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2019 at a glance



Births

11,010

Women gave birth

10,773



Gynaecology:

Inpatient/day case

4,421

Outpatient

42,223



Only Maternity Directorate in Ireland



Consultant: **33**

Midwifery: **644.15**

NCHD: **75**

HSCP: **22.67**

Admin: **69.63**

Total WTE: **844.45**

Academic partner:



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

National specialties/achievements:

- National Gestational Trophoblastic Disease Centre
- Led National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death
- Overseeing growth of Health Innovation Hub Ireland (HIHI)
- World-class urogynaecology accredited by European Board of Obstetrics and Gynaecology for subspecialty training in urogynaecology
- Highest number robotic gynaecological procedures
- Ireland's first digital hospital (CUMH) and first digital co-located site (UHK)
- Only cooling centre outside Dublin





Foreword

The maternity directorate in the South/South West Hospital Group, now referred to as Ireland South Women & Infants Directorate, is in its third year of operation. This directorate leads the way as the first and only maternity directorate in Ireland. Cork University Maternity Hospital is the tertiary centre, with the maternity units of South Tipperary General Hospital, University Hospital Kerry and University Hospital Waterford completing the directorate.

Ireland South Women & Infants Directorate continues to evolve; Cork University Maternity Hospital has full management and budgetary autonomy. While clinical and executive governance is yet to be extended from Cork to maternity, gynaecology and neonatology services in Tipperary, Kerry and Waterford, there has been significant developments in tangible terms directly impacting the equality of care for women and infants in the region. Most notably, the no refusal policy enabling mothers and newborns to easily transfer between hospitals for specialist care, sets this directorate apart. These are indeed the early fruits from a collaborative partnership across the four hospitals.

In this 2019 annual report on maternity and gynaecology services in the South/South West Hospital Group, service and clinical performance results are detailed, illustrating the clinical excellence that is delivered on a day-to-day basis. The delivery of safe and reliable services depends on the quality of the clinical staff who deliver it, the effectiveness of the managers and clinical leaders, the corporate support of the hospital group, smooth patient pathways through which the larger units support the smaller ones and good communication between staff and patients. I would like to acknowledge the excellent work that they do and I hope that this report continues to provide a wealth of information that will speak for itself in authenticating the service they provide.

Professor Geraldine McCarthy

Chairperson of the South/South West Hospital Group
and Professor Emeritus, University College Cork





Introduction

There are four maternity hospitals/units in Ireland South Women & Infants Directorate – University Hospital Waterford (UHW), University Hospital Kerry (UHK), South Tipperary General Hospital (STGH) and Cork University Maternity Hospital (CUMH) – spanning four of the largest counties in the country.

In 2019 we delivered 11,010 babies across the four maternity units, a 3.07% decrease on the previous year and reflecting a general decline in the birthrate nationally. This birthrate translates to an average of 30 babies born per day across the group, down from an average of 32 babies a day in 2018 and 2017 respectively.

It was an extraordinarily challenging start to the year. A combination of the backlog of tests following the CervicalCheck controversy, the introduction of a termination of pregnancy service and the nurses and midwives strikes in January and February created many obstacles to overcome to continue to deliver a safe and quality service. We saw a tremendous effort by staff in all units and their work must be commended.

We were very pleased to reveal our new brand identity at the end of 2019: Ireland South Women & Infants Directorate. The new name and logo gives us a stronger and clearer presence as a network of four maternity units, collaborating and supporting one another, providing many opportunities to achieve real change and improve outcomes for the women and infants in the south of Ireland.

The working relationship between the four maternity units continues to grow and evolve. Our daily hub calls and regular meetings between consultants and directors of midwifery are showing to be of huge assistance, not only on a practical level, but also on an educational and networking level. Our combined

efforts continue to yield results in the provision of care to mothers and babies, primarily with our no refusals policy allowing for smooth transfer between hospitals. In addition, the daily hub teleconference, the weekly executive management meetings and weekly Grand Rounds not only unite a variety of staff across all four units, but also promote effective communications and collaboration. While there is still more to do, it's time to note and celebrate our success to date as a clinically led network of maternity hospitals/units.

We thank the South/South West Hospital Group management team for their support since the directorate was established in February 2017, and are wholeheartedly grateful to all clinical staff in our four maternity hospitals/units for enabling our progress to date. Thanks must also be extended to the National Women and Infants' Health Programme (NWIHP) for their expertise and support.

In this report we outline the management structures, communication and strategic frameworks that are in place, outline key highlights of 2019 and provide detail on achievements in maternity, neonatology and gynaecology services.

Considerable resources and effort have been invested by staff over the past two years to progress gynaecology services, and reduce the CUMH outpatient waiting list in particular. The Gynaecology 500 Week initiative in January demonstrated a collegial spirit with teams of multidisciplinary staff pulling together to reduce the waiting list in CUMH by 500 in 5 days. This effort combined with other measures dramatically reduced the outpatient waiting list by over two thirds – from 4,700 in April 2017 to 1,050 by the end of 2019, despite ongoing patient referrals.

CUMH needs the investment, signed off by the Minister of Health in 2017, to fully open and staff the second gynaecology theatre and fund the one-stop shop for Gynaecology for the region.

It remains my great privilege to serve as Clinical Director of Ireland South Women & Infants Directorate and to work alongside such resolute and committed people. We in turn are privileged to provide care to the women, babies and families in our region.

John R. Higgins

UCC Professor of Obstetrics and Gynaecology
Clinical Director

Ireland South Women & Infants Directorate Management Structures

Executive Management Committee

The Executive Management Committee (EMC) of the Ireland South Women & Infants Directorate supports the Clinical Director in the exercise of management oversight for maternity, neonatology and gynaecological services. It is chaired by the Clinical Director and meets fortnightly.

The EMC has a multidisciplinary membership (see Figure 1) and deals directly with the clinical service (operations), strategy and planning, and capital development within the maternity units of Ireland South (see Figure 2). The EMC delegates to standing committees in the areas of quality and patient safety, information governance, education and training, and research and innovation (see Figure 3).



Figure 1: The multidisciplinary membership of the EMC

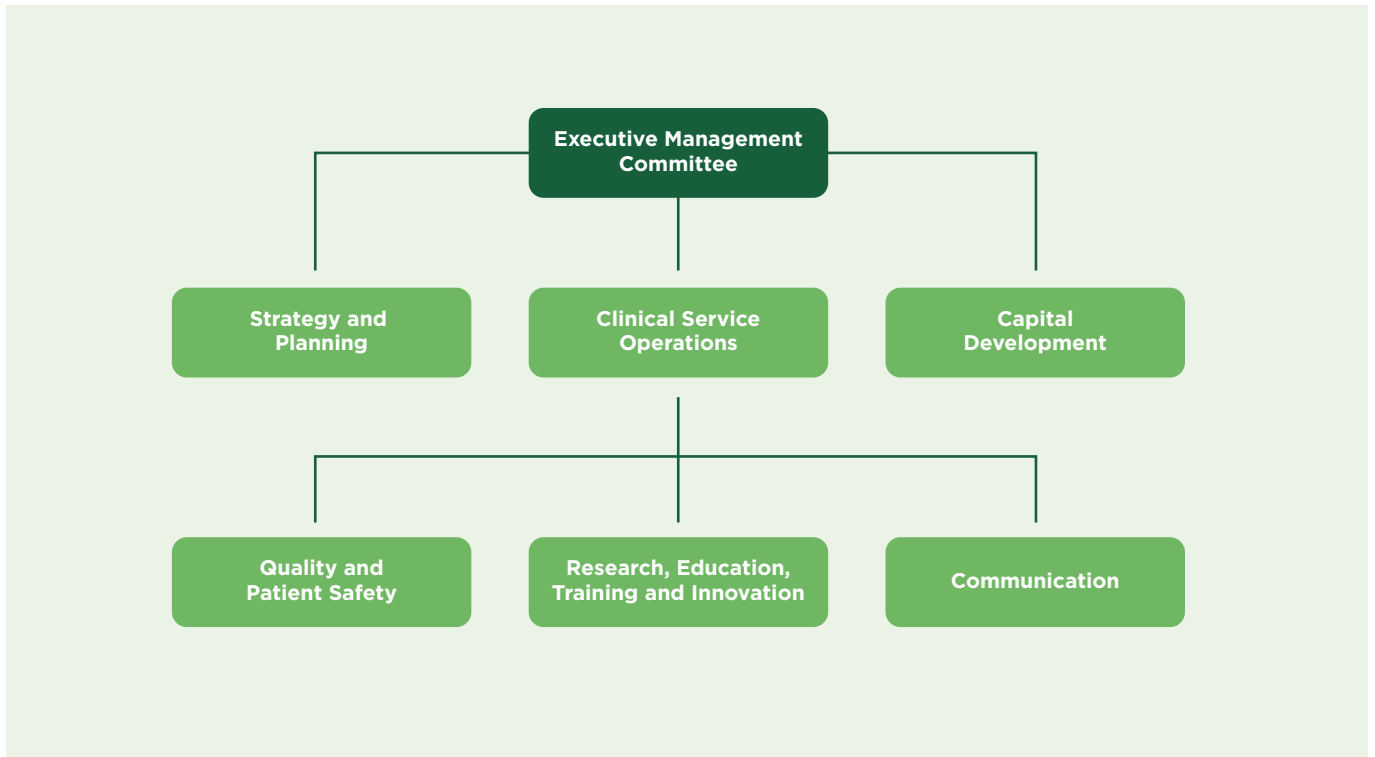


Figure 2: Ireland South EMC major work streams

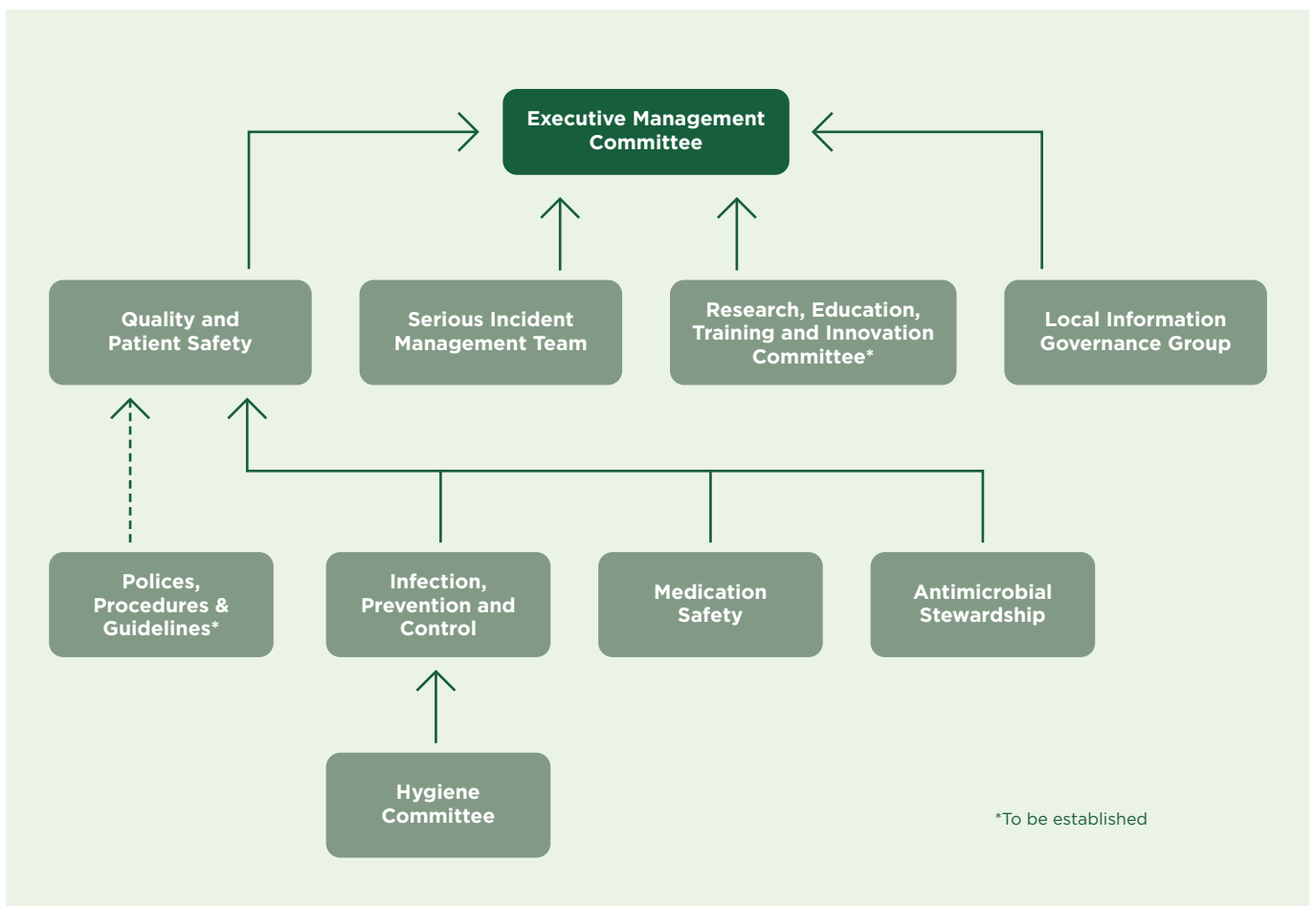


Figure 3: EMC subcommittee structures

Executive Management Committee



Professor John R. Higgins
Clinical Director



Olive Long
Director of Midwifery, CUMH



Dr Paul Hughes
Clinical Lead UHK



Dr Eddie O'Donnell
Clinical Lead UHW



Dr Vijoyashree Hiremath
Clinical Lead STGH



Miriam Lyons
Business Manager, CUMH



Dr Mairead O'Riordan
Clinical Lead Quality & Risk,
CUMH



Dr Brendan Murphy
Clinical Lead Neonatology



Sinéad Heaney
Director of Midwifery, STGH



Maria Leahy
Health and Social Care
Professions Representative



Professor Richard Greene
Chair, Local Information
Governance Group



Paula Curtin
Director of Midwifery, UHW



Sandra O'Connor
Director of Midwifery, UHK



Donna Burtchaell
Communications Project Manager



Louise Riordan
Administrative Coordinator



Dervla Hogan
Project Manager, SSWHG



Michael Hanna
Academic Advisor

Communication and Collaboration

Daily Teleconference 'Hub Call'

The four directors of midwifery (DoMs) and CUMH business manager (or nominated representatives) communicate via a succinct teleconference, termed the 'hub call,' each weekday morning. This allows for clinical updates to be shared across the four units and any issues of concern to be managed and supported.

Maternity Services Working Group for Midwifery

The Maternity Services Working Group for Midwifery meets monthly to discuss the necessary support to enhance and continuously improve evidence based midwifery care in Ireland South Women & Infants Directorate. This group is chaired by Bridie O'Sullivan, SSWHG Chief Director of Nursing and Midwifery and its membership includes the DoMs from each maternity site.

Consultant Forum

Consultant obstetricians/gynaecologists and consultant neonatologists across the Ireland South Women & Infants Directorate attend this forum every four weeks (or as otherwise advised) in person or by videoconference. The purpose of the forum is to communicate updates to all consultants in the region and is chaired by the clinical director.

Neonatology Network

The Neonatology Network facilitates important collaboration between neonatologists in the tertiary centre in CUMH and paediatricians in the maternity units who do not have the services of consultant neonatologists on site. When necessary, referral from STGH and UHK to UHW (rather than to CUMH) can be considered depending on the level of care required.

National Women and Infants Health Programme

The National Women and Infants Health Programme was established in January 2017, to oversee the management, organisation and delivery of maternity, gynaecology and neonatal services in Ireland, across the 19 maternity units/hospitals. Ireland South Women & Infants Directorate management meet with NWIHP on a quarterly basis to ensure the consistent delivery of high quality care and provide updates on the development of our maternity network.

UltraNews Staff Newsletter

A quarterly newsletter is distributed to all staff in the Ireland South Women & Infants Directorate covering interesting news stories from all four maternity hospitals/units, as well as the latest offerings under education and research, both fundamental elements of an academic healthcare system. This newsletter curates content from staff and is published in both digital and printed formats.

Since its launch in 2018, the UltraNews newsletter has been successful in building a sense of community by bringing to life the benefits of being part of a women and infants directorate.

SSWHG Maternity Directorate Steering Group

The purpose of this steering group is to provide:

- Control and direction to the project to establish the 'Maternity Directorate' (now Ireland South Women & Infants Directorate) in the SSWHG;
- A conduit for the resolution of risks and issues escalated by project team members delivering on the body of work; and
- The leadership, direction, approval and critical analysis of all aspects pertaining to the establishment of the directorate.

The scope of the steering group is not to oversee or intervene in the day-to-day operational management and delivery of maternity/neonatology/gynaecology services on any site within the SSWHG. Operational management will continue to be driven through governance mechanisms in place at site and group level. The project steering group's sole focus is overseeing delivery of the directorate as a functioning being.

Our Maternity Units



Cork University Maternity Hospital

Professor John R. Higgins, Clinical Director

Olive Long, Director of Midwifery

Miriam Lyons, Business Manager

Cork University Maternity Hospital (CUMH) opened in 2007 and involved the amalgamation of maternity services from Erinville Hospital, St. Finbarr's Maternity Hospital, Bon Secours Maternity Unit and gynaecology services from Cork University Hospital. In 2019, CUMH delivered 7,204 babies.

CUMH maternity services comprise:

- 12 bedded delivery suite
- 87 bedded postnatal ward
- 31 bedded antenatal ward
- 24 bedded gynaecology ward (16 gynaecology and 8 other)
- Stand-alone outpatients department for antenatal, gynaecology, urodynamics, colposcopy and midwifery-led scanning
- Maternity services outreach clinics in St Mary's Health Campus, Bantry General Hospital and primary care centres in Mallow, Mitchelstown, Carrigaline and Carrigtwohill providing supportive care as outlined in the 2016-2026 Maternity Strategy.

The neonatal intensive care unit at CUMH has 25 special care cots, 21 high dependency cots and 6 intensive care unit cots. CUMH accept babies from STGH, UHW and UHK for specialised treatments such as ventilation and therapeutic hypothermia. CUMH also accept babies requiring therapeutic hypothermia from University Hospital Limerick, and from other areas when an emergency neonatal unit bed is required.

Clinical midwife specialist posts exist in bereavement and loss, ultrasonography and diabetes. Additional roles include lactation, clinical skills and a perinatal mental health team. The DOMINO (Domiciliary Care Inside and Outside of Hospital) model of care has been in place since 2014, celebrating its fifth birthday in 2019. DOMINO facilitates low risk women towards a natural birth in line with the supported care model in the 2016-2026 Maternity Strategy.

Maternity services at CUMH support the education of undergraduate nursing and midwifery students from University College Cork (UCC). Medical students from UCC also gain clinical experience as part of their placement and this lends to an interdisciplinary teaching environment.

Facilities in the Department of Obstetrics and Gynaecology at CUMH allow students to participate in lectures with study space and video conferencing facilities to link with their colleagues at other sites.

New and qualified midwives and nurses are supported by clinical skills facilitators from the Practice Development Team, alongside highly qualified staff in each clinical area. All staff are supported with ongoing education and training via the Centre of Midwifery Education to facilitate ongoing development of clinical competences and promote evidence based care.

CUMH: Key achievements 2019

- **Launch of the gynaecology electronic chart**
CUMH became Ireland's first fully digital hospital with the launch of the gynaecology electronic chart on 28 July 2019. CUMH is the first site in Ireland to extend the use of Maternal and Newborn Clinical Management System (MN-CMS) to include gynaecology care.
- **Dramatic reduction in CUMH outpatient gynaecology waiting list**
At the end of 2019, the CUMH outpatient gynaecology waiting list stood at 1,050, a dramatic reduction of approximately two thirds from a high of 4,700 in April 2017. The Gynaecology Waiting List Initiative was set up to tackle the list, a two-year programme of work that included a number of innovations including the Gynaecology 500 Week that saw 500 gynaecology patients seen in 5 days. Achieving such a remarkable reduction in the waiting list is thanks to the tremendous hard work and initiative of teams of multidisciplinary staff.
- **Opening of new gynaecology day ward**
A new gynaecology day ward opened in CUMH on Saturday 19 October 2019, to bring patients in for procedures – the logical next step following the reduction of the outpatient gynaecology waiting list. The new day ward has proved to be an excellent facility for patients both pre- and post-operation.
- **Pilot of online outpatient booking system**
CUMH successfully piloted an online outpatient appointment booking system in 2019, which was positively reviewed by patients and reduced the number of patient appointment DNAs (did not attend). As a result, the pilot attracted national interest and was referred to by the CIO of the HSE in his presentation at the 2019 HISI Conference in Croke Park.
- **Expansion of Cois Tí services**
CUMH expanded Cois Tí services in 2019 with the opening of the Carrigtwohill Primary Care Centre. Midwives provide supported care for up to 25 women every Monday in this location, bringing services in the community to the women who live in East Cork areas. Supported care is now available in the community for women in six locations in Cork, as recommended by the National Maternity Strategy 2016.
- **Establishment of Specialist Perinatal Mental Health Service**
The Specialist Perinatal Mental Health Service (SPMHS) was set up with the support of a local steering group, following the appointment of Dr Deirdre Muller Neff, Clinical Psychiatrist, in December 2018.
- **Launch of the directorate-wide project called MaternityONESouth**
This project focuses on obstetric and neonatal emergencies with a view to standardising policies and centralising training in order to achieve better, safer maternity care across the directorate. This is a long-term project with a 3-4 year timeframe, and is driving collaboration and efficiencies across the four maternity units.
- **Anomaly scans**
All pregnant women were able to avail of 20-week anomaly scans in CUMH in 2019. Previously, this was not possible due to a lack of trained sonographers. It has taken considerable time to train and recruit sonographers to ensure the service is available for all women.
- **Termination of Pregnancy Service**
The Termination of Pregnancy Service commenced in CUMH on 1 January 2019 in line with the Health (Regulation of Termination of Pregnancy) Act 2018. A pathway of care was developed between key groups – nursing/midwifery, social work, consultants, ultrasound and general practitioners. Non-directional counselling has also been made available to women under the service. The service allows for referrals to maternity hospitals/units if required through the GP pathway.
- **Implementation of National Standards for Bereavement Care following Pregnancy Loss and Perinatal Death**
The two year programme to cover all 19 maternity units in Ireland was completed in March 2019. Dr Keelin O'Donoghue, Consultant Obstetrician and Gynaecologist in CUMH was key in the role as National Implementation Lead for the standards and Ríona Cotter, CMM2 in Quality & Patient Safety, CUMH led as Programme Manager.
- **NNU in Cork links with NNU in Tanzania**
Six Neonatal nurses travelled (self-funded) to a maternity unit in a Dar Es Salaam hospital in Tanzania, to provide teaching on their neonatal programme. CUMH NNU staff have travelled to this hospital to teach every year since 2017. The CUMH nurses also bring functional, end-of-life equipment with them from CUMH.
- **DOMINO scheme in CUMH**
The DOMINO (Domicillary Care Inside and Outside of hospital) scheme celebrated their fifth birthday in CUMH in January 2019. Of the 277 women who gave birth within the service, 73% went on to have a normal birth and the caesarean section rate was 10%. 619 postnatal visits to mothers and babies were provided.



• **Capital/equipment upgrades**

- Eleven new, ultrasound machines called the Hitachi FUTUS were purchased for the outpatients department, emergency room and outreach clinics through the National Equipment Replacement Programme (NERP).
- Five high-end ultrasound machines Voluson E8 were purchased for the ultrasound/fetal assessment department, also through NERP.
- New neonatal ECG machines were rolled out to CUMH theatres and birthing suite and all staff in the area were trained in their use by the Practice Development Team.
- Various infrastructural upgrades including electrical works and server upgrades to allow for the conversion of waiting rooms into clinical spaces whenever required. A number of staff/management meeting rooms were also upgraded and refurbished.
- Refurbishment of key spaces following a staff ideas initiative. This included the transformation of a birthing room in into a more flexible, positive

space to enhance the patients' experience during labour and childbirth. In addition, a staff lounge was transformed into a multidisciplinary, relaxing and serviced space to maximise rest time and enhance staff experience.

- Theatre refurbishment to one of the theatres in CUMH to accommodate a new scrub room to allow for full use of the theatre.
- An additional cooling blanket was purchased for the CUMH Neonatal Unit (NNU). This is used on full term babies who suffer hypoxic ischemic encephalopathy (HIE) to reduce their core temperature and minimise the impact of brain injury. CUMH is one of four cooling centres in Ireland and the only one outside Dublin.
- A new retinopathy digital camera for preterm babies in the NNU was also procured, which assists with retinopathy of prematurity (ROP) screening.

Education, CUMH

Undergraduate

- A total of 201 UCC final-year medical students received education and **clinical training** at CUMH and the maternity units of Ireland South Women & Infants Directorate in 2019, along with 210 fourth-year medical students over seven rotations during the academic year.
- The Practice Development Team also provided education and clinical placement for 78 BSc Midwifery students and 82 students from the general and integrated programmes. **Clinical assessments** of midwifery students are completed in partnership with UCC.

Professional development

- Three midwives completed **Certificates in Nurse/Midwife Prescribing** in UCC, increasing their authority and autonomy.
- Two staff were appointed to the post of Diabetic Clinical Midwife Specialist – both having completed the **Diploma in Diabetes Care**.
- One physiotherapist completed a **Diploma in Acupuncture for Obstetrics and Gynaecology** and another completed a **Certificate for Continence in Physiotherapy** through Bradford University.
- Two members of staff completed a **Postgraduate Diploma in Education** leading to registration as midwife tutors with the NMBI.
- Three midwives undertook an **MSc in Midwifery** in UCC and one midwife commenced a **MSc in Ultrasound** in UCD.
- Two neonatal nurses undertook a **MSc in Neonatal Nursing** in UCC.
- The postgraduate clinical coordinator in the CUMH Practice Development Team successfully completed a **Masters in Clinical Education**.
- One midwife completed her Doctorate in 2019 and one continues to undertake their **Doctorate studies** in 2019, with a view to completion in 2020.
- A senior physiotherapist completed a **Masters by Research (MRes)** in UCC. The research focused on a specialised physiotherapy technique to treat chronic pelvic pain and has received considerable international recognition. It was presented at ICS and the ICOGPM conferences in 2019.

Other

- **Breastfeeding** is a key focus in CUMH. In 2019, two CUMH lactation consultants facilitated two, 20-hour breastfeeding programmes, one for CUMH staff and one for UCC student public health nurses. In addition to this, many one-hour teaching sessions to new doctors, midwives and HSCPs were provided.

- Cathy O'Sullivan, Interim Director Centre of Midwifery Education and Rebecca O'Donovan, a former Assistant National Breastfeeding Co-ordinator in CUMH were part of a multidisciplinary team who came together to write the **My Pregnancy book** and contributed to the build of the www.mychild.ie website. This is part of the work of HSE Nuture and is now available to all mothers as a key resource received during pregnancy.

CUMH: Key challenges 2019

• Waiting list management

The gynaecology outpatient waiting list is an ongoing concern that is being addressed through the Gynaecology Waiting List Initiative. The short-term focus is to reduce the waiting list; the longer-term focus is to ensure the model of patient care is a sustainable one.

• Termination of Pregnancy Service

Commencing this service on 1 January 2019 presented many challenges and was a huge undertaking for CUMH. While it was a stressful time until the service settled, it was managed very well and all staff involved are to be commended on this.

• Recruitment and retention

Midwifery recruitment is an ongoing key challenge for Cork University Maternity Hospital, like for many maternity hospitals in Ireland. Consultant recruitment has been particularly difficult with a number of key posts remaining vacant. Differential salaries since 2012 for new entrant consultants contributes to the ongoing challenge. A workforce planning group is in place to address current recruitment and retention issues.

• Strike action by midwives and nurses

Three twenty-four-hour strikes, the first in twenty years, took place on 30 January and 5 and 7 February 2019. This was very challenging for CUMH at the time. A national resolution was finally reached to allow services to resume normally.

• MN-CMS training and reports

Optimising the training and expertise of new healthcare staff in the efficient use of the MN-CMS system is a particular challenge due to staff turnover. In addition, the MN-CMS electronic healthcare record also provides challenges in extracting data for accurate report generation and analysis. As a result, there is on-going need for quality control on the generation of clinical reports.

• Building project management

2019 has seen a number of internal construction and building projects for CUMH. This brings challenges in terms of construction within a working hospital while also allowing for much needed additional space and facilities.



South Tipperary General Hospital

Dr Vijoyashree Hiremath, Clinical Lead, Consultant Obstetrician and Gynaecologist
Sinéad Heaney, Director of Midwifery

South Tipperary General Hospital (STGH) opened in 2008. This hospital provides acute hospital services for the population of County Tipperary. In 2019, STGH delivered 885 babies and provided gynaecology and colposcopy clinics.

STGH maternity unit comprises:

- 2 bedded delivery suite and obstetric theatre
- 28 bedded maternity ward
- 10 bedded gynaecology ward
- 6 bedded Special Care Baby Unit (SCBU)
- 20 bedded combined antenatal and postnatal ward
- Outpatients department for antenatal, gynaecology, urodynamics, colposcopy and midwifery-led scanning
- New consultation area for early pregnancy assessment unit (EPAU), social work, bereavement and perinatal mental health.
- Maternity services outreach clinics in Tipperary town and Thurles providing supportive care as outlined in the 2016-2026 Maternity Strategy.

STGH has had full accreditation with the WHO/ UNICEF Baby Friendly Health Initiative since 2015, the first in Ireland South to achieve this award, which recognises practices that protect, promote and support breastfeeding. Clinical midwife specialist posts exist in bereavement and loss, diabetes and ultrasonography. Additional roles include lactation, clinical facilitation, perinatal mental health and social work.

Maternity services at STGH support the education of undergraduate medical students from University College Cork and University of Limerick, and undergraduate nursing and midwifery students from University College Cork.

Facilities allow students to participate in lectures with study space and video conferencing facilities to link with their colleagues at other sites.

STGH: Key achievements 2019

• Gynaecology

STGH continue to operate a smooth running service for gynaecology for both outpatients and inpatients in 2019. The consultants have worked considerably hard at ensuring that gynaecology waiting lists are negligible and kept at a manageable level.

• Midwifery-led scanning clinics

The introduction of two midwifery-led scanning clinics, a development from the already well established anomaly scanning clinic, are proving to be extremely beneficial due to the continuity of the scanning team: Susan Power, Clinical Midwife Specialist and Andrea Duffy ACMM2. The links with CUMH are very evident in this area and are proving extremely valuable from a multiprofessional stance, especially when referrals are required.

• Launch of new mental health initiative for mothers

In response to feedback on the 2018 mental health programme called Mums-to-Be Wellbeing, STGH maternity services launched a new initiative in 2019 called Mellow Bumps that aims to reduce maternal stress/anxiety, increase knowledge of child development and promote the bonding process between mother and unborn baby. Led by Emma Maloney, Senior Medical Social Worker, STGH now aim to offer the Mellow Bumps programme biannually.

• HIQA Inspection

An unannounced HIQA visit took place in March 2019 as part of the monitoring programme against the National Standards for Safer Better Maternity Services with a focus on obstetric emergencies. The report was a positive one for STGH maternity services and areas noted for development focused on structural deficits. These are being tackled through a future development programme.

- **Anomaly scans**

All pregnant women were able to avail of 20-week anomaly scans in STGH in 2019. Previously, this was not possible due to a lack of trained sonographers.

- **Midwife, consultant and HSCP recruitment**

A new midwifery post (CMM2) alongside a new social worker post for STGH maternity services was approved by Ireland South Women & Infants Directorate and SSWHG. Additional midwives and healthcare assistants were recruited in 2019 due to an ongoing recruitment initiative. In addition, the recruitment of a new obstetrics and gynaecology consultant post was approved in 2019 which will bring the total number of consultants in the unit to four, once filled.

- **Programme implementation**

Various programmes such as breastfeeding support, the flu vaccine and Quit Smoking campaigns were implemented in 2019.

- **Audits with successful outcomes**

- A perineal care audit was completed in September 2019, leading to the development of local guidelines for perineal care post vaginal delivery in STGH. This subsequently led to the significant reduction of perineal infections.
- An audit on the timescale for emergency Category 1 caesarean sections was undertaken. In all cases, caesarean sections were inside the 30 minute recommended timeframe.

- **Capital/equipment upgrades**

- The early pregnancy assessment unit (EPAU) was expanded after a long wait to include a designated area for consultations. This was badly needed to progress services in STGH and was developed thanks to monies provided by Ireland South Women & Infants Directorate. The consultation area can be utilised by several disciplines such as social work, bereavement and perinatal mental health.
- The introduction of the sepsis, PPH and PET Trolleys specially designated for obstetric emergencies, ensure that everything is to hand in an emergency situation. This initiative was highly commended on a 2019 visit by HIQA, alongside the many emergency procedures and policies in place.

Education, STGH

Undergraduate

- Approximately 30 UCC medical students received **clinical training** in STGH in 2019, with a rotation of four students every four weeks during the academic year.
- Ten BSc midwifery students from the University of Limerick and ten general nursing students from Waterford Institute of Technology successfully completed **clinical placements** in STGH in 2019.

Professional development

- Three midwives undertook a **MSc in Midwifery** and one midwife embarked on a **MSc Neonatal Care**.
- A multidisciplinary team travelled to the UK to complete the **PROMPT 3 – Train the Trainer Programme**, an evidence based, multiprofessional training package for obstetric emergencies.
- PROMPT (PRactical Obstetric Multi-Professional Training) is an evidence based multi-professional training package for obstetric emergencies. The first ever **PROMPT 3 training study day** took place at STGH on 1 February 2019. This benefits staff in responding to emergencies better and in improving outcomes for mothers and babies. Noreen Ryan Preston, Clinical Midwife Facilitator runs these courses with support from Mary O'Donnell, CMM3.
- Communication cards were developed to assist with the implementation of the communication tool **ISBAR** (identification, situation, background, assessment and recommendation) at key communication points, such as beside telephones. Use of ISBAR / SEPSIS cards on fobs also served as useful reminders on how to improve teamwork, communication and patient safety.

STGH: Key challenges 2019

- **Recruitment and retention**

Recruitment is an ongoing challenge with many midwifery posts vacant in 2019. This is being addressed by a workforce planning group and action plans including innovative collaborative measures between maternity units in the directorate.

- **Development of a new unit**

Securing funding for the development of a modular unit to modernise facilities and enhance choice for women in STGH remains a challenge.

- **Setting up community outreach clinics**

Development of additional community outreach clinics are needed to enable women to access care in the community as per the National Maternity Strategy.

- **MN-CMS rollout**

STGH urgently await the rollout of the MN-CMS project to introduce the electronic healthcare record, and await confirmation of a definite timeline from the national project office.

- **IT challenges**

Upgrades to network infrastructure as well as IT systems upgrades are needed to facilitate a more efficient working environment.



University Hospital Kerry

Dr Paul Hughes, Clinical Lead, Consultant Obstetrician and Gynaecologist
Sandra O'Connor, Director of Midwifery

University Hospital Kerry (UHK) opened in 1984. The hospital provides acute general hospital services to the population of County Kerry. In 2019, UHK delivered 1,193 babies and provided gynaecology and colposcopy clinics.

UHK maternity unit comprises:

- 4 bedded delivery suite
- 22 bedded postnatal
- 6 bedded gynaecology ward
- 8 bedded antenatal ward / 3 bed admission space/ 4 delivery rooms
- 10 cots special care baby unit
- Stand-alone outpatients department for antenatal, gynaecology, urodynamics, sexual health/sexually transmitted infections and midwifery-led scanning.

2019 brought the arrival of additional clinical nurse/midwives specialist positions covering diabetes, bereavement and loss, and ultrasonography. New midwives were also welcomed to the service.

UHK maternity services support the education of undergraduate nursing students from the Institute of Technology Tralee (ITT). Medical students from UCC also gain clinical experience as part of their placement and this lends to an interdisciplinary teaching environment.

Facilities at UHK allow students to participate in lectures with study space and video conferencing facilities to link with their colleagues at other sites.

UHK: Key achievements and appointments 2019

• **New director of midwifery**

Sandra O'Connor started as the new, long-awaited Director of Midwifery to UHK in June 2019. Sandra originally studied nursing in University Hospital Limerick and completed her midwifery training in the National Maternity Hospital in Dublin. She has over 20 years' experience in maternity services and completed her MSc in Midwifery in the University of Limerick in 2019. Her philosophy is that the woman's relationship with the midwife is central to the childbirth journey.

• **Gynaecology MN-CMS launched**

UHK maternity services went live with Gynaecology MN-CMS on 1 December 2019, making UHK the first digital maternity co-located site in the country. This was achieved thanks to multiprofessional teamwork, commitment and drive both locally and nationally. The system allows real-time clinical information to be shared and will enable safer and better quality service provision. This achievement further advances UHK maternity services towards becoming a truly digital hospital.

• **UHK's first Service of Remembrance**

The first Service of Remembrance in UHK took place on 17 October 2019 led out by Carrie Dillon, CMS Bereavement. This service is a very poignant occasion for all parents and families who have lost a baby and gives them the opportunity to share their experience with others who have also suffered the loss of a baby through miscarriage, ectopic pregnancy, fetal anomaly, stillbirth or neonatal death.

- **MN-CMS back office role appointed**

Omana Paul was appointed as CMM3/Maternal and Newborn Clinical Management System (MN-CMS) Local Back Office.

- **Additional ultrasonographer role appointed**

The welcome appointment of an additional ultrasonographer, Majella Mangan into UHK maternity services took place in 2019.

- **New consultant paediatricians**

The Paediatrics Department also welcomed four new consultant paediatricians into post in 2019:

- Dr Daniel Onyekwere, Clinical Lead, Consultant Paediatrician
- Dr Alok Kumar, Consultant Paediatrician
- Dr George Philip, Consultant Paediatrician
- Dr Malik Hussain, Consultant Paediatrician

- **Clinical nurse specialist in diabetes for maternity services**

CNS Marie Nolan became the lead for the integrated diabetic maternity service at UHK. A combined medical/antenatal service is available to all women with all types of diabetes and also those with thyroid disorders.

- **Midwife and HSCP recruitment**

New midwifery posts and a new social worker post were approved for UHK by Ireland South Women & Infants Directorate and SSWHG in 2019. Additional midwives were also recruited thanks to an on-going recruitment initiative.

- **Anomaly scans**

All pregnant women were able to avail of 20-week anomaly scans in UHK in 2019. Previously, this was not possible due to a lack of availability of trained sonographers.

- **Programme implementation**

Various programmes such as The National Health Communication Programme, breastfeeding support and flu vaccine programmes were implemented in 2019.

- **Audits completed**

- A maternal diabetes audit confirmed that the current method of diabetes management for pregnant women was satisfactory.
- A colposcopy NWHIP audit highlighted staffing requirements and that equipment and facilities upgrades were required.

- **Other**

- Following a HIQA recommendation, UHK appointed shift leaders in the antenatal and labour wards to ensure that there is adequate cover at all times.
- UHK successfully implemented the Obstetric Lift Initiative to reduce the transfer time to theatre for emergency caesarean sections.
- Theatre quality improvements also led to a reduction in could not attend rates.
- Other initiatives included the service directory, peer group clinical supervision, CPE screening and metrics. In addition NPEC/IMIS/MPSS and Robson score reporting continued.

Education, UHK

Undergraduate

- A total of 28 UCC medical students received **clinical training** in UHK in 2019, with a rotation of four students received over 7 rotations from September to April during the academic year.
- In 2019, 62 general and mental health undergraduate nursing students from the Institute of Technology Tralee (ITT) undertook **clinical placements** in UHK maternity services.

Professional development

- Two senior midwives undertook a **MSc in Midwifery** and two medical scientists undertook a **MSc in Biomedical Science**.
- A multidisciplinary team travelled to the UK to complete the **PROMPT 3 - Train the Trainer Programme**, an evidence based, multiprofessional training package for obstetric emergencies.



- In July 2019, UHK maternity services held the inaugural multidisciplinary team **PROMPT 3 skill drills**, attended by both midwifery and obstetric staff and facilitated by a CMM2/shift leader and a consultant obstetrician and gynaecologist.
 - A variety of obstetric **skills drills** activities were employed, aimed at improving teamwork in maternal and newborn emergency care in stressful and time-sensitive situations.
 - Adoption and implementation of the communication tool **ISBAR** (identification, situation, background, assessment and recommendation) to improve teamwork, communication and patient safety.
- Other**
- A **midwifery tutor** commenced in UHK in 2019 to support teaching and learning of midwifery students.
 - Delivery of **MN-CMS training** in the efficient use of the system for new staff, as well as for all staff associated with the rollout of the new gynaecology electronic chart.

UHK: Key challenges 2019

- **Recruitment and retention**
This ongoing challenge in 2019 was addressed by a workforce planning group that put an action plan in place to address current recruitment and retention issues.
- **Funding for new equipment**
Sourcing and securing funding is required for new equipment such as ultrasound machines and birthing pool facilities.

- **Neonatal Unit renovation and refurbishment**
The Neonatal Unit in UHK needs to undergo extensive renovation and refurbishment to maximise space and integrate the latest technology to improve emergency obstetric services.
- **Expansion of facilities**
Maternity facilities in UHK need to be expanded in order to cater for choice for women. Work is ongoing for the development of a new maternity unit that will also offer women's health multidisciplinary facilities.
- **Setting up community outreach clinics**
UHK maternity services need to develop additional community outreach clinics in locations throughout Kerry, such as Tralee, Dingle, Killarney, Listowel and Killorglin to enable women to access care in the community in line with the 2016-2026 Maternity Strategy.
- **Gynaecology waiting lists**
Gynaecology outpatient and inpatient waiting list management is an ongoing challenge, alongside increased demands for the gynaecology service.
- **MN-CMS training and rollout**
Staff turnover means that optimising the training and expertise of new healthcare staff in the efficient use of the MN-CMS system is a particular challenge. In addition, in 2019 the rollout of the gynaecology electronic chart was a challenge for some departments, as it was the first time they had experience of an electronic healthcare record.





University Hospital Waterford

Dr Eddie O'Donnell, Clinical Lead, Consultant Obstetrician and Gynaecologist

Paula Curtin, Director of Midwifery

University Hospital Waterford (UHW) has been delivering babies as a maternity unit since 1995 and delivered 1,728 babies in 2019. UHW maternity unit comprises:

- 4 bedded delivery suite with a 3 bedded 1 stage room
- Obstetric theatre on the delivery suite with a recovery room adjacent
- 24 bedded postnatal ward
- 32 bedded antenatal and gynaecology ward that houses the early pregnancy unit and a specifically nominated bereavement room
- 18 cots across the Neonatal Intensive Care Unit (NICU) and Special Care Baby Unit (SCBU)
- Stand-alone outpatients department for antenatal care and gynaecology (including urodynamics). Midwifery-led scanning department and Integrated Hospital and Community Midwifery Service (IHCMS) room. In addition, perinatal mental health services and bereavement and loss services have a room to see clients in outpatients
- The colposcopy service is in a separate, purposely equipped, outpatients room in UHW
- The Sexual Assault Treatment Unit (SATU) is in a discrete location in UHW but with full support and access to maternity and gynaecology services as required
- Maternity services outreach clinics in Dungarvan provide supportive care in a local setting as outlined in the 2016-2026 Maternity Strategy.

The Integrated Hospital and Community Midwifery Service (IHCMS) team offers a DOMINO and Homebirth model of care in line with 2016-2026 Maternity Strategy recommendations and has been offering choice for women for almost 20 years. Over 100 home births have been facilitated since the

inception of the service. The aim is to offer use of a home-from-home birthing room in UHW in 2020.

UHW has reaccreditation with the WHO/UNICEF Baby Friendly Health Initiative since 2017 reflecting breastfeeding best practices. Clinical midwife specialist posts exist in bereavement and loss and ultrasonography. The advanced midwife practitioner (AMP) role in UHW has been in place since 2011. This senior role brings many benefits to the service in terms of education, staff development and clinical supervision of midwifery-led services as well as to many women who receive a tailored pathway of care. In November 2019, a CMM2 perinatal mental health was appointed, providing care for women with mild to moderate mental health concerns.

Maternity services at UHW support the education of undergraduate midwifery students from the University of Limerick (UL) and undergraduate nursing students from Waterford Institute of Technology (WIT). UHW also supports elective placements of postgraduate midwifery students from University College Cork (UCC) and Dublin to the IHCMS to complete the midwifery and nursing education programme in Waterford.

Medical students from UCC and Royal College of Surgeons Ireland (RCSI) also gain clinical experience as part of their placement and this lends to an interdisciplinary teaching environment.

Facilities allow students to participate in lectures with study space and video conferencing facilities to link with their colleagues at other sites.

UHW: Key achievements 2019

• **New perinatal mental health service**

In November 2019, Mary Frisby was appointed as perinatal mental health midwife (PMHM CMM2) in UHW. Care and support is provided for women with mild to moderate mental health issues. The PMHM CMM2 works within a referral pathway for women who require rapid specialist interventions from other clinicians within the specialist team.

• **HIQA inspection**

An unannounced HIQA visit took place in July 2019 as part of the monitoring programme against the National Standards for Safer Better Maternity Services, with a focus on obstetric emergencies. This report was a positive one for UHW maternity services with any areas noted for development embraced through a quality improvement agenda.

• **NMBI audit**

The Nursing and Midwifery Board of Ireland (NMBI) undertook an audit of service in September 2019, to ensure that the clinical environment is of a standard suitable for midwifery undergraduate placements. UHW was successful in this audit for the continuing placement of students.

• **Termination of Pregnancy Services**

Medical termination of pregnancy services (MToP) in University Hospital Waterford (UHW) commenced on 1 January 2019 following a change in legislation.

• **Senior lecturer in clinical education in UHW**

Dr Eddie O'Donnell, Consultant Obstetrician and Gynaecologist, was successful in securing the Obstetrics and Gynaecology Senior Lecturer in Clinical Education post. The purpose of this post is to take a leadership role in the further development of UCC's medical education programmes in UHW.

• **New roles approved**

Ireland South Women & Infants Directorate and SSWHG approved a number of new roles for UHW maternity services in 2019. A new consultant obstetrician and gynaecologist post, a new midwifery post (CMM2) alongside a new social worker and senior pharmacist post were confirmed.

• **Investment in infrastructure**

UHW worked hard to get funding successfully granted for the refurbishment and upgrade of one of the labour wards and the development of a home-from-home delivery room for women with less complex pregnancies. Work on this will continue into 2020.

Education, UHW

Undergraduate

- A total of 28 UCC medical students received clinical training in UHW in 2019, with a rotation of four students received over 7 rotations from September to April during the academic year.
- UHW provided clinical placements to 24 BSc Nursing students from Waterford Institute of Technology (WIT) and 50 BSc Midwifery students from University of Limerick (UL) as well as one UCC BSc Midwifery student, who came on elective placement to the Integrated Hospital and Community Midwifery Service (IHCMS) team. In addition, there were three placements of paramedic students from UCD Graduate Diploma in Emergency Medical Science.

Professional development

- UHW continued with **PROMPT 3 obstetric emergency training** in 2019. This multidisciplinary training has received positive evaluation with 60 members of the multidisciplinary team completing the training in 2019.
- In November 2019, **Care of the Critically Ill Pregnant Patient (CIPP)** course was rolled out in UHW with attendees from theatre, critical care and maternity staff. This course was facilitated by the multidisciplinary team from UHW maternity services, as well as from the wider hospital.
- A very well attended **Perinatal Mental Health Programme** also took place for midwives and nurses in November 2019, with a wide range of speakers from across the country.
- Anne Fanning, a Midwife Scanner in the EPU commenced a **Masters in Ultrasound**, UCD as part of overall resource planning for the ultrasound department.
- Anne Reilly, Midwife Delivery Suite continued with level 9 studies for a **Graduate Diploma in Diabetes Care**, UCD.
- Laura Cullen, Gynaecology Nurse commenced a **MSc in Wound Management and Tissue Viability**, RSCI.
- Mary Frisby, CMM2 continued with a **Masters in Cognitive Behaviour Therapy and Motivational Interviewing for Practice**, WIT.

These education programmes are chosen in line with service need and staff interest and skills. Many thanks to NMPDU Kilcreene Kilkenny for their ongoing support of UHW maternity services.

Other

- A **postpartum haemorrhage (PPH) audit** was undertaken by Paula Curtin, Director of Midwifery; Janet Murphy, Advanced Midwife Practitioner and Dr Anne Rowan, Specialist Registrar on rotation. The results were presented at the NPEC annual conference hosted in the AVIVA stadium in January 2019. Results from the audit led to a change in management of the third stage of labour.

UHW: Key challenges 2019

• Recruitment and retention

Staffing recruitment and retention remained a major focus throughout 2019. Recruitment is an ongoing challenging and protracted procedure. Fulfilling the roles of clinical midwife specialist (CMS) in diabetes and lactation consultant are of high priority.

• Investment in infrastructure

Due to the ongoing need for investment in infrastructure, UHW worked hard to source funding for new equipment including ultrasound equipment upgrades and refurbishment works such as birthing pools. Facilities development is also a focus including the setting up of additional community outreach clinics.

- **MN-CMS rollout:** UHW urgently await the rollout of the MN-CMS project to implement an electronic health record (EHR) for all women and babies in maternity services and await confirmation of a definite timeline from the national project office.
- **Gynaecology waiting lists:** Outpatient waiting lists for gynaecology services remained at a concerning level in 2019, with demand far-outstretching capacity. The strategy to deal with this is multidimensional and ongoing.
- **Service delivery:** Delivering maternity and gynaecology services as normal despite extraordinary demands following a nursing and midwife strike and the introduction of the termination of pregnancy services was of particular note in 2019.





Celebrating success as Ireland South Women & Infants Directorate

By the end of 2019, Ireland South Women & Infants Directorate was well into its second year of operation. It is worth remembering that this really is an innovative development that wouldn't have happened without the South/South West Hospital Group management team and the support of senior HSE staff. It took vision, commitment and persistence at all levels, but particularly from clinical staff in the four maternity units in the group.

The quotes below bring to life the positive impacts the directorate has had on the ground in 2019.

“The SSWHG maternity services directorate has built a collaborative partnership across the four hospitals to provide the best possible care to all our mothers and newborns across the network. With our open door policy, we have put in place a culture and belief that every mother and newborn across our region deserves and receives equal access to specialist care when they need it, while aiming to provide their care as close to home once more when this is possible.”

Dr Brendan Murphy, Clinical Lead Neonatology, Ireland South Women & Infants Directorate

“The Ireland South Women & Infants Directorate is a platform for open communication between the four maternity hospitals where decisions are made collaboratively that enhance the care we provide to our mothers and babies in the region. The sharing of clinical expertise, offering support to colleagues and the daily communication between each hospital has been very beneficial for all.”

Miriam Lyons, Business Manager, CUMH

“For one who has been for most of a career of 40 years looking at the health service from a university perspective, it has been probably been the most hopeful experiment that I have seen. A great example of collaborative clinical leadership in action - it makes a real difference!”

Michael Hanna, Academic Advisor to the Ireland South Women & Infants Directorate

“The SSWHG Ireland South Women & Infants Directorate has recognised the value and importance of Health and Social Care Professionals in providing a holistic service to women and infants. Our involvement at directorate level has given us a voice and created a peer network within the four maternity units for the first time.”

Maria Leahy, HSCP representative for Ireland South Women & Infants Directorate and Acting Manager of Social Work Services, CUH/CUMH

“The SSWHG Ireland South Women & Infants Directorate has set the framework to achieving the first functional women and newborn clinical network in Ireland – allowing the standardisation of clinical practice, data management and information governance, encouraging peer engagement and support and sharing resources towards equity of care. This has been achieved not only through strategy documents but in real terms with the no refusal policy for transfer of care, the outreach of specialists from the tertiary unit and the sharing of clinical discipline posts (pharmacy, dietetics, social work, etc.) to the smaller units to achieve equality of care for all women and infants in the SSWHG.”

Richard Greene, Professor of Clinical Obstetrics UCC and Director, National Perinatal Epidemiology Centre

“Nurses and midwives working in the Ireland South Women & Infants Directorate can be assured that they are represented at the Executive Management Committee by the directors of midwifery in each hospital and that our collective experience and knowledge has been a driving force for the benefit of the maternity services across the four hospitals. In practical terms, the daily hub teleconference calls provide excellent communication links between the four hospitals and the Ireland South Directorate have been supportive of innovative measures to recruit and retain staff across all disciplines.”

Olive Long, Director of Midwifery, CUMH

“The Ireland South Women & Infants Directorate has streamlined networks in the South/South West Hospital Group, with maternity patient referrals and transfers occurring regularly without issue. The consultant forums and executive meetings, which are not centralised, make us feel valued in the network. The undergraduate and postgraduate training links are a valuable part of the multidisciplinary working environment in the group and we look forward to even deeper connections in the future.”

Dr Vijoyashree Hiremath, Clinical Lead STGH, Consultant Obstetrician and Gynaecologist

Pictured left, in UHW: Maria Leahy, HSCP representative for Ireland South Women & Infants Directorate; Paula Curtin, Director of Midwifery, UHW; Olive Long, Director of Midwifery, CUMH; Professor John R. Higgins, Clinical Director Ireland South Women & Infants Directorate; Dr Eddie O'Donnell, Clinical Lead UHW; Miriam Lyons, Business Manager CUMH; Sinéad Heaney, Director of Midwifery, STGH

“The SSWHG maternity services directorate provides a platform for standardising midwifery practices, enhancing peer engagement and collegial support which are critical to the ongoing advancement of the professions of midwifery and nursing”.

Bridie O'Sullivan, Chief Director of Nursing/ Midwifery, South/South West Hospital Group, and Adjunct Clinical Professor, University College Cork

“The Ireland South Women & Infants Directorate has been a positive force for UHW from a clinical, learning and collegial standpoint. While we've only three consultant obstetricians and gynaecologists in UHW, we feel part of a much bigger network reinforced by weekly Ireland South Women & Infants Directorate Grand Rounds, a valuable teaching and learning forum, and directorate wide social gatherings such as consultant away days involving the wider group. From a clinical standpoint, we feel the benefits of the directorate every day through the 'no refusal' policy for sick babies between CUMH and smaller units like Waterford.”

Dr Eddie O'Donnell, Clinical Lead UHW, Consultant Obstetrician and Gynaecologist

“The Ireland South Women & Infants Directorate has strengthened ties between the four maternity units in the group. It has allowed for sharing of ideas and promotes a culture of learning and development for all staff. The directorate has facilitated peer support that is vital to the role of Director of Midwifery.”

Paula Curtin, Director of Midwifery, UHW



“It’s a pleasure to work together to provide an enhanced, inclusive and progressive approach to maternity care in the SSWHG region. The buy in from a clinical, educational and cross professional aspect has been evident across the region. No more obvious than the implementation of the non-refusal of patients policy, which has been invaluable to South Tipperary General Hospital, alongside the cross educational support within the SSWHG’.

Sinéad Heaney, Director of Midwifery, STGH



Pictured above, in STGH: Miriam Lyons, Business Manager CUMH; Bernie Quinlan, Maternity Unit Secretary, STGH; Kay Ahearne, Midwife, STGH; Sinéad Heaney, Director of Midwifery, STGH; Marie Walsh, CMM1, STGH; Mary O'Donnell, CMM3, STGH; Professor Paul O'Regan, Consultant Physician, STGH; Mary Slater, Midwife, STGH; Professor John R. Higgins, Clinical Director Ireland South Women & Infants Directorate; Olive Long, Director of Midwifery, CUMH

‘The establishment of the SSWHG Ireland South Women & Infants Directorate has greatly enhanced our maternity services in University Hospital Kerry by changing it from a small isolated stand-alone unit to being a member of a much larger group where we look to play our part in the provision of maternity and gynaecology services across the region. The weekly teaching videoconferences enhance our regular local training meetings. The daily hubs and fortnightly EMC meetings allow the group to maintain close oversight of workload and outcomes. The ‘no refusal’ policy for sick babies has been a tremendous advance. Going forward, full integration when the Group Chief Clinical Director takes over responsibility for all four units should ensure further standardisation of practice and even better outcomes for our mothers and babies’.

Dr Paul Hughes, Clinical Lead UHK, Consultant Obstetrician and Gynaecologist and Sandra O'Connor, Director of Midwifery, UHK



Pictured above, in UHK: Donna Burtchaell, Communications Project Manager; Dr Paul Hughes, Clinical Lead UHK; Kerry McAuliffe, Director of Nursing UHK; Sandra O'Connor, Director of Midwifery UHK

“Our Ireland South Women & Infants Directorate leads the way in the development of a clinically led network of maternity hospitals and units, collaborating and supporting one another and completely dedicated to the women and babies we serve. Our most proud achievement is our no refusals policy, the first of its kind in the country, ensuring the safe movement of babies and patients in need of critical care. We remain committed to the highest standards of care, through our focus on integrating the three pillars of clinical service, education/training and research/innovation, using an academic healthcare model.”

Professor John R. Higgins, Clinical Director Ireland South Women & Infants Directorate



Pictured above: Professor John R. Higgins, Ireland South Women & Infants Directorate Clinical Director asks Paul Reid, CEO HSE to sign the visitor’s book. With Gerry O’Dwyer, Group CEO SSWHG

2019 Highlights

- New brand identity: Ireland South Women & Infants Directorate
- 2019 brought 16 new significant posts for the directorate
- Welcoming Sandra O'Connor, UHK's new Director of Midwifery
- SSWHG Midwifery Forum
- CUMH becomes Ireland's first digital hospital with launch of the gynaecology electronic chart
- National Health and Social Care Professionals (HSCPs) Day
- Strike action by nurses and midwives
- Opening of new gynaecology day ward at CUMH
- Major gynaecology initiative in CUMH dramatically reduces waiting list
- Ongoing growth of Cois Tí outreach clinics
- Mellow Bumps in STGH address emotional wellbeing of mums-to-be
- CUMH Ideas Forum 2019: Giving birth to change
- International Day of the Midwife: 5 May 2019
- UHK's first Service of Remembrance
- Specialist perinatal mental health service
- Celebrating five years of DOMINO care in CUMH
- Staff nurse in UHW NICU is winner of the Maternity Storytelling Prize 2019

EDUCATION

- Anu Undergraduate Gold and Scholar Medals in Obstetrics and Gynaecology
- Congratulations to UCC MSc graduates
- Dr Eddie O'Donnell becomes senior lecturer in Clinical Education in UHW
- NPEC Study Day 2019
- #RoarCork: Workshop for midwives in Ireland South
- New antenatal education programme in University Hospital Kerry
- MaternityONESouth: Delivering better, safer care across the directorate
- CUMH staff play a key role in development of HSE My Pregnancy book
- STGH's first PROMPT training course
- Urogynaecology training at CUMH
- New clinical midwife specialists at CUMH
- New programme for BSc Midwifery
- New format for Ireland South Women & Infants Directorate Grand Rounds 2019

RESEARCH

- The Anu Research Medal 2019
- Directorate-wide safety attitudes questionnaire results
- World-class trial of specialised physiotherapy technique to treat chronic pelvic pain
- New website to support families grieving the loss of a baby
- INFANT research identifies biomarkers to detect brain injury in newborns



New brand identity: Ireland South Women & Infants Directorate

Towards the end of 2019, we revealed our new logo and brand for Ireland South Women & Infants Directorate. Our new brand reflects how we are a close network of four maternity hospitals and units – Cork University Maternity Hospital, University Hospital Kerry, South Tipperary General Hospital and University Hospital Waterford. The interlinking circles in the Ireland icon not only reflect the geographic location of the four units, but also how we collaborate and support one another to improve outcomes for the women and infants in our directorate.

The importance of our primary academic health partner University College Cork, is shown by the UCC logo being an inextricable part of the new brand. This is to illustrate our commitment to the academic health centre model, with UCC providing a framework for education, training, research and innovation across our directorate.

The HSE logo remains in the footer, to reflect we are proud to be part of the totality of the Irish healthcare system.

2019 brought 16 new significant posts for the directorate

HSE National Director Acute Operations, Liam Woods signed off 16 new posts across Ireland South Women & Infants Directorate in October 2019. These posts came about as a result of funding being allocated to provide additional resources for The Termination of Pregnancy Service (TOP). See table below for full list.

CUMH	Consultant Obstetrician / Gynaecologist	1.00	UHK	Clinical Midwife Manager 2	1.00
CUMH	Consultant Obstetrician / Gynaecologist	1.00	UHK	Social Worker	1.00
CUMH	Specialist Registrar	1.00	UHW	Consultant Obstetrician / Gynaecologist	1.00
CUMH	Social Worker	1.00	UHW	Clinical Midwife Manager 2	1.00
CUMH	Clinical Midwife Manager 2	1.00	UHW	Senior Pharmacist	1.00
CUMH	Health Care Assistant	1.00	UHW	Social Worker	1.00
CUMH	Clinical Midwife Specialist	0.60	STGH	Clinical Midwife Manager 2	1.00
CUMH	Staff Midwife	0.16	STGH	Social Worker	1.00

List of posts approved in 2019 for TOP service across the directorate

Welcoming Sandra O'Connor, UHK's new Director of Midwifery



In June 2019 Sandra O'Connor was welcomed as the new, long-awaited Director of Midwifery to UHK. Sandra entered the nursing profession in University Hospital Limerick and went on to train in midwifery in the National Maternity Hospital, Dublin. She has over 20 years' experience in maternity services and her philosophy is that the woman's relationship with the midwife is central to the childbirth journey.

Sandra completed a MSc in Midwifery in the University of Limerick in 2019; her thesis was titled "An evaluation of three clinical leadership programmes (RCN, LEO and NLI) from the perspective of nurse leaders: A systematic review"

In her role as Director of Midwifery, Sandra aims to provide strong leadership and a voice for midwives and nurses in maternity services and to establish a centre of excellence in partnership with the multidisciplinary team, for the women, infants and families within the catchment area of University Hospital Kerry. Aligning services to the National Maternity Strategy will be a priority - to develop and implement the three different pathways of care - supported care, assisted care and specialised care.

SSWHG Midwifery Forum

The Midwifery Forum exists to facilitate and improve evidence based midwifery care in the four maternity hospitals in the South/South West Hospital Group (SSWHG) which form Ireland South Women & Infants Directorate. The group promotes collaborative working practices and includes the director of midwifery from each maternity unit, representatives from UCC and the Centre of Midwifery Education and the chair is the Chief Director of Nursing and Midwifery SSWHG supported by a business manager.

Since the establishment of the forum in February 2015, notable progress has been made allowing individual units achieve outcomes not possible working alone.

In 2019, implementation of the National Standards for Safer Better Healthcare and the National Maternity Strategy (Creating a Better Future Together) was a priority and work is progressing well on both. The

forum also collaborated on on the SSWHG Nursing and Midwifery Strategy which will be launched in 2020. The forum allows for dialogue on managing service challenges including the challenges with recruitment and sustaining a skilled and contented workforce.

Collegial support and teamwork is greatly valued by forum members and enables a common understanding of shared goals.



CUMH becomes Ireland's first digital hospital with launch of the gynaecology electronic chart

Cork University Maternity Hospital (CUMH) was the first site in Ireland to extend the use of the Maternal and Newborn Clinical Management System (MN-CMS) to include gynaecology care. The launch of the gynaecology electronic chart on 28 July 2019 led to CUMH becoming Ireland's first fully digital hospital.

This clinical management system has enhanced care as it allows electronically recorded clinical information to be shared quickly and digitally with relevant providers of care. It also means better, safer healthcare as it supports improvements in care processes, monitors quality and safety of care delivery and reduces the possibility of errors.

Since July 2019, all women interacting with CUMH for gynaecology services will have a complete, integrated electronic health record, benefitting over 18,000 patients who attend each year. In December 2019, UHK became the first co-located digital maternity unit, successfully integrating the gynaecology electronic health record with the existing MN-CMS system. The hard work and collaborative spirit of MN-CMS implementation team is greatly appreciated.



National Health and Social Care Professionals (HSCPs) Day

On 1 February 2019, National HSCP Day was celebrated. Maternity staff in CUMH, UHK and STGH marked this day with events and displays to raise the profile of the value add that HSCPs contribute to our service users.

Strike action by nurses and midwives

More than 35,000 nurses and midwives across Ireland undertook industrial action in three 24-hour strikes in January and February 2019. This has been the first series of 24-hour nurses and midwives strikes in 20 years. Hundreds of nurses and midwives in the four maternity units picketed in a variety of

weather conditions from freezing to wet and rainy as they took industrial action over low pay and staff shortages. Plans for an additional three-day strike on 12 February were suspended after the Labour Court intervened in the dispute leading to the INMO considering the Labour Court's recommendations.



Opening of new gynaecology day ward at CUMH

The next step following the reduction of the outpatient gynaecology waiting list in CUMH, is to bring patients in for procedures. One way to tackle this growing inpatient waiting list is through the new gynaecology day ward, opened on Saturday 19 October 2019. The new ward welcomed its

first ten patients who all had minor gynaecology procedures completed on the day. Saturday sessions took place over the remainder of the year. A huge thanks to all involved in planning for and working on the extra Saturdays to make this a success in the drive to reduce waiting lists in CUMH.

Major gynaecology initiative in CUMH dramatically reduces waiting list

Cork University Maternity Hospital (CUMH) implemented a major initiative in January 2019, with the aim of reducing numbers waiting for gynaecology outpatient services by 500 in five days.

The CUMH gynaecology waiting list was one of the key risks noted at the establishment of the Ireland South Women & Infants Directorate in 2017. The Gynaecology 500 Week (#Gynaecology500) was part of the Gynaecology Waiting List Initiative, a two-year programme of work to tackle the CUMH gynaecology outpatient waiting list.

In April 2017, the CUMH outpatient waiting list stood at an extraordinary 4,700. In December 2018, the list had been reduced to 2,700. Following the Gynaecology 500 Week, by February the list was down to 2,200 and by April 2019 numbers were reduced by a further 600. Efforts continued throughout the year to reduce the list to close to 1,000 by the end of 2019.

The recommendations to ensure a sustainable model of service delivery and ensure risks associated with a suboptimal gynaecology service are minimised were presented in a three-year business plan to Minister Harris in early 2017. These included recommendations for the development of a gynaecology one-stop shop

(to house standard gynaecology clinic rooms as well as multifunctional rooms); recruitment of additional consultant, midwifery and support staff; and to ensure that funding allocated to the maternity services across the SSWHG remains within the maternity service. To date, just €1.1m of the promised €14m in funding over a three-year period has materialised.

As part of the Gynaecology 500 Week, all Cork City and County Oireachtas members were invited to a briefing at CUMH. Members of the South/Southwest Hospital Group leadership team also attended the briefing. The key message was that to maintain this momentum and to deal with the resulting inpatient waiting list and surgeries that will arise, CUMH will need to extend their staff and open a second gynaecology theatre.

The Gynaecology Waiting List Initiative

REDUCING THE NUMBER WAITING FOR FIRST OUTPATIENT APPOINTMENT

APR 2017	4,700
DEC 2018	2,700
APR 2019	1,600
DEC 2019	1,050



Ongoing growth of Cois Tí outreach clinics

Cork University Maternity Hospital Cois Tí services give choice and convenience to low risk women attending for pregnancy care, in keeping with the supported care model of the National Maternity Strategy 2016.

In April 2019, the Cois Tí clinic in St. Finbarr's Hospital Outpatient Department was moved to the newly built Primary Care Centre (PCC) in St Mary's Health campus in Gurrabraher. The move allowed for expansion of services along with providing spacious consulting rooms, bright comfortable spaces for women and plenty of free parking. Services were expanded further in December when Cois Tí Clinics commenced in the Primary Care Centre in Carrigtwohill. These expansions have ensured that supported care is now available in the community in six locations in Cork county.



Appointments facilitated in Cois Tí Clinics 2019

- **Carrigaline PCC:** 1,314 antenatal visits and 144 couples provided with parent craft classes
- **St Mary's PCC:** 818 antenatal visits (April–December)
- **Mallow PCC:** 834 antenatal visits
- **Mitchelstown PCC:** 636 antenatal visits and 283 Gynae appointments
- **Bantry General:** 350 antenatal visits
- **Carrigtwohill PCC:** Opened December 2019 with capacity to see 20 women weekly

Mellow Bumps in STGH address emotional wellbeing of mums-to-be

Following the evaluation of a health programme introduced to STGH in 2018 called Mums-to-Be Wellbeing, a revised programme was offered in 2019, focusing on mothers building a relationship with their baby.

Under the guidance of Emma Maloney, Senior Medical Social Worker in STGH, Mellow Bumps was introduced in May 2019, a programme originally developed by Mellow Parenting, Scotland. This six-session programme aims to reduce maternal stress/anxiety, increase knowledge of child development and promote the bonding process between mother and unborn baby.

Feedback was positive with 80% of mums-to-be reporting improved scores for overall wellbeing. STGH now aim to offer the Mellow Bumps programme biannually.





CUMH Ideas Forum 2019: Giving birth to change

Great ideas sourced through the CUMH Ideas Forum in January 2018 came to life in 2019. Two in particular are offering tangible improvements for the majority of staff to enjoy, namely the transformation of a birthing suite room and the transformation of a multidisciplinary staff lounge.

The idea to transform the birthing suite rooms has led to the conversion of a pilot birthing room into a less clinical, more flexible, positive space to improve the patients' experience by helping them feel more secure and relaxed during labour and childbirth. This is a 'soft focus' room with a dual purpose of facilitating birth for low risk pregnancies as well as being the room suitable for pregnancy loss.

Another key idea focused on staff wellbeing and identified the need for a comfortable, relaxing, serviced space that would allow all members of staff to take a break and come together during their working hours. Warm colours, comfortable furniture and a functional kitchen space were decided upon. The room is both serviced and well supplied so that when staff arrive on their break, they have easy access to coffee/tea/milk to maximise their rest time. New coffee machines were installed and daily deliveries of milk and newspapers are now a feature for all staff to enjoy.

These two projects are a small selection from the full list of ideas developed through the CUMH Ideas Forum, and illustrate what can be achieved when multidisciplinary groups come together with a drive to enhance the patient and staff experience.



BEFORE

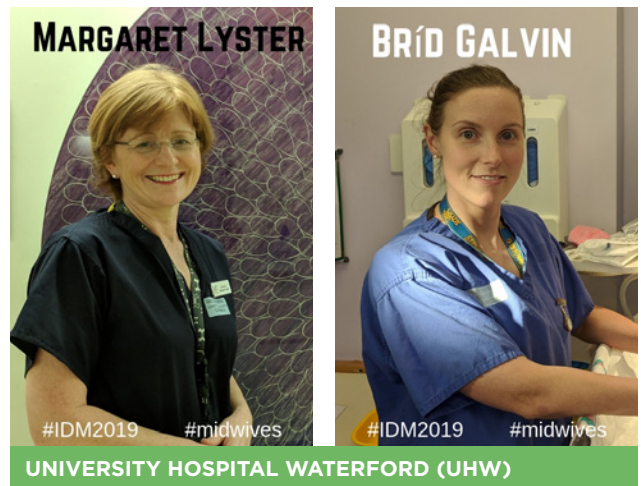


AFTER

International Day of the Midwife: 5 May 2019

Midwives from all over the world have celebrated International Day of the Midwife on 5 May since 1991. This year the Ireland South Women & Infants Directorate ran a social media campaign featuring midwives from each of the four units: Cork University Hospital (CUMH), South Tipperary General Hospital

(STGH), University Hospital Kerry (UHK) and University Hospital Waterford (UHW). The aim was to raise the profile of the midwifery profession and to feature real midwives talking about the profession in a positive light. All posts received positive and popular engagement.



UHK's first Service of Remembrance

UHK's first Service of Remembrance took place on Thursday, 17 October 2019. The service was a very special occasion for parents and families who have lost babies and gave them the opportunity to share their experience with others who have also suffered loss through miscarriage, ectopic pregnancy, fetal anomaly, stillbirth or neonatal death.

The service was time for reflection and a public acknowledgement of babies who have died before, during or after birth. The gentle ceremony of music, readings, prayer, parents' blessing, lighting of a candle and inscribing a message on the memory tree, all contributed to a service that was touching, poignant and exceptional.

The attendance was overwhelming, which underlines

how much parents need to grieve the loss of their baby. Losing a baby at any stage is traumatic and maternity units caring for the needs of mothers and families need to continue to support them by providing opportunities such as a remembrance service to acknowledge their grief.





Specialist perinatal mental health services

The National Maternity Strategy has led to a renewed focus on specialist perinatal mental health services within Ireland South Women & Infants Directorate to ensure women receive a high quality service that addresses their holistic needs and that of their family at such an important time in their lives.

Specialist perinatal mental health services (SPMHS) were set up following the appointment of Dr Deirdre Muller Neff, Consultant Perinatal Psychiatrist in December 2018. As the Clinical Lead, Dr Muller Neff aims to develop the service in line with the national model of care for specialist perinatal mental health services, which defines a hub and spoke model for service delivery. Cork University Maternity Hospital (CUMH) is the hub for Ireland South Women & Infants Directorate. The hub team will consist of a full multidisciplinary team including psychology, nursing/midwifery, social work, occupational therapy and is consultant led.

By the end of 2019, the SPMHS team consisted of Anne O'Flynn, Clinical Nurse Specialist, Breda Bird Perinatal Mental Health Midwife and Dr Deirdre Muller Neff, Consultant Perinatal Psychiatrist.

The team has been providing inpatient obstetric liaison and developing outpatient clinics for women both antenatally and postnatally. The aim is to work closely with community mental health teams in providing second opinions and importantly, pre-conceptual counselling services for women with more moderate to severe illnesses. Milder forms of illness are to be appropriately managed by the mental health midwives and women are to have access to a timely and seamless service whereby clearly defined referral pathways ensure that they are seen by the most appropriate person based on identified need. Training and education is an ongoing priority and perinatal mental health midwives (PMHM) are being recruited across Ireland South Women & Infants Directorate. By the end of 2019, the PMHM role exists in UHW, STGH and CUMH. The role has yet to be filled in UHK.

The development of specialist perinatal mental health services in Ireland South is a great opportunity to promote parity between physical and mental health issues in pregnancy and will give women a better opportunity to seek help and discuss mental health issues in the maternity context.



Celebrating five years of DOMINO care in CUMH

The DOMINO (Domicillary Care Inside and Outside of hospital) scheme celebrated their fifth birthday in CUMH in January 2019. The DOMINO team support the philosophy that pregnancy and birth is a normal, albeit life changing event. The DOMINO model of care facilitates low risk women within a 15km radius of the hospital to be cared for throughout their pregnancy, labour and post-natal period by a team of midwives, ensuring continuity of care and choice for each woman.

The team of midwives aims to empower and educate women to give them the knowledge, skills and confidence to birth without medical intervention in a calm quiet environment with the support of a midwife who is known to them.

The average postnatal stay for most women in CUMH is 2-3 days; women giving birth within the DOMINO scheme can be discharged home after 6-12 hours. Such an early discharge contributes significant savings to CUMH while also allowing the new mother the opportunity to smoothly and quickly integrate her newborn baby into her family life.

The team of midwives visit mother and baby for five days, supporting her and her family with their first steps on their journey of parenthood. 95% of women continue to breastfeed at home, most likely due to the increased support the mother gets from the team.

Women who have availed of the service to date have been very satisfied, citing the relaxed informality of antenatal visits, calm birthing environment and supportive home visits by a known midwife, as the key advantages of this model of maternity care.

Key stats for 2019:

- In the past year, the DOMINO team provided care for 277 women who gave birth within the service
- Of this cohort 73% went on to have a normal birth
- The Caesarean section rate amongst these women was 10%
- 619 postnatal visits to mothers and babies were provided

To date, the DOMINO scheme has cared for 1,202 women.



Staff nurse in UHW NICU is winner of the Maternity Storytelling Prize 2019

There's nothing quite like a genuine story. Many powerful and emotional stories of real patients were heard at the inaugural story telling competition held as part of the Nursing and Midwifery Awards 2019 in Dublin on 11 May 2019. This competition was for International Day of Nurse/Midwife held also in May 2019.

Colette Cunningham, a staff nurse in the Neonatal Intensive Care Unit in University Hospital Waterford won the maternity prize for her insightful and moving story, told from the perspective of a newborn baby.

Anu Undergraduate Gold and Scholar Medals in Obstetrics and Gynaecology

Final medical year students who have shown exceptional merit are celebrated at the Department of Obstetrics and Gynaecology in University College Cork (UCC). Aoife Mabelson was awarded the Anu Undergraduate Gold Medal in Obstetrics and Gynaecology in 2019, on receiving top marks in the oral examination. Wanyi Kee won the Anu Undergraduate Scholar Medal in Obstetrics and Gynaecology on receiving top marks in the written examination. 2019 is the second year that such medals have been awarded.



Congratulations to UCC MSc graduates

In February 2019, three midwives from CUMH graduated with an MSc in Midwifery. They are Úna Cahill, Sheila Coughlan, Naomi O'Donovan. In addition, Maggie Dowling, STGH also completed her MSc in Midwifery. The midwives presented their work at the Ireland South Women & Infants Directorate Grand Rounds.

Three doctors graduated with an MSc in Obstetrics and Gynaecology: Dr Zainab Ashraf, National Maternity Hospital and Dr Michelle McCarthy and Dr Sabina Tabirca, both CUMH. Congratulations to all.



Dr Eddie O'Donnell becomes Senior Lecturer in Clinical Education in UHW

Dr Eddie O'Donnell, Consultant Obstetrician and Gynaecologist, UHW was successful in securing the Obstetrics and Gynaecology Senior Lecturer in Clinical Education post.

The purpose of this post is to take a leadership role in the further development of UCC's medical education programmes in UHW. Dr O'Donnell's experience and contribution to teaching, assessment, mentoring, research and scholarship, research supervision and his leadership were key factors in his appointment.

NPEC Study Day 2019

The National Perinatal Epidemiology Centre (NPEC) hosted its annual study day on 18 January in the Aviva Stadium in Dublin. 2019 was a significant year for the NPEC as it celebrated its tenth birthday. The theme of the day was *National Audit: Improved Care Marking 10 years of NPEC & Clinical Audit in the Maternity Services*.

In his opening address, Professor Greene noted that the focus of the day was to highlight the work that the maternity services have contributed to in the last 10 years. He acknowledged the effort and time

spent participating in the NPEC audits. The morning session consisted of presentations that updated delegates with information from all the NPEC audits. Individual hospitals provided updates on how the audits have impacted on their units. The NPEC were delighted to welcome Professor Jennifer Zeitlin, Perinatal Epidemiologist, Euro-Peristat Project as the keynote speaker who presented information on *Using European comparisons to improve maternity care*. NPEC thanked the speakers for their thought provoking sessions and the delegates for joining and engaging with the sessions.



#RoarCork: Workshop for midwives in Ireland South

Making maternity care the best it can be and constructive ways to address some of the issues causing distress in maternity care was the spirit of the SSWHG workshop for midwives held in UCC Brookfield Science building on 24 May 2019.

Presentations by Soo Downe OBE, Professor in Midwifery Studies and Sheena Byrom, OBE, Consultant Midwife called for humanisation of

maternity care and how kindness, compassion and respect really matter. Their key messages from the day are echoed in their book collaboration 'The Roar Behind the Silence,' which has taken them to places as far as India, Australia and New Zealand as well as Europe. Their content included constructive criticism of maternity care, a reflection on where we are today and the need to listen to women and what they really value and need.



New antenatal education programme in University Hospital Kerry

The National Maternity Strategy 2016-2026 identified the need for a comprehensive antenatal education programme to help women to prepare for childbirth and parenthood.

In the latter half of 2018, work began in UHK to develop a comprehensive, antenatal education programme that is woman centred, evidence based, up-to-date and accessible. Nuala O'Donoghue, CMM1; Laura Sweeney, CMM2 Shift Leader; Joann Malik, Midwife; Zodwa Lenihan, Midwife and Mary O'Sullivan, Midwife Fetal Assessment Unit came together and developed a programme which is now current, practical and interactive and also in keeping with the ethos of the maternity strategy.

The programme now offers a half day class on a Saturday morning for first time mothers and partners. An early pregnancy class and refresher classes are also available. Topics covered include health for pregnancy, signs and symptoms of

labour, when to contact the labour ward and what to bring to hospital. The classes are interactive with group participation and a tour of the labour ward. Breastfeeding classes are offered separately and are facilitated by Mairéad O'Sullivan, Lactation Consultant and are proving very popular. Feedback has been very positive and the team continue to review and develop the programme.



MaternityONESouth: Delivering better, safer care across the directorate

Delivery of safe and effective maternity care within a maternity network is a key aim of Ireland South Women & Infants Directorate. It is also one of the key lines of enquiry of HIQA's approach to monitoring against the National Standards for Safer Better Maternity Services, which has placed a particular focus on obstetric emergencies.

Following a number of recent HIQA inspections to our maternity units, it became clear that we needed a shared project across our maternity network to focus on the response to obstetric and neonatal emergencies. As a result, the MaternityONESouth project was born, with ONE standing for Obstetric and Neonatal Emergencies.

This project is driving collaboration across the

four maternity units in Cork, Kerry, Waterford and Tipperary. Key goals are the standardisation of policies to avoid duplication of effort and the centralisation of training. Readiness for HIQA inspections and the motivation to improve care for mothers and babies in the cases of obstetric emergencies are key drivers. This is a long term project with a 3-4 year timeframe.

The project committee is now well established and consists of: Chair, Dr Matt Hewitt; Co-Chair, Katie Bourke; Project Manager, Dervla Hogan and Communications, Donna Burtchaell. The committee has a wide multidisciplinary representation from each site including midwifery, consultant obstetricians and consultant neonatologists, UCC, CME, practice development, quality & patient safety, NRP, NPEC and IT.

Over the course of 2019, a number of project meetings have taken place in CUMH, UHK, STGH and UHW. By hosting meetings at each site and by theming meetings with a specialist focus, relationships are developed alongside the sense of being part of a maternity network.



CUMH staff play a key role in development of HSE My Pregnancy book

Great new resources for parents in book and online format became available in 2019, containing advice on pregnancy and the first five years of a child's life. Extensive research with parents and parents-to-be across Ireland influenced the creation of the website called **mychild.ie**. The website was launched by the Minister for Health on 6 December 2018, alongside new 'My Pregnancy' and 'My Child: 0 to 2 years' and 'My Child: 2 to 5 years' books that are available to download from **www.mychild.ie/books**.

Cathy O'Sullivan, Interim Director at the Centre of Midwifery Education and Rebecca O'Donovan, former Assistant National Breastfeeding Co-ordinator in CUMH played a key role in the development of the My Pregnancy book along with a national, multidisciplinary team. The book is funded by HSE Nurture, is published by the HSE and became available in all 19 maternity hospitals in Spring 2019 for pregnant women to receive at their antenatal booking visit.



STGH's first PROMPT training course

PROMPT (PRactical Obstetric Multi-Professional Training) is an evidence based multiprofessional training package for obstetric emergencies. The first ever PROMPT3 training study day took place at South Tipperary General Hospital on 1 February 2019. This benefits staff in responding to emergencies better and in improving outcomes for mothers and babies.

Three groups of between eight and ten multidisciplinary staff from obstetrics, midwifery, and anaesthetics got together, undergoing interactive drills and workshops to provide 'hands-on' experience of practical skills and teamworking. It was a fantastic day of learning and collaborative working with patient actors used to make the scenarios as engaging and realistic as possible.



Urogynaecology training at CUMH

The Urogynaecology Department in CUMH is one of a few centres in Europe and the only one in Ireland to be accredited by the European Board of Obstetrics and Gynaecology for subspecialty training in urogynaecology. The department was granted reaccreditation for five more years in 2019. Under the supervision of world-class urogynaecologists Professor Barry O'Reilly, Dr Suzanne O'Sullivan,

and Ms Orfhlaith O'Sullivan, the program combines clinical, teaching and research elements of urogynecology in addition to highly specialised training in pelvic floor and robotic surgery. In 2019, Dr Fadi Salameh completed his sub specialty training in urogynaecology and Dr Florin Constantin from Switzerland commenced the subspecialty training programme.



New clinical midwife specialists at CUMH

Five midwives were approved as clinical midwife specialists (CMS) at CUMH in 2019. Louise O'Regan, Shauna Dowling and Ann Philips were appointed as CMS in Ultrasonography and Norma Wing and Jacqueline Manning were appointed as CMS in Diabetes in Pregnancy.

The route to these appointments requires hard work, dedication and patience on behalf of the applicant. An applicant for a CM/NS role requires a minimum Level 8 qualification (on the NFQ) and in the case of all five applicants, the education programmes were undertaken over a number of years, followed by an application process to the Nursing and Midwifery Planning and Development Unit (NMPDU) and to the Office of the Nursing and Midwifery Services Directorate (ONMSD). Congratulations to all.

New programme for BSc Midwifery

The Nursing and Midwifery Board of Ireland (NMBI) launched updated standards and requirements for midwife registration programmes in February 2016 that came into effect in September 2018.

These latest standards are designed to provide guidance for the education of registered midwives. Clinical placement coordinators (CPCs) in CUMH liaise closely with colleagues in UCC as the Higher Education Institute (HEI) and academic partner for midwifery programmes both post and undergraduate.

These standards and requirements have led to significant changes to the midwifery course structure including the number of placement weeks each year. Placements are now four weeks in duration, with more emphasis on midwifery-led care.

A new standardised national tool called The National Student Midwife Tool has been developed with significant input from the six HEIs, from clinical sites where student midwives are placed and from a recent qualified student midwife. Ongoing review took place over the course of 2019.



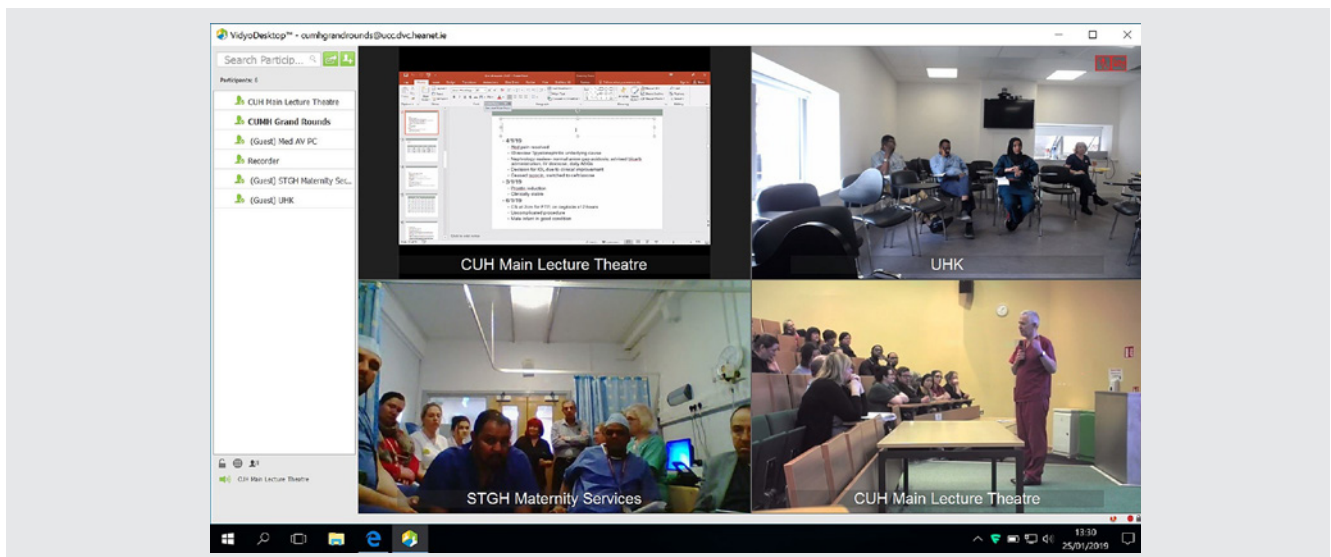
New format for Ireland South Women & Infants Directorate Grand Rounds 2019

The first new format Grand Rounds of 2019 took place on Friday, 25 January in the CUH Main Auditorium over the course of lunchtime. The event is shared by videoconference to the three other maternity units in the directorate to broadcast clinical education to as many health professionals as possible.

The updated format for Ground Rounds in 2019 includes:

- Short presentation on a topic: 20 minutes
- Critical appraisal of a journal/research article: 5-10 minutes
- Discussion on a key visual for learning purposes: 5-10 minutes.

The new format Grand Rounds has worked well throughout 2019 with staff feeling re-energised due to the updated format of presentations.



The Anu Research Medal 2019

At the end of each academic year, doctors in training present their research at the annual Anu Research Meeting. Consultants vote on the best presentation and the winner receives the renowned Anu Research Medal, recognising exceptional research focused on the mother and the unborn baby.

This prestigious medal has been awarded since 2005 by the Anu Research Centre, located in the UCC Department of Obstetrics and Gynaecology.

Irene Gorman beat seven other entrants with her research titled ‘Outcome at the extreme of viability: A single centre experience.’ Professor John R. Higgins presented Irene with the Anu Medal 2019 on 21 June 2019.



Directorate-wide safety attitudes questionnaire results

In June 2018, the National Perinatal Epidemiology Centre in collaboration with the School of Pharmacy, UCC and the CUMH Medication Safety Committee used the Safety Attitudes Questionnaire to assess staff opinions on patient safety culture and staff wellbeing. A selection of staff across the four maternity units in Ireland South Women & Infants Directorate were surveyed. Staff were asked about their attitudes towards teamwork, patient safety, management, working conditions, stress recognition and job satisfaction. There was an excellent response rate, with 397 surveys completed. Staff reported positive attitudes towards teamwork, patient safety and job satisfaction in each of the four units.

Staff also had positive attitudes towards stress recognition, indicating that staff are capable of recognising and adapting to stressful situations. Perceptions of management and working conditions were identified as areas for improvement, both in the survey responses and in the comments section of the survey. Staff were also found to have positive perceptions of their communication and collaboration with other staff members, and to have positive resilience, which can be defined as the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma.

Staff were asked for their recommendations for improving patient safety in their clinical area. The most common recommendations included maintaining appropriate staffing levels and skills mix, improving support for frontline staff, providing more educational opportunities, and promoting a culture of no-blame regarding medication incident reporting.



World-class trial of specialised physiotherapy technique to treat chronic pelvic pain

Chronic Pelvic Pain (CPP) consists of 10% of gynaecology referrals. Shalini Wiseman, Senior Physiotherapist in Women’s Health, CUMH conducted a research trial for her Masters, to evaluate the efficiency of trans-perineal dry needling with manual therapy as a treatment for non-cyclical CPP. Trans-perineal trigger point dry needling is a specialised, skilled intervention where a thin filiform needle is inserted intra-muscularly along the pelvic floor muscles (PFM) in order to target the underlying myofascial trigger points and taut connective tissues for the management of pelvic floor pain symptoms.

The research has received a lot of international recognition and has been very well received. It was selected for oral presentation at the International Urogynecological Association (IUGA) conference, USA, 2019 and was also presented at the International Continence Society conference, Gothenburg 2019. The ICS meeting is the biggest and most important international meeting in this field, and brings together the most renowned international experts in the research and the treatment of incontinence and pelvic floor disorders. We congratulate Shalini on her ground-breaking work.



New website to support families grieving the loss of a baby

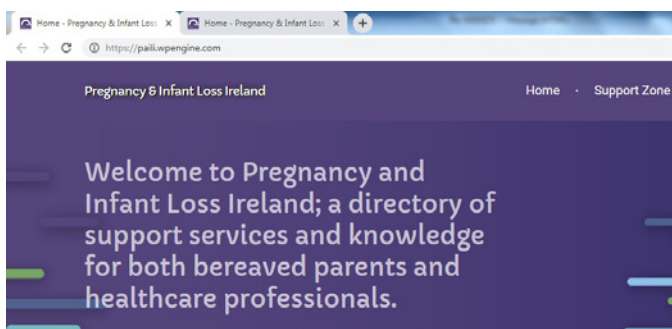
The INFANT Centre at University College Cork, in partnership with the Irish Hospice Foundation, recently launched pregnancyandinfantloss.ie, a first-of-its-kind website for Ireland.

Implementation Group for the National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death. The programme of implementation of the Standards was led by Dr Keelin O’Donoghue and HSE Programme Manager, Riona Cotter.

A valuable resource for parents who experience pregnancy loss or perinatal death, the website provides accurate and accessible information on a sensitive and often stigmatised subject, shares the latest research into the causes of baby loss, promotes emotional well-being, and offers details on how to access the appropriate support services.

Pregnancy loss is the most common complication of pregnancy. The end of a pregnancy or the death of a baby through miscarriage, stillbirth, neonatal and infant death can have a devastating and long-lasting impact on the woman, her partner, her other children and her extended family.

Supported by funding from the Irish Hospice Foundation, the website is an initiative of the





INFANT research identifies biomarkers to detect brain injury in newborns

Lack of oxygen to the brain at birth affects almost 200 babies in Ireland each year and results in death or disability in over 2 million infants each year globally. The condition, known as hypoxic-ischaemic encephalopathy (HIE), causes brain injury due to lack of oxygen and can leave newborns with permanent neurological damage or cerebral palsy. HIE can be difficult to detect in newborns; early intervention and treatment is vital to improving outcomes and reducing the impact and severity of the brain damage.

Researchers at Ireland's dedicated fetal and neonatal research centre, INFANT Centre, along with collaborators at UCC and the Karolinska Institute in Sweden have identified two biochemical signals that can be used to aid the detection of birth-related brain injury. These blood biomarkers found in the umbilical cord could provide an early detection system for HIE in newborns. Early intervention in neonatal brain injury is critical so that the successful brain cooling therapy can be initiated immediately to reduce brain injury and improve outcomes.

Consultant Paediatrician, Principal Investigator at INFANT and UCC Professor Deirdre Murray has led this breakthrough research in the area of HIE and perinatal asphyxia, and has been published in the Journal of the American Medical Association (JAMA) Neurology.





Obstetrics Report

Maternal and Delivery Characteristics

Table 1.0: Frequency (N) of maternities and births 2014-2019

	Ireland South	CUMH	STGH	UHK	UHW
Mothers delivered 2019	10,773	7,023	875	1,177	1,698
Mothers delivered 2018	11,359	7,401	960	1,230	1,768
Mothers delivered 2017	11,354	7,224	979	1,349	1,802
Mothers delivered 2016	11,745	7,442	1,017	1,389	1,897
Mothers delivered 2015	12,343	7,903	1,054	1,389	1,997
Mothers delivered 2014	12,473	7,878	1,434	1,087	2,074
Babies born >500g 2019	11,010	7,204	885	1,193	1,728
Babies born >500g 2018	11,601	7,577	969	1,254	1,801
Babies born >500g 2017	11,577	7,386	982	1,368	1,841
Babies born >500g 2016	12,011	7,629	1,032	1,410	1,940
Babies born >500g 2015	12,620	8,113	1,062	1,406	2,039
Babies born >500g 2014	12,746	8,071	1,454	1,102	2,119

Table 1.1: Distribution of maternal and delivery characteristics

	Ireland South Frequency N (%) (N=10,773)	CUMH Frequency N (%) (N=7,023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1,177)	UHW Frequency N (%) (N=1,698)
Nulliparous	4,159 (38.6)	2,801 (39.9)	286 (32.7)	426 (36.2)	646 (38.1)
Multiparous	6,614 (61.4)	4,222 (60.1)	589 (67.3)	751 (63.8)	1,052 (61.9)



Table 1.2: Distribution of maternal and delivery characteristics - Vaginal delivery

	Ireland South Frequency N (%) (N=10,773)	CUMH Frequency N (%) (N=7,023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1,177)	UHW Frequency N (%) (N=1,698)
Vaginal Delivery (Total)	7,160 (66.5)	4,652 (66.2)	549 (62.7)	737 (62.6)	1,222 (71.9)

Table 1.3: Distribution of maternal and delivery characteristics - Instrumental delivery

	Ireland South Frequency N (%) (N=10,773)	CUMH Frequency N (%) (N=7,023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1,177)	UHW Frequency N (%) (N=1,698)
Instrumental Delivery (Total)	1,623 (15)	1,093 (15.6)	115 (13.1)	173 (14.7)	242 (14.3)
Instrumental Delivery nulliparas (% of total nulliparas births)	1,161 (27.9)	790 (28.2)	84 (29.4)	107 (25.1)	180 (27.9)
Instrumental Delivery multiparas (% of total multiparass births)	462 (7.0)	303 (7.2)	31 (5.3)	66 (8.8)	62 (5.9)

Table 1.4: Induction of labour characteristics

	Ireland South Frequency N (%) (N=10,773)	CUMH Frequency N (%) (N=7,023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1,177)	UHW Frequency N (%) (N=1,698)
Inductions of labour (Total)	3,718 (34.5)	2,574 (36.6)	264 (30.1)	270 (22.9)	610 (35.9)
Inductions nulliparas (% of total nulliparas births)	1,736 (41.7)	1,223 (43.6)	109 (38.1)	136 (31.92)	268 (41.4)
Inductions multiparas (% of total multiparas births)	1,982 (30.0)	1,351 (32.0)	155 (26.3)	134 (17.8)	342 (32.5)

Table 1.5: Incidence of caesarean delivery per total mothers delivered, 2019

	Ireland South Frequency N (%) (N=10,773)	CUMH Frequency N (%) (N=7,023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1,177)	UHW Frequency N (%) (N=1,698)
Caesarean delivery	3,613 (33.5)	2,371 (33.7)	326 (37.2)	440 (37.8)	476 (28.03)
C-sections nulliparas (% of total nulliparas births)	1,509 (36.2)	1,030 (36.7)	117 (40.9)	184 (43.1)	178 (27.5)
C-sections multiparas (% of total multiparas births)	2,104 (31.8)	1,341 (31.7)	209 (35.4)	256 (34.09)	298 (28.3)

Table 1.6: Distribution of labour epidurals

	Ireland South Frequency N (%) (N=10,773)	CUMH Frequency N (%) (N=7,023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1,177)	UHW Frequency N (%) (N=1,698)
Labour Epidurals	4,417 (41.0)	2,989 (42.5)	292 (33.3)	345 (29.3)	791 (46.58)

Table 1.7: Distribution of obstetric blood transfusions

	Ireland South Rate per 1000 (N) (N=10,773)	CUMH Rate per 1000 (N) (N=7,023)	STGH Rate per 1000 (N) (N=875)	UHK Rate per 1000 (N) (N=1,177)	UHW Rate per 1000 (N) (N=1,698)
Obstetric Blood Transfusions	35.1 (379)	37.4 (263)	20.57 (18)	19.54 (23)	44.17 (75)

Table 1.8: Inutero transfers admitted

	Ireland South Rate per 1000 (N) (N=10,773)	CUMH Rate per 1000 (N) (N=7,023)	STGH Rate per 1000 (N) (N=875)	UHK Rate per 1000 (N) (N=1,177)	UHW Rate per 1000 (N) (N=1,698)
Inutero transfers admitted	5.6 (61)	4.4 (31)	0.0 (0)	0.0 (0)	17.6 (30)

Table 1.9: Inutero transfers sent out

	Ireland South Rate per 1000 (N) (N=10,773)	CUMH Rate per 1000 (N) (N=7,023)	STGH Rate per 1000 (N) (N=875)	UHK Rate per 1000 (N) (N=1,177)	UHW Rate per 1000 (N) (N=1,698)
Inutero transfers sent out	2.8 (31)	0.0 (0)	14.8 (13)	10.2 (12)	3.5 (6)

Table 2: Total clinical incidents as reported to NIMS

	Ireland South	CUMH	STGH	UHK	UHW
Clinical Incidents	2,112	1,305	143	397	267

Maternal Mortality

Maternal mortality is a devastating outcome for a family left without their mother/daughter/partner. Maternal deaths have a significant effect on the staff also. There were two cases of maternal mortality in Ireland South Women & Infants Directorate. These cases are currently under review with the coroner, the final cause of death awaits confirmation.

Definition and classification of maternal death

A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy*, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

Maternal deaths are subdivided into two groups, direct and indirect obstetric deaths.

*This includes delivery, ectopic pregnancy, miscarriage or termination.

Complications of pregnancy or childbirth can lead to death beyond the 6 weeks' postpartum period and are classified as a late maternal death.

Classification of maternal deaths

- **Direct obstetric deaths:** direct obstetric deaths are those resulting from obstetric complications of the pregnancy state (pregnancy, labour and the puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above.
- **Indirect obstetric deaths:** indirect obstetric deaths are those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy.
- **Coincidental maternal deaths:** deaths from unrelated causes which happen to occur in pregnancy or the puerperium
- **Late maternal deaths:** the death of a woman from direct or indirect obstetric causes, more than 42 days, but less than 1 year after termination of pregnancy.

Reference:

International Classification of Diseases, 10th Revision, Geneva, World Health Organization, 2004

Perinatal Mortality

Table 3.0: Perinatal deaths

Perinatal deaths	Ireland South (N=11,010)	CUMH (N=7,204)	STGH (N=885)	UHK (N=1,193)	UHW (N=1,728)
Stillbirths	51	40	4	2	5
Early neonatal deaths	22	20	0	0	2
Late neonatal deaths	4	4	0	0	0

Stillbirth: Baby delivered without signs of life from 24 weeks gestation or with a birthweight $\geq 500g$.²

Early neonatal death: Death of a live born baby occurring within 7 completed days of birth.

Late neonatal death: Death of a live born baby occurring after the 7th day and within 28 completed days of birth.

²Stillbirths Registration Act, 1994.

*As used by the National Perinatal Epidemiology Centre

Table 3.1: Perinatal mortality rates

	Ireland South (N=11,010)	CUMH (N=7,204)	STGH (N=885)	UHK (N=1,193)	UHW (N=1,728)
Overall perinatal mortality rate per 1000 births	6.6	8.3	4.5	1.6	4.05
Perinatal mortality rate corrected for congenital anomalies	4.1	5.1	4.5	0.8	2.3
Stillbirth rate per 1000 births	4.6	5.5	4.5	1.6	2.9
Stillbirth rate corrected for congenital anomalies	3.4	4.0	4.5	0.8	2.3
Early neonatal death rate per 1000 births	1.9	2.7	0.0	0.0	1.1
Early neonatal death rate corrected for congenital anomalies	0.7	1.1	0.0	0.0	0.0

All infants weighing 500g and/or over 24 weeks' gestation are reported.
All mothers who booked and delivered are included.

Perinatal Pathology

Overall autopsy rate for Stillbirths and Early Neonatal Deaths is 65%

Case Reviews

Table 3.2: CUMH case reviews – Stillbirths

Gestation (Wks.)	BW (g)	Mode of delivery	Conclusion
36+2	4340	SVD	IUFD associated with placental distal villous immaturity
27+0	1100	SVD (Breech)	Intrauterine fetal death due to fetal vascular malperfusion as a result of acute umbilical artery thrombosis
25+1	480	SVD (Breech)	Intrauterine fetal death due to hypercoiled umbilical cord with evidence of fetal vascular malperfusion and associated with fetal growth restriction
34+5	450	C/Section	Intrauterine fetal death due to the complications of a monochorionic twin pregnancy
24+6	470	SVD (Breech)	Intrauterine fetal death due to fetal vascular malperfusion in association with cord hypercoiling
26+6	840	SVD	Intrauterine fetal death due to multiple fetal anomalies including significant congenital heart disease (MTOPI)
25+1	760	SVD	Intrauterine fetal death due to congenital heart disease (MTOPI)
39+0	4000	C/Section	Intrauterine fetal death due to placental distal villous immaturity
33+1	1440	SVD	Intrauterine fetal death due to Trisomy 18 (MTOPI)
23+0	600	SVD (Breech)	Intrauterine fetal death due amnion infection syndrome associated with placental acute chorioamnionitis and extensive acute villitis

Table 3.2 continued on following page

26+5	960	SVD	Intrauterine fetal death due to amnion infection syndrome on a background of a premature rupture of membranes
26+1	183	SVD	Intrauterine fetal death due to Potter's Syndrome (renal agenesis and anhydramious). Placental pathology reports severe CVUE
39+0	1900	SVD	Intrauterine fetal death due to Trisomy 18
38+5	2940	SVD	Intrauterine fetal death due to umbilical cord
36+1	470	SVD	Intrauterine fetal death due to Trisomy 18
26+0	280	SVD	Intrauterine fetal death due to Trisomy 18
29+5	1080	C/Section	Intrauterine fetal death due to placental abruption on a background of placental maternal vascular malperfusion
34+3	2050	SVD	Intrauterine fetal death due to fetal maternal haemorrhage on a background of severe distal villous immaturity
37+3	2200	SVD	Intrauterine fetal death in the context of growth restriction (uteroplacental insufficiency), a small placenta and placental villous immaturity
35+1	330	C/Section	Intrauterine fetal death due to marked asymmetry in placental sharing in a monochorionic pair and thrombosis of large chorionic plate vessels
26+2	480	SVD	Intrauterine fetal death due to chronic abruption, oligohydramious sequence
31+4	1400	SVD	Intrauterine fetal death due to fetomaternal haemorrhage
35+3	1900	SVD	Intrauterine fetal death due to apparent fetal hypokinesia with pathological findings in keeping with with intrauterine hypoxia
39+2	3280	SVD	Intrauterine fetal death due to acute retroplacental haemorrhage the significant congenital heart disease present is incidental
40+2	3820	SVD	Intrauterine fetal death due to umbilical vein insertion thrombosis
38+4	1800	SVD	Intrauterine fetal death due to Trisomy 18
26+2	560	SVD	Intrauterine fetal death due to amnion infection syndrome
31+4	1240	SVD	Intrauterine fetal death favoured to be due to fetal vascular malperfusion associated with an umbilical cord stricture
33+4	1740	SVD	Intrauterine fetal death due to an umbilical vein thrombosis
25+5	676 (Scan weight)	SVD	Intrauterine fetal death due to amnion infection syndrome on a background of prolonged rupture of membranes and prior recurrent antepartum hemorrhage
36+0	460	SVD	Intrauterine fetal death due to maternal vascular malperfusion (uteroplacental insufficiency)
28+2	600	SVD	Intrauterine fetal death on a background of trisomy 21 and placental fetal vascular malperfusion
37+0	480	C/Section	Intrauterine fetal death due to the presence of an umbilical cord stricture with portal sinus thrombosis
35+0	1860	SVD	Intrauterine fetal death due to placenta insufficiency as a result of placental hypoplasia and maternal vascular malperfusion
37+1	2900	SVD	Intrauterine fetal death due to true umbilical cord knot
30+1	1060	SVD	Intrauterine fetal death due to Trisomy 18
30+5	720	SVD	Intrauterine fetal death on a background of maternal vascular malperfusion with associated placental hypoplasia, intrauterine growth restriction and retroplacental haemorrhage
35+5	2200	SVD	Intrauterine fetal death due to true umbilical cord knot
37+2	3740	SVD	Intrauterine fetal death due to fetomaternal haemorrhage
28+0	950	SVD	Intrauterine fetal death favoured to be due to cord thrombosis due to 'transient myeloproliferative disorder/transient abnormal myelopoiesis of Trisomy 21

Table 3.3: CUMH case reviews – Early neonatal deaths

GA	BW (g)	Age (days)	Cause of Death	Place
26+3	870	0	Pulmonary hypoplasia secondary to Renal Agenesis-Potter Syndrome	Cork University Maternity Hospital
40+6	3450	1	Persistent Pulmonary Hypertension due to Meconium aspiration	Cork University Maternity Hospital
23+5	600	0	Extreme prematurity 23 weeks gestation	Cork University Maternity Hospital
40+4	3760	4	Hypoxic Ischemic Encephalopathy	Cork University Maternity Hospital
38+4	2880	3	Hypoplastic Left Heart with Mitral Atresia	Cork University Maternity Hospital
40+1	4230	0	HIE on background of meconium induced myonecrosis of umbilical cord and chorionic plate	Cork University Maternity Hospital
33+0	3420	0	PIK3CA Somatic Overgrowth Syndrome	Cork University Maternity Hospital
41+4	4200	0	Severe HIE - Shoulder Dystocia	Cork University Maternity Hospital
32+4	1100	0	Trisomy 18	Cork University Maternity Hospital
38+6	3300	0	Congenital Intrauterine CMV Infection	Cork University Maternity Hospital
40+0	2920	1	Complex Congenital Heart Disease - Anomalous Pulmonary Arteriovenous Malformation	Our Lady's Children's Hospital, Crumlin
37+2	1690	0	Hypoplastic lungs, subsequent to anhydramnios ? Potters Sequence	Cork University Maternity Hospital
31+4	1690	1	Severe HIE	Cork University Maternity Hospital
38+3	2240	2	Trisomy 18	Cork University Maternity Hospital
33+2	1620	1	Pulmonary Hypoplasia due to OEIS complex	Cork University Maternity Hospital
37+5	2430	0	Severe Pulmonary Hypoplasia secondary to Renal Agenesis/Dysgenesis -Potter Syndrome	Cork University Maternity Hospital
32+2	1620	0	Severe craniofacial and CNS anomalies	Cork University Maternity Hospital
35+4	1600	1	Anencephaly	Cork University Maternity Hospital
29+2	1340	1	Pulmonary Hypoplasia	Cork University Maternity Hospital
24+3	660	0	Hypoplastic Left Heart Syndrome	Cork University Maternity Hospital

Table 3.4: CUMH case reviews - Late neonatal deaths

BW (g)	Age (days)	Cause of Death	Place
660	8	Spontaneous Intestinal perforation associated with extreme prematurity	Our Lady's Children's Hospital, Crumlin
450	10	NEC with a background of severe IUGR	Cork University Maternity Hospital
480	9	Gram negative sepsis in 23+4 week infant	Cork University Maternity Hospital
3410	11	Severe HIE	Our Lady's Children's Hospital, Crumlin

Table 3.5: STGH case reviews - Stillbirths (n=4)

Parity	Gestation (Wks.)	BW (g)	Mode of delivery	Conclusion
3	38wks	2900g	Vaginal Delivery	Fetal Vasculopathy
0+1	26wks	920g	Vaginal Delivery	No Post mortem -Declined by parents
4+2	28wks	850g	Vaginal Delivery	No Post mortem -True knot noted.
0	32wks	1400g	Vaginal Delivery	Pre-eclampsia- placenta showed multiple ischemic infarcts

Table 3.6: UHK case reviews - Stillbirths (n=2)

Gestation (Wks.)	Conclusion
28+3	Cardiac anomalies
32+1	Coronial post mortem outstanding

Table 3.7: UHW case reviews - Stillbirths (n=5)

Gestation (Wks.)	BW (g)	Conclusion
25 +4	645	Unexplained
28	650	Unexplained
34	1205	Anhydramnios potters syndrome cardiac anomaly
26	260	Placental dysfunction
38	2730	Unexplained

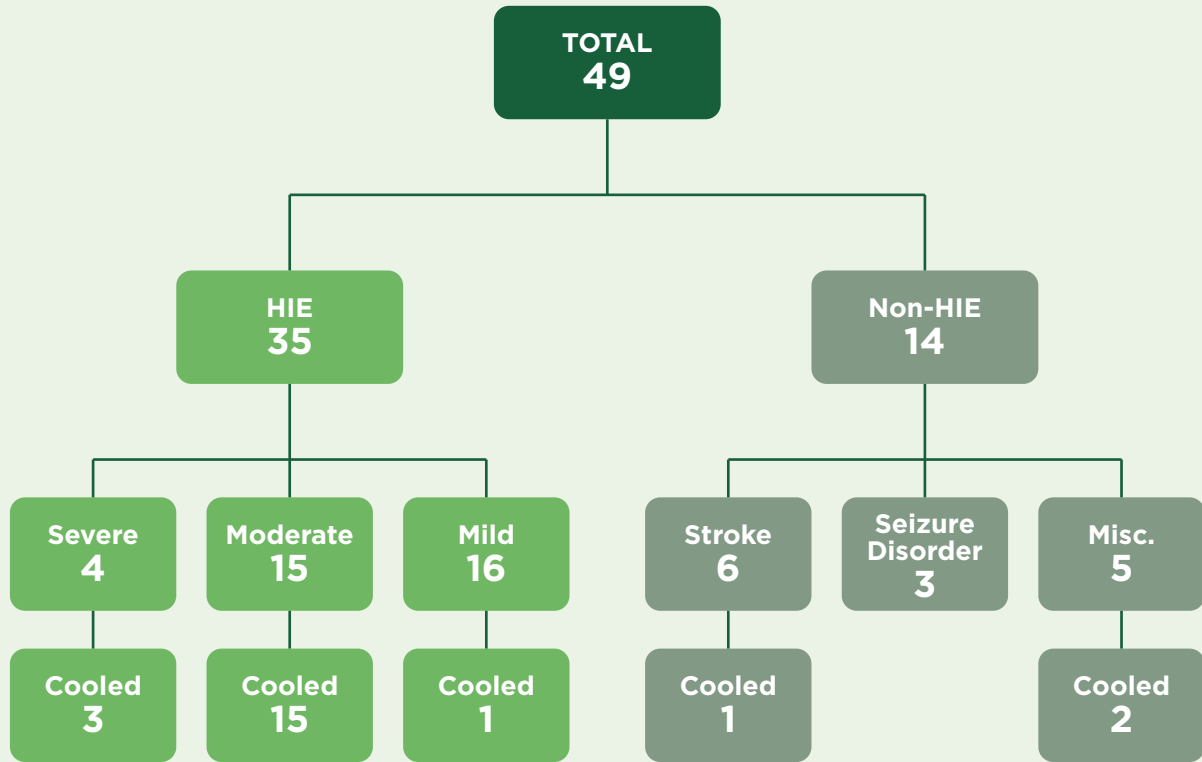
Table 3.8: UHW case reviews - Early neonatal deaths (n=2)

BW (g)	Cause of Death	Place
740	Edwards syndrome	UHW
1905	Edwards syndrome	UHW

Table 4: Severe maternal morbidity

Organ Dysfunction SMM	Ireland South Frequency N (%) (N=10773)	CUMH Frequency N (%) (N=7023)	STGH Frequency N (%) (N=875)	UHK Frequency N (%) (N=1177)	UHW Frequency N (%) (N=1698)
Major obstetric haemorrhage (MOH) Estimated blood loss \geq 2500mls Transfused with \geq 5 units of blood Received treatment for coagulopathy	33	20	4	5	4
Uterine rupture	6	3	3	0	0
Peripartum hysterectomy (PH)	3	2	1	0	0
Eclampsia	2	1	0	1	0
Renal or liver dysfunction	5	3	1	0	1
Pulmonary oedema	0	0	0	0	0
Acute respiratory dysfunction	2	1	0	0	1
Pulmonary embolism	7	6	0	0	1
Cardiac arrest	0	0	0	0	0
Coma	0	0	0	0	0
Cerebro-vascular event	1	0	0	0	1
Status epilepticus	0	0	0	0	0
Septicaemic shock	7	6	0	1	0
Anaesthetic problem	1	0	0	0	1
Other severe morbidity, please specify	9	8	0	1	0
SMM based on management criteria					
Interventional radiology (IR)	0	0	0	0	0
ICU/CCU admission* *please specify indication for admission	27	9	5	6	7

CUMH Inborn Infants with Encephalopathy 2019



Total Births CUMH 2019 7,204
Inborn moderate - severe HIE 2.6/1,000

Figure 4: CUMH Inborn Infants with Encephalopathy 2019



Gynaecology Report

Throughout 2019, Ireland South Women & Infants Directorate continued to provide an extensive gynaecology service against a backdrop of increasing demand for gynaecology services and overall increasing trends in gynaecology waiting lists.

Maintaining a functioning gynaecology service required considerable effort at the start of 2019 due to a combination of the backlog of tests following the CervicalCheck controversy, the introduction of a termination of pregnancy service by 1 January and the nurses and midwives strikes in January and February. Acknowledgement and thanks must be given to multidisciplinary staff from many departments including administration, household, GP liaison, midwives/nurses and doctors who make it possible to provide this essential gynaecology service.

General and specialist gynaecology care is provided throughout Ireland South Women & Infants Directorate. Gynaecology clinics are run at the four main hospital sites as well as at outreach clinics in different areas. More specialised areas such as urogynaecology, colposcopy, oncology

and ambulatory services, which include outpatient hysteroscopy and cystoscopy, are also provided.

CUMH became the first hospital in Ireland to introduce the electronic healthcare record (EHR) for gynaecology patients in July 2019, with UHK following suit in December 2019.

Equipment upgrades in 2019 included Colposcopy equipment (Atmos I-View Colposcope Systems, generators and cold coagulators) being replaced in all units.

The outpatient waiting list for gynaecology services remained at an unacceptable level in Cork University Maternity Hospital with demand far-outstretching capacity. Maternity services in University Hospital Waterford, University Hospital Kerry were of concern whereas South Tipperary General Hospital lists remained at very manageable levels.

The range of general and specialist services and clinics offered at the four main hospital sites are outlined below:

	CUMH	STGH	UHK	UHW
Ambulatory Gynaecology	Y	Y	Y	Y
Colposcopy	Y	Y	Y	Y
Continence Advice	Y	Y	Y	Y
Cystoscopy	Y		Y	
Intravesical Instillation (Cystistat)	Y		Y	Y
Endometriosis	Y	Y	Y	Y
General Gynaecology	Y	Y	Y	Y
Gynaecology Telephone Follow Up	Y	Y	Y	Y
Gynaecology Physio clinics	Y	Y	Y	Y
Gynaecology Ultrasound	Y	Y	Y	Y
Gynaecological Oncology	Y		Y	Y
Hereditary Gynaecological Cancers	Y		Y	Y
Hysteroscopy	Y	Y	Y	Y
Infertility / Reproductive Medicine	Y	Y	Y	Y
Intrauterine device insertion	Y	Y	Y	Y
Paediatric / Adolescent Gynaecology	Y		Y	Y
Postmenopausal Bleeding	Y	Y	Y	Y
Perineal clinics	Y	Y	Y	Y
Pre-Operative Assessment		Y	Y	Y
Recurrent Miscarriage	Y	Y	Y	Y
Sexual Health / Sexual Transmitted Infection	Y		Y	Y
Smear clinic	Y	Y	Y	Y
Pessary clinic	Y	Y	Y	Y
Urogynaecology	Y		Y	Y
Uterine Fibroid Embolisation	Y			Y
Gestational Trophoblastic Disease Service	Y	Y	Y	



Attendance at gynaecology clinics

2019 was a particularly busy and challenging year in the gynaecology outpatient clinics. Due to the extensive waiting list in Cork, CUMH employed a number of innovative initiatives aimed at generating extra capacity in different ways. For example, consultants ran late-night consultation clinics and supervised GPs in gynaecology outreach clinics. A trial of an online patient booking system to attendance at clinics also worked very well. During the concentrated Gynaecology 500 Week, CUMH scheduled 500 extra patient appointments over five days. It demanded a lot of extra effort and late nights, and resulted in a dedicated and successful focus on all things gynaecology.

Colposcopy clinics throughout Ireland South were under particular pressure in 2019, due to the CervicalCheck controversy and considerable waiting lists to contend with. Collaborations between hospitals work well, impacting the equality of care for women and infants in the region. CUMH as the tertiary unit provides advice as required and oversees complex cases referred to it. In May 2019, an outpatient urogynaecology clinic was set up in STGH, with CUMH urogynaecology subspecialist Ms Orfhlaith O'Sullivan seeing 27 new patients from May until the end of the year. This outreach of specialists from the tertiary unit to the smaller units helps to achieve equality of care for all women in the region.

Table 5.1: Numbers of attendances in gynaecology outpatient clinics

Outpatient Activity	Ireland South	CUMH	UHK	STGH	UHW
Gynaecology	25,466	14,245	3,733	3,829	3,659
Ambulatory gynaecology (incl. hysteroscopy)	641	344	297	0	0
Colposcopy	10,961	6,331	1,288	1,388	1,954
Cystoscopy	37	37	0	0	0
Smears	4,216	2,604	284	471	857
Urodynamics	443	173	138	0	132
STI / SATU	459	144	183	0	132
TOTAL	42,223	23,878	5,923	5,688	6,734

Table 5.2: Numbers of inpatient and day case gynaecology procedures

Surgery Activity	Ireland South	CUMH	UHK	STGH	UHW
Inpatient procedures	2,183	1,087	450	270	376
Day case procedures	2,238	822	317	618	481
TOTAL	4,421	1,909	767	888	857

CUMH gynaecology services

The long gynaecology waiting lists in Cork and the extraordinary efforts to tackle them led to a dramatic increase in the volume of gynaecology outpatient activity in CUMH in 2019. Such major activity to reduce the outpatient list naturally resulted in a growing inpatient waiting list. Innovative ways were used to manage the inpatient and day cases waiting list including CUMH consultants using theatre facilities at the Mater Private Hospital Cork, opening of a new gynaecology day ward at CUMH in October 2019 with CUMH staff working weekends and long weekdays to do gynaecology day cases. These initiative lists were funded by the National Treatment Purchase Fund (NTPF).

Detail on the dramatic reduction in CUMH waiting lists is covered in the next section.. At the end of 2019, the waiting lists in CUMH stood at:

- Outpatients: 1,050
- Inpatient/ day cases: 1,062

Outpatient gynaecology services in Cork City are provided at CUMH and the South Infirmity Victoria University Hospital (SIVUH). Gynaecology services are also provided across a number of outreach clinics in Primary Care Centres (PCCs) and other hospitals including Mitchelstown PCC, Mallow PCC, South Tipperary General Hospital (Clonmel) and Bantry General Hospital. There are plans to extend to the PCC in Carrigaline in the near future. The Mallow and Mitchelstown gynaecology clinics are operated in partnership with local GP surgeries and are proving to be an effective way of providing gynaecology services in the community.

Ambulatory gynaecology services moved from St Finbarr's Hospital campus to CUMH in 2019. CUMH also has a specialised urogynaecology suite where urodynamics, perineal clinics, pessaries, intravaginal treatments, ambulatory cystoscopy and continence advice are provided. More complex cases can be referred to this specialised service from other units in the directorate, if required.

The colposcopy service is run from the St Finbarr's Hospital campus, providing smears and a colposcopy service for women who have abnormal cervical smears. These services form part of the national CervicalCheck screening programme.

Gynaecology surgeries operate across three main sites CUMH, SIVUH and CUH. Minor procedures are also performed in Bantry General Hospital. In addition to this, some surgeries took place in the Mater Private Hospital Cork in 2019 utilising NTPF funding, as mentioned above.

Chartered physiotherapists in CUMH specialise in the area of women's health and offer individualised assessment and treatment. Patients are also referred on to pelvic health physiotherapy services in the community.

Tackling the CUMH gynaecology waiting list

The CUMH gynaecology waiting list is one of the key risks noted at the establishment of the Ireland South Women & Infants Directorate in 2017. The list is a long standing problem and the biggest deficit in the clinical service provided in CUMH. The outpatient waiting list stood at a high of 4,700 in April 2017 and reduced to a still considerable 2,700 at the start of 2019. Efforts continued in 2019 as part of the Gynaecology Waiting List Initiative, a two-year programme of work to tackle the CUMH gynaecology outpatient waiting list in the short term and work towards a sustainable model of service delivery and patient care in the medium term. At the end of 2019, the CUMH outpatient waiting list stood at 1,050, a dramatic reduction of approximately two thirds in just over two and a half years.

To achieve such a result, CUMH had to employ innovative thinking. Three major approaches were employed:

- The first was **the reclassification of patients into eight major diagnostic groups**. This enabled patients with similar medical issues to be seen in specialised rather than general clinics, leading to a faster throughput of patients. This also allowed for a better understanding of the type of referrals coming in, which led to better planning and a more sustainable approach to service delivery.
- The second approach was all about **generating extra capacity** and lots of ways to do this were explored. CUMH worked with GPs to schedule weekly outreach clinics in Primary Care Centres and also ran late-night consultation clinics. In addition, major teaching clinics were ran over the summer with all doctors in training being able to utilise all of the clinic space for consultations. And finally, a major gynaecology campaign was launched over a week in January 2019 that hit the national headlines. It was called the Gynaecology 500 Week where CUMH scheduled 500 extra patient appointments over five days. It demanded a lot of extra effort, and required staff to work through to 9pm but it was very energising and motivating to have a very concentrated and successful focus on all things gynaecology.

- The final approach was to **focus on the numbers** by investing both time and resources to do so. A dedicated project manager was put in place to oversee the different elements of the programme. A weekly gynaecology steering group meeting was set up to review the waiting list numbers and plan the strategy. New referral demand patterns were reviewed by gynaecology sub-specialty to align resources. An overbooking rate was applied to gynaecology clinics to minimise the impact of DNA's (Did Not Attend) and cancellations. A trial of an online patient booking system was also piloted to enhance patient engagement and maximise attendance at clinics.

Achieving such a remarkable reduction in the gynaecology waiting list required a lot of hard work and dedication of multidisciplinary staff. It also wouldn't have been possible without the support of the South/South West Hospital Group leadership team and the National Women & Infants Health Programme.

CUMH: Key achievements in gynaecology

- **First hospital to launch the gynaecology electronic health record**
In 2019, CUMH is the first site in Ireland to extend the use of the electronic chart in the Maternal and Newborn Clinical Management System (MN-CMS) to include gynaecology care. The launch in July 2019 led to CUMH becoming Ireland's first fully digital hospital. All women visiting CUMH for gynaecology services will have a complete, integrated electronic health record, benefitting over 18,000 patients who attend each year.
- **Only hospital with urogynaecology accreditation**
The Urogynaecology Department in CUMH was granted reaccreditation in 2019 for five more years by European Board of Obstetrics and Gynaecology for subspecialty training in urogynaecology. The department in CUMH is only one of a few centres in Europe and the only one in Ireland to achieve this accreditation.
- **Pilot of online outpatient booking system**
CUMH successfully piloted an online outpatient booking system in 2019, which had a positive impact on patient satisfaction and on reducing inefficiencies. As a result, the pilot attracted national interest and was referred to by the CIO of the HSE in his presentation at the 2019 HISI Conference in Croke Park.
- **Opening of new gynaecology day ward at CUMH**
The next step following the reduction of the outpatient gynaecology waiting list in CUMH was to bring patients in for procedures. This is a key step to ensuring the considerable success to date in reducing the outpatient waiting list in CUMH is sustainable.
- **Colposcopy service**
In 2019, the colposcopy service had 6,331 patient attendances in the unit in St Finbarr's Hospital, including 2,204 new patients seen. This service is one of fifteen clinics in Ireland providing a service for CervicalCheck – The National Cervical Screening Programme. Overall, approximately 463 clinics were run in 2019, with an average of 10 patients per clinic.
- **Robot assisted surgeries**
CUMH continue to treat large numbers of patients using robotic-assisted surgical technology. CUMH theatres are connected to a Da Vinci surgical platform: this is a precision surgical tool used for the treatment of benign and malignant disease by enabling performance of complex and delicate procedures through small incisions. It leads to significantly less pain, less blood loss, fewer complications, less scarring, a shorter hospital stay and a faster return to normal daily activities. It is also utilised in both undergraduate and postgraduate education to demonstrate live surgery.
- **Gynaecology physiotherapy services**
In 2019, there were 616 patients on the CUMH outpatient physiotherapy waiting list, an average of 51 per month. The average routine waiting time reduced from 89 weeks at the start of 2019 to 49 weeks at the end of 2019. 260 new patients were seen. Individualised assessment and treatment continued to be offered, as well as group education classes on bladder dysfunction. 53 new inpatient referrals were seen with a total of 114 treatments. This included respiratory assessment and treatment, mobility assessment and rehabilitation as well as post-operative advice.

UHK gynaecology services

General and specialist gynaecology care is provided in UHK on Kells ward, from minor gynaecology procedures to major inpatient procedures. Care is provided under the umbrella of a women's health service consisting of a colposcopy clinic, hysteroscopy outpatient services, ambulatory gynaecology services, sexual health/ STI clinics and urodynamics clinics. Care is delivered in line with the best evidence based practice and is carried out with a multidisciplinary approach.

The gynaecology ward takes care of pregnant women up to 23+6/40, in agreement with the patient's consultant and through close collaboration with antenatal/labour ward staff. If a postnatal woman is reviewed in the Emergency Department and requires admission, the gynaecology ward will accommodate this admission.

A fertility service is also provided for new and ongoing patients. Incorporating a nursing-led clinic that works in conjunction with the fertility service consultant. In addition to this, the gynaecology services also oversee the urodynamics clinic service for UHK. This is an outpatient clinic that assesses bladder function.

UHK gynaecology waiting lists

At the end of 2019, the waiting lists stood at:

- Outpatients: 735
- Inpatient/ Day cases urgent: 35
- Inpatient/ Day cases non-urgent: 119
- Total inpatient/ Day cases: 154

UHK: Key achievements in gynaecology 2019

- **First co-located site to launch the gynaecology electronic health record**

Maternity services in UHK, went live with Gynaecology MN-CMS on 1 December 2019, the first co-located site in the country, thanks to multiprofessional team work, commitment and drive. This achievement follows on from the MN-CMS Obstetric go live in 2017.

- **Ambulatory Gynaecology Clinic**

In 2019, the Ambulatory Gynaecology Clinic at UHK Cill Íde unit continued to successfully operate as a one-stop shop clinic for gynaecological procedures provided in an outpatient setting, thereby reducing the demand on the inpatients beds. UHK run three ambulatory gynaecology clinics a week, of which two are dedicated to hysteroscopy. There were 297 attendances in clinics in 2019.

- **Colposcopy service**

In 2019, there were 729 new referrals to the colposcopy service at UHK Cill Íde unit. The unit received extra funding from CervicalCheck for 229 of these new patients.

- **Minimal access surgery**

In addition, there are more gynaecological procedures than ever being performed through minimal access surgery, which has allowed for a greater hospital bed availability and faster patient recovery.



UHW gynaecology services

Gynaecology outpatient clinics experienced another very busy and challenging year in 2019. General and gynaecology oncology services are provided in UHW with an expert, multidisciplinary approach in line with the best evidence based practice. Other specialist areas include colposcopy, Sexual Assault Treatment Unit (SATU) and genital urinary medicine clinics.

Apart from Sexual Assault Treatment Unit (SATU) services, all gynaecology services are provided in UHW hospital campus, on the antenatal and gynaecology ward. The SATU is located in a discrete location in UHW, but with full support and access to maternity and gynaecology services as required.

Key activity included:

- 3,659 attendances in gynaecology clinics
- 1,954 attendances in colposcopy clinics
- 857 attendances in smear clinics
- 132 attendances in urodynamics clinics.

UHW Gynaecology waiting lists

Outpatient waiting lists for gynaecology services remained at a concerning level in 2019. The strategy to deal with this is multidimensional and ongoing.

At the end of 2019, the lists stood at:

- Outpatients: 497
- Inpatient/ Day cases: 313

UHW: Key achievements in gynaecology 2019

• **Oncology**

There were 56 operations on cancer patients, 46 of which were major. Chemoradiotherapy was the primary treatment used in six women referred with cervical cancer and one woman with vulval cancer. Neoadjuvant chemoradiotherapy was used in one lady with synchronous squamous cell cancer of the vagina and an adenocarcinoma of the rectum. Chemotherapy was used in one woman with advanced uterine cancer. Neoadjuvant chemotherapy was used in 12 women with ovarian cancer. 182 patients were discussed at the bimonthly multidisciplinary team meeting.

• **Colposcopy service**

The Waterford colposcopy service is one of the fifteen clinics in Ireland providing a service for CervicalCheck. In 2019, UHW had 1,954 patient attendances in colposcopy clinics, including larger than projected numbers of new patient referrals. The unit received extra funding of €47,929 from CervicalCheck for additional new patients.

• **Minimal access surgery**

In addition, there are more gynaecological procedures than ever being performed through minimal access surgery, which has allowed for a greater hospital bed availability and faster patient recovery.

STGH gynaecology services

During the year, women's health services continued to expand with increasing activity in the colposcopy and gynaecology outpatient clinics. Despite this, the outpatient services continued to deliver a high standard of patient centred care.

Key activity included:

- 3,829 attendances in gynaecology clinics
- 1,388 attendances at the colposcopy clinics
- 471 nurse-led smear clinics

STGH: Key achievements in gynaecology 2019

• **Gynaecology waiting list management**

STGH continue to operate a smooth running service for gynaecology in outpatients and

inpatients 2019, without a waiting list of note. The consultants under the leadership of Dr Vijoyashree Hiremath have worked considerably hard at ensuring that gynaecology waiting lists are kept at a manageable level. In particular, the provision of three full day theatre lists per week have helped to keep down waiting times for treatment.

• **Colposcopy service**

STGH experienced above average numbers of new referrals to the colposcopy service in 2019, exceeding recommended numbers by CervicalCheck.

• **Minimal access surgery**

More gynaecological procedures than ever are being performed through minimal access surgery, which has allowed a greater turn-over of hospital beds.



Key challenges in gynaecology across the directorate

- **Government support**

To ensure that progress to date with the CUMH outpatient gynaecology waiting list is sustainable, the resulting inpatient waiting list and surgeries that will arise need to be proactively managed. CUMH need the support of government to extend their staff and fully open the second gynaecology theatre as promised.

- **CervicalCheck controversy**

The CervicalCheck controversy impacted staff morale throughout the directorate in 2019, as it did throughout the colposcopy service nationally. Staff from many disciplines have had a busy and stressful experience due to an increased workload following the controversy, and a frustrated public. Recruitment and retention of staff is also an issue. Public expectations need to be managed at both a local and national level in terms of the limitations of a cervical screening programme – i.e. like every screening test, it won't detect 100% of abnormalities and it won't prevent 100% of all cancers.

- **Space limitations at CUMH**

Given the expected growth in demand for gynaecology services in the region over the coming years, CUMH will need to further expand and invest in facilities offsite to provide a safe and sustainable service to its gynaecology patients. In addition to this, the hospital was selected by the HSE as one of two hospitals in Ireland to roll out a National Mesh Complications Service and a Regional Infertility Hub (one of four in Ireland) for 2020, requiring further space.

- **Infrastructure limitations**

The limitations of existing building space in all units require innovative thinking and close management to facilitate growth in service provision for outpatient and inpatient services.

- **UHW and STGH ambulatory gynaecology**

Ambulatory gynaecology services need to be developed in both UHW and STGH in order to offer women the necessary convenience and care that other units in the directorate can offer.

- **Expansion of community outreach clinics**

By the end of 2019, the key challenge in CUMH is enhancing the services provided in the existing community outreach clinics. Additional community outreach clinics need to be set up for STGH, UHK and UHW.

- **Service impacts**

Introducing the gynaecology electronic healthcare record to CUMH and UHK had an initial impact on clinic workload as staff needed to be trained and to adapt to the new ways of working. Clinics are now back to full capacity.

- **MN-CMS**

- Both STGH and UHW urgently await the rollout of the MN-CMS project to introduce the electronic healthcare record, and await confirmation of a definite timeline from the national project office.
- Staff turnover means that training of new healthcare staff in the efficient use of the MN-CMS system is an ongoing challenge. In addition, in 2019 the rollout of the gynaecology electronic chart was a challenge for some departments, as this was their first experience of an electronic healthcare record.
- The MN-CMS system also provides challenges in extracting accurate data for reports and analysis. This leads to the need for close quality control on clinical reports generated.



The National Gestational Trophoblastic Disease Registry, Monitoring and Advisory Centre

The National Gestational Trophoblastic Disease Registry, Monitoring and Advisory Centre has been established to monitor and co-ordinate the follow-up and treatment of women who have had a molar pregnancy. The Centre is coordinated by the Health Service Executive, the National Cancer Control Programme and Cork University Maternity Hospital. It is located at Cork University Maternity Hospital and is the only such centre in Ireland.

The Centre is led by Dr John Coulter, Consultant Obstetrician and Gynaecologist and includes a team of specialist doctors, nurses and administrative staff. This service is intended to be inclusive and helpful to all colleagues in obstetrics/gynaecology and medical oncology. It is intended that each patient ultimately remains the responsibility of the registering clinician but, having developed experience in the management of trophoblastic disease, the national multidisciplinary team welcomes the registration of patients to our service to enable efficient monitoring and treatment of patients with gestational trophoblastic disease (GTD) in Ireland.

Challenges in 2019

- The referral of GTD patients to National Gestational Trophoblastic Disease Registry, Monitoring and Advisory Centre is an ongoing challenge, and requires the completion of registration forms nationally by referring clinicians.

- Ensuring all healthcare professionals are aware of GTD and the appropriate follow up protocol required so that patients are receiving optimal standards of care.
- hCG tests are helpful tests in detecting GTD and also in monitoring a woman's recovery during and after treatment for GTD. Centralisation of hCG testing is required to ensure a standardised approach in testing methods and results, and to reduce the workload of the GTD team in contacting various laboratories nationally on a daily basis.

Achievements in 2019

- The Centre continued to receive excellent feedback from patients who express their gratitude and heartfelt thanks for the support of the GTD team.
- A number of research studies and audits have been undertaken.
- Caitriona Kenneally, Clinical Nurse Specialist in the Gestational Trophoblastic Disease Department completed her Post Graduate in Oncology in 2019 and is going on to study a Masters for completion in 2021.
- The National Gestational Trophoblastic Disease Guideline Group is currently updating clinical guidelines and protocols to ensure evidence based clinical practice for patients diagnosed with a molar pregnancy in Ireland.

Staff

Table 6: Overall staff numbers for Ireland South in 2019 (2018 numbers in brackets)

Staff	Ireland South	CUMH	STGH	UHK	UHW
Consultants	33 (31)	22 (20)	3 (3)	4 (4)	4 (4)
Midwives	644.15 (611.87)	419.29 (406.75)	47.36 (42.62)	65 (52)	112.5 (110.5)
NCHDs	75 (89)	31 (46)	12 (16)	16 (14)	16 (17)
HSCPs	22.67 (20.37)	18.5 (17.2)	0.97 (0.97)	2.2* (1.2)	1 (1)
Administration	65.23 (73.5)	53.33 (53.33)	0.7 (0.7)	5.6 (5.6)	10 (12)
TOTAL	844.45 (823.87)	514.83 (543.28)	64.03 (63.29)	92.8 (76.8)	143.5 (144.5)

*UHK HSCPs are 2 - 2.2 WTE depending on staffing (i.e. Physiotherapy is 1.3 - 1.5)

HSCPs	Total	CUMH	STGH	UHK	UHW
Dietetics	2.27 (2.17)	2	0.07	0.2 (0.1)	0
Occupational Therapy	0.6 (0.6)	0.6	0	0	0
Pharmacy	3.1 (3.1)	2.6	0	0.5	0
Physiotherapy	9.45 (7.25)	7.05 (5.75)	0.4	1.5* (0.6)	0.5
Social Work	6.75 (6.75)	5.75	0.5	0	0.5
Speech & Language Therapy	0.5 (0.5)	0.5	0	0	0
TOTAL	22.67 (20.37)	18.5 (17.2)	0.97	2.2 (1.2)	1

* Physiotherapy in UHK increased to 1.3 - 1.5 WTE (depending on staffing)

Health and Social Care Professionals (HSCPs)

The Health and Social Care Professions Group (HSCPs) is a diverse group of professionals. In Ireland South Women & Infants Directorate, the following six professions provide direct services to mothers and their infants: dietetics, occupational therapy, pharmacy, physiotherapy, social work and speech and language therapy. One profession nominates a standing member to the Executive Management Committee for one year. Maria Leahy, Acting Manager of Social Work Services, CUH/CUMH stood as representative HSCP member for 2019.

While a number of these professions are dedicated to maternity services, the majority provide services to both maternity service users as well as patients in the general hospital setting.

Health and social care professionals play a key part in the care provided to families, ensuring that babies get the best start in life and that mothers and families are supported and empowered to improve their health and wellbeing.

The directorate have prioritised the development of HSCP services and have recruited a number of additional staff for 2019. While it will take some time to fully resource all professions to enable the provision of an optimal service, this is huge step forward and an exciting time for HSCPs in Ireland South.

CUMH Staff

Consultants in Obstetrics and Gynaecology

- Professor John R. Higgins, Clinical Director
- Professor Barry O Reilly
- Professor Richard Greene
- Dr Barbara Kerkhoff
- Dr Cathy Burke
- Dr Dan McKenna
- Dr Fergus McCarthy
- Dr John Coulter
- Dr John Waterstone
- Dr Karen McNamara
- Dr Keelin O'Donoghue
- Dr Minna Geisler
- Dr Mairead O'Riordan
- Dr Manal Younis
- Dr Matt Hewitt
- Dr Moya McMenamin
- Dr Dr Mudathir Abdelmaboud
- Dr Nóirín Russell
- Dr Orfhlaith O'Sullivan
- Dr Richard Horgan
- Dr Suzanne O'Sullivan
- Dr Tahira Jabeen

Consultants in Neonatology

- Dr Brendan Murphy
- Dr Brian Walsh
- Dr Eugene Cassidy
- Dr Liam O'Connell
- Dr Peter Filan

Senior Midwifery and Nursing Staff

- Olive Long, Director of Midwifery
- Katie Bourke, Assistant Director of Midwifery
- Rosaline O'Donovan, Assistant Director of Midwifery
- Úna Cahill, Assistant Director of Midwifery Night Duty
- Maire Crowley, Assistant Director of Midwifery Night Duty
- Mary Flynn, Acting Assistant Director of Midwifery
- Paula Murphy, Assistant Director of Midwifery Night Duty

Clinical Midwife/Nurse Managers 3

- Claire O'Halloran
- Denise Malone
- Fidelma Harrington
- Lorraine O'Connor
- Lucile Bradfield
- Maria O'Donovan
- Mary Fitzgerald
- Mary Quaid
- Monica O'Regan
- Nilima Pandit
- Niamh Spillane
- Pauline Kennedy

STGH Staff

Consultants in Obstetrics and Gynaecology

- Dr Vijoyashree Hiremath, Clinical Lead, Consultant Obstetrician and Gynaecologist
- Dr Attia Al Fathid, Consultant Obstetrician and Gynaecologist
- Dr Mostaffa Abdalla, Consultant Obstetrician and Gynaecologist
- Dr Rita Mehta, Consultant Obstetrician and Gynaecologist

Senior Midwifery and Nursing Staff

- Sinéad Heaney, Director of Midwifery
- Mary O'Donnell, Clinical Midwife Manager 3

UHK Staff

Consultants in Obstetrics and Gynaecology

- Dr Paul Hughes, Clinical Lead, Consultant Obstetrician and Gynaecologist
- Dr Magid Abubakar, Consultant Obstetrician and Gynaecologist
- Dr Mary McCaffrey, Consultant Obstetrician and Gynaecologist
- Dr Savita Lalchandani, Consultant Obstetrician and Gynaecologist

Senior Midwifery and Nursing Staff

- Sandra O'Connor, Director of Midwifery
- Mary Stack Courtney, Clinical Midwife Manager 3

UHW Staff

Consultants in Obstetrics and Gynaecology

- Dr Eddie O'Donnell, Clinical Lead, Consultant Obstetrician and Gynaecologist
- Dr Azriny Khalid, Consultant Obstetrician and Gynaecologist
- Dr John Bermingham, Consultant Obstetrician and Gynaecologist
- Dr John Stratton, Consultant Obstetrician and Gynaecologist

Senior Midwifery and Nursing Staff

- Paula Curtin, Director of Midwifery
- Breda Crotty, Assistant Director of Midwifery
- Janet Murphy, Advanced Midwife Practitioner
- Maria Murtagh, Clinical Midwife Manager 3
- Amy Weymouth, CMS Ultrasound
- Jill Whelan, CMS Bereavement and Loss
- Linda O Callaghan, CPC Midwifery
- Mary Frisby, CMM2 Perinatal Mental Health
- Una Walsh, CMS Ultrasound
- Anne Fanning, Midwifery Scanning Early Pregnancy Unit
- Elaine Roche, Midwifery Scanning Early Pregnancy Unit
- Helen Patmore, Midwifery Scanning Early Pregnancy Unit

Education, Research and Innovation

Department of Obstetrics and Gynaecology, UCC

The Department of Obstetrics and Gynaecology's aim is to lead the development of teaching and research in obstetrics and gynaecology in Ireland and to become a centre of excellence internationally. This academic agenda is fully integrated with the delivery of clinical care in Cork University Maternity Hospital, thus providing a high quality academic service across a broad range of clinical, educational and research activities.

The department is located on the fifth floor of Cork University Maternity Hospital. It provides formal undergraduate teaching to UCC medical students. The department also provides a unique postgraduate programme namely the MSc in Obstetrics and Gynaecology programme aimed at clinical trainees in the speciality.

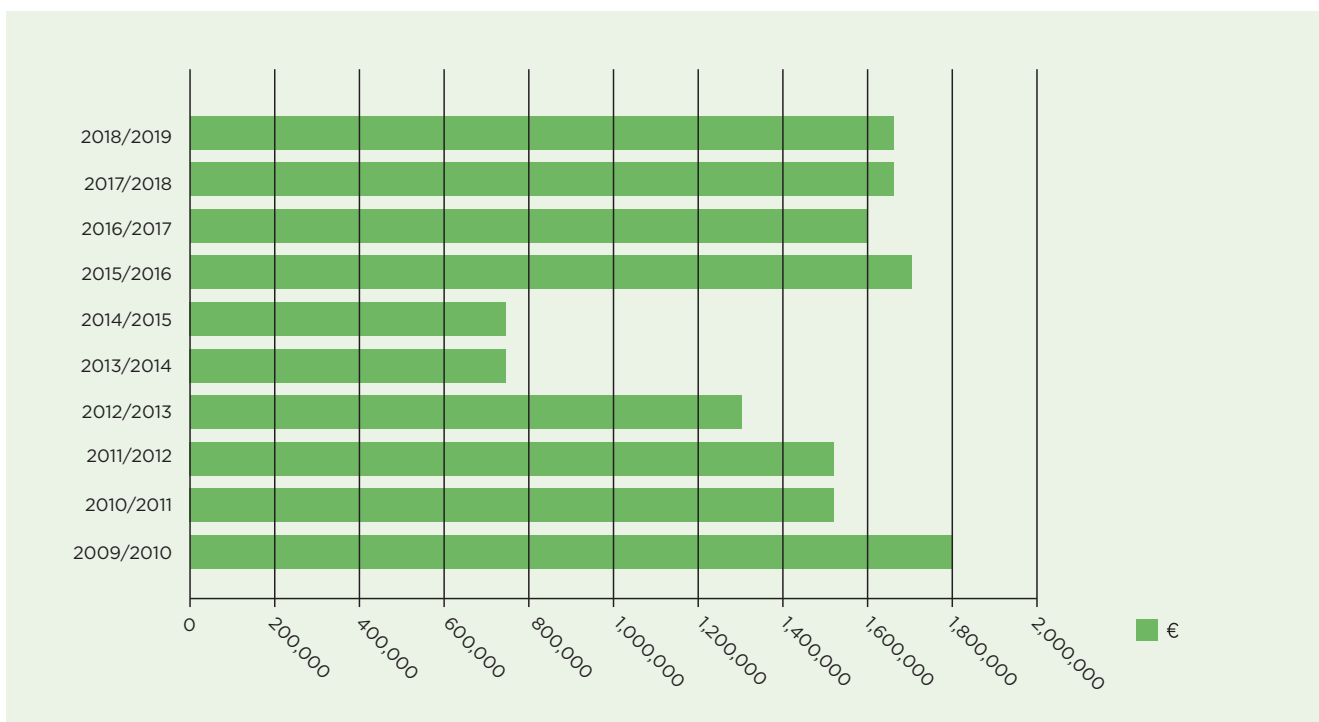


Figure 5: Research income in the Department of Obstetrics and Gynaecology, 2009-2019



Awards

Anu Research Medal, Anu Research Meeting, Department of Obstetrics & Gynaecology, University College Cork, 21 June 2019

Dr Irene Gorman 'Outcome at the extreme of viability: A single centre experience.'

Anu Undergraduate Gold Medal in Obstetrics and Gynaecology, Department of Obstetrics & Gynaecology, University College Cork, May 2019

Aoife Mabelson, undergraduate student

Anu Undergraduate Scholar Medal in Obstetrics and Gynaecology, Department of Obstetrics & Gynaecology, University College Cork, May 2019

Wanyi Kee, undergraduate student

Student Achievements

Completed MSc in Obstetrics and Gynaecology October 2019

Dr Alex Dakin
Dr Jennifer Enright
Dr Hannah Glynn
Dr Emmanuel Hakem
Dr Daniel Kane
Dr Roisin McConnell
Dr Gabriela McMahon
Dr Ruth Roseingrave
Dr Maeve Smyth
Dr Emma Tuthill
Dr Mona Hersi
Dr Marwa Mohamads

New Staff

Ruth Devenney

Ruth started in the Department of Obstetrics and Gynaecology in August 2019. Ruth as Postgraduate Education Administrator for the department has overall responsibility for the administration and delivery of all postgraduate support services within the department including the MSc in Obstetrics & Gynaecology Programme. Ruth worked in the Mercy Hospital Cork prior to joining UCC.

Ann O'Donovan

Ann joined the Department of Obstetrics and Gynaecology in December 2019. Ann is Undergraduate Teaching Programme Administrator with responsibility for the overall administration of the fourth and final medical teaching programmes. She also provides administrative support for the department. She has worked in UCC since 2013 as part of the Capital Projects Team in Buildings and Estates prior to taking up her post in the department.

Anu Research Centre

The Anu Research Centre is the dedicated research facility within the Department of Obstetrics and Gynaecology, UCC focusing on the mother and the unborn baby. The Anu Research centre strengthens the department's commitment to maternity and neonatal healthcare and is central to its aims and philosophy. The centre is a purpose-built integrated research and clinical centre in human reproduction bringing together expert academic and clinical staff.

The National Perinatal Epidemiology Centre (NPEC)

The National Perinatal Epidemiology Centre is based in the UCC Anu Research Centre in Cork University Maternity Hospital. The overall objective of the Centre is to collaborate with Irish maternity services to translate clinical audit data and epidemiological evidence into improved maternity care for families in Ireland.

It conducts audit and research into pregnancy outcomes in the Irish maternity services. The NPEC is directed by Professor Richard A. Greene and are a team of midwives, researchers, administrators and clinicians. Every time a mother gives birth in Ireland, the important interventions, the good outcomes and the complications are recorded and analysed at a national specialist centre. The NPEC produces annual clinical audit reports on perinatal mortality, maternal morbidity, home births and very low birth weight babies in Ireland. NPEC have always strategically aimed to close the audit loop and since the establishment of the National Women and Infants Health Programme in January 2017 a number of the NPEC recommendations have been progressed.

At local hospital level, the NPEC provides customised feedback to individual hospitals on how they compare against the national average. In addition, the NPEC supports the Maternal Death Enquiry (MDE) Ireland, which investigates cases of maternal mortality.

In 2019, the Centre continued to build on its existing portfolio of audit and quality review. The Centre also investigated pertinent research topics in maternal and perinatal health, including pregnancy loss; models of maternity care; and the impact of Caesarean section in subsequent pregnancies.

The NPEC continues to prosper amongst the good will granted to it by the many midwives, obstetricians, academics, neonatologists and administrators who support and collaborate with the Centre; and similarly, the patients who agree to participate in its large cohort research studies.

This year 2019 marks a significant year for the NPEC. The NPEC are highlighting 10 years of data and audit in the maternity services. The NPEC fully intends to continue its commitment to improving the maternity services for women and babies in Ireland.

Health Innovation Hub Ireland (HIHI)

Health Innovation Hub Ireland (HIHI) was established in 2016 by the Department of Business, Enterprise and Innovation and the Department of Health, supported by Enterprise Ireland (EI) and the Health Service Executive (HSE) to drive collaboration between the health service and enterprise. Professor John R. Higgins, Clinical Director Ireland South Women & Infants Directorate has been appointed as Principal Investigator of HIHI since 2016.

HIHI is built on the recognition that collaboration with enterprise can benefit patient care, patient pathways and outcomes. Companies are offered the opportunity for pilot and clinical validation studies and the health service receives access to innovative products, services and devices that they may not otherwise be exposed to.

The third national Health Innovation Hub Ireland (HIHI) was opened in Galway in September 2019, marking a continued pattern of growth for the HIHI nationally. This expansion builds on the Hubs in Cork and Dublin.

INFANT

INFANT is a leading translational Research Centre in maternal and child health. INFANT's mission is to deliver pioneering translational research to improve health outcomes in pregnancy, birth, newborn and early childhood phases of growth and development.

INFANT is hosted by University College Cork (UCC), an internationally competitive, research-led University which plays a key role in the development of the regional and national knowledge economy and is co-located with clinical partners Cork University Hospital and Cork University Maternity Hospital (CUH/CUMH). INFANT's state-of-the-art co-located facilities serve the centre's research goals and support multi-disciplinary and trans-disciplinary collaboration between the university and hospitals.

INFANT was established in 2013, building on over a decade of award winning fetal and neonatal translational research. INFANT was initially supported by core funding from Science Foundation Ireland (SFI) and they have grown a funding portfolio of over €40M from a diverse range of exchequer, non-exchequer, industry and philanthropic sources.

INFANT has evolved significantly since the Centre was established in late 2013. Initially set-up with a team of 8 founding Principal Investigators (PIs), they are now home to a multidisciplinary team of over 100 PIs, clinicians, research scientists and engineers in areas ranging from obstetrics,



paediatrics, neonatology, neuroscience and nutrition to bio-medical engineering, informatics and artificial intelligence as well as over 40 industry partners and over 50 international collaborators. Since INFANT's establishment in 2013, more than 4,000 mothers and 3,000 babies have participated in our research studies.

INFANT's research has also evolved. When the Centre was established, the focus was to advance perinatal translational research. Research now also embraces maternal and child health, focusing particularly on interventions or events that occur in pregnancy, birth, the neonatal period and early infant development. This expansion reflects the importance of early life (from conception to the second birthday – the “first 1,000 days”) as a critical period of human development, when healthy growth and neurological development establish the foundations for life-long health.

Key challenges INFANT is addressing:

Challenges of pregnancy and birth, the newborn period, early life and childhood represent a massive global burden of disease and pose a significant burden on health-care resources and patients' quality of life. They have been historically neglected in terms of research investment and the development of effective solutions.

INFANT has developed many world first scientific breakthroughs, helping clinicians to alleviate these challenges e.g. screening tests for pre-eclampsia, automated detection systems for neonatal seizures and breakthrough therapies for peanut allergy.

The INFANT strategy is to strive for scientific excellence and disruptive innovation in our quest to become a leading Institute of Maternal and Child Health of international renown. INFANT have a clear vision of how they will achieve this to enable the delivery of scientific excellence, innovation and societal and economic impact now and for the next generation.

Some key achievements during 2019 were:

- INFANT secured almost €3.5M of new funding in 2019, including deals with industry worth €1.8M.
- INFANT published over 60 publications in 2019 and employs 7 PhD graduates and 30 PhD students.
- INFANT Centre researchers published ground-breaking research in JAMA Neurology and have identified two biochemical signals that can be used to aid the detection of birth-related brain injury. This research has been able to identify the microRNA in the umbilical cord and this is a very important step in the early diagnosis and treatment of babies affected by lack of oxygen to the brain.

- INFANT Principal Investigator Professor Jonathan Hourihane was awarded a Fulbright Award in 2019. Jonathan will undertake his Fulbright-HRB Health Impact Scholar Award at the University of Colorado, Denver.
- INFANT was named winner of ‘The Best Application of AI in an Academic Research Body’ for the use of AI to diagnose brain injury in infants in 2019. INFANT PhD student Alison O’Shea and the INFANT Engineering team developed an algorithm that detects seizures in newborns and alerts the healthcare team that the baby may need some additional support.
- INFANT research named in Wellcome Trust Top 10 – AI, helping babies at risk of brain injury.
- In October 2019, INFANT PhD researcher Anne Helps won runner up prize for her poster ‘Analysis of Irish Inquiry Reports relating to Pregnancy Loss Services’ at the International Stillbirth Alliance’s 11th Annual Conference in Madrid.
- An INFANT researcher received funding by the SFI Starting Investigator Research Grant (SIRG) in 2019. Dr Aine Hennessy was awarded €424,898 over four years to develop her project “An exploration of the suitability of thyroid hormones in measuring iodine deficiency during pregnancy and its impact on infant brain development”.
- A team from INFANT travelled to Kilimanjaro Clinical Research Institute in Moshi, Northern Tanzania in February 2019 to establish global health partnership.

Pregnancy Loss Research Group

The Pregnancy Loss Research Group at CUMH is led by Dr Keelin O’Donoghue. The group encompasses a multidisciplinary team of doctors, researchers, scientists, midwives, nurses, social workers, pathologists and chaplains alongside medical, Masters and Doctoral students, working collaboratively with the common goal – to provide support and information to parents bereaved by early and late pregnancy loss, promote their emotional, psychological, spiritual and physical well-being, as well as improving professional practice and clinical care, influencing health-care policy and facilitating research in all areas of pregnancy loss.

The Pregnancy Loss Research Group came together formally in 2012 and now meets monthly at CUMH. Research from the group has been presented at a wide variety of international conferences around the world. Members of the group have also been involved



in a large number of national and international publications as well as national guidelines and reports. See Appendix 2 for more details.

The aims of the group are to:

- Examine the lived experiences of men and women who have experienced early pregnancy loss, late miscarriage, stillbirth and neonatal death as well as those who have had pregnancies complicated by fatal fetal anomaly.
- Examine lifestyles and psycho-social demographic factors as well as risk factors associated with all types of pregnancy loss.
- Explore the psychological and spiritual needs of bereaved parents.
- Explore bereaved parents' attitudes and experiences, and assess how this interacts with biological or socio-demographic causes of pregnancy loss.
- Improve population awareness and understanding of the prevalence and impact of pregnancy loss.
- Develop evidence-based behaviour change interventions targeting modifiable risk factors for stillbirth.
- Discover bereaved parents' attitudes to post-mortem investigations, including autopsy and examination of the role of the Coroner
- Examine the impact of pregnancy loss for the next pregnancy on parents and healthcare professionals and to explore the specific experiences of pregnancy after stillbirth.
- Examine children's experiences after the death of a sibling through perinatal death.
- Improve understanding and increase awareness of the consequences of pregnancy loss amongst healthcare professionals
- Explore population knowledge and incidence of fatal fetal anomaly, and experiences of both volunteers and fetal medicine specialists in supporting and caring for parents who experience a pregnancy with a fatal fetal anomaly.
- Analyse the methodology and structure of local and national perinatal mortality reviews, focussing on recurrent themes and implementation of recommendations, as well as the involvement of staff and the bereaved parents.
- Identify risk factors for perinatal mortality in multiple pregnancy in Ireland and to examine the current maternity services and service needs for this cohort.
- Examine the investigation and management practices in recurrent miscarriage with a focus on subsequent pregnancy outcomes and service provision in this area, including for those patients with coexisting infertility.
- Develop educational resources and provide education and professional development for all healthcare professionals involved in pregnancy loss.

Key achievements during 2019 include:

- Dr Keelin O'Donoghue, Consultant Obstetrician & Gynaecologist, and Senior Lecturer at Cork University Maternity Hospital and University College Cork led the two-year implementation programme (2017-19) for the National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death in all 19 Irish maternity units.
- The National Bereavement Forum for the Implementation of National Standards for Bereavement Care following Pregnancy Loss and Perinatal Death, to mark the end of the two years of implementation, was held at the Devere Hall, UCC, Cork, on 2 March 2019.
- The website **www.pregnancyandinfantloss.ie** was launched in April 2019, an initiative of the above National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death, in partnership with INFANT Centre at UCC and the Irish Hospice Foundation.
- Members of the group (Drs O'Donoghue and Russell, Drs Meaney and Murphy) collaborated in the Ethics, Law and Pregnancy in Ireland Network (ELPIN) which was funded by the Wellcome Trust

- in 2019 and is based at University College Cork.
- Dr Karen McNamara was awarded her PhD at University College Cork for her thesis; “The impact of intrapartum fetal death and other serious adverse perinatal events on healthcare professionals and the maternity services”.
 - The development and provision of TEARDROP (Teaching, Excellent, pArent, peRinatal, Deaths-related, inteRactions, tO, Professionals) multidisciplinary bereavement training programme in August 2019 at CUMH.
 - Dr O’Donoghue as Principal Investigator was awarded funding under the HRB Investigator-Led Projects (ILP) in 2019 for a study of the impact of dedicated recurrent miscarriage clinics in the Republic of Ireland. The aim of the RE:CURRENT project (which commences January 2020), is to actively collaborate with a range of stakeholders (men and women who experience recurrent miscarriage, as well as those involved in the delivery/organisation/governance of their care), to evaluate recurrent miscarriage services in Ireland using mixed-methods, multidisciplinary approaches to inform efforts to standardise and improve the quality of care provided.
 - Research from the Pregnancy Loss Research Group was presented at the following National and International Conferences in 2019:
 - NPEC Study Day 2019. National Audit : Improved Care Marking 10 years of NPEC & Clinical Audit in the Maternity Services. Aviva Stadium Dublin, 18 January 2019
 - Trinity Health and Education International Research Conference (THEconf2019), Trinity College Dublin School of Nursing and Midwifery, 6-7 March 2019
 - Atlantic Corridor Medical Student Research Conference, University College Cork, 7 November 2019
 - Children’s Palliative Care Conference, Galway, 21 November 2019
 - Irish Congress of Obstetrics, Gynaecology and Perinatal Medicine, Galway, 28-29 November 2019
 - INFANT Centre, Annual Study Day, UCC, 12 December 2019
 - Society for Maternal and Fetal Medicine 39th Annual Meeting, Las Vegas, USA, 11-16 February 2019
 - RCOG World Congress, London, 17-19 June 2019
 - European Society of Human Reproduction and Embryology 35th Annual Meeting, Vienna, 23-26 June 2019
 - British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019
 - International Stillbirth Alliance Annual Conference 2019, Madrid, 4-6 October 2019
 - Dr O’Donoghue was invited to give Plenary Lectures at the International Stillbirth Alliance Annual Conference in Madrid, the North West Baby Loss Conference at Liverpool Women’s NHS Foundation Trust, the Tavistock and

Portman NHS Foundation Trust HSE Ireland Perinatal Mental Health Training Programme in Dublin and the Institute of Obstetricians and Gynaecologists Annual Study Day at the Royal College of Physicians of Ireland.



The Centre for Research and Innovation in Gynaecological Surgery

Directors: Dr Matt Hewitt and Professor Barry O’Reilly

The Centre for Research and Innovation in Gynaecological Surgery is dedicated research and innovation. Its facilities include two integrated operating theatres fully linked to the educational facility of UCC within Cork University Maternity Hospital. The theatres are connected to a Da Vinci surgical platform: this is a precision surgical tool used for the treatment of benign and malignant disease by enabling performance of complex and delicate procedures through small incisions. It leads to significantly less pain, less blood loss, fewer complications, less scarring, a shorter hospital stay and a faster return to normal daily activities. It is utilised in both undergraduate and postgraduate education to demonstrate “live surgery.”

The Centre has a strong research agenda, including postgraduate students currently undertaking PhDs and it also facilitates research projects for UCC Final Year Medical students and MSc students.

The Cork University Maternity Hospital Department of Urogynaecology and Pelvic Floor Reconstructive Surgery has been reaccredited by EBCOG/EUGA as a subspecialty training centre in urogynaecology in 2019 for five more years, the only urogynaecology department in Ireland to achieve this accreditation and only one of a few centres in Europe. It is also a recommended centre to visit and train by the International Urogynaecological Association (IUGA).

Neonatology

The Neonatal Research Centre was opened in 2009 and this facility is located directly adjacent to the neonatal unit and provides office and desk space for seven research staff. In collaboration with the Neonatal Brain Research Group (NBRG) UCC and the INFANT Centre, the development of the research centre remains a major advance for the research activities of the Department of Neonatology, bringing science and technology closer to the cot side.

The INFANT Centre is jointly hosted by the Department of Obstetrics and Gynaecology at Cork University Maternity Hospital and Department of Paediatrics and Child Health at University College Cork, and consists of multidisciplinary researchers with outstanding academic, clinical and research track records. These researchers collectively aim to deliver novel screening and diagnostic tests and innovative therapeutic strategies for adverse pregnancy and neonatal outcomes.

School of Nursing & Midwifery, UCC

In 2019, the School of Nursing and Midwifery commemorated 25 years with the publication of *25 Years Origins to 2019: Catherine McAuley School of Nursing & Midwifery UCC* which was launched on 5 December 2019. This was co-authored by Professor Geraldine McCarthy and Professor Josephine Hegarty with the help of staff from the School of Nursing and Midwifery. This event also commemorated 21 years of midwifery education in UCC with the transfer of the Certificate in Midwifery for Registered General Nurse to a Postgraduate Diploma in Midwifery which commenced in April 1998.

Located in the Brookfield Health Sciences Complex, the School of Nursing & Midwifery offers two registerable midwifery programmes in partnership with the Cork University Maternity Hospital; a 4-year BSc in Midwifery and an 18-month post registration Higher Diploma in Midwifery. The BSc in Midwifery has 20 students in each year of the programme and the Higher Diploma in Midwifery has 32 students in each intake. In 2019, 77 undergraduate and 24 postgraduate student midwives were in the service.

Student midwives are supported in practice by the midwifery practice development officer, clinical placement coordinators, postgraduate clinical coordinator, allocations liaison officer and link lecturers. Midwives provide preceptor support to students to ensure that their midwifery competencies are achieved. Midwifery lecturers support students in practice settings and contribute to the PROMPT and NRP multidisciplinary training sessions.

The School offers continuing education for midwives including an MSc Midwifery and Continuing Professional Development (CPD) modules in conjunction with Cork University Maternity Hospital. In 2019, a new CPD module was offered on Maternity Critical Care which is delivered by midwife Pam Evans with the support of midwifery and medical staff in CUMH and ICU Clinical Skills Facilitators from CUH ICU. Midwives from Cork University Maternity Hospital and South Tipperary General Hospital undertook the MSc in Midwifery in 2019.

Student Achievements 2019

Completed BSc (Hons) Midwifery 2015-2019

Louise Barry, Joy Beardsworth, Aoife Buckley, Claire Cahalane, Cliodhna Dermody, Eloise Douglas, Samantha Galvin, Katherine Keane, Rachel Keane,



Aisling Keane, Nikola Kiezik, Caroline Lynch, Shauna McNamara, Rebecca Nolan, Lisa O'Brien, Orla O'Connor, Courtney O'Donoghue, Alannah Prendergast.

Completed Higher Diploma in Midwifery September 2019

Laura Beecher, Eileen Burke, Helen Cullinane, Aine Griffin, Kathryn Griffin, Laura Haughey Niamh Howard-Jones, Lisa Kelleher Eileen Leahy, Natasha Lee, Maeve Lehane, Kadie Linehan, Maria Lozano Tornay, Rebecca Lynch, Aoife McGrath Kate Murphy, Kate O'Brien, Clodagh O'Callaghan, Catherine O'Connor, Helen Ryan, Marlene Sanchez, Isobel Scally, Orlaith St John.

Completed MSc Midwifery 2019

Clare Buckley, Alex Campbell, Lisa Collins, Aisling Murphy, Jacqueline Manning.

COMH Quercus Scholar awards 2019 BSc Midwifery

Annaleigh Walsh, Sarah O'Connor, Giulia Marinelli.

Dr H.H. Stewart Medical Scholarship in Midwifery 2019

2nd prize Joy Beardsworth, BSc, University College Cork.

Doctor of Nursing 2019

Awarded to Malitha Veera Monis, for a thesis titled 'Mentalizing possibilities - a grounded theory of antenatal women's decision making of their birth choices in pregnancy following a previous caesarean section (CS).'

Centre of Midwifery Education

The Centre of Midwifery Education (CME) is based in CUMH and is committed to the development and provision of programmes of education and training for registered midwives, nurses and the multidisciplinary team to support service delivery and be responsive to continuous service development. All education programmes support the development and ongoing maintenance of clinical competence and promote evidence based care.

UHW and STGH have access to continuing education through the Nursing and Midwifery Planning and Development Unit (NMPDU) in Kilcreene, Kilkenny and the Regional Centre for Nurse and Midwifery Education (RCNME) based at University Hospital Waterford. A range of the programmes provided by CME are open to staff in UHK.

As part of a national initiative, two new midwifery specialist coordinator posts were created in 2019. Both posts were filled in 2019 with a start date of January 2020. These posts are supported by the Nursing and Midwifery Planning and Development Unit (NMPDU) and the Office of the Nursing and Midwifery Services (ONMSD).

CME Activity and Achievements

In 2019 the CME supported three teachers studying for a Postgraduate Diploma in Education in NUIG and/or a Graduate Certificate in Health Professions Education in UCD. Formal assessments were completed by the CME. As a result, the Centre of Midwifery Education in CUMH is now recognised as a site for teaching practice and assessment with the above named academic institutions.

Each year, the activity of the CME continues to grow with ongoing and new requests for education. A new train the trainer programme in perineal repair and new workshops on positions in labour were facilitated in 2019. The CME acquired a new simulator for shoulder dystocia drills which is used for PROMPT 3 education and for impromptu drills on the wards.

In May 2019, a one-day conference was held in UCC, Brookfield. This was coordinated by the SSWHG Midwifery Forum which includes members of the CME. Soo Downe OBE, Professor in Midwifery Studies and Sheena Byrom, OBE, Consultant Midwife from the UK facilitated a very interactive and participative day on normal birth. It was well attended and very well evaluated by all participants.

All programmes provided by the CME carry Continuing Education Units (CEUs) from the Nursing and Midwifery Board of Ireland (NMBI) and some hold academic accreditation.

Programmes on offer in 2019 include:

- Anaphylaxis
- Baby Tagging
- Basic Life Support
- Irish Maternity Early Warning System (IMEWS) update
- Infant Mental Health Network Group
- Intravenous Therapy
- K2 Perinatal Training Programme TTT
- Maternity Critical Care
- Midwifery Induction 3 Week Programme
- Midwifery/Nursing Induction One Day Programme
- MN-CMS Update
- Moving and Handling Full Programme
- Moving and Handling Refresher
- Nurse Induction 3 Week Programme
- Open Disclosure
- Pelvic Floor Anatomy and Physiology
- Perineal Repair
- Perineal Repair Train the Trainer
- Positions for Labour and Birth
- PPPG Training Programme
- Preceptorship
- Preparation for Birth and Parenthood Education Facilitation Module
- PROMPT 3
- Prostin Workshop
- SEPSIS Update
- Shoulder Dystocia Workshops
- Seasonal Influenza Peer Vaccination Programme

- Venepuncture Only Programme
- Venepuncture and Peripheral IV Cannulation Full Programme
- Venepuncture and Peripheral IV Cannulation Update

The CME are also involved in the provision of the Neonatal Resuscitation Programme (NRP) in conjunction with the NRP Clinical Skills Facilitator & Coordinator in CUMH.

In addition, a number of programmes offered by the CME employ blended learning which is a combination of face to face and e-learning i.e. K2 training, IMEWS venepuncture and peripheral intravenous cannulation.

Practice Development, CUMH

Throughout 2019, in conjunction with the Centre of Midwifery Education, the Practice Development Team in CUMH continued to support the continuing professional development of new and qualified midwives/nurses as well as all activities relating to standards and practice throughout the hospital.

The Practice Development Team promotes the philosophy of fostering a culture of learning alongside supporting students and staff to be competent, skilled and professional members of an exemplary multidisciplinary team.

A suite of services are provided, including the ongoing review and updating of policies, procedures and guidelines (PPPGs), collection of

monthly midwifery metrics, the undertaking of audits, as well as supporting the undergraduate midwifery programme from UCC, facilitating clinical placements, supporting training days and the provision of MN-CMS training to all midwives and nurses joining the service.

In 2019, the new standards and requirements for the Higher Diploma in Midwifery were implemented and 24 students received both education and clinical placement in CUMH, following close liaison with our colleagues in UCC as our academic partner.

The Practice Development Team also provided education and clinical placement for 78 BSc Midwifery students, 82 students from the general and integrated programmes (General and Paediatrics and 7 student public health nurses. These student placements are provided in partnership with the Higher Education Institute (HEI). Clinical assessments of midwifery students are completed in partnership with UCC.

There were a total of 268 multidisciplinary staff that were trained in the Neonatal Resuscitation Programme (NRP) in CUMH during 2019. Fifty people completed the STABLE programme in CUMH, focusing on newborn emergency care. Four staff attended the NRP Instructor programme in Dublin and several more were mentored onsite for NRP

In 2019, three midwives completed Certificates in Nurse/Midwife Prescribing in UCC, supported by the Practice Development Coordinator.



Appendix

Selected Publications

Selection of publications from staff 2019

Barrett PM, McCarthy FP, Kublickiene K, Evans M, Cormican S, Judge C, Perry IJ, Kublickas M, Stenvinkel P, Khashan AS. Adverse pregnancy outcomes and long-term risk of maternal renal disease: a systematic review and meta-analysis protocol. *BMJ Open*. 2019 May 5;9(5):e027180. doi: 10.1136/bmjopen-2018-027180. PMID: 31061049.

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- Geisler M, Meaney S, Waterstone J, O'Donoghue K. The impact of stress on fertility outcomes European Society of Human Reproduction and Embryology 35th Annual Meeting, Vienna, 23-26 June 2019. *Human Reproduction.* 2019;Issue Suppl 1.
- Gutman A, Helps A, Leitao S, O'Donoghue K. Review of the National Perinatal Epidemiology Centre Perinatal Mortality Audit Reports (2009-2016). *Irish Journal of Medical Science* 2019;188(suppl 12): s360-s360.
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Ryan N, Verling AM, O'Donoghue K. The electronic record and the value of an alert symbol British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019. *BJOG: An International Journal of Obstetrics & Gynaecology*. 2019;126(Issue S1):130.

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Shplo S, O'Donoghue K, Meaney S. Critical discourse analysis of the joint committee meetings on the eighth amendment of the constitution of Ireland Society for Social Medicine and Population Health Annual Meeting, Cork, 4-6 September 2019. *J Epidemiol Community Health* 73(Suppl 1):A108-A108.

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Selection of conference presentations and papers 2019

Celebrating the Contribution of Nurses and Midwives: Learning from the Past and Looking to the Future, *19th Annual Nursing & Midwifery Research Conference, UCC, Cork, 28 November 2019*

Campbell A, O'Connell R. Baby's First Hug: Establishing skin-to-skin contact during caesarean birth using Participatory Action Research, *19th Annual Research Conference School of Nursing and Midwifery, University College Cork, November 2019*

Curtin M, Savage E, Leahy-Warren P. Redefining the concept of Humanisation in pregnancy, *19th Annual Research Conference School of Nursing and Midwifery, University College Cork, November 2019*

Donoghue S, O'Toole J, Finn D, *et al* GP251. Is heart rate variability (HRV) a predictor of intraventricular haemorrhage (IVH) in preterm infants?, *Archives of Disease in Childhood 2019;104:A134-A135*.

Downe S, Byrom S. Supporting Midwife-Led Care in Ireland: The Roar Behind the Silence, *SSWHG Midwifery Conference, 24 May 2019*

Fletcher A, Leahy-Warren P. Midwives' experiences of caring for women's emotional and mental well-being during pregnancy, *UCC SoN&M Research Conference, 28 November 2019*

Fletcher A, Leahy-Warren P. Midwives' experiences of caring for women's emotional and mental well-being during pregnancy, *Trinity Health and Education International Research Conference, TCD Dublin, 7 March 2019*

Foley DJ, Filan PM, Walsh BH. Documentation of Neurological Examination when Determining Eligibility for Therapeutic Hypothermia, *9th Europediatics, Dublin, 2019*

Foley DF, Murphy B, Walsh BH. Which bug is to blame? Klebsiella and coagulase negative staphylococcal sepsis in a preterm neonate, *37th Annual Meeting of the European Society for Paediatric Infectious Diseases, Ljubljana, Slovenia, 2019*

Foley DF, Walsh BH. Late Onset Group B Streptococcal Sepsis in a Neonate with Intra-Uterine Rituximab Exposure in the Second Trimester of Pregnancy, *37th Annual Meeting of the European Society for Paediatric Infectious Diseases, Ljubljana, Slovenia, 2019*

Garvey AA, Pavel AM, O'Toole JM, Walsh BH, Korotchkova I, Dempsey EM, Murray DM, Boylan GB. Neurophysiological alterations during the first 6 hours in

Infants with Mild Hypoxic Ischaemic Encephalopathy, *3rd Congress of joint European Neonatal Societies, Maastricht, 2019*

Johnson D, Lawlor D, McLoughlin G. Development of a National Competence Assessment tool to assess clinical practice of undergraduate student midwives in the ROI, *Royal College of Midwives Annual Conference, Manchester, September 2019*

Leahy-Warren P, Coleman C, Mulcahy H. Prevalence and associated factors to depression in mothers with preterm infants in the first year postpartum, *Trinity Health and Education International Research Conference TCD Dublin, 7 March 2019*

Leahy-Warren P, Hunt F, O'Connell R. Grandmother/mother Dyad: Experiences of Breastfeeding, *Nutrition and Nurture in Infancy and Childhood: Bio-Cultural Perspectives, Grande Hotel, Grange -Over Sands, Cumbria, 12 June 2019*

Leahy-Warren P, O'Connor M. Breastfeeding Self-Efficacy and Skin to Skin Contact among First Time Mothers, *Nutrition and Nurture in Infancy and Childhood: Bio-Cultural Perspectives, Grande Hotel, Grange -Over Sands, Cumbria, 12 June 2019*

Manning E, Corcoran P, O'Farrell IB, Leitao S, Greene RA. Caring for critically ill women in obstetrics in Ireland: 2014–2016. *Journal of Epidemiology & Community Health. 2019 Sept;73(Suppl 1):A104.1-A104. doi: 10.1136/jech-2019-SSMabstracts.223*

McGauran G, Healy D, Dempsey E. GP258 The role of reflective materials in neonatal jaundice – a pre-clinical study, *Archives of Disease in Childhood. 2019;104:A137-A138*.

Monis M, Andrews T, O'Connell R. Antenatal women's experiences with the decision making of their birth choices in pregnancy following a previous Caesarean Section (CS), *Nordic Federation of Midwives Reykjavik, 2-4 April 2019*

Mulcahy H, Leahy-Warren P, O'Connor M. Breastfeeding Education for Student Public Health Nurses: Integrating Theory and Practice, *Nutrition and Nurture in Infancy and Childhood: Bio-Cultural Perspectives in Grande Hotel, Grange -Over Sands, Cumbria, 10 June 2019*

Murphy M. Perinatal Bereavement Education Standards, *Bereavement Education Forum for the Implementation of National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death, University College Cork, 2 March 2019*

Murphy M. Couple Relationship in a Pregnancy Following Loss, Perinatal Loss and the Pregnancy that Follows:

Impact on mothers, partners and children Symposium, *8th IAWMH Congress and 22nd Marce Society Meeting, Paris, 5-8 March 2019*

Murphy M. Revisiting birth: clinical care of couples in pregnancy following stillbirth, *Trinity Health and Education International Research Conference (TCD), 6-7 March 2019*

Murphy, M. Couple relationship in pregnancy after loss, *Trinity Health and Education International Research Conference (TCD), 6-7 March 2019*

Murphy M. What midwives need to know when caring for couples who are pregnant after stillbirth, *Virtual International Day of the Midwife Online Conference, 5 May 2019*

Murphy M. Caring for couples at the time of loss and the pregnancy that follows, *Star Legacy Stillbirth Summit, Minneapolis, Minnesota, USA, 19-21 June 2019*

Murphy M. Education for perinatal bereavement care, *ISA Madrid Global Annual Conference on Perinatal Mortality and Bereavement Care, 4-6 October 2019*

Murphy M. Parental experiences of pregnancy after loss, *ISA Madrid Global Annual Conference on Perinatal Mortality and Bereavement Care, 4-6 October 2019*

O'Connell R, Vermeulen J, Luyben A, Gillen P, Piéro Escuriet R, Fleming V. Failure or progress? The current state of professionalisation of midwifery in Europe, *EMA Conference, Malmö, 29-30 November 2019*

O'Farrell IB, Manning E, Leitao S, Corcoran P, Greene RA. Perinatal mortality in Ireland, 2016 – a national clinical audit into perinatal mortality in the republic of Ireland. *Journal of Epidemiology & Community Health. 2019 Sept;73(Suppl 1):A104.1-A104. doi: 10.1136/jech-2019-SSMabstracts.223*

O'Sullivan D, O'Toole J, Finn D, *et al*. OC59 Multimodal monitoring as predictor of brain injury in the preterm infant. *Archives of Disease in Childhood. 2019;104:A24-A25*.

O'Sullivan D, O'Toole J, Finn D, *et al*. OC59 Multimodal monitoring as predictor of brain injury in the preterm infant. *EPAS. 2019.4157.531*.

Pavel AM, Dhais FA, Howard C *et al*. GP252 The effect of music therapy on the electroencephalogram (EEG) and heart rate variability (HRV) of premature infants during routine painful procedures. *Archives of Disease in Childhood. 2019;104:A135*.

Society for Social Medicine and Population Health and International Epidemiology Association European Congress Annual Scientific Meeting 2019, Hosted by the Society for Social Medicine & Population Health and International Epidemiology Association (IEA), School of Public Health, University College Cork, Cork, Ireland, 4–6 September 2019

Thewissen I, *et al.* Cerebral oxygenation and autoregulation during hypotension in extreme preterm infants. *EPAS*. 2019. 2175.7.

Selection of oral presentations 2019

Fletcher A, Leahy-Warren P. The woman has something to divulge: Midwives perspectives on women's mental health, *Grand Rounds CUH*, 17 May 2019

Healy C, Verling AM, Nuzum D, Cotter R, O'Donoghue K. A Retrospective Review of the Perinatal Palliative Care Programme at Cork University Maternity Hospital (CUMH), *Children's Palliative Care Conference, Galway*, 21 November 2019

Healy C, Verling AM, Nuzum D, Cotter R, O'Donoghue K. A Retrospective Review of the Perinatal Palliative Care Programme at Cork University Maternity Hospital (CUMH), *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Helps A, Leiteo S, Greene R, O'Donoghue K. The evolution and current status of perinatal mortality reviews, *Trinity Health and Education International Research Conference (THEconf2019)*, Trinity College Dublin School of Nursing and Midwifery, 6 and 7 March 2019

Helps A, Leiteo S, Greene RA, O'Donoghue K. Irish inquiry reports on pregnancy loss services: recommendations on management of information and maternity services governance, *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Helps A, Leiteo S, O'Byrne L, Greene RA, O'Donoghue K. Analysis of Irish inquiry reports relating to perinatal deaths and pregnancy loss services (2005 – 2018), *Irish Congress of Obstetrics, Gynaecology and Perinatal Medicine, Galway*, 28-29 November 2019

Leahy-Warren P, O'Connell R, Corcoran P, O'Connor M, Mulcahy H. Women's Experience of Maternity Care in the S/ SWHG: Perinatal Care at the *Maternity Governance Meeting UHK*, 30 September 2019

Leahy-Warren P, O'Connell R, Corcoran P, O'Connor M, Mulcahy H. Women's Experience of Maternity Care in the S/ SWHG: Perinatal Care at the *Grand Rounds CUH*, 15 March 2019

Leahy-Warren P, O'Connell R, Corcoran P, O'Connor M, Mulcahy H. Women's Experience of Maternity Care in the S/ SWHG: Perinatal Care at the *South/South West Hospital Group Midwifery Executive Committee, CUMH*, 10 Jan 2019

McCarthy M, Meaney S, O'Donoghue K. Obstetric opinions on termination of pregnancy where the patient expresses suicidal ideation, in circumstances such as envisioned by the protection of Life During Pregnancy Act 2013, *Trinity Health and Education International Research Conference (THEconf2019)*, Trinity College Dublin School of Nursing and Midwifery, 6 and 7 March 2019

Meaney S, O'Donoghue K. Parents experience of the Coronial process following perinatal death, *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Monis M, Andrews T, O'Connell R. Antenatal women's experiences with the decision making of their birth choices in pregnancy following a previous Caesarean Section (CS), *Grand Rounds CUH*, 17 May 2019

Murphy M, O'Donoghue K, Savage E, Leahy-Warren P. Parental Experiences of Pregnancy after Loss, *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Murphy M, Savage E, O'Donoghue K, Leahy-Warren P. Revisiting birth: clinical care of couples in pregnancy following stillbirth, *Trinity Health and Education International Research Conference (THEconf2019)*, Trinity College Dublin School of Nursing and Midwifery, 6 - 7 March 2019

Nuzum D, Rice R, Verling AM, Cotter R, O'Donoghue K. Parents and Professionals: Collaboration in perinatal bereavement care developments, *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Power S, O'Donoghue K, Meaney S. Critical discourse analysis on the influence of media commentary on fatal fetal abnormality in Ireland, *Trinity Health and Education International Research Conference (THEconf2019)*, Trinity College Dublin School of Nursing and Midwifery, 6 and 7 March 2019

Selection of poster presentations 2019

Cotter R, O'Donoghue K. Developing a national bereavement care website, *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Devine D, Power S, Meaney S, O'Donoghue K. An assessment of UCC students' knowledge of fatal fetal anomaly and termination of pregnancy for fetal abnormality, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh*, 28-29 March 2019

Dicker P, Kealy ER, Unterscheider J, Daly S, Geary M, Kennelly M, McAuliffe F, O'Donoghue K, Hunter A, Morrison J, Burke G, Tully E, Malone F. The accuracy of targeted-SGA fetal weight estimation—results from the multicentre PORTO study, *Society for Maternal and Fetal Medicine 39th Annual Meeting, Las Vegas, USA*, 11-16 February 2019

Dicker P, Unterscheider J, Daly S, Geary M, Kennelly M, McAuliffe F, O'Donoghue K, Hunter A, Morrison J, Burke G, Tully E, Malone F. Obstetric history as risk factors for SGA or growth restriction – Results from the multicentre PORTO study, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh*, 28-29 March 2019

Escanuela Sanchez T, Meaney S, O'Donoghue K. Modifiable risk factors for stillbirth: a literature review *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Fitzgerald B, O'Donoghue K, Nuzum D, Evans MJ. Perinatal Pathology and the Coroner/Fiscal systems. Consultant Views, *The International Stillbirth Alliance Annual Conference, Madrid*, 4-6 October 2019

Geisler M, Meaney S, Waterstone J, O'Donoghue K. The impact of stress on fertility outcomes, *European Society of Human Reproduction and Embryology 35th Annual Meeting, Vienna*, 23-26 June 2019

Gutman A, Helps A, Leitao S, O'Donoghue K. Review of the National Perinatal Epidemiology Centre Perinatal Mortality Audit Reports (2009-2016), *Atlantic Corridor Medical Student Research Conference, University College Cork*, 7 November 2019

Hayes-Ryan D, Ismail K, Meaney S, Cotter A, O'Donoghue K. Antenatal course of Placental Growth Factor: a prospective study, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh*, 28-29 March 2019

- Hayes-Ryan D, Ismail K, Meaney S, Cotter A, O'Donoghue K. Antenatal 2D ultrasound measurements of placental surface area and volume and their relationship to gestationally matched PIGF: a prospective study, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*
- Hayes-Ryan D, Meaney S, Nolan C, O'Donoghue K. An exploration of womens experience of being involved in research during pregnancy, *Irish Congress of Obstetrics, Gynaecology and Perinatal Medicine, Galway, 28-29 November 2019*
- Hayes-Ryan D, Meaney S, O'Donoghue K. A prospective comparative study of Placental Growth Factor in a multiple pregnancy cohort, *Society for Maternal and Fetal Medicine 39th Annual Meeting, Las Vegas, USA, 11-16 February 2019*
- Hayes-Ryan D, Meaney S, Hodnett A, O'Donoghue K. Retrospective analysis of hypertensive disorders of pregnancy in a multiple pregnancy cohort, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*
- Hayes-Ryan D, Nolan C, Meaney S, O'Donoghue K. A Qualitative Study on Involvement of Pregnant Women in Research, *RCOG World Congress, London, 11-19 June 2019*
- Healy C, Verling AM, Cotter R, O'Donoghue K. Review of the Perinatal Palliative Care (PPC) Programme at Cork University Maternity Hospital, *Atlantic Corridor Medical Student Research Conference, University College Cork, 7 November 2019*
- Helps A, Leiteo S, O'Donoghue K, Greene RA. Perinatal death notification and local reviews in the 19 Irish maternity units, *Irish Congress of Obstetrics, Gynaecology and Perinatal Medicine, Galway, 28-29 November 2019*
- Helps A, Leiteo S, Greene RA, O'Donoghue K. Irish inquiry reports on pregnancy loss services: recommendations on management of information and maternity services governance, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*
- Helps A, Leiteo S, Greene RA, O'Donoghue K. Irish inquiry reports on pregnancy loss services: what recommendations on staffing and training? *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*
- Helps A, Leiteo S, Greene RA, O'Donoghue K. Review of Irish inquiry reports relating to pregnancy loss services (2005 – 2018), *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*
- Helps A, Leiteo S, Greene RA, O'Donoghue K. The way forward in perinatal mortality reviews, *RCOG World Congress, London, 11-19 June 2019*
- Helps A, Leiteo S, O'Donoghue K. Analysis of 10 published national inquiry reports relating to Irish pregnancy loss services, *RCOG World Congress, London, 11-19 June 2019*
- Hakem E, O'Donoghue K. Audit of the Anomaly Ultrasound Scan Service in CUMH, *Irish Congress of Obstetrics, Gynaecology and Perinatal Medicine, Galway, 28-29 November 2019*
- Ismail KI, Hannigan A, Kelehan P, O'Donoghue K, Cotter A. 2D ultrasound of placental surface area and volume: relationship to postnatal measurements and neonatal birthweight, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*
- Ismail KI, Hannigan A, Kelehan P, O'Donoghue K, Cotter A. Antenatal detection of abnormal placental cord insertion in each trimester: A prospective cohort study, *Society for Maternal and Fetal Medicine 39th Annual Meeting, Las Vegas, USA, 11-16 February 2019*
- Katheria AC, Reister F, Hummler H, Essers J, Mendler M, Truong G, Davis-Nelson S, S A, Carlo W, Yankowitz TD, Simhan H, Beck S, Kaempf J, Tomlinson M, Schmolzer G, Chari R, Dempsey E, O'Donoghue K, Bhat S, Hoffman M, Faksh A, Vaucher Y, Szychowski J, Cutter G, Varner M, Finer N.
- Premature Infants Receiving Cord Milking or Delayed Cord Clamping: A Randomized Controlled Non-inferiority Trial, *Society for Maternal and Fetal Medicine 39th Annual Meeting, Las Vegas, USA, 11-16 February 2019*
- Law KH, Jackson B, Guelfi K, Nguyen T, Bennett E, Wynter K, Leahy-Warren P, Dimmock J. Feasibility and pilot of the Mummy Buddy peer support program for first time mothers, *Australasian Marce Society National Conference, Perth, Australia, October 2019*
- McCarthy M, Meaney S, O'Donoghue K. Obstetric opinions on termination of pregnancy where the patient expresses suicidal ideation, in circumstances such as envisioned by the protection of Life During Pregnancy Act 2013, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*
- McCarthy C, Rochford M, McNamara K, Meaney S, O'Donoghue K. Risk perception on the labour ward, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*
- McConnell R, Meaney S, O'Donoghue K. Sexual health behaviours among university students, *RCOG World Congress, London, 11-19 June 2019*
- McConnell R, Meaney S, O'Donoghue K. Influence of cost on contraceptive choices amongst university students, *RCOG World Congress, London, 11-19 June 2019*
- McNamara K, Smith A, Pridhova L, Fitzgerald C, O'Donoghue K. Applied Drama Techniques in Obstetrics; A Novel Educational Workshop for the management of Stillbirth, *RCOG World Congress, London, 11-19 June 2019*
- Meaney S, O'Donoghue K. Parents experience of the Coronial process following Perinatal Death, *Children's Palliative Care Conference, Galway, 21 November 2019*
- Monis M, Andrews T, O'Connell R. Mentalizing possibilities' An exploration of women's experiences of their birth choices in pregnancy following a previous caesarean section (CS): a grounded theory study, *All Ireland Midwifery Conference INMO/RCM, Armagh, 17 October 2019*
- Murphy M, Savage E, O'Donoghue K, Leahy-Warren P. Women, men, and their gendered experiences of pregnancy following stillbirth, *NPEC Study Day 2019 National Audit: Improved Care Marking 10 years of NPEC and Clinical Audit in the Maternity Services, Aviva Stadium, Dublin, 18 January 2019*
- Nuzum D, Evans M, Fitzgerald B, O'Donoghue K. Healthcare chaplains and decision making around perinatal Post-Mortem examination, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*
- Nuzum D, O'Donoghue K, Fitzgerald B, Evans MJ. Perinatal pathology – Current practice and hopes for the future, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*
- Nuzum D, O'Donoghue K, Fitzgerald B and Evans MJ. Perinatal pathology – hope for the future? The Trainees perspective, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*
- O'Connell, MA, Leahy-Warren P, Kenny L, O'Neill S, Khashan A. A cross sectional study of prevalence and risk factors for Tocophobia in an Irish sample of pregnant women, *Gulf Conference, The Gulf Hotel, Bahrain, 6 April 2019.*
- O'Connor S, Leahy-Warren P, Mulcahy H. Examining father's perceptions about managing their child's weight, *19th Annual Research Conference, 2019*

O'Sullivan T, Murphy M, Verling AM, O'Donoghue K. The utility of educational DVDs in teaching perinatal bereavement communication and care with a cohort of undergraduate healthcare students, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

O'Sullivan T, Verling AM, Murphy M, O'Donoghue K. Identifying the educational needs of staff in the provision of bereavement care in a tertiary maternity hospital in Ireland, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Power S, Meaney S, O'Donoghue K. The incidence of fatal fetal anomalies associated with perinatal mortality in Ireland, *Children's Palliative Care Conference, Galway, 21 November 2019*

Power S, Meaney S, O'Donoghue K. Delphi Survey: Exploring educational needs of voluntary organisations who support parents who experience perinatal loss, *Children's Palliative Care Conference, Galway, 21 November 2019*

Power S, Meaney S, O'Donoghue K. Experiences of Volunteers supporting women and their families following a fatal fetal anomaly diagnosis, *Children's Palliative Care Conference, Galway, 21 November 2019*

Power S, Meaney S, O'Donoghue K. Exploring educational needs of voluntary organisations who support parents who experience perinatal loss, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Power S, Meaney S, O'Donoghue K. The incidence of fatal fetal anomalies associated with perinatal mortality in Ireland, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Power S, Meaney S, O'Donoghue K. The incidence of fatal fetal anomalies associated with perinatal mortality in Ireland, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*

Power S, O'Donoghue K, Meaney S. Critical discourse analysis on the influence of media commentary on fatal fetal abnormality in Ireland, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Roseingrave R, Murphy M, O'Donoghue K. Pregnancy after stillbirth: outcomes and health service utilisation, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Ryan N, Verling AM, O'Donoghue K. The electronic record and the value of an alert symbol, *British Maternal and Fetal*

Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019

Ryan N, Verling AM, Russell NE, O'Donoghue K. The value of a teardrop alert system, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

San Lazaro Campillo I, Meaney S, Ariffin HA, O'Connell O, O'Donoghue K. An evaluation of first subsequent pregnancy outcomes among women with recurrent miscarriage: a retrospective cohort study, *European Society of Human Reproduction and Embryology 35th Annual Meeting, Vienna, 23-26 June 2019*

San Lazaro Campillo I, Meaney S, Hanif Ariffin M, O'Connell O, O'Donoghue K. An evaluation of first subsequent pregnancy outcomes among women with recurrent miscarriage: a retrospective cohort study, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*

San Lazaro Campillo I, Meaney S, Harrington M, McNamara K, Verling AM, Corcoran P, O'Donoghue K. Concordance between hospital discharge data, electronic health records and register books for diagnosis of pregnancy loss in a tertiary maternity hospital: a retrospective linked data study, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Shiplo S, Meaney S, O'Donoghue K. Maternity Care Providers' Involvement in Research, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Shiplo S, Meaney S, O'Donoghue K. Maternity care providers' involvement in research, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*

Shiplo S, O'Donoghue K, Meaney S. Critical Discourse Analysis - Joint Committee Meetings on the 8th Amendment of the Constitution, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Tabirca S, Verling AM, Rice R, O'Donoghue K, Meaney S, Lynch A. Development of an early pregnancy loss information platform – website and mobile phone application, *British Maternal and Fetal Medicine Society 21st Annual Conference, Edinburgh, 28-29 March 2019*

Verling AM, Rice R, Byrne C, San Lazara Campillo I, Meaney S, O'Donoghue K. Development of a Website for First Trimester Miscarriage, *The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019*

Selection of invited lectures 2019

B Walsh "Is it time to cool mild encephalopathy?" Irish Neonatal Discussion Forum, Cork, November 2019

B Walsh "Incorporating and Optimizing Neuroimaging in the NICU" New England Neonatal aEEG and Neuroimaging Workshop, Boston, MA, October 2019

B Walsh "cEEG and aEEG: Patterns and Classification" New England Neonatal aEEG and Neuroimaging Workshop, Boston, MA, October 2019

E Dempsey Keynote Lecture: "Why are Trials in BP so difficult to do?" Hot Topics in Neonatology, Washington, December 2019

E Dempsey "Cerebral Oxygenation in the Delivery Room" Irish Neonatal Research Symposium, Dublin, November 2019

E Dempsey "Inotropes in Newborn Care" Irish Neonatal Forum, Cork, November 2019

E Dempsey "Monitoring Oxygenation and Heart Rate at Birth" Annual Limerick Neonatal Meeting, October 2019

E Dempsey "Monitoring Oxygenation at Birth" Visiting Gynaecology Meeting, University College Cork, October 2019

E Dempsey "Monitoring Oxygenation and Heart Rate at Birth" Joint European Neonatal Societies, Maastricht, September 2019

E Dempsey "Cardiovascular Drugs and their use based on Physiology, Pharmacokinetic and Pharmacodynamics" Joint European Neonatal Societies, Maastricht, September 2019

E Dempsey "Publishing in Frontiers in Pediatrics" German Neonatal Meeting, Leipzig, May 2019

E Dempsey "Blood pressure management in preterm infants: Do mmHg make a difference" German Neonatal Meeting, Leipzig, May 2019

K O'Donoghue "Pregnancy Loss In Ireland: Research, Clinical Practice and National Standards" INFANT Centre, Annual Study Day, UCC, 12 December 2019

K O'Donoghue "Communicating with parents: A multidisciplinary approach" The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019

K O'Donoghue "Developing and Implementing Ireland's National Bereavement Standards" The International Stillbirth Alliance Annual Conference, Madrid, 4-6 October 2019

K O'Donoghue "Pregnancy Loss In Ireland: Research, Clinical Practice and National Standards" Gynaecological Visiting Society Meeting, University College Cork, 4 October 2019

K O'Donoghue "Evaluation of Using Applied Drama Techniques as part of Medical Training in pregnancy-related bereavement care" Institute of Obstetricians and Gynaecologists Study Day, Royal College of Physicians of Ireland, Kildare Street, Dublin 2, 28 September 2019

K O'Donoghue "Awareness, experience and impact of Stillbirth: pathways of care and future directions" North West Baby Loss Conference, Liverpool Women's NHS Foundation Trust, 16 July 2019

K O'Donoghue "Developing Ethical Frameworks in Ireland" Reclaiming Conscience: Developing Ethical Frameworks for Reproductive Healthcare in Ireland School of Law, University College Cork, 14 June 2019

K O'Donoghue "Bereavement Services in Maternity Care" Tavistock and Portman NHS Foundation Trust HSE Ireland Perinatal Mental Health Training, Aisling Hotel, Dublin, 30 May 2019

K O'Donoghue "Overview of the Two Year Implementation Programme" Bereavement Forum for the Implementation of National Standards for Bereavement Care following Pregnancy Loss and Perinatal Death, Devere Hall, University College Cork, Cork, 2 March 2019

Research Projects 2019

'Midwives Experience of providing critical care on a labour suite in a small maternity unit' by Roberta Spillane RM

'Midwives knowledge of Gestational Diabetes Mellitus and their role in the care of women with GDM' by Aisling Murphy RM

'An exploration of Midwives Experience of Obstetric Emergencies' by Noreen Ryan Preston RM

'Parental Perception of Nursing Support in Neonates' by Marie Murphy RM

'Exploring the Bereavement Educational Needs of Midwives and Nurses When Caring for Women Experiencing Pregnancy Loss'

2019 Msc Research by Carrie Dillon, Bereavement Support Midwife, University Hospital Kerry

'An evaluation of three clinical leadership programmes (RCN, LEO and NLI) from the perspective of nurse leaders: A systematic review'

2019 MSc Research by Sandra O'Connor, Director of Midwifery, University Hospital Kerry

'The development of an algorithm for the prediction of hypofibrinogenemia in maternity patients' 2019 MSc in Biomedical Science Research by Aoife Brosnan, Medical Scientist, University Hospital Kerry

'The Introduction of Targeted (Routine antenatal anti-D prophylaxis) RAADP to University Hospital Kerry (UHK). A full Risk Analysis and Cost Benefit'

2019 MSc in Biomedical Science Research by Claire O'Reilly, Medical Scientist, University Hospital Kerry

Awards

Prize for Runner-up Poster Presentation. International Stillbirth Alliance Annual Conference, Madrid 4-6 October 2019. Dr Aenne Helps (PhD Student)

Funding Awarded

Dr Keelin O' Donoghue

Electronic Vital Sign Assessment in Postpartum Women: The E-IMEWS trial
Industry funded project - Philips Healthcare.

Principal Investigator.

Funding €349,427; November 2019

Wellcome Trust

Interdisciplinary Ethics, Law and Pregnancy in Ireland Network (ELPIN)

Collaborator

Funding awarded €10,000; August 2019

Health Research Board Investigator-Led Projects (ILP) 2019

Principal Investigator

Study of the impact of dedicated recurrent miscarriage clinics in the Republic of Ireland

Funding awarded €368,000; July 2019

Students

List of supervised doctoral students in the Department of Obstetrics and Gynaecology in 2019

Dr Karen McNamara, 2015-19
PhD, UCC – awarded

Dr Rachel Williamson
PhD, UCC – awarded

Dr Maeve O'Connell
PhD, UCC – awarded

Dr Minna Geisler
registered MD, UCC

Ms Indra San Lazaro, 2016-
registered PhD, UCC

Ms Stacey Power, 2017-
registered PhD, UCC

Dr Deidre Hayes-Ryan, 2015-
registered PhD, UCC

Ms Tamara Sanchez, 2018-
registered PhD, UCC

Dr Aenne Helps, 2018-
registered PhD, UCC

Ms Caroline Joyce, 2019-
registered PhD, UCC

Ms Samprikta (Sam) Manna
registered PhD, UCC

Ms Joye McKernan
registered PhD, UCC

Dr Khalid Saaed
registered PhD, UCC

Ms Aude Claire Morillon
registered PhD, UCC

Ms Liz Considine
registered PhD, UCC

Mr Gwinyai Masukume
registered PhD, UCC

Ireland South Women & Infants Directorate Grand Rounds 2019

Team Monday

Case of starvation ketoacidosis

Journal article – Induction of labour versus expectant management

Visual of the week - Torted fibroid from surgery

Presenters: Dr Marie Rochford, Dr Ellen McMahon, Dr Emmanuel Hakem

Team Tuesday

Case - 1. Uterine Rupture; 2. Scar Ectopic presentation

Journal article – LACC (Laparoscopic Approach to Cervical Cancer) trial presentation

Visual of the week - Vulval mass presentation

Presenters: Dr Moriamo Igbinosa, Dr Sorca O'Brien, Dr Ruth Roseingrave

Midwifery

Diabetes in Pregnancy: CUMH 2019
Haemovigilance

Obstetrics & Gynaecology Scans
Breastfeeding in CUMH

Visual for Discussion: Obesity

Presenters: Connie Foley, Patricia O'Leary, Norma Wing, Jacqueline Manning

Health & Social Care Professional Team

"The role of antenatal depression, maternal cortisol & postnatal interactive behaviour on infant neurodevelopment in the first year of life"

Presenters: Ms Niamh O'Leary PhD, TCD, (Professor Eugene Cassidy, Psychiatry, CUH - co-author)

Team Thursday

Case - Severe Cervical Incompetence

Journal article - Comparison of techniques used to deliver a deeply impacted fetal head at full dilation: a systematic review & meta-analysis

Presenters: Dr Michelle McCarthy, Dr Rebecca Cole, Dr Samuel Hunter

Team Monday

Case - PPH after Caesarean Section

Journal article - Antenatal corticosteroid therapy (ACT) & size at birth: A population-based analysis using the Finnish Medical Birth Register

Presenters: Dr Marie Rochford, Dr Emma Tuthill, Dr Emmanuel Hakem

Midwifery

Launch of Report by Professor Josephine Hegarty

Women's Experience of Maternity Care in the South/South West Hospital Group

Authors: Patricia Leahy-Warren, Rhona O'Connell, Paul Corcoran, Mary O'Connor, Helen Mulcahy

Presentation on GDPR (*General Data Protection Regulation*)

Presenter: Martina B. Walsh from Consumer Affairs, HSE

NPEC

National Audit: Improved Care Marking 10 years of NPEC & Clinical Audit in the maternity services

Severe Maternal Morbidity in Ireland Annual Report 2017 - National & SSWHG Findings

Presenter: Dr Paul Corcoran

Team Tuesday

Case - Negative bHCG

Journal article – Association of adverse perinatal outcomes of intrahepatic cholestasis of pregnancy with biochemical markers: results of aggregate and individual patient data meta-analyses

Presenters: Dr Khalid Saeed, Dr Zibi Marchocki, Dr Ruth Rosingrave

Team Monday

Grand Rounds meetings updates

Journal article – Update on Intrahepatic cholestasis of pregnancy

Visual of the week – MRI

Case: A multidisciplinary team approach to a high risk pregnancy

Presenters: Prof John Higgins, Dr Barbara Burke, Dr Sophie Boyd, Dr Ann Rowan

Team Wednesday

Case - Thin anterior uterine wall with incomplete uterine rupture detected by palpation & ultrasound: a case presentation

An open-label trial to evaluate the efficiency of trans-perineal trigger point

dry needling combined with manual therapy as a treatment for chronic pelvic pain: methodology & primary outcome results

Presenters: Dr Hannah Glynn, Shalini Wiseman, Dr Ciaran McKeown

Team Thursday

Case - Postpartum Femoral Neuropathy

Presenters: Dr Sie Ong Ting, Dr Oana Grigorie, Dr Shahad Al Tikriti

University Hospital Waterford

Case - Acute fatty liver of pregnancy

Journal article - Randomised Trial of Progesterone in Women with bleeding in early pregnancy

Presenters: Dr Manju Vanapalli, Dr Karim Botros

Team Monday

Clarifying misunderstandings regarding the medical treatment of Jehovah's Witnesses unwilling to accept blood transfusions

Practical solutions to the challenges faced by medical teams treating Jehovah's Witness patients

Presenters: Jehovah's Witness Hospital Liaison Team

Team Wednesday

Pudendal Nerve Neuralgia

South Tipperary General Hospital

Pregnancy with ITP (Immune thrombocytopenic purpura)

Slow-release vaginal insert of misoprostol versus orally administered solution of misoprostol for the induction of labour in primiparous term pregnant women: a randomised controlled trial. Wallström T, Strandberg M, Gemzell-Danielsson K, Pilo C, Jarnbert-Pettersson H, Friman-Mathiasson M, Wiberg-Itzel E. BJOG 2019

Presenters: Dr Manoharee Samaraweera, Dr Khan

Midwifery

Diabetes

Smoke Free Start – Improving Outcomes for Mothers and Babies

Presenters: Olive Long, Norma Wing, Edward Murphy

Health and Social Care Professionals

Journal article – An open-label trial to evaluate the efficiency of trans-perineal trigger point dry needling with manual therapy as a treatment for chronic pelvic pain: Pain and dyspareunia outcomes

Visual of the week – The role of diaphragm in lumbo-pelvic stability

Literature review on physiotherapy management for antenatal urinary incontinence

Presenters: Shalini Wiseman, Seana Ryle, Denise Murphy

State Claims Agency/ Comyn Kelleher Tobin Solicitors

Open Disclosure

Presenters: Neasa Seoighe Eamon Harrington, Yvonne Joyce

UHW

Journal article – “An instrumental change” - The ANODE trial

Visual of the week – A room with a view

Case: DCDA Dilemma

Presenter: Dr Simon Craven

UHK

Case: case report of choriocarcinoma

A summary of trends in the Obstetric Diabetic service in UHK

Visual of the week – A radiology finding

Presenters: Dr Osama Khalid, CMM2 Marie Nolan, Dr Rebecca Hunter

Team Thursday

Guideline on the Management of Pyrexia in Labour at Cork University Maternity Hospital- Antibiotic Escalation and De-escalation Pathway

Maternity Sepsis Audit Report 2018- Cork University Maternity Hospital National Sepsis Programme

Visual of the week – Identifying a time critical infection

Presenters: Dr Minna Geisler, Sarah Fenton, Kay O'Mahony, Denise Malone

STGH

Sepsis Case presentation

Journal article – Tocophobia

Visual of the week – Ultrasound image

Presenters: Dr David Sinnott, Dr Hassan Abbo

Team Tuesday

Results of the Staff Workplace Survey in SSWHG maternities

Journal article – How to be a very safe maternity unit: an ethnographic study

Presenters: Dr Noirin Russell, Dr Sara Leitao and Laura Gleeson, Dr Jennifer Enright, Dr Claire Crowley

Midwifery

“Baby's First Hug”

“Evaluation of the HSE Nurture Programme”

Presenters: Alex Campbell, Cathy O'Sullivan

