



THE MATER
HOSPITAL

2021

ANNUAL REPORT

Working in partnership with



University College Dublin
Ireland's Global University



Seirbhís Sláinte
Níos Fearr
á Forbairt

Building a
Better Health
Service



Ireland East
HOSPITAL GROUP



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About
THE MATER

Introduction

The Mater Hospital was again in the frontlines in 2021 as the COVID-19 pandemic shaped our lives, work and the healthcare that we provide. It has been one of the most intense periods in our 160-year history, where our patients and community needed us more than ever. In these extraordinary times, in the most challenging of circumstances, our staff have provided extraordinary care to patients.

The COVID-19 pandemic has been very challenging for us all, with the Mater placing the safety of patients, staff and communities first in all our decisions. In 2021, we again saw large numbers of patients requiring COVID-19-related hospital care, staff was depleted by both illness and contact precautions and the prioritisation of emergency care and surgery.

High levels of innovation at the hospital were evident, including virtual clinics, remote care monitoring and hospital avoidance programmes, COVID-19 significantly impacted on the waiting times for out-patient visits and certain non-urgent scheduled care. These COVID-19 challenges provided additional complexity to the development of the Mater's 3-year strategic plan, which was completed in 2021. The plan built on the significant achievements in the previous 3-year plan but also incorporates the significant changes and challenges in patient care delivery that have evolved over the last few years.

The plan is built around three core principles

- Access to Care
- Integrating with the Community
- Keeping the Patient Closer to Home

Research and innovation are central to the Mater's purpose and also came to the fore this year. A research engaged hospital not only motivates staff and attracts high calibre personnel, it enables us to respond to the significant challenges we face. In 2021, right across the hospitals teams were developing innovative ways to see patients safely, delivering clinical solutions to patient care challenges and working with the wider research community to develop treatments and care solutions for our patients.

Finally, in April of 2021 we were honoured that the Mater was selected as the Major Trauma Centre for the east of the country. This was a significant achievement and recognition of the expertise of our people and the professionalism that they display every time they come to work.

I am proud of what we have achieved as a hospital in 2021 and particularly the dedication and skill that our people have displayed in caring for patients in the face of adversity, ultimately putting the patients' needs in front of their own.

Alan Sharp | Chief Executive

Fast facts

47,480

Day cases

52

COVID-19 publications

24,692

Inpatients

241,638

Outpatient attendances

136

COVID-19 ICU admissions

445

Publications

4,297

Staff

89,335

ED presentations



Our story

The hospital officially opened its doors in 1861, its purpose to provide the best medical care to all of those who needed it, irrespective of their means. Today, the Mater has over 4,250 staff, is one of the country's leading Level 4 hospitals and is

- The national centre for over 15 specialities and super specialities
- One of the eight nationally designated adult cancer centres
- A major centre for intensive care medicine
- A major cardiac centre
- Chosen as one of the two Major Trauma Centres in the country

In conjunction with our academic partner University College Dublin (UCD) the Mater has a strong track record in research, innovation and education. We pride ourselves on delivering high quality research and innovation that delivers meaningful benefits to patient lives and in educating the next generation of healthcare professionals and researchers.

Our Vision

To build on excellence and build on our role as an international leader in the provision of complex care and specialist services with a strong academic and translational research agenda, empowering our people to deliver excellence in care to our patients while shaping the medicine of the future.

Our Mission

To care for the sick with compassion and professionalism at all times, to respect the dignity of human life and to promote excellence, quality and accountability through all our activities.

Our Values

- Always inclusive, compassionate, respectful, dignified and patient focused
- Demonstrating leadership, accountability, flexibility and professionalism
- Being innovative, collaborative and future focused
- Striving to continually improve and be the best in everything we do.
- Mindful and supportive of our colleagues

Strategic plan 2022 - 2025

The new Mater Hospital Strategic Plan 2022-2025 was launched this year and identified 15 key strategic initiatives that underpin the delivery of the hospitals mission. Those initiatives are to develop or establish or strengthen

- the new Rock Wing, comprising of 98 additional beds
- the Major Trauma Centre
- a People, Culture and Organisational Development Programmes so as to recruit, retain and develop the best staff
- a full hospital Digitalisation and an Electronic Health Record
- a Quality and Safety Programme that focuses on continually improving the care we provide
- our national expertise in Critical Care, Heart Lung Services and Robotic Surgery
- the Pillar Centre for Transformative Healthcare

We also aim to

- address the long public waiting list with several Key Waiting List Initiatives
- establish the Mater as a leader in adult genetics through the Development of Gene Therapy and Precision Medicine
- enhance our Cancer Services
- build a new state of the art Laboratory within the Hospital
- work with our community partners to deliver New Integrated Care Models
- establish a New Adult Psychiatry Centre
- enhance our Training Opportunities for Undergraduates
- build on our Sustainability and Corporate Social Responsibility Programmes

2021 review

First staff member vaccinated



Dr Eavan Muldoon, Infectious Disease Consultant and breastfeeding mother became the first healthcare worker in the Mater to be vaccinated on 5th January 2021.

Community vaccinations



In January the Mater team of vaccinators moved into the community to help vaccinate the priority group of those living in nursing homes and the staff who care for them.

Vaccinating residents and their carers in the Sacred Heart Residence and residents and staff in TLC Carton, both nursing homes are in Raheny.

Frontline heroes' photographer of the year award



Front Line Heros captured one hectic day with the medical teams in the Mater COVID-19 frontline. The Independent News and Media's Dave Conachy won third prize, in the reportage category, for the series of monochrome images at the Mater. The judging panel described the work as "a fine example of work by a photographer who managed to record the remarkable work of our medical teams on the front line."

Photograph: David Conachy / Independent News & Media

Compassion Award winners



Anaesthesia Care Unit)

2021 Compassion award winners

1. Juris Matusalem, Senior Staff Nurse (Theatre)
2. Kirsty Ward, Healthcare Assistant (Emergency Department)
3. Paula Briscoe, Advanced Nurse Practitioner (Oncology Day Unit)
4. Leanne Smith, Ward Clerk (St. Teresa's Ward)
5. Daniela Licob, Cleaning Operative (Spinal Unit)
6. Lorna Buckley, CNM2 (Post

Mater designated major trauma centre (MTC)



In April the Government approved the designation of the Mater Misericordiae University Hospital as the Major Trauma Centre (MTC) for the Central Trauma Network, with St Vincent's University Hospital and Tallaght University Hospital as Trauma Units.

The decision follows the National Trauma Strategy recommendation to introduce an inclusive trauma system for Ireland with one Major Trauma Centre

based in Dublin servicing the Central Trauma Network and another based in Cork University Hospital servicing the South Trauma Network.

Ransomware attack



On 14th May 2021 the HSE and the Dept of Health were subject to a ransomware attack. Key nationally based systems like the National Integrated Medical Imaging System (NIMIS) for radiology and Healthlink for electronic referrals were unavailable. As an immediate response the Mater turned off access to those national systems, the internet and email traffic to/from all HSE related

email addresses.

In the following weeks the Information Management Services Department worked across other departments throughout the hospital, to maintain services insofar as possible. Concurrently, the Information Management team worked closely with the HSE appointed cyber security specialists to complete a "digital forensic" review of all hospital systems before starting a graduated return to normal use of those systems.

The cyber-attack caused a significant disruption to patient care for several weeks as the hospital and the HSE undertook a cautious phased approach to connecting to the HSE and integrated national services.

Mater Wellbeing Centre



The Mater Wellbeing Centre was created in June 2021 as an online resource to support patients. The site provides a resource of useful tools and

recommendations for mental wellbeing, including relaxation and mindfulness techniques, mobile apps, books, guided breathing exercises and resource packs for living with Long COVID-19.

Art of Surgery



The Art of Surgery display from Navin Hyder, the Mater Hospital’s Artist-in-Residence, took pride of place on the external walls of the hospital’s North Circular Road entrance in September. Navin has been Artist-in-Residence at the Mater Hospital for the last two years, during which time she has captured through her real time digital drawings, the intimate ‘shared space’ of the operating theatre and the skill,

dedication, and care shown by the staff towards their patients.

First Heart and Liver Transplant



Double transplant patient Martin Malinowski with his consultants Dr Zita Galvin, transplant hepatologist at St Vincent’s University Hospital, and Dr Emer Joyce, transplant cardiologist at the Mater Hospital

Late in 2021 the teams at the Mater and St Vincent’s University Hospital combined to complete Ireland’s first heart and liver transplant. The double transplant was carried out by two surgical teams – one from the Mater’s National Heart and Lung Unit, led by Prof Emer Joyce, and the other from St Vincent’s University Hospital’s National Liver Transplant Unit, led by Dr Zita Galvin. Up to 40 theatre staff were involved in the procedure, in which the

heart was transplanted first followed by the liver.

A grayscale, electron-microscopic image of a coronavirus particle, showing its characteristic spherical shape and surface spikes. The image is centered in the background, with a dark blue vertical bar on the right side containing the title text.

Responding

TO COVID-19

COVID-19

Every staff member across the Mater Hospital answered the call to provide exceptional patient care during the unprecedented times brought in by the COVID-19 pandemic.

2,056

COVID-19 presentations

19,201

Vaccinations administered in 2021



61,221

Virtual consultations

50,088

COVID-19 tests analysed by pathology

Answering the Call

1,275

COVID-19 patients admitted to the hospital



120 / per month

Patients remotely monitored

136

COVID-19 patients admitted to ICU

38 in total

(28 in 2021)

Patients supported with ECMO

Resilient, resourceful, dedicated

2021 began with a full lockdown as the third COVID-19 wave rolled across the country. The Mater responded to the new wave by refocusing on the systems and processes to allow the hospital to best manage care for patients and each other with high levels of COVID-19 circulating in the community. Underpinning the systems and processes were the principles to

1. Protect our non-COVID-19 patients from transmission, especially the most vulnerable (immune-compromised and the elderly).
2. Protect our people and equip them with the resources needed to provide care.
3. Where the demand exceeded our capacity to provide care, prioritise the care based on clinical need.

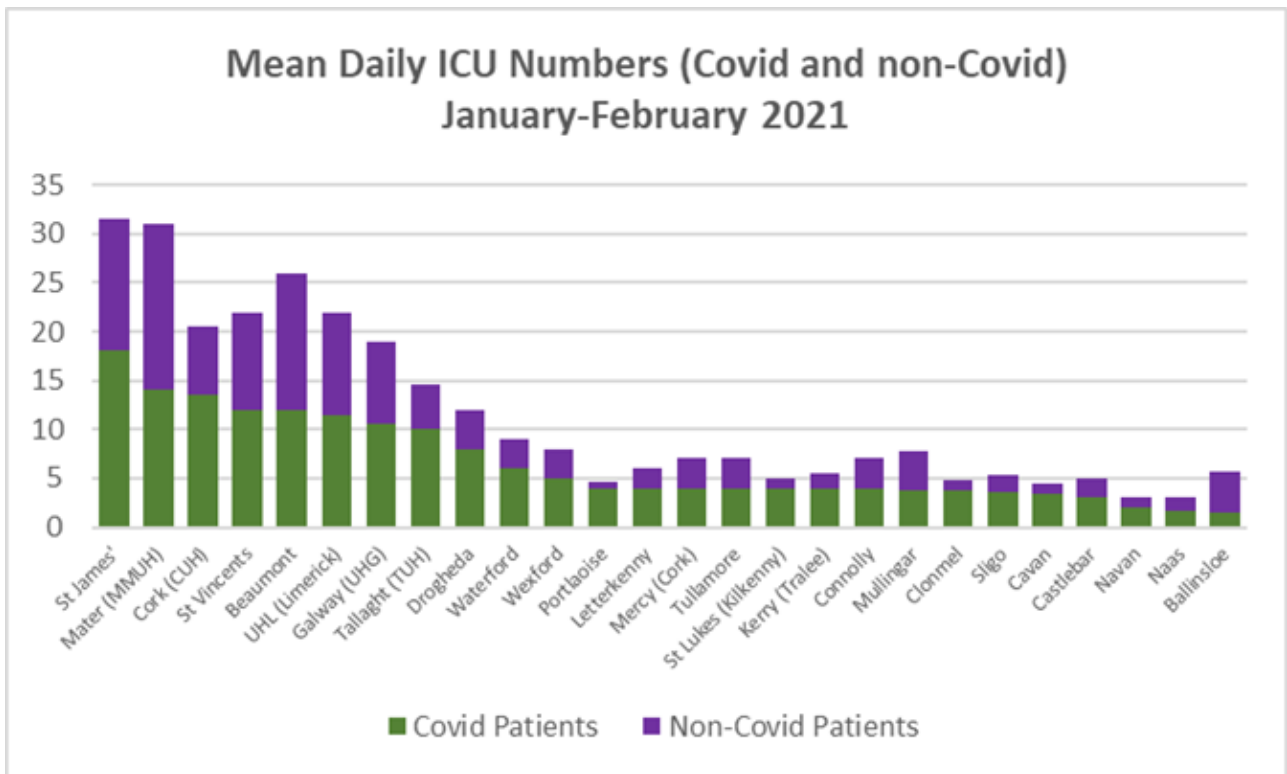
Every staff member across the Mater Hospital answered the call and provided exceptional patient care during the unprecedented times ushered in by the COVID-19 pandemic. Displaying high levels of flexibility to adapt to a series of partial and full lockdowns, caring for COVID-19-positive patients, restrictions on hospital visiting, increased testing, mass vaccinations, increased outreach services and fatigue.

Intensive care

Over the past two years, admission of patients to the Intensive Care Unit of the Mater mirrored the four waves of COVID-19. The peak number of COVID-19 patients in ICU was in January 2021. Surges in demand for ICU beds were responded to by increasing the number of available ICU beds. At the Mater this was managed through the redeployment of staff from other areas of the hospital and the up-skilling of those staff.

" | *ICU Bed Occupancy for COVID-19 Patients - 43.7%*

The highest month of COVID-19 admission was December 2021 with 154.



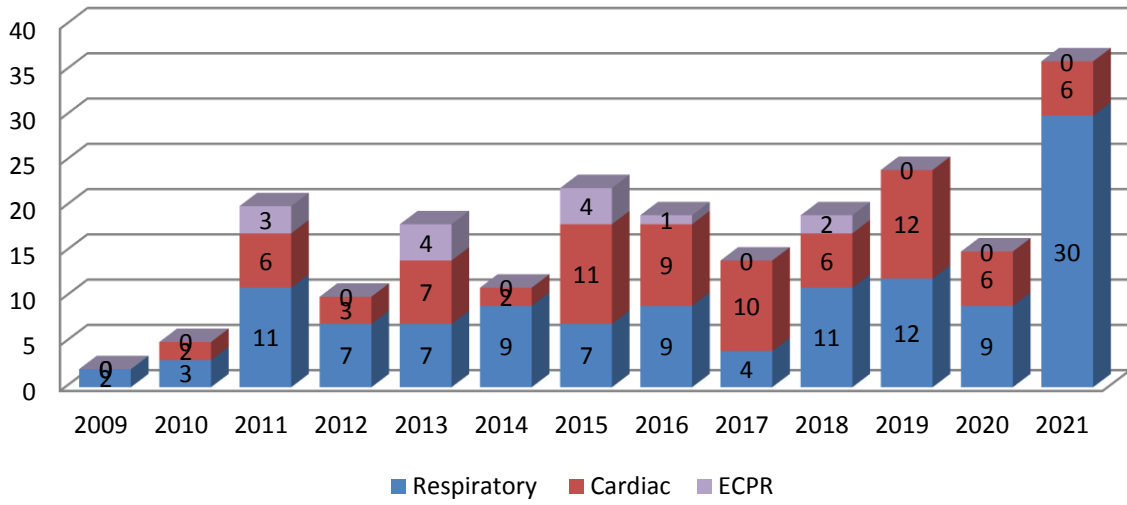
COVID-19 and non-COVID-19 patients in ICU – Mean daily numbers January-February 2021
Source NOCA report on ICU activity during COVID-19 pandemic

Extracorporeal Membrane Oxygenation (ECMO)

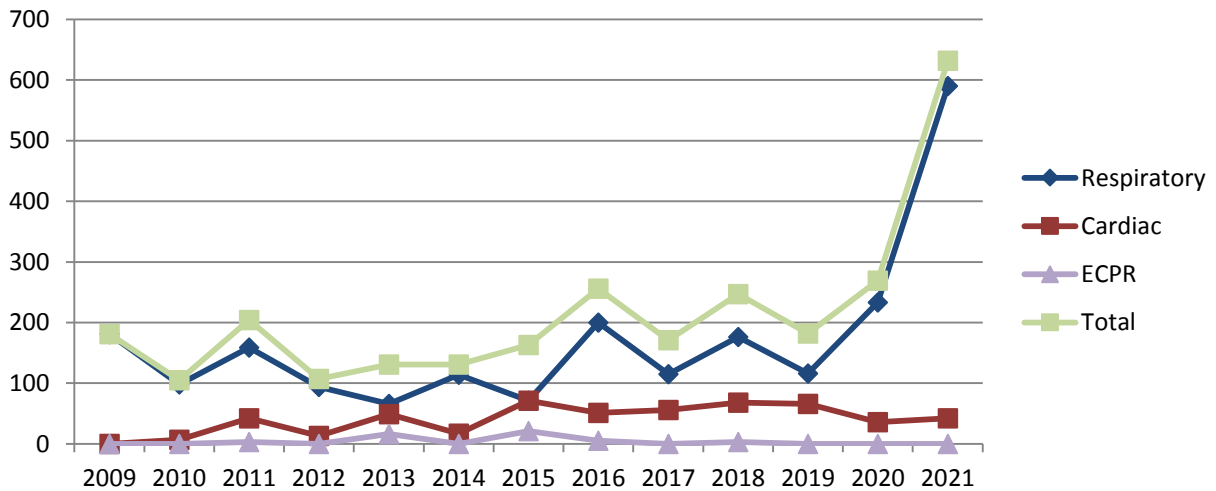
The Mater Extracorporeal Membrane Oxygenation (ECMO) Service was established in 2009 to provide short-term support for adult patients with acute, severe potentially reversible lung or heart failure who continue to deteriorate despite maximal conventional therapy. The Mater Hospital is the only adult ECMO centre in the country and has supported 215 patients with ECMO since the service began with outcomes comparable to international results.

More recently, the impact of COVID-19 on the Mater ECMO Service and the intensive care unit (ICU) in general has been significant with 2021 being the busiest year for the service to date. Thirty-six patients were supported with ECMO, six for cardiac failure and 30 for respiratory failure, 28 of whom had COVID-19. The increased number of patients compared to previous years and more protracted ECMO runs associated with COVID-19 resulted in a fivefold increase in ECMO activity. However, the commitment and flexibility of all staff involved allowed the service to accommodate this demand safely.

Number of Respiratory & Cardiac ECMO cases per year at Mater ECMO Service

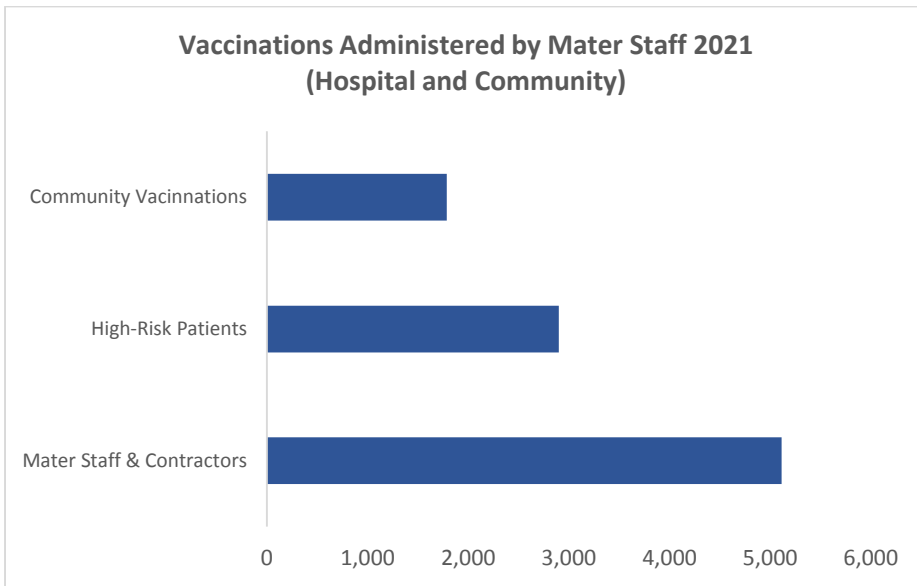


Mater ECMO Days

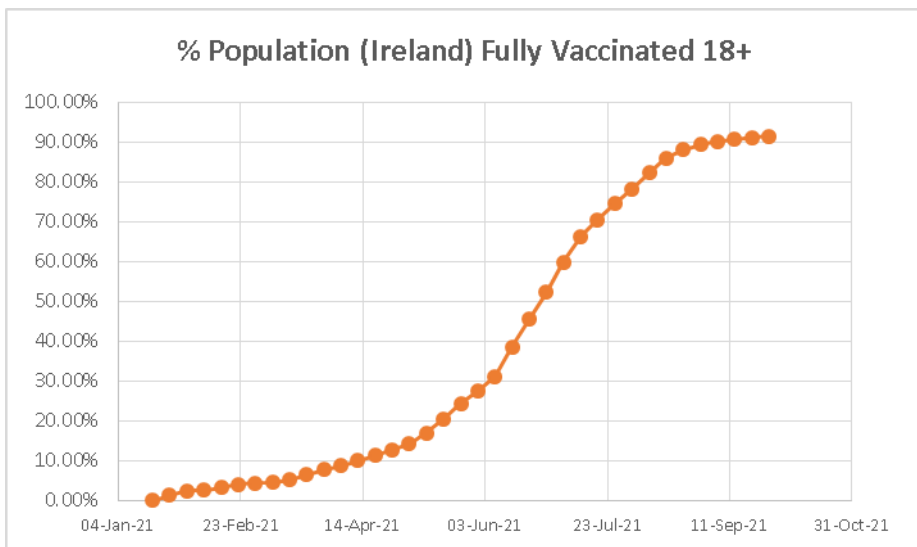


Vaccination

The national vaccination programme has played a pivotal role in the changing requirements of care over the course of 2021. The pressure on hospitals, and Intensive Care Units in particular was intense in the first quarter of the year. However, this reduced over the following months as a combination of the lockdown and the vaccination programme reduced the number of COVID-19 patients in ICUs nationally from a high of 215 on the 26th January to 30 by 6th May.



By September over 90% of the adult population were fully vaccinated. The composition of patients in ICU also changed by September, as over 60% of patients admitted to ICUs across the country were not vaccinated.

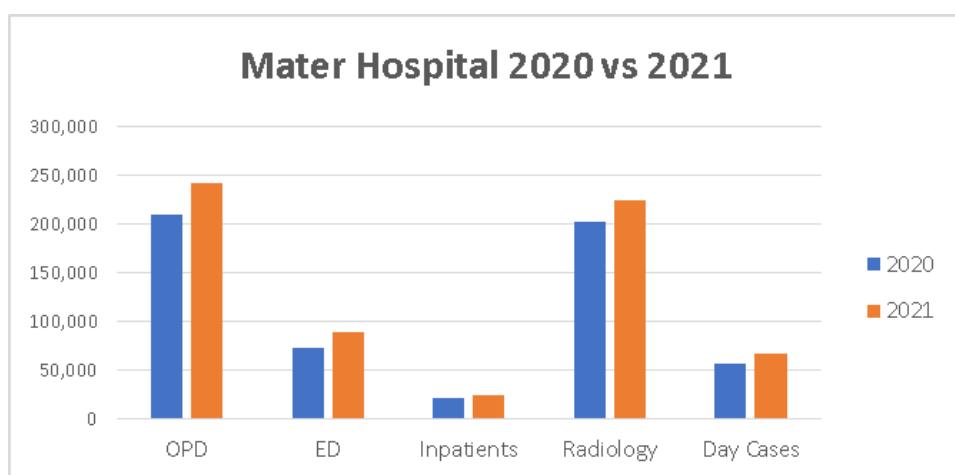


Source European Centre for Disease Prevention and Control.

COVID-19 Impact

In many ways the pandemic has highlighted the teamwork, resilience and ability to adapt of the team at the Mater. Significant changes have been introduced in how care is provided, as we adjusted to the evolving environment. These changes supported the maximum delivery of high-quality care and was delivered in a caring and compassionate manner.

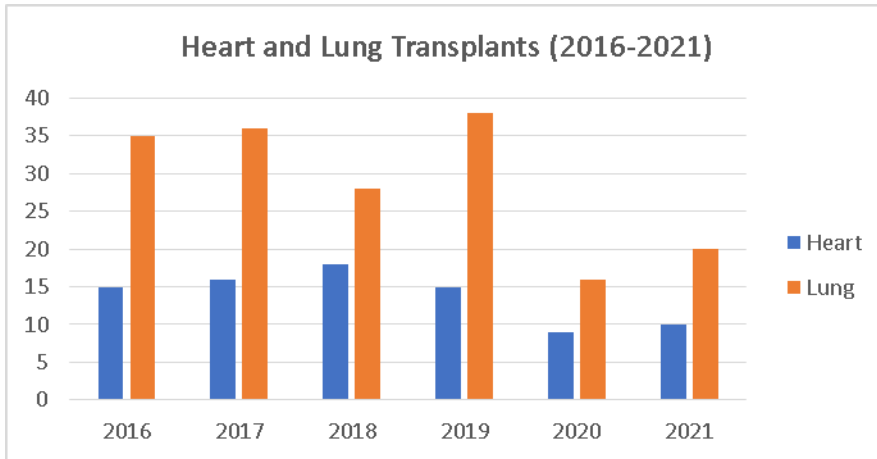
The pandemic required the hospital to leverage technology to maximise our ability to see and care for patients. This shift and consequent learnings will inform us on how best to care for patients into the future.



Activity at the Mater Hospital 2020 and 2021

Telehealth (the use of digital information and communication technologies to access health care services remotely) and virtual clinics supported our emergency department and outpatient clinics and grew significantly over the last two years. Remote monitoring clinics support patients being cared for in their own home and facilitate hospital visits only when required. This has been a significant behaviour change for both patients and our staff.

Unfortunately, not all services were able to work around the significant environmental challenges of the last two years. Despite these introductions our out-patient waiting list for new patients has grown significantly and complex services that require access to an intensive care unit have been significantly affected. Figures for the National Heart and Lung Transplant programme in 2021 showed that while figure for 2021 improved over the previous year they were still 53% of 2019 levels in lung transplants and 66% in heart transplants.



Heart and Lung Transplants at the Mater 2016-2021

COVID-19 Remote Monitoring Clinic

The Remote Monitoring project for COVID-19 patients was developed to manage the high volumes of patients who tested positive but were likely to have a relatively mild clinical course. The purpose of the project was to reduce unnecessary hospital admissions for patients and to reduce the burden of COVID-19 admissions in hospitals.

The project uses smartphone app technology to capture key health data, including pulse oximetry, dyspnoea (sudden and severe shortness of breath), that is reviewed by the clinical team in real time and enabling real time clinical decision making.

Mater Wellbeing Centre

The Mater Wellbeing Centre was created as an online resource to support our patients. It features useful tools and recommendations for mental wellbeing including relaxation and mindfulness techniques, mobile apps, books, guided breathing exercises and more.



Delivering
QUALITY CARE

Delivering quality care

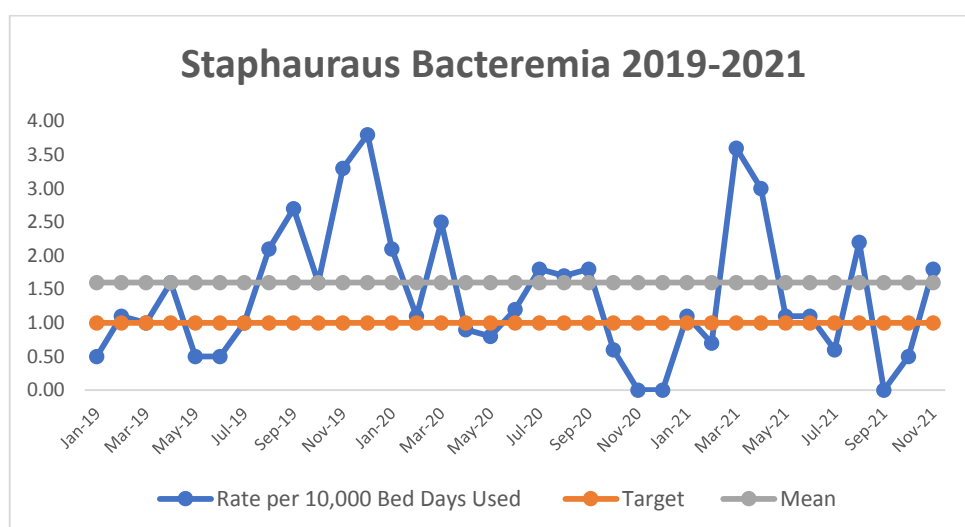
Quality and Safety are central to all that we do in the Mater Hospital and are embedded in our daily activities. We provide our staff with extensive safety training and have developed and adopted comprehensive safety policies and standard operating procedures. In the last two years, many of these policies and procedures have been extensively reviewed, revised and updated in line with the latest practice on managing care in a COVID-19 environment. Our Quality and Safety Directorate is committed to best practice in quality, treatment outcomes and quality performance.

Infection prevention and control

Infection prevention and control measures are adopted across the Mater to minimise patient and staff risks of healthcare associated infections and to improve the quality and safety of care. As 2021 was the second year of the pandemic, the Infection Prevention and Control Team continued to be directed towards management of the COVID-19 impact on the hospital. There were 150 cases of healthcare associated COVID-19 and 16 ward outbreaks during the year, the timing aligning closely with community surges. In addition to COVID-19 activities the Infection Prevention and Control programme was maintained and even developed over the course of the year with increased audit and surveillance activities.

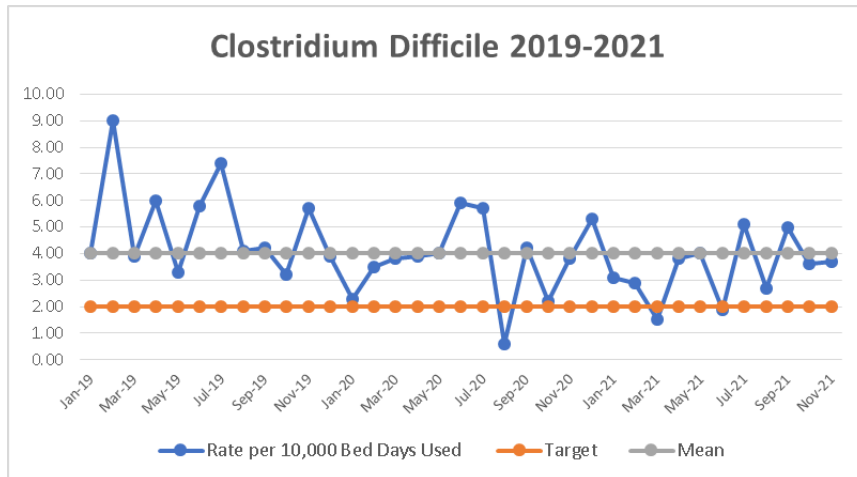
Healthcare Associated Infections

31 patients developed *S. aureus* bloodstream infection while inpatients in 2021. All cases undergo consultation by the Clinical Microbiology Team and are reviewed by the Consultant Microbiologist Clinical Lead before reporting to the HSE and a determination of whether the infection may have been preventable is also made.



Hospital Acquired Infection (Staphylococcus Bacteraemia)

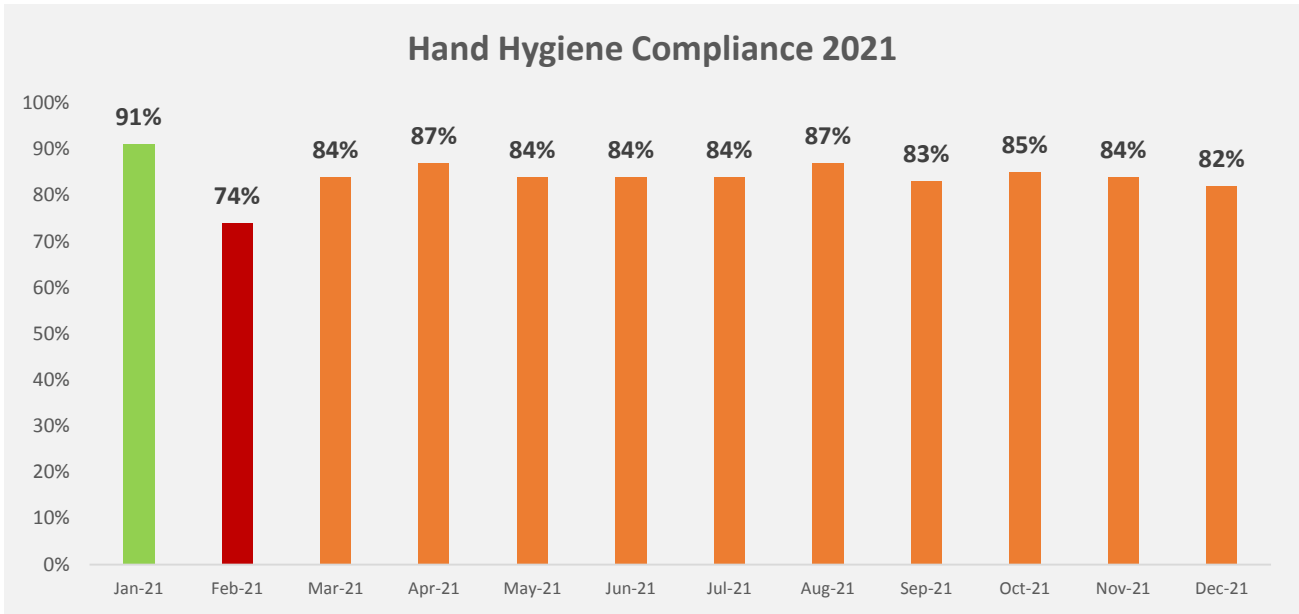
Following a very challenging year in 2019 when the hospital was affected by a virulent strain of *Clostridiolides Difficile* that spread rapidly in the region and other centres nationally, cases of hospital associated *Clostridiolides Difficile* infection reduced in 2020 and continued to fall towards pre-2019 levels in 2021.



Hospital associated *Clostridiolides Difficile* Infection 2019-2021

Hand Hygiene

Hand hygiene compliance is consistently shown to be an effective measure to prevent spread of infections in hospitals. Hand hygiene training is mandatory for healthcare workers in the HSE, to be completed every 2 years. Hand hygiene compliance is audited regularly, using the World Health Organisation's 5 moments for hand hygiene, to identify areas of practice that could be improved. Hand hygiene audit increased throughout 2020 and 2021 as IPC nursing resources increased towards recommended levels for the hospital bed capacity.



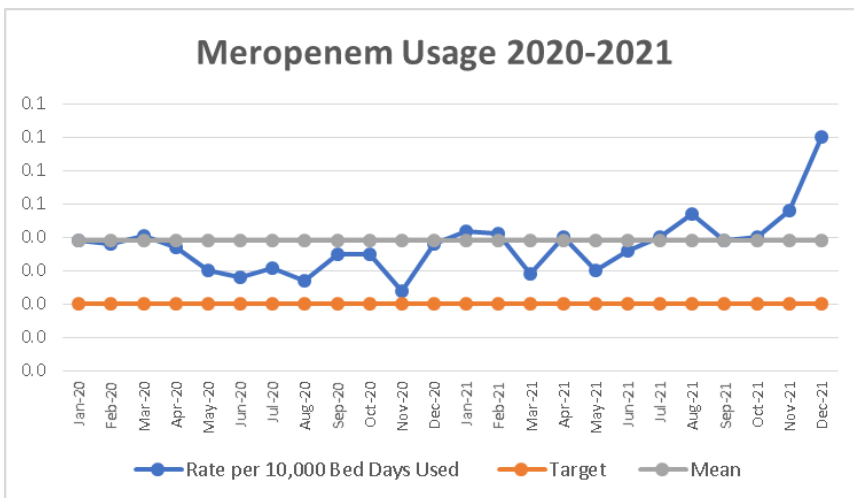
Hand Hygiene compliance per month 2021

Year	2019	2021
Number of clinical areas audited	31	300
Number of observations	642	4723

Level of audit of hand hygiene compliance in 2021 compared to 2019

Antimicrobial Stewardship Programme

Antimicrobial stewardship (AMS) is the coordinated approach to improve the quality of usage of antimicrobial medications, with the goal of enhancing patient care, reducing adverse effects and reducing healthcare costs. It is a strategy that runs in parallel with Infection Prevention and Control to reduce the risk of emergent antimicrobial resistance.

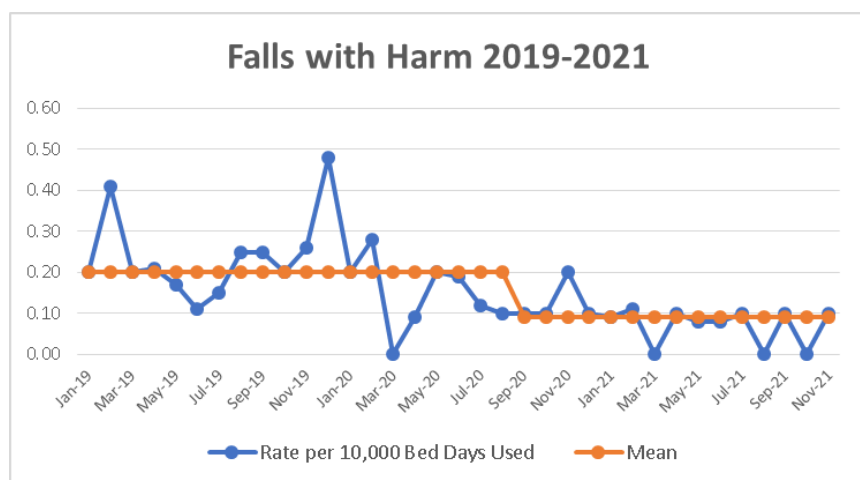


Meropenem usage in Mater Hospital 2020/2021

The AMS team routinely produces and maintains up to date antimicrobial prescribing guidelines for the Mater, as well as actively taking part in audit. The AMS team also participated in the National Antimicrobial Point Prevalence Survey in October 2021.

Falls

The rate of falls with harm remains low. Improvement initiatives include the appropriate use of bed rails, clinical audit on the role of polypharmacy on risk of falling, and development of processes for early recognition and appropriate management of delirium.



Clinical Audit Applications Sept 2019-Nov 2021

Clinical audit

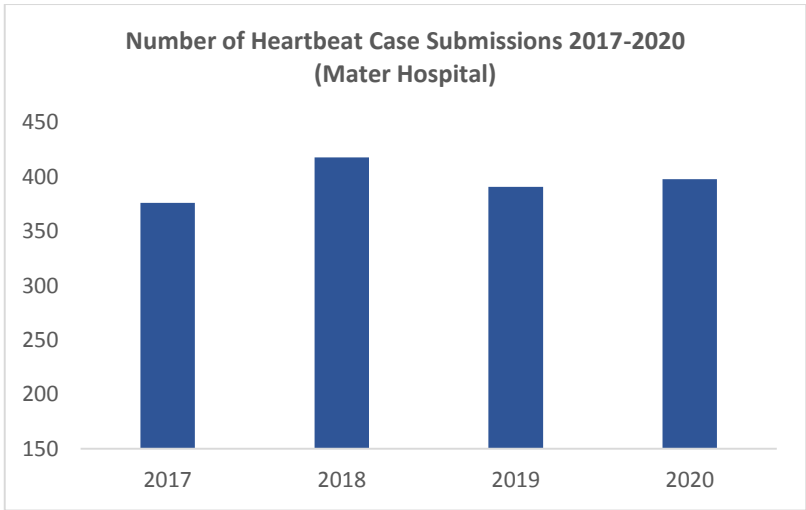
Clinical audit is a core component of the Clinical Improvement Journey for the hospital. As a key element of the quality improvement cycle it measures the effectiveness of healthcare against proven standards of quality, and identifies actions required to bring practice in line with these standards so as to improve the quality of care and health outcomes.

The Mater is part of the wider national initiatives to improve the quality of care delivered and is part of several large scale national clinical audits in the following areas

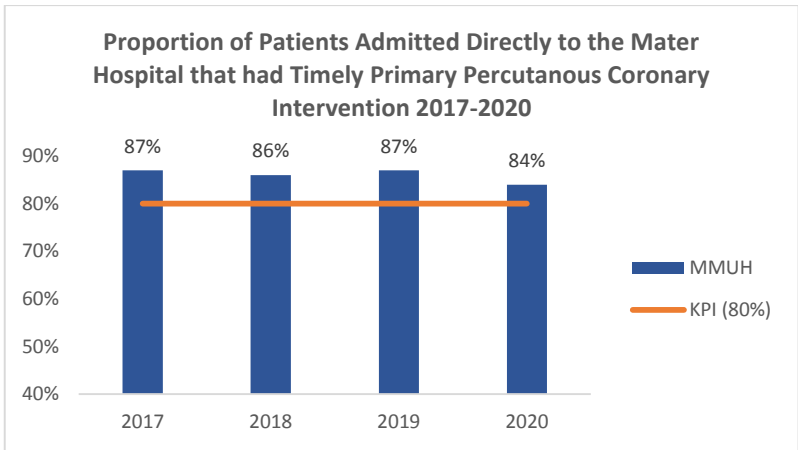
- National Audit of Hospital Mortality.
- Irish Heart Attack Audit
- Irish Hip Fracture Database
- National Stroke Register
- Major Trauma Audit
- National ICU Audit
- National Quality Improvement Programmes – Endoscopy, Histology and Radiology

Irish Heart Attack Audit 2017-2020

The Mater is one of the designated primary percutaneous coronary intervention (PPCI) centres in the country and collaborates closely with cardiologists in Beaumont Hospital, James Connolly Memorial Hospital and Our Lady of Lourdes Hospital in Drogheda. 1,583 cases were submitted by the hospital as part of the Irish Heart Attack Audit 2017-2020. This represents approximately 24% of all cases nationally submitted through the Heartbeat portal.



Mater submissions to Heartbeat 2017-2020.



% Patients that had timely access to coronary interventions 2017-2020

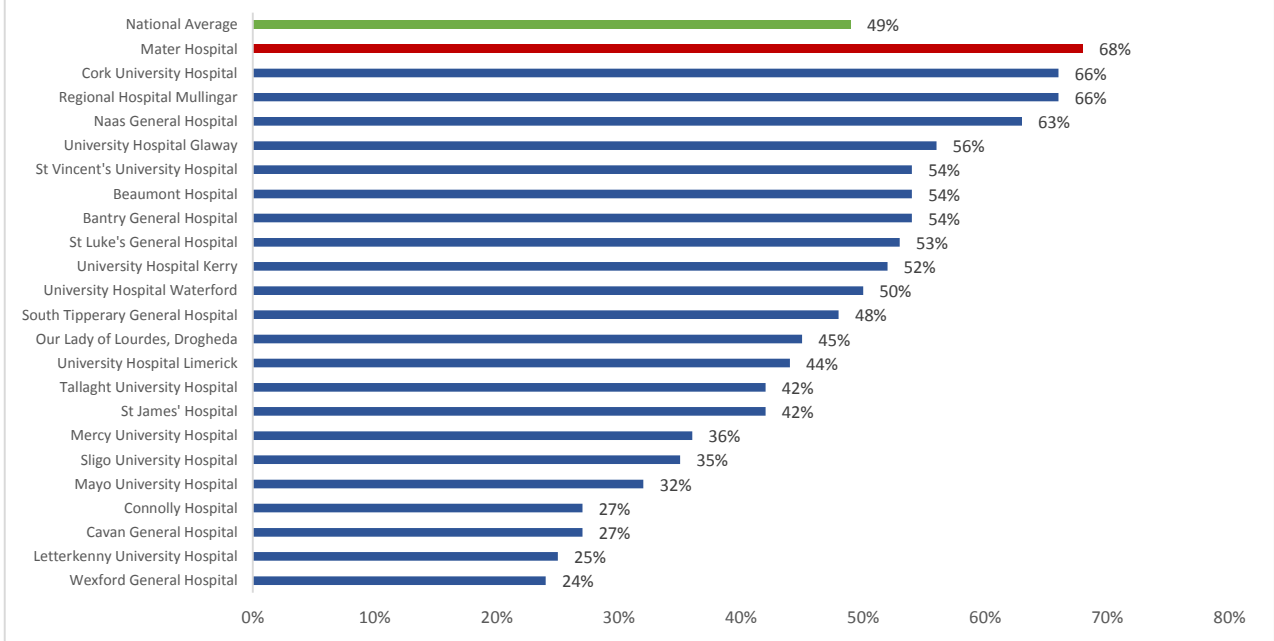
The Acute Coronary Syndrome Model of Care has an agreed target that 80% of patients with a ST Elevated Myocardial Infarction (a heart attack during which one of the heart’s major arteries is blocked) should receive timely reperfusion (HSE, 2012).

Irish National Stroke Audit 2020

Stroke, along with heart disease and cancer, are the big three causes of death in the western world. The Irish National Stroke Audit evaluates the care that is provided in 24 acute hospitals across the country. Two of the key national measurements of care are

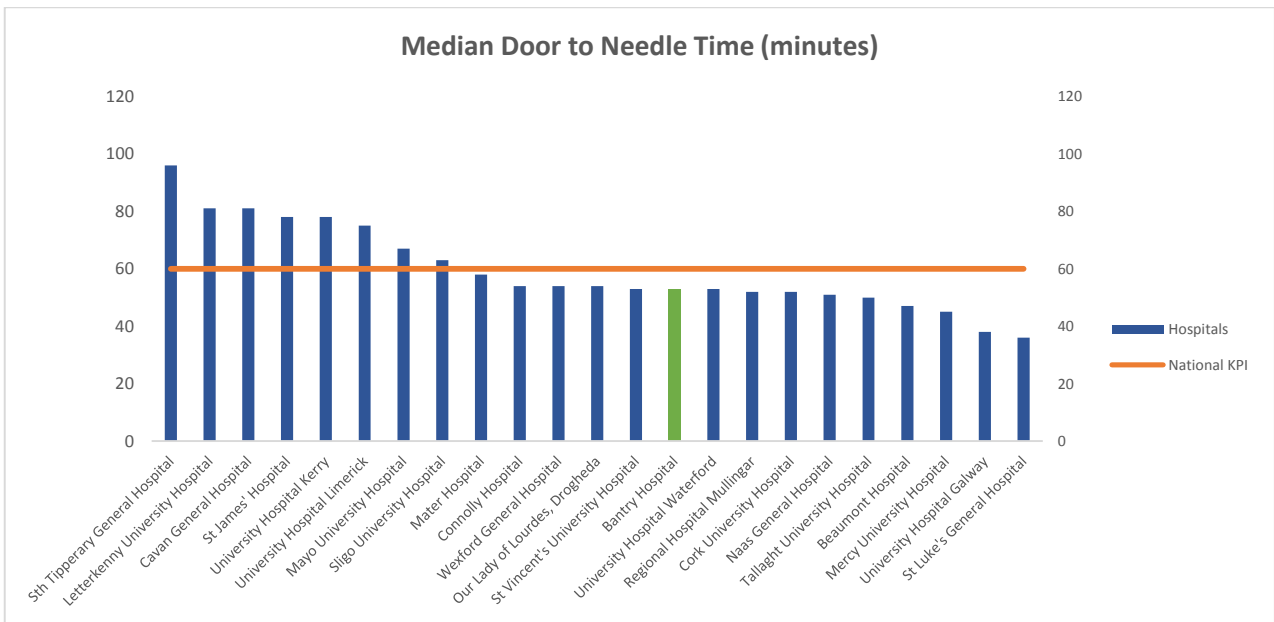
- **Door to Imaging** Patients with suspected acute stroke should receive brain imaging urgently – at most within 1 hour of arrival at hospital (Royal College of Physicians, 2016).
- **Door to Needle** Time between hospital arrival and time of thrombolysis. The Irish Heart Foundation standard is Door to Needle time of less than 60 minutes.

Proportion of Patients who received Brain Imaging within 1 Hour of Hospital Arrival



Door to Imaging Time. Proportion of patients who received brain imaging within 1 hour

Median Door to Needle Time (minutes)



Door to Needle Time (in minutes) by hospital

Stroke and COVID-19

The Irish National Stroke Audit also assessed the impact of COVID-19 on stroke services across the country. Its key findings were

- **Medical Team Review** The median time from arrival to review by a medical team reduced from 16 minutes in the pre-COVID-19 period to 12 minutes in the COVID-19 period.

- **Door to Imaging** The door to imaging time was within one hour for 44% of cases in the pre-COVID-19 period increased to 47% in the COVID-19 period.
- **Door to Imaging** The median door to imaging time reduced from 79 minutes pre-COVID-19 to 67 minutes in the COVID-19 period
- **Early Supported Discharge** The proportion of patients with a stroke who were discharged home with Early Supported Discharge increased to 8% during the COVID-19 period, when compared to the pre-COVID-19 at 5%.

Clinical audit and effectiveness committee

The implementation of the Clinical Audit and Effectiveness programme aims to improve institutional and staff engagement in using quality improvement methodologies to deliver high impact and sustainable improvement where it is needed most. The input of the multidisciplinary Clinical Audit and Effectiveness Committee on clinical audit and service improvement projects has been helpful in this regard.

The continued increase in applications to Clinical Audit and Effectiveness Committee with a majority focus on local service improvement. Need to continue to promote broader hospital priority audits and the postgraduate dean has agreed to incorporate clinical audit presentations as a regular feature at medical grand rounds. Work continues on supporting staff to generate the reports as Quality Improvement (QI) Projects.

A blurred, grayscale background image of a classroom. In the foreground, a person's hand is visible, holding a pen over a notebook. In the background, several students are seated at desks, and a teacher is standing, possibly interacting with them. The overall scene is out of focus, emphasizing the educational context.

Education

Education

The Mater Hospital plays a key role in the delivery of a number of undergraduate and postgraduate academic programmes. University College Dublin (UCD) has been the hospital's academic partner since the hospital's foundation in 1861. Together the two institutions have demonstrated a commitment to stimulating a culture of learning and enquiry which has led to the establishment of one of the foremost centres for clinical training in Ireland.

The hospital also works closely with other academic institutions including Royal College of Surgeons in Ireland (RCSI), Royal College of Physicians of Ireland (RCPI), Trinity College Dublin and Dublin City University.

The Mater's strong academic partnerships help to ensure that academic programmes are grounded in clinical reality and that our clinical practitioners remain submerged in and up to speed with developments in academia and research.

The foundation of the Mater Lean Academy in 2013 and the Pillar Centre for Transformative Healthcare in 2018, supplements the strong academic partnerships in place by offering a high quality educational and training experience and service change delivery in a Level 4 teaching hospital setting. Thereby providing and developing specialist training that is individually professionally rewarding while simultaneously improving the delivery of care to patients.

Medicine

Catherine McAuley education and research centre



The Catherine McAuley Education & Research Centre was opened in 2004 as a partnership between UCD and the Mater Hospital. The centre brings together academic excellence and clinical expertise in an on-campus facility.

The Mater is the primary location for clinical education for the final two years of the UCD undergraduate Medicine Pre-programme with the medicine and surgery curriculum through the UCD team at the Catherine

McAuley Centre, which includes rotation through the Mater, Cappagh National Orthopaedic Hospital, the Beacon Hospital, the Midlands Regional Hospital Mullingar, Wexford General Hospital, St Michael's Hospital and St Columcille's Hospital.

The Postgraduate Medical Centre, also located within the Catherine McAuley Centre, provides high quality, dynamic and innovative education programmes for consultants, Non-Consultant Hospital Doctors (NCHD's) and the North Dublin Faculty of the Irish College of General Practitioners (ICGP). The centre plays a key role in providing for the training needs of NCHD's and facilitates the professional development of consultants within the hospital and beyond by developing a programme of continuing medical education relevant to medical staff in the Mater Hospital including in-house multidisciplinary meetings and regular teaching sessions designed for Interns / SHOs as well as providing education sessions to members of the North Dublin ICGP.

Nursing

Centre for nurse education



The Centre for Nurse Education (CNE) is a purpose-built centre for the provision of nurse education programmes. The

CNE's central focus on the provision of continuous professional nursing education, specialist nurse education and professional education courses for registered general nurses and other health care professionals.

The CNE combined with clinical placements on the campus, provides a wealth of clinical expertise and rich clinical learning opportunities for nurses. In partnership with UCD and DCU a variety of postgraduate and undergraduate nursing programmes are provided.

Health and social care

Mater Lean academy



Mater Lean Academy

Lean Six Sigma for Person-centred Cultures in Healthcare

In 2011, the Mater hospital established a Strategic Lean Group to prepare for the relocation of services to the new Whitty Building. This involved training for staff in Lean Six Sigma principles to improve patient outcomes while generating economies by reducing waste. The success of the project led to the establishment of the Mater Lean Academy in 2013 and the consolidation of a Lean infrastructure with systems to support change management initiatives.

The Mater Lean Academy's mission is to improve healthcare quality, patient safety and efficiency by applying the principles of Lean engineering, management and science. To meet the HSE's demand for quality healthcare at affordable prices, the academy works on the latest strategies and competencies to improve care, manage margins and facilitate compliance with national guidelines. Mater Lean Academy programmes are accredited by its academic partner, UCD.

The Mater Lean Academy offers a suite of Lean Programmes in Healthcare including

- Fundamentals of Lean for Healthcare
- Professional Certificate in Lean Six Sigma for Healthcare
- Graduate Diploma in Lean Six Sigma for Healthcare

National lean healthcare symposium



UCD School of Nursing, Midwifery and Health Systems
UCD College of Health and Agricultural Sciences

Mater Lean Academy

The 8th National Lean Healthcare Symposium was held in October 2021.

Hosted by the Mater Lean Academy and UCD School of Nursing, Midwifery and Health Systems, the symposium was opened by Senator Mark Daly, Chair of Seanad Éireann and included national and international experts as keynote speakers.

The Pillar Centre

Education and training



The Pillar Centre for Transformative Healthcare in the Mater Misericordiae University Hospital offers a high quality educational and training experience in a Level 4 teaching hospital setting.

The new centre complements existing educational facilities within the hospital and in UCD by providing a flexible, interdisciplinary educational space, located within the hospital environment. The centre focuses on supporting practical skills training, simulation training and team-based, interdisciplinary learning.

In 2021 the Pillar Centre organised, coordinated and facilitated some key educational programmes including

- Inaugural Irish Perioperative Medicine Society Webinar
- The Ireland East Hospital Group and UCD's first Virtual Grand Rounds on Simulation
- Anaesthesiology and Emergency Medicine Beginners' Boot Camp
- Mental Health Awareness Week in October
- Irish Society for Regional Anaesthesia Foundation Course
- Living with Long COVID- webinar
- Irish Endocrine Society's Continuing Education Study Day

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Research

AND PARTNERSHIPS

Research infrastructure

UCD Clinical Research Centre (CRC) awarded €5.3m by the Health Research Board



In October 2021 the UCD Clinical Research Centre (CRC) were awarded over €5m to expand clinical trials activity at the CRC's two current sites, Mater Misericordiae University Hospital and St Vincent's University Hospital and to develop four additional sites, National Rehabilitation Hospital (NRH), the National Maternity Hospital (NMH), St Luke's General Hospital Kilkenny and Wexford General Hospital. The grant will improve patient access to

new trials and enhance the way trials are carried out, by focusing on enabling technologies and creating pathways to enhanced patient participation and involvement.

Research publications

Browse the latest published research by clinical teams at the Mater Hospital on our website <https://www.mater.ie/healthcare-professionals/research/>.

Infectious Diseases

€2 million investment in the National Irish COVID-19 Biobank (NICB)

Following a united call from the Chief Academic Officers in 2020 the National Irish COVID-19 Biobank (NICB) was established in 2021, through a grant of €2m from the Health Research Board (HRB). University College Dublin and Trinity College Dublin are the joint host institutions which is a collaboration of 6 academic institutions and 13 hospitals, with the Mater Misericordiae University Hospital and St Vincent's University Hospital two of the hospitals involved. The National Irish COVID-19 Biobank will provide the Irish and international research community access to data and linked samples to promote high impact, patient-focused research into the causes, progression, diagnostics, treatment and consequences of COVID-19. The biobank will recruit individuals affected by COVID-19 in different ways, from mild disease, through those needing intensive care and into recovery phases and Long COVID-19, and will include special populations such as children, pregnant women and those in vulnerable groups.

Infectious Disease Clinical Trial Network

In May 2021 the Health Research Board announced €6m investment in six Clinical Trial Networks in Ireland. The Infectious Diseases Clinical Trials Network Ireland (ID-CTNI) which brings together the main centres contributing to clinical trials research in infectious diseases, including the Mater Misericordiae University Hospital, St Vincent's University Hospital, St James' Hospital, Beaumont Hospital and Cork University Hospital, will build on the unprecedented focus on infectious diseases arising from the COVID-19 pandemic.

The objectives of the ID-CTNI are to establish a well-structured network of researchers, facilities and infrastructure to improve the quality of clinical trial design in infectious diseases nationally. The Network will extend existing clinical trials to other hospitals across the Network in Ireland as well as completing, from start to finish, three new collaborative clinical trials over a five-year period of this award.

The Infectious Diseases Clinical Trial Network, led by Prof Paddy Mallon, unites the leaders in clinical and translational Infectious Diseases research in Ireland, and is ideally placed to develop and conduct high impact, investigator-initiated clinical trials in clinical infectious diseases, and to utilise that knowledge to inform best clinical practice in patient care.

Cancer

Cancer Clinical Trials Infrastructure Funding

The Health Research Board awarded €21m in funding to six Cancer Clinical Trials groups in Ireland to increase the resources and expertise to conduct cancer trials in adults and children. Led by the Mater Hospital's Prof Cathy Kelly, the Ireland East Hospital Group (comprising of the Mater Misericordiae University Hospital and St Vincent's University Hospital) and University College Dublin, were one of the six successful recipients. Funding starts in 2022 and is for a 5-year period.

“ Ultimately, this investment is about finding new and safe approaches to prevent and treat cancer and save more lives
Oonagh Ward, Head of Research and Innovation Infrastructures, Health Research Board

Cancer Clinical Trials

Indication	Cancer Sub-Type	Study Name	Full Title of Study
Breast	Early Hormone positive/ HER 2 Negative	CTRIAL-IE 15-17 PALLAS/ BIG 14-03	A randomized phase 3 trial of Palbociclib with adjuvant endocrine therapy versus endocrine therapy alone for hormone receptor positive/HER2-negative breast cancer.
Breast	Early Hormone positive/ HER 2 Negative	CTRIAL-IE 15-34 Translational Breast Cancer study	The Impact of the 21 Gene Recurrence Score (RS) on Chemotherapy Prescribing in Estrogen Receptor Positive, Lymph Node positive early stage Breast Cancer in Ireland
Breast	Early Triple Negative	CTRIAL-IE NeoTRIPaPDL1	Neo-Adjuvant study with the PDL1-directed antibody in Triple Negative Locally Advanced Breast Cancer undergoing treatment with nabpaclitaxel and carboplatin NeoTRIPaPDL1 (Neoadjuvant therapy in TRIPLE negative breast cancer with antiPDL1)
Gastro-intestinal	Metastatic Bowel (Colorectal) Cancer	CTRIAL-IE 14-20 GRECOR STRATEGIC - 1	Multi-Line Therapy Trial in Unresectable Wild-Type RAS Metastatic Colorectal Cancer. A GRECOR Randomised Open-Label Phase III study.

Leukaemia	Untreated Leukaemia	CTRIAL 16-60 - CLL 13_Trial Leukemia	CLL13 Trial - A phase 3 multicenter, randomized, prospective, open-label trial of standard chemoimmunotherapy (FCR/BR) versus rituximab plus venetoclax (Rve) versus obinutuzumab (GA101) plus venetoclax (Gve) versus obinutuzumab plus.
Lung	Early Lung Cancer	ICORG 15-40 MK3475-091 (EORTC 1416- LCG, PEARLS) early stage NSCLC study	A randomized, phase 3 trial with anti-PD-1 monoclonal antibody pembrolizumab (MK-3475) versus placebo for patients with early stage NSCLC after resection and completion of standard adjuvant therapy (PEARLS).
Lung	Metastatic Lung Cancer	CTRIAL-IE 16-25 MO29872 Atezo PS2	A Phase III, Open Label, multicentre, randomised study to investigate the efficacy and safety of ATEZOLIZUMAB compared with Chemotherapy in patients with treatment-naïve advanced or recurrent (Stage III B not amenable for multimodality treatment) or metastatic (Stage IV) non-small cell lung cancer who are deemed unsuitable for platinum-containing therapy.
Lymphoma	Relapsed Lymphoma	CTRIAL-IE 15-38 Bayer 17067/CHRONOS 3/Phase III	A Phase III, randomized, double-blind, placebo-controlled study evaluating the efficacy and safety of copanlisib in combination with rituximab in patients with relapsed indolent B-cell non-Hodgkin's lymphoma (iNHL) – CHRONOS-3 (Bayer 17067).
Lymphoma	Relapsed Lymphoma	CTRIAL-IE 17-06 Bayer 17833 Chronos 4	A Phase III, 2-arm, randomized, double-blind, placebo-controlled study of intravenous PI3K inhibitor copanlisib in combination with standard immunochemotherapy in patients with relapsed indolent non-Hodgkin's lymphoma (iNHL).
Ovarian	Untreated Ovarian	CTRIAL-IE 11-29 ICON 8 B	A randomised controlled trial comparing weekly chemotherapy +/- bevacizumab to standard 3-weekly chemotherapy + bevacizumab for women with recently diagnosed ovarian cancer
Prostate	Metastatic Prostate	CTRIAL-IE 13-09 / GETUG-AFU 21 / PEACE-1	A prospective randomised phase III study of androgen deprivation therapy with or without local radiotherapy with or without abiraterone acetate and prednisone in patient with metastatic hormone-naïve prostate cancer.
Prostate	Metastatic Prostate	CTRIAL-IE 19-09 Sanofi CARD	A randomized, open label, multicentre study of Cabazitaxel versus an Androgen Receptor (AR)-targeted agent (abiraterone or enzalutamide) in mCRPC patients previously treated with Docetaxel and who rapidly failed a prior AR-targeted agent (CARD).

Prostate	Metastatic Prostate	CTRIAL-IE 17-03 ROCHE CO39303	A phase III, randomised, double-blind, placebo-controlled, multicentre trial testing Ipatasertib plus Abiraterone plus Prednisone/Prednisolone, relative to placebo plus Abiraterone plus Prednisone/Prednisolone.
Prostate	Metastatic Prostate	CO-338-052 Clovis Oncology, Inc TRITON 2	A Multicenter, Open-label Phase 2 Study of Rucaparib in Patients with Metastatic Castration-resistant Prostate Cancer Associated with Homologous Recombination Deficiency
Prostate	Metastatic Prostate	CO-338-063 Clovis Oncology, Inc TRITON 3	A Multicenter, Randomized, Open label Phase 3 Study of Rucaparib versus Physician's Choice of Therapy for Patients with Metastatic Castration resistant Prostate Cancer Associated with Homologous Recombination Deficiency
Multiple Cancers	Multiple Cancers Early	CTRIAL-IE 16-19	A phase III, double-blind, placebo-controlled, randomised trial assessing the effects of aspirin on disease recurrence and survival after primary therapy in common non-metastatic solid tumours.

European Society of Gynaecological Oncology (ESGO)



In July 2021, the UCD Gynaecological Oncology Group (UCD-GOG) incorporating the Mater Misericordiae University Hospital, St Vincent's University Hospital and University College Dublin, was accredited by ESGO as an accredited centre for Gynaecology

Training. This follows the group's 2020 ESGO accreditation for Advanced Ovarian Cancer Surgery.

The UCD-GOG is the largest Gynaecological Oncology Group in the country serving over two million people. The Group offers specialist treatment for all types of gynaecological cancers including advanced surgery, radiotherapy and chemotherapy. UCD-GOG receives 500 new referrals per year from across the country and treats nearly 400 new cancers annually.

The UCD-GOG, in conjunction with colleagues in the Peritoneal Malignancy Institute at the Mater Hospital, are the only Centre to offer Hyperthermic Intraperitoneal Chemotherapy (HIPEC) to women with ovarian cancer.

Gynaecological Oncology



Gynaecological Oncology

ThisIsGO.ie, a new first-of-its-kind platform for Ireland providing relevant, reliable and evidence-based information for people affected by cervical cancer, was launched in September to mark World Gynaecological Oncology Awareness Day (GO Day).

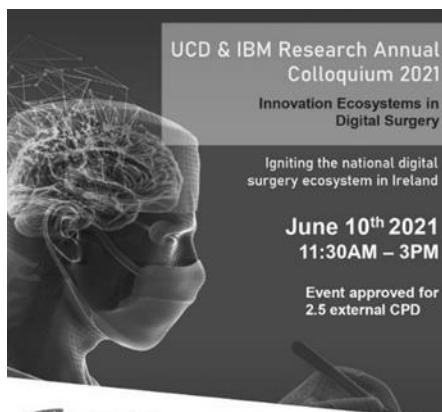
Mater Consultant Gynaecological Oncologist Prof Donal Brennan, whose team co-developed the platform with the Irish Cancer Society's Women's Health Initiative and clinicians in UCD, launched the New One-Stop Shop for Gynaecological Cancer Information to mark World GO Day.

“ Over the last three years Irish people have become aware of the terrible impact a cervical cancer diagnosis can have on women and their families. We hope that ThisIsGo.ie will provide a safe and accurate repository of information that will empower women with cervical cancer to understand the disease and complications associated with treatment

Prof Donal Brennan, Consultant Gynaecological Oncologist, Mater Misericordiae and St Vincent's University Hospitals

Digital surgery

Innovation Ecosystems in Digital Surgery



Register now @ <https://digitalsurgery2021.eventbrite.ie>

Session 1: Surgical Technology 11:30AM – 1:00PM | Session 2: Advancing the Irish Ecosystem 1:30PM – 3:00PM

In Partnership with: IBM Research-Ireland, UCD Research Partners, UCD Institute for Discovery, and UCD Centre for Precision Surgery

University College Dublin (UCD) and IBM Research in Ireland hosted its annual research colloquium with a focus on the emerging research, and clinical and commercialisation opportunities in digital surgery in Ireland. This event gave a range of Irish and International experts representing perspectives from Academia, Industry, Healthcare and Government an opportunity to explore what it will take to position Ireland at the forefront of this exciting field of study and application. This virtual event was organised in partnership between UCD Research, IBM Research in Ireland, UCD Centre for Precision Surgery, and UCD Institute for Discovery. This year's colloquium combined a number of contributions from a range of leading scientists and practitioners from UCD Schools of

Medicine and of Biomolecular and Biomedical Science, IBM Research Europe – Dublin, Mater Misericordiae University Hospital, Royal College of Surgeons in Ireland, Deciphex, Medtronic.

New Tumour Removal Surgery using Digital Visualisation Technology

A study published in Nature Scientific Reports (31st May 2021), shows how dynamic visual appearances obtainable during surgery, using innovative digital processing, can provide more comprehensive information on the extent and type of malignant tissue, especially in colon-rectal cancer, to surgeons. The new approach was developed by Prof Ronan Cahill, Professor of Surgery at UCD Centre for Precision Surgery and the Mater Misericordiae University Hospital, with Jeffrey Dalli, General Surgeon and Surgical Research Fellow at UCD, has the potential to exploit already established microscopic principles in medical oncology and histopathology but principles which have never before, been revealed and understood in real-time, in living tissue.

Previously, surgeons had to wait for considerable time frames to have formal characterisation of tissue types performed by laboratories or to understand responsiveness to medical therapies by interval radiological imaging. This method allows a surgeon to 'see' the cancerous tissue not just by its gross appearance but by its behaviour and distinguish it clearly from nearby normal tissue. This discovery also has

the potential to open up a new field for diagnosis and curative treatment and to radically improve health outcomes.

“ *Dynamic digital discrimination of cancer right at the time of intervention means the surgical team can better perfect the right intervention to the individual patient first time*
Prof Ronan Cahill

Awards

Irish Cancer Society Clinical Research Funding Award



Dr Shirley Potter, Consultant Plastic and Reconstructive Surgeon at the Mater Misericordiae University Hospital who has undertaken extensive skin cancer research in association with University College Dublin, was chosen for an Irish Cancer Society's 2021 Clinician Research Leadership Award, which will

focus on cutting edge research on melanoma treatment.

The purpose of the scheme is to attract and retain world-class cancer research leaders in Ireland who will drive evidence-based improvements in patient care. Funding provided as part of the award is aimed at helping to protect research time for clinicians that can be dedicated towards ambitious, forward-looking projects to help bring improvements to areas including the development of new cancer treatments, as well as research into improving patient care and outcomes.

Science Foundation Ireland Future Innovator Prize



UCD Conway SPHERE, is an interdisciplinary research group that works towards the understanding of a myriad of inflammatory diseases. Led by co-Directors Prof Patricia Maguire (UCD School of Biomolecular and Biomedical Science) and Prof Fionnuala Ní Áinle (Consultant Haematologist, Mater Misericordiae University Hospital and UCD School of Medicine), the group brings together clinical, academic and scientific collaborators nationally and internationally;

harnessing unique tools to diagnose and understand a host of diseases, including thrombotic disorders.

In 2021 a project from the group addressing the significant challenge of diagnosing preeclamptic toxemia (PET), one of the world's deadliest pregnancy complications, was awarded a SFI Future Innovator Prize.

AI_PREMie uses cutting-edge biomedical, clinical and machine learning techniques to analyse a combination of biomarker signals and clinically relevant maternal data, to provide a straightforward assessment of pregnancies at risk of PET complications, thereby helping to prevent unnecessary adverse outcomes for mothers and babies.

PET is a serious complication affecting one in every 10 pregnancies, and annually kills 50,000 mothers and 500,000 babies worldwide.

The Pillar Centre

Prospectus



The Pillar Centre for Transformative Healthcare at the Mater Hospital launched its Prospectus in February 2021.

Situated on the Mater Campus, the Pillar Centre is a one of kind, creating a unique and vibrant mixed-use space to become a stimulating hub for students, researchers and entrepreneurs in the heart of Dublin City.

Alongside the Directorate for Education, Research and Innovation (DERI), the Pillar Centre supports developments in the fields of education, research and Innovation.

A blurred, grayscale background image showing a person's face and hands, possibly in a professional or medical setting. The image is out of focus, with the person's features softened and indistinct. The person appears to be looking down or at something in their hands.

Governance

Governance

The Mater Misericordiae University Hospital is a voluntary hospital, established in 1861 by the Sisters of Mercy, to care for the sick with compassion and professionalism. The Mater Board of Directors is the governing body of the hospital and is responsible for developing and reviewing the hospital’s overall mission and strategy. The Board is chaired by Mr David Begg and is comprised of eight independent non-executive directors, who are elected for a period of 3-years and can be re-elected to serve for up to 9-years, and 5 executive/medical directors.

The board guides the goals and policies for the hospital and oversees the delivery by the CEO and management team at the hospital. The Board oversaw the development of the new Strategic Plan 2022-2025. The strategic plan is centred around ensuring quality, patient safety and the patient experience are central to everything at the hospital. The strategic priorities are built around 3 core principles

- Access to Care
- Integrating with the community
- Keeping the patient closer to home

Strategic Priorities

Our strategic properties are centred around **quality and the patient experience** - ensuring quality, patient safety and the patient experience are central to everything we do every day and embedding a culture of accountability for quality and patient safety right down to each individual in our organisation.

Our priorities are also built around 3 core principles

- > Access to care
- > Integrating with the community
- > Keeping the patient closer to home



1 Attracting, retaining and developing the best people
Ensuring our culture and values system enable our people to learn, innovate and develop; building a culture and an organisation that supports the hospital as it expands and develops over the coming years; ensuring our patients get the safest and best care.

2 Developing key specialist services and capabilities
Developing current and new services and capabilities within the hospital; ensuring the hospital can continue to provide leading complex acute care to its patients, is prepared to be a Major Trauma Centre and continues to be a provider of unique, leading specialist services nationally.

3 Right-sizing the hospital and proactively addressing waiting lists
Building capacity through new pathways, efficiencies, the full utilisation of existing infrastructure and new developments in order to meet today’s demand for acute adult services and to reduce waiting lists; also preparing for future demand and challenges that may lie ahead.

4 Delivering efficiencies, improved structures and securing funding
Leveraging our expertise in transformation to continually streamline and review our patient pathways and processes to deliver efficiencies with the best possible patient outcomes; and ensuring that we have the right organisational structures in place and secure the required funding to continually improve; striving to deliver excellence in everything we do.

5 Digitising and modernising the hospital
Replacing our current clinical information system with a secure future-proofed Electronic Health Record and implementing an overall digital strategy for the hospital; investing in hospital infrastructure to be recognised as a modern healthcare setting, ensuring the Mater Hospital is a place where people want to work and can work safely and to their best abilities.

6 Building further our Academic, Research and Innovation Programmes
Developing further our capabilities in translational research and innovation, strengthening our academic and training programmes and extending our partnerships with Academic institutions and industry both nationally and internationally.

Board of directors

Chairman



David Begg
Chairman

Chief Executive



Alan Sharp
Chief Executive

Executive Members



Prof Padraic MacMathuna
Chairman
Medical Executive
(Retired March 2021)



Prof Jim Egan
Executive Clinical Director



Suzanne Dempsey
Director of Nursing
(to May 2021)
Deputy CEO



Brid Cosgrove
Director of Finance



Brian Marsh
Chair
Medical Executive
(March 2021)



Mary Raftery
Director of Nursing
(Interim) May 2021

Non-Executive Members



Dr Mary Carmel Burke
General Practice Representative



Rod Ensor
Solicitor



Tony Garry
Company Director
(Resigned 8 March 2021)



Prof Cecily Kelleher
College Principal



Eilis O'Brien
Comms/Marketing Director UCD



David O'Kelly
Advisory Partner KPMG



Dr Mary McMenamain
Departmental Lecturer, Oxford

Mater Foundation

Established in 1985 the Mater Foundation is the official fundraising body of the Mater Misericordiae University Hospital and plays a central role in providing funding for state-of-the-art equipment, supporting the provision of the best care possible, enhancing the hospital facilities to create a comfortable and caring environment for patients and their families and funding for clinical and non-clinical research.

Mission

To inspire and enable financial support for the Mater Public Hospital, so that it can continue advancing care for every patient.

Vision

Through our supporters and with the Mater Hospital, we strive for world-class care for every patient and each family who loves them.

Values

We will work with integrity, be accountable and transparent in our activities, and respect and value each and every person – from supporter to patient.

The funds raised through the Foundation, support the following four key pillars

- Enhancing facilities and providing vital life-saving equipment
- Life changing research and clinical trials
- Investing in training and education for hospital staff
- Provide grants to specialist staff.



Financial statements

**MATER MISERICORDIAE UNIVERSITY HOSPITAL
STATEMENT OF INCOME AND RETAINED EARNINGS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021**

	2021	2020
	€'000	€'000
Turnover		
Revenue grants	377,332	341,776
Other income	38,033	50,380
Capital grant amortisation	4,971	3,690
	420,336	395,846
	<hr/> <hr/>	<hr/> <hr/>
Costs		
Staff costs	(280,833)	(260,971)
Non pay costs	(134,222)	(131,023)
Depreciation	(4,971)	(3,690)
	(420,026)	(395,684)
	<hr/> <hr/>	<hr/> <hr/>
Operating surplus	310	162
Interest payable and similar charges	(55)	(18)
	<hr/>	<hr/>
Surplus on ordinary activities before taxation	255	144
Taxation	-	-
	<hr/>	<hr/>
SURPLUS FOR THE FINANCIAL YEAR	255	144
	<hr/> <hr/>	<hr/> <hr/>
Retained deficit at the beginning of the reporting period	(22,947)	(23,091)
	<hr/> <hr/>	<hr/> <hr/>
Retained deficit at the end of the reporting period	(22,692)	(22,947)
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**MATER MISERICORDIAE UNIVERSITY HOSPITAL
BALANCE SHEET AS AT 31 DECEMBER 2021**

	2021	2020
	€'000	€'000
Fixed Assets		
Tangible assets	26,834	25,489
Financial Assets	-	-
	<u>26,834</u>	<u>25,489</u>
Current Asset		
Debtors and Prepayments	31,527	30,627
Stocks	11,316	14,130
Cash at bank and in hand	17,070	8,162
	<u>59,913</u>	<u>52,919</u>
Creditors: Amounts falling due within one year		
Creditors	(68,855)	(62,022)
Bank loans and overdrafts	(13,749)	(13,843)
	<u>(82,604)</u>	<u>(75,865)</u>
Net current liabilities	(22,691)	(22,946)
Total assets less current liabilities	4,143	2,543
Capital grants	(26,834)	(25,489)
NET LIABILITIES	<u>(22,691)</u>	<u>(22,946)</u>
Financed by:		
Capital and reserves		
Called up share capital presented as equity	1	1
Retained deficit	(22,692)	(22,947)
SHAREHOLDER'S DEFICIT	<u>(22,691)</u>	<u>(22,946)</u>

Financial Review

The allocation from the HSE amounted to €377.3 million (2020: €341.8 million) in 2021 split as follows: Pay €280.8m (2020: €260.9m), Non Pay €134.2m (2020: €131.0m), Income (€38.0m) (2020: €50.4m), of which Pensions €7.2m (2020 €7.4m). The increase of 10% reflects increase in staff required for new bed capacity added and for the increased cost of caring for patients with COVID-19 during the year.

The net surplus for the financial year was €0.255 million (2020: surplus of €0.144 million).

2021 was another extremely challenging year for the Hospital and its staff. MMUH continues to play a pivotal role in the fight against COVID-19. The SafetyNet arrangement set up by the HSE continued with the private hospitals and this has been essential in providing urgent time critical surgery and in provision of additional ICU capacity which takes some pressure off the Hospital.

The Company had a cumulative deficit of €22.947 million as at 31 December 2020. The outturn for 2021 resulted in a surplus of €0.255 million leading to a total accumulated deficit as at 31 December 2021 of €22.692 million.

During 2020 and 2021 an additional 50 beds and 10 dialysis stations were funded and added to the Hospital's bed base. Further initiatives submitted by the Hospital that will provide increased access to services, are under consideration by the HSE. Examples of such initiatives (some of which are already funded and implemented) put forward for the Mater Hospital include

- Extended working day in Oncology and Radiology (implemented)
- Expansion of Theatre facilities - 2 new Theatres in Ophthalmology (funding awaited)
- Expansion of Cath Lab facilities (3rd lab) (funding awaited)

During the years 2020 and 2021 and continuing into 2022 urgent time critical surgery that could not be delivered on site was carried out in private hospitals under agreements reached by the Hospital and under national Safety Net agreements through the H.S.E. In 2021 2,546 urgent surgeries were carried out for Mater Hospital patients in three private hospitals. A further 1,525 patients received urgent Cath Lab procedures, 3190 patients received surgery under NTPF initiatives and 10,000 Radiology procedures were provided under NTPF initiatives.

MMUH is the National Centre for Infectious Diseases hosting the National Isolation Unit. The Hospital, supported and approved by the HSE, has commenced a capital programme to deliver a 98 bed Infectious Diseases Ward Block. The addition of these beds will enable the Hospital and the health system deal with the challenge of access to services in a pandemic. The pandemic has created an urgent need to expand capacity to support

the provision of safe services as a direct result of COVID-19. The first two twenty bed wards are due to open at the end of 2022.

In 2021 the Mater Hospital was designated as a site on which to develop a Major Trauma Centre for the country. Two such sites were identified Cork University Hospital and the Mater Hospital. The main aim of the Mater MTC is to provide the highest level of specialist trauma care to the most severely injured patients on a single hospital site. In December 2022 the Mater Hospital will accept increased trauma patients and the required Emergency Department Extension and Reconfiguration is planned to be in place.

Review of Performance and Achievements

During 2021 the Hospital admitted 24,938 inpatients consuming 206,194 bed days and treated 67,480 day cases. The Emergency Department including Smithfield Rapid Injuries Clinic and the Eye Emergency Department had 89,335 attendances. The Hospital’s Outpatient Department recorded 209,475 patient attendances for the year.

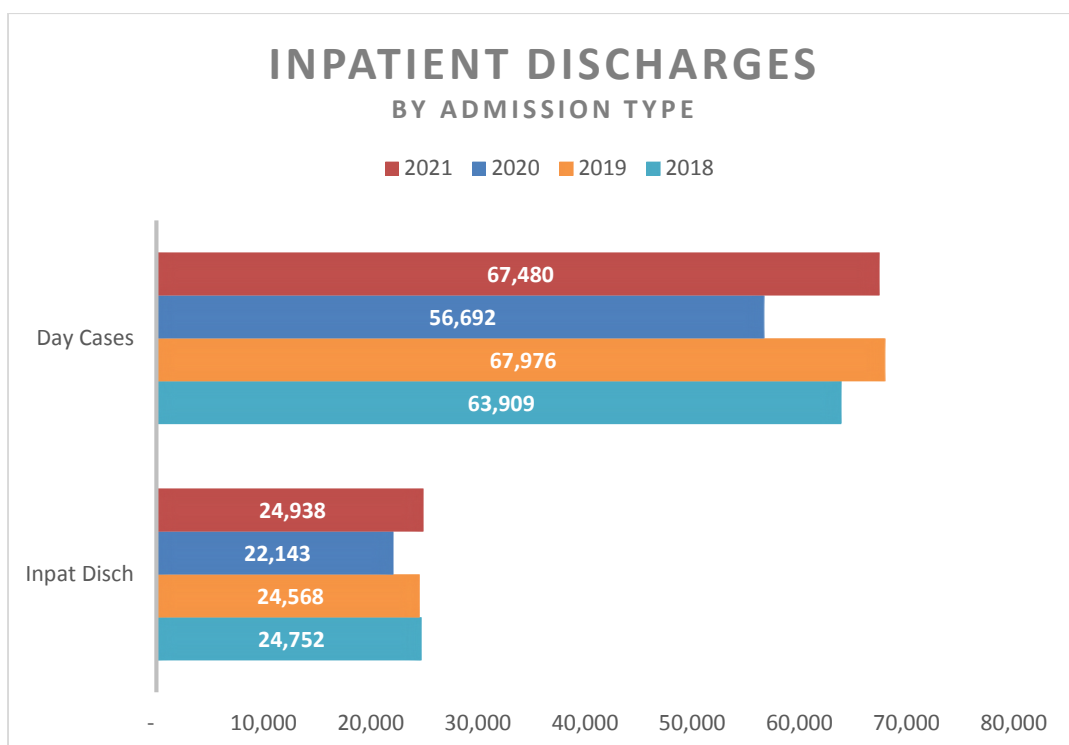


Table 1 Inpatient discharges

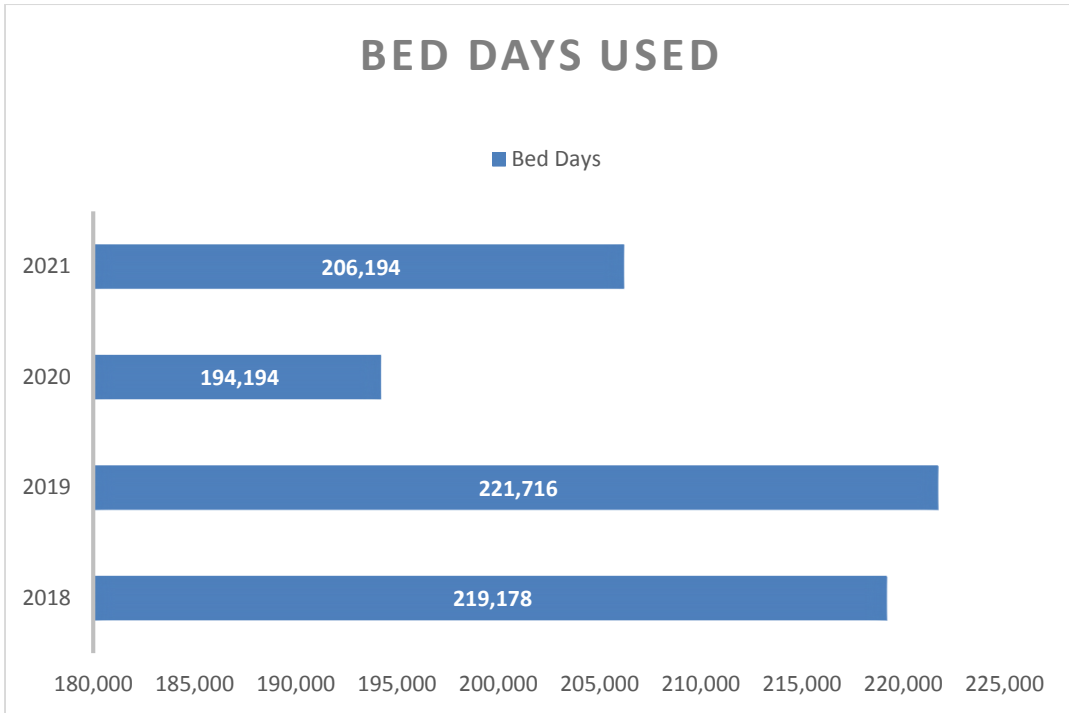


Table 2 Bed days used

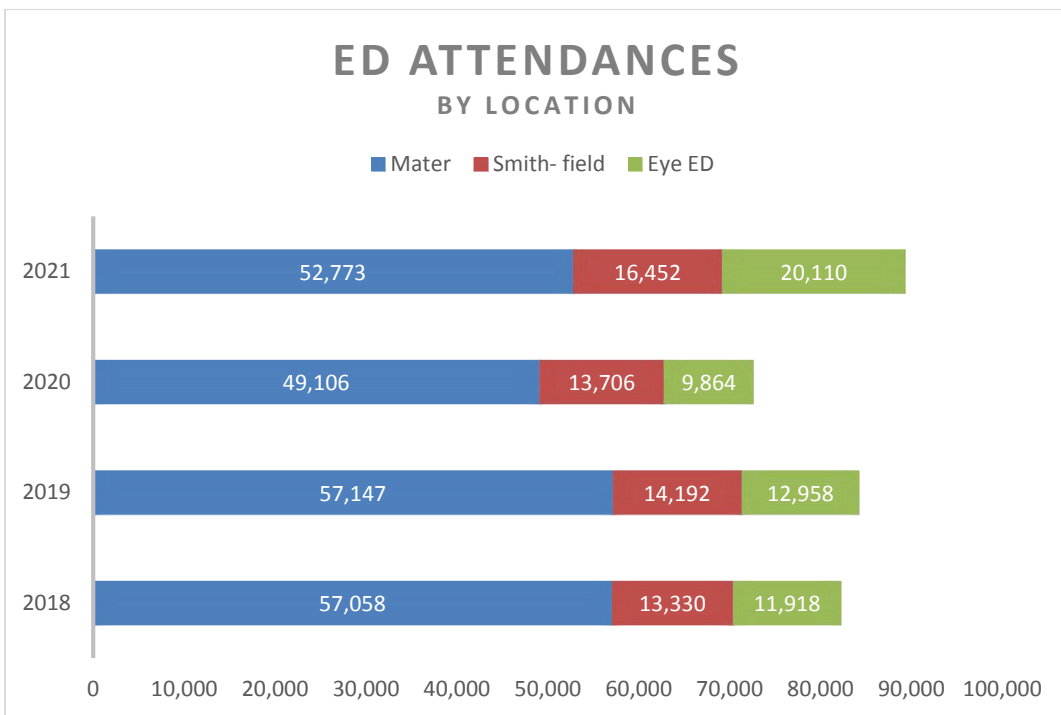


Table 3 ED attendances

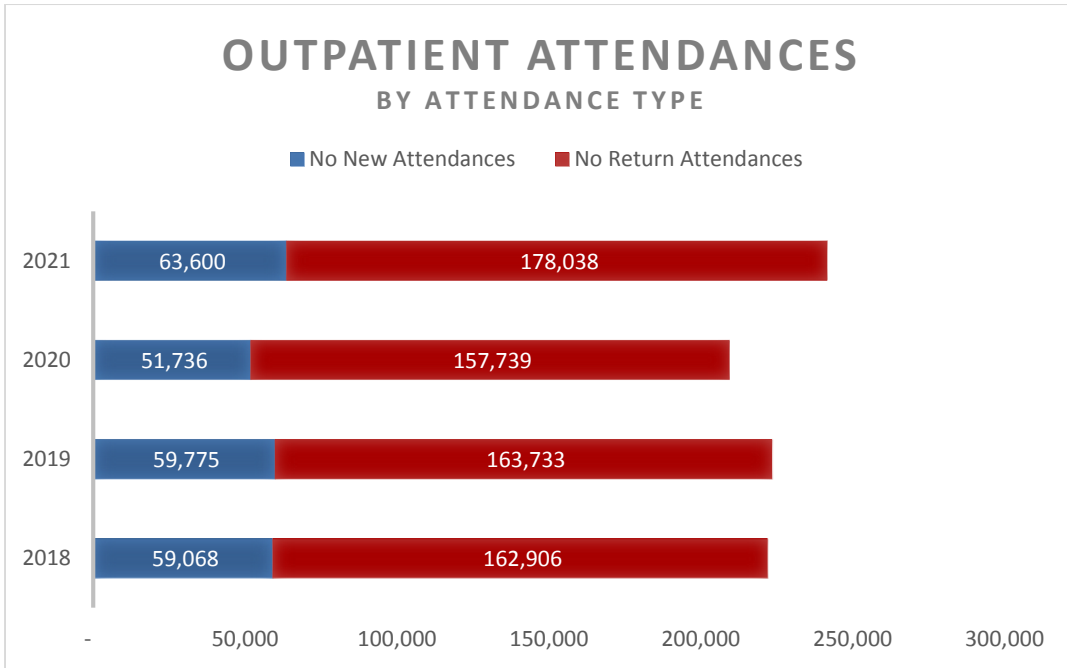


Table 4 Outpatient attendances

Operations

During 2021 the Hospital continued to face the challenges presented by COVID-19 and many of the innovations and changes made to provision of services in 2020 were required to continue during 2021. Given the environment described above, the Hospital responded well and activity increased across all disciplines in the Hospital. This can be seen from Tables 1 to 4 above.

In spite of the significant disruption to normal service delivery the tables above show that a higher than average level of activity was maintained in the Hospital throughout 2021. In the year 2019 the highest level of activity to date was recorded by the Hospital. The tables 1 to 4 above show activity increases across all patient admissions and attendances in 2021 when compared to 2019. 2019 is the last year of full patient activity data.

Table 1. In patient increase of 1% on 2019 activity

Table 1. Daycase activity matched activity in 2019

Table 3. Emergency department increase of 5% on 2019 attendances

Table 4. OPD increase of 8% on 2019 attendances

During 2021 under Safety Net and NTPF arrangements patients requiring urgent, high acuity surgery were treated in Private Hospitals, the Hospital and the HSE developed agreements and processes to ensure that this urgent surgery was delivered. In total 4,071 (2020: 1,631) Mater Hospital patients received urgent and time sensitive surgery in Private Hospitals in 2021, 3,190 patients were treated under National Treatment Purchase Fund (NTPF) initiatives and additionally 10,000 Radiology procedures for

patients on the waiting list were procured through NTPF. This process continues in 2022 under the Safety Net arrangement.

Estates & Facilities

Estates & Facilities Department's primary concern is for patients, visitors and staff safety. The Estates Department has a duty of care so as to ensure a safe, efficient and reliable environment for healthcare delivery is achieved. In order to achieve a safer more efficient and reliable service in 2021 the Estates & Facilities department presided over and completed a number of critical capital, engineering & maintenance projects. The outbreak of COVID-19 virus in March 2020 triggered a number of projects in an emergency response and some of those completed in 2021 are noted below. The expanded bed capacity and additional other capacity and department upgrades has enables continuation of safe, appropriate care to patients whilst providing for COVID-19 and non-COVID-19 care pathways.

- A 26 bed Acute Medical Short Stay Unit in order to benefit patient flow through our Emergency Department.
- The introduction of 2 new additional Ophthalmic theatres.
- The introduction of a new 8 bed Special Care Unit in St Raphael's Ward to help support our patients.
- The introduction of the 12 bed Observation Unit located adjacent our Emergency Department.
- The introduction of a new Clinical Biochemistry and Diagnostic Endocrinology Lab.
- The introduction of a new Breast Health Mammography Unit.
- The introduction of a purpose built new 10 bed renal dialysis unit in the Misericordiae wing.
- The completion of comfort care suites in the McGivney wing.
- The completion and modification of our chilled water distribution network.
- The introduction of a new chilled water systems for our MRI diagnostic suites improving its reliability.
- Supporting the introduction of a UCD research centre.
- The completion of the phase 1a medical gas resilience program.

In 2021 the Hospital commenced building of the Emergency Ward Block which is largest development the Hospital has witnessed since the delivery of the Whitty building in 2012, together with Phase 1 development of the Major Trauma Centre.

The recent published MMUH Strategic Initiative document is projecting a circa €400m of capital campus development into the near future. The expansion represents a significant percentage increase in both floor-plate and acute service provision.

Human Resources Department

2021 was a year of change for the HR Department with a new HR Director joining in August 2021. This was as a result of the outgoing HR Director taking up a new position as the Director of Organisational Development and Design within the Hospital. This restructure and commitment to our people was cemented with the welcome addition of an L&D Manager and L&D specialist.

It is felt that these roles combined will allow for and assist with the ambitious growth plans for the Hospital in the medium term and allow the HR team in its Mission to drive and deliver a people centred approach to facilitate better, safer healthcare at MMUH by recruiting, retaining, supporting and developing our staff

On an operational level it was a year like no other with general HR Recruitment increasing by 24%, Consultant Recruitment increasing by 26% and our Shared Services team dealing with processing an additional 4,200 queries. This on a backdrop of leavers and increased absences due to COVID-19.

We look forward to the year ahead with some exciting projects due to launch.



THE MATER
HOSPITAL