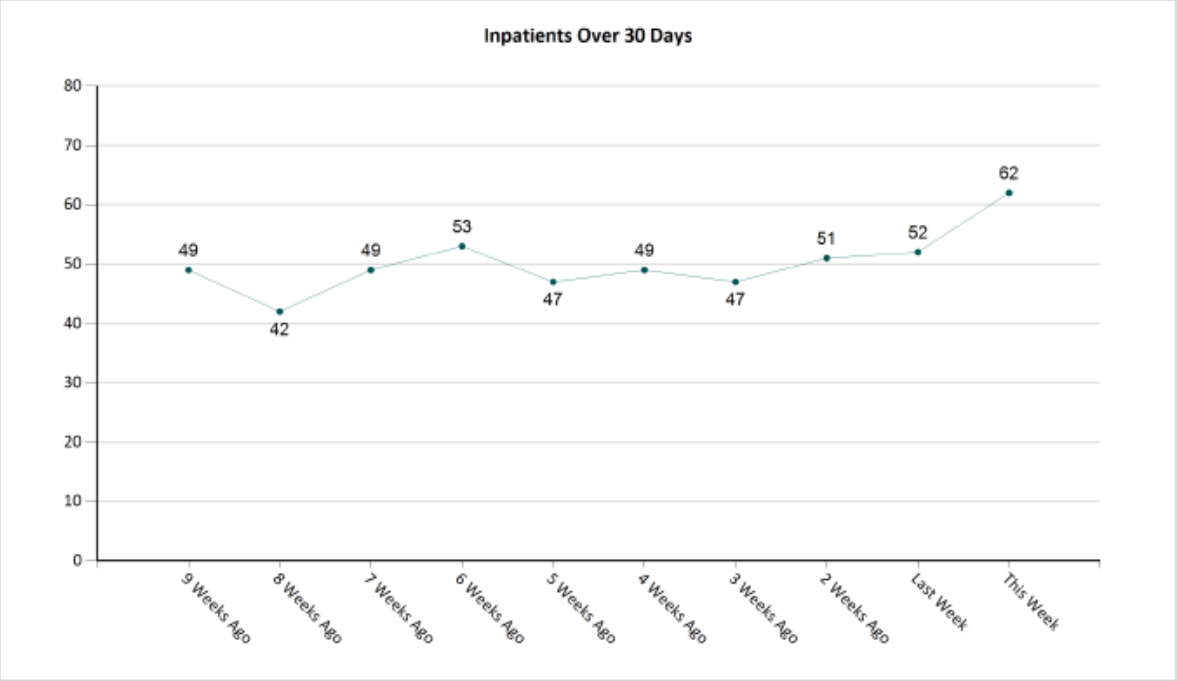


The graph above displays the average length of stay in days of patients discharged in the past 12 weeks vs. the same period last year.

Patient stays that were greater than 30 days and any patients discharged from the AMAU, ASAU and DOSA ward are excluded from the data.

Egress: Patients Greater than Thirty Day Length of Stay

As per the graph below, the numbers of inpatients in hospital had been holding steady, but increased by ten this week. This cohort of patients are reviewed weekly by a MDT consisting of Associate Clinical Director Medicine, GM Unscheduled Care, Bed Manager, Discharge Coordinators and Fairdeal coordinator. These reviews provide assurance that appropriate discharge planning is in place for this cohort of patients. It should also be noted the majority of patients in this cohort are continuing to be actively managed medically and surgically and are not fit for discharge or transfer, on the week commencing January 24th, 17 of the 62 patients were delayed transfers of care.



Delayed Transfers of Care (DTOC's):

UL Hospitals continues to work on minimising DTOC's, and below is the DTOC data for Tuesday 25th January. Our largest category of DTOC's are those waiting access to rehab, with three waiting transfer to the NRH, but the majority waiting transfer to a rehab unit in a community nursing unit. Two rehab units in the Mid-West have restricted access to beds due to Covid out breaks in the units. The rehab unit in St Joseph's Hospital in Ennis has closed its outbreak and flow is resuming there. St Camillus is still in the midst of outbreak, and we are working closely with CHO colleagues in identifying alternative access to rehab beds to facilitate the transfer of these patients from acute services.

DTOC summary activity return

DTOC caseload total as per INSERT DATE	LTC	Rehab			HCP			Complex	Housing	WOC	Non-Compliance	COVID
		NRH	Community Rehab	CRSU (UHL)	Waiting Approval	Carer Availability	IHCP/High cost					
25.01.2022	4	3	14	0	1	1	2	3	2	2	0	0
		Rehab Total		17	HCP Total		4					

Managing Patient Flow in a Covid 19 Surge:

Managing flow during a surge in Covid 19 cases makes a complex job more challenging. The Omicron wave was a different experience compared to the Alpha and Delta waves. In those waves patients presented with classical Covid symptoms, which meant the patients were managed in the Covid pathway from presentation onwards, with clear segregation from the non Covid pathway. The experience of Omicron is that many patients attending with non Covid presentations and managed in the non Covid pathways, were found to have asymptomatic Covid on surveillance screening. This added to the complexity of managing flow in that as well as managing the new positive case by isolating patients in a single room; close contacts would also have to be isolated in order to mitigate wherever possible against Covid outbreaks.

There were however some Covid outbreaks in hospital sites in the Hospitals Group. A number of wards in UHL have been affected by outbreak as well as Ennis, Nenagh and University Maternity Hospital Limerick. This has impacted on bed stock as wards were closed to admission in the initial phases of a ward outbreak when teams worked relentlessly to minimise the spread and reduce the risk of exposure to patients. In addition the management of the Covid positive and suspect patients meant additional movement of patients throughout their hospital stay as they may be initially admitted to the single room Covid wards, then onwards to a Covid cohort ward and to a non Covid ward once no longer deemed infectious or delisted as a Covid suspect. This movement of patients was necessary in order to maintain access to the single room isolations for new and suspect cases as well as to manage close contacts in single rooms.

Section 2: Analysis as to why it has occurred

Capacity versus Capability

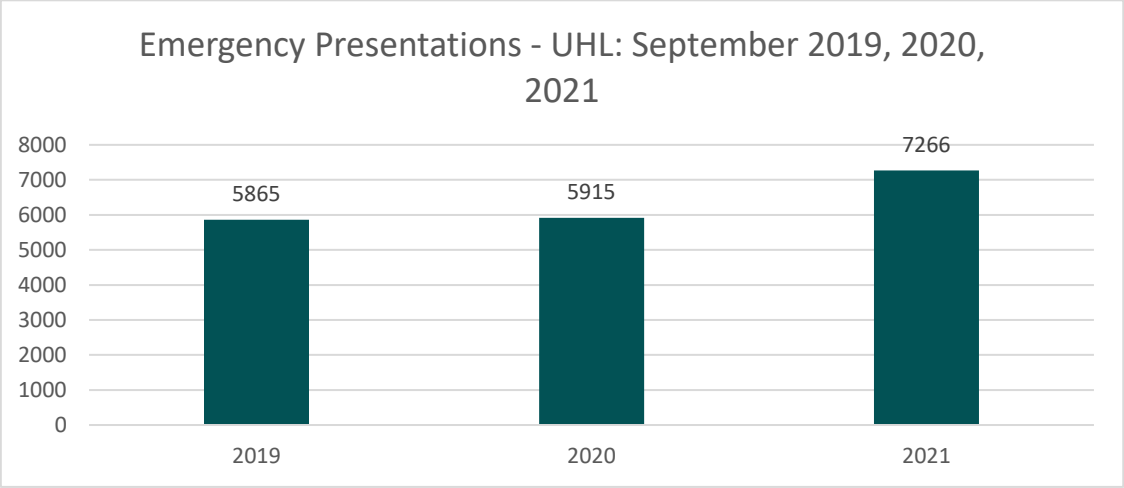
The ED in University Hospital Limerick is the second busiest in the country, yet bed capacity is lower than other Model 4 hospitals in Ireland as evidenced in the Executive Summary. Despite UL Hospitals having over 28,076 patient attendances *more* than St. James' Hospital for 2021, UHL have 168 beds *less* than St. James' Hospital (in other words a comparative Model 4 hospital has an additional 61,320 inpatient bed days per year when compared to UHL).

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 that UHL in 2021.

Hospital	**No: of In-patient Beds**	**ED Attendances 2021**
St. James' Hospital	698	48,397
UHL	530	76,473
Mater	614	89,335
SVUH	510	60,748
GUH	618	68,887

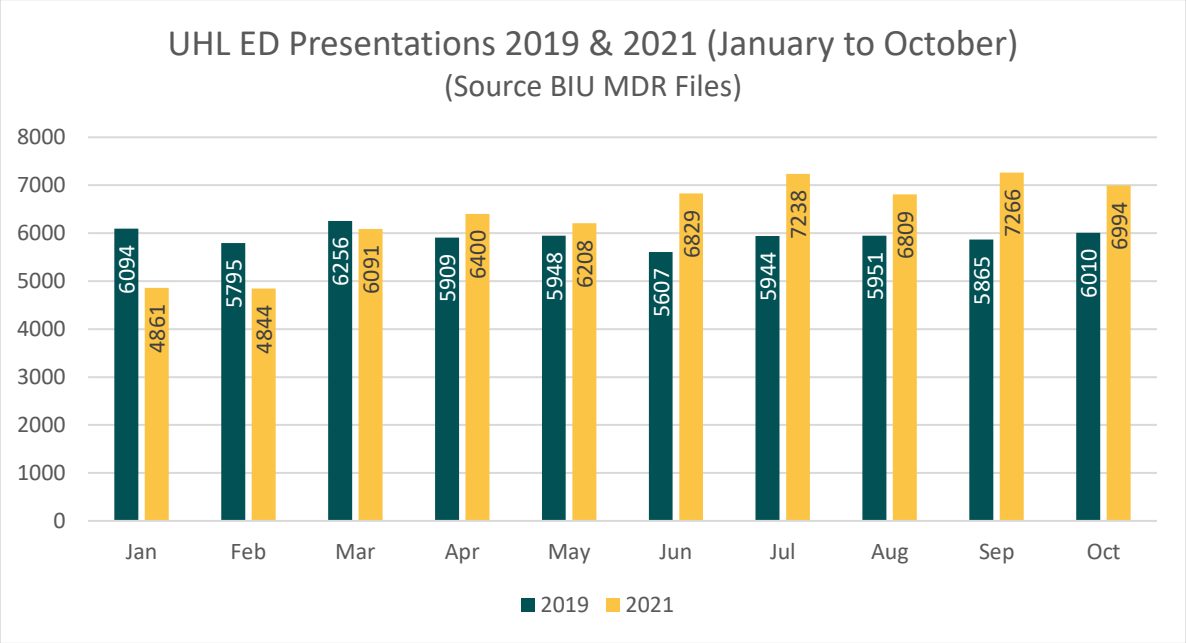
During October 2021, the overall daily attendance at the ED averaged at 226, compared with 195 over the whole of 2019, the last full year pre-pandemic. The trend of high emergency presentations and admissions has been sustained for a number of months, in the Mid-West and in hospitals across the country.

The graph below is a comparison of our Emergency Department presentations for September 2019, 2020 and 2021 (Latest available data).



ED Presentations for September 2019, 2020 and 2021 (comparative data)

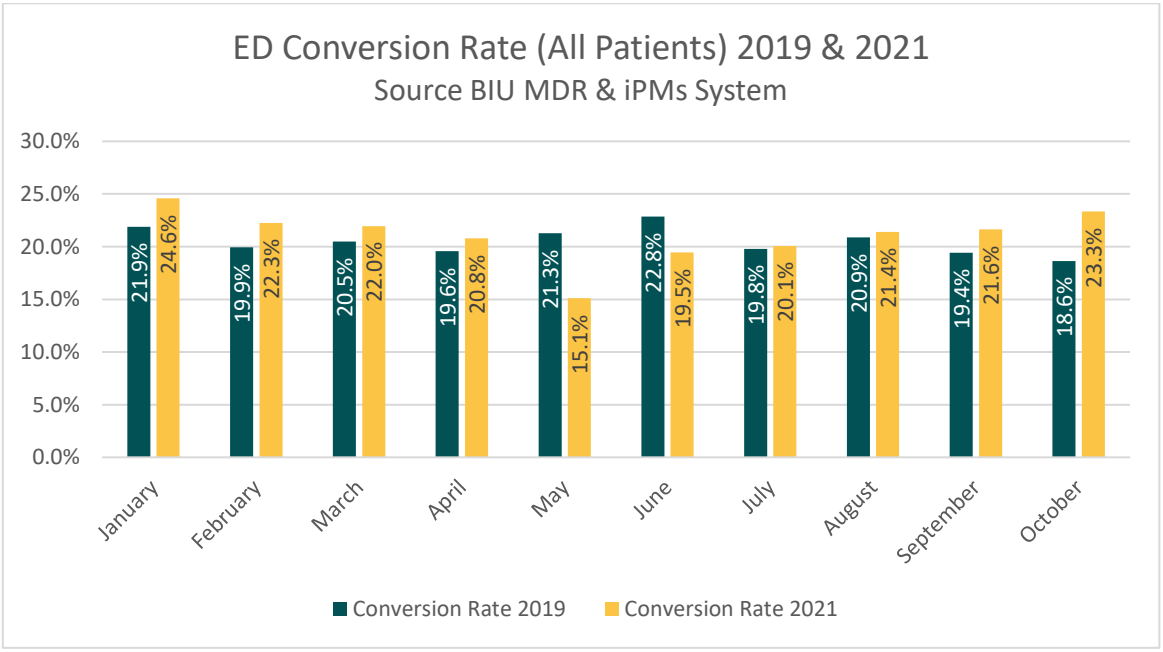
The graph below shows that 2021 had an increase of 7.0% in presentations in the Emergency Department, 2019 had 59,379 presentations from Jan – Oct 2019 compared to 63,540 presentations from Jan – Oct 2021.



Emergency Department Presentations UHL Jan – Oct 2019 versus Jan- Oct 2021

Emergency Department Conversion Rates

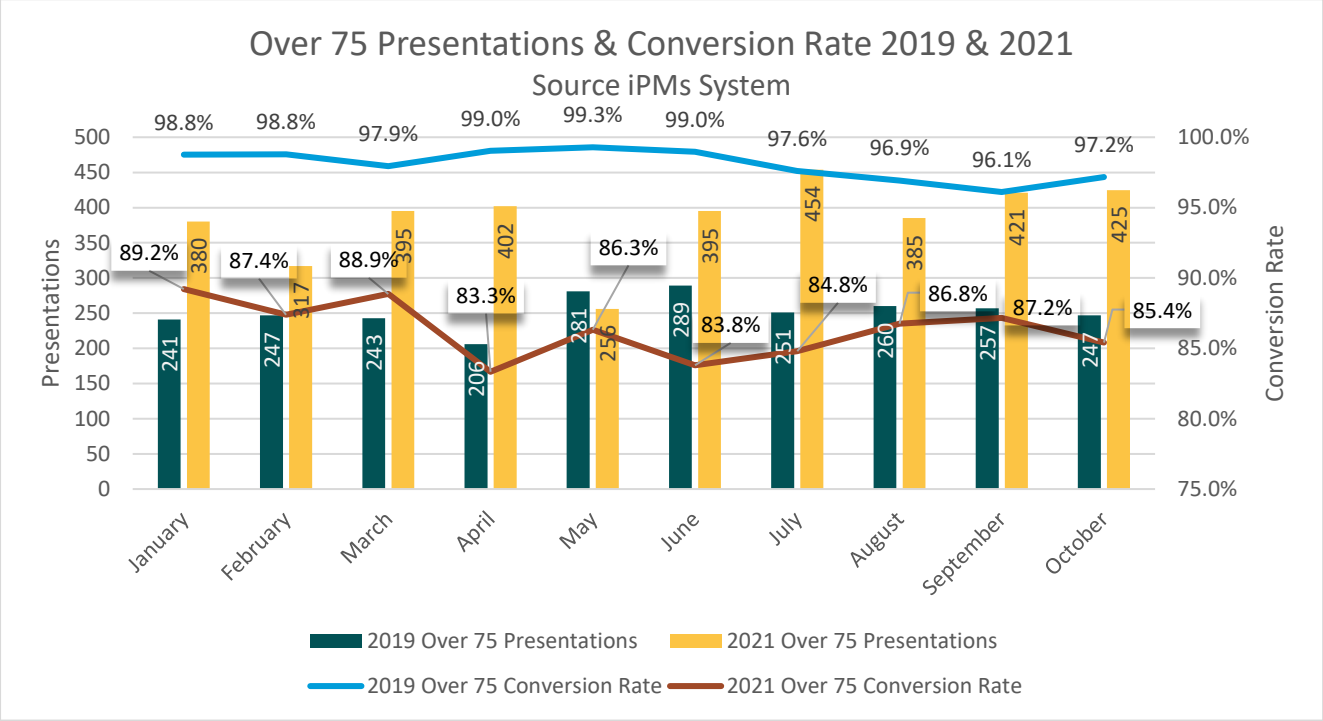
The graph below relays that admissions from ED to UHL grew from 12,152 admissions to 13,324, an increase of 9.64%.



Emergency Department Conversion Rates Jan- Oct 2019-2021

Over Age 75 Emergency Department Presentations and Conversion Rates

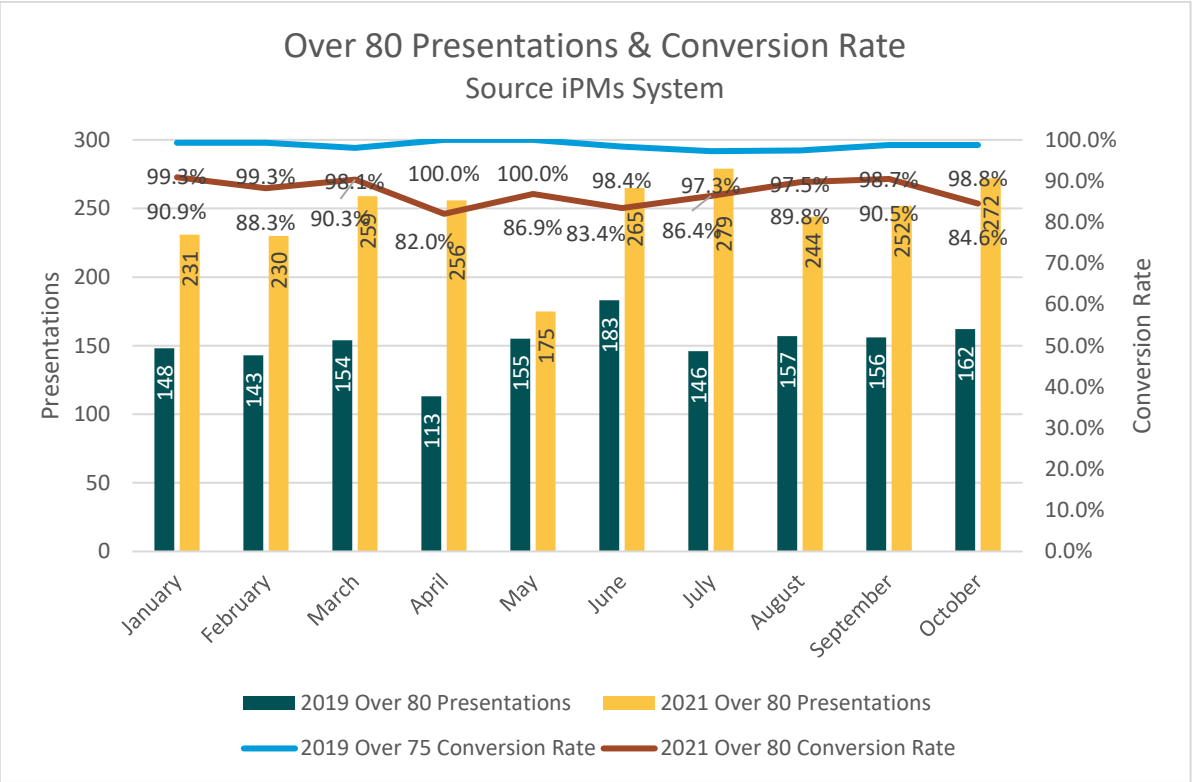
The graph below shows the presentations and conversion rate for over 75's in ED. Of note, the number of admitted patients had increased by 33.6% (an additional 830 presentations) increasing from 2473 in 2019 to 3303 in 2021.



Over 75 ED Presentations & Conversion Rate Jan- Oct 2019 Versus 2021

Over Age 80 Emergency Department Presentations and Conversion Rates

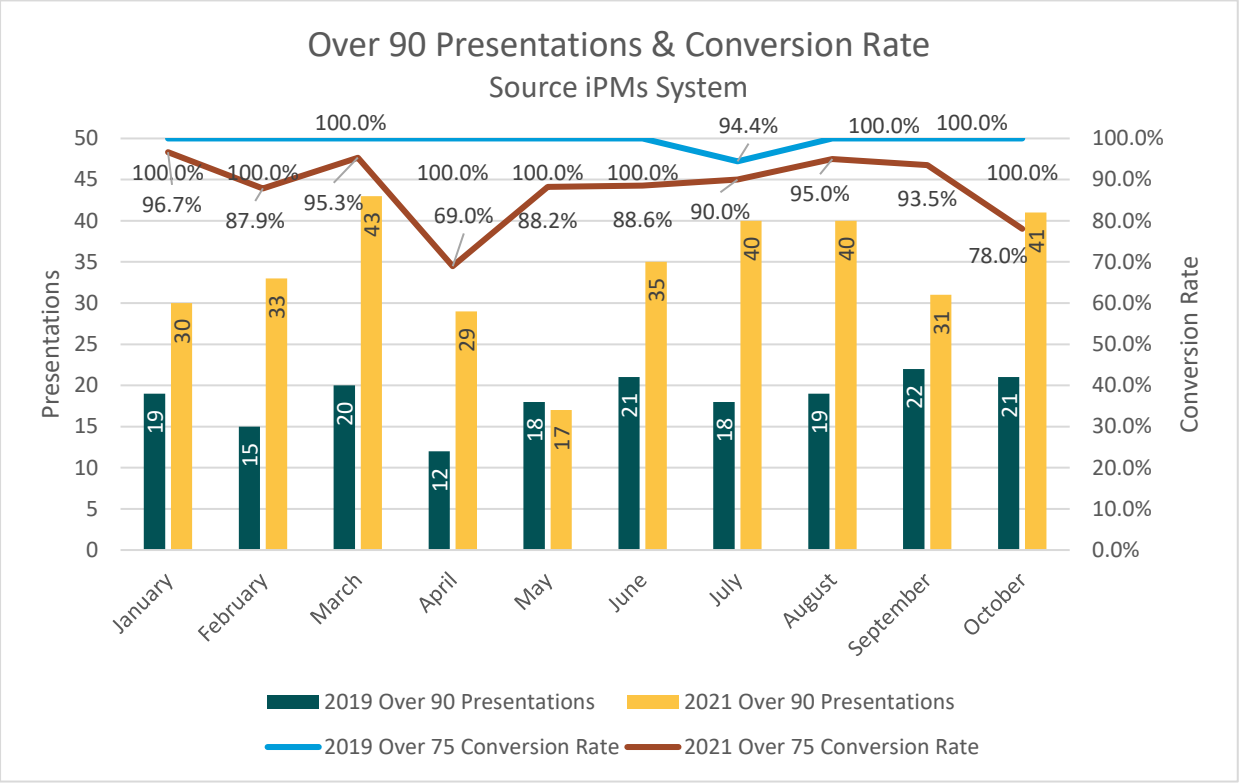
The graph below shows the presentations and conversion rate for over age 80's in ED. 2021 had a 62.36% increase in presentations (an additional 946 presentations) rising from 1517 in Jan – Oct 2019 to 2463 for the same period in 2021. Furthermore, admissions of over 80's from ED increased by 651 (43.49%) from 1497 in 2019 to 2148 in 2021.



Over 80 ED Presentations & Conversion Rate Jan- Oct 2019 Versus 2021

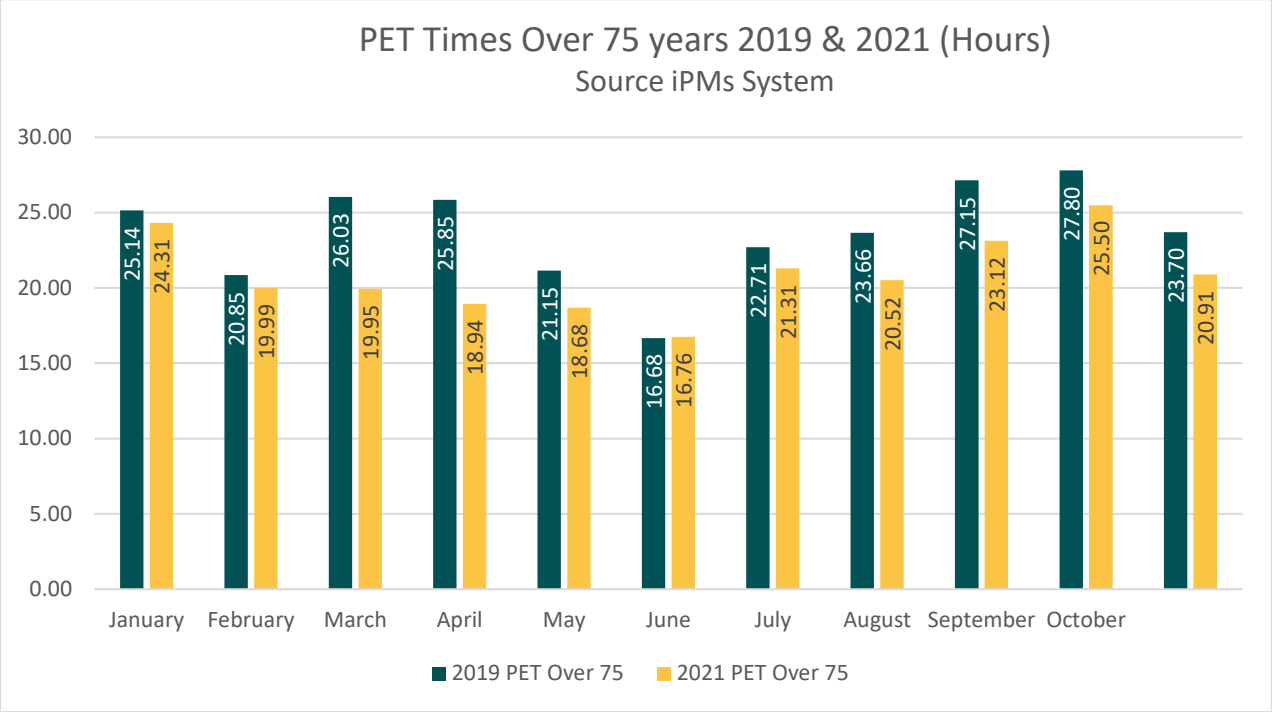
Over Age 90 Emergency Department Presentations and Conversion Rates

The graph below shows the presentations and conversion rate for over 90's in ED. 2021 saw an increase of 154 presentations from 185 to 339, an 83.24% increase.



Over 90 ED Presentations & Conversion Rate Jan- Oct 2019 Versus 2021

The graph below highlights increased presentations in the age over 75 years from 6,812 presentations in 2019 to 8,437 presentations in 2021, an increase of 1,625 presentations (23.85%). Despite this PET in this cohort of patients decreased by 2.79 hours from 2019 to 2021, reducing from 23.70 hours to 20.91 hours.



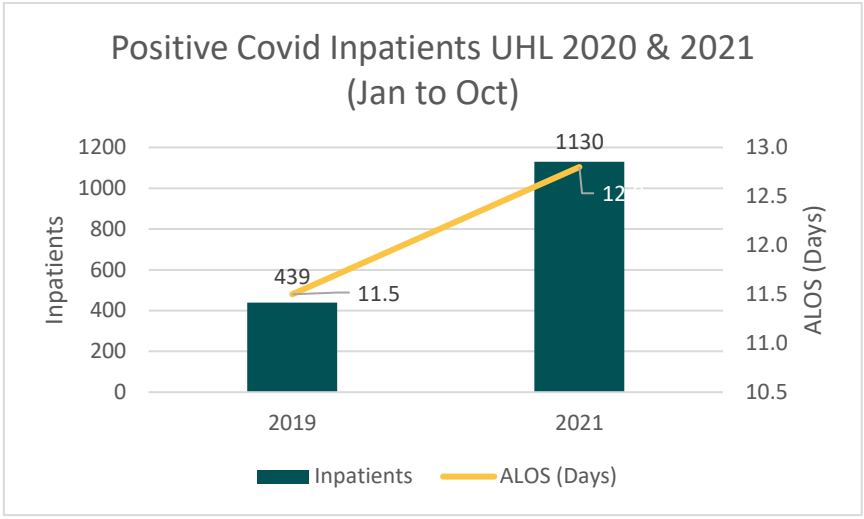
ED PET Times Over 75 Years Jan - Oct 2019 Versus 2021

Old Infrastructure

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 14 beds with often a single bathroom.

Increase in Infection and Increased Length of Stay

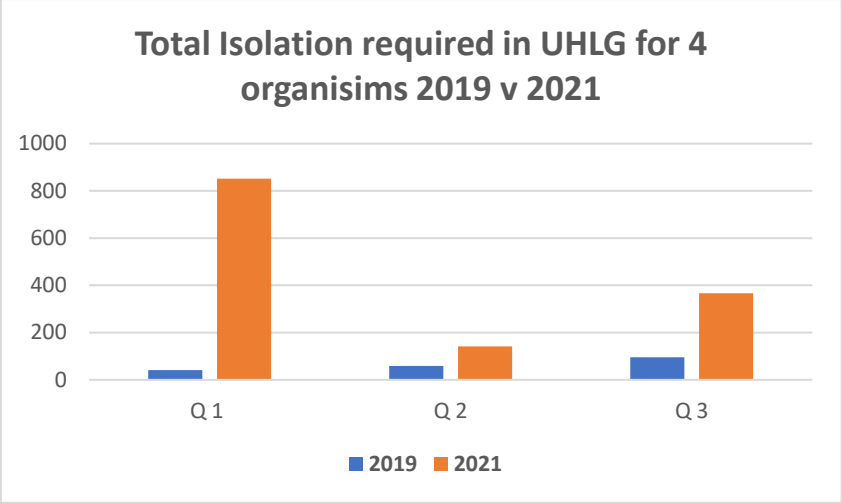
The graph below relays Covid-19 positive cases in UHL increased from 439 inpatients in 2020 to 1130 in 2021, an increase of 157.4%. Of note, the Average Length of Stay for this cohort of inpatients increased from 11.5 days in 2020 to 12.8 days in 2021 for UHL



Covid-19 Positive Patients & AvLOS, UHL, Jan-Oct 2020 versus Jan - Oct 2021

Isolation Requirements University Hospitals Limerick

There are currently nightingale areas across 7 wards in UHL with a total of 199 beds on these wards and over 80 beds 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.
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 2019 compared to the same period in 2021.



Isolation requirements at UHL 2019 versus 2021 (Q1, Q2 & Q3)

Despite reductions in Norovirus and Clostridioides Difficile, CPE rates are rising year on year. Combined with Covid-19 infections this has increased our single room isolation requirements to unprecedented levels.

To bring these wards and areas in line with standards including, maximum number of beds in multi-occupancy areas and minimum distance between beds, a total of 100 beds in UHL would be lost and would require replacement stock.
This means that overall, in ULHG there is a need for an additional over 303 inpatient beds by 2036. In the immediate term and additional 96 beds will help to reduce the capacity in the multi-occupancy wards which are most associated with outbreaks.

Section 3: Measures Enacted to Address this Situation

Clinical Response

- Introduces Speciality Hand-back and >75 Shared Handoff
- Significantly curtailed scheduled care with fewer than xx number of bed being used for Urgent/Time Critical Cancer/Non Cancer Scheduled Surgery.
- Focus on Red to Green to maximise discharges and Transfers to our Model 2 hospitals
- Discharge meetings
- Opened all available surge beds 10 SDW & 10 SSSU
- Maximised Ward Trollies
- Consultation with CHO3 to maximise the utilisation of Community and rehab beds
- Planned short term utilisation of 20 Orthopaedic Inpatient Bed in Croom Orthopaedic Hospital to transfer DTOC Rehab/NH patents to acutely decompress UHL site.
- Communications to Public re: ED avoidance & consideration of alternative options.

Management of Patient Flow to Address Overcrowding

UL Hospitals Group Management Team have enacted numerous measures to address the situation. Patient flow continues to be a focus for UL Hospitals to reduce waiting times for access to an in-patient bed in the ED. This is a group wide focus and outlined below are the measures undertaken to address trolley waits in ED:

- Twice daily Hospitals Group teleconference, these are Chaired by the Unscheduled Care Lead and its focus is flow both in UHL and across the group. All directorate teams and sites. participate and barriers to flow are escalated and addressed. Daily teleconferences are chaired by the Executive on Call at weekends.
- The Hospitals Crisis Management Team meetings continue between 3-7 days per week depending on demand. These meetings are Chaired by the CEO or a member of the Executive Management Team.
- Escalation Plans: UL Hospitals have a suite of department, directorate and an overall hospital escalation framework to be adhered to in order to address an increase in unscheduled care demand. The escalation plans include measures such as:
    - Consultants to be contacted directly by the Clinical Directors supported by the directorate teams regarding the requirement for increased discharges and transfers.
    - "No Refusal Policy" for transfers to the Model 2 hospitals.
    - Directorates to hold discharge meetings with both medicine and peri-op teams to identify discharges as well as identifying barriers to discharge which can then be addressed.
    - The steps at which patients should be moved to ward trolleys in order to minimise numbers waiting in the ED.
    - The opening of surge capacity.

If no reduction in trolley waits has been achieved from early escalation interventions, then cancellation of elective activity is the final step to ensure consultants and their teams are available to focus on in-patient activity.

Other measures taken are:

- Red2Green; an electronic patient flow system. This is completed twice daily by ward managers and the information inputted is available to Patient flow, Bed Management, Senior Nurse Manager in order to assist in managing flow on a daily basis. The focus is on predicted date of discharge, discharges, transfers and 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 our ED/AMU and ASAU.
- Acute Floor Group; this team meet every two weeks, it is chaired by an ED consultant and its aim is to improve efficiencies across the acute floor; ED/AMU/ASAU. The team consists of ED/AMU/ASAU staff along with directorate, bed management and HSCP team members who are working together to establish an acute floor comprising of the three departments as envisioned by Slaintecare.
- Medicine Oversight Group; this group has been established by the Chief Clinical Director, the objective of this Committee is to transform Medical Services within the UL Hospitals Group. The medical oversight group are focusing on the following:
    - ED Acute Floor
    - Model 2 Hospitals
    - AMU
    - Inpatient Patient flow
    - Diagnostics

- Weekly Discharge Teleconference with CHO3 to manage and agree plans for patients who are Delayed Transfers of Care, as well as planning for complex discharges who are not yet ready for discharge.
- Weekly senior review of patients with a LOS > 30 days, core members include Associate CD in Medicine, GM USC, Bed Management, Discharge Coordinators, Community Discharge Coordinators.
- Unscheduled Care Committee; meets every two weeks with all directorates and sites represented, chaired by the COO, with the CCD and CDONM also core members. The committee is responsible for reviewing USC data and agreeing and implementing plans to ensure we meet the needs of those presenting for emergency care.
- Winter Preparedness Team & Enhanced Community Care Forum; these are integrated groups comprising of both UL Hospitals and Mid-West Community Care staff with a focus on the key objectives of the Winter Plan, 24 hr PET and >75yrs as well as oversight of key projects as we work to implement Sláintecare.
- As part of the escalation plans and in order to minimise the numbers of patients waiting beds in ED we have two areas of surge capacity open, as well as moving patients from ED to wait for their bed on a ward trolley. Patient flow is the central focus of all teams across the group.

Nursing Day to Day Response Re: UHL

- 07.30 – OPADON morning handover – attended by patient flow, OPADON day/nights, directorate ADONs and CNM 3s, DON medicine and DON Peri-OP.
- 08.15 – ADON patient flow, CNM 2 ED, Directorate ADONs attend the ED to ascterain any flow issues and review of actions to be taken to increase flow from the ED.
- 08 30 Monday only CDONM chairs DON UHLG meeting where identified site risks are identified and discussed.
- 09.00 – Huddle chaired by GM USC- Attended by DON medicine and DON Peri-op, OPADON on duty and Directorate ADONs – flow issues, risk factors and patient prioritisation actions identified. All areas including the ED, AMU, ASAU, theatre capacity and critical care capacity identified.
- 09.30 – All senior nursing teams (CNM 3/ADON/DONs) commence rounding via R2G to expedite any transfers or discharges that may need additional input/ resources/actions to achieve same.
- Link with bed management team at intervals throughout the day to maximise bed capacity, flow issues, bed availability coming up unit status (ASAU/AMU).
- Gather information and implement risk mitigation actions to alleviate COVID leave deficits and deploy staff to safely manage services. Reassess at intervals during the day.
- 10.00 – Attendance at outbreak meetings chaired by Exec on call and implements actions to cohort patients appropriately and maximise bed availability as well as any patient/staff point prevalence testing requirements.
- Red2Green updates by 10.00 completed by CNM2/3. Check and challenge completed daily by 15.00. Oversight and monitoring by ADONs and DONs.
- 10.00/11.30 DONs and OPADON attend HCMT.
- 09.00-13.00 Ward rounds ongoing throughout the wards.
- 12.00 – All Ward CNMs/ADON huddle with patient flow team daily to ascertain potential discharges/ ED waiting and any actions that can be taken to increase flow.
- Patients flow to wards continuously to a maximum of 2 per ward in chronological order unless a clinical reason dictates otherwise – conducted with CNM patient flow/ADON patient flow and bed management teams.
- Cocooned surgical patient pathways (single room capacity) converted to the COVID pathway to enhance single room isolation at UHL.
- Ward 4B and POCU converted to COVID pathways during January to facilitate isolation requirement.
- SDW capacity utilised as additional capacity while elective activity curtained for 2 weeks in January.
- Additional theatre emergency and trauma lists scheduled daily to ensure that unscheduled patients had timely access to theatres. Redeployment of staff to assist the critical care block ASAU and wards.
- Continuous monitoring of ICU/HDU bed availability within the units to ensure critical care capacity at all times. Extension of ICU to flex to 16 bed capacity as required continued where the ability to flex remains. Redeployment of Ex ICU trained staff to support implemented in Dec 2021.
- Endoscopy services – elective activity curtailed to allow for staff redeployment and focus on emergency and unscheduled requirement.

- ASAU and AMU continues to function as a surgical ED and acute medical assessment unit to manage the non COVID surgical/medical pathways from ED. Internal UHL Staff deployment implemented to assist timely assessment of patients as well as patient flow. Safety pauses initiated when required to ensure safety and flow of the units.
- OPD running at 80% capacity to assist with deployment to staff to support the ED.
- AFU deployment of staff to the ED and Critical care block to ensure additional nursing resources to assist patient care and flow of patients. Increased to provide a 5 day service at UHL.
- Daily review of rosters across all wards/units by CNM 3/ADONs to ensure safe staffing across all areas including the ED and any surge areas open. Skill mix on all areas reviewed per shift for all areas.
- 13.30 Huddle between OPADON and Directorate ADONs to discuss patient flow, ED and staffing all areas to mitigate any risks or issues of concern.
- Rounds ongoing throughout the day between OPADON and Directorate CNM 3s/ADONs as well as twice nightly rounds – all areas – by OPADON.
- Huddle as part of the Hospital@night at 23.30 with OpADON, CNM 2 Patient flow, CNM 2 of ED and Senior doctors in the Emergency Department Conference Room to discuss patient flow, patient prioritization/deterioration, Critical Care capacity and other risk issues.

Covid-19 Pathways

The Covid 19 pandemic resulted in the Emergency Department (ED) in its entirety becoming the Covid pathway for all patients presenting with symptoms which could be indicative of Covid. Those presenting who did not fit the Covid pathway were streamed to the Acute Medical Unit (AMU) and the Acute Surgical Assessment Unit (ASAU) which then operated as a medical and surgical ED. Once Covid numbers and cases abated the Hospital Crisis Management Team (HCMT) reviewed how best to implement Covid and Non Covid pathways for minor injuries in ED. The new ED design allowed for easy segregation of Covid pathway and Non Covid pathway patients, which remain operational to date, with Zone A being the Non Covid Pathway, Zones B & C are the Covid zones and the resuscitation zone also considered part of the Covid pathway. Since wave 4 of the pandemic this new bed capacity has been of pivotal importance to assist the HCMT adjust and increase the number of single rooms available to manage the increase in presentation of both suspect and positive cases.

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. Despite the addition of 98 additional in-patient beds University Hospital Limerick will continue to experience difficulties in egress from our Emergency Department with patients experiencing long waits to access an in-patient bed.

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 University Hospital Limerick since the beginning on the pandemic.

There are currently 28 critical care beds at UHL, of which 12 are in the hospital's Intensive Care Unit, and 16 in the hospital's High Dependency Unit.

UL Hospitals Group has developed a surge plan which allows for the expansion of critical care, based upon the COVID-19 pandemic, and which can be utilised, when required. Any decision to enact this critical care surge plan would be based upon clinical considerations.

Capital Developments

It would be remiss at this juncture not to outline the capital investment at UL Hospitals Group supported by the HSE and DoH in recent years.

Emergency Department

The new €24m Emergency Department opened in May 2017 at University Hospital Limerick provides modern, safe, fit for purpose facilities that meet patients' and families' expectations while at the same time providing high quality accommodation that better protects privacy and dignity. The new ED is equipped with a CT scanner which is considered international best practice. The adjoining Dialysis Unit, which was completed as part of the same contract, provides state-of-the-art accommodation and facilities for renal patients.

The Leben Building

The Leben Building is a €16.5 million six story building which consists of a Neurological Centre/ Acute Stroke Unit, Breast Unit, Dermatology Centre and Cystic Fibrosis Unit. This building opened in 2016. The Leben building has been financed by the HSE with significant contributions from the Mid-Western Hospitals Development Trust, the Cystic Fibrosis Association of Ireland, TLC4CF, the Parkinson's Association of Ireland and the JP McManus Benevolent Fund.

Critical Care Block

In 2015, a new €40m Critical Care Block at UHL was opened. The facility provides a large range of services, including a critical care unit and high dependency unit, a 16 bed acute cardiac care unit and a step down facility.

New Builds in Response to Covid-19 Pandemic

In total 98 new beds were added to UHL by the end of 2020.

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 medical patients and are currently designated for confirmed and suspected COVID-19. Both the 24-Bed Block and the 14-Bed Block were initiated in May 2020 under the National Action Plan in Response to COVID-19.

In addition, a new 60-Bed Block which comprises four stories, with three inpatient wards of 20 en-suite single rooms over a basement level. The first of these wards was opened on November 23rd; the second ward on December 14th 2020 and the final ward on January 4th 2021.

The 60 Bed ward block project 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. The €19.5m four-storey ward block provides modern, single-room inpatient accommodation.

This new capacity has enabled the hospitals teams to keep vulnerable patients safe, including haematology, oncology and renal patients; to provide a safe pathway for people attending UHL for surgery; and to isolate COVID-positive patients. These new beds have allowed to keep the hospital safe in a way that results in a minimum number of beds blocked due to infection prevention and control 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. The pandemic and the sustained surge in non-COVID care presenting to the hospital in record-breaking numbers in recent months are significant unforeseen factors in explaining this.

At all times the narrative has been that the 60-bed block would only go some of the way in meeting the acknowledged historical shortage of inpatient bed capacity in the Mid-West. In addition to bed capacity, reducing overcrowding in our hospitals depends on whole system approaches around integrated care, admissions avoidance, community access to diagnostics and patient flow initiatives, all of which are committed to under Slaintecare.

Last year, UHL provided more inpatient care than ever before. The number of inpatients discharged in the first eight months of 2021 was 11% higher than the corresponding period in 2020 and 22% higher than the corresponding period for 2019.

As well as allowing care for more patients, the additional single room capacity has allowed for the protection of our most vulnerable patients. It has also facilitated better management of outbreaks and to follow best practice around infection prevention and control. The value of this additional capacity must not be underestimated.

A modern, state-of-the-art ward complex, with 24 en-suite single rooms opened at Croom Orthopaedic Hospital opened in March 2021. A new €15m theatre suite, complete with four new operating theatres, a first stage recovery room and reception area, as well as a new Sterile Services Department and other ancillary support spaces also opened during 2021.

The developments were initiated in the springtime of 2020 as part of the national response to COVID-19. The theatre development has enabled the development of an ambulatory trauma service, which sees the transfer of trauma patients from UHL to Croom for their surgery and recovery. In addition the theatres will enable the expansion of expansion of services by offering day case vascular, maxillofacial and ENT surgeries to help address waiting lists.

The table below outlines the bed capacity increase, the location of beds and the direct impact for patients admitted to University Hospital Limerick. This additional capital investment has increased the hospitals bed capacity to 533 in the only Model 4 Hospital for a population of 380,000 people.

New Bed Capacity UHL	**Location of Beds**	**Patient Impact**
14 bed ward (2 floors of 7 beds) 7A & 7B	Upper Floor 7 beds, Post-Operative Care Unit (POCU).	Specialised care following major surgery (single room facilities)
	Lower Floor 7 beds, for Isolation of Infected Cases and end of life care	Appropriate isolation facilities to prevent spread of infection. Appropriate end of life care for patients and their families
24 bed unit, Ward 6B	Haematology/ Oncology Ward	Having a dedicated cancer ward ensured appropriate care in single room facilities for our most vulnerable patients. This facility has also avoided long waits in ED for diagnosed cancer patients who have a direct pathway for timely admission as required.
Sixty bed block; Wards 8B, 8C, 8D.	1st Floor: 8B Covid-19 Pathway Ward	8B Covid-19 patients (suspect, close contacts or positive). Many patients also required non-invasive ventilation (NIV) therefore higher acuity of care.

3 floors each containing twenty single rooms	2nd Floor: 8C Dedicated Renal Unit 3rd Floor: 8D Covid-19 positive patient	8C Renal Unit has ensured the provision of expert staff and single room facilities for many of the sickest patients suffering from chronic renal disease in the region. 8D Covid positive patients (sicker Covid-positive patients)

Overview of New bed Capacity, Location of Beds & Patient Impact

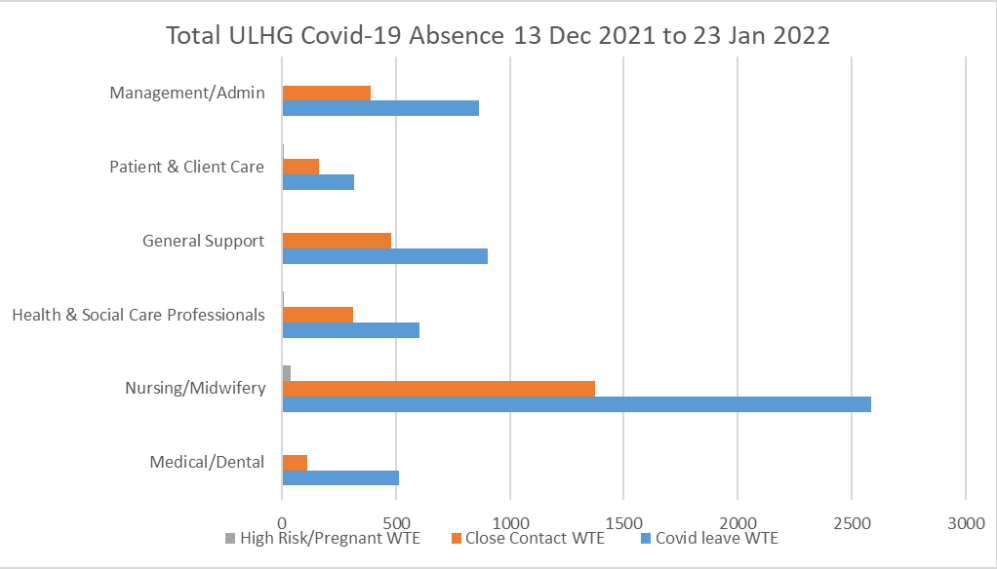
Next Priority for Capital Developments:

The development of the new four-storey, 96 single bed acute inpatient ward block extension at University Hospital Limerick has full planning permission, fire certification and is fully designed. The project is currently out to tender with tenders due to be returned in late January 2022. The tenders received will then be evaluated, and it is anticipated that the works contract will be awarded in early Quarter 2 2022 subject to HSE Board approval and funding availability.

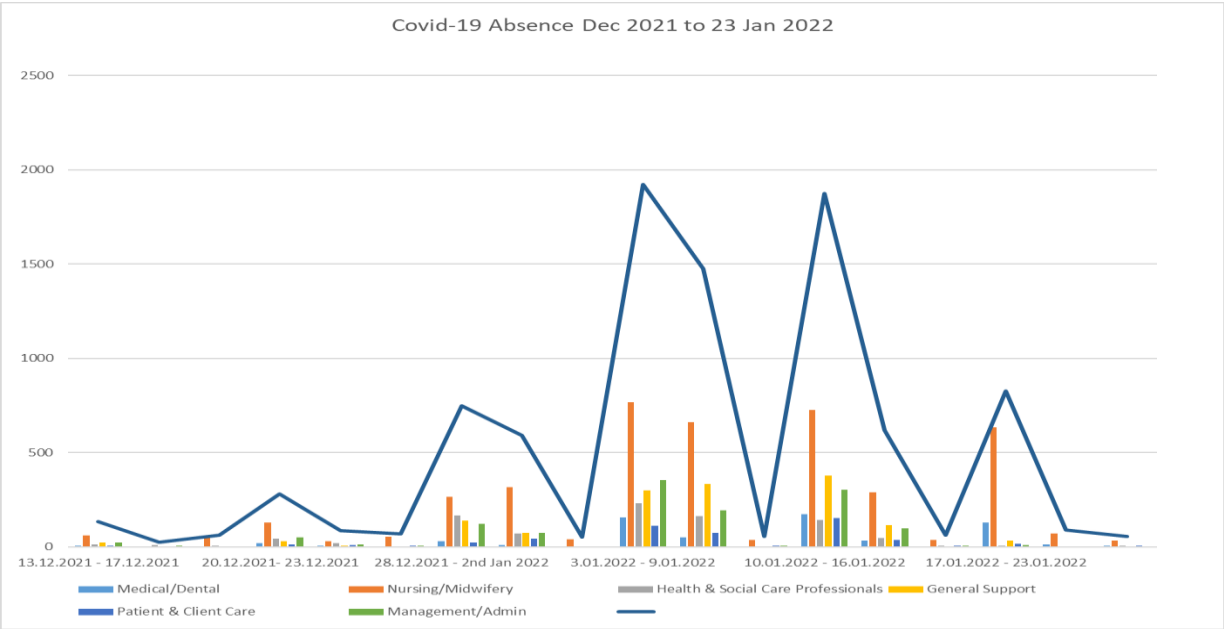
It is envisaged that when the new 96-bed block opens, approximately half the beds will be used to replace older bed stock on the UHL site. This stems from a long-identified need to move away from nightingale wards to single en-suite rooms in hospitals due to cross-infection issues. The rationale has become more apparent during the COVID-19 pandemic that has made such a significant impact on all aspects of healthcare provision in Irish hospitals.

Section 4: COVID-19 Related Absenteeism UL Hospitals Group

The last few weeks have seen unprecedented levels of staff Covid-19 absenteeism.
The graph below outlines a summary of total staff across ULHG who reported Covid-19 leave, restricting movement as a Close Contact of a positive Covid-19 case or cocooning as a High Risk vulnerable healthcare worker, during the period from 13th December 2021 and 23rd January 2022.



The graph below highlights a substantial peak in absence rates on week commencing 3rd January 2022, where 37.6% of staff were on Covid-19 leave, with an additional 12.5% of staff restricting movement as identified close contacts of a positive Covid-19 case. This gives a total of 50% of our staff who were unavailable to work related to Covid-19, with a resultant pressure on our services. This level of absence was sustained during week commencing 10th January 2022, with a marked decrease in absence for week commencing 17th January 2022. Updated public health guidelines contributed to this decline, where vaccinated staff identified as a close contact of a positive Covid-19 case were in a position to return to work.



Section 5: Redeployment of Nurses December 2021- January 2022

Despite the high level of absenteeism as outlined in the previous section, in order to support the continual efforts at UL Hospitals Group to alleviate patient flow and address overcrowding the following actions were taken to ensure patient safety:

Deployment of Staff:

To support Critical Care and the Emergency Department nursing staff skilled in these areas were deployed in December 2021 in response to Omnicron wave during the pandemic.

- ICU/HDU – Dec 2021 – 13 people (10.5 WTE) permanently to support critical care Surge and opening/flexing of ICU/HDU capacity/skill mix.
- ED – deployed permanently 7 WTE to support ED activity and potential surge post Omicron COVID wave.

In January 2022 in response to the Omnicron wave and the number of nursing staff absences due to Covid 19, redeployment of staff from the Model 2 sites to UHL and the Maternity Hospital was facilitated. Below provides an overview of the WTE redeployed from Model 2 hospitals.

- Ennis – Deployed 5 WTE – 2 full time to Critical Care and 3 WTE to patient care needs at UHL plus 4 WTE to Vaccination Service.
- Nenagh – deployed 6.5 WTE each week (including 1 to ICU).
- St John's Hospital – deployed 10 WTE (2 WTE to critical care and 8 WTE to support Maternity Services)
- Croom – deployed 4 WTE to Maternity Services.19 WTE to support patient care in UHL.
- Deployment of 2.5 WTE to nursing office UHL to support operational function and clinical input of the UHL site 24/7 basis.

Internal deployment took place in UHL from areas such as theatres and day services to support the ED, surge capacity, and staffing of areas due to Covid absence.

Redeployed staff from model 2s and internal deployment from UHL are allocated to areas requiring support based on risk assessment by Operational ADON and Directorate ADONs.

Section 6: Recruitment Update 2021 Staff Nurses and Healthcare Assistants ULHG

Section 6 of the paper demonstrates the significant recruitment of Staff Nurses and Healthcare Assistants across UL Hospitals Group in 2021.

This supported the opening of additional capacity and services across ULHG alongside replacement of positions that became vacant due to retirement, promotion (internally/externally), resignation etc.

361.29 WTE Staff Nurses were recruited across ULHG in 2021:

- 286.12WTE Staff Nurses commenced in UHL.
- 42 WTE Staff Nurses commenced in Croom
- 20.57 WTE Staff Nurses commenced in Ennis.
- 12.6WTE Staff Nurses commenced in Nenagh.

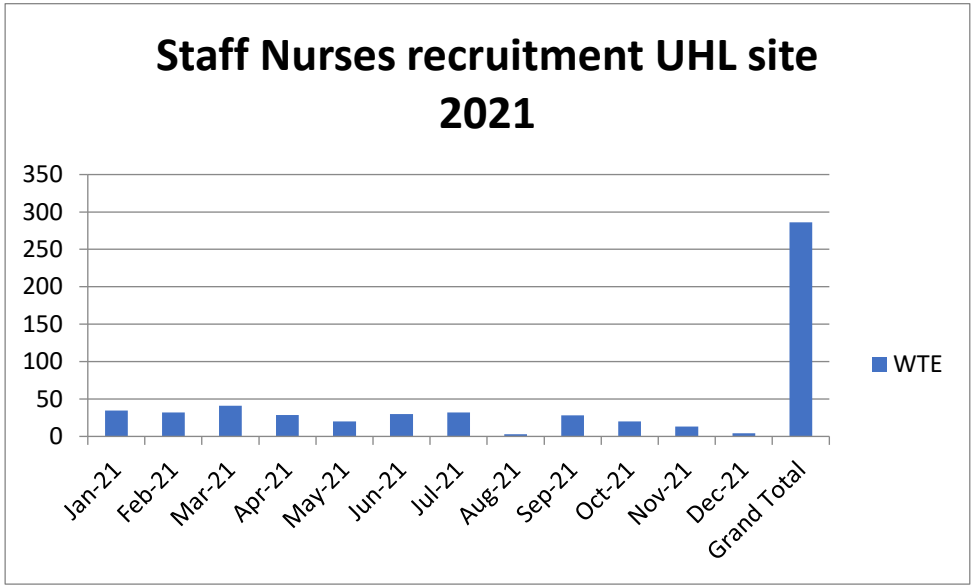
65 WTE Healthcare Assistants (HCA) were recruited across ULHG in 2021:

- 48 WTE HCA commenced in UHL.
- 10 WTE HCA commenced in Croom.
- 2 WTE HCA commenced in Ennis.
- 5 WTE HCA commenced in Nenagh.

The below provides an analysis per site of new staff nurses that commenced in 2021.

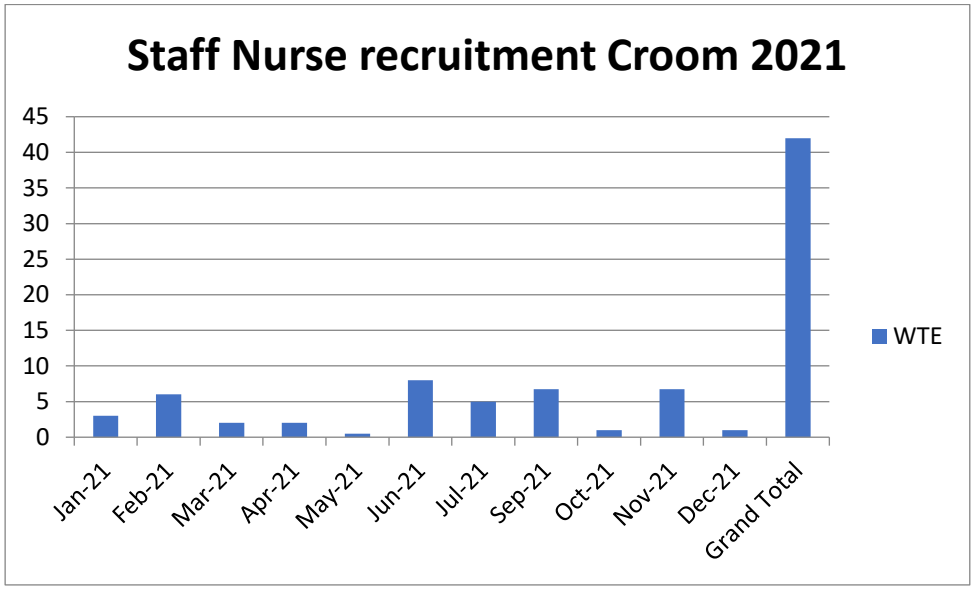
UHL Staff Nurses recruited 2021

Number of Staff Nurses recruited per month UHL 2021	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Grand Total
WTE	34.69	31.85	41	28.5	20	30	32	3	28	20	13.08	4	286.12



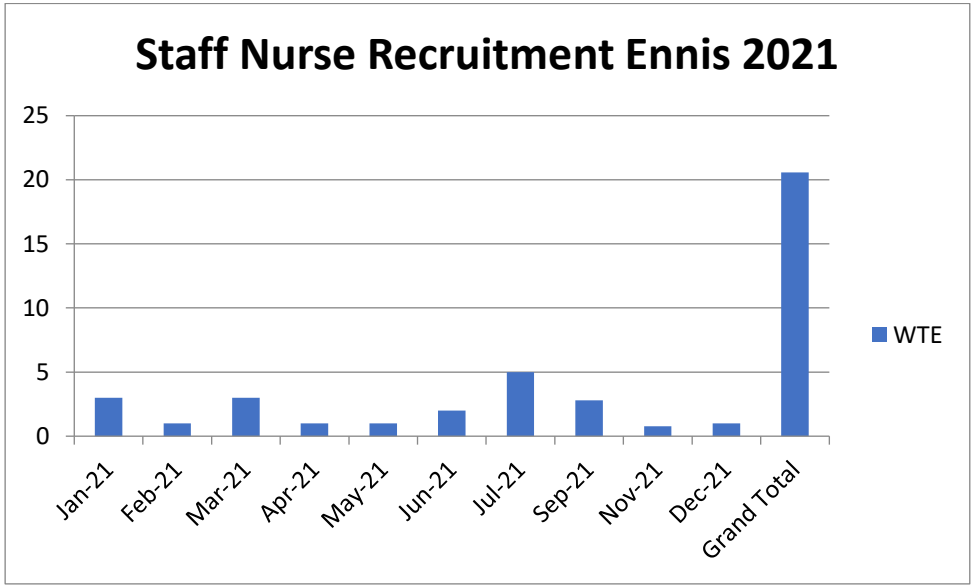
Croom Staff Nurse Recruitment 2021

Number of Staff Nurses recruited per month Croom 2021	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Sep-21	Oct-21	Nov-21	Dec-21	Grand Total
WTE	3	6	2	2	0.5	8	5	6.75	1	6.75	1	42



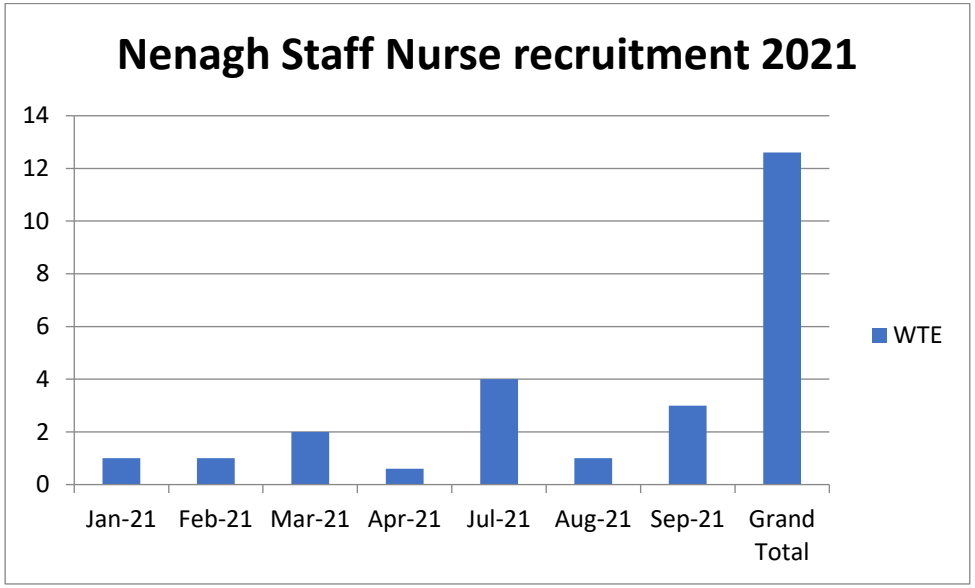
Ennis Staff Nurse Recruitment 2021

Staff Nurse recruitment Ennis 2021	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Sep-21	Nov-21	Dec-21	Grand Total
WTE	3	1	3	1	1	2	5	2.8	0.77	1	20.57



Nenagh Staff Nurse Recruitment 2021

Nenagh Staff Nurse Recruitment 2021	Jan-21	Feb-21	Mar-21	Apr-21	Jul-21	Aug-21	Sep-21	Grand Total
WTE	1	1	2	0.6	4	1	3	12.6



Healthcare Assistant Recruitment ULHG 2021

65 WTE Healthcare Assistants were recruited for UHL and Model 2 sites. A breakdown of WTE per site is provided below.

UHL HCA Recruitment 2021	2021
Total WTE	48

Model 2 HCA Recruitment 2021	2021
Croom	10
Ennis	2
Nenagh	5
Total WTE	17

Regarding: Quality Improvement Plan following the GOR report January 2020

Quality Improvement Project

Following an initiative by the Chief Executive of the UL Hospitals Group with the support of the INMO it was agreed that a quality improvement initiative would be undertaken to improve patient flow in the UL hospitals, with particular attention to University Hospital Limerick. A team comprised of the Chief Executive, Chief Director of Nursing and Midwifery, and a Project Director would lead this project, supported by the Directors of Nursing Directorate and Director of Nursing UHL. It was agreed to use the WRC (2016) agreement on Emergency Departments as a framework and to meet with a wide range of nursing staff. And other staff, as well as the INMO to examine systems, structures, and processes with regard to patient flow; in particular, to assist with de-escalation of the hospital, focused on reducing the numbers of patients on trolleys on both the in-patient wards and the emergency department. This initiative focused on nursing and administrative systems, structures and processes in this initial analysis.

Support was sought to complete the initiative from an independent reviewer who was agreed by the INMO and ULHG. Report of the Quality improvement initiative was submitted to the CEO ULHG and the INMO in January 2020.

Methodology

This quality improvement initiative utilised the PDSA (Plan Do Study Act) quality improvement model. This is a four-stage cyclical approach, which included individual stages of change, and involved a planned intervention that identified the current situation regarding patient flow. Using the WRC (2016) Emergency Department Agreement and the analysis of the views of relevant nursing and bed management staff, the analysis of the implementation of the WRC (2016) agreement in UHL, and recommendations for the future to improve patient flow. It was envisaged that this report would contain the first PDSA cycle and that future quality improvement initiatives could be introduced using the PDSA cycle approach, thus leading to an improved flow of patients for the future.

Recommendations

The analysis identified both structural and Process recommendations.

Implementation Plan

A robust QIP was developed incorporating the structural and process recommendations. Implementation of the QIP was overseen by ULHG Unscheduled Care committee. Updates on the QIP were shared with the INMO and discussed at meetings chair by the Chief Director of Nursing & Midwifery ULHG (most recent meeting 1/11/2021)

Structure Recommendations

The quality improvement plan identified six structural recommendations. To assist with actioning the recommendations these were further broken down to 9 quality improvement actions.

1. To identify senior leaders to lead on the operational improvements in patient flow, dealing with the overcrowding in ED and the trolleys on the inpatient wards one recommendation.

- The Chief Clinical Director, Chief Director of Nursing and Midwifery and the Chief Operations Officer provide the overall leadership to progress the recommendations within the report.

2. There is an urgent need for senior operational leadership at UHL who, together with a team of nurses and senior Consultants, could lead on to operational improvements in patient flow, dealing with the overcrowding in ED and the trolleys on the inpatient wards.

- The work with regards to these recommendations continues on a day to day basis operationally alongside future strategic planning.
- From an operational perspective twice daily huddles are held with key personnel.
- Red to Green in place at ward levels assisting with identifying barriers to discharge.
- Unscheduled Care forum in place.

3. A review of the nursing management structure needs to be undertaken to reduce the confusion of roles at DON/Directorate Nurse Manager level. The division between operational management and strategic roles needs to be addressed

- Review and implementation of revised nursing governance completed.
- Director of Nursing and ADON governance aligned to areas across UHL and ULHG.
- This centred on good governance structures, which are in the form of directorates and a senior nursing framework interlinking with senior nursing and management in patient flow.

4. To develop closer links between Bed Management, Patient Flow, the Bed Bureau and the ADONs to resolve problems.

- This recommendation has been completed.

5. Expand the remit of the discharge lounge to include a transit facility for patients transferring to other hospitals, and accommodating patients for discharge from 7am.

- This recommendation has been placed on hold as due to Covid 19 the discharge lounge has been closed.

6. A CNM2 should be employed to lead this with the support of two staff nurses and HCAs each day.
   - As per the above this has been placed on hold as discharge lounge closed.

7. ADON for patient flow to manage the discharge lounge
   - As per the above this has been placed on hold as discharge lounge closed.

8. To develop alternative pathways for the over 75's in conjunction with other hospitals in the region and the community.

- Concentration around the recommendation of a plan for patients over 75years and enhancing the access to the community setting is continuing with the Integrated Care Programme.
- The setting up of ICPOP hubs and a concentration and the Enhanced Community Care programme.
- Each hospital has been resourced with at least one Integrated Care Consultant. This is a new position created for cardiology, respiratory medicine and endocrinology and will be based 50% in the community and 50% in the hospital. The Integrated Care Consultant will be part of the hospital acute specialty specific team and will engage with other consultant colleagues

in the hospital to provide ambulatory services to and within the hub as locally agreed. Initially each hospital will have at least one Integrated Care Consultant. Integrated Care Consultants will sit on the Local Governance Group for Chronic Disease, to ensure collaboration and integration between hospital and community services. Additional Integrated Care Consultants for each chronic disease specialty (cardiology, respiratory medicine, and endocrinology) will be sought for each hospital as the hubs develop, and identified critical acute gaps resourced. Under these programmes, the commencement of the Frailty at the Front door has commenced supported by Medical, Nursing where identified patients are referred to the ICPOP hub for follow up, and support an approximate two patients per day are benefiting from this initiative.

9. To develop specialty wards particularly care of the older person, as well as respiratory and acute medicine.
    - On-going recommendations centre on developing and improving the patient cohorting plan for the peri operative and medical patients. The process has an agreed strategy; however, due to the current Covid -19 pandemic and the required Covid streaming of patients, cohorting plan will evolve once the pandemic has abated

Process Recommendations

The quality improvement plan identified 10 process recommendations. Similar to the structure recommendations this has been further broken down to 18 quality improvement actions.

1. To review UL hospital's escalation plan.

    - The escalation plan has been reviewed alongside the requirement to consider Covid 19 pathways.
    - The escalation plan provides documented stages of escalation which supports the emergency department. The established HCMT (Hospital Crisis Management Team) coordinates and monitors the plan. This team meet each day at 9 AM and 4 PM to monitor report and coordinate the streaming of patients to our Acute Medical Assessment Unit and Surgical Assessment Unit, which currently exist as the non-covid pathway. The Team also coordinates hospital transfers to our Model 2 hospitals.

2. To progress the filling of the outstanding nursing vacancies

    - 286.12WTE Staff Nurses commenced in UHL in 2021. These new staff supported the opening of additional capacity, new developments and replacement of vacant posts.
    - A Nursing and Midwifery Workforce department was developed in 2020. This department work with HR to progress recruitment. They monitor workforce trends which assist with workforce planning.
    - An ECC (Employment Control Committee) is in place which supports approval for replacement of positions.
    - VAP (Vacancy Approval Process) is in place which supports approval for temporary filling of positions through extra hours, overtime and agency.

3. To establish a Bed management meeting at 7.30am that includes the ADONs and other staff to address the problems related to patient flow. Needs to be a whole hospital approach with senior nursing staff problem solving for their relevant patient cohort in an attempt to clear ED

    - HCMT established as part of Covid response.

- Patient Flow and OpADON attend handover together at shift change.
- HMT meeting held at 9am with all directorates represented - MDT group meeting convened at 9am each morning
- Further process that have developed to improve the patient flow is the introduction of a communication tool to support the discussions between family and healthcare professionals called the "Time Out" which is a recorded ISBAR (identify , Situation , Background, Advocate , Reassure) document supporting improved communication . This is also supported with additional PALS (Patient Advocate Liaison Service) personnel working closely with staff and patients improving communication and experience of our Emergency department. Similar ISBAR tool is in place to support clinical handover from ED to in patient areas.

4. To consider introducing Rapid Assessment Team (RAT) team in ED, that would improve patient throughput and categorisation.

    - Patient pathways have changed due to Covid 19 response at Triage. Covid pathway, medical pathway and surgical pathway in place.

5. To develop respiratory pathways between ED and AMU to fast track patients

    - Respiratory COPD pathways and the streaming of respiratory patients to our designated wards (8D & 8B).
    - Rapid chest pain pathway, which is CNS supported, is in place and identifies suitable patients for CCU (Coronary Care Unit).
    - Clinical decision Unit pathways coordinated by our CNMs and led by our emergency department consultants.

6. To develop ANPs in Respiratory to support and implement respiratory pathways

    - Covid pathways in place and designated respiratory cohort ward now in place.
    - Respiratory and ANPs working on existing pathways and streamlining admission procedures.

7. To consider using Benner's Model of Novice to Expert as a basis for education decisions and to assist nursing staff in ED to progress.

    - Benners model for all emergency department nursing from novice to expert is supported by our clinical skills facilitators, which is now a whole-time equivalent of three staff.

8. To look at providing an additional place on the Post Graduate Course in Emergency Nursing on an annual basis.

    - No cap in place to staff attending programme, only condition is staff would have a minimum of 6 months experience. Currently five staff completing Post Graduate Course.

9. To look at developing a foundation programme in emergency nursing.

    - The CSF supports and develops existing staff skills and supports the post-graduate training in emergency nursing from the foundation programme run via Tralee to the post-graduate programme in CUH
    - Eight staff in foundation programme.

10. To adopt a learning approach to incidents and near misses in the ED department and reiterate a no blame culture to junior nursing staff.

    - A designated risk manager for the medicine directorate supports the incident management framework process, and regular meetings occur closing and reviewing incidents. Supported by quality improvement initiatives, all staff are trained on the use and reporting of QPulse and facilitated after-action reviews occur following major incidents facilitated by our risk advisor.

11. All grades of nursing staff within Ed to be trained and education on the Open Disclosure Policy

    - Training available on HSELand and staff are facilitated to complete.

12. To review the clinical criteria for patients on trolleys to be transferred to the inpatient wards

    - Review of criteria completed with recommendation for patients to move to wards based on PET.

13. To review the support role of the clinical facilitator and standardise the support so that the role provides more support to junior staff members and those in specialist areas. To consider facilitators working alongside nursing staff taking a group of patients

    - 3 WTE Clinical Skills Facilitators in place in the Ed working with staff at all levels.
    - Clinical Facilitators in place to support wards and specialist areas.

14. To review the time spent by clinical facilitator on paperwork (20% suggested which should be rostered)

    - This has been completed and actioned.

15. To hold more frequent fair deal clinic run by the fair deal co-ordinator for families.

    - Fairdeal coordinator on site who liaises directly with patients and families regarding Fairdeal applications.
    - The coordinator is also a standing member of the Limerick Local Placement Forum.

16. To review the orthopaedic patients' transfer to Croom and consider a trauma co-ordinator to assist with this

    - TAC CNS position funded and undergoing recruitment process.
    - CNM3 Trauma Coordinator position undergoing recruitment process.

17. To improve access to the x-ray department between 12 midday and 2pm (1 hour closure)

    - This has been completed.

18. To improve access to MRI.

    - A second MRI has been installed in UHL.

The executive team has supported the expansion of other initiatives that will support patient flow once in place. For example, in line with the clinical care programmes critical outreach programme the recruitment of ANPs to support outreach. The recruitment of Clinical Skill facilitators for specialities and wards

growing our nursing workforce, additional ANPs in our acute fracture unit supported by a trauma coordinator. ANP and CNS in specialities diabetes, neurology, colorectal and extra support to endoscopy to support the colorectal patient indicate further the passion for improving and driving change.

A significant focus has been placed on the ED by the Directorate Management Team. There is now a dedicated BM to support the ED and AMU. This post holder coordinated the administrative function that supports and enhances the ED including coordinating relevant meeting; Acute Floor, health and safety major emergency plan and the coordination of responses to complaints, risks and issues. The lead ED physician who is an associate Clinical Director attends the weekly directorate team management meeting (DMT) where all ED risks, issues, incidents and challenges are thoroughly discussed. The DMT has an increased focus on quality improvement plans within the ED.

Conclusion

This Quality improvement document is reviewed and presented at our unscheduled care meeting and at our Director of Nursing Union forum chaired by our CDONM where the QIP is discussed and detail defined. Although it is very much accepted that this is an evolving document to date, significant progress has been made. It remains a priority to contribute and close out the remaining recommendations. Both structural and process recommendations have contributed to an improved patient journey.