Saolta
Grúpa Ollscoile Cúram Sláinte
University Health Care Group

WOMEN'S & CHILDREN'S MANAGED CLINICAL & ACADEMIC NETWORK

ANNUAL CLINICAL REPORT 2021

Galway University Hospitals
Ospidéil na h-Ollscoile Gaillimh
UNIVERSITY HOSPITAL GALWAY
MERLIN PARK UNIVERSITY HOSPITAL

Letterkenny University Hospital

Mayo University Hospital

Portiuncula University Hospital

Sligo University Hospital

Saolta

Grúpa Ollscoile Cúram Sláinte
University Health Care Group

Galway University Hospitals
Ospidéil na h-Ollscoile Gaillimh
UNIVERSITY HOSPITAL GALWAY
MERLIN PARK UNIVERSITY HOSPITAL

Letterkenny University Hospital

Mayo University Hospital

Portiuncula University Hospital

Sligo University Hospital

CONTENTS

Foreword

This Annual Clinical Report provides an outline of the clinical activity of the Women's & Children's services in the Saolta University Healthcare Group of hospitals for the year 2021. Like last year, the data from all of the five group hospitals (Galway University Hospital, Letterkenny University Hospital, Mayo University Hospital, Portiuncula University Hospital, and Sligo University Hospital) are included. The sections of this report are designed to provide individual statistics from each hospital site, and also to show the overall Saolta Group activity for the year.

As will be evident from the index to the report, the clinical activity is reported in the main sections of the Maternity Report, Gynaecology Report, Neonatology Report, Paediatrics Report, CASATS and SATU Report, and finally, issues related to Governance, Quality and Patient Safety, and academic activity. This report outlines significant detail relevant to each hospital site. However, there are areas where it is challenging to ascertain uniform data from each hospital site because of different IT systems. Notwithstanding that, it is my view that the report provides thorough detail and a significant overview of the services available and the clinical activity during 2021.

In relation to obstetric statistics, there was a slight increase in the number of deliveries in all five hospital sites during the year 2021 in comparison to the year 2020. This is somewhat at variance with the recent trends of decreasing delivery rates nationally. It has been stipulated that this may have been related to the Covid pandemic but the exact reason, or reasons, are not clear. In 2021 there were 8,880 infants delivered in the Saolta Group to 8,737 mothers. A detailed analysis of these deliveries, including spontaneous onset of labour, induction of labour, caesarean section and instrumental deliveries is included in the obstetrics statistics section. Where relevant for each site, comparisons are provided for previous years. Caesarean section rates have remained resiliently high despite interventions across the board to address this.

In the ultrasound and fetal medicine report, the clinical activity of the five different sites is outlined. The fetal medicine services across the Saolta Group have become much more integrated in recent years. Galway University Hospital serves as a tertiary fetal medicine site with provision of care to women in Mayo University Hospital, Portiuncula University Hospital and Sligo University Hospital. Such care involves sonographic assessment and prenatal testing, with planning for subsequent neonatal care. This high risk obstetric service also includes women on the specialised care pathway as dictated to by risk stratification within the HSE. This pathway within the group has improved significantly in recent times. There are plans to integrate it further with joint appointments in fetal medicine between Galway University Hospital and other sites within the group. There are regular fetal / neonatal multidisciplinary team meetings for discussion of relevant cases, and they are well attended by team members from many of the group hospitals. At the time of writing, the fetal medicine and high risk obstetrics services within Letterkenny University Hospital are not provided at Saolta Group level, and measures are in place to address that going forward. The fetal medicine and ultrasound report provides a detailed outline of clinical activity including specific diagnoses made and the management thereof.

In the Neonatal report, activity is described for all of the five hospital sites separately and for Saolta together. This reflects significant activity during the year. There were 1,440 neonatal admissions during the year 2021 which was slightly increased on the previous year. The clinical issues relevant to these admissions are outlined in the neonatal section. Because of the geographical expanse of the Saolta Group, the issues regarding neonatal

transport, in utero transfers, and post-natal transfers, are referred to in this section.

In the gynaecological report, the figures for surgical procedures done at each of the five sites, and at Galway University Hospital in relation to the specialist service of gynaecological oncology, are all outlined. The year 2021 was a challenging year for gynaecology in terms of admissions and access to theatre. However there were reasonable inroads achieved regarding gynaecological outpatient waiting lists. There remain challenges with inpatient waiting lists for gynaecological services across the five hospitals within the group. This matter was greatly assisted during the year 2021 with expansion of ambulatory gynaecology within hospitals in the Saolta Group. During this year there were ambulatory gynaecology services operative in Galway University Hospital, Mayo University Hospital and Letterkenny University Hospital. This served to improve access to diagnostic procedures. It is of benefit in improving access at outpatient level, and reduces the need for day-case or inpatient procedures under general anesthesia. We are very grateful to the National Women's & Infant Health Programme (NWIHP) for the funding of such services. We regularly monitor the activity of these services and ensure that the relevant KPI'S are being met.

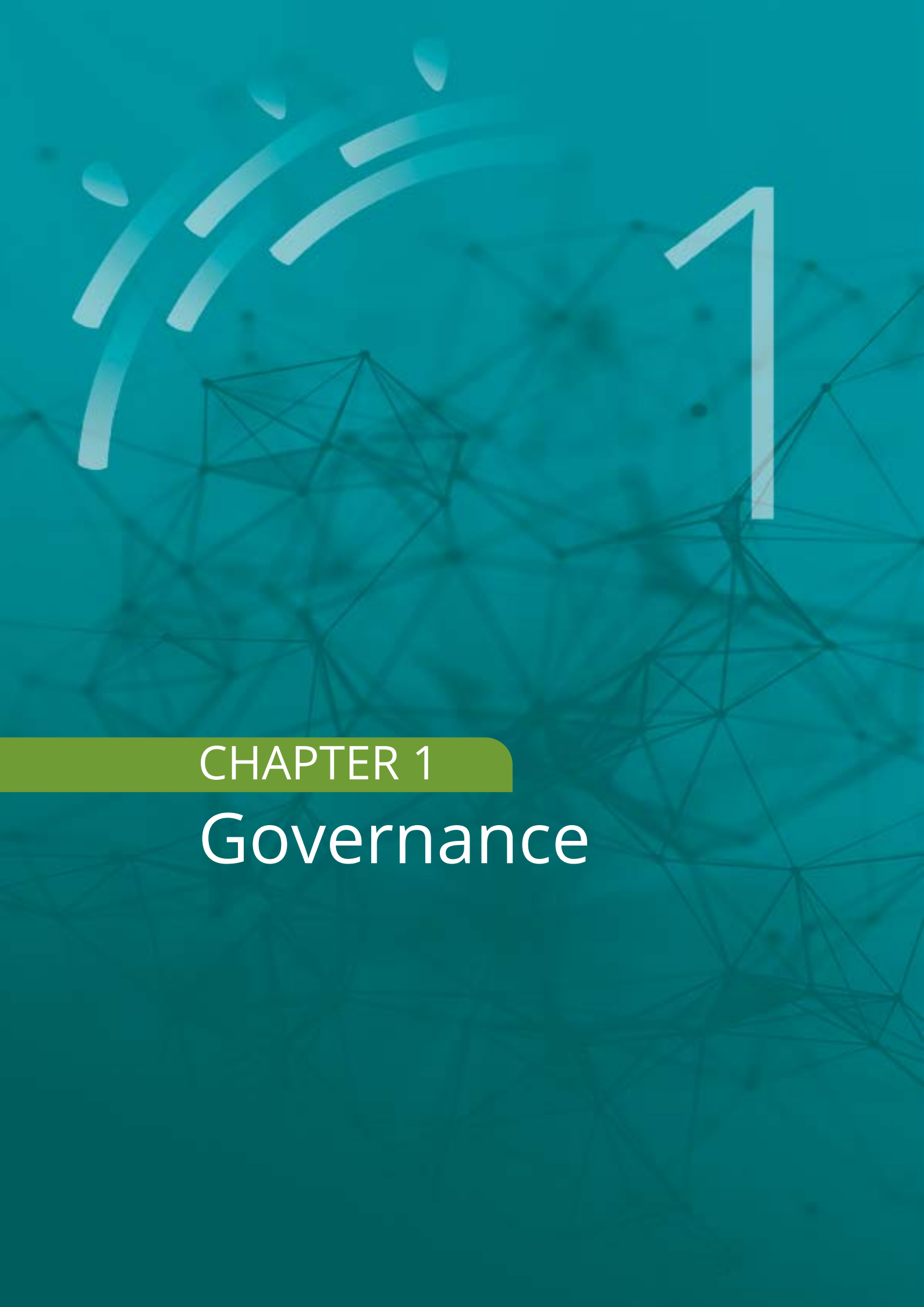
Paediatric services in the five hospital sites in the Saolta Group were busy during 2021. The figures for Paediatric attendances in our Emergency Department are demonstrated in the Paediatric Report. The data provided outline the figures for paediatric admissions, paediatric day cases and inpatient activity. The report also includes the statistics relevant to ICU admissions and paediatric transfers to the PICU in CHI at Crumlin and Temple Street hospitals. The paediatric programme of care is changing significantly and will continue to do so in the coming years with the arrival of the new Children's Hospital. The paediatric services within the Saolta Healthcare Group are keen to develop the regional services that accompany this model. This includes development of the relevant areas of specialised paediatrics and paediatric surgery.

SATU and CASATS have continued to provide vital services during 2021. During that year much work was focussed on finalising arrangements for a move to a purpose built facility for Barnahus West. This move finally occurred in January 2022 and the new premises was most welcome. The clinical activity of the SATU service is also clearly outlined in that section.

Finally, I would like to thank all the staff in the Women's & Children's services in the Saolta University Healthcare Group for their efforts during the year 2021. I am also grateful to the Saolta Executive team for their support during this time. I wish to acknowledge the significant progress made by NWIHP during 2021 regarding the provision of services in maternity, gynaecology and neonatology at national level.

A large number of people provided contributions to or gathered data for this report. They are duly listed at the end of each section - thank you very much. Finally, I would like to thank the Women's & Children's MCAN team members in all of the five hospital sites who contributed to the various sections of this report - there are too many names to mention!

Professor John J Morrison
Clinical Director W&C Managed Clinical and Academic Network
Saolta University Healthcare Group



CHAPTER 1

Governance

1.1 MCAN Governance & Structures

The Women and Children's Managed Clinical and Academic Network (W&C MCAN) is a group-wide clinical management structure under which Women's and Children's services are managed and organised across the Saolta University Health Care Group.

The MCAN works collaboratively with hospitals and specialities to improve quality and outcomes for patients. Key areas of focus include developing and implementing strategy, managing risk, responding to quality and safety issues, learning from adverse events, facilitating group-wide policies and standardising clinical pathways.

The W&C MCAN is committed to further integration in education, research, and training to improve the recruitment and retention of staff and support the development of highly skilled multidisciplinary teams. The W&C MCAN is supported by core services including HR, Finance, Quality and Patient Safety and Information Services.

The Women's and Children's MCAN provides Maternity, Neonatology, Paediatric and Gynaecology Services on the following hospital sites:

- Galway University Hospitals
- Letterkenny University Hospital
- Mayo University Hospital
- Portiuncula University Hospital
- Sligo University Hospital

W&C Priorities & Developments

In 2021, the following priorities were agreed by the MCAN and submitted into the Saolta Service Plan. These priorities formed the basis for our strategic work during the year and as such were discussed and progressed at our MCAN meetings. The actions to progress each priority were tracked on an action tracker.

PRIORITY	PRIORITY ACTION
MATERNITY	
Priority 1	**Fetal Medicine** To further develop the Fetal Medicine in the Group to provide a comprehensive, sustainable obstetric ultrasound and high priority obstetric / fetal medicine service across the Group.
Priority 2	**Supported Care Pathway Midwifery - led models of care** To expand the supported services in accordance with the National Maternity Strategy for women who are normal risk in pregnancy
Priority 3	**Saolta Perinatal Pathology Service** To increase team by appointing dedicated medical scientist and a second Perinatal Pathology Consultant to meet the demand of the workload across the Saolta Group and ensure sustainability.
Priority 4	**Specialist Combined Endocrine Maternity Services** To further develop and strengthen the multidisciplinary Diabetes Team providing holistic care to all pregnant women with Type 1, Type 2 and Gestational Diabetes. This includes pre-pregnancy, antenatal screening, specialised antenatal and post pregnancy care. Diabetic model recommends 1 Clinical Midwife Specialist to every 1,000 births.
Priority 5	**Midwife Clinical Skills Facilitator** Midwife Clinical Skills Facilitator (CSF) strengthen the resources in the Maternity unit to support qualified midwives /nurses in developing clinical skills and competencies in order to fulfil their roles and responsibilities in an ever changing health service. The Midwife CSF will also provide/ coordinate multidisciplinary training - LUH, SUH, MUH.
Priority 6	**Consultant Staffing** To increase Consultant Obstetric and Gynaecology Staffing on each of the Model 3 Hospitals to 6WTE in line with NWIHP recommendation and to consider new model of recruitment in hard-to-appoint hospitals.
Priority 7	**Homebirth Service** Following the transfer of the Homebirth Service from CHO to Acute Hospitals, the following staff will be required to grow the service and to ensure it is sustainable: › 1WTE DMO › 1WTE Administrative Officer

PRIORITY	PRIORITY ACTION
NEONATOLOGY	
Priority 1	**To progress the development Neonatal / special care baby unit services within the Saolta Group** **UHG** Increase the cot capacity in UHG from 14 staffed cots to 24 to allow it the capacity to accept in utero transfers from the Spoke Sites in Saolta. - 8 WTE Staff Nurses and 2 WTE HCAs **Spoke Sites** To further optimize pathways for in utero transfers/ ex utero transfers and repatriation from the HUB centre. We need to consistently achieve appropriate nursing staffing needs to be secured in the smaller units to meet the Neonatal Staffing guidelines.

PRIORITY	PRIORITY ACTION
GYNAECOLOGY SERVICES	
Priority 1	**Ambulatory Gynecology** Ambulatory gynaecology is a concept that combines 'one stop' clinics and 'day surgery' operations as an alternative to traditional outpatient consultations and inpatient surgery. This management philosophy shortens the care pathway for patients and saves resources. Currently a service exists in MUH, UHG and LUH. The aim in 2021/2 is to continue to progress this service on each site. To do this further investment is required.
Priority 2	**Gynecological Oncology** To further develop a tertiary centre for Gynecological Oncology within the Saolta Group in line with model as outlined by the NCCP at UHG. The aim is that all women from within the group that require referral to gynecological oncology services will have timely access and a well-resourced skilled MDT available to meet their needs.
Priority 3	**Urogynaecology** Urogynaecology covers services that provide assessment, investigations and treatment for women with urinary incontinence, vaginal prolapse, recurrent urinary tract infections, bladder pain and pelvic floor injury after childbirth including faecal incontinence.
Priority 4	**Group Obstetric Anal Splinter Injury Service (OASIS) Specialist clinic** Develop proposal to support a regional OASIS clinic with Saolta as per the National Maternity Strategy a specialist service needs to be established.
Priority 5	**Colposcopy** The cohort of women to be managed by the Colposcopy Services was redefined in 2020 so that the service could prioritise the correct patients. Demand for the Colposcopy Service remains high.
Priority 6	**Fertility Service** NWIHP are committed to funding posts to initiate this service. Further resources will be required in the future to grow the services Group wide and to ensure it will be sustainable.

PRIORITY	PRIORITY ACTION
PAEDIATRICS	
Priority 1	Increase the **Consultant numbers** in line with National Model of Care for Paediatric Healthcare in Ireland (MOC)
Priority 2	Designated resourced pathway for Paediatric in the **Emergency Department**
Priority 3	**Paediatric Nursing Management** Increase the level of Paediatric Nursing Management across the group
Priority 4	**Nursing Specialist Posts** Increase the Nursing specialist posts in line with the MOC
Priority 5	**Health and Social Care Professionals (HSCP) Posts** Increase the number of HSCP post in line with MOC recommendations
Priority 6	**Capital Funding**

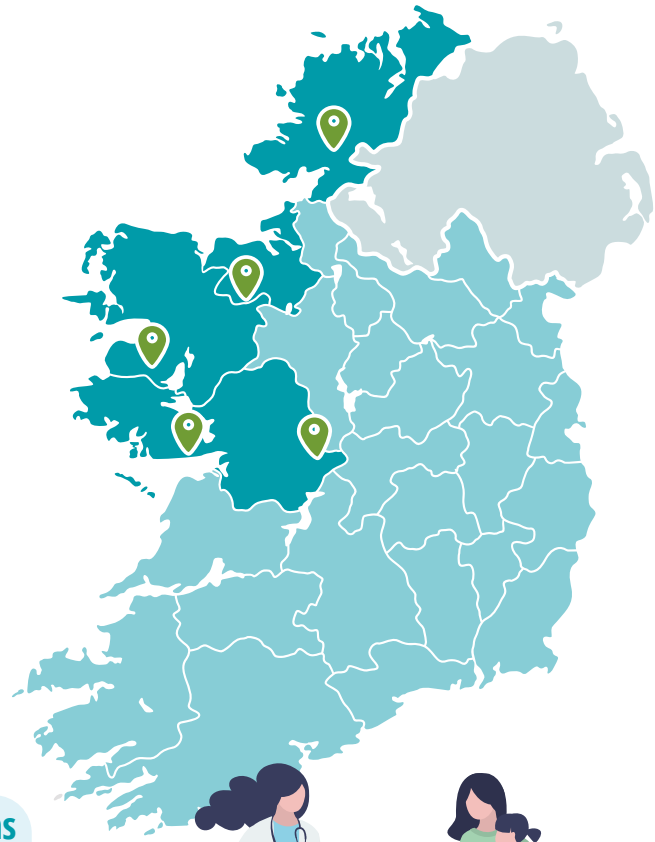
PRIORITY	PRIORITY ACTION
BUSINESS	
Priority 1	**PUH / UHG Maternity Services Integration** To implement the project plan and achieve maternity / gynaecology / neonatal services integration, and to consider paediatric integration in the future.
Priority 2	**Business and Administrative support for site MCAN teams**

1.2 Women and Children's MCAN at a Glance 2021

2021 at a Glance

Women and Children's MCAN Group:

- **Galway University Hospital**
- **Letterkenny University Hospital**
- **Mayo University Hospital**
- **Portiuncula University Hospital**
- **Sligo University Hospital**



Mothers who gave birth
8,737

Neonatal Admissions
1,414

Babies Delivered
8,880

Gynae Procedures
6,917

Gynae Cancer Surgeries
112

CASATs Attendances
102

SATU Attendances (Galway/Donegal)
201

Paeds ED Attendances
39,576

Paeds Inpatient Admissions
6,453

Paeds OPD Attendances
48,107

Paeds Day Service Attendances
808

1.2.1 University Hospital Galway

GUH is a model 4 hospital providing 24/7 acute surgery, acute medicine, and critical care. It also plays a leadership role in acute service delivery providing regional services for a wide range of specialities including Maternity, Gynaecology, Neonatology and Paediatrics and is also a designated supra regional centre for cancer and cardiac services serving a catchment area in the region of one million people along the West from Donegal to Tipperary North

Overall Inpatient Beds in GUH	521
Post Natal Beds and Cots	30
Antenatal Beds	18
Labour Ward Beds	7
Triage Room	1
Maternity Theatre	1
Gynae Inpatient Beds	15
Gynae Day Case Trolleys	4
Obstetric and Gynae Theatre	1
Neonatology Cots	17 (6 NICU and 4 HDU)
Paeds Inpatient Beds	32
Paeds Day Case Trolleys	3

GUH at a Glance	2021
Mothers Who Delivered	2,842
Babies Delivered	2,892
Neonatal Admissions	389
Gynae Cancer Surgeries	112
Gynae procedures	1,501
Total Caesarean Sections	1,090
Paeds ED Attendances	13,129
Paeds Inpatient Admissions	1,553
Paeds OPD Attendances	19,963
Paeds Day Service Attendances	3,049
SATU Attendances	100
CASATS Attendances	102

MATERNITY SERVICES

- Fetal Maternal Medicine Centre for the Hospital Group
- Bereavement Team
- Inpatient Services
- Early Pregnancy Assessment Unit (EPAU)
- Consultant Led care
- Anaesthetic Clinics
- Consultant Led care
- Community Midwifery Led Clinics
- Specialised Combined Obstetric and Endocrine Service

GYNAECOLOGY SERVICES

- General Gynae
- Ambulatory Gynae
- Outpatient and Inpatient Services
- Fertility Clinics
- Complex Gynae
- Colposcopy
- Gynae Oncology
- Urogynaecology

PAEDIATRIC SERVICES

- Paeds Clinical Psychology
- Medical Paeds OPD
- Shared Care
- Paeds Allergy Service
- Paeds Endocrinology
- Paeds Cardiology
- Paeds Community
- Inpatient and Day Case services
- Paeds Neurology
- Paeds Dermatology

NEONATOLOGY SERVICES

1.2.2 Letterkenny University Hospital

Letterkenny University Hospital (LUH) is a Model 3 hospital which aims to deliver a patient-centred, quality-driven focused service and provides a wide range of diagnostic and support services. Maternity, neonatal and paediatric services are collocated with the main hospital.

Overall Inpatient Beds in LUH: 302			
Inpatient Beds Maternity	**Inpatient Beds Gynaecology**	**NICU (Level 1)**	**Inpatient Beds Paediatric**
Combination of Antenatal and Postanatal-35 Beds	Gynaecology Inpatient- 11 Beds	10 cots	25 beds
Labour Ward-4 Delivery Beds	Day Assessment		Day care area
Triage Room-1			

LUH 2021 at a Glance	
Mothers who delivered	1,558
Babies Delivered	1,586
Neonatal Admissions	259
Gynaecology Procedures	2,526
Total Caesarean Sections	631
Paeds ED Attendances	6,900
Paeds OPD Attendances	6,612
Paeds Day Services Attendances	893
SATU Attendances	101

MATERNITY SERVICES IN LUH

- Consultant Led Care
- Community Midwifery Led Clinics
- Early Pregnancy Assessment Unit (EPAU)
- Anaesthetic Clinics
- Inpatient services
- Bereavement team

GYNAECOLOGY SERVICES IN LUH

- General Gynaecology
- Ambulatory Gynaecology
- Outpatient and Inpatient services
- Colposcopy

PAEDIATRIC SERVICES IN LUH

- Medical Paediatric OPD Service
- Paediatric Community Services
- Shared Care
- Paediatric Cardiology Inreach
- Day Case Services
- Paediatric Diabetes Services
- Inpatient Services
- Paediatric Cardiology Inreach

1.2.3 Mayo University Hospital

Mayo University Hospital is a Model 3 hospital providing 24/7 acute surgery, acute medicine and critical care along with Emergency Department and maternity services to adults and children in the catchment areas of Mayo. Maternity, neonatal and paediatric services are collocated with the main hospital

MUH 2021 at a Glance	
Mothers who delivered	1,514
Babies Delivered	1,535
Neonatal Admissions	277
Gynaecology Procedures	1,454
Total Caesarean Sections	556
Paeds ED Attendances	6,969
Paeds OPD Attendances	6,684
Paeds Day Services Attendances	1,379

Overall Inpatient Beds in MUH: 332			
Inpatient Beds Maternity	**Inpatient Beds Gynaecology**	**NICU (Level 1)**	**Inpatient Beds Paediatric**
Combination of Antenatal and Postanatal-35 Beds	Gynaecology Inpatient- 11 Beds	9 Cots	23 beds
Labour Ward-4 Delivery Beds	Day Assessment		Paediatric Decision Unit 5 beds
Day Assessment Unit			
Triage Room-1			

MATERNITY SERVICES IN MUH

- Consultant Led Care
- Fetal medicine High risk clinic (opened 2022)
- Early Pregnancy Assessment Unit (EPAU)
- Community Midwifery Led Clinics
- Inpatient services
- Bereavement team
- Specialised combined Obstetric and Endocrine service
- Anaesthetic Clinics

GYNAECOLOGY SERVICES IN MUH

- General Gynaecology
- Ambulatory Gynaecology
- Outpatient and Inpatient services
- Colposcopy

PAEDIATRIC SERVICES IN MUH

- Medical Paediatric OPD Service
- Inpatient Services
- Day Case Services
- Paediatric Diabetes Services
- Paediatric Community Services
- Shared Care

1.2.4 Portiuncula University Hospital

Portiuncula University Hospital is a Model 3 hospital providing 24/7 acute surgery, acute medicine and critical care along with Emergency Department and maternity services to adults and children in the catchment areas of East Galway, Westmeath, North Tipperary, Roscommon and Offaly. Maternity, neonatal and paediatric services are collocated with the main hospital.

PHU 2021 at a Glance	
Mothers who delivered	1,445
Babies Delivered	1,463
Neonatal Admissions	211
Gynaecology Procedures	807
Total Caesarean Sections	609
Paeds ED Attendances	5,964
Paeds OPD Attendances	4,421
Paeds Day Services Attendances	1,075

Overall Inpatient Beds in PUH: 220			
Inpatient Beds Maternity	**Inpatient Beds Gynaecology**	**NICU (Level 1)**	**Inpatient Beds Paediatric**
Combination of Antenatal and Postanatal-33 Beds	Gynaecology Inpatient- 11 Beds	8 Cots	18 beds
Labour Ward-4 beds	Day Assessment		5 beds supporting ED flow

MATERNITY SERVICES IN PUH

- Consultant Led Care
- High Risk Obstetric clinic - linked to GUH fetal medicine
- EPAU
- Community Midwifery Led Clinics
- Inpatient services
- Bereavement team
- Specialised combined Obstetric and Endocrine service
- Anaesthetic Clinics

GYNAECOLOGY SERVICES IN PUH

- General Gynaecology
- Ambulatory Gynaecology
- Outpatient Services
- Inpatient services

PAEDIATRIC SERVICES IN PUH

- Medical Paediatric OPD Service
- Paediatric Community Services
- Shared Care
- Day Case Services
- Inpatient Services
- Paediatric Dermatology
- Paediatric Diabetes Services

1.2.5 Sligo University Hospital

Sligo University Hospital a Model 3 provides high-quality healthcare to the people of Sligo, Leitrim, South Donegal and West Cavan. Maternity, neonatal and paediatric services are collocated with the main hospital. SUH provides Acute Inpatient, Outpatient, and Day Services as well as Regional Specialty Services in Ophthalmology and Ear, Nose and Throat Services.

SUH 2021 at a Glance	
Mothers who delivered	1,378
Babies Delivered	1,404
Neonatal Admissions	278
Gynaecology Procedures	1,079
Total Caesarean Sections	536
Paeds ED Attendances	6,614
Paeds OPD Attendances	10,388
Paeds Day Services Attendances	1,689

Overall Inpatient Beds in SUH: 359			
Inpatient Beds Maternity	Inpatient Beds Gynaecology	NICU (Level 1)	Inpatient Beds Paediatric
Combination of Antenatal and Postanatal-28 Beds		10 Cots	18 beds
Labour Ward-4 Beds			4 day unit beds
Triage Area			
2 Bedded Induction Area			
33 Inpatient Beds			

MATERNITY SERVICES IN SUH

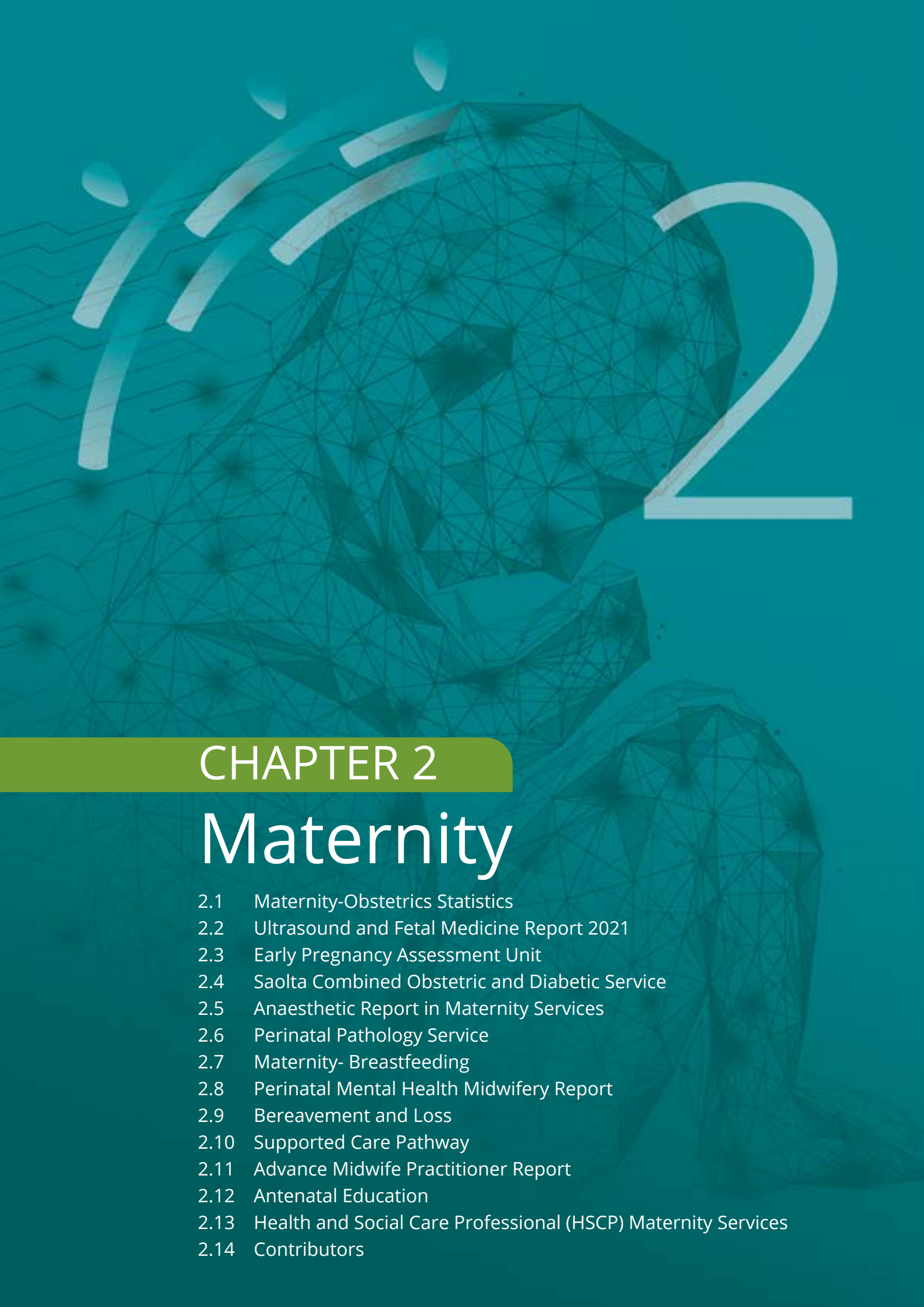
- Consultant Led Care
- Community Midwifery Led Clinics
- EPAU
- Bereavement team
- Inpatient services
- Anaesthetic Clinics

GYNAECOLOGY SERVICES IN SUH

- General Gynaecology
- Outpatient Services
- Inpatient services
- Colposcopy

PAEDIATRIC SERVICES IN SUH

- Medical Paediatric OPD Service
- Paediatric Community Services
- Shared Care
- Day Case Services
- Inpatient Services
- Paediatric Cardiology Inreach
- Paediatric Diabetes Services



CHAPTER 2

Maternity

2.1 Maternity – Obstetrics Statistics

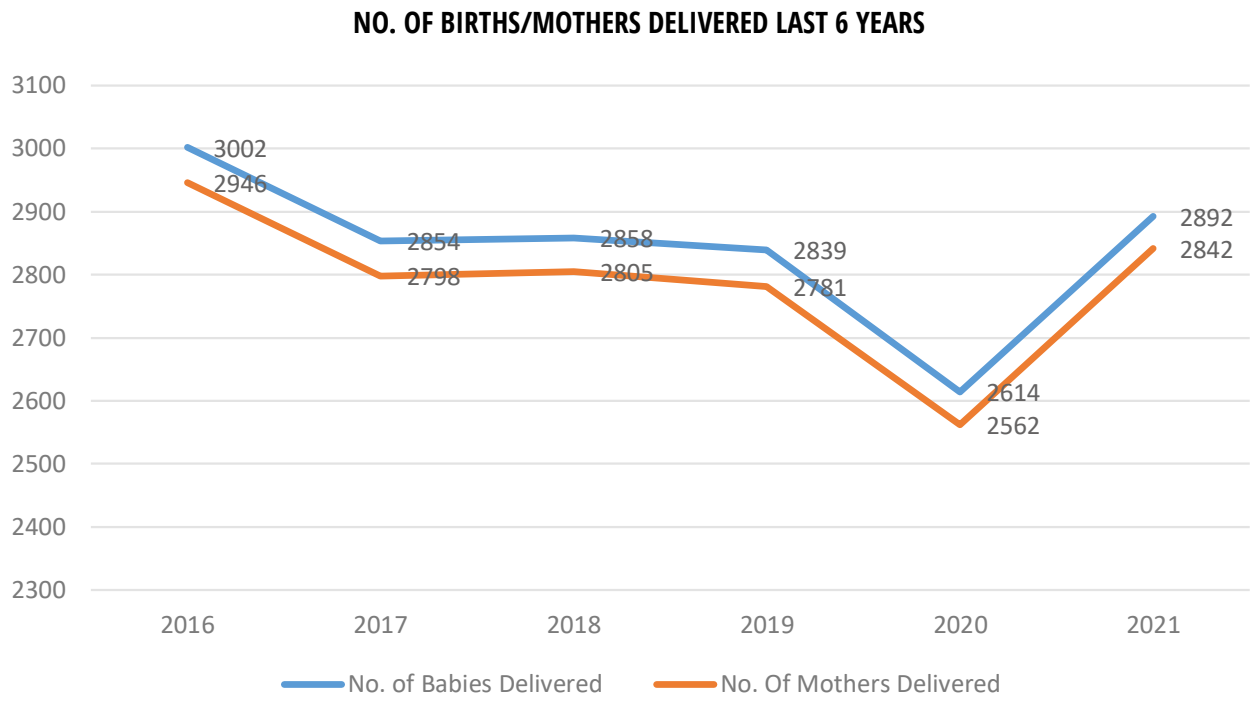
Saolta University Health Care Group Deliveries and Outcomes Summary 2021

Obstetric Deliveries and Outcomes (Mothers) 2021						
	% Total Mothers					
	GUH N	LUH N	MUH N	PUH N	SUH N	Saolta University Health Care Group N
Total Deliveries	2892	1586	1535	1463	1404	8880
Total Mothers	**2842**	**1558**	**1514**	**1445**	**1378**	**8737**
Spontaneous Onset	1227 *(43.2%)*	665 *(42.7%)*	726 *(48.0%)*	584 *(40.4%)*	598 *(43.4%)*	3773 *(43.2%)*
Induction of Labour	914 *(32.2%)*	441 *(28.3%)*	443 *(29.3%)*	461 *(31.9%)*	463 *(33.6%)*	2722 *(31.2%)*
Epidural Rate	1149 *(40.4%)*	265 *(17.0%)*	473 *(31.2%)*	518 *(35.8%)*	566 *(41.1%)*	2971 *(34.0%)*
Episiotomy	485 *(17.1%)*	184 *(11.8%)*	226 *(14.9%)*	205 *(14.1%)*	182 *(13.2%)*	1282 *(14.7%)*
Total Caesarean Section	1090 *(39.7%)*	631 *(40.5%)*	556 *(36.7%)*	609 *(42.1%)*	536 *(38.9%)*	3459 *(39.6%)*
Elective Caesarean Section	523 *(18.4%)*	364 *(23.4%)*	309 *(20.4%)*	329 *(22.8%)*	243 *(17.6%)*	1785 *(20.4%)*
Emergency Caesarean Section	567 *(20.0%)*	267 *(17.1%)*	247 *(16.3%)*	280 *(19.4%)*	293 *(21.3%)*	1674 *(19.2%)*
Spontaneous Vaginal Delivery	1343 *(47.1%)*	794 *(51.0%)*	777 *(51.3%)*	672 *(46.5%)*	692 *(50.2%)*	4291 *(49.1%)*
Forceps Delivery	89 *(3.1%)*	9 *(0.6%)*	73 *(4.8)*	14 *(1.0%)*	35 *(2.5%)*	220 *(2.5%)*
Ventouse Delivery	313 *(11.0%)*	124 *(8.0%)*	108 *(7.1%)*	149 *(10.3%)*	126 *(9.1%)*	820 *(9.4%)*
Breech Delivery	7 *(0.2%)*	0 *(0.0%)*	3 *(0.2%)*	1 *(0.1%)*	4 *(0.3%)*	15 *(0.2%)*

GUH Statistical Summary Template 2021

Number of Mothers/Births, last 5 years	2016	2017	2018	2019	2020	2021
Number of Deliveries	3002	2854	2858	2839	2614	2892
Number of Mothers	2946	2798	2805	2781	2562	2842

**N.B. Two singleton infants born <500g, did not meet IMIS and not included in statistical summary.*



Obstetric Outcomes (Mothers)	Primip	%	Multip	%	Total	%
All Mothers	**1061**		**1781**		**2842**	
Spontaneous Onset	433	40.8%	794	44.6%	1227	43.2%
Induction of Labour	452	42.6%	462	25.9%	914	32.2%
Epidural Rate	614	57.9%	535	30.0%	1149	40.4%
Episiotomy	370	34.9%	115	6.5%	485	17.1%
Caesarean Section	447	42.1%	643	36.1%	1090	39.7%
Spontaneous Vaginal Delivery	303	28.6%	1040	58.4%	1343	47.1%
Forceps Delivery	79	7.4%	10	0.6%	89	3.1%
Ventouse Delivery	231	21.8%	82	4.6%	313	11.0%

Multiple Pregnancies 2021	Primip (n)	%	Multip (n)	%	Total (n)	%
Twins	21	2.0%	25	1.4%	46	1.6%
Triplets	0	0.0%	2	0.1%	2	0.07%

Onset for Multiple Pregnancies 2021	Primip (21)	%	Multip (27)	%	Total (48)	%
Induced	2	9.5%	8	30.8%	10	21.3%
Spontaneous	4	19.0%	7	27.0%	11	23.4%
No Labour	15	71.4%	12	46.2%	27	57.4%
Elective C.S.	9	42.9%	6	23.1%	15	32.0%
Emergency C.S.	11	52.4%	10	38.5%	21	44.7%

Perinatal Deaths 2021	Primigravida	%	Multigravida	%	Total	%
Stillbirths	2	0.2%	4	0.2%	6	0.2%
Early Neonatal Deaths	3	0.3%	3	0.2%	6	0.2%

Perinatal Mortality Rate (%), last 6 years	2016	2017	2018	2019	2020	2021
Overall PMR per 1000 births	6	4.6	3.5	3.9	9.9	4.1
Corrected PMR per 1000 births	3.7	3.5	2.1	0.7	4.2	0.3

Perinatal Mortality Rate (%), last 6 years	2016	2017	2018	2019	2020	2021
Overall PMR per 1000 births	6	4.6	3.5	3.9	9.9	4.1
Corrected PMR per 1000 births	3.7	3.5	2.1	0.7	4.2	0.3

Stillbirth & Neonatal Deaths, last 6 years	2016	2017	2018	2019	2020	2021
Stillbirth Rate	0.40%	0.40%	0.28%	0.31%	0.61%	0.21%
Neonatal Death Rate	0.20%	0.10%	0.07%	0.11%	0.38%	0.21%
Total Rate	**0.60%**	**0.50%**	**0.35%**	**0.39%**	**0.99%**	**0.42%**

Parity 2021	Number	%
0	1061	37.33%
1	1018	35.81%
2	521	18.33%
3	163	5.73%
4	41	1.44%
5	17	0.60%
6	10	0.36%
7	8	0.28%
8	1	0.04%
9	0	0.00%
10	1	0.04%
11	0	0.00%
12	1	0.04%
Total	**2,842**	**100%**

Parity %, last 6 years	2016	2017	2018	2019	2020	2021
0	39.30%	39.20%	40.90%	39.91%	39.54%	37.33%
1,2,3	57.50%	57.90%	56.30%	57.50%	57.61%	59.89%
4+	3.00%	3.00%	2.84%	2.60%	2.85%	2.78%

Age, 2021	Primigravida	%	Multigravida	%	Total	%
15-19yrs	2	0.2%	0	0.0%	2	0.1%
20-24yrs	69	6.5%	37	2.1%	106	3.7%
25-29yrs	122	11.5%	142	8.0%	264	9.3%
30-34yrs	344	32.4%	392	22.0%	736	25.9%
35-39yrs	398	37.5%	788	44.2%	1186	41.7%
40-44yrs	109	10.3%	396	22.2%	505	17.8%
45>	17	1.6%	26	1.5%	43	1.5%
Total	**1061**	**100.0%**	**1781**	**100.0%**	**2842**	**100.0%**

Age At Delivery (%), last 6 years	2016	2017	2018	2019	2020	2021
15-19yrs	0.7%	0.7%	0.4%	0.3%	0.2%	0.1%
20-24yrs	6.1%	5.4%	4.9%	4.9%	4.4%	3.7%
25-29yrs	14.1%	13.5%	10.2%	10.6%	9.3%	9.3%
30-34yrs	34.5%	30.7%	27.7%	27.5%	25.9%	25.9%
35-39yrs	34.1%	37.2%	39.5%	39.9%	42.4%	41.7%
40-44yrs	9.7%	11.7%	16.4%	15.2%	16.0%	17.8%
45>	0.7%	0.8%	1.0%	1.5%	1.7%	1.5%

County of Origin, Last 6 years	2016	2017	2018	2019	2020	2021
Galway County	56.5%	57.9%	56.1%	58.9%	58.8%	53.5%
Galway City	37.3%	36.0%	37.1%	33.7%	34.0%	38.5%
Mayo	2.1%	2.5%	2.5%	2.9%	2.8%	3.7%
Roscommon	0.9%	1.0%	1.1%	1.1%	1.4%	1.3%
Clare	2.5%	1.9%	2.5%	2.1%	2.0%	1.6%
Others	0.7%	0.7%	0.7%	1.2%	1.0%	1.4%

Non Irish National Births, last 6 years	2016	2017	2018	2019	2020	2021
Number	731	683	718	682	589	675
%	24.4%	24.4%	25.6%	24.5%	23.0%	23.8%

Gestation @ Delivery, 2021	Primigravida	%	Multigravida	%	Total	%
<28 weeks	4	0.4%	4	0.2%	8	0.3%
28 - 31+6	12	1.1%	12	0.7%	24	0.8%
32 - 36+6	66	6.2%	105	5.9%	171	6.0%
37 - 39+6	421	39.7%	1012	56.8%	1433	50.4%
40 - 41+6	551	51.9%	645	36.2%	1196	42.1%
42 weeks	7	0.7%	3	0.2%	10	0.4%
Total	**1061**	**100.0%**	**1781**	**100.0%**	**2842**	**100.0%**

Gestation @ Delivery, last 6 years	2016	2017	2018	2019	2020	2021
<28 weeks	0.3%	0.3%	0.2%	0.3%	0.4%	0.3%
28 - 31+6	1.1%	0.7%	0.7%	0.7%	0.7%	0.8%
32 - 36+6	5.1%	5.8%	5.0%	5.2%	5.1%	6.0%
37 - 39+6	45.9%	49.0%	47.6%	47.8%	47.5%	50.4%
40 - 41+6	47.4%	44.0%	46.1%	45.6%	46.1%	42.1%
42 weeks	0.3%	0.4%	0.4%	0.4%	0.2%	0.4%

Birth Weights, 2021	Primigravida	%	Multigravida	%	Total	%
<1,000gms	4	0.4%	4	0.2%	8	0.3%
1000-1499gms	8	0.7%	7	0.4%	15	0.5%
1500-1999gms	23	2.1%	16	0.9%	39	1.3%
2000-2499gms	44	4.1%	62	3.4%	106	3.7%
2500-2999gms	139	12.9%	150	8.3%	289	10.0%
3000-3499gms	379	35.1%	500	27.6%	879	30.4%
3500-3999gms	350	32.3%	633	34.9%	983	34.0%
4000-4499gms	122	11.3%	356	19.7%	478	16.5%
4500-4999gms	11	1.0%	78	4.3%	89	3.1%
5000-5499gms	1	0.1%	5	0.3%	6	0.2%
>5,500gms	0	0.0%	0	0.0%	0	0.0%
Total	**1081**	**100.0%**	**1811**	**100.0%**	**2892**	**100.0%**

Birth Weights, last 6 years	2016	2017	2018	2019	2020	2021
<500gms	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
500-999gms	0.5%	0.4%	0.3%	0.3%	0.5%	0.3%
1000-1999gms	2.1%	2.5%	1.3%	1.7%	1.7%	1.9%
2000-2999gms	14.7%	14.3%	12.5%	14.1%	12.9%	13.7%
3000-3999gms	68.7%	67.0%	69.0%	67.5%	66.4%	64.3%
4000-4499gms	11.8%	13.6%	14.9%	14.0%	16.3%	16.5%
4500-4999gms	2.2%	2.2%	1.9%	2.4%	2.2%	3.1%
5000-5499gms	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
>5500gms	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Number of Babies	**3002**	**2854**	**2858**	**2839**	**2614**	**2892**

Induction of Labour, last 6 years	Primigravida	%	Multigravida	%	Total	%
2016	443	38.3%	455	25.4%	898	30.5%
2017	460	42.0%	483	28.4%	943	33.7%
2018	464	40.5%	387	23.3%	851	30.3%
2019	432	39.0%	392	23.4%	824	29.6%
2020	423	41.8%	446	28.8%	869	33.9%
2021	452	42.6%	462	25.9%	914	32.2%

Perineal Trauma, 2021	Primigravida	%	Multigravida	%	Total	%
Intact	13	2.1%	240	21.4%	253	14.6%
Episiotomy	370	60.4%	115	10.2%	485	27.9%
2nd Degree Tear	132	21.5%	421	37.5%	553	31.8%
1st Degree Tear	46	7.5%	224	19.9%	270	15.5%
3rd Degree Tear	27	4.4%	15	1.3%	42	2.4%
Other Laceration	25	4.1%	109	9.7%	134	7.8%
Total	**613**	**100.0%**	**1124**	**100.0%**	**1737**	**100.0%**

Incidence of Episiotomy, last 6 years	Primigravida	%	Multigravida	%	Total	%
2016	440	58.4%	139	11.2%	579	28.8%
2017	449	64.1%	150	13.0%	599	32.3%
2018	427	59.7%	125	11.2%	552	30.1%
2019	356	49.9%	99	9.2%	455	25.5%
2020	355	52.7%	99	9.5%	454	26.5%
2021	370	60.4%	115	10.2%	485	27.9%

B.B.A, last 6 years	Primigravida	%	Multigravida	%	Total	%
2016	1	0.0%	11	0.4%	12	0.4%
2017	1	0.1%	7	0.4%	8	0.3%
2018	1	0.1%	4	0.2%	5	0.2%
2019	2	0.1%	9	0.3%	11	0.4%
2020	0	0.0%	9	0.4%	9	0.4%
2021	1	0.1%	17	0.9%	18	0.6%

Obstetric Risks/Complications 2021	Total Number	%
Maternal sepsis	3	1.1%
Ectopic pregnancy	24	8.4%
Eclampsia	1	0.4%
Uterine rupture	3	1.1%
Peripartum hysterectomy	2	0.7%
Pulmonary embolism	5	1.8%
Perineal tears	42	2.4%
Primary PPH VAGINAL DELIVERIES	75	4.3%
Primary PPH CAESAREAN SECTIONS	83	7.6%
Miscarriage misdiagnosis	0	0.0%
Retained swabs	0	0.0%
Episiotomy	485	27.7%*

** Percentage of vaginal deliveries*

Shoulder Dystocia, 2021	Primigravida	%	Multigravida	%	Total	%
Shoulder Dystocia	5	0.5%	23	1.3%	28	1.0%

Fetal Blood Sampling (n - babies), 2021	Primigravida	%	Multigravida	%	Total	%
PH < 7.20	3	0.3%	4	0.2%	7	0.2%
PH 7.20 - 7.25	11	1.0%	1	0.1%	12	0.4%
PH > 7.25	34	3.1%	55	3.0%	89	3.1%

Cord Blood Sampling (n - babies), 2021	Primigravida	%	Multigravida	%	Total	%
PH < 7.20	66	6.1%	61	3.4%	127	4.4%
PH 7.20 - 7.25	80	7.4%	68	3.8%	148	5.1%
PH > 7.25	681	63.0%	754	41.6%	1435	49.6%

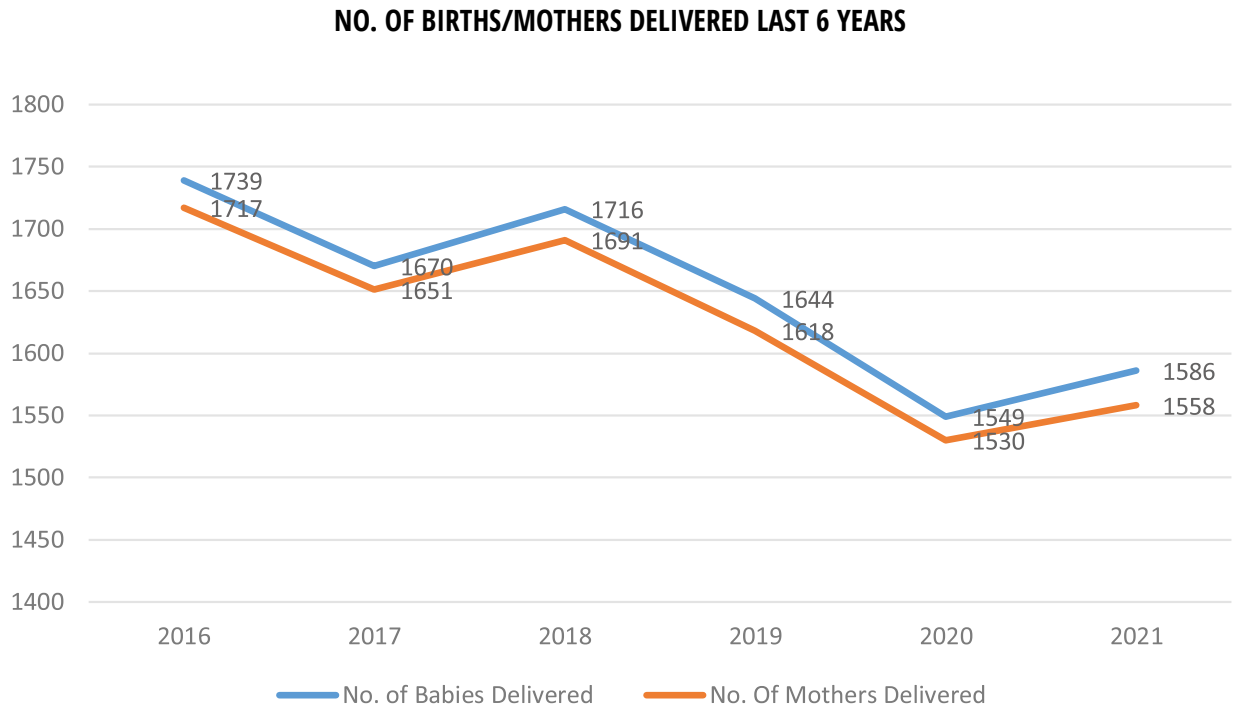
Caesarean Sections 2021	Primigravida	%	Multip	%	Total	%
Elective Caesarean Sections	119	11.2%	404	22.7%	523	18.4%
Emergency Caesarean Sections	328	31.0%	239	13.4%	567	20.0%
Total	**447**	**42.2%**	**643**	**36.1%**	**1090**	**38.4%**

Robson Groups 2021	Total LSCS	Total Women	Rate of CS in Group
Group 1 - Nullip Single Ceph Term Spont Lab	68	390	17.4%
Group 2 - Nullip Single Ceph Term Induced	256	518	49.4%
Group 2(a) - Nullip Single Ceph Term Induced	180	442	40.7%
Group 2(b) - Nullip Single Ceph Term pre-labour CS	76	76	100.0%
Group 3 - Multip Single Ceph Term Spont Lab	17	644	2.6%
Group 4 - Multip Single Ceph Term Induced	87	453	19.2%
Group 4(a) - Multip Single Ceph Term Induced *	38	404	9.4%
Group 4(b) - Multip Single Ceph Term Pre-Labour CS *	49	49	100.0%
Group 5 - Previous CS Single Ceph Term	408	498	81.9%
Group 5 (1)- With one previous C.S. Single Ceph Term	273	357	76.5%
Group 5 (2)- With two or more Previous C.S. Single Ceph Term	135	141	95.7%
Group 6 - All Nullip Breeches	70	72	97.2%
Group 7 - All Multip Breeches	60	62	96.8%
Group 8 - All Multiple Pregnancies	36	48	75.0%
Group 9 - All Abnormal Lies	17	17	100.0%
Group 10 - All Preterm Single Ceph	71	140	50.7%
Total	**1090**	**2842**	**38.4%**

Vaginal Birth after Caesarean Section, 2021	Number	%
Total No. Of Mothers who had 1 previous Caesarean Section	438	15.4%
No of Mothers who opted for an elective caesarean section after 1 previous Caesarean Section	292	10.3%
No of Mothers who went into spontaneous/induced Labour after 1 previous Caesarean Section Outcome of this Category: • SVD/Spontaneous Breech-70 • Ventouse-20 • Forceps-6 Total VBAC= 96 Emergency C.S.-50	146	5.1%

LUH Statistical Summary Template 2021

Number of Mothers/Births, last 6 years	2016	2017	2018	2019	2020	2021
Number of Deliveries	1739	1670	1716	1644	1549	1586
Number of Mothers	1717	1651	1691	1618	1530	1558



Obstetric Outcomes (Mothers) 2021	Primip	%	Multip	%	Total	%
All Mothers	**502**		**1056**		**1558**	
Spontaneous Onset	217	43.2%	448	42.4%	665	42.7%
Induction of Labour	165	32.9%	276	26.1%	441	28.3%
Epidural Rate	152	30.3%	113	10.7%	265	17.0%
Episiotomy	117	23.3%	67	6.3%	184	11.8%
Caesarean Section	225	44.8%	406	38.4%	631	40.5%
Spontaneous Vaginal Delivery	182	36.3%	612	58.0%	794	51.0%
Forceps Delivery	9	1.8%	0	0.0%	9	0.6%
Ventouse Delivery	87	17.3%	37	3.5%	124	8.0%
Breech Delivery	0	0.0%	0	0.0%	0	0.0%

Multiple Pregnancies 2021	Primip (n)	%	Multip (n)	%	Total (n)	%
Twins	10		18	1.7%	28	1.8%
Triplets	0	0.0%	0	0.0%	0	0.0%

Multiple Births	2016	2017	2018	2019	2020	2021
Twins	22	19	25	26	19	28
Triplets	0	0	0	0	0	0
Total	**22**	**19**	**25**	**26**	**19**	**28**

Perinatal Deaths 2021	Primigravida	Multigravida	Total
Stillbirths	0	3	3
Early Neonatal Deaths	1	1	2

Perinatal Mortality Rate (%)	2016	2017	2018	2019	2020	2021
Overall PMR per 1000 births	5.8	1.8	5.2	3.6	3.9	3.2
Corrected PMR per 1000 births	1.2	0.6	1.2	1.8	0.0	1.3

Parity 2021	Number	%
0	502	32.2%
1	520	33.4%
2	317	20.3%
3	147	9.4%
4	51	3.3%
5	15	1.0%
6	5	0.3%
7	0	0.0%
8	0	0.0%
9	1	0.1%
10	0	0.0%
11	0	0.0%
12	0	0.0%
Total	**1558**	**100.0%**

Age 2021	Total	%
13-19yrs	14	0.9%
20-24yrs	104	6.7%
25-29yrs	293	18.8%
30-34yrs	549	35.2%
35-39yrs	470	30.2%
40-44yrs	119	7.6%
45>	9	0.6%

Age At Delivery 2021	2016	2017	2018	2019	2020	2021
13-19yrs	2.0%	2.3%	1.6%	1.6%	0.9%	0.9%
20-24yrs	10.3%	9.0%	10.0%	10.0%	7.8%	6.7%
25-29yrs	22.0%	23.1%	19.9%	21.5%	17.9%	18.8%
30-34yrs	33.7%	34.9%	34.9%	35.5%	35.4%	35.2%
35-39yrs	27.2%	25.9%	27.8%	25.6%	29.8%	30.2%
40-44yrs	4.7%	4.4%	5.5%	5.6%	7.5%	7.6%
45>	0.2%	0.4%	0.3%	0.2%	0.7%	0.6%

Gestation @ Delivery last 2 years	2020	2021
<28 weeks	0.0%	0.2%
28 - 31+6	0.7%	0.5%
32 - 36+6	4.7%	4.9%
37 - 39+6	73.8%	50.8%
40 - 41+6	20.2%	43.5%
42 weeks	0.6%	0.1%
Total	**100.0%%**	**100.0%**

Birth Weights 2021	Total	%
<1,000gms	4	0.3%
1000-1499gms	10	0.6%
1500-1999gms	37	2.3%
2000-2499gms	62	3.9%
2500-2999gms	161	10.2%
3000-3499gms	470	29.7%
3500-3999gms	540	34.0%
4000-4499gms	302	19.0%
4500-4999gms	0	0.0%
5000-5499gms	0	0.0%
Total	**1586**	**100.0%**

Induction of Labour	Primigravida	%	Multigravida	%	Total	%
2016	200		252		452	26.3%
2017	195		173		368	22.4%
2018	196		265		461	27.3%
2019	197		252		449	27.8%
2020	201	40.1%	270	26.2%	471	30.8%
2021	165	32.9%	276	26.1%	441	28.3%

Perineal Trauma 2021	Primigravida	%	Multigravida	%	Total	%
Intact	111	34.0%	200	33.2%	311	33.5%
Episiotomy	117	35.9%	67	11.1%	184	19.8%
2nd Degree Tear	61	18.7%	213	35.5%	274	29.6%
1st Degree Tear	12	3.7%	90	15.0%	102	11.0%
3rd Degree Tear	14	4.3%	7	1.2%	21	2.3%
Other Laceration	11	3.4%	24	4.0%	35	3.8%
Total	**326**	**100.0%**	**601**	**100.0%**	**927**	**100.0%**

Incidence of Episiotomy	Primigravida	%	Multigravida	%	Total	%
2016					327	28.3%
2017					291	25.2%
2018					311	28.3%
2019					280	27.4%
2020	176	59.4%	86	12.7%	262	27.0%
2021	117	35.9%	67	11.1%	184	19.8%

B.B.A	Total
2016	7
2017	7
2018	8
2019	4
2020	5
2021	5

Obstetric Risks/Complications 2021	Total Number	%
Maternal sepsis	2	1.3%
Ectopic pregnancy	17	10.9%
Eclampsia	0	0.0%
Uterine rupture	1	0.6%
Peripartum hysterectomy	0	0.0%
Pulmonary embolism	1	0.6%
Perineal tears	21	2.3%
Primary PPH VAGINAL DELIVERIES	11	1.2%
Primary PPH CAESAREAN SECTIONS	77	12.2%
Miscarriage misdiagnosis	0	0.0%
Retained swabs	0	0.0%
Episiotomy	184	19.9%*

**Percentage of vaginal deliverie*

Shoulder Dystocia 2021	Total	%
Shoulder Dystocia	10	0.6%

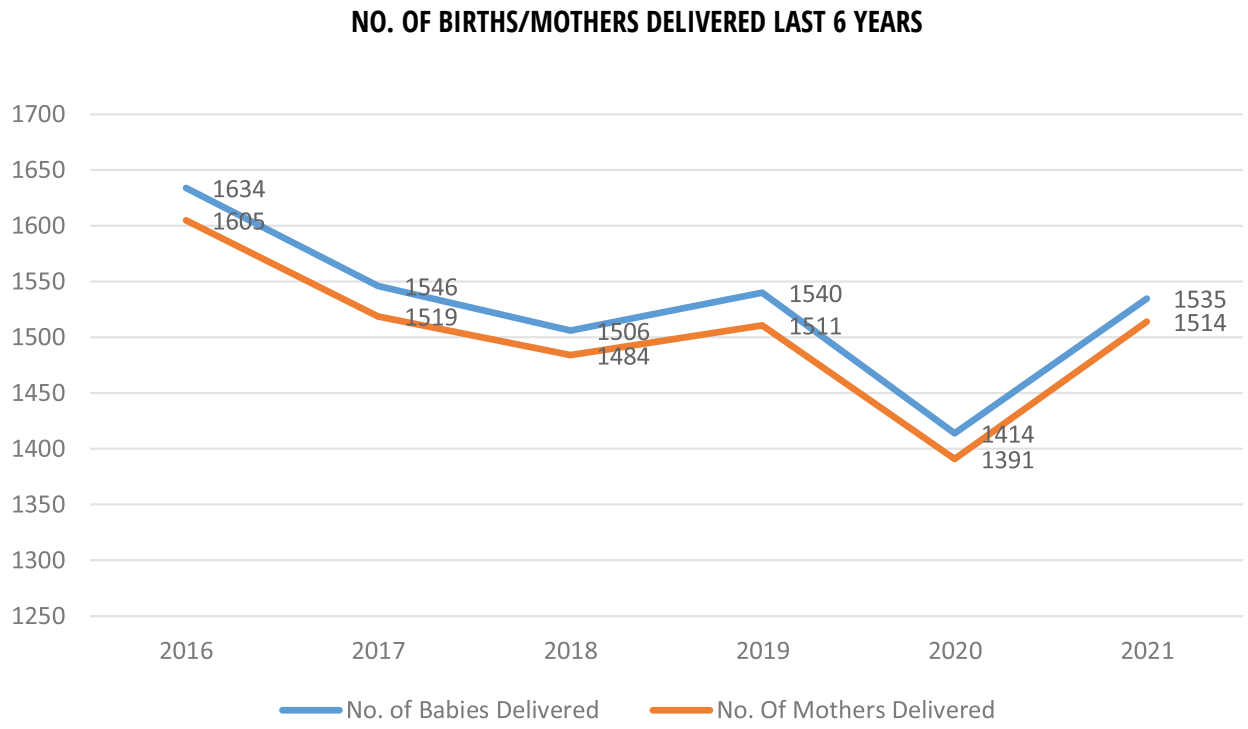
Caesarean Sections 2021	Primigravida	%	Multip	%	Total	%
Elective Caesarean Sections	74	14.7%	290	27.5%	364	23.4%
Emergency Caesarean Sections	149	29.7%	118	11.2%	267	17.1%
Total	**223**	**44.4%**	**408**	**38.6%**	**631**	**40.5%**

Robson Groups 2021	Total LSCS	Total Women	Rate of CS in Group
Group 1 - Nullip Single Ceph Term Spont Lab	42	208	20.2%
Group 2 - Nullip Single Ceph Term Induced	120	221	54.3%
Group 2(a) - Nullip Single Ceph Term Induced	67	168	39.9%
Group 2(b) - Nullip Single Ceph Term pre-labour CS	53	53	100.0%
Group 3 - Multip Single Ceph Term Spont Lab	8	350	2.3%
Group 4 - Multip Single Ceph Term Induced	45	276	16.3%
Group 4(a) - Multip Single Ceph Term Induced	13	244	5.3%
Group 4(b) - Multip Single Ceph Term Pre-Labour CS	32	32	100.0%
Group 5 - Previous CS Single Ceph Term	270	318	84.9%
Group 5 (1)- With one previous C.S. Single Ceph Term	186	234	79.5%
Group 5 (2)- With two or more Previous C.S. Single Ceph Term	84	84	100.0%
Group 6 - All Nullip Breeches	25	28	89.3%
Group 7 - All Multip Breeches	38	45	84.4%
Group 8 - All Multiple Pregnancies	26	28	92.9%
Group 9 - All Abnormal Lies	25	25	100.0%
Group 10 - All Preterm Single Ceph	32	59	54.2%
Total	**631**	**1558**	**40.5%**

Vaginal Birth after Caesarean Section, 2021			n	%
Total No. Of Mothers who had 1 previous Caesarean Section			272	17.5%
No of Mothers who opted for an elective caesarean section after 1 previous Caesarean Section			179	65.8%
No of Mothers who went into spontaneous/induced Labour after 1 previous Caesarean Section			93	34.2%
Outcome of this category	SVD/Spontaneous	42		
	Ventouse	12		
	Forceps	0		
	Total VBAC	**54**		
	Emergency C.S.	39		

MHU Statistical Summary Template 2021

Number of Mothers/Births, last 6 years	2016	2017	2018	2019	2020	2021
Number of Deliveries	1634	1546	1506	1540	1414	1535
Number of Mothers	1605	1519	1484	1511	1391	1514



Obstetric Outcomes (Mothers) 2021	Primip	%	Multip	%	Total	%
All mothers	**486**	**100.0%**	**1028**	**100.0%**	**1514**	**100.0%**
Spontaneous Onset	230	47.9%	496	48.0%	726	48.0%
Induction of Labour	205	42.7%	238	23.0%	443	29.3%
Epidural Rate	276	57.5%	207	20.0%	483	31.9%
Episiotomy	167	34.8%	59	5.7%	226	14.9%
Caesarean Section	186	38.8%	370	35.8%	556	36.7%
Spontaneous Vaginal Delivery	164	34.2%	613	59.3%	777	51.3%
Forceps Delivery	64	13.3%	9	0.9%	73	4.8%
Ventouse Delivery	76	15.8%	32	3.1%	108	7.1%
Breech Delivery	1	0.2%	2	0.2%	3	0.2%

Multiple Pregnancies 2021	Primip (n)	Multip (n)	Total (n)
Twins	9	12	21
Triplets	0	0	0

Onset for Multiple Pregnancies 2021	Primip (n)	Multip (n)	Total (n)
Induced	3	3	6
Spontaneous	0	8	8
No Labour	0	7	7
Elective C.S.	6	1	7
Emergency C.S.	2	3	0

Multiple Births	2016	2017	2018	2019	2020	2021
Twins	30	27	22	29	23	21
Triplets	0	0	0	0	0	0
Total	**30**	**27**	**22**	**29**	**23**	**21**

Perinatal Deaths 2021	Primigravida	%	Multigravida	%	Total	%
Stillbirths	2	0.4%	2	1.9%	4	2.6%
Early Neonatal Deaths	0	0.0%	2	1.9%	2	1.3%

Perinatal Mortality Rate (%)	2016	2017	2018	2019	2020	2021
Overall PMR per 1000 births	5.51	3.2	6.0	5.2	2.87	3.96
Corrected PMR per 1000 births	3.1	1.3	2.0	0.7	0.71	0.0

Last 5 Years	2017	2018	2019	2020	2021
Stillbirth Rate	3.20%	3.98%	3.25%	0.29%	1.32%
Neonatal Death Rate	0.00%	1.99%	1.95%	0.00%	2.64%
Total Rate	**0.32%**	**6.10%**	**0.52%**	**0.29%**	**3.96%**

Parity 2021	Number	%
0	486	32.1%
1	539	35.6%
2	310	20.5%
3	114	7.5%
4	37	2.4%
5	15	1.0%
6	9	0.6%
7	3	0.2%
8	0	0.0%
9	1	0.1%
10	0	0.0%
11	0	0.0%
12	0	0.0%
Total	**1514**	**100.0%**

Parity %	2019	2021
0	32%	32.1%
1,2,3	68%	63.6%
4+	0%	4.3%

Age 2021	Primigravida	%	Multigravida	%	Total	%
15-19yrs	11	2.3%	2	0.2%	13	0.9%
20-24yrs	41	8.4%	31	3.0%	72	4.8%
25-29yrs	88	18.1%	113	11.0%	201	13.3%
30-34yrs	189	38.9%	286	27.8%	475	31.4%
35-39yrs	127	26.1%	442	43.0%	569	37.6%
40-44yrs	27	5.6%	148	14.4%	175	11.6%
45>	3	0.6%	6	0.6%	9	0.6%
Total	**486**	**100.0%**	**1028**	**100.0%**	**1514**	**100.0%**

Age At Delivery	2020	2021
15-19yrs	1.2%	0.9%
20-24yrs	5.8%	4.8%
25-29yrs	15.6%	13.3%
30-34yrs	34.5%	31.4%
35-39yrs	33.8%	37.6%
40-44yrs	8.6%	11.6%
45>	0.4%	0.6%

County of Origin, Last 2 years	2020	2021
Galway County	3.1%	1.9%
Mayo	88.9%	90.6%
Roscommon	6.2%	5.6%
Sligo	1.7%	1.8%
Others	0.1%	0.1%

Non Irish National Births	2020	2021
Number	198	36
%	14.2%	2.4%

Gestation @ Delivery, 2021	Primigravida	%	Multigravida	%	Total	%
<28 weeks	1	0.2%	1	0.1%	2	0.1%
28 - 31+6	0	0.0%	0	0.0%	0	0.0%
32 - 36+6	20	4.1%	33	3.2%	53	3.5%
37 - 39+6	208	42.8%	591	57.5%	799	52.8%
40 - 41+6	253	52.1%	399	38.8%	652	43.1%
42 weeks	4	0.8%	4	0.4%	8	0.5%
Total	**486**	**100.0%**	**1028**	**100.0%**	**1514**	**100.0%**

Gestation @ Delivery last 2 years	2020	2021
<28 weeks	0.4%	0.1%
28 - 31+6	0.3%	0.0%
32 - 36+6	4.5%	3.5%
37 - 39+6	50.6%	52.8%
40 - 41+6	43.0%	43.1%
42 weeks	0.9%	0.55
Total	**99.8%**	**100.0%**

Birth Weights 2021	Primigravida	%	Multigravida	%	Total	%
<1,000gms	2	0.4%	0	0.0%	2	0.1%
1000-1499gms	0	0.0%	2	0.2%	2	0.1%
1500-1999gms	1	0.2%	4	0.4%	5	0.3%
2000-2499gms	19	4.0%	22	2.1%	41	2.7%
2500-2999gms	53	11.1%	120	11.3%	173	11.3%
3000-3499gms	154	32.2%	310	29.3%	464	30.2%
3500-3999gms	190	39.7%	402	38.0%	592	38.6%
4000-4499gms	46	9.7%	170	16.1%	216	14.1%
4500-4999gms	12	2.5%	23	2.2%	35	2.3%
5000-5499gms	1	0.2%	4	0.4%	5	0.3%
Total	**478**	**100.0%**	**1057**	**100.0%**	**1535**	**100.0%**

Birth Weights	2020	2021
<500gms	0.1%	0.0%
500-999gms	0.5%	0.1%
1000-1999gms	1.1%	0.5%
2000-2999gms	12.8%	13.9%
3000-3999gms	70.9%	68.8%
4000-4499gms	12.0%	14.1%
4500-4999gms	2.3%	2.3%
5000-5499gms	0.1%	0.3%
>5500gms	0.0%	0.0%
Total Number of Babies	**1414**	**1536**

Induction of Labour	Primigravida	%	Multigravida	%	Total	%
2016	179	33.0%	184	18.7%	363	22.6%
2017	196	39.3%	197	17.3%	393	31.3%
2018	201	39.8%	205	26.4%	406	27.4%
2019	176	36.4%	224	20.9%	400	26.5%
2020	182	37.4%	195	21.5%	377	27.1%
2021	205	42.7%	238	23.0%	443	29.2%

Perineal Trauma 2021	Primigravida	%	Multigravida	%	Total	%
Episiotomy	167	34.8%	59	5.7%	226	14.9%
2nd Degree Tear	95	19.8%	244	23.6%	339	22.4%
1st Degree Tear	29	6.0%	111	10.7%	140	9.2%
3rd Degree Tear	9	1.9%	5	0.5%	14	0.9%
Other Laceration	0	0.0%	3	0.3%	3	0.2%

Incidence of Episiotomy	Primigravida	%	Multigravida	%	Total	%
2019					211	23.0%
2020	134		118		252	18.1%
2021	167	34.8%	59	5.7%	226	14.9%

Obstetric Risks/Complications 2021	Total Number	%
Maternal sepsis	0	0.0%
Ectopic pregnancy	22	1.5%
Eclampsia	0	0.0%
Uterine rupture	0	0.0%
Peripartum hysterectomy	0	0.0%
Pulmonary embolism	2	1.3%
Perineal tears	16	1.7%
Primary PPH VAGINAL DELIVERIES	56	5.9%
Primary PPH CAESAREAN SECTIONS	70	12.6%
Miscarriage misdiagnosis	1	0.7%
Retained swabs	0	0.0%
Episiotomy	226	23.6%*

*Percentage of vaginal deliveries

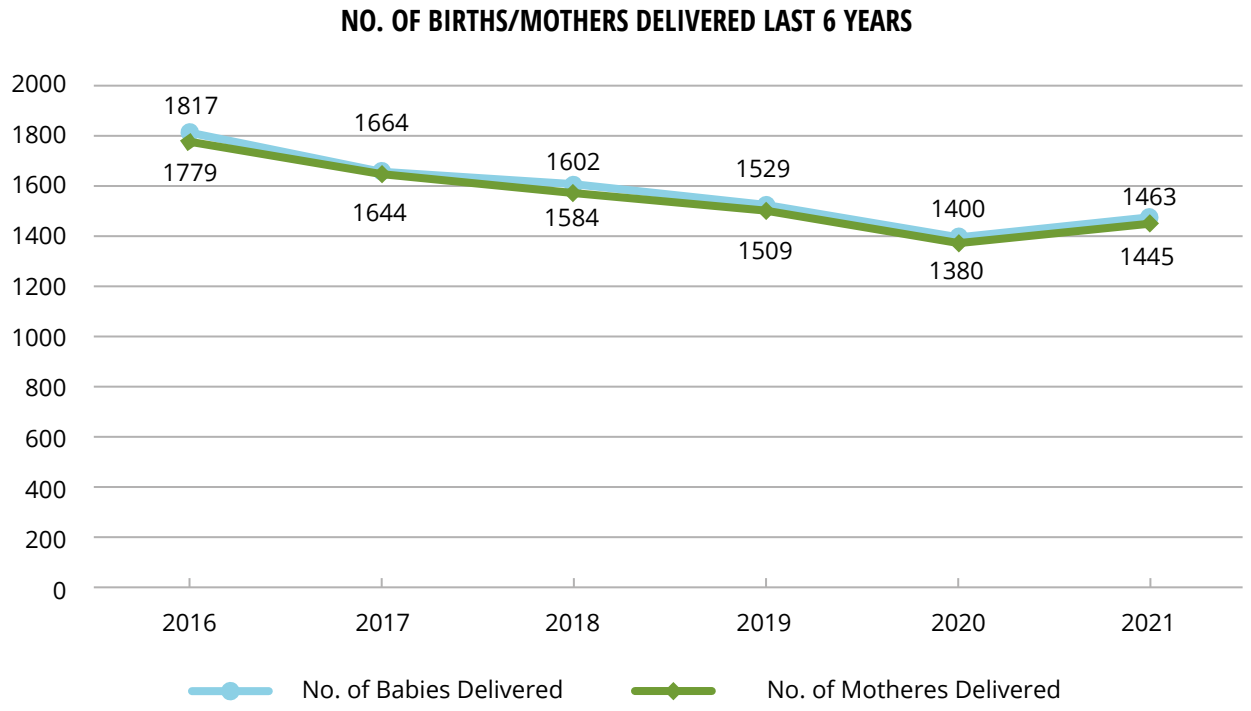
Caesarean Sections 2021	Primigravida	%	Multip	%	Total	%
Elective Caesarean Sections	42	22.6%	267	72.2%	309	55.6%
Emergency Caesarean Sections	144	77.4%	103	27.8%	247	44.4%
Total	**186**	**100.0%**	**370**	**100.0%**	**556**	**100.0%**

Robson Groups 2021	Total LSCS	Total Women	Rate of CS in Group
Group 1 - Nullip Single Ceph Term Spont Lab	36	213	16.9%
Group 2 - Nullip Single Ceph Term Induced	117	230	50.9%
Group 2(a) - Nullip Single Ceph Term Induced			
Group 2(b) - Nullip Single Ceph Term pre-labour CS			
Group 3 - Multip Single Ceph Term Spont Lab	9	381	2.4%
Group 4 - Multip Single Ceph Term Induced	35	245	14.3%
Group 4(a) - Multip Single Ceph Term Induced			
Group 4(b) - Multip Single Ceph Term Pre-Labour CS			
Group 5 - Previous CS Single Ceph Term	293	338	86.7%
Group 5 (1)- With one previous C.S. Single Ceph Term			
Group 5 (2)- With two or more Previous C.S. Single Ceph Term			
Group 6 - All Nullip Breeches	21	24	87.5%
Group 7 - All Multip Breeches	16	18	88.9%
Group 8 - All Multiple Pregnancies	11	20	55.0%
Group 9 - All Abnormal Lies	3	3	100.0%
Group 10 - All Preterm Single Ceph	15	42	35.7%
Total	**556**	**1514**	**36.7%**

Vaginal Birth after Caesarean Section, 2021		n	%
Total No. Of Mothers who had 1 previous Caesarean Section		233	15.4%
Outcome of this category			
Total VBAC	**52**		

PUH Statistical Summary Template 2021

Number of Mothers/Births, last 6 years	2016	2017	2018	2019	2020	2021
Number of Deliveries	1817	1664	1602	1529	1400	1463
Number of Mothers	1779	1644	1584	1509	1380	1445



Obstetric Outcomes (Mothers) 2021	Primip	%	Multip	%	Total	%
All Mothers	**515**		**930**		**1445**	
Spontaneous Onset	209	40.5%	375	40.3%	584	40.4%
Induction of Labour	216	41.9%	245	26.3%	461	31.9%
Epidural Rate	268	52.0%	250	26.9%	518	35.8%
Episiotomy	152	29.3%	53	5.7%	205	14.1%
Caesarean Section	240	46.6%	369	39.7%	609	42.1%
Spontaneous Vaginal Delivery	155	30.1%	517	55.6%	672	46.5%
Forceps Delivery	11	2.1%	3	0.3%	14	1.0%
Ventouse Delivery	109	21.2%	40	4.3%	149	10.3%
Breech Delivery	0	0.0%	1	0.1%	1	0.1%

Multiple Pregnancies 2021	Primip (n)	%	Multip (n)	%	Total (n)	%
Twins	4	0.8%	14	1.5%	18	1.2%
Triplets	0	0.0%	0	0.0%	0	0.0%

Onset for Multiple Pregnancies 2021	Primip (n)	%	Multip (n)	%	Total (n)	%
Induced	2	0.4%	3	0.3%	5	0.3%
Spontaneous	1	0.2%	2	0.2%	3	0.2%
No Labour	1	0.2%	9	1.0%	10	0.7%
Elective C.S.	1	0.2%	3	0.3%	4	0.3%
Emergency C.S.	2	0.4%	6	0.6%	8	0.6%

Multiple Births	2016	2017	2018	2019	2020	2021
Twins	38	20	18	20	20	18
Triplets	0	0	0	0	0	0
Total	**38**	**20**	**18**	**20**	**20**	**18**

Perinatal Deaths 2021	Primigravida	Multigravida	Total
Stillbirths	0	3	3
Early Neonatal Deaths	3	2	5

Perinatal Mortality Rate per 1000	2016	2017	2018	2019	2020	2021
Overall PMR per 1000 births	7.2	6	6.2	5.2	6.4	2.7
Corrected PMR per 1000 births	1.1	3	1.8	1.3	2.8	0.0

Parity 2021	Number	%
0	515	35.6%
1	466	32.2%
2	304	21.0%
3	109	7.5%
4	31	2.1%
5	11	0.8%
6	7	0.5%
7	1	0.1%
8	1	0.1%
9	0	0.0%
10	0	0.0%
11	0	0.0%
Total	**1445**	**100.0%**

Parity %	2016	2017	2018	2019	2020	2021
0	31.4%	32.2%	34.4%	33.8%	34.10%	35.7%
1,2,3	65.0%	63.7%	61.8%	62.6%	62.70%	60.8%
4+	3.6%	4.1%	3.8%	3.6%	3.2%	3.5%

Age 2021	Primigravida	%	Multigravida	%	Total	%
15-19yrs	4	0.8%	0	0.0%	4	0.3%
20-24yrs	59	11.4%	24	2.6%	83	5.7%
25-29yrs	94	18.2%	99	10.5%	193	13.3%
30-34yrs	170	33.0%	233	25.1%	403	27.9%
35-39yrs	152	29.5%	395	42.5%	547	37.9%
40-44yrs	33	6.5%	168	18.1%	201	13.9%
45>	3	0.6%	11	1.2%	14	1.0%
Total	**515**	**100.0%**	**930**	**100.0%**	**1445**	**100.0%**

Age At Delivery	2016	2017	2018	2019	2020	2021
15-19yrs	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%
20-24yrs	0.9%	1.4%	1.1%	0.6%	5.8%	5.7%
25-29yrs	7.8%	8.3%	6.2%	5.6%	13.8%	13.3%
30-34yrs	14.6%	15.9%	15.6%	15.2%	31.9%	27.9%
35-39yrs	30.9%	35.3%	32.0%	31.5%	33.8%	37.9%
40-44yrs	36.4%	32.8%	34.3%	35.2%	13.6%	13.9%
45>	9.4%	6.4%	10.8%	11.9%	0.9%	1.0%

County of Origin, Last 6 years	2016	2017	2018	2019	2020	2021
Galway County	35.1%	35.8%	35.2%	33.9%	34.5%	33.9%
Mayo	0	0.3%	0.5%	0.1%	0.1%	0.8%
Roscommon	21.7%	20.5%	21.1%	25.1%	25.5%	23.8%
Clare	0.6%	0.7%	0.5%	0.4%	0.1%	0.4%
Offaly	-	-	-	-	-	16.3%
Westmeath	-	-	-	-	-	19.0%
Tipperary	-	-	-	-	-	3.9%
Longford	-	-	-	-	-	1.5%
Others	-	-	-	-	39.8%	0.4%
Non Nationals	-	-	-	-	-	18.3%

Gestation @ Delivery, 2021	Primigravida	%	Multigravida	%	Total	%
<28 weeks	2	0.4%	2	0.2%	4	0.3%
28 - 31+6	1	0.2%	2	0.2%	3	0.2%
32 - 36+6	21	4.1%	43	4.7%	64	4.4%
37 - 39+6	236	45.8%	563	60.5%	799	55.3%
40 - 41+6	250	48.5%	316	34.0%	566	39.2%
42 weeks	5	1.0%	4	0.4%	9	0.6%
Total	**515**	**100.0%**	**930**	**100.0%**	**1445**	**100.0%**

Gestation @ Delivery	2017	2018	2019	2020	2021
<28 weeks	0.1%	0.2%	0.2%	0.3%	0.3%
28 - 31+6	0.2%	0.2%	0.2%	0.1%	0.2%
32 - 36+6				4.2%	4.4%
37 - 39+6				53.3%	55.3%
40 - 41+6	22.2%	17.3%	17.0%	42.0%	39.2%
42 weeks				0.1%	0.6%
Total				**100%**	**100.0%**

Birth Weights 2021	Primigravida	%	Multigravida	%	Total	%
<1,000gms	3	0.6%	2	0.2%	5	0.3%
1000-1499gms	1	0.2%	2	0.2%	3	0.2%
1500-1999gms	5	1.0%	4	0.4%	9	0.6%
2000-2499gms	17	3.3%	32	3.4%	49	3.3%
2500-2999gms	78	15.0%	93	9.9%	171	11.7%
3000-3499gms	156	30.0%	275	29.1%	431	29.5%
3500-3999gms	173	33.3%	346	36.7%	519	35.5%
4000-4499gms	71	13.7%	152	16.1%	223	15.3%
4500-4999gms	14	2.7%	37	3.9%	51	3.5%
5000-5499gms	1	0.2%	1	0.1%	2	0.1%
Total	**519**	**100.0%**	**944**	**100.0%**	**1463**	**100.0%**

Birth Weights	2016	2017	2018	2019	2020	2021
<500gms	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%
500-999gms	0.0%	0.1%	0.1%	0.2%	0.2%	0.3%
1000-1999gms					1.0%	0.8%
2000-2999gms					13.3%	15.0%
3000-3999gms	66.6%	67.9%	66.7%	68.0%	68.6%	64.9%
4000-4499gms	15.0%	14.5%	13.7%	11.8%	14.2%	15.3%
4500-4999gms					2.3%	3.5%
5000-5499gms	0.1%	0.3%	0.3%	0.0%	0.1%	0.1%
>5500gms	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Induction of Labour	Primigravida	%	Multigravida	%	Total	%
2016	183	32.8%	274	22.4%	457	25.7%
2017	202	38.5%	254	22.7%	456	27.7%
2018	183	33.6%	234	22.5%	417	26.3%
2019	183	35.9%	228	22.8%	411	27.2%
2020	198	42.1%	249	27.3%	447	32.4%
2021	216	41.9%	245	26.3%	461	31.9%

Perineal Trauma 2021	Primigravida	%	Multigravida	%	Total	%
Intact	248	48.2%	500	53.8%	748	51.8%
Episiotomy	152	29.3%	53	5.7%	205	14.1%
2nd Degree Tear	64	12.4%	197	21.2%	261	18.1%
1st Degree Tear	21	4.1%	134	14.4%	155	10.7%
3rd Degree Tear	11	2.1%	6	0.6%	17	1.2%
Other Laceration	60	11.7%	21	2.3%	39	2.7%
Total	**515**	**100.0%**	**930**	**100.0%**	**1445**	**100.0%**

Incidence of Episiotomy	Primigravida	%	Multigravida	%	Total	%
2016	195	58.7%	120	15.2%	315	28.0%
2017	215	41.0%	124	11.1%	339	20.6%
2018	215	39.4%	124	11.9%	339	21.4%
2019	190	37.3%	80	8.0%	270	17.9%
2020	131	27.9%	71	7.8%	202	14.6%
2021	152	29.3%	53	5.7%	205	14.1%

B.B.A	Primigravida	%	Multigravida	%	Total	%
2016	0	0.0%	3	0.2%	3	0.2%
2017	0	0.0%	5	0.4%	5	0.3%
2018	2	0.4%	7	0.7%	9	0.6%
2019	2	0.4%	3	0.3%	5	0.3%
2020	0	0.0%	6	0.6%	6	0.4%
2021	1	0.2%	11	1.2%	12	0.8%

Obstetric Risks/Complications 2021	Total Number	%
Maternal sepsis	1	0.7%
Ectopic pregnancy	21	14.6%
Eclampsia	0	0.0%
Uterine rupture	1	0.7%
Peripartum hysterectomy	1	0.7%
Pulmonary embolism	0	0.0%
Perineal tears	17	2.0%
Primary PPH VAGINAL DELIVERIES	21	2.5%
Primary PPH CAESAREAN SECTIONS	33	5.4%
Miscarriage misdiagnosis	0	0.0%
Retained swabs	0	0.0%
Episiotomy	205	24.6%*

**Percentage of vaginal deliveries*

Shoulder Dystocia 2021	Primigravida	%	Multip	%	Total	%
Shoulder Dystocia	1	0.2%	2	0.2%	3	0.2%

Fetal Blood Sampling (n - babies) 2021	Primigravida	%	Multigravida	%	Total	%
PH < 7.20	6	1.2%	1	0.1%	7	0.5%
PH 7.20 - 7.25	3	0.6%	1	0.1%	4	0.3%
PH > 7.25	14	2.7%	2	0.2%	16	1.1%

Cord Blood Sampling (n - babies) 2021	Primigravida	%	Multigravida	%	Total	%
PH < 7.20	72	14.0%	56	6.0%	128	8.7%
PH 7.20 - 7.25	46	8.9%	31	3.3%	77	8.3%
PH > 7.25	129	25.0%	100	10.8%	229	15.8%

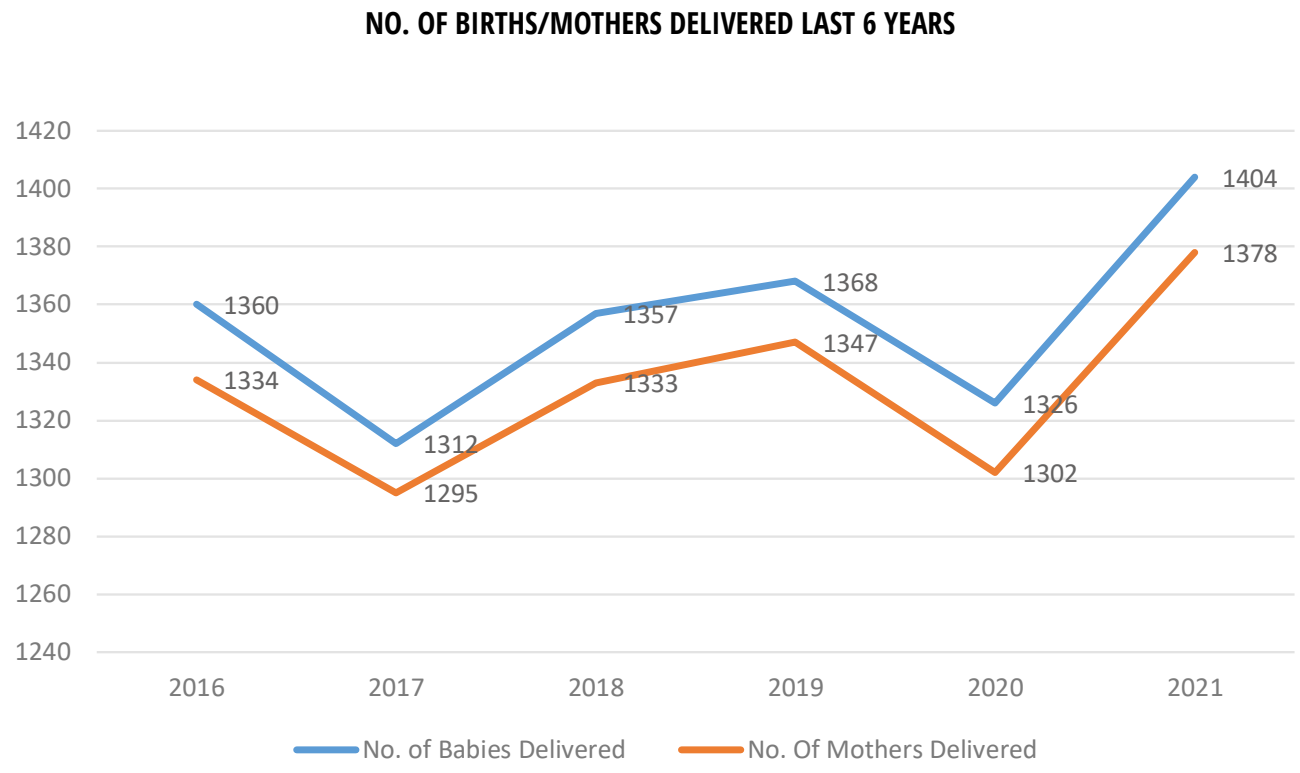
Caesarean Sections 2021	Primigravida	%	Multip	%	Total	%
Elective Caesarean Sections	75	14.6%	254	27.3%	329	22.8%
Emergency Caesarean Sections	166	32.3%	114	12.3%	280	19.4%
Total	**241**	**46.8%**	**368**	**39.6%**	**609**	**42.1%**

Robson Groups 2021	Total LSCS	Total Women	CS Rate in Group
Group 1 - Nullip Single Ceph Term Spont Lab	43	200	21.5%
Group 2 - Nullip Single Ceph Term Induced	160	269	59.5%
Group 2(a) - Nullip Single Ceph Term Induced	103	212	48.6%
Group 2(b) - Nullip Single Ceph Term pre-labour CS	57	57	100.0%
Group 3 - Multip Single Ceph Term Spont Lab	6	300	2.0%
Group 4 - Multip Single Ceph Term Induced	44	248	17.7%
Group 4(a) - Multip Single Ceph Term Induced	19	223	8.5%
Group 4(b) - Multip Single Ceph Term Pre-Labour CS	25	25	100.0%
Group 5 - Previous CS Single Ceph Term	254	291	87.3%
Group 5 (1)- With one previous C.S. Single Ceph Term	171	208	82.2%
Group 5 (2)- With two or more Previous C.S. Single Ceph Term	83	83	100.0%
Group 6 - All Nullip Breeches	22	22	100.0%
Group 7 - All Multip Breeches	27	28	96.4%
Group 8 - All Multiple Pregnancies	12	18	66.7%
Group 9 - All Abnormal Lies	15	15	100.0%
Group 10 - All Preterm Single Ceph	26	54	48.1%
Total	**609**	**1445**	**42.1%**

Vaginal Birth after Caesarean Section, 2021			No.	%
Total No. Of Mothers who had 1 previous Caesarean Section			222	15.4%
No. of Mothers who opted for an elective caesarean section after 1 previous Caesarean Section			137	61.7%
No. of Mothers who went into spontaneous/induced Labour after 1 previous Caesarean Section			60	27.0%
Outcome of this category	SVD/Spontaneous Breech	27		
	Ventouse	8		
	Forceps	3		
	Breech	0		
	Total VBAC	**38**		
	Emergency C.S.	47		

SUH Statistical Summary Template 2021

Number of Mothers/Births, last 6 years	2016	2017	2018	2019	2020	2021
Number of Deliveries	1360	1312	1357	1368	1326	1404
Number of Mothers	1334	1295	1333	1347	1302	1378



Obstetric Outcomes (Mothers) 2021	Primip (n)	%	Multip (n)	%	Total	%
Spontaneous Onset	211	46.6%	387	41.8%	598	43.4%
Induction of Labour	203	44.8%	260	28.1%	463	33.6%
Epidural Rate	296	65.3%	270	29.2%	566	41.1%
Episiotomy	123	27.2%	59	6.4%	182	13.2%
Caesarean Section	203	44.8%	333	36.0%	536	38.9%
Spontaneous Vaginal Delivery	146	32.2%	546	59.0%	692	50.2%
Forceps Delivery	31	6.8%	6	0.6%	35	2.5%
Ventouse Delivery	92	20.3%	34	3.7%	126	9.1%
Breech Delivery	1	0.2%	3	0.3%	4	0.3%
All Mothers	**453**		**925**		**1378**	

Multiple Pregnancies 2021	Primip (n)	%	Multip (n)	%	Total (n)	%
Twins	9	2.0%	18	1.9%	27	2.0%
Triplets	0	0.0%	0	0.0%	0	0.0%

Onset for Multiple Pregnancies 2021	Primip (n)	%	Multip (n)	%	Total (n)	%
Induced	2	0.4%	7	0.8%	9	0.7%
Spontaneous	2	0.4%	2	0.2%	4	0.3%
No Labour	5	1.1%	9	1.0%	14	1.0%
Elective C.S.	3	0.7%	3	0.3%	6	0.4%
Emergency C.S.	4	0.9%	8	0.9%	12	0.9%

Multiple Births	2016	2017	2018	2019	2020	2021
Twins	27	17	24	21	24	27
Triplets	0	0	0	0	0	0
Total	**27**	**17**	**24**	**21**	**24**	**27**

Perinatal Deaths 2021	Primigravida	%	Multigravida	%	Total	%
Stillbirths	1	0.2%	3	0.3%	4	0.3%
Early Neonatal Deaths	0	0.0%	1	0.1%	1	0.1%

Perinatal Mortality Rate (%)	2016	2017	2018	2019	2020	2021
Overall PMR per 1000 births	1	0.8	6	0.45	7	3.5
Corrected PMR per 1000 births	0	0	1	0.8	1	1.4

Stillbirth & Neonatal Deaths, last 5 years per 1000	2016	2017	2018	2019	2020	2021
Stillbirth Rate	6.60%	3.80%	3.00%	3.00%	0.60%	0.30%
Neonatal Death Rate	0.70%	0.80%	0.00%	0.00%	0.08%	0.10%
Total Rate	**7.30%**	**4.60%**	**3.00%**	**1.50%**	**0.68%**	**0.40%**

Parity 2021	Number	%
0	471	34.2%
1	472	34.2%
2	289	21.0%
3	94	6.7%
4	26	1.9%
5	15	1.1%
6	5	0.4%
7	5	0.4%
8	0	0.0%
9	1	0.1%
10	0	0.0%
11	0	0.0%
Total	**1378**	**100.0%**

Parity (%)	2016	2017	2018	2019	2020	2021
0	29.3%	36.0%	29.3%	35.5%	36.9%	34.2%
1,2,3	59.1%	51.7%	48.2%	55.1%	59.4%	62.0%
4+	11.6%	12.4%	22.5%	9.4%	3.7%	3.8%

Age 2021	Primigravida	%	Multigravida	%	Total	%
15-19yrs	3	0.6%	0	0.0%	3	0.2%
20-24yrs	46	9.8%	29	3.2%	75	5.5%
25-29yrs	73	15.5%	76	8.4%	149	10.8%
30-34yrs	171	36.3%	245	27.0%	416	30.2%
35-39yrs	137	29.1%	380	41.9%	517	37.5%
40-44yrs	40	8.5%	170	18.7%	210	15.2%
45>	1	0.2%	7	0.8%	8	0.6%
Total	**471**	**100.0%**	**907**	**100.0%**	**1378**	**100.0%**

Age At Delivery	2016	2017	2018	2019	2020	2021
15-19yrs	2.1%	2.4%	1.7%	2.0%	0.4%	0.2%
20-24yrs	9.0%	10.0%	7.7%	9.7%	5.4%	5.5%
25-29yrs	18.5%	18.9%	19.1%	17.2%	12.9%	10.8%
30-34yrs	35.3%	34.0%	36.6%	35.8%	27.3%	30.2%
35-39yrs	29.0%	28.7%	29.0%	28.5%	37.9%	37.5%
40-44yrs	6.0%	6.0%	6.0%	6.9%	14.5%	15.2%
45>					1.3%	0.6%

County of Origin	2016	2017	2018	2019	2020	2021
Sligo	55.00%	54.30%	55.80%	53.00%	52.9%	54.8%
Donegal	11.80%	10.90%	11.70%	12.17%	12.0%	8.0%
Leitrim	20.50%	20.20%	20.40%	21.73%	20.6%	22.0%
Mayo	1.90%	2.50%	1.30%	0.80%	1.7%	1.6%
Roscommon	9.60%	11.10%	9.70%	9.56%	11.6%	12.7%
Cavan	0.90%	0.50%	0.60%	1.30%	0.9%	0.0%
Galway	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%
Longford	0.00%	0.20%	0.10%	0.00%	0.2%	0.0%
Dublin	0.10%	0.00%	0.00%	0.00%	0.1%	0.0%
Others	0.10%	0.20%	0.3	0.80%	0.0%	0.9%
Total	99.90%	99.90%	99.9	99.40%	100%	100%

Non National Births	2016	2017	2018	2019	2020	2021
Number	109	97	103	136	265	266
%	8.0%	11.5%	7.7%	10.1%	20.3%	19.3%

Gestation @ Delivery	2016	2017	2018	2019	2020	2021
<28 weeks	0.2%	0.2%	0.2%	0.4%	0.5%	0.2%
28 - 31+6	0.3%	0.2%	0.3%	0.2%	0.6%	0.3%
32 - 36+6					3.6%	5.2%
37 - 39+6					52.3%	53.9%
40 - 41+6	45.4%	46.5%	41.7%	49.2%	42.1%	39.8%
42 weeks	2.1%	1.5%	2.3%	1.2%	0.6%	0.6%

Birth Weights 2021	Primigravida	%	Multigravida	%	Total	%
<1,000gms	1	0.2%	1	0.1%	2	0.1%
1000-1499gms	2	0.4%	1	0.1%	3	0.2%
1500-1999gms	5	1.0%	7	0.8%	12	0.9%
2000-2499gms	18	3.7%	38	4.1%	56	4.0%
2500-2999gms	57	11.8%	101	11.0%	158	11.3%
3000-3499gms	160	33.2%	315	34.2%	475	33.8%
3500-3999gms	171	35.5%	313	33.9%	484	34.5%
4000-4499gms	57	11.8%	127	13.8%	184	13.1%
4500-4999gms	11	2.4%	17	1.8%	28	2.0%
5000-5499gms	0	0.0%	2	0.2%	2	0.1%
Total	**482**	**100.0%**	**922**	**100.0%**	**1404**	**100.0%**

Birth Weights	2016	2017	2018	2019	2020	2021
<500gms					0.0%	0.0%
500-999gms					0.2%	0.1%
1000-1999gms					1.4%	1.1%
2000-2999gms					14.3%	15.2%
3000-3999gms	66.6%	66.2%	66.7%	66.2%	69.6%	68.3%
4000-4499gms	14.2%	14.3%	13.3%	13.9%	11.8%	13.1%
4500-4999gms					2.1%	2.0%
5000-5499gms					0.2%	0.1%
>5500gms					0.0%	0.0%
Total Number of Babies	**1360**	**1312**	**1357**	**1368**	**1326**	**1404**

Introduction of Labour	Primigravida	%	Multigravida	%	Total	%
2016	160	32.9%	255	30.1%	415	31.1%
2017	156	30.1%	262	31.6%	418	31.0%
2018	167	34.9%	183	21.4%	350	26.2%
2019	183	13.5%	234	17.4%	417	31.0%
2020	212	44.2%	224	27.3%	436	33.5%
2021	203	44.8%	260	28.1%	463	33.6%

Perineal Trauma 2021	Primigravida	%	Multigravida	%	Total	%
Intact	7	1.5%	117	12.6%	129	9.4%
Episiotomy	123	27.6%	59	6.4%	182	13.2%
2nd Degree Tear	42	9.3%	177	19.1%	235	17.1%
1st Degree Tear	7	1.5%	90	9.7%	99	7.2%
3rd Degree Tear	6	1.3%	0	0.0%	12	0.9%
Other Laceration	5	1.1%	19	2.1%	28	2.0%

Incidence of Episiotomy	Primigravida	%	Multigravida	%	Total	%
2016	150	51.0%	67	10.8%	217	23.7%
2017	128	44.3%	46	7.6%	174	19.4%
2018	151	54.1%	51	8.9%	201	23.9%
2019	158	30.5%	49	5.9%	207	15.4%
2020	130	26.7%	50	6.1%	80	13.8%
2021	123	27.6%	59	6.4%	182	13.2%

B.B.A	Primigravida	%	Multigravida	%	Total	%
2016	1	0.2%	8	0.9%	9	0.7%
2017	0	0.0%	10	1.2%	10	0.7%
2018	0	0.0%	2	0.2%	2	0.1%
2019	0	0.0%	2	0.2%	2	0.1%
2020	1	0.2%	2	0.2%	3	0.2%
2021	0	0.0%	6	0.6%	6	0.4%

Obstetric Risks/Complications 2021	Total Number	%
Maternal sepsis	1	0.7%
Ectopic pregnancy	11	8.0%
Eclampsia	0	0.0%
Uterine rupture	0	0.0%
Peripartum hysterectomy	0	0.0%
Pulmonary embolism	0	0.0%
Perineal tears	8	1.0%
Primary PPH VAGINAL DELIVERIES	49	5.8%
Primary PPH CAESAREAN SECTIONS	64	11.9%
Miscarriage misdiagnosis	0	0.0%
Retained swabs	0	0.0%
Episiotomy	182	21.6%*

**Percentage of vaginal deliveries*

Shoulder Dystocia 2021	Primigravida	%	Multip	%	Total	%
Shoulder Dystocia	3	0.7%	7	0.8%	10	0.7%

Fetal Blood Sampling (n - babies) 2021	Primigravida	%	Multigravida	%	Total	%
PH < 7.20	1	0.2%	2	0.2%	3	0.2%
PH 7.20 - 7.25	1	0.2%	4	0.4%	5	0.4%
PH > 7.25	1	0.2%	0	0.0%	1	0.1%

Cord Blood Sampling (n - babies) 2021	Primigravida	%	Multigravida	%	Total	%
PH < 7.20	129	28.5%	203	21.9%	332	23.6%
PH 7.20 - 7.25	95	21.0%	166	17.9%	261	18.6%
PH > 7.25	243	53.6%	512	55.3%	755	53.8%

Caesarean Sections 2021	Primigravida	%	Multip	%	Total	%
Elective Caesarean Sections	46	10.2%	197	21.3%	243	17.6%
Emergency Caesarean Sections	157	34.7%	136	14.7%	293	21.3%
Total	**203**	**44.8%**	**333**	**36.0%**	**536**	**38.9%**

Robson Groups 2021	Total LSCS	Total Women	CS Rate in Group
Group 1 - Nullip Single Ceph Term Spont Lab	34	180	18.9%
Group 2 - Nullip Single Ceph Term Induced	117	225	52.0%
Group 2(a) - Nullip Single Ceph Term Induced			
Group 2(b) - Nullip Single Ceph Term pre-labour CS			
Group 3 - Multip Single Ceph Term Spont Lab	5	343	1.5%
Group 4 - Multip Single Ceph Term Induced	53	225	23.6%
Group 4(a) - Multip Single Ceph Term Induced			
Group 4(b) - Multip Single Ceph Term Pre-Labour CS			
Group 5 - Previous CS Single Ceph Term	227	273	83.2%
Group 5 (1)- With one previous C.S. Single Ceph Term			
Group 5 (2)- With two or more Previous C.S. Single Ceph Term			
Group 6 - All Nullip Breeches	23	23	100.0%
Group 7 - All Multip Breeches	21	22	95.5%
Group 8 - All Multiple Pregnancies	18	27	66.7%
Group 9 - All Abnormal Lies	12	12	100.0%
Group 10 - All Preterm Single Ceph	26	48	54.2%
Total	**536**	**1378**	**38.9%**

Vaginal Birth after Caesarean Section, 2021			No.	%
Total No. Of Mothers who had 1 previous Caesarean Section			309	22.4%
No. of Mothers who opted for an elective caesarean section after 1 previous Caesarean Section			171	55.3%
No. of Mothers who went into spontaneous/induced Labour after 1 previous Caesarean Section			82	26.5%
Outcome of this category	SVD/Spontaneous Breech	38		
	Ventouse	1		
	Forceps	10		
	Total VBAC	**49**		
	Emergency C.S.	47		

2.2 Ultrasound and Fetal Medicine Report 2021

This chapter of the report outlines the activity relevant to ultrasound scans and Fetal Medicine across the five hospital sites in the Saolta University Healthcare Group. In addition, it highlights the Fetal Medicine activity at the tertiary referral centre at Galway University Hospital. During 2021 there were a total of 41,873 ultrasound scan assessments done during pregnancy throughout the group. The individual figures for each hospital are presented in table 1 and categorised as early pregnancy scans, detailed fetal anatomy scans and other clinically indicated scans. This table also highlights other information regarding multiple pregnancy, chorionicity and invasive pre-natal testing. Consistent with best practice clinical guidelines, all women who undergo antenatal booking in pregnancy in the Saolta University Healthcare Group are offered two routine ultrasound scans during pregnancy, a first trimester scan and a detailed fetal anatomy scan. It is clear from the data presented that 100% of women are receiving both of these offers of ultrasound scans

There were 196 twin pregnancies in the five hospitals during the year 2021. The breakdown for chorionicity is provided in table 1. The model of care for twin pregnancies is provided along the clinical guidelines which specify the level of surveillance that should be in place, separately for DCDA and MCDA twin pregnancies.

The Foetal-Neonatal Multidisciplinary Team meetings were held on fortnightly basis during 2021. These meetings are well attended by the multidisciplinary team members including Fetal Medicine team, specialist midwife sonographers, midwifery, bereavement, social work and others. They are also well attended by the neonatal medical team and the neonatal ANP's and nursing staff. At these meetings the clinical, ultrasound and MRI findings are discussed. Planning for further pregnancy care and the requisite neonatal care involved, is put in place at these meetings. We are grateful to Dr. Gabrielle Colleran, Consultant Radiologist National Maternity Hospital, who regularly joins the meeting to present and outline the findings from pre-natal MRI scans. This meeting also provides the multidisciplinary forum to discuss cases that are under consideration for termination of pregnancy under the fetal abnormality clause (section 11) of the Termination of Pregnancy Act 2018. It is the policy of the Saolta University Healthcare Group that all such cases be considered at this forum prior to a decision of approval or otherwise. This meeting is open to all five maternity hospitals within the Saolta Group and is run on a hybrid basis of in-person and using online mechanisms.

Saolta University Health Care Group Fetal Medicine Summary Table 2021:

	Galway University Hospital	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Total
Total number of scans preformed 2021	14040	7322	7001	6927	6583	**41,873**
Number of EPU scans	2635	950	1257	1298	1296	**7,436**
Number of Early Pregnancy Scans (inc EPAU & booking scans)	4450	1534	2646	2655	1336	**12,621**
Number of detailed anomaly scans	2604	1383	1244	1327	1336	**7,894**
Percentage of patients who had an anomaly U/S	100%	100%	100%	100%	100%	**100%**
Number of other clinically indicated scans	4000	2917	2869	2945	3911	**16,669**
Fetal abnormalities diagnosed	154	31	49	45	23	**302**
Number of twins	71	51	24	23	27	**196**
DCDA	48	38	19	20	19	**144**
MCDA	22	12	5	2	8	**49**
MCMA	1	1	0	1	0	**3**
Triplets	3	0	1	0	0	**4**
Number of Amniocentesis or CVS	47	0	0	9 (in tertiary centre)	0	**56**
Number of deliveries	2894	1586	1463	1536	1404	**8,883**

* A proportion of women have their detailed anatomy scans preformed within their private consultant clinics.

Ultrasound and Fetal Abnormalities Diagnosed 2021 per Hospital Site and Total

	GUH	LUH	MUH	PUH	SUH	Total
Cranial/ CNS/Neuro	**37**	**3**	**10**	**15**	**10**	**75**
Exencephaly	7		2		1	
Ventriculomegaly	19		2	3		
Hydrocephalus	1					
CNS posterior fossa abnormality	2					
Microcephaly	2					
Spina bifida and Ventricomegaly	4	1			2	**7**
Cervical Teratoma	1					
Arachnoid cyst	1					
Anencephaly		2				
Cystic Hygroma			4	9	1	
Cystic Hygroma & trisony 21 (on amino)					1	
Holoproencephaly			1	3		
Agensis Cerebellar Vermis			1		1	
Acrania & Anencephaly						
Ventriculomegaly & Trisomy 21					1	
Ventriculomegaly and polymicrogyria					1	
ventriculomegaly and echogenic kidneys					1	
Congenital cystic anaematoid malformation					1	
Cardiac abnormalities	**37**	**8**	**4**	**23**	**4**	**76**
Hypoplastic right/ left heart	2		1			
Transposition	1		1			
DORV	2					
VSD	15	2		3	1	
AVSD	3	1	1			
Tetralogy of Fallot	3					
Interrupted aortic arch	1					
Ventricular disporportion	3					
Other	7					
Complex heart		4				
Irregular rhythm		1				
Mitral Valve						
Enlarged right Atrium			1			
Pericardial effusion					1	
Pericardial effusion and Ovarain Haemorrhagic Cyst					1	
VSD with intrrupted aortic heart						
Complete Heart Block					1	

	GUH	LUH	MUH	PUH	SUH	Total
Abdominal defects/ GI malformations	**8**	**0**	**1**	**2**	**0**	**11**
Gastroschisis	1					
Exomphalous	1					
Abdominal cysts	2					
Abdominal Ascites	3					
Duodenal atresia	1					
Omphalocele			1	1		
Oesophageal Atresia						
Calsification of the liver				1		
Thoracic	**8**	**1**	**0**	**5**	**0**	**14**
Bronchopulmonary sequestration	1					
Congenital cystic adenomatoid malformation	3			2		
Pleural effusion	2					
Diaphragmatic hernia	2	1		3		
Structural Facial Abnormality	**6**	**0**	**1**	**0**	**0**	**7**
Cleft lip	6		1			
Renal tract abnormality	**31**	**8**	**9**	**6**	**1**	**55**
Absent left or right kidney	4		1			
PUJ obstruction	2					
Pelvic kidney	2	1				
Megacystis	3			2		
Multicystic dysplastic kidney	3					
Potters Sequence	1		1			
Polycystic kidneys	1		1			
Echogenic kidneys	5					
Hydronephrosis	7	5	3		1	
Other	3					
Renal Agensis		2				
Multicystic kidneys			2			
Megacystic bladder			1			
Bilateral Pyelectasis				4		
Skeletal abnormality/ Limb abnormality	**19**	**3**	**5**	**1**	**1**	**29**
Talipes	8	2				
Long bones <3rd centile	8		4			
Arthyrogryposis	1				1	
Osteogenesis imperfecta	1					
Other	1	1		1		
Skeletal Dysplasia			1			

	GUH	LUH	MUH	PUH	SUH	Total
Chromosominal abnormality- Genetic Abnormality	22	3	3	10	2	**40**
Microdeletion of 22q11	1					
Single X chromosome	1					
Trisomy 4p with Monosomy 13	1					
Trisomy 21	7	2	3	7	1	
Trisomy 13	2			1		
Trisomy 18	5	1		2		
SRY	1					
SOX 9 pathogenic gene variant	1					
Monosomy short arm chromosome 18	1					
FGFR3	1					
PIK3R2	1					
Triplody					1	
Placental	**3**	**2**		**1**	**0**	**6**
Placenta accreta	3	2		1		
Miscellaneous	**26**	**47**	**0**	**0**	**2**	**75**

2.3 Early Pregnancy Assessment Unit

Introduction

The Early Pregnancy Assessment Unit (EPAU) is a specialised clinic dedicated to providing care to women in early pregnancy. Early Pregnancy Units in all five of our Maternity units and operate over four to five sessions per week. EPAU are run by a multidisciplinary team, which includes a Consultants Lead, midwife, a midwife sonographer and clerical support. In addition, a bereavement midwife is available upon request as required. The service provides care, support and advice to women as required.

While in theory, the EPAU pathway is mirrored across our sites the level of reported activity for first visits in practice there is a wide variation year-to-year and unit to unit. IMIS in 2020 advised that the extreme variation, or over-dispersion, in the measurement of EPAU first visits might imply that the indicator may not be measuring the same type of activity at all maternity units. An improvement in standardisation and validation of this data has been achieved in recent years in Portiuncula and Sligo.

Activity in EPAU across the group: First Visits to EPAU (IMIS data)

Definition: Number of first visits to the Early Pregnancy Assessment Unit (EPAU) occurring during the current month (do not count the combined number of first and return visits).

	2018 EPAU 1st visit	2018 Rate per % delivered	2019 EPAU 1st visits	2019 Rate per % delivered	2020 EPAU 1st visits	2020 Rate per % delivered	2021 EPAU 1st Visits	2021 Rate per % delivered
National rate per % delivered		42.3%		42.9%		42.8%		
GUH	1375 **	49.0%**	2781 **	49.4%**	1416	55.3%**	1611	56.7%
LUH	649	38.4%	1618	44.5%**	545	35.6%	511	32.8%
MUH	566	38.1%	1511	38.3%	561	40.3%	637	42.0%
PUH	1212 **	76.1% **	1509 **	74.2%**	819	59.4% **	806	55.8%
SUH	1145**	49.0%**	1347 **	60.6%**	948	72.8 %**	826	60.0%
Total	**4947**		**8766**		**4289**		**4391**	

** Indicates where the number of first visits are above confidence indicator. (CI) 95% from IMIS National rate.

2021 CI not confirmed yet by IMIS

This is the clinical activity and outcomes for the EPAU in the Saolta Group for 2021:

Saolta Activity/Diagnosis	GUH	LUH	MUH	PUH	SUH	Saolta Total
Total Attendances	2558	950	1257	1298	1296	7359
New	1611	511	637	806	826	4391
Return	947	439	620	492	470	2968
Viable Intrauterine Pregnancies	1172	329	325	662	921	3409
Complete Miscarriages	293	100	146	128	137	804
Incomplete Miscarriages	107	117	88	74	93	479
Missed Miscarriages	237	98	94	134	124	687
Medical Management	74	59	69	56		
Surgical Management	101	114	33	94	97	439
Conservative Management	62	183	47			
Ectopic Pregnancies	22	17	17	21	11	88
Pregnancies of Unknown Location	273	76	141	77	82	649
Molar Pregnancies	8	3	6	8	2	27
Pregnancies of Unknown Viability	225	106	137	157	245	870
BHCG Levels Recorded	1041	656	414	341	107	2559

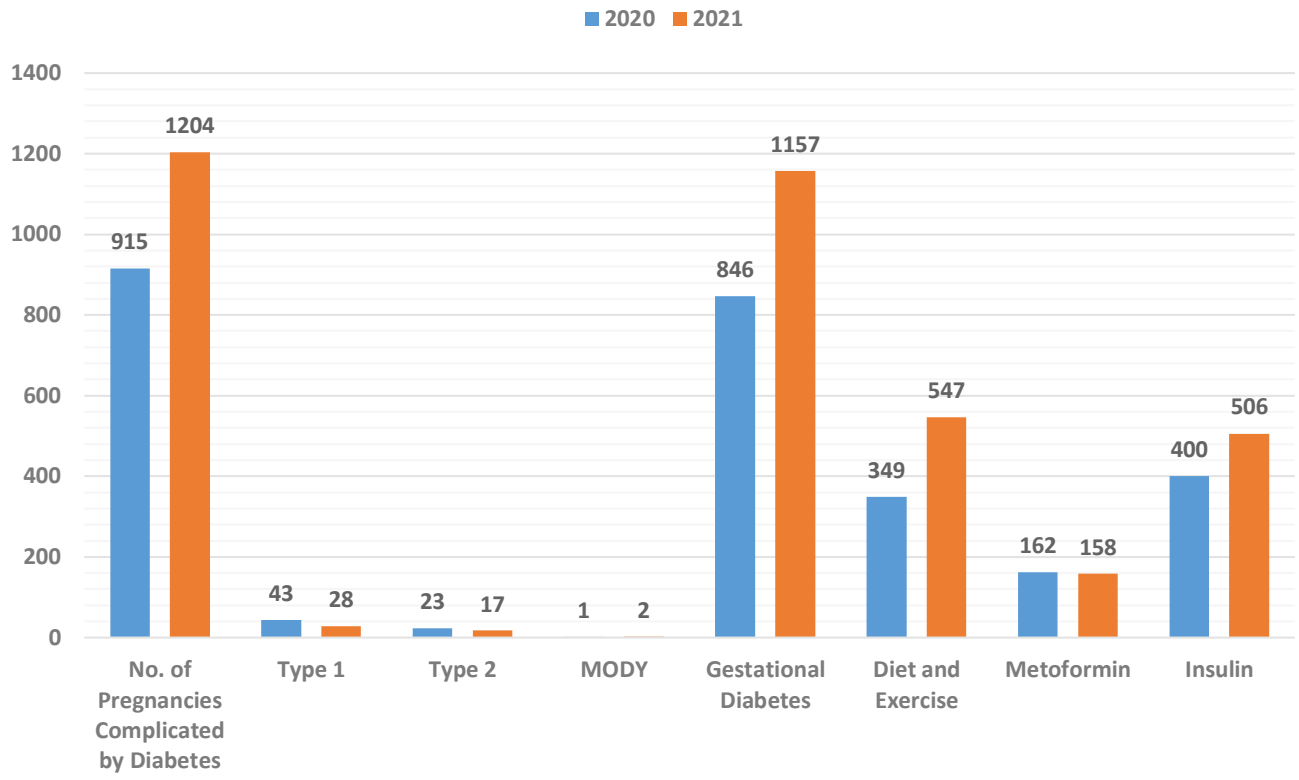
2.4 Saolta Combined Obstetric and Diabetic Service

- Effective management of diabetes in pregnancy (DIP) is increasingly a public health concern, as rates of this condition continue to rise in our region, nationally and globally. DIP includes both diabetes diagnosed during pregnancy termed Gestational Diabetes Mellitus (GDM) and pre-existing Type 1 Diabetes Mellitus (T1DM) and Type 2 Diabetes Mellitus (T2DM) & MODY.
- These women require intensive multidisciplinary care during pregnancy, as well as pre- and post-partum. Well-recognized acute and chronic complications of DIP can be improved with individualized treatment, and by improving systems through measures such as implementation of screening practices and standardized models of care. Combined Antenatal and Diabetic service are in place in four Maternity units in the Saolta health care group, with the multi-disciplinary teams working in tandem to provide antenatal care.
- The numbers of women entering pregnancy in 2021 with Type 1 or Type 2 diabetes remains low.
- Across the Saolta group in 2021, 1204 or 13.8 % of total births were complicated by pre-gestational and or gestational diabetes; an increase from 915 (11.2%) in 2020.
- While the overall numbers of women diagnosed with gestational diabetes has increased on all sites with the exception of LUH where it fell by 45, the most significant increase for 2021 was seen in GUH where the numbers more than doubled from 245 in 2020 to 513.
- Further analysis of this increase found that the increase could be at least partially attributed to two quality improvement measures introduced at service level to improve the sensitivity of the test: the introduction of pre prepared glucose test and a new sample bottle. The treatment and management plan for 506 or 45% of the total diabetic group in 2021 required management by insulin therapy.
- The development of diabetes service in pregnancy is a key priority for the Women and Children's MCAN

Group Summary Table

Diabetic Pregnancies, Type and Treatment	GUH	LUH	MUH	PUH	SUH	Saolta Hospital Group
Activity						
Total number of mothers delivered	2842	1558	1514	1445	1378	8737
Total number of pregnancies complicated by diabetes	513	189	162	205	135	1204
% of women delivered with pregnancy complicated by diabetes	18.1%	12.1%	10.7%	14.1%	9.8%	13.8%
Classification						
Numbers of Type 1	10	10	1	3	4	28
Numbers of Type 2	4	5	2	4	2	17
MODY	0	0	1	0	1	2
Numbers of Gestational Diabetes	499	174	158	198	128	1157
Mode of Management						
Diet and exercise	268	70	101	73	35	547
Metoformin	52	32	11	3	60	158
Insulin	193	87	51	129	46	506

SAOLTA GROUP MATERNITY DIABETIC DATA 2020 V 2021



GUH 2021 Combined Obstetric and Diabetes Service

Diabetes GUH 2021 513 women (18.1% of Delivered Women)		Treatment			Parity		Delivery		NICU
		Diet & Exercise Only	Metformin or Emerge	Insulin	Primip	Multips	Vaginal Delivery	LSCS	NICU Admission
TYPE 1	10	0	0	10	4	0	1	0	1
							0	3	2
					0	6	2	0	0
								4	2
TYPE 2	4	0	0	4	0	0	0	0	0
							0	0	0
					0	4	1	0	0
								3	2
GESTATIONAL	499	268	0	0	86	0	45	0	0
							0	41	5
					0	182	120	0	2
							0	62	3
		0	52	0	18	0	10	0	1
							0	8	2
					0	34	20	0	1
							0	14	2
		0	0	179	53	0	28	0	4
							0	25	2
					0	126	72	0	0
								54	6
Grand Total	513	268	52	193	161	352	299	214	35
% of Diabetic Women		52.2%	10.1%	37.6%	31.4%	68.6%	58.3%	41.7%	6.8%

BMI Breakdown Diabetic Women GUH 2021							
BMI	<19	19 to 24.9	25 to 29.9	30 to 34.9	>35	Not Recorded	Total
Number of Women	5	104	169	88	73	74	513

Labour Onset Diabetic Women GUH 2021				
Type	Spontaneous	Induced	No Labour	Total
Number of Women	165	197	151	513

Delivery Type Diabetic Women GUH 2021					
Type	SVD/Spont Breech	OVD	ELECTIVE CS	EMERGENCY CS	Total
Number of Women	245	54	108	106	513

Infant Feeding Method Diabetic Mothers GUH 2021					
Type	Breast alone at Discharge	Breast & Artificial at Discharge	Artificial at Discharge	NND	Total
Number of Women	185	134	193	1	513

LUH 2021 Combined Obstetric and Diabetes Service

LUH Diabetes 2021 women 189 (12.1% of Delivered Women)		Treatment			Parity		Delivery		NICU
		Diet & Exercise Only	Metformin or Emerge	Insulin	Primip	Multips	Vaginal Delivery	LSCS	NICU Admission
TYPE 1	10	0	0	10	2	0	1	0	0
							0	1	1
					0	8	1	0	0
							0	7	1
TYPE 2	5	0	2	3	2	0	2	0	0
							0	0	0
					0	3	0	0	0
							0	3	1
GESTATIONAL	174	70	0	0	46	0	12	0	0
							0	34	2
					0	24	14	0	4
							0	10	3
		0	30	0	6	0	4	0	0
							0	2	1
					0	24	6	0	0
							0	18	1
		0	0	74	18	0	12	0	0
							0	6	0
					0	56	22	0	4
							0	34	12
Grand Total	189	70	32	87	74	115	74	115	30
% of Diabetic Women		37.0%	16.9%	46.0%	39.2%	60.8%	39.2%	60.8%	15.9%

Labour Onset Diabetic Women GUH 2021			
Type	Vaginal	Elective and Emergency CS	Total
Number of Mothers	74	115	189

Infant Feeding Method Diabetic Mothers LUH 2021			
Type	Breastfeeding	Artificial	Total
Number of Mothers	95	94	189

MUH 2021 Combined Obstetric and Diabetes Service

MUH Diabetes 2021 women 162 (10.7% of Women Delivered)		Treatment			Parity		Delivery	
		Diet & Exercise Only	Metformin or Emerge	Insulin	Primip	Multips	Vaginal Delivery	LSCS
TYPE 1		0	0	1	0	0	0	0
					0	1	0	1
TYPE 2	2	0	0	2	0	0	0	0
					0	2	1	1
MODY	1	0	0	1	0	0	0	0
					0	1	1	0
GESTATIONAL	158	101	0	0	28	0	13	15
					0	73	41	32
		0	11	0	4	0	3	1
					0	7	3	4
		0	0	46	11	0	6	5
					0	35	24	11
Grand Total	162	101	11	50	43	119	92	70
% of Diabetic Women		62.3%	6.8%	30.9%	26.5%	73.5%	56.8%	43.2%

BMI Breakdown Diabetic Women MUH 2021						
Type	<19	19 to 24.9	25 to 29.9	30 to 34.9	>35	Total
Number of Women	1	25	44	54	38	162

Labour Onset Diabetic Women MUH 2021				
Type	Spontaneous	Induced	No Labour	Total
Number of Women	46	71	45	162

Delivery Type Diabetic Women MUH 2021					
Type	SVD/Spont Breech	OVD	Elective CS	Emergency CS	Total
Number of Women	79	13	43	27	162

Infant Feeding Method Diabetic Mothers MUH 2021				
Type	Breastfeeding	Breast and Artificial	Artificial	Total
Number of Women				

PUH Combined Obstetric and Diabetes Service 2021

PUH Diabetes 2021 205 women (14.1 %) of Women Delivered)		Treatment			Parity		Delivery		NICU
		Diet & Exercise Only	Metformin or Emerge	Insulin	Primip	Multips	Vaginal Delivery	LSCS	NICU Admission
TYPE 1	3	0	0	3	1	0	1	0	2
					0	2	0	2	
TYPE 2	4	2	0	2	2	0	0	0	1
					0	2	0	4	
GESTATIONAL	198	71	0	0	57	0	101	0	16
		0	3	0					
		0	0	124	0	141	0	97	
Grand Total	205	73	3	129	60	145	102	103	19
% of Diabetic Women		37.0%	16.9%	46.0%	39.2%	60.8%	39.2%	60.8%	15.9%

Labour Onset Diabetic Women GUH 2021				
Type	Spontaneous	Induced	No Labour	Total
Number of Women	41	100	64	205

Delivery Type Diabetic Women PUH 2021					
Type	SVD/Spont Breech	OVD	Elective CS	Emergency CS	Total
Number of Women	86	16	52	51	205

Infant Feeding Method Diabetic Mothers PUH 2021					
Type	Breastfeeding	Breast and Artificial	Artificial	NND	Total
Number of Women	121	10	73	1	205

SUH 2021 Obstetric and Diabetes Service

Diabetes 2021 women 135 (9.8% of Delivered Women)		Treatment			Parity		Delivery		NICU
		Diet & Exercise Only	Metformin or Emerge	Insulin	Primip	Multips	Vaginal Delivery	LSCS	NICU Admission
TYPE 1	4	0	1	4	2	2	0	4	4
TYPE 2	2	0	2	2	0	2	1	1	2
GESTATIONAL	129	35	58	42	36	93	66	63	51
Grand Total	135	35	61	48	38	97	67	68	57
% of Diabetic Women		25.9%	45.2%	35.6%	28.1%	71.9%	49.6%	50.4%	42.2%

BMI Breakdown Diabetic Women SUH 2021							
BMI	<19	19 to 24.9	25 to 29.9	30 to 34.9	>35	Not Recorded	Total
Number of Women	1	17	36	42	29	10	135

Labour Onset Diabetic Women SUH 2021				
Type	Spontaneous	Induced	No Labour	Total
Number of Women	30	55	48	133*

Delivery Type Diabetic Women SUH 2021					
Type	SVD/Spont Breech	OVD	Elective CS	Emergency CS	Total
Number of Women	55	10	39	29	133*

Infant Feeding Method Diabetic Mothers SUH 2021					
Type	Breastfeeding	Breast and Artificial	Artificial	NND	Total
Number of Women	27	44	63	1	135

**2 women were transferred to GUH for their deliveries*

2.5 Anaesthetic Report in Maternity Services

On each site anaesthetic team members play a key role in the provision of maternity services, particularly in the management of pain, anaesthesia, sedation, management of the critically ill, and the management of high-risk pregnancies.

Here is some of the activity and outcome related to obstetric anaesthetic service across our group:

Rate of General Anaesthetics for Caesarean birth across the group:

Site	Rate of GA	2018	2019	2020	2021
GUH	per total mothers delivered	2.7%	1.9%	2.3%	2.0%
	per total CS	7.7%	5.2%	6.9%	5.1%
LUH	per total mothers delivered	2.5%	2.7 %	2.2%	2.1%
	per total CS	6.8%	7.2%	5.9%	5.2%
PUH	per total mothers delivered	1.8%	1.7%	1.8%	2.3%
	per total CS	4.8%	4.3%	4.4%	5.4%
MUH	per total mothers delivered	2.0 %	2.1%	2.3%	1.3%
	per total CS	5.3%	5.5%	5.8%	3.4%
SUH	per total mothers delivered	3.2%	4.6%	3.0%	1.2%
	per total CS	8.5%	13.0 %	7.6%	3.0%
National average (IMIS Data)	per total mothers delivered	1.9%	1.8%	1.6%	*
	per total CS	4.8%	5.2%	4.5%	*

Rate of Epidural in labour

Site	2018	2019	2020	2021
GUH	45.7%	40.9%	43.1%	40.0%
LUH	18.9%	18.4	18.4%	17.0%
PUH	39.7%	38.6%	39.3%	35.8%
MUH	29.1%	26.5%	32.1%	31.9%
SUH	36%	39.4%	40.1%	41.0%
National average	39.4%	40.6%	41.6%	*

**Awaiting IMIS 2021 Report*

GUH Anaesthetic Report 2021

Obstetrics & Gynaecology Theatre activity:

There were 2892 deliveries to 2842 mothers (1061 Primips, 1781 Multips) in GUH in 2021.

Epidurals:

Epidurals 2021	Primip	%	Multip	%	Total	%
Epidural Rate	608	57.3%	530	29.8%	1138	40.0%
Labour Onset (Women Who Received Epidural)	**Primip**	**%**	**Multips**	**%**	**Total**	**%**
Induced	348	32.8%	260	14.6%	608	21.4%
No Labour	0	0.0%	0	0.0%	0	0.0%
Spontaneous	260	24.5%	270	15.2%	530	18.6%
Total	**608**	**57.3%**	**530**	**29.8%**	**1138**	**40.0%**

Deliveries (Post Epidural)	Primip	%	Multips	%	Total	%
SVD	162	26.6%	405	76.4%	567	49.8%
Breech Extraction	0	0.0%	0	0.0%	0	0.0%
Ventouse	183	30.1%	57	10.8%	240	21.1%
Forceps	55	9.0%	6	1.1%	61	5.4%
Elective C.S.	0	0.0%	0	0.0%	0	0.0%
Emergency C.S.	196	32.2%	60	11.3%	256	22.5%
Failed Ventouse/Forceps	12	2.0%	2	0.4%	14	1.2%
Total	**608**	**100.0%**	**530**	**100.0%**	**1138**	**100.0%**

Caesarean Deliveries:

1127 women (39.7%) delivered by caesarean delivery (see statistical summary).

57 caesarean deliveries were performed under general anaesthesia (5.1% of all caesarean deliveries) see Figure 2.

Mode of Anaesthesia for Elective Caesarean Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	113	95.0%	386	95.5%	499	95.4%
Epidural	2	1.7%	1	0.2%	3	0.6%
Combined Spinal	3	2.5%	10	2.6%	13	2.5%
General Anaesthetic	1	0.8%	7	1.7%	8	1.5%
Total	**119**	**100.0%**	**404**	**100.0%**	**523**	**100.0%**

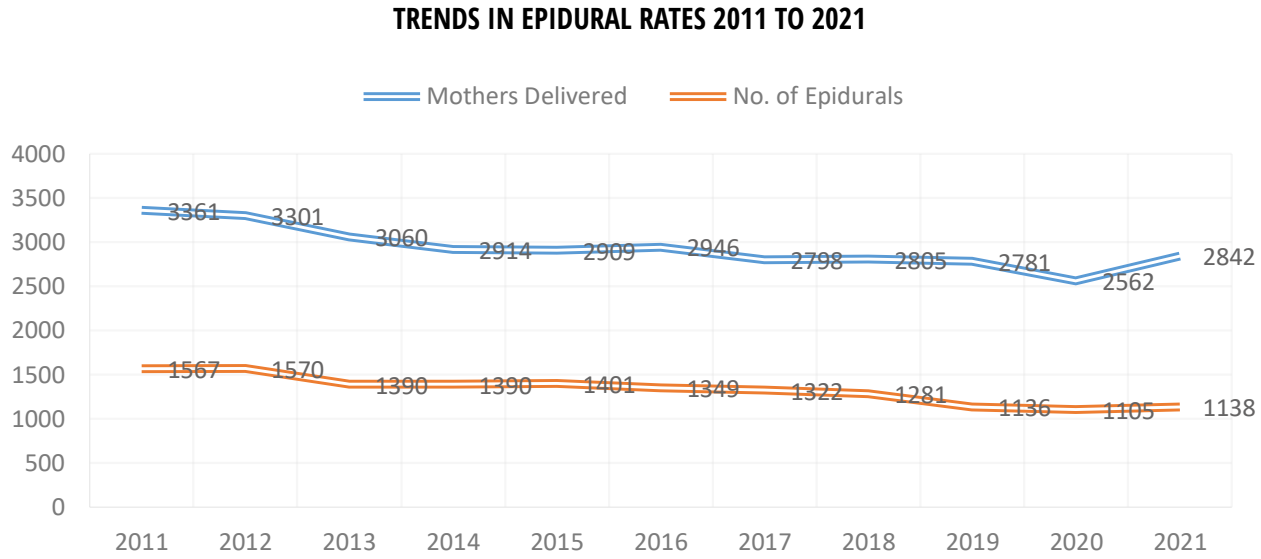
Mode of Anaesthesia for Emergency Caesarean Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	123	37.5%	166	69.5%	289	51.0%
Epidural	112	34.1%	31	13.0%	143	25.2%
Combined Spinal	64	19.6%	22	9.2%	86	15.2%
General Anaesthetic	29	8.8%	20	8.3%	49	8.6%
Total	**328**	**100.0%**	**239**	**100.0%**	**567**	**100.0%**

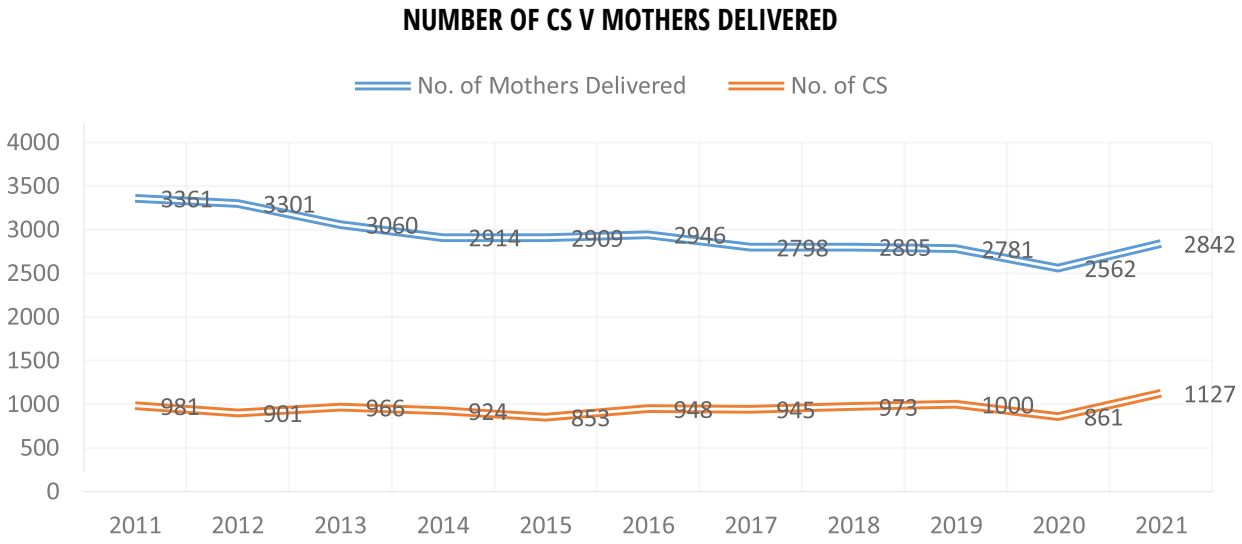
Mode of Anaesthesia for Caesarean Delivery following Unsuccessful Attempt at Instrumental Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	1	9.1%	1	25.0%	2	13.3%
Epidural	6	54.5%	1	25.0%	7	46.7%
Combined Spinal	1	9.1%	2	50.0%	3	20.0%
General Anaesthetic	3	27.3%	0	0.0%	3	20.0%
Total	**11**	**100.0%**	**4**	**100.0%**	**15**	**100.0%**

Overall trend in Epidural rates (numbers) since 2011.



Number of Women who had a caesarean delivery



Intensive Care/High Dependency Unit (ICU/HDU) Admissions 2021

Obstetric Patients admitted to critical care:

Why were they admitted:

- 4 obstetric patients admitted with COVID 19
- 3 cases of major post-partum haemorrhage
- 1 case of major antepartum haemorrhage
- 7 cases of sepsis
- 3 case of anaphylaxis
- 1 case of cardiac complications
- 1 case of meningitis
- 1 case of general surgical complications

A further 61 patients were admitted to critical care services following major gynaecology oncology surgery, with 32 of those patients admitted to the post anaesthesia care unit (PACU).

Caesarean Hysterectomies

In 2021, there was 3 women whose pregnancy was complicated by Placenta acreta spectrum. Two of these women were Para 1 and had delivered via lower segment caesearn sections and the third woman was a Para 3 with no previous ceasearn section. Delivery was achieved by elective ceasearn section for 2 of the women interventional radiology was utilised to manage the delivery. The estimated blood loss in each case was below 2000 mls with very low transfusion requirements.

MUH Anaesthetic Report 2021

Overview:

In 2021 the Department of Anaesthesia at Mayo University Hospital provided anaesthesia services for 556 patients undergoing Caesarean Section, 181 patients in theatre for instrumental delivery, and 483 labour epidurals. The total number of women who delivered was 1514

A Consultant Anaesthetist covers the Elective obstetrics and gynaecology theatre during the day and is also on call for any obstetric emergencies with an SHO on call who is not rostered for any elective theatre and provides the epidural service and emergency delivery suite anaesthesia cover.

There are two Consultant co-leads in Obstetric Anaesthesia, who participate in education, audit, training and policy implementation.

Services Provided:

The Department of Anaesthesia provides a 24/7 epidural service for labour analgesia, pre -assessment of all patients for elective caesarean section and a fortnightly high risk antenatal anaesthesia clinic for all patients meeting OAA/AAGBI criteria for referral antenatally by the obstetricians or midwives. The high risk antenatal clinic has now been formalised since June 2021 with a dedicated Consultant session allocated. A consultant anaesthetist also participates in the antenatal education sessions twice monthly providing information to women regarding their pain relief options in labour.

Operative Anaesthesia:

Mode of Anaesthesia for Elective Caesarean section: 301 performed under spinal anaesthesia, 1 under elective general anaesthesia and 2 converted to general anaesthesia after failed spinal anaesthesia.

Mode of Anaesthesia for Emergency Caesarean section: 128 performed under spinal anaesthesia. 10 performed under general anaesthesia. 83 performed after epidural top-op. 6 converted to GA after failed regional, and 5 epidurals converted to spinal.

Mode of anaesthesia for Caesarean section following failed instrumental:

2 were performed under spinal, 11 under epidural and 1 required General Anaesthesia, and one epidural was converted to spinal.

Epidural:

483 epidurals in labour were performed, giving a rate of 31.9 %. Similar to the 2020 rate of 32.1 %. Recorded information included:

There were 4 recognised dural punctures none of whom required a blood patch. 2 patients without recognised dural puncture presented with headache and required a blood patch. One of these patients required 2 blood patches.

Remifentanil PCA as an alternative to epidural was provided for 3 patients.

Critical care admissions.

6 obstetric patients received ICU care in 2021. Reasons for admission included

- Covid positive patient requiring ventilation and emergency caesarean section
- HELLP Syndrome
- Post-Partum Haemorrhage requiring return to theatre
- Anaphylaxis during elective caesarean section
- Drug Overdose
- 1 Patient who was covid positive required transfer to Galway University Hospital
- 2 gynaecology patients received ICU care in 2021. Reasons for admission included
- 1 loss of consciousness post hysteroscopy
- 1 cardiac arrest in the operating room during surgery for total abdominal hysterectomy

Audit: Post-natal follow up at 24 hours of all patients who receive anaesthesia care has allowed us to document complications and side effects. A new epidural trouble shooting guide is being introduced and audited to address issues with patient satisfaction of pain relief during epidural for labour which were revealed in an audit from 2020.

Education: The Department is actively involved in teaching on the PROMPT course locally and have initiated the introduction of low and hi-fidelity simulation to enhance the learning aspect.

Simulation: Multidisciplinary Simulation teaching is up and running using the new 'SimMom', this session involves enhancing communication and teamwork skills during obstetric anaesthesia emergencies.

Aims for 2022

To increase our Consultant Anaesthetist staffing levels to allow for 24/7 exclusive Consultant cover for Delivery Suite and High Risk antenatal clinic as per recommendations of the National Maternity Strategy two by two model.

LUH Anesthetic Report 2021

LUH Anaesthethic Report in Maternity Services 2021

Since January 2021 the anaesthetist attends the morning MDT meeting held in labour ward. Here all ante, intra and postnatal women are discussed and patients at high risk and those of concern highlighted.

High risk maternity patients are referred antenatally to the anaesthetic clinic including those with BMI ≥40. There were 68 women with a BMI ≥40 in 2021.

In 2021 a total of 631 caesarean sections were performed, 364 electives and 267 emergencies. 230/364 (63%) of elective caesarean sections and 25/267 (9%) of the emergency caesarean sections were performed in the new purpose built maternity theatre.

Intensive Care/ High Dependency Unit Care (Level 3 and Level 2 care) 2021

In 2021 33 women received high risk anaesthetic care; 5 of these received level 3 care in ICU and 28 Level 2 care in labour ward. Reasons for Level 3 care were:

- 2 cases of post-partum haemorrhage
- 2 cases of Covid-19
- 1 case difficult intubation

Reasons for Level 2 care were:

- 13 cases of post-partum haemorrhage
- 5 cases of pre-eclampsia
- 1 case of Covid-19
- 3 case of sepsis
- 1 case each of HELLP Syndrome/Severe Electroylte Disturbance, Idiopathic thrombocytopenia purpura (IPT), Pulmonary Embolism, Diabetic Ketoacidosis, Antepartum Haemorrhage (APH) and seizure NOT eclampsia.

In addition, 9 women had a ruptured ectopic pregnancy and were cared for in the gynae ward.

LUH submited data to the Severe Maternal Morbidity National Audit 2021.

Epidural Anaesthesia:

There were 1586 deliveries to 1558 mothers (502 primips, 1056 multips). 17% of women had an epidural in labour. See Figures 1-3 for a statistical summary of epidural anaestheia in labour.

Rate of epidural in labour (2018-2021)

Year	2018	2019	2020	2021
%	18.9	18.4	18.4	17

Onset of labour in those with epidural in-situ

Epidurals 2021	Primips	%	Multips	%	Total	%
Epidural rate	152	30.3	113	10.7	265	17%
Labour onset (women who received epidural)	Primips	%	Multips	%	Total	%
Induced	76	50%	56	49.6%	132	49.8%
No labour	0	0%	0	0%	0	0%
Spontaneous	76	50%	57	50.4%	133	50.2%
Total	**152**	**100%**	**113**	**100%**	**265**	**100%**

Type of delivery in those with epidural in-situ

Deliveries (post epidural)	Primips	%	Multips	%	Total	%
SVD	50	32.9%	83	73.4%	133	50.2%
Breech extraction	0	0%	0	0%	0	0%
Ventouse	42	27.6%	15	13.3%	57	21.6%
Forceps	3	2%	0	0%	3	1.1%
Elective CS	0	0%	0	0%	0	0%
Emergency CS	55	36.2%	14	12.4%	69	26%
Failed ventouse / forceps	2	1.3%	1	0.9%	3	1.1%
Total	**152**	**100%**	**113**	**100%**	**265**	**100%**

Post Dural Puncture headaches

5 patients were followed up for Post Dural Puncture headaches

Caesarean Deliveries

631 women (40.5%) delivered by caesarean delivery with 33 performed under general anaesthetic. The rate of general anaesthetic for caesarean birth per total mothers delivered was 2.1% and 5.2% per total caesarean sections. See Figures 4-6 for a statistical summary of all modes of anaesthesia in caesarean deliveries.

Mode of Anaesthetic for Elective Caesarean Delivery

Mode of Anaesthetic 2021	Primip	%	Multip	%	Total	%
Spinal (n)	75	100%	274	94.8%	349	95.9%
Epidural (n)	0	0%	0	0.0%	0	0%
Combined Spinal (n)	0	0%	4	1.4%	4	1.1%
General Anaesthetic (n)	0	0%	11	3.8%	11	3.0%
Total	**75**	**100%**	**289**	**100.0%**	**364**	**100.0%**

Mode of Anaesthetic for Emergency Caesarean Delivery

Mode of Anaesthetic 2021	Primip	%	Multip	%	Total	%
Spinal (n)	91	61.1%	93	78.8%	184	68.9%
Epidural (n)	37	24.8%	11	9.3%	48	18.0%
Combined Spinal (n)	12	8.1%	1	0.8%	13	4.9%
General Anaesthetic (n)	9	6.0%	13	11.0%	22	8.2%
Total	**149**	**100.0%**	**118**	**100.0%**	**267**	**100.0%**

Mode of Anaesthetic for Caesarean Delivery following Unsuccessful Attempt at instrumental Delivery

Mode of Anaesthetic 2021	Primip	%	Multip	%	Total	%
Spinal (n)	0	0.0%	2	100.0%	2	50.0%
Epidural (n)	1	50.0%	0	0.0%	1	25.0%
Combined Spinal (n)	0	0.0%	0	0.0%	0	0.0%
General Anasthetic (n)	1	50.0%	0	0.0%	1	25.0%
Total	**2**	**100.0%**	**2**	**100.0%**	**4**	**100.0%**

Mode of Anaesthesia for Elective Caesarean Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	75	100.0%	274	94.8%	349	95.9%
Epidural	0	0.0%	0	0.0%	0	0.0%
Combined Spinal	0	0.0%	4	1.4%	4	1.1%
General Anaesthetic	0	0.0%	11	3.8%	11	3.0%
Total	**75**	**100.0%**	**289**	**100.0%**	**364**	**100.0%**

Mode of Anaesthesia for Emergency Caesarean Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	91	61.1%	93	78.9%	184	68.9%
Epidural	37	24.8%	11	9.3%	48	18.0%
Combined Spinal	12	8.1%	1	0.8%	13	4.9%
General Anaesthetic	9	6.0%	13	11.0%	22	8.2%
Total	**149**	**100.0%**	**118**	**100.0%**	**267**	**100.0%**

Mode of Anaesthesia for Caesarean Delivery following Unsuccessful Attempt at Instrumental Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	0	0.0%	2	100.0%	2	50.0%
Epidural	1	50.0%	0	0.0%	1	25.0%
Combined Spinal	0	0.0%	0	0.0%	0	0.0%
General Anaesthetic	1	50.0%	0	0.0%	1	25.0%
Total	**2**	**100.0%**	**2**	**100.0%**	**4**	**100.0%**

High Risk Obstetrics Anaesthetic Care Reason for Admission 2021:

- Preeclampsia-5
- Ruptured Ectopic-9
- ICU-5
- PPH-15
- HELLP Syndrome/Severe Electrolyte Disturbance-1
- Difficult intubation-2
- IPT-1
- Covid-3
- PE-1
- DKA-1
- APH-1
- Sepsis-3
- Seizure NOT eclampsia-1

PUH Anaesthetic Report 2021

Mode of Anaesthesia for Elective Caesarean Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	72	97.2%	243	97.2%	315	97.2%
Epidural	0	0.0%	0	0.0%	0	0.0%
Combined Spinal	1	1.4%	4	1.6%	5	1.5%
General Anaesthetic	1	1.4%	3	1.2%	4	1.3%
Total	**74**	**100.0%**	**250**	**100.0%**	**324**	**100.0%**

Mode of Anaesthesia for Emergency Caesarean Delivery 2021

Anaesthesia	Primip	%	Multips	%	Total	%
Spinal	75	46.3%	82	72.6%	157	57.1%
Epidural	50	30.9%	14	12.4%	64	23.3%
Combined Spinal	18	11.1%	7	6.2%	25	9.1%
General Anaesthetic	19	11.7%	10	8.8%	29	10.5%
Total	**162**	**100.0%**	**113**	**100.0%**	**275**	**100.0%**

Mode of Anaesthesia for Caesarean Delivery following Unsuccessful Attempt at Instrumental Delivery 2021

Anaesthesia		%	Multips	%	Total	%
Spinal	0	0.0%	0	0.0%	0	0.0%
Epidural	3	37.5%	0	0.0%	3	33.3%
Combined Spinal	3	37.5%	1	100.0%	4	44.4%
General Anaesthetic	2	25.0%	0	0.0%	2	22.3%
Total	**8**	**100.0%**	**1**	**100.0%**	**9**	**100.0%**

Antenatal Anaesthesiology Assessment Clinic:

Women are referred by the midwives or obstetricians when they are seen in the antenatal clinic. Referrals include, but not limited to, the following:

1. Known systemic medical/surgical conditions
2. Previous complication related to Genera or Regional Anaesthesia
3. Suspected or known difficult airway
4. Previous Post Dural Puncture Headache or other complication of neuroaxial intervention
5. Multiple allergies
6. Raised BMI > 40
7. History of difficult neuroaxial anaesthesia
8. Actual or potential contraindication to neuroaxial anaesthesia

The consultations are either conducted in person in the clinic, over the telephone or over video call software. A letter is sent to their GP and obstetrician with a summary of the consultation and a plan of suggested anaesthesia management for the possible scenarios

In 2021 we saw a total of 114 women in our clinic in 2021, details of which are below:

Issue	Number
Epidural/spinal problem (previous failed insertion, inadequate pain relief, high block, etc)	9
Raised BMI (> 40 referred, 3 were above 50)	28
Cardiac	7
Reaction to Local or General Anaesthesia	10
Miscellaneous (lobectomy, Arnold Chiari, medulla lesion)	8
Minor back issue (No issue with neuroaxial anticipated, back pain, discectomy, etc)	28
Scoliosis (Potentially difficult neuroaxial)	11
Major back issue (Possible contraindication to neuroaxial or very difficult; Surgery with metal work, spina bifida, ankylosing spondylitis)	6
Other Orthopaedic issue (Dislocated hips, RA)	0
Previous Post Dural Puncture Headache	5
Jehovah Witness	0
Coagulation (Factor V Leiden)	2

High Risk Obstetrics Anesthetic Care:

We record all high risk maternity cases currently present in the hospital as well as those that are unusual and may be beneficial for teaching purposes. We also record all those who suffered a complication in our risk register. A sticker is placed in the book, which is kept in our office in theatre, with a brief summary of the case. These are followed up on a daily basis by the team who are responsible for the labour ward that day.

ICU and HDU admissions:

We had 10 maternity cases admitted to our ICU/HDU in 2021. The details of these are below

Number	Reason for admission:
3	Preeclampsia
2	DIC
1	Bilateral Pneumonia
1	Covid
1	Ruptured Uterus
1	Hysterectomy
1	Bradycardia

2.6 Perinatal Pathology Service

Perinatal Pathology:

Perinatal pathology services for the Saolta Hospital group became centralised to Galway University Hospital in July 2020. Perinatal pathology services comprise Hospital group wide provision of Perinatal Post-mortem examinations and histopathology examination of placental specimens for Galway University Hospital. In addition, a Hospital group-wide consultation service is provided for placental pathology.

Placental Pathology:

From 1st of January until 31st of December 2021; 567 placentas from deliveries from Galway University Hospital underwent histopathological investigation at the histopathology department at Galway University Hospital. Additional cases were received for second opinion and review from the wider Saolta hospital group. The most common identified pathologies follow the national and international incidence of acute chorioamnionitis followed by spectrum of changes associated with maternal vascular malperfusion and fetal vascular malperfusion, including umbilical cord related pathologies, as well as immune mediated conditions such as chronic villitis of unknown aetiology. Structural pathological findings including of two vessels umbilical cord, true placental bilobation and abnormal membrane insertion were often suspected clinically and confirmed on histopathological examination with overall incidence similar to national and international statistics.

In the wake of the Sars-Covid 2 pandemic, all placentas with a history of Covid – 19 infections in pregnancy were examined to assess for the presence of the recently described pathological entity of Covid associated placentitis. Definitive Covid placentitis was identified in nine placental specimens, with six cases having delivered at Galway university Hospital and three being referrals from the wider hospital group. Two cases of covid placentitis were associated with confirmed intrauterine demise and one early second trimester loss is likely associated with same.

Additional three cases showed features of chronic histiocytic intervillositis with some features raising suspicions for Covid placentitis. These cases were all associated with CTG anomalies but also with intrauterine growth restriction, raising the possibility that these cases were predominantly involved by classical form of chronic histiocytic intervillositis, warranting close follow up in subsequent pregnancies.

Placental pathological findings overview and breakdown of most relevant findings:

Of the total of 567 placentas received for investigation:

- Overall: 123 cases had a single coded pathology – commonest was mild acute chorioamnionitis, often subclinical and without fetal response. This was followed by inflammation placentas involved by maternal vascular malperfusion and a few cases of a single pathology of fetal vascular malperfusion.
- Remaining placentas with detected pathology, coded two or more co-existing pathologies.

Range of coded pathologies comprised:

- **Inflammatory conditions of the placenta:**
  - 139 cases showed features of acute chorioamnionitis.
  - 62 cases showed chronic inflammation – predominantly Chronic Villitis of Unknown Aetiology. No cases of confirmed TORCH related infection were detected based on histological or immunohistochemical examination.
  - 121 cases had a component of mild inflammation – likely of questionable clinical importance.
- **Vascular malperfusion of the placenta;**
  - Maternal: 119 cases were coded with Maternal vascular malperfusion spectrum pathology.
  - Additional cases presenting with ischaemic changes, but not meeting histological criteria for Maternal vascular malperfusion included:
    - 11 cases with accelerated maturation only – not classifiable as MVM spectrum
    - 17 cases with villous infarction only– not classifiable as MVM spectrum
  - 116 cases had evidence of fetal vascular malperfusion; including cases of cord pathology – further delineated below
  - 12 cases of isolated placental hypoplasia were coded.
- **Cord anomalies were detected in a total of 99 cases including:**
  - 1 case of an excessively long umbilical cord i.e length greater than 70cm
  - Excessively short umbilical cord i.e length less than 20 cm: 3 cases

- 9 cases with a true umbilical cord knots
- 17 cases with a velamentous insertion of umbilical cord
- 25 cases with a single umbilical cord artery (2 vessel cord)
- 32 cases of marginal umbilical cord insertion.
- 12 cases with cord anomalies not otherwise specified.
  - Including haemangiomas, cord myonecrosis etc.
- (Coiling anomalies recorded under obstruction)

➤ **At least 35 multiple gestation placentas examined.**

- Predominantly placentas from twin gestations and one triplet gestation.
  - Most multiple gestation placentas showed normal villous and cord findings.
  - The most common pathology identified comprised ascending infection.
  - Good concordance between clinical and pathological assessment of chorionicity.

➤ **Structural variations of the placental disc included:**

- 22 cases of placenta succenturiate
- 1 case of True bilobation of placenta

➤ **Other pathologies detected included:**

- 51 cases were associated with microscopic confirmation of meconium exposure.
- 9 cases of decelerated villous maturation were coded.
- At least 27 cases of villous chorangiosis were detected. And at least 3 mass forming chorangiomas were detected.
- 5 cases of Amnion nodosum coded.
- 18 cases with villous oedema, either acute or stromal.
- 1 case of sickle cell anemia
- 5 cases of chronic histiocytic intervillositis other than COVID
- 2 cases of Massive Perivillous Fibrinoid Deposition.

Perinatal Autopsy services:

Perinatal autopsy services provide for investigation into the cause of death for unexplained second and third trimester intrauterine fetal losses and for cases of early neonatal death. Services cover investigations for both the Saolta Hospital group and the Coronial system.

In addition to the investigation into unexplained fetal and infant losses, perinatal autopsy examination also offers the option of performing detailed examination in cases with confirmed antenatal diagnosis of fatal fetal anomalies, genetic mutations or aneuploidies, if further information is required.

Between January and December 2021, a total of 31 cases of perinatal, early neonatal and sudden infant death autopsies were carried out at Galway University Hospital. The cases comprised 15 investigations for the coronial system and 16 hospital consented autopsies. In addition, a number of limited external only examinations were performed for second trimester losses.

For all of the investigated perinatal and early neonatal deaths to date, a cause of fetal or infant demise has been identified, with the majority having occurred due to critical placental or umbilical cord pathology, ascending infection, with less common findings of aneuploidies and fatal fetal anomalies. A significant number of cases carried dual placental pathologies with some cases having a critical component or aggravating factor of ascending intrauterine infection.

4 cases of Sudden Infant Death were investigated with anatomical cause of death identified in 3 instances, with one case carrying the diagnoses of Sudden Infant Death Syndrome (SIDS). Specialist neuropathology input in collaboration with Children's Health Ireland - Temple Street Hospital was received into all the neonatal deaths, and collaborative input by the State Pathologist office was received in two of the 31 cases.

Following completed autopsy investigations, perinatal pathology input by consultant perinatal pathologist is also routinely available for discussion of autopsy findings with both clinicians and bereaved parents, should they wish to avail of the option.

2.7 Maternity – Breastfeeding

Promotion and support for breastfeeding is a priority in the Saolta Hospital Group. Breastfeeding gives a child the optimum start in life. is important for normal growth and development, it provides nourishment and health protection, it strengthens bonding and nurturing between mother and infant, it promotes infant mental health. Research has also found that improving our breastfeeding rates will contribute to improvements in child and maternal health, and reductions in childhood obesity and chronic diseases.

The rate of skin to skin contact post-delivery in the Saolta group remains consistently higher than the National average, achieving the National standard of ≥80% is a recognised challenge on sites without designated Maternity theatres and recovery areas. The rate of initiation of breastfeeding is variable across the group with each site being below the National standard of ≥80% with GUH performing the best at 71.8%, in LUH, SUH and MUH the rates of initiation has dropped slightly over the past 3 years. 2021 saw a recovery on breastfeeding initiation rates from 58.7% to 63.5%.

The rates of breastfeeding exclusively on discharge remains relatively unchanged in GUH, SUH & PUH with the rate rising by 3 % in MUH and 10 % in LUH over the past 3 years.

	Saolta Breastfeeding Metric	2019	National Averages 2019	2020	National Averages 2020	2021	National Averages 2021*	National standard
GUH	Breastfeeding initiation	69.1%	63.8%	71.1%	62.9%	71.6%		≥80%
	Breastfeeding exclusively on discharge	41.3%	37.3%	42.3%	37.0%	43.5%		≥80%
	Breastfeeding non-exclusively on discharge	22.7%	26.1%	21.7%	21.8%	21.3%		
	Skin to skin contact	93.0%	Not reported	92.0%	Not reported	84.4%		≥80%
LUH	Breastfeeding initiation	52.8%	63.8%	50.4%	62.9%	48.4%		≥80%
	Breastfeeding exclusively on discharge	34.1%	37.3%	43.9%	37.0%	43.3%		≥80%
	Breastfeeding non-exclusively on discharge	10.8%	26.1%	3.2%	21.8%	3.5%		
	Skin to skin contact	75.0%	Not reported	75.0%	Not reported	76.8%		≥80%
MUH	Breastfeeding initiation	65.8%	63.8%	63.8%	62.9%	59.6%		≥80%
	Breastfeeding exclusively on discharge	34.8%	37.3%	45.1%	37.0%	44.6%		≥80%
	Breastfeeding non-exclusively on discharge	26.4%	26.1%	17.6%	26.1%	17.1%		
	Skin to skin Contact	95.0%	Not reported	92.0%	Not reported			≥80%
PUH	Breastfeeding initiation	62.5%	63.8%	58.7%	62.9%	62.6%		≥80%
	Breastfeeding exclusively on discharge	37.2%	37.3%	33.9%	37.0%	35.0%		≥80%
	Breastfeeding non-exclusively on discharge	15.1%	26.1%	15.0%	21.8%	16.8%		
	Skin to skin Contact	80.0%	Not reported	81.0%	Not reported	78.3%		≥80%
SUH	Breastfeeding initiation	56.9%	63.8%	52.7%	62.9%	49.7%		≥80%
	Breastfeeding exclusively on discharge	33.6%	37.3%	28.3%	37.0%	31.7%		≥80%
	Breastfeeding non-exclusively on discharge	16.7%	26.1%	20.0%	21.8%	17.7%		
	Skin to skin contact	75.0 %	Not reported	76.4%	Not reported	84.2%		≥80%

*Awaiting IMIS 2021 Report

GUH Breastfeeding 2021

Education and Training:

Staff training and education continues with our online NMBI accredited breastfeeding refresher course. Staff also have access to two modules supporting breastfeeding & breastfeeding challenges on HseLand.ie

Antenatal Breastfeeding Webinars available once a month online for all expectant women.

Clinical skills training at ward level for staff and students to support women to get breastfeeding off to a good start.

Online Breastfeeding Clinic for one hour three days per week to support new mums experiencing feeding challenges. Face to face support provided if needed by appointment.

Achievements:

Golden Drop Initiative ongoing with increased staff engagement to provide colostrum for preterm babies born <32 weeks' gestation within six hours of birth.

Antenatal expressing of colostrum "A guide for Women" produced along with expressing collection packs available for women wishing to harvest colostrum.

Breastfeeding trolley initiative, placed in three main clinical areas in our maternity unit providing information booklets, golden drops packs, expressing equipment and feeding cups for mothers to access.

LUH Breastfeeding 2021

Education and Training:

All staff have completed an 18hr breastfeeding training. 4-hour online refresher courses were offered via the CMNE, for midwives, neonatal staff and public health nurses. This was supported by the Lactation/Infant Feeding Coordinator and two online breastfeeding modules on HSELand which were completed in advance (01 Supporting Breastfeeding & 02 Breastfeeding Challenges).

Further training opportunities offered at ward level by the Lactation Clinical Nurse Specialist.

Two midwives successfully completed the International Board Certified Lactation Consultant Examination.

Achievements:

The La Leche League Breastfeeding Volunteer programme continued despite the challenges posed by Covid – offering mothers additional support on a twice weekly basis on the postnatal ward.

National breastfeeding week celebrated in October 2021. Events included an article published in local newspaper offering guidance on breastfeeding an highlighting breastfeeding support services at Letterkenny University Service

The appointment of LUH first Lactation/ Infant feeding Clinical Nurse Specialist took place in June 2021, facilitating additional direct/ indirect breastfeeding support services

SUH Breastfeeding 2021

Education and training:

A 4-hour online refresher courses were offered via the CMNE, for midwives, neonatal staff and public health nurses. Staff also have access to two modules supporting breastfeeding & breastfeeding challenges on HseLand.ie

Antenatal preparation for breastfeeding education sessions are being facilitated online by staff IBCLC trained. These sessions are being hosted monthly and are receiving very positive feedback via the online evaluation post class on survey monkey.

Clinical skills training at ward level for staff and students to support women to get breastfeeding off to a good start.

Additional infant feeding support is offered when required through face to face or telephone by IBCLC trained Midwives with follow up phone/online support on discharge.

Achievement in 2021:

Sligo University Hospital does not have a lactation consultant in post as yet, although there are 8 staff members who have completed the lactation consultant course. In 2021 we secured funding to recruit for a Clinical Midwife Specialist in infant feeding. We look forward to recruiting for this post.

In 2021 we implemented improvements in the information provided to mothers on discharge by including the contact details, phone numbers and websites regarding follow up breastfeeding support available in the community in to the postnatal discharge packs. This includes my child.ie breastfeeding resources and the "Ask the Expert" service which is available Mon- Fri.

MUH Breastfeeding 2021

Education and training:

Breast feeding Education w ere facilitated by via the CMNE, for midwives, neonatal staff and public health nurses. Staff also availed of two HSELand courses on breast feeding.

Additional infant feeding support is offered when required through 1:1, or telephone

Achievement in 2021:

Mayo University Hospital received funding through NWIHP for a Lactation Consultant position.

We have 4 staff members who have completed the lactation consultant course. We look forward torecruiting for this post in 2022.

In 2021 we reviewed information given to mothers for breastfeeding antenatally and postpartum

we included contact details, phone numbers and websites and breastfeeding support available in

the community and links to our online Class.

We ran a successful breast feeding week, targeting all our mothers who attended our service during that week by having a stand in hospital Foyer and each mother received a pack promoting our theme early feeding prevents Hypothermia and admission to SCBU and included in the pack were Knitted caps for the babies.

We also introduced Clostrum Harvesting packs targeting our Diabetes population, and were successful in receiving funding for this initiative from NMPDU

PUH Breastfeeding 2021

Education and Training:

A total of 27 virtual webinar classes were facilitated during 2021 and were offered to all breastfeeding mothers to be. Attendance at The Workshop is encouraged to all pregnant women on their first or subsequent pregnancy and to women who experienced challenges in establishing breastfeeding previously.

11 NMBI accredited Breastfeeding Refresher Courses were provided for Midwives, Neonatal Nurses and Public Health Nurses via virtual platform. This Course is supported by HseLand which provides two online breastfeeding modules 1. Supporting Breastfeeding 2. Breastfeeding Challenges, these are a pre requisite for entrance to the course.

Training continues for Medical Staff.

Service Provision:

Virtual platforms remained the main form of support during 2021 due to the ongoing Pandemic and the positive evaluation from women who have engaged with the service.

Consultations both antenatal and postnatal were carried out utilising telehealth platforms from a range of referral sources including self-referral over 200 telehealth Consultations were carried out from mid-May to Dec. This was in addition to the traditional inpatient service.

In 2021 we implemented improvements in the information provided to mothers on discharge by including the contact details, phone numbers and websites regarding follow up breastfeeding support available in the community in to the postnatal discharge packs. This includes my child.ie breastfeeding resources and the “Ask the Expert” service which is available Mon- Fri.

Achievements in 2021:

We commenced our Antenatal Harvesting of Colostrum Initiative which was launched as part of National Breastfeeding Week in October. An evidenced based guideline was devised after extensive consultation within the Saolta Group and has been implemented in all 5 site. To date it has been very successful with post-natal midwives reporting a higher competence in the skill of hand expressing post-delivery and a reduction in the need for medical supplementation of formula.

National Breastfeeding Week is a great opportunity to highlight the importance of breastfeeding and to promote breastfeeding as the normal and healthy way to feed babies and young children. We held a quiz for staff to increase awareness of best practice in delivering breastfeeding care. We facilitated breastfeeding webinars to be watched by staff which were ran by the Assistant and the National Infant Feeding Coordinator. Refreshments were provided for staff to show gratitude for the fantastic work they do every day in supporting women in their breastfeeding journey. An article was written and published in the local newspapers highlighting the Launch of our Colostrum Harvesting Initiative and services that were being offered to support breastfeeding mothers and babies during the Pandemic.

2.8 Perinatal Mental Health Midwifery Report

Service Overview for Saolta 2021:

Perinatal mental health disorders are those which complicate pregnancy (antenatal) and the first postnatal year. They include both new onset and a relapse or reoccurrence of pre-existing disorders. Not alone does the team treat women with mental health issues in pregnancy and the post-natal period, the baby is also a central consideration given the potential impact of poor mental health on the attachment relationship. Following specialist assessment, women gain access to expert evidence based interventions and follow up required during pregnancy and post-natal period.

The Specialist Perinatal Mental Health Service (SPMHS) is a National Programme developed as part of the National Maternity Strategy for Ireland (2016-2026). This model aligns Perinatal mental health services to hospital groups in a hub and spoke format. In the Saolta University Health Care Group, GUH is the hub with Portiuncula, Mayo, Sligo and Letterkenny operating as the spoke sites. During the initial phase of developing the SPMHS model Dr Katherine McEvoy Consultant Psychiatrist and four CNM 2 perinatal midwifes in Perinatal Mental health commenced employment in Galway, Mayo, Sligo and Letterkenny, Portiuncula comenced in 2020.

GUH Specialist Perinatal Mental Health Care Team

Challenges in 2021:

Covid restrictions on clinical activity remained in place during 2021 but eased somewhat, allowing for increased capacity for individual and family work. Group work continued online. A shared office space was secured. With the expansion of the team, there was an increased need for clinical space for individual, group and family interventions at UCHG and this remains a challenge.

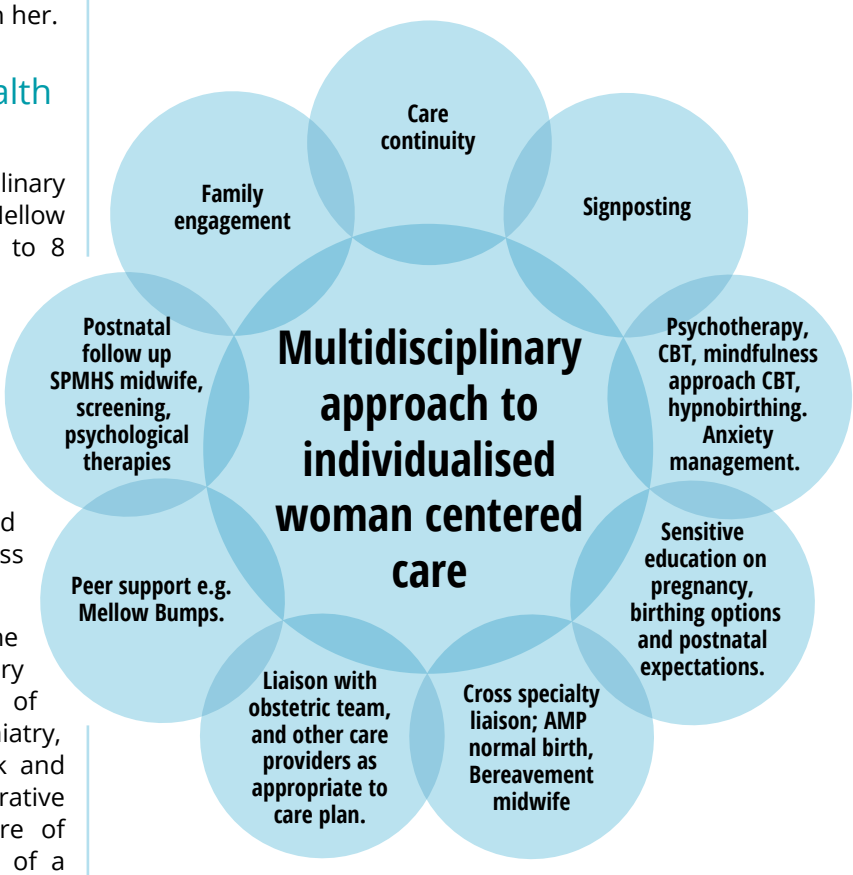
Our team experienced the sudden and tragic loss of a team member, Dr Maria Salamah in July 2021. Maria is remembered fondly by those who worked with her.

GUH Specialist Perinatal Mental Health Care Team 2021 Clinical Activity:

The service continued to see patients for multidisciplinary assessment, interventions and reviews. The Mellow bumps antenatal programme for groups of 6 to 8 women was facilitated throughout 2021.

The role of the perinatal mental health (PMH) midwife, a speciality position, was developed as recommended by National Model of Care for Specialist Perinatal Mental Health Services (HSE, 2017). Midwives with their specific knowledge of the physiology of pregnancy, birth and the postpartum and training in mental health and wellbeing of women are now established across maternity sites nationally in hub and spoke sites.

University hospital Galway is a hub site with the PMH Midwife a key member the multidisciplinary SPMHS and the maternity workforce. The aim of integrating midwifery with obstetrics, psychiatry, mental health nursing, psychology, social work and occupational therapy is to support a collaborative working model that places the woman centre of the care. This collaboration and integration of a multidisciplinary specialised psychiatry service within a maternity service is to offer continuity support which is holistic and individualised to women, the ethos of midwifery. The PMH midwife also acts as liaison with midwives, nurses, obstetricians, public health nurses, and community and liaison mental health services 'to provide seamless perinatal mental health care to women and their families' (NMBI, 2021 p. 4).



The PMH midwife provides mental health assessments, implementation of the referral pathway and supportive care to women in the antenatal period and immediate postpartum. She acts as liaison between obstetric, psychiatry and community care. The role has evolved in response and anticipation of the needs of women booked for maternity care in the UHG site.

Education:

The PMH midwife in UHG holds an MSc in Midwifery and Post graduate certificate in midwifery prescribing and is undertaking a MA in Integrative and Humanistic Psychotherapy. This will further develop the role of the PMH midwife to offer psychotherapy to women attending the SPMHS in 2022.

Staff and student training:

The PMH midwife delivers staff education on 1 to 1 basis as referrals are triaged and care plans are initiated within the hospital setting. This facilitates a practical and personalised teaching approach that encourages staff to consider how the complex needs of a woman may impact their experience of their maternity care. It encourages a collaborative approach to working with multidisciplinary teams and reinforces individualised care planning.

The PMH midwife delivers lectures annually to 3rd year midwifery, higher diploma midwives and PHN students attending NUIG.

She is also the co-ordinator and facilitator of the Maternal Mental Health training day. This is a training day delivered online that invites speakers across the disciplines that specialise in Perinatal Mental health and attachment.

Birth Trauma and Tocophobia:

The PMH midwife is integral to the multidisciplinary approach to birth trauma, pregnancy specific anxiety and tocophobia. The PMH midwife provides a mental health assessment for those with mild to moderate mental illness, pregnancy specific anxiety and birth trauma (previous or current), reflection on the birth experience, planning and support if a current pregnancy. Appropriate referral within the SPMHS team and to other specialised midwives such as the AMP in Midwifery care and Bereavement Midwife.

PMH midwife care delivery for PSA, birth trauma and tocophobia:

- Booking: Referral and assessment
- 12-32 weeks' gestation: SPMHS midwife support, liaison with obstetric care, peer support
- 32 weeks' gestation: Individualised care planning, sensitive education on birth planning. Psychoeducation, psychological therapies.
- Intrapartum care; handover and implementation of individual birth planning.
- Postnatal; SPMHS follow up. Trauma screening. Assess mother- infant attachment, psychological therapies.
- Objectives of SPMHS midwife in supporting women with PSA/FOC:
- Early identification; screening and mental health assessment.
- Engagement with appropriate SPMHS supports.
- Reduction of anxiety symptoms.
- Empowerment and collaboration with woman in informed decision making in birth care planning.
- Prevention of risks to the developing child due to untreated anxiety.
- To reduce the number of women who go on to have caesarean births (O'Connell, 2021)

Research:

In 2021 the SPMHS commenced a piece of research focussed on the impact of COVID-19 on the mental health during the perinatal period in 2021, and was commenced by Siobhan O'Connor, Dr. Katherine McEvoy and Dr. Genvieve Crudden. This study will be presented at the international Marce Conference in September 2022. The team are also applying for ethical approval to study the association of Caesarean sections and mental illness.

Peer Group work:

The PMH midwife facilitates the Mellow Bumps antenatal group online. This is a seven to eight-week program that offer with a group of 6 – 8 mums-to-be. Each online group session lasts for 1hour and 15 minutes and includes activities that focuses on the woman and her baby. The group is informal and is supported by the theory of infant attachment, principles of adult learning and reflexivity.

The facilitation of peer support groups offers a holistic approach to the psychological and emotional aspects of becoming a parent. It supports the importance of encouraging attunement in parent-infant interactions and infant and parent mental health. Group interventions facilitates women in attaining a 'genuinely normalising experience' (Birtwell et al, 2013 p.17) which can reduce feelings of social isolation and stigma. The Covid pandemic experience impacted women negatively due to both social and healthcare restrictions. In 2021 the peer support group offered by the SPMHS offered an opportunity for pregnant women to connect and offer support to each other.

Education and training:

The annual training day on Perinatal Mental Health was offered virtually in 2021 in conjunction with the Centre for Nursing and Midwifery Education (CNME). Undergraduate Teaching on Perinatal Mental Health was delivered for Midwifery and Mental Health nursing students at NUIG by the SPMHS. The SPMHS team presented at the weekly NUIG Deanery Post-Graduate Educational Programme for Psychiatry. Staff from PMHS contribute to the GUH mandatory training events and induction days for maternity staff. Our team contributed to monthly Antenatal education. Monthly training for PMH midwives within the Saolta Healthcare group was facilitated by the team consultant, the aim of this training is to support the ongoing development and implementation of the Model of Care for Specialist Perinatal Mental Health Services. Siobhan O Conor commenced her degree in Humanistic and Integrative psychotherapy at the Tivoli Institute.

LUH - Perinatal Mental Health Care Team 2021

Service Overview:

The Perinatal Mental Health Service at LUH is a component of the National Specialist Perinatal Mental Health Service (SPMHS) Model of Care: Perinatal mental health services are aligned to hospital groups and developed in a hub and spoke format. In the SAOLTA hospital group, UCHG is the Hub site with LUH being one of the SAOLTA spoke sites. The perinatal mental health midwife was appointed in LUH on 05/05/2020 and the role involves raising awareness of mental health problems and organising early management and treatment for women attending our maternity unit. The Perinatal Mental Health midwife currently provides mental health care for people attending LUH maternity unit, from their booking visit until six weeks after birth. The service also provides telephone support and advice. The perinatal mental health midwife works in collaboration with a multidisciplinary team including Obstetricians, GPs, Midwives, Liaison Psychiatry, Community mental health teams, Social workers, PHNs and voluntary organisations and has a strong emphasis on prevention and early intervention.

Source of Referrals to Perinatal Mental Health service:

- Midwives at Antenatal Clinics
- Ward based midwives
- Obstetricians
- Liaison Psychiatry

Source of Referrals to Birth Reflections service:

- Midwives at Antenatal Clinics
- Ward based midwives
- Self-referrals
- Obstetricians
- GPs

Education and Training:

- Prior to taking up this role a level 9 module in Perinatal Mental Health was completed at DKIT.
- On taking up the post a specified induction period was completed. This included training and clinical placements with;
  - The Specialist Perinatal Mental Health Team in the Rotunda Hospital.
  - The Specialist Perinatal Mental Health Team in the SAOLTA Hub, University Hospital Galway.
  - General Adult Psychiatry Donegal Mental Health Services. (Acute, Out Patient and Specialist Services)
- The SAOLTA Group of PMH Midwives receive fortnightly virtual teaching sessions from a Specialist Registrar in Psychiatry.
- Appropriate Virtual PMH Training Courses were completed in 2021.
- A National Perinatal Mental Health Midwife Group is Co-ordinated by Ursula Nagle, Clinical Midwife Specialist, Rotunda Hospital.
- As part of the National PMH Midwife Forum – the PMH midwife receives feedback and offers feedback to NOIG of model of care.
- The PMH delivered educational sessions to staff on the Role of the PMH MW LUH, within the model of care.
- Module 1 and 3 of the HSE 'Train the Trainers' National Healthcare Communication Programme (NHCP) was completed.
- The PMH midwife has also completed Level 9 Cognitive Behavioural Therapy (CBT) training.

Achievements in 2021:

- Setting up of the new PMH service in Maternity Unit, LUH.
- Setting up of a Birth Reflections Service and development
- Further development of an identified self- referral pathway for pregnant and postnatal women.

Challenges in 2021:

The main challenges encountered for the PMH MW included completing a specified induction period in the new role and setting up a new service during the Covid 19 pandemic. It was challenging ensuring that the new service ran smoothly, along with ensuring a progressive development of services. The PMH Midwife is also keen to maintain and enhance the ties with the Perinatal Mental Health Midwives working in the SAOLTA hospital group and other hospitals.

Plans for 2022:

The PMH midwife aims to:

- Continue to promote parity between physical and mental health care in maternity services.
- Continue to raise awareness of perinatal mental health problems and ensure early management and treatment for women attending our maternity unit.
- Continue to build on the positive engagement that has been established and developed since this new service was introduced.
- Continue future advancement towards meeting the needs of women requiring the perinatal mental health service and their carers.
- Further roll out of Psychoeducation sessions for women attending Maternity services and their carers.
- Further roll out of information and training sessions for staff.
- Develop a monthly group Emotional Wellbeing in Pregnancy session.

Clinical Activity:

MONTH	NEW REFERRALS (Core Biopsychosocial Assessments)			FOLLOW-UP APPOINTMENTS		
	Total	Face to Face	TEL	FACE –FACE	TEL	Total
January to December 2021	123	120	3	531	405	936

Mayo Perinatal Mental Health Service 2021

Mayo Perinatal Mental Health Service:

The Perinatal Mental Health Midwife Áine McGrillen came into post in June 2020. Following a comprehensive induction period, the service fully launched in February 2021.

Clinical Activity:

MONTH	NEW REFERRALS (Core Biopsychosocial Assessments)			Total New Referrals seen by Attend Anywhere	FOLLOW-UP APPOINTMENTS		
	Total	Face to Face	TEL	Total	FACE –FACE	TEL	Total
January to December 2021	160	124	12	15	108	154	262

Service Provision:

As well as direct patient care as outlined above, Áine joined the Antenatal and Postnatal Education classes to talk to families about perinatal mental health and self-care. She was also able to offer the Mellow Bumps pregnancy programme in partnership with the Community Senior Clinical Psychologist, to women accessing perinatal mental health support.

There was a significant amount of education and training with colleagues. This included internal teaching at Obstetric Team education sessions, and ad hoc lunchtime education sessions in each of the maternity clinical areas, as well as presenting at CNME organised days such as Postnatal Care in Community and a Trauma Informed Masterclass. As a member of The Mayo Infant Forum, Áine helped plan and present at the "Minding Mothers, Minding Babies Webinar" to mark Work Maternal Mental Health Day on 5th May 2021.

SUH Perinatal Mental Health Service 2021

Service Provision:

The implementation of a Perinatal Mental Health service in SUH was prioritised as a quality improvement initiative arising from the National Maternity Experience Survey for SUH (2020) where women themselves identified that their mental health needs were not adequately being met. The Perinatal Mental Health Midwife (Mairead) commenced her clinical role in January 2021. Clinical leadership and support is provided by Dr E. Gethins Consultant Psychiatrist and the Liaison team, with governance provided by the Maternity service.

- The service aims to promote parity between physical and mental health, for the women attending SUH maternity services, with an emphasis on prevention, early identification, management and treatment. Currently the Perinatal Mental Health Midwife supports women with low to moderate mental health issues from their booking visit until six weeks after birth. She also supports women with severe mental health issues but care remains with their mental health team.
- In 2021 we maintained a bi-monthly perinatal clinic for women who require urgent assessment, with the input of the Psychiatric Registrar from the Liaison team. Mairead has developed a strong collaborative working relationship with all stakeholders including Obstetricians, GPs, Midwives, Liaison Psychiatry, Community mental health teams, Social workers, TUSLA, PHNs and numerous voluntary organisations.

Clinical Activity:

MONTH	NEW REFERRALS (Core Biopsychosocial Assessments)			FOLLOW-UP APPOINTMENTS		
	Total	Face to Face	TEL	FACE –FACE	TEL	Total
January to December 2021	136	132	4	181	18	199

Education and Training:

New developments:

- There is now a mental health presentation at all antenatal classes. There is also a specific class for vulnerable individuals with the emphasis on maternal bonding (feather your nest).
- There is a Perinatal Mental Health Information Board on the corridor of the Maternity Ward, with alternating themes e.g. self-care, why perinatal MH is important, meditation apps etc.
- "Minding Mothers, Minding Babies Webinar" to mark Work Maternal Mental Health Day on 5 May 2021.
- Mairead has continued her professional development with the following: mellow bumps training, suicide prevention training (Storm), Improving safety & Outcomes in Maternity Care (Human Factors skills), Coercive Control Training, Trauma informed practice masterclass, Perinatal Mental Health Conference, Saolta Maternal Mental Health Symposium and a Postgraduate Diploma in Nursing Studies (NUIG).
- There is ongoing bespoke individualised perinatal mental health education in the clinical areas for staff as required. Education includes the role of the PMH Midwife in SUH, the model of care, referral pathways, spotlight on specific MH issues, Trauma informed care etc.
- Perinatal Mental health folder in each clinical area, with up to date articles of interest.
- The National Self Assessment Framework Document was published for PMH Midwives.
- Monthly Saolta Peer group midwife zoom meeting and the commencement of monthly National SPMHS training.
- SUH has Two research Projects underway:
  - 1- Postal Survey to ascertain feedback from Women who attended SUH Perinatal Mental Health Service 2021 &
  - 2 Looking at antidepressant usage at booking across 3 years pre and post Covid.

Looking forward

To continue to raise awareness of Perinatal Mental Health issues which affect many of our women, as we know they can have profound negative consequences for the mother, the infant and the family long-term.

Ongoing education of women in recognising signs and symptoms of mental health difficulties, services available and self-care advice.

To improve partner and family involvement with the perinatal MH service – Covid has thus far curtailed this.

Publishing the findings of the above research and working toward Perinatal CMS Status.

PUH Perinatal Mental Health Service 2021

Service Provision:

The Perinatal Mental Health midwife commenced her role 15/09/20 in Portiuncula Hospital.

A significant part of this role is the provision of education to women and maternity staff as is developing good working relationships between the maternity department and social workers, GP's, Community Mental Health Teams, Teen Parent Project staff, Liaison psychiatry and any other services involved in care of our women.

The mental health midwife currently provides care for women who are inpatients in PUH. The service will expand in the future to take on outpatients.

2.9 Bereavement and Loss

Bereavement and loss services Saolta:

Bereavement care is an integral part of a maternity services. For many the birth of a baby is a happy event but despite the many advances in outcomes, loss in pregnancy from early pregnancy loss effects one in four pregnancies, and 1 in every 240 babies will die just before birth or shortly after birth.

We know and understand that dealing with the loss of a baby or pregnancy can be a difficult and devastating time for parents and families and endeavour that we have services and supports in place in each of our units to aim to meet these needs

Throughout 2021, despite the challenges and more accurately in view of the challenges experienced by women and families, bereavement and loss service across the Group continued to operate to provide compassionate client centred care to our most vulnerable clients during the pandemic. Achieving this required us to adapt our practices and approach.

GUH Bereavement and loss services 2021

Education and Training:

- October 2021 Perinatal Bereavement Study day, organised in conjunction with CNME, this was a multidisciplinary, Saolta study day. This day was extended and restructured to ensure it met with requirements of the National bereavement education standards, and included a presentation by the perinatal pathologist regarding post mortem.
- November 2021 Presentation on perinatal bereavement to 3rd year midwifery students
- November 2021 Training of NCHDs and midwifery staff regarding new post mortem at MDT meetings with Dr Laura Aalto and to midwifery staff at ward level.

Achievements for 2021:

- Perinatal Bereavement awareness week in the unit focusing on staff care including information stands, a staff coffee morning, mindfulness sessions.
- Remembrance Ceremony: The 5th Annual Remembrance Ceremony was held in the hospital chapel on International Pregnancy and Infant Loss Day 15th of October. This was streamed via the chapel webcam and there were over 400 views. We acknowledged other nationalities by doing readings in other languages i.e. Portuguese and Irish. We also had a sibling do a reading to acknowledge the effect of sibling loss.
- Development, launch and implementation of new post mortem packs: Hospital/consented post-mortem and Coroners post-mortem packs were designed in conjunction with the perinatal pathologist. These packs contain all the forms required when organising a post mortem and were launched in November 2021. The aim of these packs are to assist parents and staff and improve documentation around the post-mortem process. Information and training sessions were then carried out throughout the unit to ensure compliance.

GUH Perinatal Loss 2021	
1st Trimester (Miscarriage/Termination of Pregnancy)	593
2nd Trimester (Miscarriage/Termination of Pregnancy)	102
Stillbirth	7
Neonatal Death	8
Total	**710**

GUH Bereavement Support 2021 (From August)	
Total Telephone Consultation	175
Total Face to Face	90
Total	**265**

LUH Bereavement and loss services 2021

LUH Bereavement Service:

The Bereavement Team in Letterkenny University Hospital consists of a multi-disciplinary team, which include a designated bereavement Midwife, Consultant Obstetrician, Medical Social worker, Chaplaincy and the Multi-disciplinary team on the floor.

Education and training:

- The Bereavement midwife provided four workshops for the multi-disciplinary team on the Perinatal Bereavement pathways of care for 1st, 2nd and 3rd trimester loss
- Facilitated communication modules

Achievements:

The Bereavement Midwife completed a MSc in Bereavement and commenced a Diploma in Counselling.

- Established the first an in person Bereavement follow up clinic
- Developed a successful business case to secure funding for seating at the 'Little Angels' plot in local cemetery

Secured funding for an environmental upgrade for the Maternity bereavement room

Activity:

LUH Perinatal Loss 2021	
1st Trimester miscarriage	361
2nd Trimester miscarriage (Miscarriage/ Termination Of Pregnancies)	11
Stillbirth	3
Neonatal Death	2
Total	**377**

LUH Bereavement Support 2021	
Total Telephone Consultation	539
Total Face to Face	14
Total	**553**

SUH Maternity Bereavement Service 2021

SUH Bereavement Service:

The Bereavement Team in Sligo University Hospital consists of a multi-disciplinary team, which include a designated bereavement Midwife, Consultant Obstetrician, Medical Social worker, Chaplaincy and the Multi-disciplinary team on the floor.

Achievements 2021:

In 2021, an Educational Program around Pregnancy Loss was developed. This program ran monthly commencing on 21st September for all Maternity and Obstetric Health Care professionals. Title of program: Transformative Conservations around Pregnancy Loss. The program consisted of 4 sessions.

- Breaking Bad News
- Care Pathway for pregnancy loss, Neonatal death, Termination of Pregnancy for FFA
- Clinical Supervision
- Self-care.

Practical information is given regarding care pathways around pregnancy loss, and staff updated on new practices in our bereavement service. Breaking Bad News is a technique that when specific steps are followed can be done well. Both sessions delivered by Maria White CMS. Moral injury that workers sustain is discussed in Clinical Supervision by Dr. Brian Conlon. Final session is delivered by an invited guest with emphasis on Self Care.

Certificates of attendance were given and day evaluated with very positive feedback from staff. Sessions ran monthly for the remainder of 2021.

Sligo University Hospital was lit up in pink and blue to mark Pregnancy and Infant Loss Remembrance Day 15th October. This international event aimed at raising awareness for families who have experienced the loss of a pregnancy or baby. SUH joined in the Global Wave of Light in honour of parents who are grieving.

Post mortem service:

In 2021 the pathway for Perinatal Post Mortem service changed, with all SUH Perinatal Post Mortems now being performed by Specialised Perinatal Pathologist in GUH. This new service is in line with National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death 2016. Education and training provided to staff to ensure clear communication on the workings of this new service so that bereaved parents.

and deceased baby were treated with compassion and dignity.

A Time to Remember

Due to Pandemic in 2021 SUH Annual Pregnancy and Infant Loss Remembrance Service was held virtually. A short film was made by staff capturing stories from bereaved parents, giving us insight into the grief that they carry. Through music, reflection, singing, dove tree ceremony the online service allows a dedicated time to acknowledge the grief of losing a child, a baby during or after pregnancy.

Activity:

SUH Perinatal Loss 2021	
1st Trimester miscarriage	254
2nd Trimester miscarriage (Miscarriage/ Termination Of Pregnancies)	16
Stillbirth	4
Neonatal Death	3
Total	**277**

SUH Bereavement Support 2021	
Total Telephone Consultation	226
Total Face to Face	82
Total	**308**

PUH Bereavement and Loss service 2021

PUH Bereavement Support Service:

In 2021, the PUH bereavement and loss service provided support to women and their families experiencing pregnancy loss, the neonatal death of a baby and in subsequent pregnancies following a bereavement.

Activity:

PUH Perinatal Loss 2021	
1st Trimester miscarriage	365
2nd Trimester miscarriage (Miscarriage/Termination Of Pregnancies)	13
Stillbirth	3
Neonatal Death	6
Total	**387**

**Bereavement support was also provided to families receiving a diagnosis of a life-limiting or fatal fetal conditions*

This service is led by a Clinical Midwife Specialist in Bereavement Care who works closely with a dedicated multi-disciplinary bereavement team consisting of a Consultant Obstetrician Lead in Bereavement Care, A Chaplain, a Medical Social worker and a Perinatal Pathologist.

Bereavement Support Midwife

The Bereavement Support Midwife offers direct and indirect care and support to bereaved families maintained during and in the months after loss, via face to face visits and telephone consultations. The Bereavement Support Midwife also works closely with clinical staff and the specialised MDT team, providing regular education and training at a local and group level. Support is also offered by the Bereavement Support Midwife to all clinical staff engaging in care provision to bereaved families.

Pregnancy Loss Clinic

All bereaved families are offered appointments to attend our Pregnancy Loss Clinic, the first of its kind in the Saolta Group. The Pregnancy Loss Clinic commenced in mid-2020 and is held fortnightly in a private room, located off the maternity department. It is attended by the Consultant Obstetric Lead in Bereavement Care and the Bereavement Support Midwife. The aim of this clinic is provide further information and support to families experiencing pregnancy loss. Generally, 5 – 6 families attend each clinic and feedback has been very positive to date.

Education and Training

A number of education and training sessions resumed in 2021, following postponements due to pandemic restrictions in 2020, including:

- An online study day, developed and organised by the bereavement support midwives in PUH, GUH, and LUH and co-hosted with CNME, Galway. Participation rates were the highest to date and feedback was very positive.
- Individual and group ward-based training was provided on a monthly basis or as required on pathways and practical skills.
- Online masterclasses regarding the post-mortem process were provided by the perinatal pathologist.

Key Achievements in 2021

- PUH Pregnancy Information Leaflets
- Miscarriage mementos
- Implementation of National Care Pathways
- Direct admission Cards
- Parking Concessions

Mayo University Hospital Bereavement Service 2021

MUH Bereavement Support Service:

The bereavement support midwife commenced in the post in July 2020 and works as part of the multidisciplinary team in the provision of bereavement care.

This role is adapting to requirements of Parents, it involves supporting families during and following perinatal loss, providing support for parents where there is a diagnosis of fatal fetal abnormalities as well as supporting women in a subsequent pregnancy.

The role acts as a liaison for information / Plans of care from tertiary centres for the Interdisciplinary team and the close follow up and subsequent meetings with families with Paediatric services has been invaluable In reassuring / preparing families and staff with clear plan for, delivery and care of baby.

Parents are cared for in the Rose room (bereavement suite) while in the maternity unit. A multifunctional room is available on the Gynae unit for both inpatient and outpatient support. Referral Pathways can be made by the nurse/midwife/GP / clinician / women can also self-refer. Parents can also avail of bereavement support by telephone or face-to-face appointments.

MUH and the bereavement midwife have worked as part of the Saolta working group for the implementation of the national bereavement standards. The bereavement midwife also facilitates the provision of bereavement training and education for staff both onsite and in CNME.

The national care pathways for perinatal loss have been implemented, the National bereavement team carried out an audit on the bereavement services in MUH and we are continuing to implement recommendations in 2021.

2.10 Supported Care Pathway

In the Saolta Group pathways of care are being developed for the pregnant women who is normal or low risk in pregnancy. These pathways are Midwife led within the multidisciplinary framework as recommended in the National Maternity Strategy (Creating a Better Future Together 2016-2026)

In each of our Maternity units, we have established midwife led antenatal clinics. In addition to antenatal clinics, the service in GUH offers an early transfer home service and in LUH, the supported care extends to a continuity model of care for intrapartum and postnatal period.

The Saolta group has set a performance target of 30% of women to receive care through the supported pathway, currently 2 out of our 5 units are achieving this.

GUH Supported Care Pathway, 2021

Community Midwives Clinic: Activity

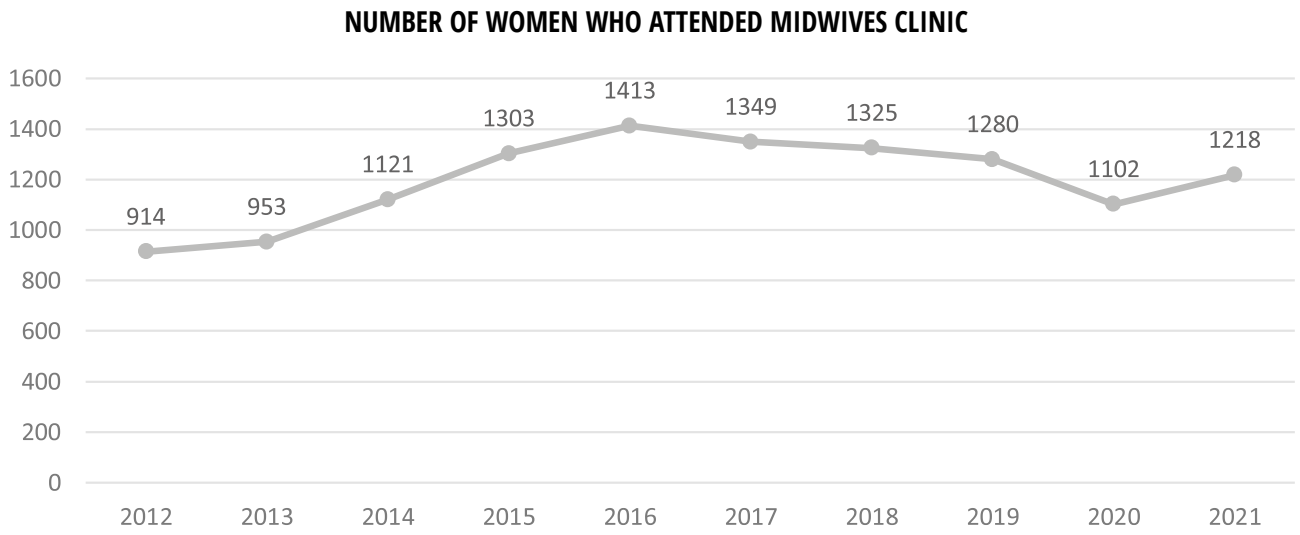


Figure 1. Number of Women who attended the Midwives Clinic 2012-2021

1,218 women attended the Midwives Clinics in 2021. Although this is an increase on the previous year, it is noted that the COVID 19 pandemic affected a cohort of women who had to be referred to consultant led care.

As seen in figure 2, 52% of women attending the MWC had a spontaneous onset of labour compared to 36% of women who were cared for in consultant clinics. The Spontaneous Vaginal birth rate was 52.8% (figure 3) as compared to 42.7% for the two groups. The overall caesarean section rate was 28.8% (figure 3) for the MWC and 46.4% for consultant care.

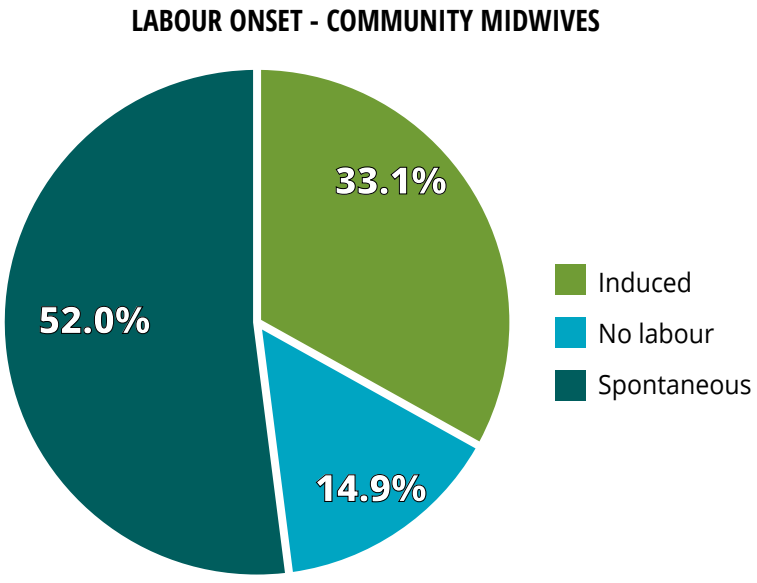


Figure 2. Labour onset for the women attending the midwives' clinic 2021

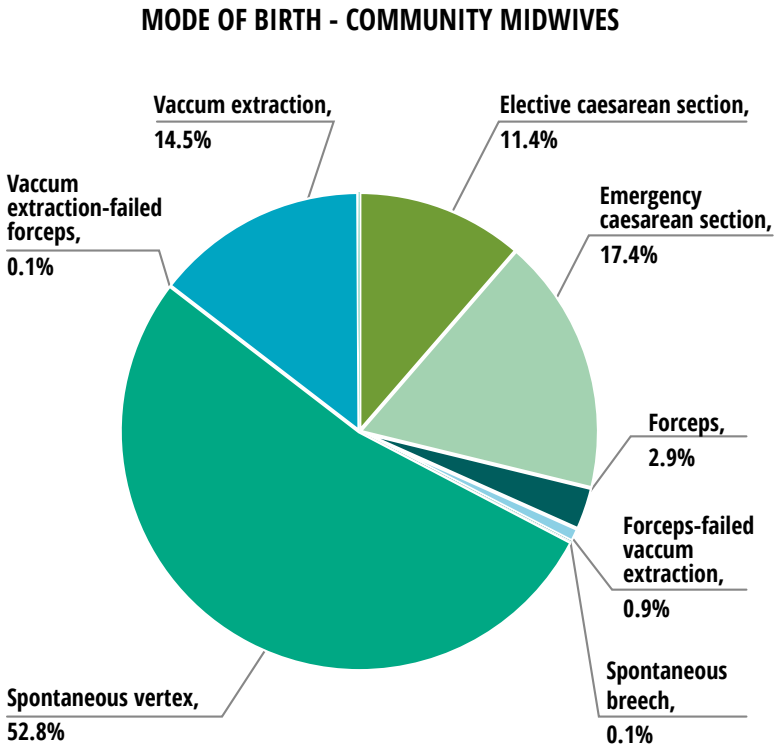


Figure 3. Mode of birth outcomes for women who attended the Midwives Clinic 2021

GUH Midwives Clinic 2021	Total
Total No. of Women who attend Midwives Clinic	1218
Onset of labour for Supported Care Pathway (SCP) Women 2021	Total
Induced	402
No Labour	181
Spontaneous	635
Mode of Delivery outcome for SCP Women 2021	Total
SVD	645
Vacuum	177
Forceps	46
Elective CS	138
Emergency CS	212
Pain Support	Total
Epidural	561
Reasons for Transfer Out of SCP 2021	Total
Total No. Transferred Out (This figure is based on the best available data but is not necessarily reflective of true figures. Question re care pathway went live in April 2021 for women booking in the antenatal clinic and thus really can only be used as an indicator for care pathway at delivery or change in care pathway from November/December 2021. Prior to this the Midwives clinic kept a log of patients transferred back for review or for whom care was permanently escalated)	376
Fetal Anamoly	0
Bleeding/Low	22
LGA/Increased	0
IUGR/SFD/Reduced	1
PIH/PET/HELLP	59
Gestational Diabetes (Type 1 and Type 2)	117
Malpresentation/UNS	2
Other	78

Other Includes:

Unsuitable	1
Cardiac	5
Respiratory	2
Covid	25
DVT/Thrombo	5
Gestational thrombocytopenia	5
ITP	5
Hashimotos	2
Hyperthyroidism	2
Obstetric Cholestasis	10
Oligo/Polyhydramnios	2
Reduced Fetal Movements	2
Renal (Various)	3
Severe Hyperemesis	1
Lymphoctosis	1
Orthapedic inc Severe SPD	7
Total	**78**

Figure 4. Number of women discharged home with the ETH programme in 2021

Training and Education

In 2021, staff continue to provide education and training by facilitating Prompt Obstetric Multidisciplinary team training, Hypnobirthing education for staff and Neonatal resuscitation skills study days.

A member of the team has commenced training for a professional certificate in Examination of the New-born and is also a facilitator for clinical supervision within the Maternity department.

As part of their midwifery training student midwives gain valuable experience and clinical skills, working in both midwifery led clinics and the ETH programme.

Achievements for 2021

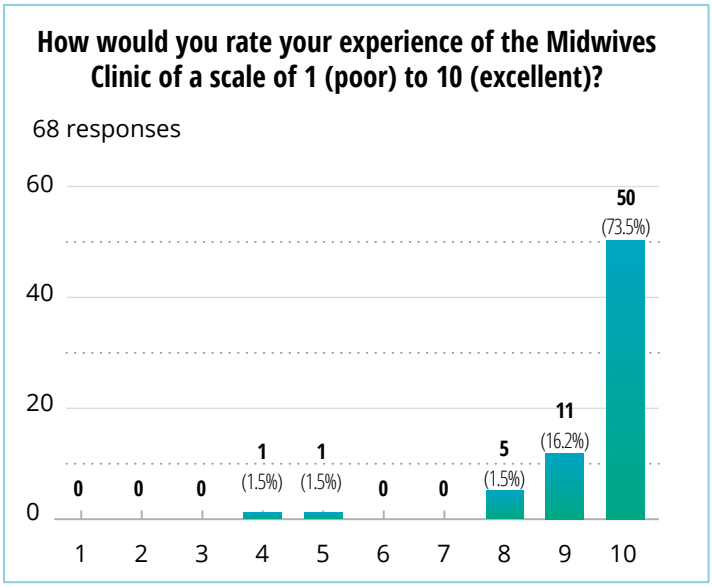
2021 saw the recommencement of the Early Transfer Home (ETH) Service for the women of Galway City, Oranmore and Claregalway. Although the service did not start until March 2021, 322 women benefited from this service and discharged from the hospital within 24 hours of birth. This represents 11.3% of all mothers birthed at GUH (figure 4).

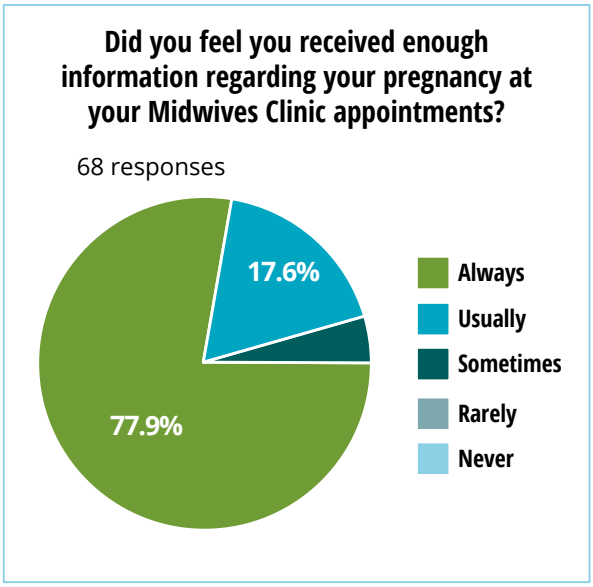
This year the community midwifery team supported a number of women during labour and birth. This allowed the midwives to provide full continuity of care and carer for these women through their pregnancy, birth and in the postnatal period. This proved successful for both the woman and the midwives. Evidence has shown that Women who received intrapartum care from a midwife know to them have been reported to be more likely to have a spontaneous vaginal birth and less likely to have an epidural or an instrumental delivery. Midwives who have had the opportunity to provide a continuity of care reported feeling valued and respected in their role as primary care givers hence reported a higher level of job satisfaction by their ability to support and empower the women they cared for.

Community Midwives Antenatal Clinics Feedback Survey

The feedback survey was sent to 120 women who birthed their babies between January and March 2021. There were 68 responses. 100% of women would recommend this service to a friend.

Below are some of the responses to the question "What did you like about the Midwives Clinic?"





- Midwives were very experienced and approachable.
- Very personal, always informative, midwives shared their breath and depth of knowledge and always could gauge where I was at.
- The personal connection with the midwives. I loved that I had the opportunity to build a relationship with them and the consistency of someone who knew me.
- The midwives always gave me sincere and personal attention. I never felt like just another pregnant woman, I feel I formed a bond with the amazing midwives over my pregnancy. They went above and beyond to make me feel well cared for. I had an absolutely wonderful experience with them as I had a very tough pregnancy and they were incredibly supportive. Huge thank you to [the Midwife], she is amazing.
- I have had 3 babies and have attended the midwives' clinic in Doughiska each time. The midwives always made me feel at ease and the level of care is amazing. My questions were always answered and nothing is too much for them. They are professional, kind and wonderful people who offer a great service in the community.

Even when asked "What could be improved at the Midwives Clinic?" the women identified the positives of Midwifery care...

- More time at appointments
- Continuity of carer at appointments
- More staff
- Ultrasounds at midwives' clinics

LUH Supported Model of Care 2021

The supported model of care in Letterkenny University Hospital offers midwifery led care antenatally, intrapartum and postnatally to low risk women and their babies within the service to help promote the ethos of continuity of care in accordance with The National Maternity Strategy (2016). The team now provides antenatal clinics in 4 locations across Donegal, namely Donegal Town, Carndonagh, Dungloe and Letterkenny. This year seen the introduction of the clinic in Donegal Town and this now gives access to all eligible women county wide. The referrals for the Letterkenny clinic have doubled since last year and we now require two midwives to run the clinic which is 9-5.

The service aims to give the women choice and works to support and educate them in preparation for their birth. Continuity of care to labouring women promotes better outcomes and the women feel more confident and comfortable in the birthing process when continuity is applied. The supported model of care aspires to normalise birth and achieve a positive

birth experience, by providing safe high quality care. Within the supported model of care in LUH, our team continue to care for women who opt for an epidural in labour or happen to be induced due to post maturity or augmented due to PROM or meconium. The team work in collaboration with the multidisciplinary team when escalation is required, while still maintaining a supportive relationship, already established throughout the pregnancy.

The impacts of Covid 19 are still effecting the postnatal follow up service for the supported model of care and it remains a postnatal phone service. However, it is paramount to our plans for developing the service in 2022 and introducing an early transfer home service. Postnatal care in the community continues to be provided by the Public Health service.

In 2021 the supported model of care provided care to 30% of women booked in Donegal. This has more than doubled from 2020. We also had a delivery rate of 18%, which has grown from 4% in 2020. This represents a caesarean section rate of 14% and a vaginal birth rate of 86%. The overall caesarean section rate for the maternity unit is 41% in 2021. So we strive to continue to help promote and facilitate normal birth to improve the overall caesarean rate within the unit. These statistics reflect the hard work our midwives provide, and positive outlook to birthing practises which can be challenging in todays medicalised maternity setting.

In 2021 all midwives in the team were proficient in perineal suturing. This reinforces and promotes the midwife as the main care giver for low risk women. The majority of the team also completed a course on the biomechanics of childbirth. It reinforced the benefits of movement in labour and provided the midwives with practical tools to help tackle non optimal fetal positions antenatally and during labour. This course was very informative and something we hope to provide to other members of staff in 2022.

LUH Midwives Clinic 2021	Total
Total No. of Women who attend Midwives Clinic	484 (Booked)
	282 (Delivered)
Onset of labour for Supported Care Pathway (SCP) Women 2021	**Total**
Induced	57
No Labour	N/A
Spontaneous	225
Mode of Delivery outcome for SCP Women 2021	**Total**
SVD	205
Vacuum	37
Forceps	N/A
Elective CS	N/A
Emergency CS	40
Pain Support	**Total**
Epidural	57
Reasons for Transfer Out of SCP 2021	**Total**
Total No. Transferred Out	202
Fetal Anamoly	N/A
SFG/LGA	27
PIH/PET/HELLP	13
Gestational Diabetes (Type 1 and Type 2)	14
Malpresentation/Breech/UNS	18
Other including bleeding	24
Maternal Request/Administration Issue	23
AFI	7
Cholestasis	4

SUH Supported Care Pathway 2021

Service Provision

At SUH the Supported Care Pathway is delivered via the Midwife Led Clinic which is run by a small team of dedicated Midwives. Currently these clinics are run at Kingsbridge hospital and in 2021 plans were underway to establish clinics in Carrick on Shannon, Ballymote and Ballyshannon. The former of which have commenced in Feb 2022.

Achievements

A Community CMM2 post was filled and commenced in Sept 2021 by Léan Kieran.

The acceptance criteria for the Supported Care Pathway was reviewed by the senior midwifery team in conjunction with our obstetric collegaues and an approved criterion is now in practice, in line with national practice.

An information sheet on care pathways is discussed at every antenatal booking and an opt-out system has been adopted.

Construction of a Low Risk Birth Room commenced in 2021 as is due to complete in the very near future. This facility will be of great benefit to women in their birthing experience.

Labour Hopscotch was further publicised with large graphics added to walls in the labour ward and antenatal/postnatal areas in addition to information received in the antenatal clinics. This has also been incorporated into antenatal educational classes.

Education & training

Review of Saolta guidelines plus national guidelines for supported care pathway 2020. Review of the 2021 Antenatal care NICE guidelines and the 2020 Stratification of clinical risk in pregnancy.

Plans are in place for skills and drills on evacuation from the birthing pool. All staff are encouraged to keep up to date with mandatory training.

SUH Midwives Clinic 2021	Total
Total No. of Women who attend Midwives Clinic	131
Onset of labour for Supported Care Pathway (SCP) Women 2021	**Total**
Induced	14
No Labour	1
Spontaneous	74
Mode of Delivery outcome for SCP Women 2021	**Total**
SVD	54
Vacuum	18
Forceps	6
Elective CS	0
Emergency CS	11
Pain Support	**Total**
Epidural	49
Reasons for Transfer Out of SCP 2021	**Total**
Total No. Transferred Out	42
Fetal Anamoly	0
Bleeding/Low	0
LGA/Increased	2
IUGR/SFD/Reduced	2
PIH/PET/HELLP	4
Gestational Diabetes (Type 1 and Type 2)	3
Malpresentation/UNS	4
Other	27

PUH Supported Care Pathway 2021

2021 is the 4th year of the antenatal clinics as part of the Supported Care Pathway implementation in Portiuncula University Hospital. It has now become an established part of the fabric of antenatal care. This year has seen a CMM2 within a full-time capacity added to the service to support and progress the pathway. Additionally, two midwives have joined the service part time, each with a responsibility for individual clinics therefore supporting continuity of care within the clinics.

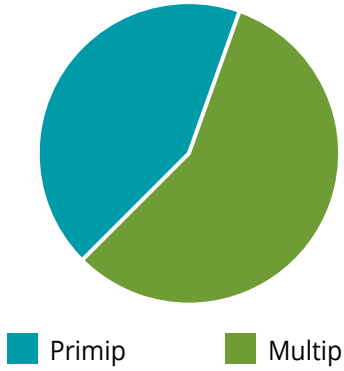
The midwives, working within the clinic, also work on the labour ward each week to further facilitate continuity to some women and the philosophy of Supported Care. Opportunities for education around normal physiological birth are promoted including our 'Normal Physiological Birth' conference which was well supported both nationally and internationally and was an excellent opportunity to promote the services we offer.

Looking to the future, the service wishes to expand to develop an early discharge service and the promotion of water birth services to further support choice and options for women to support normality and wider midwifery services to women within the area.

PUH Midwives Clinic 2021	Total
Total No. of Women who attend Midwives Clinic	672
Onset of labour for Supported Care Pathway (SCP) Women 2021	**Total**
Induced	157
No Labour	0
Spontaneous	390
Mode of Delivery outcome for SCP Women 2021	**Total**
SVD	374
Vacuum	98
Forceps	4
Elective CS	0
Emergency CS	71
Pain Support	Total
Epidural	N/A
Reasons for Transfer Out of SCP 2021	**Total**
Total No. Transferred Out	113
Fetal Anamoly	0
Bleeding/Low	0
LGA/Increased	8
IUGR/SFD/Reduced	32
PIH/PET/HELLP	17
Gestational Diabetes (Type 1 and Type 2)	33
Malpresentation/UNS	15
Other	8

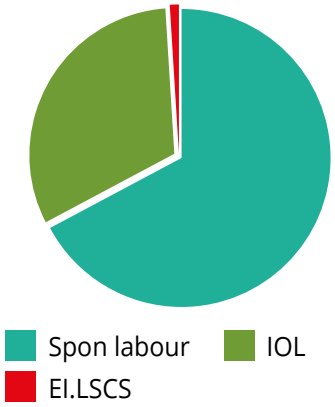
MUH Supported Care Pathway 2021

PARITY



The supported model of care in Mayo University Hospital (MUH) offers midwifery led care to low risk pregnant women attending the hospital. This service was set up in 2020 and has gone from strength to strength. 305 women attended antenatal care under the supportive model of care in MUH in 2021. Of these 131 women were having their first baby and 174 were on their second, third or fourth babies.

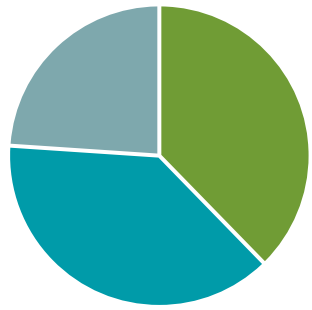
ONSET OF LABOUR



Midwifery led care is provided in clinics which are run in MUH, Castle bar, Ballina and Claremorris. The midwives led clinics provide women centred holistic care where dignity, privacy and individuality are the core principles. They allow a flexible schedule for antenatal care visits that can accommodate the woman's needs.

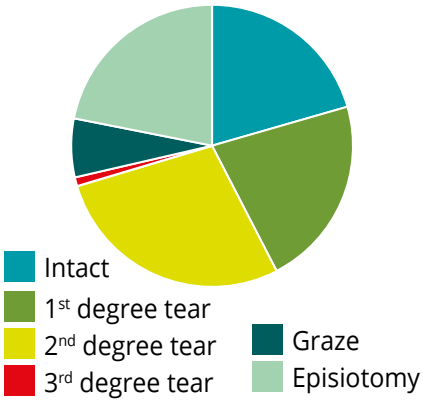
All 305 babies were cephalic presentations. 205 of women went into spontaneous labour 97 women were induced and 3 women opted for elective caesarean section. 205 of women experience a spontaneous vaginal delivery, 54 experienced an assisted vaginal delivery (Ventouse or Forceps) and the remaining 46 experienced a caesarean section (elective or emergency).

GESTATION



Gestations at the time of delivery were very similar between Primigravida and Multigravida, 115 women delivered between 37 and 39 weeks and 6 days, 117 women delivered in the 40th week of pregnancy whilst 73 women delivered in the 41st week.

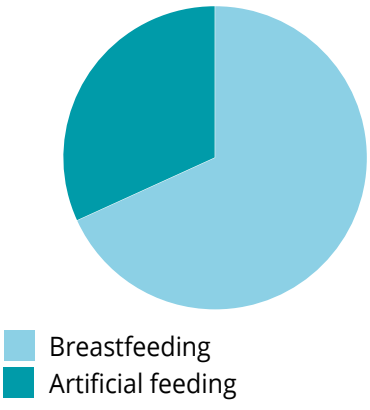
PERINEUM



Birth weighs varied from 2330gs to 5020gs across the 305 babies with a 50:50 ratio of male to female. 300 babies achieved an Apgar score of 9 at 1 minute and 9 at 5 minutes whilst the remaining 5 achieved an Apgar score of 9 at 5 minutes.

61 women had intact perineums whilst 65 women acquired a 1st degree tear, 83 women acquired a 2nd degree tear, 3 women acquired a 3rd degree tear 20 women acquired a vaginal wall graze, and 65 women had an episiotomy.

FEEDING



168 women opted for epidural pain relief during labour whilst majority of the remainder opted to use other forms of pain relief e.g., Pethidine, Entonox, Tens machine, breathing exercises.

305 babies experienced skin to skin for various lengths of time from 20 – 60 mins of life. 208 women continued to breastfeed their babies whilst 97 opted to artificially feed their babies.

2.11 Advance Midwife Practitioner Report

The National Maternity Strategy Creating a Better Future Together published in 2016 the vision outlined in the strategy identified that Advanced Midwife Practitioner's (AMP) will play a very important part in the implementation of the Maternity strategy. They utilise advanced clinical midwifery knowledge and critical thinking skills to provide optimum care and improved clinical outcomes for women and their babies through higher levels of critical analysis, problem solving and senior clinical decision-making as a lead healthcare professional who is accountable and responsible for their own practice.

In the Saolta group there are currently 2 registered AMP, 1 in Sligo whose case load falls within the assisted model of care and 1 in UHG whose case load is in the supported model, in 2020 candidate AMP (cAMP) were appointed to Portiuncula, Mayo and Letterkenny for the supported model. The primary purpose of the cAMP supported care post is to lead on the implementation of the maternity strategy through the on-going development of the Supported Care. These candidates are undertaking training and site preparation to progress to being registered with NMBI.

GUH Advanced Midwife Practitioner – Supported Midwifery Care 2021

The Advanced Midwife Practitioner (AMP) role in Midwifery Care is varied and evolves to meet the service need. The overall scope of the AMP role is to promote, support and encourage midwife led care and the supported care model in GUH. This involves increasing the midwifery input into the care for all women with the aim to normalise pregnancy and birth including women on the assisted and specialised care pathways.

Supported Care Pathway Steering Group:

- The AMP and DOM co-chair the steering group for the supported care pathway. This group aims to maintain and promote the supported care pathway in GUH. Some of the projects established and in progress include:
- Develop and embed an Ethos and Philosophy of Supported/ Midwifery care in the Maternity department.
- Move to continuity of carer for women cared for in the supported care pathway – progressing to intrapartum care provided by the Community Midwifery team
- Create an environment to enhance and support normal birth both for women and the midwives supporting them. This has included:
    - Securing TENS machines for use in the hospital
    - Upgrading wireless Mobile CTG monitors (3) to encourage active birth
    - Ongoing efforts to secure contracts and funding for a Home-from-Home room for women
    - Assessing the potential for alternative therapies to enhance normal birth
    - Aromatherapy – guideline development, Staff training – now funded by the CNME and securing stock of oils and diffusers for use.
    - Hypnobirthing – implementation of antenatal education for women
    - Reflexology - scoping exercise in training specifically for pregnancy and birth only.

Birth After Caesarean Section (BAC) Clinic:

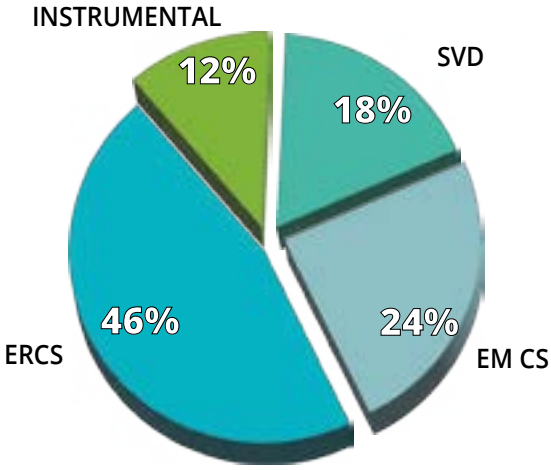
The AMP runs the weekly BAC clinic on site in the Maternity outpatient department (OPD) and a fortnightly outreach Clinic in Athenry. This clinic is offered to all women who have had a previous caesarean section. It provides

- A debrief and review of the caesarean birth with the aim to clarify events of that birth.
- Research based information about VBAC and ERCS to assist with the decision making process.
- Individualised risk assessment and implications for this pregnancy and birth.
- Education on natural labour inducers, optimal fetal positioning and pain management for labour and birth.

The BAC clinic facilitated 186 women at the clinics in 2021. Their birth outcome is illustrated above. At the BAC clinic appointment approximately 70% of women were aiming for vaginal birth after caesarean section (VBAC). Of the 54% who attempted a vaginal birth 55% of this group (30% of all clinic attendees) were successful.

46% of women who attended the BAC clinic birthed their babies by elective repeat caesarean section (ERCS). The majority of these women choose to have an ERCS, however approximately 1 in 5 women required an ERCS on clinical ground i.e. Breech/unstable lie, not going into SOL or not being suitable for IOL and placenta praevia.

BIRTH OUTCOME OF WOMEN WHO ATTENDED THE BAC CLINIC 2021

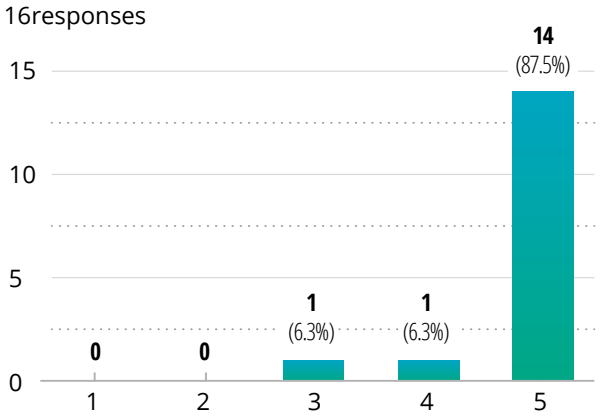


Birth after Caesarean Section (BAC) Clinic Feedback Survey:

The survey was sent to all women who attended the BAC clinic between January and June 2021. This gave a 20% response rate.

The women found the clinic beneficial and 100% would recommend the clinic to a friend. Below are some of the comments made by women about the care they received. As an outcome from this feedback, a 36/40 week follow up phone will be added to the care schedule for all women who attended the clinic.

How would you rate your experience at the Birth After Caesarean Section Clinic?



What did you find useful at the BAC clinic?

- It is because of these appointments I had the confidence to have a VBAC
- Very clear and concise information provided very supportive, no judgement, came away feeling informed and empowered
- Confidence given around ability to birth naturally.
- Provision of information
- We went through my birth notes to help me understand what happened as I had no idea and felt very negatively about my first birth exaerience.
- Approachability and availability to meet

What could be improved at the BAC clinic?

- I found a disconnect between the information provided in the clinic and what happened in reality
- Hypnobirthing class or anxiety management class to address anxieties around future births
- Referral earlier in pregnancy
- More awareness that the clinic is there for women
- Possibly a scheduled follow up later in pregnancy
- Better coordination between clinic and the actual delivery team. Rights learned in clinic are not acted on in actual labour or sufficiently explained why not allowed

Training and Education

The AMP facilitates regular staff education on fetal monitoring. This session focuses on maintaining normality and avoiding unnecessary intervention for normal and low risk women. It also encourages all staff in the maternity department to minimise intervention.

The AMP in conjunction with the clinical skills facilitator provided education updates on the "stages of labour" guideline in the clinical areas – Delivery suite and antenatal ward. These sessions aimed to promote the implementation of evidence based practice and avoid unnecessary and untimely intervention in normal birth.

The AMP continues to provide antenatal care at the Midwives as a mentor to midwives and student midwives. Student midwives also attend the BAC clinics and feedback is very positive in relation to these sessions.

The AMP facilitates Communication workshops for the National Healthcare Communication Programme Module 1 for all healthcare staff.

Multidisciplinary team collaboration

The AMP role is becoming more recognised within the Multidisciplinary team. The midwives in the Community Antenatal clinics refer women who have had a less than positive or even traumatic experience in a previous birth. These consultations include debriefing and clarifying issues in the previous birth, education on minimising intervention and changes in subsequent pregnancies.

This also includes providing care and support outside the regular antenatal clinic appointments – including Cervical Membrane sweeping, assessment of fetal wellbeing, in-depth birth planning/preferences and tours.

This MDT collaboration is also extended to the perinatal mental health team, again for women with previous negative birth journeys and also for women with primary tocophobia.

Audits completed in 2021

- As a result of the education sessions on the stages of labour guideline, the AMP and the CMM3 from Delivery suite performed an Audit on the timing and frequency of vaginal examinations.
- Audit on identification of care pathways as per Stratification of clinical risk in Pregnancy (2020) document.
- Audit on information Birth after Caesarean Counselling/Education.
- Audit on Admission CTG/intermittent fetal monitoring.
- Audit on Membrane sweep performed by Midwives and Obstetricians.

Meeting Membership

- Saolta University Health Care Group Policy, Procedure, Guideline and Audit Group (GPPGA)
- GUH Quality Risk and Safety Meeting
- Baby Friendly Hospital Initiative meeting
- Maternity Voices Service User group
- Interviews for Staff Midwives for the Saolta University Healthcare Group
- GUH/PUH Education Meeting
- Multidisciplinary Departmental meeting

Additional Role Achievements

- Presentation of CEASARS quality improvement plan at Midwifery Festival webinar
- COVID 19 Vaccinator
- Prescribing Site Coordinator
- Development of Post Caesarean Section multidisciplinary debriefing proforma
- Development of the Saolta Group Tongue Tie Guideline
- Regular attendance at Monthly Caesarean Section and Perinatal Morbidity/Mortality Meetings.
- Attendance at NPEC virtual Conference
- Concise Review on Clinical incident for Quality and Safety team.
- Facilitated site visit for Candidate AMP's

PUH Advanced Midwife Practitioner – Supported Midwifery care 2021

2021 was the first full year of the cAMP in the role so within this candidacy the cAMP completed the educational requirements in August 2022. In addition to this the cAMP continued to work within the outreach Supported Care clinic one day per week, currently due to staffing and maternity leave cover. Service development was investigated and focus on BAC and birth reflections clinics. BAC is up and running now at full capacity and Birth Reflections is due to start in Q4 2022. In addition to this the cAMP supports colleagues and endeavours to provide CoC to Supported Care pathway clients on labour ward 1 day per week, while advocating for normality within this environment and supporting advanced decision making. The cAMP

continues to provide NIPE assess independently for women who require it outside routine times.

The cAMP commenced facilitating education in fetal monitoring and PROMPT, and organised a very successful midwifery focused virtual study day, with attendees from around the world. In addition, she has spoken to students in NUIG, presenting lectures and with the INMO.

Attendance, when possible, is at local and regional CTG, risk and departmental meetings but workload prevents frequent attendance to these forums. Clearer lines of responsibility are the plan for later this year.

MUH Candidate Advanced Midwife Practitioner (cAMP)

Education & Training:

As part of my candidate AMP role I undertook and completed the certificate in nursing (Nurse/Midwife Prescribing) at the National University of Ireland Galway (NUIG). I registered with NMBI as registered midwife prescriber in December 2021. I obtained 500 clinical hours on site under the supervision of clinical supervisor Dr Hilary Ikele, Consultant obstetrician as well as site visits to Kilkenny, Sligo and the Rotunda Hospital to work with and learn skills from the advanced midwife practitioners (AMP's).

I am lead co-ordinator and educator in promoting normality on a daily basis and support staff to protect normal birth by providing continuous emotional and physical support during early and active labour. By allowing freedom of movement during labour, promoting HOPSCOTCH, using no routine interventions and promoting upright position for labour and birth. I also actively educate staff on up-to-date research evidence methods which improve birth outcomes e.g. the discontinuing of oxytocin infusion in the active phase of labour i.e. when contractions are well established and the cervix is dilated to at least five centimetres (Boie et al., 2018).

I am the lead coordinator, presenter and educator within the multidisciplinary team (MDT) at the weekly cardiotocography (CTG) meeting. I support staff in preparing and presenting the CTG for review. I actively encourage midwives and obstetrician's involvement in presenting and discussing CTG's. I value the CTG meeting as a great learning opportunity to improve the quality of care provided to women attending our service. The learning from all CTG meetings are recorded by Marcella and disseminate to staff.

I have attended many educations days and conference in relation to promoting normality in pregnancy, labour, birth and the postnatal period in 2021 including the Spinning Babies World Confluence Conference. I attended a series of events on line by the Maternity and Midwifery Forum as well as many study days including the National Perinatal Epidemiology Centre (NPEC) 'Birth Choice' and Trauma Informed Practice: Where do we begin?

I have attended and successfully completed all four modules of the National Healthcare Communication Programme in 2021. I am one of the lead presenters for the communication programme in MUH. I have successfully coordinated and presented a series of workshops on module one 'Making Connections' to all MDT staff within the maternity division over a six-month period.

CAESAR' project midwife:

In response to the tidal wave of increasing caesarean section a quality improvement 'CAESAR' project was implemented in the Saolta healthcare group, including MUH in 2021. I was the lead 'CAESAR' project midwife with consultant obstetrician Dr. Kamal El Mahi to roll out and implement recommendations in MUH. This involved presenting a series of face-to-face presentations over a number of weeks to educate staff on the 'CAESAR' project, its recommendations and implementation into practice. This included the promotion of one-to-one continuous support in labour from trained healthcare providers, which is safe effective and patient centered was central. One-to-one care in labour is advocated for and already a practice we aim to achieve in MUH. However, the 'CAESAR' project reinforced its value and importance for women and its positive effect on outcomes for women.

A Cochrane met analysis indicate that there is a reduction in caesarean section rates for women who had continuous support versus normal care (Bohren, 2017). It is important to note that the overall caesarean section rate for MUH in 2021 dropped by almost 5% to 35.5%.

Environmental improvements:

To embrace the spirit of the National Maternity Strategy – Creating a Better Future Together 2016-2026. An application in 2021 to the Nursing and Midwifery Planning and Development (NMPDU) office was successfully completed and funding secured by Marcella. This funding has provided the means to purchase suitable equipment to promote normality and upright positions, which consists of two set of mats, bean bags and wedges. Adding greatly to peanut balls, exercise balls, TEN's machines already acquired. The fore mentioned equipment enables women to feel relaxed and comfortable thus allowing labour to progress naturally. Active birth which promotes freedom of movement promote gravity to allow descent of baby, facilitates high levels of oxytocin with

effective contractions, empowering shorter labours with less interventions. Staff education sessions on equipment use was completed by Marcella for midwifery colleagues working on labour ward and maternity ward. Antenatal clinic and antenatal education midwives were also informed of the new equipment to educate women and encourage their use in practice.

Birth after Caesarean Section Clinic:

Women with one previous caesarean section or Robson classification group 5 are now the biggest known contributor to caesarean rates. As an alternative to elective repeat caesarean section (ERCS) women can be offered to attempt a vaginal birth after caesarean section (VBAC). All the major governing bodies recommend women with one previous caesarean section should be supported to have a vaginal birth. VBAC has a reported success rates of 72-76%. However, despite these recommendations VBAC rates remain low.

April 2021 marked the development and introduction of this new service in MUH the VBAC service is led by the cAMP. This service complements rather than replaces current services delivered by doctors. The VBAC service provides choice and control in the decision-making process for the woman. The risk and benefits of VBAC versus ERCS are discussed in depth and written literature to support this discussion is provided to the woman to take home. I encourage the women to discuss her options with her partner at home and to write any questions down for discussion at out next appointment. I actively check the woman's understanding by asking her 'what will you tell your partner when you go home'.

If the woman is willing to aim for VBAC she is supported and educated by Marcella to promote normality throughout pregnancy, labour and birth. Continuity of carer is provided for the caseload of women in the antenatal and postnatal period and for some women in the intra-natal period by Marcella thus supporting greater synergies between the supported and assisted care pathway. Women who choose ERCS are supported in their decision also by Marcella.

Introduction of Dilapan- Labour induction agent:

I promote the use of Dilapan-S in practice for women with previous caesarean section. This provides greater choice and options for women. I actively engaged in the decision making process and encourage its use in practice with consultant obstetrician and the women. I have undertaken education in the insertion of Dilapan-S and under the supervision of my clinical supervisor Dr Ikele and Consultant Obstetrician Dr Trulea I am developing my skills in the insertion of same. In practice I support the multidisciplinary (MDT) through education sessions and policy review on the recommendations of care for women with Dilapan-S.

I provide safe, timely, evidenced based midwifery-led care to women and their babies at an advanced midwifery level from booking until discharge home postnatal. This involves undertaking and documenting a complete episode of maternity care (assess, diagnose, plan, treat and discharge women), according to collaboratively agreed protocols and scope of practice in the clinical setting; demonstrating my advanced clinical and theoretical knowledge, critical thinking and decision making skills. I record monthly key performance indicators (KPI's) for the cAMP VBAC midwifery led service in MUH. Here are some of the findings.

2021 BAC Service	
Transfer of care pre term Birth	2.2%
T/F Mal Presentation	2.2%
ERCS	42.3%
VBAC Attempt rate	57.69%
VBAC Success Rate	66.66%
Emergency LSCS	33%
Experience survey Recommend VBAC service to a friend	100%

Research / audit completed in 2021:

I undertook and completed audits on inductions of labour (IOL). Induction has a significant impact on the birth experience of women. It also places a strain on labour ward hence the importance of regular auditing of this process. All women considered for induction must be a gestation of term plus ten days otherwise a consultant must be involved in the decision making process. The booking of induction in the labour book was changed in 2021 to capture who was making the induction decision to avoid unnecessary interventions for women.

Nationally MUH triggered for our high rates of post-partum haemorrhage (PPH) and being a lead trainer in Practical Obstetrics Multi-Professional Training (PROMPT) it is imperative to audit our practices and implemented changes based on findings. I introduced the PPH grab pack to the service in 2021 which enables staff to have all necessary equipment for cannulation, blood draws and appropriate documentation pre prepared as much as possible to reduce time in the case of an emergency. The aim was that all necessary bloods were obtained in a timely fashion. This was introduced on a trial basis but now is adapted to practice based on positive impact of PPH grab pack in an emergency situation by reducing time delay in care and all bloods correctly obtained. Thus improving the quality of care provided to women.

The audit on antenatal scheduled of appointments was completed with the purpose of highlight the discrepancies between actual practice and standard in order to identify the changes needed to improve the quality of care.

LUH Candidate Advanced Midwife Practitioner (cAMP) Supported Care

For myself in the role as candidate Advanced Midwife Practitioner in 2021, I gained the competency of midwife prescriber to expand my role, after undertaking the professional certificate through UCD. I also started the MSc in Advanced Practice in Midwifery in Sept, also through UCD. Balancing the study and the workload is challenging but rewarding and I'm constantly developing my skills for advanced practice. As 2021 was my first year in the role as cAMP, it gave me the opportunity to get involved in local and group metrics, audits and KPIs. This expansion of my role allowed me to see how the service and unit works from a managerial perspective and identify strategies to improve the service. I also facilitated educational and teaching sessions in the CNME in relation to perineal suturing and became a PROMPT facilitator. This development of my role as cAMP has given me a variety of new challenges, which I continue to look forward to in my candidacy journey. As part of my role I am also involved in the development and planning of the Home from Home birthing suite for LUH. It is something exciting for the unit to look forward to in 2022 and also for the women within the supported model and for the women of Donegal.

RAMP Care 2021 SUH

The Registered Advanced Midwife Practitioner (RAMP) service has been in Sligo University Hospital since January 2017. It continues to grow and develop each year with care being provided from the second trimester to postnatal discharge. It provides a continuity of care pathway, underpinned by the midwifery philosophy of care giving, for an agreed caseload of assisted care women who would normally have obstetric led care (table 1).

In 2021 a total of 349 (26%) women were cared for by the AMP from booking to postnatal discharge, with 2179 scheduled antenatal reviews. Another 72 women had some care from the RAMP but for a variety of reasons were transferred back to consultant care antenatally (table 2). A total of 139 (10%) women attended for Midwife Model of Care (MMC), 764 (56%) attended for Consultant Care and 103 (8%) for private consultant care (E3 Stats generator). The care giving for the service continued to be challenging in 2021 The antenatal clinics being held in a different location meant the RAMP was only able to undertake one daily check in to the clinical areas. The second big issue was due to the cyber attack and several weeks of no access to the lab system, patient management system and electronic patient records making it difficult to obtain results and follow up the women.

Table 1 RAMP Caseload 2021

Medical Problem	n	%
Age >40yrs	42	12%
Lletz/colposcopy	33	9%
Anxiety and depression	183	52%
Hb/B12/folate	28	8%
BMI	74	21%
Asthma	30	8%
Previous ICP	11	3%
Previous PPH	7	2%
Thyroid	13	4%
Previous PET	27	8%
Fibroids	3	1%
Perineum problems	10	3%
Previous Shoulder dystocia	3	1%
GBS	21	6%
GDM	12	4%
MMC term	17	5%
OASI	3	1%
PCOS	5	1%
Platelets	6	2%
Recurrent UTI	7	2%
IVF	12	4%
Ulcerative colitis	3	1%
VBAC	35	10%
Supported care	21	6%

Table 2 Demographics

Parity	RAMP n (%)	SUH n (%)	MMC n (%)
P0	122 (35%)	222 (29%)	81 (58%)
P1	123 (35%)	269 (35%)	39 (27%)
P2	71 (20%)	175 (23%)	15 (11%)
P3	30 (9%)	55 (7%)	4 (3%)
P4	3 (1%)	20 (3%)	1 (1%)
P5	0 (0%)	13 (2%)	NA
P6,7,8	NA	10 (1%)	NA
Age	RAMP n (%)	SUH n (%)	MMC n (%)
16-19	1 (<1%)	2 (0.5%)	0 (0%)
20-24	24 (7%)	37 (4.5%)	12 (9%)
25-29	45 (13%)	76 (10%)	20 (14%)
30-34	113 (32%)	222 (29%)	34 (25%)
35-40	124 (35%)	296 (39%)	70 (50%)
>40	42 (12%)	131 (17%)	4 (2%)

Table 3 Primary Outcomes RAMP Caseload and SUH 2021

	RAMP n (%)	SUH n (%)	MMC n (%)
Spontaneous Vaginal Birth	242 (70%)	314 (41%)	81 (58%)
Instrumental Birth	46 (13%)	70 (9%)	30 (22%)
Emergency CS	49 (14%)	187 (24%)	22 (16%)
Elective CS	12 (3%)	193 (25%)	7 (5%0
Regional analgesia	172 (51%)	268 (35%)	71 (51%)
Intact perineum	59 (21%)	100 (13%)	46 (33%)
Preterm birth (<37 weeks)	2 (0.5%)	N (%)	0 (0%)

Table 4 Secondary Outcomes

	RAMP n (%)	SUH n (%)	MMC n (%)
Induction of labour	104 (30%)	323 (42%)	47 (34%)
Induction of labour & CS	28 (27%)	136 (42%)	16 (42%)
Amniotomy	165 (47%)	172 (30%)	51 (37%)
Oxytocin Augmentation	73 (21%)	78 (14%)	30 (22%)
Intermittent auscultation	41 (12%)	(%)	11 (8%)
No analgesia	27 (8%)	28 (4%)	4 (3%)
Entonox only	91 (27%)	92 (12%)	26 (19%)
Opiate analgesia only	49 (14%)	90 (12%)	32 (23%)
First degree perineal tear	58 (20%)	61 (8%)	20 (14%)
Second degree perineal tear	97 (34%)	125 (16%)	33 (24%)
Episiotomy	65 (22%)	91 (12%)	37 (27%)
Third degree perineal tear	2 (1%)	7 (1%)	1 (1%)
Postpartum haemorrhage	27 (7%)	81 (11%)	8 (6%)
Robson 5	35 (10%)	99 (13%)	NA
VBAC attempted	29 (83%)	64 (64%)	NA
VBAC achieved	18 (62%)	24 (37%)	NA
Breastfeeding (BF) at birth	211 (61%)	(%)	
Exclusive BF at discharge	205 (59%)	(%)	
Birth weight <2.5kg	4 (1%)	59 (8%)	4 (3%)
Apgar <7 at 5 minutes	2 (0.5%)	4 (0.5%)	3 (2%)
Neonatal resuscitation	4 (1%)	49 (6%)	3 (2%)
Admission to neonatal unit	10 (3%)	74 (10%)	15 (11%)

Shared Care with Consultant:

3 women had raised urea or uric acid at 39-40 weeks with no blood pressure issues. They had bishop scores of 4 or more and a plan for induction so they received shared care from pre delivery to postnatal discharge.

Transfer to consultant:

72 ladies were transferred back to consultant care antenatal before 37 weeks for a variety of reasons (table N). They had been seen by the RAMP for at least two antenatal visits.

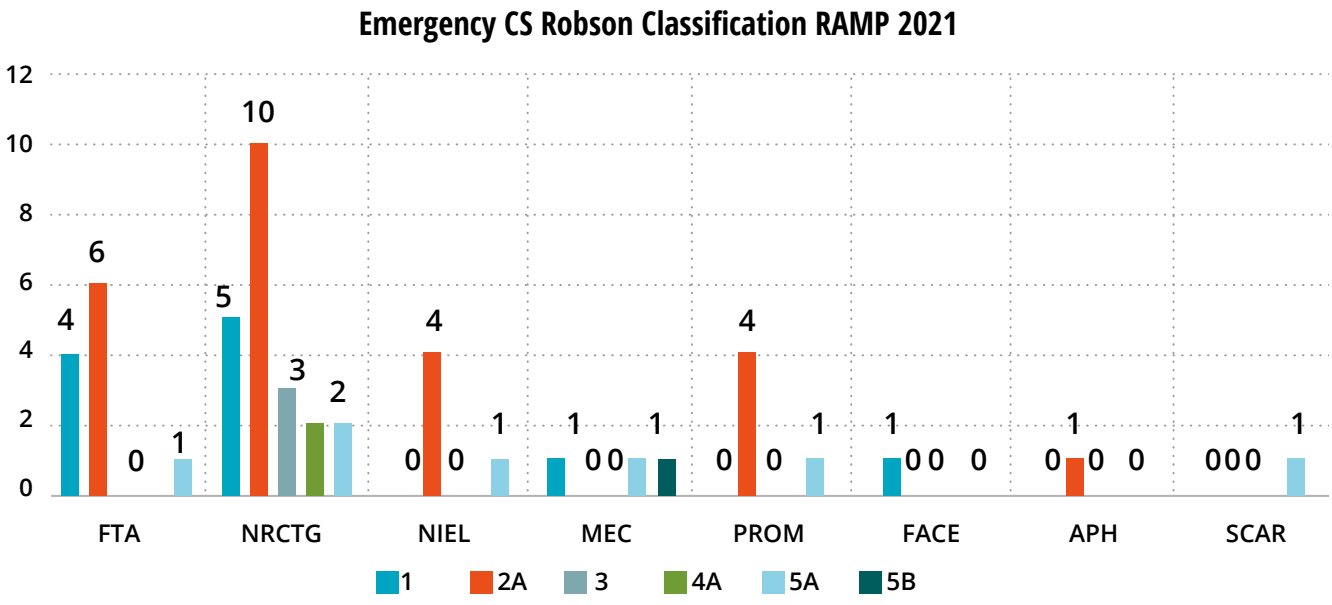
Table 5 Transfer back to Consultant 2021

Anxiety	3	4%
APH	1	1%
Breech	9	13%
Fetal Anomaly	4	6%
GDM Meds	17	25%
Headaches	1	1%
ICP	7	9%
Maternal heart problems	2	3%
Other	7	9%
PET	9	13%
SGA	3	4%
TF other hospital	2	3%
VBAC Mat request	7	9%

Onset of labour and induction of labour:

The induction of labour rate for RAMP care was 30% with 27% of the inductions having a caesarean section (CS) birth. 50% of CS were for non reassuring CTG trace alone, 14% for failure to progress in the first stage, 3% for an antepartum haemorrhage, 4% for grade 3 meconium and failure to progress, 18% for prolonged rupture of membrane and no progress and 11% for failed induction.

Graph 1 Emergency Caesarean Section as per Robson 10 Classification



(Abbreviations: Failure to advance (FTA), Non reassuring CTG (NRCTG), Never in established labour (NIEL), Meconium (Mec), Pre labour prolonged rupture of membranes (PPROM), Antepartum haemorrhage (APH)).

Robson	EMCS	SVD	Forceps	Ventouse	ELCS
1	11	37	5	19	NA
2A	25	13	2	9	NA
2B	NA	NA	NA	NA	2 (Breech)
3	3	133	1	3	NA
4A	2	45	0	2	NA
4B	NA	NA	NA	NA	2 (1 Breech, 1 mat, req)
5A	7	10	2	2	NA
5B	1	3	0	1	NA
5C	NA	NA	NA	NA	9 (1 mat req, 8 closed cx)

Drop in Feeding Clinic:

There was a significant drop in referrals to the drop-in feeding clinic. All women receive information about this free clinic in their discharge pack (Breastfeeding Support during the pandemic in counties Sligo, Leitrim and the surrounding areas leaflet) and the public health nurses can call for advice or refer women to the clinic. There were 18 women and babies who availed of the drop-in clinic. 11 were seen for face-to-face consults and the rest had phone consults.

KPI 1:

Evaluating the women's experience of midwife led care (supported pathway) was not captured for 2021. There is an online survey being developed to ensure this feedback is obtained for 2022.

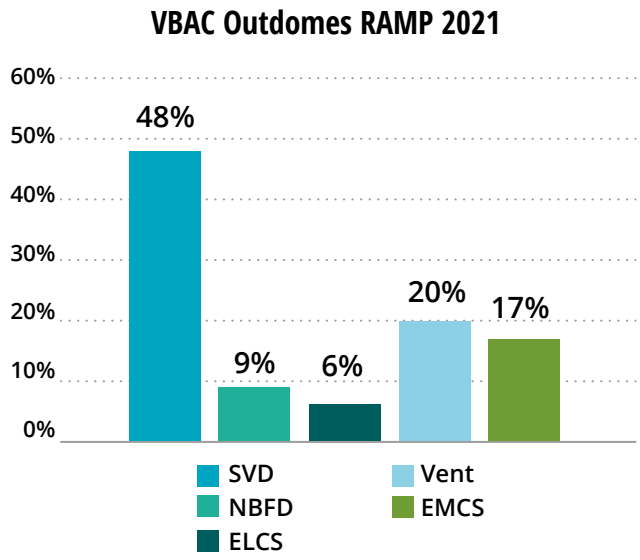
KPI 2 VBAC:

35 ladies with one previous CS attended for AMP care in 2021. 6 requested a repeat elective CS. None of the 6 ever wanted a VBAC but did want continuity of care and time to discuss their previous birth experience and prepare for this birth. 29 (83%) attempted a VBAC. 3 had a repeat elective CS for Bishop score of 0 at 41 weeks. 8 had an emergency CS. 3 for no progress, 2 for meconium and 3 for non-reassuring CTG. 18 (62%) had a vaginal birth.

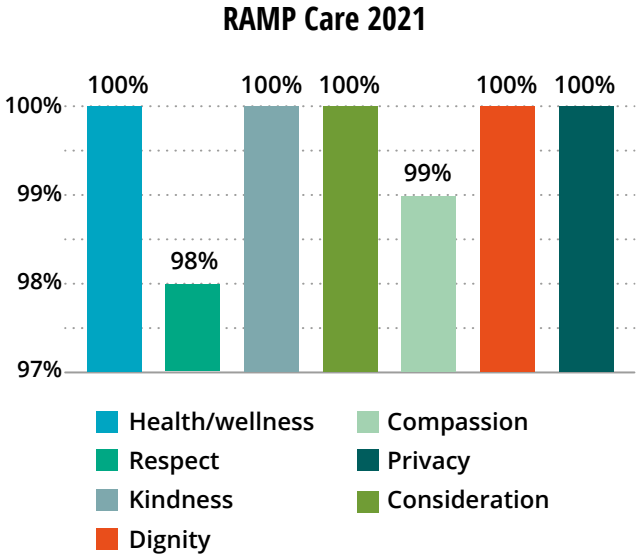
KPI 3:

Evaluating the women's experience of RAMP care was undertaken using an online Surveyhero® questionnaire of 10 quantitative questions with tick box choices and 2 qualitative questions for free text. All women who had attended for RAMP care were invited by text message to participate. The response rate in 2019 was 62 (26%) and in 2020 was 59 (20%). The response rate in 2021 was 180 (52%) with 169 (48%) completed fully.

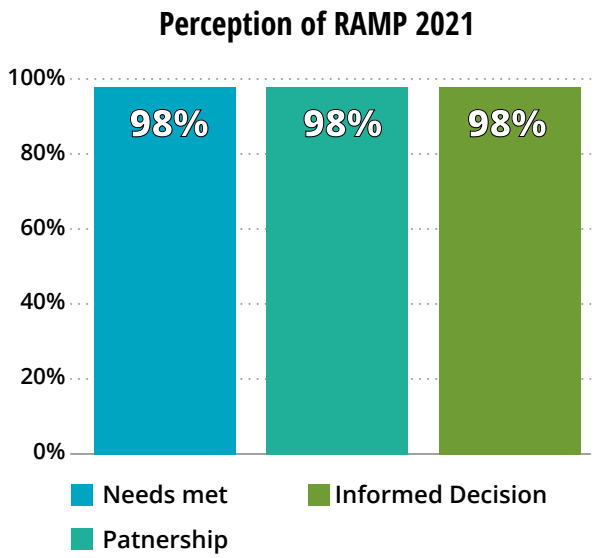
Graph 2 RAMP VBAC



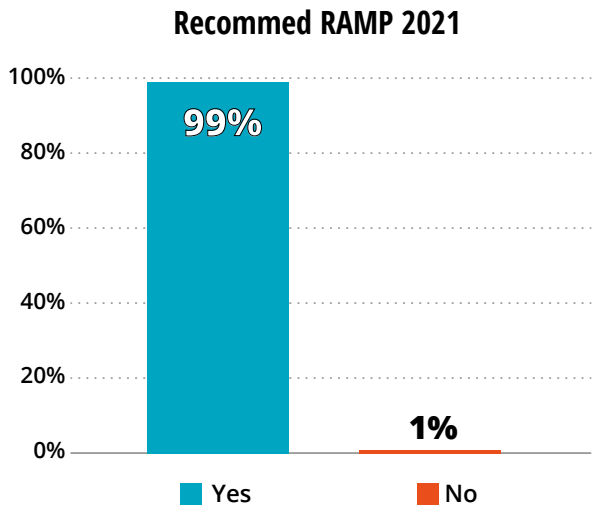
Graph 3 RAMP Care 2021



Graph 4 Perception of RAMP Care



Graph 5 Recommend RAMP Care



Themes from Qualitative Questions:

Theme 1: Care giving

I. Continuity
II. High standard of care
III. Supported and improved mental health and well being
IV. Excellent and great service
V. Availability of RAMP during pregnancy

Theme 2: Antenatal clinic

I. Overcrowded waiting area and not enough seating
II. Waiting times

Theme 3: Postnatal care

I. Service gap at weekends
II. Breastfeeding support
III. No breastfeeding clinic

Theme 4: Improving the service

I. Less women on caseload
II. Extra scans during pregnancy
III. More AMPs
IV. More midwife led services

Conclusions:

The service continues to be rated favourably by service users through feedback comments and numbers opting for the service or friends and family recommending RAMP care. The continuity of care and having access to the service out with scheduled appointments is something that the majority of women rate highly and several suggested that all women should have access to.

3 women would not recommend RAMP care. One was due to the lack of intrapartum care; one was very critical of the service and the third would not recommend it but wrote a glowing comment about RAMP care.

Waiting times continue to be reported negatively by some service users but many then comment how they have time to discuss and explore issues and plan care based on their individual needs. At times women are double booked for the same time or the appointment has not been captured on IPIMs but the woman has it on her appointment card. The RAMP tries to reschedule women to prevent this happening but this is not always possible due to appointment availability or the woman being unable to attend at a different time. If a woman arrives late for her appointment this has a knock on affect for the rest of the clinic. At times the clinic has a 30 minute overrun and occasionally this can be an hour due to the woman requiring more than 15 minutes to address her needs at that particular visit and to ensure there is a full review and a robust plan of care in place for her.

Extra scans were suggested by several women. This was seen as a necessity for antenatal care.

Disappointingly several women commented on the lack of breastfeeding support once discharged from the hospital. All women are informed about the RAMP self-referral feeding clinic during the pregnancy journey and on discharge. There is also a leaflet in the discharge pack listing all the local breastfeeding supports in the community that the public health nurses also have.

Recommendations:

Waiting times. The RAMP will continue to address any issues with the staff responsible for scheduling appointments. A real time audit of the woman's journey through the clinic including her waiting time would also be useful to further inform the service.

Postnatal follow up clinic was once again highlighted as essential by the service users. This was suggested to complete the episode of care and as an opportunity to discuss the pregnancy and birth and have a plan of care if required for next pregnancy. The virtual platform Attend Anywhere is available to provide this service and the RAMP has been keen to start this over the past 18 months or so. Clerical and admin support is required to support this service due to the large numbers of RAMP service users.

Ensure that women are signposted at discharge to the community breastfeeding supports that are available.

2.12 Antenatal Education

Antenatal Education Antenatal education aims to equip pregnant women and their partners with the knowledge and skills to negotiate their journey through pregnancy and to prepare them for childbirth and parenthood. Each of the Maternity units is Saolta offer this service.

Through the National Maternity service users survey women have told us that the need and benefit from being provided with high quality information and education in relation to pregnancy and preparation for birth. In response with this and in tandem with the launch of the HSE National Standards for Antenatal Education programme in each of our units have been refreshed to respond to this feedback.

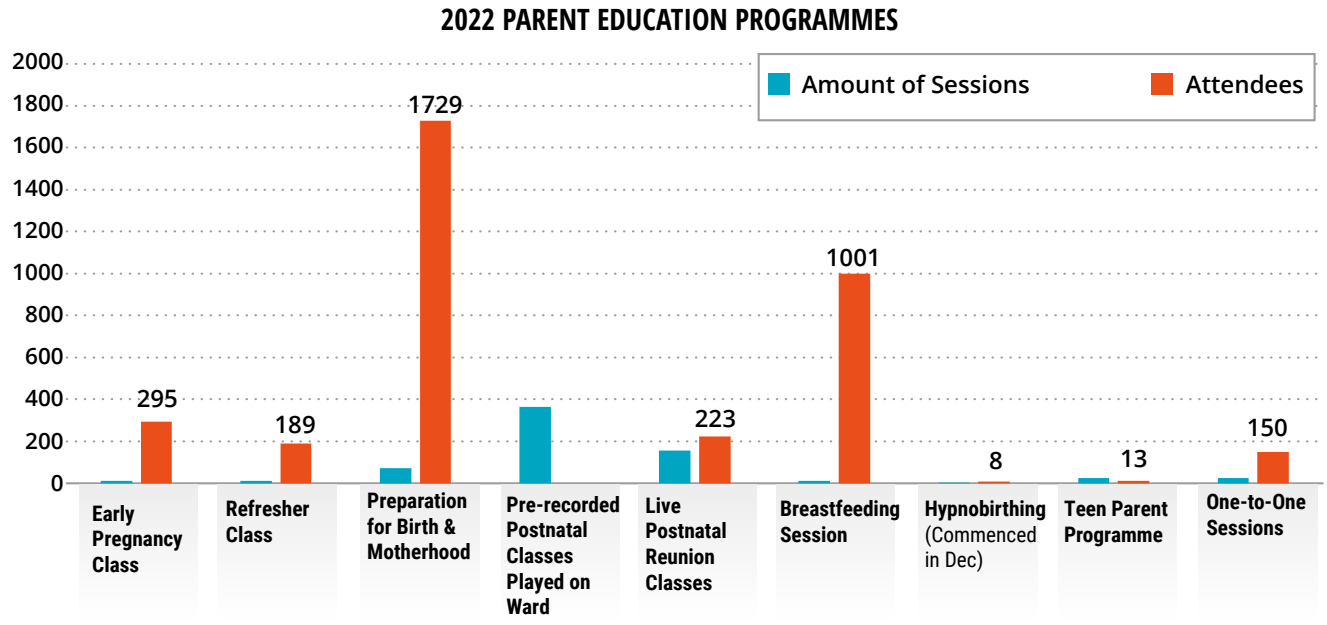
GUH Education Report 2021:

Education & Training

- Early Pregnancy Class
- Refresher Class
- Preparation Classes for Birth & Parenthood
- Breastfeeding Webinars
- Pre-recorded Postnatal Classes
- Live Postnatal Classes
- One to One Sessions
- Hypnobirthing (Commenced in December)
- Teen Parent Programme
- Car Seat Safety
- Involvement of the Multidisciplinary Team
- Mentoring and supervising Students
- Staff Training

Activity 2021	Total	Pimip	Multip
Attendence At Antenatal Classes	2399		
women plus partners			
Attendance at Antenatal Breastfeeding Workshop (n)	1001 antenatal women	95% primip	
Attendance at Refresher Sessions (n)	189 women	1727	
Attendance at Postnatal Reunions (n)	223		
Attendance at Teen Class sessions (n)	13		
Attendance at 1:1 Antenatal Classes (n)	150		
Attendance at Tours of the Maternity Unit (n) Facilitated Virtually	1916	1727	189
Postnatal women	223		

Covid-19 pandemic-Virtual Classes-Improved numbers breastfeeding webinars



Governance of:

- Maternity Website www.uhgmaternity.com 17,250 visitors
- Covid-19 Updates – RCOG/NPHET
- Virtual Tours
- QR Codes Added to Website
- Recorded Postnatal Class and Bathing Baby
- Covid-19 Vaccination Hub – part of a team counselling and booking vaccination appointments for one thousand women

**HSE Cyber Attack affected activity, however service continued with use of CMM's mobile hotspot and required to relocate to Clinical Science Institute.*

Academic Report

RCPI Postgraduate Diploma in Leadership, Quality and Safety

IBCLC International Board of Certified Lactation Consultants

Birth Mechanics Diploma, UK

Nomination in National HSE Health Care Awards: Innovation in Healthcare

PUH Education Report 2021:

Antenatal education continues to be an important building block in supporting and preparing women and their families in their journey through pregnancy. The knowledge and skills provided in the antenatal and hypnobirthing classes in PUH empowers women, preparing them for childbirth and parenthood.

PUH launched its Maternity website with input from service users. It introduces some of our Multidisciplinary teams. It gives relevant practical information to pregnant women and also signposts to the antenatal classes and information resources

Antenatal classes recommenced post Covid restrictions in November 2021. 25 women attended the early pregnancy classes, which offer support up to 20 weeks of pregnancy. These classes are facilitated by a multidisciplinary team including the midwife, physiotherapist, social worker, dietician and perinatal mental health midwife. 24 women attended the labour and delivery classes, offered to women after 30 weeks of pregnancy. This session has a focus on the signs of labour and when to attend the hospital. Coping strategies for labour, as well as available pain relief options are all discussed. The up-to-date and evidence-based information given during this class provides the required knowledge, confidence and peace of mind for an optimal birth experience.

All antenatal classes were facilitated in a virtual setting and could be booked though the new PUH maternity website.

Hypnobirthing continues to grow in popularity with the women attending PUH maternity, thanks to the support and dedication of the hypnobirthing team. The classes remained virtual in 2021 and were booked by email.

Education and training:

- Currently 12 midwives facilitating the workshop, 15 midwives trained.
- Ward sessions by team to support midwives to support women using hypnobirthing.
- Bespoke sessions for midwifery students to support women using hypnobirthing.
- Presented at the virtual midwifery conference, Returning to Normal Physiological Birth.

Service provision

- Early pregnancy classes and labour and delivery classes recommenced.
- 24 hypnobirthing classes were provided.
- 219 women availed of the hypnobirthing service in 2021.

Achievements in 2021

- Recommencement of classes with easy access for booking through our new website.
- The number of women using hypnobirthing techniques during labour increased by 200% in 2021.

SUH Education Report 2021:

Antenatal education continues to be an important building block in supporting and preparing women and their families in their journey through pregnancy.

Maternity Antenatal Stats Required per Site 2021	Total	Pimip	Multip
Activity 2021			
Attendance at Antenatal Classes (n)	365	350	15
Attendance at Antenatal Breastfeeding Workshop (n)	96	76	20
Attendance at Weekday Sessions (n)	362	347	15
Attendance at Evening Sessions (n)	3	3	0
Attendance at Refresher Sessions (n)	15	0	15
Attendance at Postnatal Reunions (n)	4	4	0
Attendance at Teen Class sessions (n)	2	2	0
Attendance at 1:1 Antenatal Classes (n)	22	22	0
Attendance at Tours of the Maternity Unit (n)	online		
Attendance at Breastfeeding Drop in Clinic (n)	4	4	0

LUH Education Report 2021:

Antenatal Education update end of year 2021

Total no. of primups who received classes	248
No. of primups who attended face to face classes	125
No. of primups who attended classes via zoom	123
No. of multips who attended face to face education	53
Total no. of women who attended for one to one education	49
No. of young mums to be who attended in person classes	9
No. of women who attended postnatal reunion (restarted July)	25
No. of women who attended the Fit for labour class	87
Total no. of women who received phone education/support	169

Progress:

- Antenatal classes were resumed in April 2021, initially these were face to face only with the amount of classes running being tripled but due to restricted numbers and the lack of public health nurse education in the community we then also commenced classes via zoom for women living outside of the Letterkenny area to meet the increased demand.
- We are currently the only hospital in the country offering both live online classes and face to face education.
- We now have a mobile phone which has been a great asset to the service particularly for engaging vulnerable women for education.
- The Antenatal Education Coordinator is currently on the National Steering Committee for implementation of the antenatal standards.
- Letterkenny will be one of the three regional hospitals who will be piloting the new national feedback forms.
- Our Antenatal Education Coordinator has completed a diploma in hypnobirthing and we will be offering a new hypnobirthing class to all women booking in the near future.
- The Education classes should be available as a

clinic on IPMS in the coming weeks.

- An Early Pregnancy Class has been developed and we also aim to offer this to all women booking under 20 weeks' gestation in the near future.
- The postnatal reunion classes have continued to be a huge support for women, six of the women who attended since July were referred to counselling or other support services after coming to the class.
- We continue to work closely with the Teen Parent Support Programme in Donegal.
- We are the first hospital in the country to offer women an Active pregnancy class with good attendance throughout summer and autumn however these numbers have become very low in the winter months.

Areas to improve:

- The Antenatal Education Coordinator will need to attend a postgraduate facilitation course as per the national standards. At present this course has been temporarily stopped due to covid 19.
- To improve our service to the women a more multidisciplinary approach to education would be ideal. At the moment staff shortages in the social work department and the lack of a maternity dietician is delaying this progress.
- To bring our service up to date and meet the true demands of the women in our care an online booking system would be ideal. This approach is being planned for or implemented in the huge majority of the other 18 maternity units throughout the country and would allow women much more flexibility and choice for the booking of the classes. It would also allow us as a service to monitor which classes to run more/ less frequently and also reduce admin time significantly.
- An office space for the work of the Antenatal Education Coordinator would be of benefit, the current lack of space does not promote the most efficient use of time or allow facilitation of online classes onsite.
- In the current climate there is a huge demand for postnatal support with many women contacting the service on a weekly basis reporting severe isolation and looking for a service to attend, this is a service we do not currently offer.

Education achievements for 2021:

Hypnobirthing teacher training diploma completed November 2021 facilitated by the Kathryn Graves School of Hypnobirthing

Perinatal Mental Health Training day facilitated by CNME Galway

Pregnancy Loss and Perinatal Bereavement Training Day

Activity 2021	Total	Pimip	Multip	
Attendance at Antenatal Classes (n)	301	248	53	
Attendance at Antenatal Breastfeeding Workshop (n)	214	201	13	
Attendance at Weekday Sessions (n)	301	248	53	
Attendance at Evening Sessions (n)	130	130	0	
Attendance at Refresher Sessions (n)	53	0	53	
Attendance at Postnatal Reunions (n)	25	25	0	*since resumption of Antenatal services in July 2021
Attendance at Teen Class sessions (n)	9	9	0	
Attendance at 1:1 Antenatal Classes (n)	49	36	13	
Attendance at Breastfeeding Drop in Clinic (n)	40*	na	na	*July -December 2021 only
Attendance at 'Fit For Labour'	87	72	15	*Due to Covid 19 in person classes not provided. For 1st few months a virtual platform offered
Phone education support	169	111	58	

MUH Education Report 2021:

Due to the increase in covid cases in 2021 we needed to continue to reach the women using our service to prepare and educate them on their pregnancy, labour, delivery and transitioning them into motherhood. We continued as a quality improvement initiative our online education service, and really expanded to facilitate our service.

We upskilled in WebEx and navigating the online world to keep our ladies informed, educated and created a virtual tour ourselves to help bridge the gap between the women at home to our service. Thus easing the anxiety of coming in to give birth by making them familiar with our service and what we offer. We offered hypnobirthing online and it proved to be very successful.

In September 2021 we had a new addition to the service Jennifer Moynihan she joined the Antenatal Education creating one full time post. Prior to starting role, she reached out to other antenatal educators within the Saolta group to make connection and gain insight into how their services were running. She upskilled in using the WebEx application and learned how to share video content to enrich the classes with visuals to prepare them for the journey ahead that was realistic and evidence based.

The team were involved in the national antenatal education forum which has been a huge support in developing the service.

Classes Offered

Early pregnancy class to support women through the early stages of pregnancy, joined with the perinatal mental health midwife to create 2 classes for early pregnancy. One class covered diet, counteracting early pregnancy symptoms, health and also we introduced physio involvement re exercise and knowing if they had issues with pelvic pain how to go about reducing same or getting reviewed early. Then we set up a wellbeing in pregnancy class reinforcing the message to look after your mental health early and understanding the emotional changes that occur in pregnancy and supports available if you need to use the service. The service organised to have invites to this class sent out to women using the service with their first booking visit appointment meaning we were receiving women who were 6-12 weeks' gestation. This aided to empower women and see the value of antenatal education from an early gestation in their pregnancy. Our service offers 4 classes of 2 hour sessions to prepare them for labour, birth, postnatal, infant feeding/breastfeeding and a hypnobirthing class. In order to have MDT involvement one of our Obstetric consultants joins to talk about their possible need to be involved for delivery. Anaesthetic Consultants joins to talk about the different methods of pain relief.

The antenatal education sessions we offer is all evidence based, informative, mother focused and led. Questions are very much encouraged and the content provided is backed up by mychild.ie.

The service started a postnatal discharge class on the maternity ward for the women going home to attend in a covid safe environment and provided the education live online using WebEx for those not able to attend in person. The online option has been very well received by women who went home at the weekend and missed the class or who simply wished to attend again in a few weeks post birth. This class has been a huge success preparing women for what to expect in the day's post birth and beyond. We also developed this further and introduced the women's health physio and perinatal mental health midwife into this comprehensive class and it's proven to be very informative and enjoyable for couples. Feedback received from couple has been tremendously encouraging and women voiced feeling so positive and empowered to begin their journeys as a family knowing all the resources available to them on the side lines if required.

The service also offered one to one education sessions online to mothers that required same tailoring the education as per their needs, wishes and expectations.

Jennifer also researched education to aid her transition into antenatal education and she applied and successfully completed a Birth facilitation course in UCC which has given her the confidence and upskilled her with techniques to facilitate education to different groups of women using the service. The service made connection with the GP's in the community updating them on developments in our antenatal education service and encouraging them to champion our service and build a strong foundation between hospital and community. The service is also in contact with the PHN's to bridge the gap between CHO and Acute and we continue to bond in our shared interest in empowering the mothers using our service.

The service has created QR codes of topics of interest placing them in each waiting area to encourage the mothers who might not attend for antenatal education to take the opportunity to learn about their pregnancy, labour birth while waiting for clinic appointments. Each mother using our service can avail of 14 hours of antenatal education as part of our newly revised service.

The service is very enthusiastic about women being informed, being involved in decisions made about their care and having an overall good experience using our service. We will continue to upskill and ensure we are providing the best quality, evidence based and comprehensive service to women using our service.

Activity 2021		Pimip	Multip	
Attendance at Antenatal Classes (n)	620	588	32	
Attendance at Antenatal Breastfeeding Workshop (n)	342	300	42	
Attendance at Weekday Sessions (n)	240	182	58	
Attendance at Evening Sessions (n)	380	321	59	
Attendance at Refresher Sessions (n)	120		120	
Attendance at Postnatal Reunions (n)	184	120	64	Started in Oct
Attendance at Teen Class sessions (n)	22	22	0	
Attendance at 1:1 Antenatal Classes (n)	56	48	8	
Attendance at Tours of the Maternity Unit (n)	online tour			
Attendance at Breastfeeding Drop in Clinic (n)	102	92	10	
Early Preganancy class	48	48	0	Started in Oct
Early Preganncy Mental health talk	48	48	0	Started in Oct
Twins Classes	18	16	2	

2.13 Health and Social Care Professions

The Health and Social Care Professions (HSCPs) are core service providers to women and their partners, children, other service users and staff in the Women and Children's MCAN. This section highlights the activity and services delivered by the principal HSCP teams in Maternity Services. Other HSCP Services also are involved in the care we deliver to our service users.

Physiotherapy

Physiotherapy Referrals:		2016	2017	2018	2019	2020	2021
Galway	Antenatal Outpatients	970	898	927	949	912	797
	Postnatal Outpatients	304	317	321	278	204	194
Letterkenny	Antenatal & Postnatal	626	833	726	784	647	702
Portiuncula	Inpatients (combined Obs & gynae data)	-	-	-	-	77	78
	Outpatients (combined Obs & gynae data)	256	477	537	601	562	466
Sligo	Inpatient Maternity - Mothers & Babies	893	867	1008	1032	1067	1342
	Outpatients (combined Obs & gynae data)	95	94	207	224	190	207

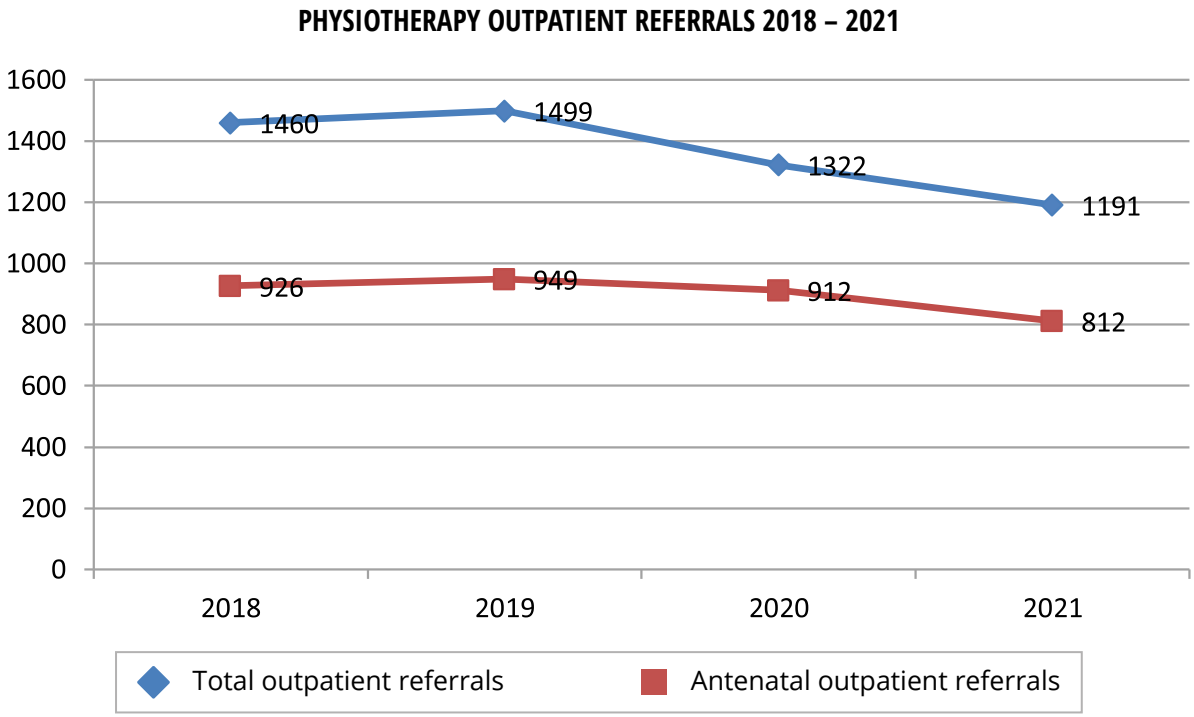
Physiotherapy Activity – Number Treatment Sessions			2016	2017	2018	2019	2020	2021
Galway	Antenatal OPD	Low Back Pain / Pelvic girdle pain	820	768	789	824	787	674
		Pelvic floor Dysfunction	62	32	62	37	47	27
		Other musculoskeletal issues	86	98	76	88	78	68
		GUH Total	**968**	**898**	**927**	**949**	**912**	**769**
	Postnatal OPD	Obstetric Anal Sphincter Injury	42	33	43	45	38	35
		Other Pelvic Floor Muscle dysfunction	187	206	206	158	120	110
		Low Back Pain / other msk	73	78	72	75	46	49
		GUH Total	**302**	**317**	**321**	**278**	**204**	**194**
	Group Education Workshops	Pelvic Girdle Pain Workshop	307	303	343	453	364	491
		Antenatal Education Workshops	2501	1997	2097	1795	840	1064
		Postnatal 'Bodycare' workshop - new service 2020	-	-	-	-	166	194
Letterkenny	Antenatal & Postnatal		626	833	726	784	647	702
Sligo	Inpatient Maternity Ward -Mothers & Babies - new and reviews		1052	1050	1151	1273	1318	1342
	Outpatients (combined Obs & gynae data)		286	230	507	541	593	629

Services in 2021 in Galway

Referrals

Hospital: UHG Physiotherapy	2017	2018	2019	2020	2021
Antenatal opd Referrals	898	927	949	912	797
Postnatal opd Referrals	317	321	278	204	194
Gynae opd Referrals	242	251	271	211	200
Total opd referrals	**1459**	**1460**	**1499**	**1322**	**1191**
Inpatient Referrals	**648**	**774**	**778**	**792**	**795**

Physiotherapy Outpatient Referrals 2018 – 2021



GUH Activity

1) Antenatal opd

Hospital: UHG Physiotherapy	2017	2018	2019	2020	2021
Low Back Pain / Pelvic girdle pain	768	789	824	787	674
Pelvic floor Dysfunction	32	62	37	47	27
Other musculoskeletal issues	98	76	88	78	68

2) Postnatal opd

Hospital: UHG Physiotherapy	2017	2018	2019	2020	2021
Obstetric Anal Sphincter Injury	33	43	45	38	35
Other Pelvic Floor Muscle dysfunction	206	206	158	120	110
Low Back Pain / other msk	78	72	75	46	49

Group Education Workshops

UHG Physiotherapy Workshops	2017	2018	2019	2020	2021
Pelvic Girdle Pain Workshop	303	343	453	364	491 (DNA's 135)
Antenatal Education Workshops	1997	2097	1795	840	1064
Postnatal 'Bodycare' workshop	---------	----------	----------	166 (new service)	194 (DNA's 44)

Services provided include:

- Physiotherapy inpatient service to antenatal, postnatal and gynae wards in GUH;
- 1:1 Physiotherapy outpatient appointments for women with musculoskeletal issues during and after pregnancy, as well as women of all ages with gynaecological/pelvic floor conditions.
- Group-based workshops providing education, advice and safe exercise for antenatal and postnatal women

Achievements 2021

- Maintenance of telehealth group sessions in antenatal, postnatal and gynaecology physiotherapy services started in 2020 due to Covid 19. It is hoped to continue a 'hybrid model' of service delivery offering women greater choice of both online and/or face to face sessions.
- Completion of another Multidisciplinary Obstetric Anal Sphincter Injury audit for 2020

Physiotherapy Service in Portiuncula

This Physiotherapy service is provided in both the inpatient and outpatient setting, including ICU in the rare event it is required.

The outpatient service is provided to consultant (in the main) and GP referrals from Roscommon and East Galway. We also accept referrals from outside our catchment area if the specialist service is not available there.

The service is provided by 0.8 WTE senior Physiotherapist. This allocation is from the general staffing levels and not a Physiotherapist appointed specifically for this service.

The demand on the service has increased over the past year, resulting in longer waiting lists. Referrals have remained consistently high and are increasing year on year. With regard to outpatient obstetric lists, we prioritise patients presenting after 30 weeks and try to deal with them remotely by phone triage first before bringing them in to the hospital.

As part of the role, we also provide input into teaching of NCHDs and midwives.

We offer the following services:

Antenatal

- MSK physiotherapy for pelvic girdle pain, carpal tunnel syndrome, back pain and other musculoskeletal problems presenting in pregnancy
- Antenatal classes
- Continence care – bladder and bowel

Post-natal

- Post-natal information classes (three times weekly)
- Development and introduction of the physiotherapy post-natal information booklet
- OASIS, both as an inpatient and outpatient follow up, as per national guidelines
- Scar management: Caesarean, episiotomy and perineal
- Post-natal continence advice and treatment
- Prolapse advice and management
- Post-natal MSK conditions

As the catchment area for the maternity services is not defined, we provide both direct and indirect (e.g. advice) treatment to those referred. Some patients are referred on to their local services (where possible) to avoid them having to travel to Ballinasloe.

Limited access to Clerical Admin support is reflected in the statistics that can be presented.

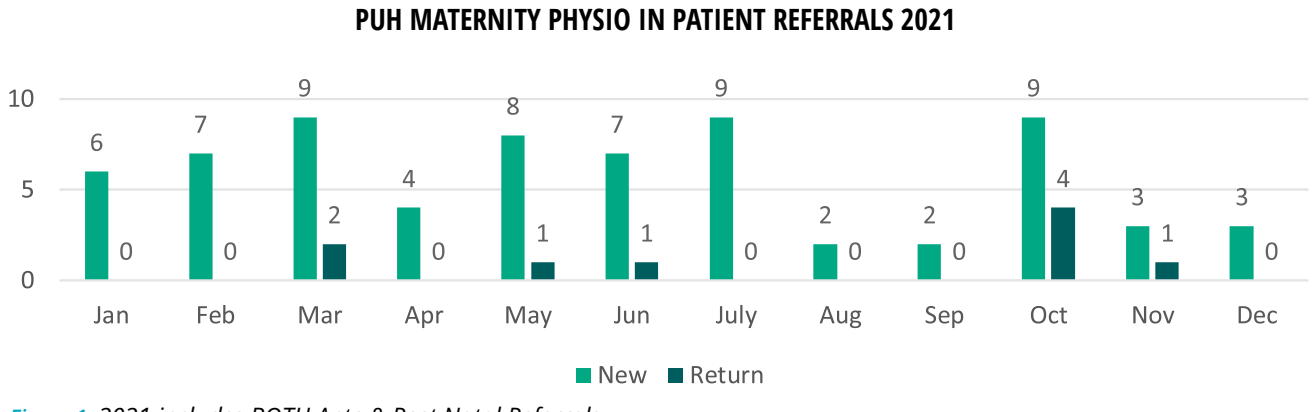
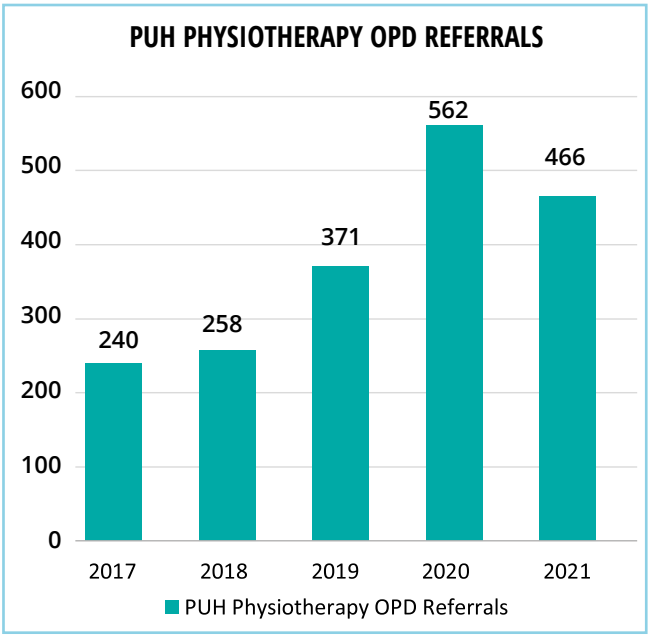
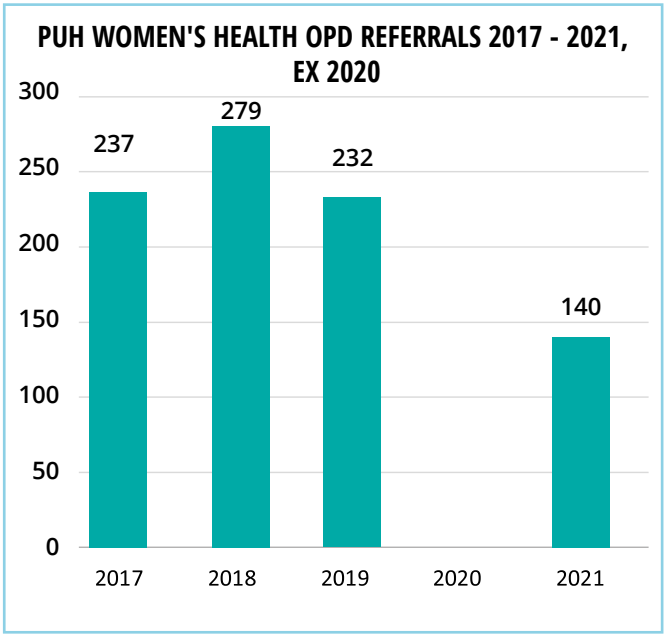


Figure 1: 2021 includes BOTH Ante & Post Natal Referrals





Physiotherapy Service in Letterkenny

Services provided include:

Physiotherapy services are provided in inpatient and outpatient basis in LUH. Inpatient services are provided on the postnatal and gynae wards

From an outpatient basis physiotherapy in LUH offer assessments and treatments during your pregnancy (antenatal) for the following:

- Pregnancy related back pain
- Pelvic girdle pain
- Pelvic floor muscle rehabilitation and associated problems
- Pregnancy related carpal tunnel syndrome

The Physiotherapy department also offer assessment and treatment postnatally after for the following disorders:

- Diastasis recti abdominus (separation of the abdominal muscles)
- Pelvic organ prolapse
- Urinary incontinence (stress, urgency or mixed incontinence)
- Bowel urgency or leakage
- Perineal dysfunction

The service is provided by a 0.8 WTE Senior Physiotherapist.

Medical Social Work

Medical Social Work Service in Galway

The Maternity Social Work service provides a wide range of practical and psychosocial supports to women who attend Galway University Hospital. The team which comprises of 2.5WTE Social Workers continue to provide excellent compassionate care and good humour throughout a very challenging year with Covid. The past year has observed a noticeable increase in complexity of social issues for our presenting client group. This has been exacerbated by the global pandemic, increased cost of living, the ongoing accommodation crisis and the increased costs of childcare expenses for all family types. The majority of referrals are made at first booking and the Medical Social Worker will engage and support as necessary through-out their care journey. Referrals are also received when women are admitted to the service with a cohort of older patients requiring social work intervention and support to enable their safe and supported discharge post their inpatient stay.

Referrals	2021
Maternity Social Work New Referrals	192

The Maternity, Obstetrics and Gynaecology team provide the following services:

Support and Counselling:

- Crisis intervention, mediation and counselling for various personal and family difficulties.
- Support with co-parenting where initial relationships may have broken down
- Counselling and support for women at the time of diagnosis of serious illness i.e. Oncology Diagnosis in pregnancy
- Antenatal support for parents following diagnosis of fetal abnormality.
- Bereavement care and support including anticipatory grief and support in infant loss
- Support in relation to parenting and/ or childcare issues.
- Liaison, advocacy and support in relation to accessing various services e.g. addiction, immigration etc.
- Provision of information regarding social welfare, entitlements, birth registration etc.
- When necessary Medical Social Workers can liaise with Tusla to ensure child protection plans are known for unborn babies.

Domestic Violence:

The Covid 19 Pandemic has refocused attention on the level of domestic violence that is prevalent in society and the noted increased calls and contact to Women's support services and Gardaí on a national basis. A routine enquiry into domestic abuse continues in Maternity Out patients. Should a woman disclose domestic abuse, social workers will prioritise and counsel her to plan for her safety.

Due to social distancing measures the roll out of Domestic Violence awareness training was paused however it is planned to commence again in quarter 4 2022 in conjunction with support from Galway city and county based women's support services.

Crisis Pregnancy & Termination of pregnancy:

Medical social workers continue to offer supportive, non-biased counselling to women presenting with a crisis pregnancy at any stage of this pregnancy e.g. unplanned pregnancy, or on diagnosis of fetal abnormally. Counselling is offered on all options, including parenting, abortion and adoption, within the relevant legal guidelines.

There has been a noted increase in persons seeking international protection within our client referral group. There have been a number of cases where women have sought a termination but are outside the criteria under Irish Legislation. This is further complicated by Brexit where the United Kingdom, no longer part of the EU, is considered a Third County. This cohort of women are not covered under the common area agreement with Ireland and the UK and it becomes necessary to work with Embassies to seek visas to support termination care and support in alternative EU countries. This work is time sensitive and time consuming and vital to the continuity of care, intervention and support of women engaged with Maternity Social Work services.

Gaps in Service:

The Maternity Social Work service is a dynamic and busy team and their remains gaps in support that could be provided if additional resources were available. Such areas include:

- Dedicated staffing resource to NICU – proposed to come on stream in next year
- Specialist posts in Bereavement Care and to the FAU
- Specialist posts in Domestic Violence and Addiction services as is the case in Dublin Maternity Hospitals.

Teen Parents Support Programme (TPSP):

The Teen Parents Support Programme is located at Galway University Hospital and managed by the Social Work Department. It is a HSE West service with School Completion Programme funds from Tusla Child and Family Agency. Support is offered in all areas of a young person's life: access to antenatal care and health in pregnancy, relationships, accommodation, social welfare, education, training, child development, parenting, childcare and any other issue that is of concern to the young parent. Ten similar programmes have been set up nationally. The National Coordinator of all TPSP'S is based in Treoir, Dublin. Support is offered on a one to one basis, through group activities and through referral to and liaison with other services. The TPSP comprises of Project Leader (1WTE) and Project Workers (1.5WTE). The Teen Parents Support Programme provides services for young people who become parents when they are aged 19 years and under and supports them until their children are two years of age. There were 36 referrals to the service in 2021 which resulted in an open caseload of 51 young parents participating and engaging with the project Team. The project offers an outreach service in Tuam and Ballinasloe which enables young people residing in those areas to access the service without having to arrange transport to and from Galway city.

Referrals	2021
New referrals	36
Existing open cases	15
Total Project Caseload	51

The TPSP provide the following services:

Antenatal supports:

We support the young people to access individual antenatal classes in both UHG and Portiuncula Hospital. Individual antenatal sessions and a tour of the labour ward are an essential support to expectant young people which can help them to overcome any anxiety or fears they may have in relation to the labour and birth.

During the pregnancy the TPSP project staff explore the individual needs of the expectant young parents and tailor supports to their needs. These supports can include; information on caring for your baby, assessing accommodation needs, financial/budget information and emotional support with relationships/family.

Groups:

We run Parent and baby groups in a city centre location and provide information sessions on parenting i.e. feeding, weaning, healthy eating, first aid, child development and play. Peer support is a very vital part of these groups. In the baby's first year A Baby Bonding Programme is available to the young parents and their babies, in either individual or group sessions.

Education:

We provide supports to young parents in education or wishing to return to education with funding from the School Completion Programme, Tusla Education Support Service.

This funding enables us to provide financial help with fees, books, childcare and transport. This means that young parents can continue to achieve their educational goals and become more independent.

NUTRITION & DIETETICS

Nutrition & Dietetics Service in Galway

Maternal Health Dietitian

Statistics for Senior Maternal Health Dietitian GUH 2021

	No . pts	Consultations	News	Reviews
Inpatients	50	56	13	43
Outpatients	467	583	524	59

This is a relatively new and evolving service to the Maternity Unit UHG. There is 1 WTE dedicated to Maternity Services UHG. The Maternal Health Dietitian has been in service since May 2020.

Dietetic Services include:

- Inpatient service to antenatal and postnatal ward
- Outpatient service available to all women diagnosed with gestational diabetes as well as those who fall under specific criteria.
- Early Pregnancy Education Class 'Good Nutrition through Pregnancy'

Achievements 2021:

- Development of group education for women with Gestational Diabetes in order to ensure they are seen in a timely fashion. Virtual reviews are offered following group education. All women receive appropriate literature following these classes.
- Continue to provide flexible access to the dietitian either virtually or face to face.
- Development of outpatient referral criteria
- Completion of an intense NUTRITION in PREGNCANCY course.
- Development of resources and literature for women with various conditions during pregnancy
- Active member of the Maternal Health Dietitians Ireland

Nutrition & Dietetics Achievements in Letterkenny 2021:

Maternity Patient Contacts

	New	Review	Total
Maternity Ward	3	10	13
Gestational Diabetes Groups	53		
Telephone Appointments			
Gestational Diabetes	55		
• Pre-conception	1		68
• Type 1	5		
• Type 2	7		

Challenges

There is no Dietitian for maternal health.

Patients with diabetes are seen by Diabetes Dietitian (0.4WTE for whole adult diabetes service).

No capacity for individual appointments for those with gestational diabetes and no service for those with obesity (31.2% of those booked in LUH for antenatal care in 2021 had BMI>30).

2.14 Maternity Contributors

Galway University Hospital:

Dr Tom O'Gorman,
Consultant Obstetrician

Ms Helen Murphy,
Director of Midwifery

Ms Clare Greaney,
CNM2,
IT & Data Management

Dr Geraldine Gaffney,
Consultant Obstetrician

Dr Mark Dempsey,
Consultant Obstetrician

Professor Fidelma Dunne,
Consultant Physician in Endocrinology

Ms Jennifer Duggan,
ANP

Dr Laura Aalto,
Consultant Histopathologist Perinatal Pathology

Ms June Barrett,
Senior Dietitian

Ms Siobhan O'Connor,
Perinatal Health Midwife

Ms Claire Cellarius,
Midwife

Ms Eithne Gilligan,
CMM2

Ms Catherine O'Sullivan,
A/Physiotherapy Manager in Charge 3

Mr Donal Gill,
Principal Social Worker

Ms Maeve Tonge,
Senior Social Worker

Ms Criona Healy,
Maternity Social Workers

Ms Patricia Lubby,
Maternity Social Worker

Ms Geraldine Kelly,
Maternity Social Worker

Ms Anita Glynn,
Project Worker

Ms Anne Blaine,
Project Worker

Ms Monica Meaney,
Project Leader

Dr Katharine McEvoy,
Consultant Psychiatrist

Ms Cathy McBrearthy,
Nurse Specialist in Mental Health

Ms Sinead Crowe,
Nurse Specialist in Mental Health

Ms Angela Rabbit,
Team Administrator in Perinatal Mental Health

Ms Eimear Connaughton,
Senior Occupational Therapist

Ms Deirdre Finnegan,
Senior Clinical Psychologist

Letterkenny University Hospital:

Dr Matt McKernan,
Consultant Obstetrician

Ms Evelyn Smith,
Director of Midwifery

Ms Mary Lynch,
CNM3

Ms Alison Johnston,
CNM IT & Data Management

Dr Dafalla Elamain,
Consultant Obstetrician

Ms Catherine Dinan,
Midwife

Mr Tommy Kerr,
Physiotherapy Manager

Mayo University Hospital:

Dr Kamal Elmahi,
Consultant Obstetrician

Ms Andrea McGrail,
Director of Midwifery

Ms Jacinta Byrne,
CNM 2,
Quality,
Patient safety and Audit

Dr Anca Trulea,
Consultant Obstetrician

Ms Marcella Gavin,
cANP

Ms Aine McGrillen,
Perinatal Mental Health Midwife

Portiuncula University Hospital:

Dr Tom O'Gorman,
Consultant Obstetrician

Ms Deirdre Naughton,
Director of Midwifery

Ms Sheila Melvin,
CNM2 IT & Data Management

Dr Marie Christine De Tavernier,
Consultant Obstetrician

Professor Aaron Liew,
Endocrinology and Diabetes Mellitus

Ms Aisling Dixon,
ANP

Ms Olivia Sommers,
Midwife

Ms Roisin O Hanlon,
Physiotherapist Manager

Sligo University Hospital:

Dr Ravi Garrib,
Consultant Obstetrician

Ms Juliana Henry,
Director of Midwifery

Ms Geraldine O'Brien,
CNM2 Quality Assurance

Dr Siobhan Bacon,
Consultant Endocrinologist

Dr Vimla Sharma,
Consultant Obstetrician

Ms Rósin Lennon,
AMP

Ms Marla Kennedy,
Midwife

Ms Lean Kieran,
Community CMM2

Ms Mairead Beirne,
Perinatal Mental Health Midwife

Dr. Elizabeth Gethins,
Consultant Psychiatrist

Women's & Children's Managed Clinical & Academic Network:

Professor John Morrison,
Clinical Lead/ Director of Women's & Children's Managed Clinical & Academic Network

Ms Siobhan Canny,
Director of Midwifery

Ms Kathleen McGrath,
Data Analyst

3

CHAPTER 3

Neonatology

3.1 Neonatology Introduction

The Neonatology service forms part of the Women's & Children's (W&C) Managed Clinical & Academic Network (MCAN) which are delivered by the four Model 3 hospitals (PUH, MUH, SUH & LUH) providing level 1 special care for infants born >31 completed weeks gestation and one Model 4 hospital (GUH) providing level 2 care, >26 completed weeks gestation, within the Saolta Group.

University Hospital Galway (UHG) Neonatal Intensive Care Unit (NICU) is the level 2 (Regional) unit for the Saolta Group and tertiary referral status and provides high dependency and neonatal intensive care to most premature (>26 completed weeks gestation) and sick term infants.

There were 8,880 babies born in the Saolta Group in 2021, with 1414 of these babies admitted to the neonatal units i.e. 15.9% were admitted to the neonatal units within the Group.

All sites/units are clear about their clinical role and best practice and the services their level provide. These neonatal units are integrated across the sites forming a valuable network.

Site based Neonatology Unit Profile

Hospitals / Sites	GUH	LUH	PUH	MUH	SUH
Model of hospital care	Model 4	Model 3	Model 3	Model 3	Model 3
Neonatal Unit level of care	N.I.C.U. Level 2	S.C.B.U. Level 1	S.C.B.U. Level 1	S.C.B.U. Level 1	S.C.B.U. Level 1
Number of cots	17	10	8	9	10

Site based births and % admissions to Neonatology Units

2021	GUH	LUH	PUH	MUH	SUH	Saolta
Hospital Births	2892	1586	1463	1535	1404	8880
Neonatal Admissions	389	259	211	277	278	1414
% Neonatal Admissions	13.40%	16.30%	14.42%	18.01%	19.80%	15.9%
2020	**GUH**	**LUH**	**PUH**	**MUH**	**SUH**	**Saolta**
Hospital Births	2614	1549	1400	1414	1326	8303
Neonatal Admissions	379	242	211	324	246	1402
% Neonatal Admissions	14.50%	15.62%	15.07%	22.91%	18.55%	16.9%

Births are up in 2021 in comparison to 2020, due to perhaps Pandemic having an impact on the birth rate. The admission rate has remained stable.

3.2 Neonatology Activity Data Report

Saolta Neonatology Annual Clinical Report 2021

Statistical Information:	GUH	LUH	PUH	MUH	SUH	Saolta
Level of Neonatology Unit:	**Level 2**	**Level 1**	**Level 1**	**Level 1**	**Level 1**	**Saolta**
Number of births (23 weeks or >/= 500g)	2892	1586	1463	1535	1404	8880
Total no. of Admissions	389	259	211	277	278	1414
Admissions as a % of births	13.40%	16.30%	14.42%	18.01%	19.80%	15.92%
Number of inborn infants	344	259	198	16	266	1083
Number of outborn infants	32	5	13	12	12	74
Cots (number)	17	10	8	9	10	54
Mode of delivery:						
SVD	99	71	50	90	80	390
Assisted VD: Vacuum or Forceps	33	15	26	33	25	132
C-Section: Elective or Emergency	257	173	135	152	142	859
Gestation of infant at admission:						
>37 weeks	207	159	138	210	203	917
32-36 weeks	129	84	67	60	61	401
27-32 weeks	42	12	5	6	5	70
23-26 weeks	11	3	1	1	2	18
Weight of infant on admission:						
>4000g	32	30	21	37	20	140
3000-3999g	129	119	91	143	97	579
2500-2999g	72	35	33	42	55	237
1500-2499g	121	67	61	48	58	355
1000-1499g	26	10	4	3	3	46
<1000g	9	3	1	3	1	17
Admission source:						
Labour ward	98	75	41	71	65	350
Theatre	177	176	81	91	102	627
Postnatal ward	74	8	69	99	65	315
Referral from another hospital	40	5	18	15	22	100
Reasons for admission (often more than 1):						
Prematurity/Low birth weight (<37 wks/<2500g)	173	99	75	66	72	485
Respiratory Distress	201	164	78	84	73	600
Infection risk factors/symptoms	78	87	19	34	70	288
Hypoglycemia/at risk for Hypoglycaemia	34	29	5	65	92	225
Jaundice	11	30	22	29	22	114
Feeding problems	20	49	3	16	43	131
Congenital anomalies (including Genetic Disorders)	25	5	2	6	15	53
Post resuscare/low cord pHs/abnormal neurological status	35	21	6	4	27	93

Statistical Information:	GUH	LUH	PUH	MUH	SUH	Saolta
Social	6	11	4	4	5	30
Surgical diagnosis	11	1	3	0	6	21
Birth trauma/injury	7	0	2	3	6	18
Hypothermia	7	31	3	14	11	66
Other	12	2	14	1	4	33
Significant neonatal care:						
Non-invasive ventilation: CPAP/BiPAP/HFNC	312	126	42	77	28	585
Mechanical ventilation	24	7	2	2	11	46
Surfactant administration	55	7	2	3	10	77
Pneumothorax needing needle aspiration/ chest drain	3	2	1	0	1	7
Negative blood cultures	229	84	32	42	35	422
Early onset NN Sepsis <72 hours with positive blood culture	0	0	5	0	0	5
Late onset NN Sepsis >72 hours with positive blood culture	3	0	1	0	1	5
Cranial Ultrasound Scan	120	25	15	49	4	213
Significant congenital heart disease	46	6	1	1	2	56
Echocardiogram	87	6	3	15	1	112
Central line inserted: UAC/UVC/PICC	48	8	1	3	4	64
HIE and transferred out for Therapeutic Hypothermia	2	0	1	1	0	4
Phototherapy treatment	103	30	27	26	20	206
Hypoglycaemia and IV glucose bolus	73	20	2	58	10	163
Total parenteral nutrition (TPN)	138	0	14	2	2	156
CNS Morbidity - IVH/NN stroke/PVL/Seizures/ brain malformations	12	9	0	0	1	22
ROP Treatment (laser/Avastin)	2	2	0	0	0	4
Necrotising enterocolitis	0	1	0	0	0	1
Neonatal Unit Deaths	4	0	0	0	0	4
Surgical Diagnosis requiring Intervention/ Transfer/Surgical OPD review:						
CNS/ENT/Orthopaedic/GIT/GU/Cardiac/ Respiratory/Plastics	20	37	12	3	0	72
Other	0	0	0	2	0	2

3.3 Neonatal Transfers

Infants are admitted from labour ward, postnatal ward, theatre, other hospitals and also those born outside hospital.

3.3.1 National Neonatal Transport Programme (NNTP)

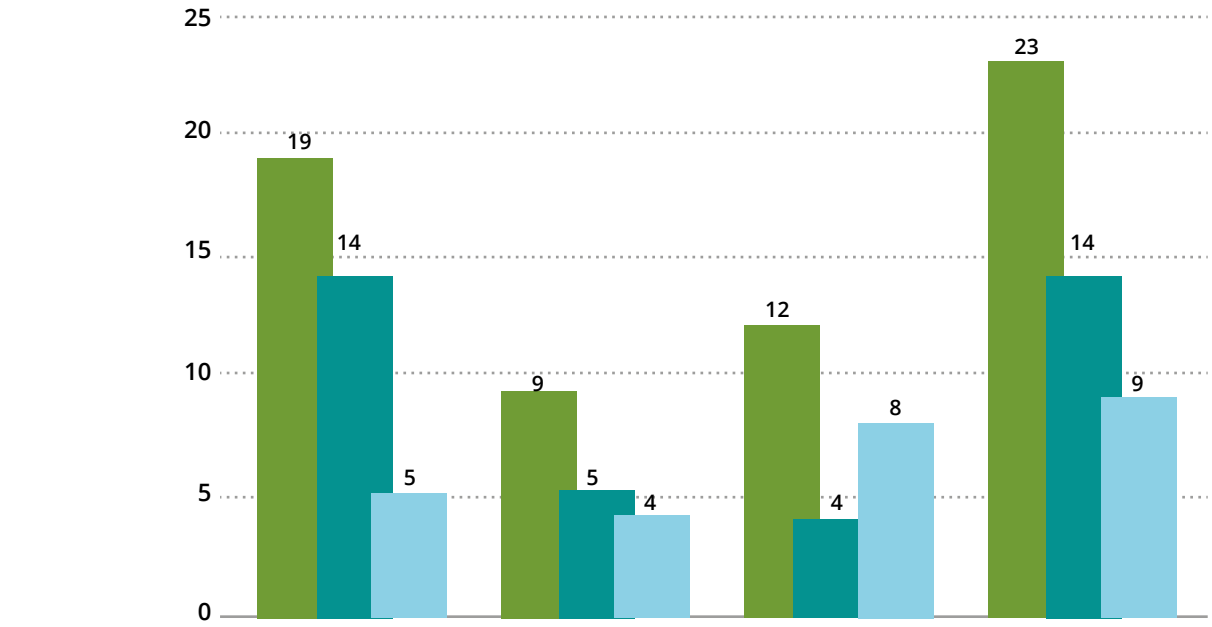
The National Neonatal Transport Programme (NNTP) 24/7 is an essential component of an integrated neonatal clinical network. The staff in the neonatal unit liaise, when necessary, with specialist teams in Dublin.

The NNTP offer a valuable service, transferring a number of our babies for continuing care and investigations to Dublin hospitals;

- From 2014-2019, only 4% (6/176) of infants transported by the NNTP meeting UHG NICU admission criteria from Saolta Hospitals were actually transferred there.
- In 2020 and 2021 over 42% (26/63) of this cohort have been transferred to UHG by the NNTP.
- Average duration of these transports is 8 hrs 20 minutes which is 3 hours longer than the average NNTP transport for the rest of the country.

NNNTP Transports from Saolta Hospitals 2020-2021 meeting criteria for UHG NICU Care (ie > 27 wks gestation & not requiring cooling/cardiac/surgical)

Mode of Delivery



	LUH	MUH	PUH	SUH
Met GUH Criteria	19	9	12	23
Transferred to Dublin	14	5	4	13
Transferred GUH	5	4	8	9

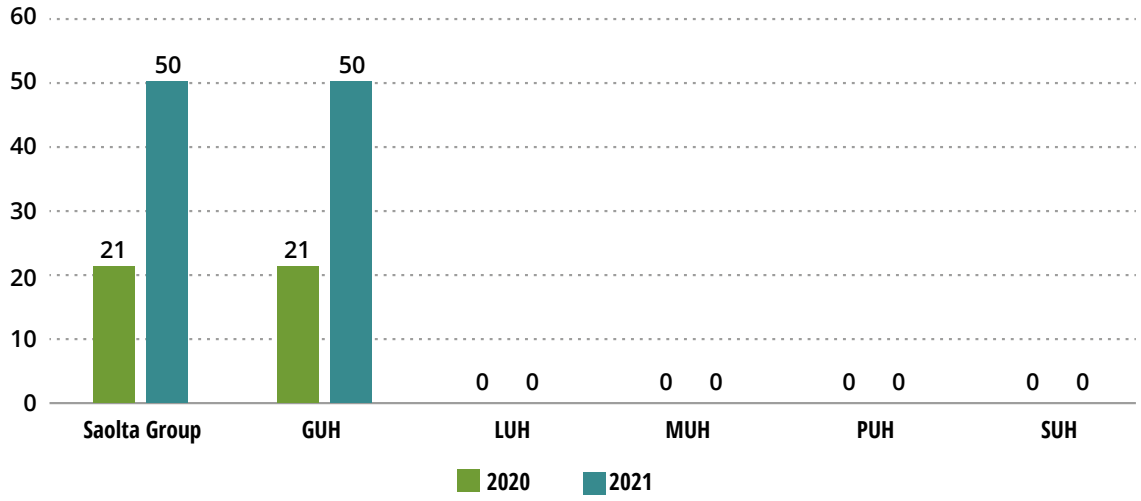
An efficient and effective retro-transfer service is required to facilitate transfer of infants back to their local hospital once stable. It remains the responsibility of the local teams to coordinate retro-transfers of stable babies back to the local site.

3.3.2 In Utero and Ex Utero Transfers per Site

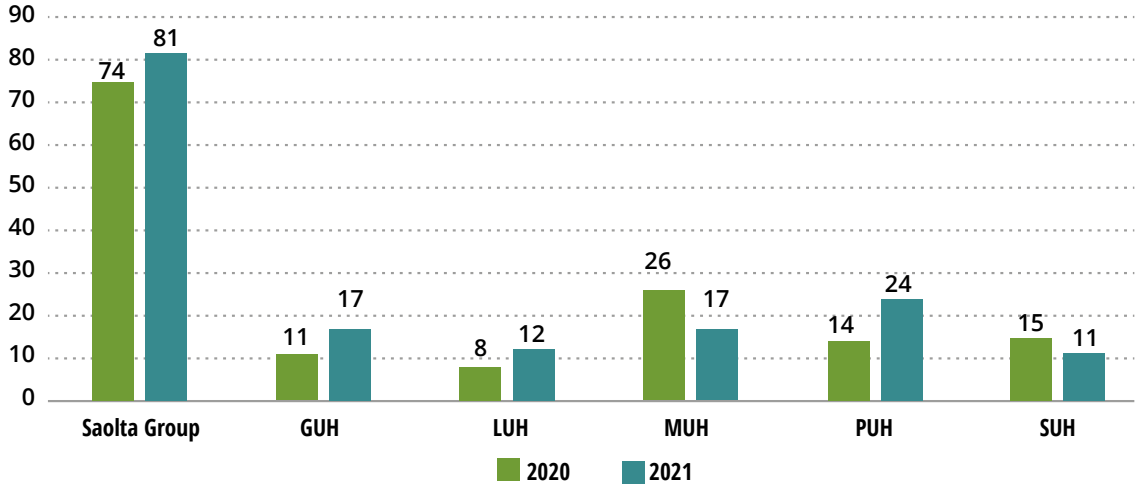
The transfers from level 1 sites within the Group to UHG have significantly increased from 2020 to 2021 supporting UHG as the primary referral centre for all neonates who need specialized Neonatal Intensive Care.

A monthly break down of data is shared with the Neonatology Steering Group of transfers that go out to CHI, Dublin Maternity Hospital, Level 1 transfers from UHG back to the sites and retro transfers from Dublin.

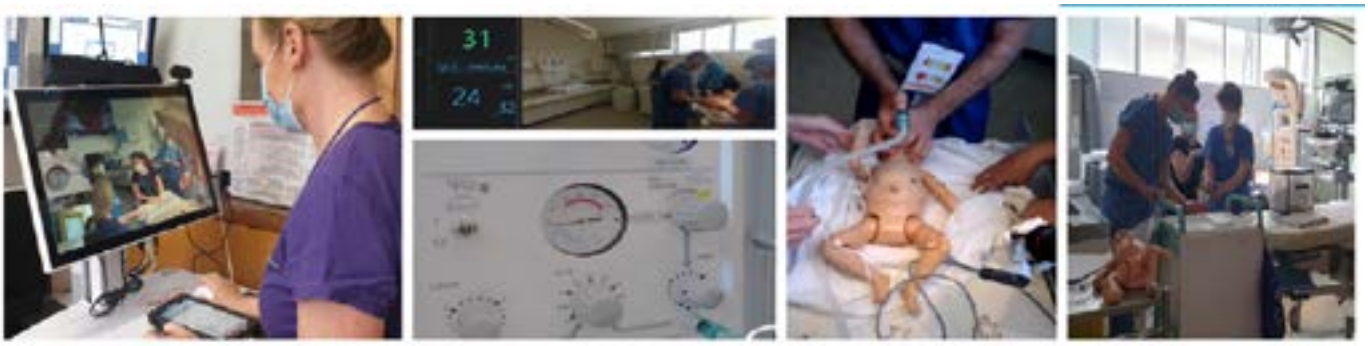
In Utero Transfers Admitted
Per Site as reported in the Maternity Patient Safety Statements 2020 v 2021



Ex Utero Transfers Sent Out
Per Site as reported in the Maternity Patient Safety Statements 2020 v 2021



3.4 RANP Report at UHG



There are two registered neonatal advanced nurse practitioners working in GUH. Mentorship and clinical supervision of the RANP's from the Consultant Neonatologists has resulted in a strong collaborative working relationship. Prescribing medication, ionising radiation & the use of referral pathways increases their level of autonomy in the provision of direct clinical care to neonates in a level 2 centre. The RANP's provide continuity of expert care and advice to their nursing and medical colleagues, and a wide variety of allied health professionals.

RANP's role include direct patient care, reviewing babies in the NICU from admission to discharge and non-clinical roles include risk review, education, guidelines development, research & audit.

Clinical Practice: Central Lines

Central venous access on premature infants is crucial to administer parenteral nutrition and medications. Almost all neonates born at less than 32 weeks gestation will require central line access. 60% of all peripherally inserted central lines (PICC's) are inserted by the RANP's. **Fig 1**.

Complications of Central Lines

Through close monitoring of our central line data, we have focussed on improving all aspects of the procedure. We are seeing an overall reduction in complications associated with central lines. **Fig 2**.

Lisa

In preterm infants with respiratory distress syndrome (RDS), Less Invasive Surfactant Administration (LISA), advocated by the European Consensus guidelines to reduce the need for ventilation and improve survival rates without bronchopulmonary dysplasia. The RANP's in Galway have pioneered this change in practice in Ireland from using the INSURE method to LISA technique. LISA Numbers in **Fig 3**.

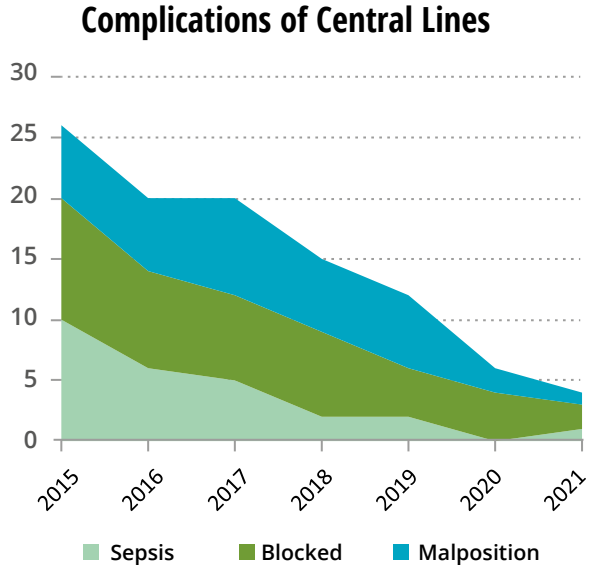


Figure 2 Complications Central Lines

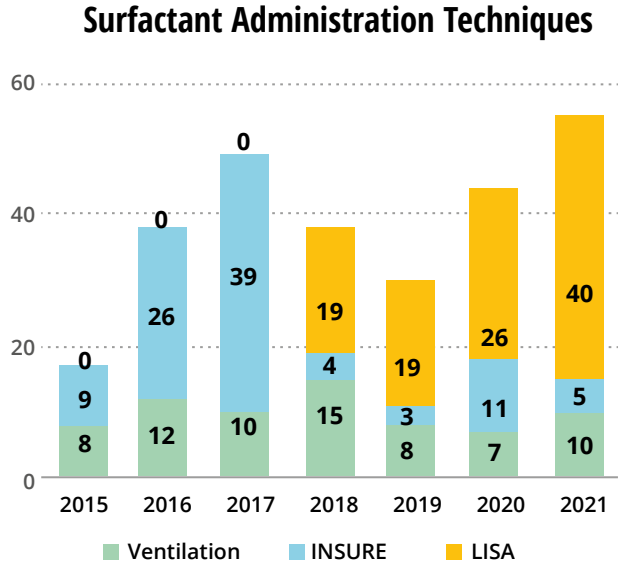


Figure 3 LISA Numbers

Figure4

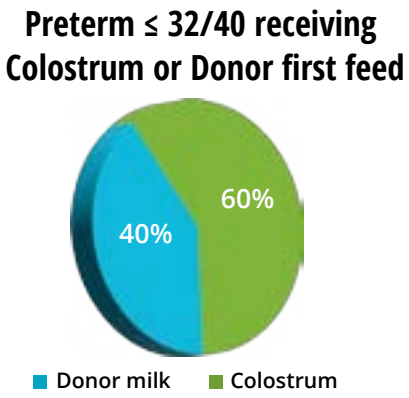


Figure 5 Colostrum v donor 2021

Golden Drops

The British Association of Perinatal Medicine (BAPM) recommend that preterm infants receive their first drops of colostrum within the first 1-6 hours of life. This is mirrored in the National Feeding Policy (HSE, 2019) which recommends that expressing for mothers is commenced within the first hour following delivery. In 2021, we introduced Golden Drops packs. These packs contain very simple illustrated guides to encourage mothers commence expressing colostrum as soon as possible after the birth of their baby. A recent audit in GUH, identified 60% of our babies < 32 weeks gestation, are getting mother's colostrum as their first milk, with 80% receiving either mother's own or donor milk within 24 hours. Our aim for 2022 is to increase the numbers of babies receiving mothers' milk from 60% to 80% and reduce the time to receiving first drops to less than 6 hours.

Resuscitation

The RANP's carry the emergency bleep, attend and lead at resuscitations and are both neonatal resuscitation instructors (NRP). As part of Irelands National Maternity Strategy – creating a better future together (2016-2026), we are under scrutiny to provide safer, effective care. We have invested heavily in developing a telepresence system that allows us bring high fidelity SIM to the clinical areas. Throughout the Covid-19 pandemic, this allowed us to continue to offer twice-weekly simulated skills and drills sessions in the labour ward. Early in 2021, we introduced new Panda Infant warmers throughout the maternity department. Other changes in practice have included the introduction of new emergency drug packs with prefilled saline syringes; ETT sizes highlighted with colour coded felt tips and a reorganisation of the neonatal emergency trollies.

Contribution to Research/Education

- **GEHPPI Study:** Gel for Early Hypoglycaemia Prevention in Preterm Infants
  We are collaborators in this Multi centre placebo controlled RCT commenced in 2021.
- **Medical Induction week:** Introduction to Neonatology GUH July 2021
- **Publication:** Implementing Safety Huddles during the Covid-19 Pandemic: The Neo-SAFE Project T. Fragapane, Á. Binchy, J. James, JB Letshwiti. Ir Med J; February 2022; Vol 115, No 2; P548, February 17th 2022
- **Plug "N" Play NRP:**
  - Poster presentation Neonatal Nurse Association Annual Event, UK, 03/03/2022. Áine Binchy, Caroline Hession, Jean James, Heather Helen, Peter Conneely.
  - Conference Presentation: Áine Binchy, Neonatal Advanced Nurse Practitioner Forum, Bristol,
- **Care of the newborn** study day 07/12/2021 in association with the Centre of Nursing & Midwifery Education Mayo/Roscommon, virtual study day, 136 attendees.
- **Adjunct Lecturers in NUIG:**
  Teaching on undergraduates & Postgraduate midwifery programmes: Complex New-born modules. NRP workshops to medical students

3.5 Health & Social Care Professions (HSCP)

The Health and Social Care Professions (HSCPs) are core service providers to women and their partners, children, other service users and staff in the Women's and Children's MCAN. This section highlights the activity and services delivered by the principal HSCP teams in Neonatology.

The Model of Care for Neonatal Services in Ireland (2015) recommends that units are staffed to include a range of dedicated Health and Social Care Professionals.

3.5.1 Physiotherapy

Physiotherapy Service at GUH

St Clare's neonatal unit - neonatal screening for babies born at <32 weeks gestation, <1000g birth weight and infants presenting with birth asphyxia, Grade 3 or 4 IVH or PVL, Term Asphyxia / Stroke / Hyptonia, congenital infections and complex neurodevelopment babies.

Neuro-developmental delay:

Neonatal physiotherapy is an advanced practice, subspecialty area within paediatric physiotherapy. The unique role of the neonatal physiotherapist is highlighted as being specialists in movement and postural control, within behavioural, environmental, and family context in the neonatal unit.

Physiotherapy can address the functional and structural integrity of the body systems, promotion of age-appropriate postural and movement activities, and appropriate interaction between the neonate, family, and other professionals both in the NNU and following discharge. Other areas of practice most unique to physiotherapy include chest physiotherapy, the assessment and analysis of movement patterns and postural dysfunction, management of orthopaedic conditions, e.g. Obstetric Brachial Plexus Palsy, and positional and congenital foot deformities, as well as the assessment and identification of gross motor dysfunction. Early diagnosis of motor problems ensures, diagnostic-specific early intervention to optimise neuroplasticity and prevent complications

The role of the Neonatal physiotherapist in UHG is divided into three main areas;

- **Inpatient care** (Neurology, Musculoskeletal, Neurodevelopment, Orthopaedics)
  Criteria include
  - <32 gestation babies
  - <1000g Birth weight
  - Grade 3 or 4 IVH or PVL
  - Term Asphyxia/Stroke/hyptonia
  - Congenital Infections
  - Complex neurodevelopment babies
- **Outpatient follow up** and surveillance of neurodevelopment of NICU graduates as per the Enhanced Surveillance programme
- **Research,** audit, teaching, education for staff and peers, quality improvement

The service is delivered by 1.0 WTE Clinical Specialist Physiotherapist.

Key Achievements

- **"Tiny Gym" QI project;** enhanced developmental surveillance as per the NICE guidelines (2018). A Physiotherapy led post discharge group based on the EI SMART model. Resulted in improved parental mental health and infant motor scores. Currently seeking community funding to run on a cyclical basis every quarter.
- **Family Integrated Care QI initiative**. As art of the FI care implementation team we have improved Kangaroo care times and breast feeding rates by 30%. Status: ongoing
- **Developing a NICU discharge App.** With support from Innovation hub in UHG and Zendra Health. This is the first of its kind in Ireland
- Physiotherapist has initiated the first **Neonatal library** in Ireland and currently researching effects of same on parental integration in the NICU setting.
- Creating **a new referral pathway** for VON Vermont Oxford Network babies born in Galway into Early intervention as per the NICE guidelines.
- Development of the **Bayley Assessment pathway** for the VON network for babies within the Saolta group.
- Providing input in the enhanced surveillance **Neonatal clinics** in UHG with consultant Neonatologists, psychology and dieticians.

Key Challenges

- The continued Covid response over the course of 2021 impacted on the service provision to NICU and to the enhanced surveillance programme.
- Early intervention services in the community are transitioning to progressing disabilities with a consequent gap in the community services for new referrals in quarter 4 resulting in significant backlogs for our high risk preterm infants.

Achievements

- Over 2021, a pathway for the DDH has been developed alongside the Neonatology, Orthopaedic and Radiology departments. This will be in line with National Selective Ultrasound Screening Programme for Developmental Dysplasia of the Hip in Infants.
- Over 2021, a pathway for the DDH has been developed alongside the Neonatology, Orthopaedic and Radiology departments. This will be in line with National Selective Ultrasound Screening Programme for Developmental Dysplasia of the Hip in Infants.
- A Clinical Specialist Physiotherapist post in Paediatric Orthopaedics has been approved and should be recruited in 2022. This role will be key, working alongside CHI consultants at an advanced level to develop services in GUH, as well as overseeing specialised clinics such as Ponseti and DDH.
- Continued to roll out Family integrated care on the unit with families of babies less than 30 weeks gestationfeed
- Presented at CNME study days; “Care of the New-born” and “Palliative care”
- Presented at the CPP autumn webinar series for Neonates in the community
- Presented at Neonatal Journal club and Saolta research day
- Participated in the Physiotherapy QI presentation evening.
- Was the HSCP Representative for the Saolta Neonatal steering group
- Provided ongoing teaching for NICU and General Paeds NCHDs
- Achieved funding for the QI project Tiny GYM to run in 2022.

Physiotherapy Service at MUH

The paediatric physiotherapy service at Mayo University Hospital to date has been delivered via the Respiratory Physiotherapy service (0.25WTE inpatient) and a staff physiotherapist (0.75WTE outpatient).

Approval was received in 2021 to upgrade a staff grade position to senior in area of Paediatrics. This will deliver the required governance for inpatient and outpatient Paediatric services in MUH and the development of physiotherapy in the SCBU.

Physiotherapy data	2020	2021
Referrals	16	6
SCBU Treatment	16	12

Physiotherapy Service at SUH

The Paediatric Physiotherapy Team comprises of 1 WTE Clinical Specialist in Paediatrics and Neonatology and 1 WTE Senior Paediatric Physiotherapist offering a wide range of acute services, paediatric inpatient ward, seeing a range of conditions (respiratory conditions including pneumonia, asthma, bronchiolitis and Cystic Fibrosis and developmental delay and neuromuscular conditions). We follow our premature babies into day ward reviews and try to coordinate their follow-up’s with our colleagues in Paediatrics. Physiotherapy Service at SUH also cover orthopaedic, musculoskeletal conditions in postnatal ward such as DDH, Plagiocephaly, Torticollis and Talipes.

The Clinical specialist Paediatric Physiotherapist covers the NICU and runs a premature baby surveillance programme, linking with CHO1 and carries out the Bayley’s 3rd edt, developmental assessment aged 2 years. We provide an Out-Patient Paediatric Physiotherapy service to the Emergency Department and Paediatric and Orthopaedic OPD clinics. We are also a shared-care centre with our Saolta Group partner (University Hospital Galway) and national tertiary centres of excellence partners (CHI Crumlin and Temple Street) and provide shared-care for patients with Cystic Fibrosis and Rheumatological conditions such as JIA or JDM.

Developmental Dysplasia of the Hip (DDH) is one of the most prevalent congenital abnormalities in the newborn. The Physiotherapy Department at SUH has offered a regional service for babies presenting with DDH since 2008. The introduction of Baby Hip Team (BHT) in SUH in October 2019 has led to multidisciplinary team (MDT) approach to the management of babies being treated for Developmental Dysplasia of the Hips. This approach meets the recommendations of the National Child Health Review Steering Group 2017

and is the first full MDT of its kind in Ireland. In 2021 Clinical Specialist was Saolta steering group HSCP representative and support for UHG for developing their DDH service and rolled out training support to Physiotherapist's in UHG.

SUH offer a regional service for Orthopaedic conditions such as Congenital Talipes Equinovarus (CTEV) and work closely with the Paediatric Orthopaedic Consultant and plaster technicians for ponseti technique.

- No. of babies seen for NICU Inpatient referrals as neonates in 2021 was 30.

	2016	2017	2018	2019	2020	2021
Referrals	27	30	11	21	32	30
Treatments	46	49	21	62	167	112

- No. of babies seen for Physiotherapy assessment and treatment in 2021 was 112.

SUH Key achievements for 2021

- Continuation of the Baby Hip Team services for all babies suspected of/confirmed diagnosis of Developmental Dysplasia of the Hip. DDH is a time critical condition that, if diagnosed and treated within specific timeframes, can be treated conservatively, without the need for costly surgical intervention in a tertiary centre of excellence. The Baby Hip Team in SUH in 2021 had a success rate of over 98.3% for all babies treated conservatively in a Pavlik harness.
- Annual audit of physiotherapy provision within DDH service
- Continuation of the premature baby surveillance programme for all premature babies born at less than 30 weeks who reside in the catchment area of SUH. In 2021, 5 premature babies had their Bayley Assessment carried out at 2 years of age, in line with best practice.
- NCHD training on common musculoskeletal, respiratory and orthopaedic conditions in neonates and paediatrics
- Teaching NUIG medical academy based in SUH for year 4 medical students on importance of good communication and of role of physiotherapist in paediatrics
- Role in MDT Paediatric outpatient waiting list initiative.

Physiotherapy at LUH

Any baby requiring review/assessment by a physiotherapist will have a referral sent to the physio department in LUH. Should orthopaedic input be required, a referral will be sent to the orthopaedic team

3.5.2. NUTRITION & DIETETICS

Nutrition and Dietetics Services at GUH

Nutrition is essential for the health of all infants but is particularly critical in the care of preterm and unwell neonates. Optimised nutrition is key for recovery and better long term outcomes, with major effects on morbidity and mortality, including permanent effects on neurodevelopmental and later metabolic disease.

Several studies have shown the specific value of dietetic input in providing consistent and optimised nutritional care. A dietitian is best placed to lead on the nutritional care of vulnerable patients. The value of dietetics has been identified in the Model of Care for Neonatal Services in Ireland (HSE, 2015) and the National Maternity Strategy (HSE, 2016), with improvements in dietetic services, including the necessity to develop enhanced dietetic services at network level, identified as a priority in the National Women and Infants' Health Programme (NWIHP) implementation plan for the National Maternity Strategy (HSE, 2017).

Neonatal dietitians have specialist expertise in nutritional assessment of the neonate; provision and monitoring of enteral and parenteral nutrition; transitioning to breastfeeding or infant feeding; assessment and monitoring of growth; provision of therapeutic diets; outpatient follow-up; research, audit, training and education on nutrition-related topics. They are central to the development of nutrition policies and guidelines within the unit and across hospital groups.

The Nutrition and Dietetic service to Neonatology in UHG comprises an inpatient service to NICU and 2 out-patient sessions to Consultant led neonatal clinics per week.

Staffing level in 2021 Senior Neonatal Dietitian NICU (0.4WTE)

Inpatient Dietetic Services

There is a dedicated inpatient dietetic service for Neonatology

Neonatology service continued to generate highest percentage of all inpatient dietetic consultations reflecting the intensive dietetic support required by

this long stay patient population.

Referrals and Activity; Neonatal Dietetic Inpatient University Hospital Galway

GUH Referrals	2018	2019	2020	2021
New NICU dietetic Referrals	70	48	57	46
Total NICU Dietetic Consultations	1040	856	642	493

Note: Data for inpatient dietetic activity reflects dietetic reduced support available. From mid-2019 the inpatient service was reduced by 50% to just 2 days per week with a further reduction in service in the last quarter of 2021.

The number of new referrals remained stable but the number of review consultations reduced significantly with dietetic support to inpatient ward rounds reduced.

Outpatient Dietetic Services

A limited out-patient dietetic service is provided to Neonatology with 2 sessions per week.

GUH Referrals	2018	2019	2020	2021
Neonatal Dietetic Outpatient New	25	86	36	41
Neonatal Dietetic Outpatient Contacts	120	129	81	226

Referrals	2018	2019	2020	2021
Inpatient	70	64	61	46
Outpatient	25	86	36	41
Activity - Number Treatment Sessions	**2018**	**2019**	**2020**	**2021**
Inpatient	1040	344	655	493
Outpatient	120	129	81	226

Key Challenges

- Staffing deficit of 0.5WTE for NICU based on current cot numbers and the absence of a Clinical Specialist Dietitian does not allow for service development, essential staff education, quality initiatives or support to the 4 level 1 units in the Saolta group.
- Gaps in community dietetic services for children with disabilities led to delayed discharges from acute dietetic service.
- There is no dedicated funding for dietetic support to neonatal outpatient clinics and with a limited service for preterm infants born < 32 weeks gestation.

Key Achievements 2021

- Neonatal Dietitian continued to act as representative on the National Neonatal and Paediatric Parenteral Nutrition Steering Committee and co-authored the 3rd revision of the 'Guideline on the Use of Parenteral Nutrition in Neonatal and Paediatric Units', due to be published online in 2022. The aim of this guideline is to ensure evidence-based prescribing, administration and monitoring of PN in Neonatal and Paediatric units in Ireland.
- Neonatal dietitian coordinated and was the lead on implementation of the new national Model of Care (MoC) for Standardised Parenteral Nutrition (SPN) for preterm infants in GUH. This is an exciting new development to support optimised nutrition and outcomes for preterm infants with the support of the National Women and Infants' Health Programme (NWIHP) and the National Clinical Programme for Paediatrics and Neonatology PN Expert Group. Roll out involved the provision of several education sessions to neonatal staff to ensure competency, ongoing teaching on ward rounds, provision of ready reckoners, reviewing infusion pumps for PN and risk management review to support safe implementation.
- Outpatient activity increased significantly in 2021 with provision of a pilot 0.5WTE senior dietitian dedicated to Neonatal OPD to meet the increased service demand.
- Contribution to the NCHD Postgraduate Education programme and Journal Club education for neonatal staff in NICU.
- Involved in NICU MDT initiatives including Family Integrated Care and Tiny Gym QIA projects.
- HSCP representative on Neonatal Management group.

Nutrition & Dietetic Service in SUH

The Dietetic service in SUH do not have a WTE to provide cover to the neonatal unit but supports the unit from (limited service) from general cover resources, providing an 'on-call service' on request.

Referrals mainly focus on babies with poor feed tolerance or failing to grow as expected. We do not have routine screening for all babies remaining in the unit > 48hrs. We don't have an established follow up clinic for these neonatal babies. Some of them will be followed up when back in day-ward to see other professionals.

Referrals	2020	2021
Referrals: Dietetic referrals Services in SUH	35	36
Activity: number of treatment sessions or equivalent	85	104

3.5.3 MEDICAL SOCIAL WORK

Medical Social Work Services in GUH

The Medical Social Work Department, GUH, currently has a compliment of 2.5 WTE's to Women's and Children's services in GUH to cater for all inpatient and outpatients over maternity, obstetrics, gynae and neonatal care.

While there is no dedicated Social Work post to the unit the medical social workers covering Obs/Gynae and Paeds recognise the importance and high level of need that support from a Medical Social Worker can respond to.

Emotional support; We can support parents adjust to the neo natal clinical environment, support them recognise the crisis this presents in their life and assist them identify personal coping strategies to support them at this time.

Follow up supports; We can link them/advocate with community supports when appropriate and liaise with specialist services when required e.g. mental health teams, Child and Family agency (CFA); social workers or family supports, Disability services in HSE/community etc

Referrals	2021
Referrals to SMSW *approx	*50

Social Work as a profession is trained to intervene and respond to such circumstances. Their role involves but is not limited to;

- Recognising a NICU admission is a highly stressful time for a mother/family the MSW can promote parental self-care and stress control in crisis. This can be achieved through one to one sessions to help identify individual strategies to assist in their coping at this time.
- Recognising that a premature birth or sick infant is considered an ACE adverse childhood experience and appropriate support is required to mitigate against negative impact for the baby long term development and wellbeing. MSW can support attachment & bonding between new born baby and parent through emotional and practical interventions. This seeks to identify the individuality of the parent and their baby and support parents in recognising their own strengths and the strengths of their baby.
- Support NICU MDT initiatives including Family integrated care, Tiny Gym, attend morning huddle and neo natal Management meetings.
- Support parents in their response to difficult diagnosis, uncertainty regarding their baby's future, caring for other siblings, acknowledge grief response is a natural reaction to such traumatic events.
- Links with specialist community support services e.g. disability services, charities etc.
- Providing support for their emotional needs – highlighting the difficulties often experienced by parents and families when a baby is in NICU.
- Advocacy for practical needs such as securing maternity benefit, emergency medical cards, / travel costs from the CWO Etc. referencing the practical needs of parents in appropriate support and services to secure timely discharges.
- All of the above needs are completely magnified if the baby is a transferred from another hospital – families are without their support networks from their families/friends/local communities particularly if they're staying in hotel accommodation.

Medical Social Work Services in SUH:

Social Workers see any family referred by NICU staff. Social worker will assess each family's psychosocial situation. They will support families throughout a baby's NICU stay and will work closely with the family and MDT in providing a supportive, safe discharge for the baby, and in situations where child protection and welfare referrals may be required. Social Workers provide counselling to parents and family members who are having difficulty coping with their baby's complex care needs.

Social Workers can offer emotional support to families following a diagnosis of an illness and during a sudden clinical deterioration. Social workers will refer to appropriate community services for additional resources and will provide practical guidance and advocacy for families where housing or financial issues arise during baby's admission to NICU.

Referrals	2021
Referrals to SMSW	10
Activity: (i.e. number of treatment sessions)	40

The above data is based on 0.4 wte covering Paediatrics, Neonatology and all children inpatient and outpatient under 18years, including ED.

Medical Social Work in LUH:

NNU would link in with medical social worker/ Tusla as required to provide support and input re care of the baby and parental involvement when needed.

3.5.4 OCCUPATIONAL THERAPY

There is no dedicated Occupational Therapist to the NICU in the Saolta Group Hospitals however referrals to OT are accommodated within the Acute WTE allocation.

The Model of Care for Neonatal Services in Ireland (2015) recommends that units are staffed to include a range of dedicated Health and Social Care Professionals, including occupational therapists.

Their perspective includes a long-term perspective on the outcomes for infants and families across the child's occupational roles.

3.5.6 CLINICAL PSYCHOLOGY SERVICE

National Women's and Infants Health Programme (WWIHP) funded the post of 0.5 WTE Clinical Psychologist for Neonatology in 2020. The post was filled in 2021 to support the Saolta Group and supporting babies and their family's developmental assessment using The Bayley Scales of Infant Development offered to all babies with very low birth weight <1500g or born less than 30 weeks.

Bayleys assessments for all babies born in 2019 due for assessment up until end of October 2021 have been completed, however there is currently a gap in service which is due for backfill. It is expected to re-fill this post in 2022.

3.5.7 SPEECH AND LANGUAGE THERAPY

There is no Paediatric Speech and Language Therapist and, therefore, no S&LT service to babies, toddlers, children or adolescents on Maternity, NICU or Paediatrics.

3.5.8 PHARMACY

Pharmacy service in UHG

We currently have 0.3 WTE senior pharmacist for the neonatal unit. A staff grade pharmacist provides cover to the neonatal unit when the senior pharmacist is on annual leave.

During this time the following is provided:

- Attendance at the daily huddle
- A daily ward visit to review all drug charts for accuracy and appropriateness of each medicine prescribed.
- Proactive advice to other healthcare professionals involved in the care of the neonate e.g. advice to nurses on appropriate medicine administration and advice to doctors on dosing adjustments, monitoring or appropriate choice of medicines based on guidelines.
- Ensure access to the CHI Formulary is maintained and readily accessible.
- Member of the GUH neonatal management committee and Saolta neonatal steering committee attending monthly meetings and reviewing policy documents in relation to medication prescribing and administration.

Some of the quality improvements in which pharmacy were involved in 2021 include:

- Replacement of the mini tablets used for access to the CHI Formulary with larger iPads in the unit and in all areas where neonates are treated. These are more user friendly and make the CHI Formulary easier to access.
- Training of a staff grade pharmacist in neonates to provide cover when the senior pharmacist is on annual leave.
- Changeover of the Neonatal Stock PN and Lipid bags.
- Updating the Neonatal PN Prescription Sheets and PN Checklist to reflect the new stock.
- Updating the Saolta Guidelines for Evaluation and Treatment of Neonates with Suspected Sepsis in the Neonatal Intensive Care Unit

Pharmacy services in LUH

No dedicated pharmacist to NNU, however there are plans in place to develop this service in 2022 and have a pharmacist assigned to NNU

3.6 Neonatology Achievements and Challenges in 2021

Much attention was paid during 2021 to the development of the Neonatal services within the Saolta Healthcare Hospital Group;

3.6.1 Achievements

- Neonatology Steering Group; Saolta MDT Steering Group continues with monthly meetings, providing a forum for key clinical and strategic issues related to Neonatal service across the Saolta Group to inform and drive improvements in clinical care and outcomes.
- Standardisation of pathways; Group-wide policies and clinical pathways review to ensure improved services for patients during 2021, such as development dysplasia of the hip (DDH) pathway with input from Physiotherapy, Neonatology, Radiology and visiting Paediatric Orthopaedics to apply change and develop pathways for the whole Saolta group.
- Introduction of Clinical Psychology Service; Clinical Psychology Service commenced in GUH 2021 with development of Saolta Neonatal Psychology Referral Form, Parent Information Leaflet supporting the developmental assessment process. Bayley assessments for all babies born in 2019 due for assessment up until end of October 2021 have been completed, however there is currently a gap in service which is being addressed.
- All island paediatric cardiology Network; All island paediatric cardiology Network saw development posts going into the 3 regional paediatric centres (UL, GUH and CUH) and in particular the consultant paediatrician with expertise in cardiology with services to the Neonatology Unit.

3.6.2 Challenges

- Staffing Levels; The biggest challenge within the Group is staffing levels. The Model of Care for Neonatal Services in Ireland (2015) recommends that units are staffed to include a range of dedicated posts to include Nursing & Health and Social Care Professionals (Pharmacy, Dietician, Occupational Therapist, Physiotherapist and Medical Social Worker).
- Image Sharing; NIMIS for image sharing is a priority for UHG, current practice of putting images onto disks is a risk and an outdated practice.
- Parent Accommodation; Galway NICU is a primary centre for neo natal care from Saolta, resulting in families from Donegal, Sligo, etc. availing of specialized NICU services often for a prolonged period of time with no parent accommodation available on site.
- Specialised Equipment; Neonatal Transport Incubator at UHG needs to be updated as a matter of priority, funding has been sought in 2021 from the HSE to replace same. This service may be extended to the rest of the Group.

3.7 Neonatology Contributors

Galway University Hospital:

Dr Johannes Letshwiti,
Consultant Neonatologist & Saolta Neonatal Lead

Ms Helen Murphy,
Director of Midwifery

Ms Irene Glynn,
CNM2

Ms Aine Binchy,
RANP

Ms Jean James,
RANP

Ms Clare Greaney,
CNM2 IT & Data Management

Ms Anne Duignan,
Physiotherapist

Ms Catherine O'Sullivan,
A/Physiotherapy Manager in Charge 3

Ms Sheila Moran,
Senior Paediatrics and Neonatal Pharmacist

Mr Donal Gill,
Principle Social Worker

Ms Maeve Tonge,
Senior Medical Social Work

Ms Ana O'Reilly-Marshall,
Senior Dietitian

Dr Donough O'Donovan,
Consultant Neonatologist

Dr Ethel Ryan,
Consultant Neonatologist

Letterkenny University Hospital:

Ms Evelyn Smith,
Director of Midwifery

Ms Marion Doogan,
ADOM

Dr Mathew Thomas,
Consultant Paediatrics

Ms Resmi Devasia,
CNM2

Ms Amanda Scott,
CNM2

Ms Deborah McGowan,
S/N

Ms Alison Johnston,
CNM IT & Data Management

Ms Mary Lynch,
CNM3

Mayo University Hospital:

Ms Andrea McGrail,
Director of Midwifery

Dr Hilary Stokes,
Consultant Paediatrician

Ms Joan Falsey,
CNM2

Ms Sinead McHale,
CNM1

Portiuncula University Hospital:

Ms Deirdre Naughton,
Director of Midwifery

Dr Regina Cooke,
Consultant Paediatrician

Dr Muhammad Islam,
Consultant Paediatrician

Ms Fiona Duffy,
CNM2

Ms Theresa Hunt,
NRP CNS

Ms Sheila Melvin,
CMM2

Ms Annmarie Culkin,
Asst. Director of Midwifery

Sligo University Hospital:

Ms Juliana Henry,
Director of Midwifery

Ms Joanne Moore,
CNM2

Ms Geraldine O'Brien,
CMM2 Quality Assurance

Ms Sheila Kiely,
Physiotherapy Manager in Charge 3

Ms Rachel Wirtz,
Clinical Specialist Paediatric & Neonatal Physiotherapist

Ms Annette Lalor,
Dietitian Manager

Women's & Children's Managed Clinical & Academic Network:

Dr Mary Herzig,
Consultant General and Respiratory Paediatrician, Clinical Director Paediatrics & Neonatology

Ms Ailish Mohan,
Business Manager

Ms Kathleen McGrath,
Data Analyst

Ms Siobhan Canny,
Group Director of Midwifery

4

CHAPTER 4
Gynaecology

4.1 Gynaecology Surgical Report 2021

GUH Gynaecological Surgery Report 2021

Procedure	Number carried out in 2020 (On and Off Site)	Number carried out 2021
ERPC	155	135
Abdominal hysterectomy +/- BSO	51	21
Radical hysterectomy	1	5
TAH, BSO & PLND	12	12
TAH, BSO & omentectomy & appendicectomy +/- PLND *(*Please see Gynaecology Oncology Report)*	34	49
Omentectomy	1	6
Ovarian debulking	27	9
Bilateral Salpingo Oopherectomy	3	2
Caesarean hysterectomy	3	2
Myomectomy	6	6
Laparotomy	23	26
Diagnostic laparoscopy	37	26
Laparoscopy Hysterectomy/BSO/PLND	7	17
Laparoscopic hysterectomy +/-BSO	17	0
Laparoscopic BSO	19	19
Laparoscopic unilateral salpingo-oophorectomy	15	9
Laparoscopic tubal ligation	13	12
Laparoscopic ectopic	17	5
Laparoscopic dye hysteroscopy	32	13
Laparoscopic cystectomy	11	28
Hysteroscopy D&C	487	317
Mirena insertion	51	79
Endometrial ablation	22	14
TCRE	26	18
Vaginal hysterectomy	5	1
Vaginal hysterectomy and PFR	8	8
Pelvic Floor Repair	20	12
Vulvectomy	7	2
Cystoscopy	16	9
Examination under anaesthetic	21	24
Cervical Suture	10	11
Fentons procedure	5	1
Vulval biopsy	49	5
LLETZ	10	10
Bartholins	12	11
Instrumental delivery	52	14
Third degree tear repair	42	39
Manual removal of placenta	20	37
Excision of skin tag	1	16
PPH Bakri balloon insertion	2	2

Procedure	Number carried out in 2020 (On and Off Site)	Number carried out 2021
Removal of mirena coil	4	5
Cervical smear under GA	6	4
Labiaplasty	3	4
Excision of labial cyst	3	8
Major	**280****	**271****
Minor	**1,004**	**780**
Elective Cases	**1492**	**1384**
Emergency Cases	**653**	**758**
Total (Major+Minor)	**1284**	**1,051**

**GUH had 101 patients managed in off site theatre facilities in 2020 as compared to 2021.*

***This Major figure does not include Caesarean Sections*

Gynaecology Procedures 2021	LUH		MUH		PUH		SUH	
	2020	2021	2020	2021	2020	2021	2020	2021
Total Abdominal Hysterectomy (TAH)	30	26	14	13	12	10	22	11
Bilateral Salpingo Oophorectomy (BSO)	9	55	25	23	11	10	39	10
Vaginal Hysterectomy	16	15	20	11	1	6	9	1
Pelvic Floor Repair	-	5	-	6	-	2	-	0
Hysteroscopy	452	937	1	757	233	111	312	249
Dilation & curettage of uterus (D&C)	0	441	90	2	297	225	292	294
Insertion/Replacement/Removal of intrauterine device (IUD)	114	381	49	399	159	62	152	109
Evacuation of retained products of conception (ERPC) *(2021 Surgical Management of Missed Miscarriages, figure could be higher due to incomplete miscarriages)*	155	114	64	33	0	94	62	97
Smear	0	6	6	9	3	0	25	16
Examination under Anaesthetic (EUA) Gynae	0	12	4	0	0	1	33	1
Large Loop Excision of Transformation Zone (LLETZ)	29	30	7	8	0	1	18	29
Trans cervical resection of the endometrium (TCRE)	0	0	27	0	0	0	0	0
Biopsy Gynae	22	125	2	23	13	17	20	20
Laparoscopy/Laparotomy	3	9	23	6	50	10	59	11
Colposcopy	0	34	0	0	0	0	9	2
Polypectomy	0	45	0	36	47	27	25	59
Other Procedures	285	291	116	128	229	231	66	170
Total	**1,115**	**2,526**	**448**	**1,454**	**1,055**	**807**	**1,143**	**1,079**

- Majority of data captured through HIPE

4.2 Gynaecological Oncology Figures 2021

The Gynaecological Oncology tertiary level service for the Saolta Hospital Group is located in Galway University Hospital. Of note women from Letterkenny diagnosed with Gynaecological cancer continue to be referred outside of the hospital group.

Galway University Hospital is a designated National Cancer Control Programme (NCCCP) referral centre for gynaecological oncology. Services provided include surgery, medical oncology, radiotherapy, and a multidisciplinary team of radiologists, pathologists, nurse specialists, psychologists, dieticians, physiotherapists and research nurses.

This is a summary of the activity in the Gynaecological Oncology service for 2021:

- Within the geography of the Saolta Group in 2021 there were 259 Gynaecology cancers, however historic referral pathways a number of women were referred for treatment outside of the Saolta group
  - LUH referred 72 to St James Hospital in Dublin
  - SUH referred 12 to the Mater Hospital in Dublin
- In the Saolta Group there were 175 New or Recurrent Gynae Cancers diagnosed in 2021 in GUH.
- 118 women with Gynaecology cancers were diagnosed and managed through the GUH service in 2021.
- 99 Surgeries took place for Gynaecology cancers diagnosed in 2021, however 112 surgeries for Gynae cancers actually took place in 2021 (includes 2020 diagnoses etc.). Averaging at around nine surgeries a month.

The 175 patients ranged in age from 24 years to 95 years old with a breakdown as follows:

16-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	+80
2	2	7	4	6	11	14	24	27	24	26	15	13

The 175 patients were broken into New and Return patients, with **145 new patients** in 2021 and **30 return patients**.

Type of Gynae Cancer 2021:

Cancer Type	Cervical	Endometrial	Ovarian	Vulval	Uterine	Primary Peritoneal	Unknown Primary	Other	Total
Number	33	58	51	13	6	5	4	5	**175**

Other included 3 Breast cancer with metastatic disease to the ovaries, 1 Lymphoma and 1 Leiomyosarcoma.

Type of Tumour 2021:

Primary	Secondary	Metastatic	Recurrence
129	7	11	28

Types of Surgeries 2021

Of the 99 surgeries/procedures that took place for patients diagnosed in 2021, they were as follows:

Surgery/Procedure	Number
Cytoreductive Surgery	7
Debulking Surgery	5 (1 Laparoscopic)
TAH and BSO	18 (4 Laparoscopic)
Lap TAH, BSO and Sentinel Lymph Node Biopsy	22 (6 open)
Lap Assisted Vaginal Hysterectomy and BSO	3
TAH, BSO, Omentectomy, Appendicetomy and Lymph Node Biopsy/Dissection (SLNB and PLND)	28 (1 laparoscopic)
Radical Hysterectomy, BSO and SNLB	2
Radical Anterior Vulvectomy and SNLB	1
Posterior Vulvectomy	1
Lap to Open BSO	1
Laparotomy of Left Tube and Ovary and Omentectomy	1
RSO and Omentectomy	1
Lap LSO and Omental Biopsy	1
Lap Lymph Node Excision	1
Wide Local Excision of the Vulva and Sentinel Lymph Node Biopsy	6
EUA and Cervical Biopsy	1

Number of Surgeries per Cancer Type					
Year	Endometrial	Ovarian	Vulval	Cervix	Total Surgeries
2019	42	52	1	6	101
2020	37	55	13	15	109
2021	44	52	8	8	112

Table 2: Gynaecological Oncology Service Surgical Activity

****doesn't include benign surgical cases nor adjunct therapy patients****

Management and Treatment

- Of the 175 patients diagnosed with a gynae cancer in 2021, 98.8% were discussed at the Gynaecology MDT. (260 patients were discussed in total for 2021 including benign cases and patients diagnosed with a Gynae cancer in 2020)
- 98.8% (173) of Gynae Onc patients diagnosed in 2021 had an initial MDT discussion, 33.7% (59) had a 2nd MDT discussion, 4.6% (7) had a 3rd MDT discussion and 0.6% (1) had a 4th MDT discussion.
- Outcomes and Recommendations from the 1st Gynae MDT for Gynae Onc Patients were as follows:

1st MDT Recommendations/Outcomes	Number
Surgery	63
Neo Adjuvant Chemotherapy	18
Neo Adjuvant Radiotherapy	-
Neo Adj Chemorads	3
Adjuvant Chemotherapy	15
Adjuvant Radiotherapy	2
Adjuvant Chemorads	1
Systemic/Palliative Chemotherapy/Radiotherapy	37
Conservative Management	2
Surveillance	22
Further Investigations	19
Other	8

Other Includes: Braky Therapy, Cardiac Review, Cardiothoracic Referral, Fertility Clinic Referral, Hormonal Therapy, OPD Review, Endocrine Therapy and Urology Referral.

➤ Outcomes and Recommendations from the 2nd Gynae MDT for Gynae Onc Patients were as follows:

2nd MDT Recommendations/Outcomes	Number
Surgery	5
Neo Adjuvant Chemotherapy	1
Neo Adjuvant Radiotherapy	-
Neo Adj Chemorads	-
Adjuvant Chemotherapy	12
Adjuvant Radiotherapy	2
Adjuvant Chemorads	3
Systemic/Palliative Chemotherapy/Radiotherapy	13
Conservative Management	-
Surveillance	19
Further Investigations	2
Other	3

Other Includes: Urology Referral, defer to next MDM and Continue Mgt of Colorectal Ca

➤ Outcomes and Recommendations from the 3rd and 4th Gynae MDT for Gynae Onc Patients were as follows:

3rd and 4th MDT Recommendations/Outcomes	Number
Surgery	2
Neo Adjuvant Chemotherapy	-
Neo Adjuvant Radiotherapy	-
Neo Adj Chemorads	-
Adjuvant Chemotherapy	1
Adjuvant Radiotherapy	-
Adjuvant Chemorads	1
Systemic/Palliative Chemotherapy/Radiotherapy	2
Conservative Management	-
Surveillance	-
Further Investigations	1
Other	1

Other includes: OPD Review

Achievements

In 2021 GUH was successful with securing additional funding from the National Cancer Care Programme (NCCP) for a third Consultant in Gynaecological Oncology and a second Clinical Nurse Specialist for the Gynaecological Oncology MDT Team

4.3 Saolta Placenta Acreta Pathway

Saolta Placenta Acreta Pathway 2021

The Saolta Hospital Group Placenta Accreta service is a multidisciplinary team specialising in the care of pregnancies complicated by uterine and placental disorders placenta accreta spectrum.

This service accepts transfers from within the Hospital Group for delivery and management of the patient as well as complicated post-partum patients. This service is delivered in GUH and is a collaboration between Obstetrics and Gynaecology services, Fetal Medicine, Specialised Obstetric Anaesthetist, blood and tissue establishment and interventional radiology. Additionally Level 3 intensive care facilities, cell salvage and a hybrid operating room are available as required.

In 2021, there were 5 women whose pregnancy was complicated by Placenta acreta spectrum. Two of these women were referred to a tertiary centre outside of the Saolta group due to traditional referral pathways, and the remaining three were managed through the specialist pathway in GUH. Two of these women were Par 1 and had delivered via lower segment caesearn sections and the third woman was a Par 3 with no previous ceasearn section. Delivery was achieved by elective ceasearn section for 2 of the women interventional radiology was utilised to manage the delivery. The estimated blood loss in each case was below 2000 mls with very low transfusion requirements.

Year	Number of Acreta	Elective	Emergency	Outcome Hysterectomy	Baby
2018	7	5	2	3	All live births
2019	3	3	0	1	All live births
2020	3	2	1	3	All live births
2021	3	3	0	2	All live births

4.4 Saolta Uterine Fibroid Embolization Pathway

Uterine fibroid embolization (UFE) is a minimally invasive procedure used to treat fibroid tumours of the uterus which can cause heavy menstrual bleeding, pain, and pressure on the bladder or bowel. It uses a form of real-time x-ray called fluoroscopy to guide the delivery of embolic agents to the uterus and fibroids. These agents block the arteries that provide blood to the fibroids and cause them to shrink.

The UEF service for Gynaecology is provided in the GUH site as shared care between Gynaecology and Radiology.The activity for UFE is as follows:

2020	2021
29 women	33 Women

4.5 Saolta Termination of Pregnancy Service

The Saolta Termination of pregnancy service is regulated by the Health (Regulation of Termination of Pregnancy) Act 2018. Abortion is permitted in Ireland during the first twelve weeks of pregnancy, and later in cases where the pregnant woman's life or health is at risk, or in the cases of a fatal foetal abnormality.

This is the clinical activity from the Saolta Hospital Group

Site	GUH	MUH	PUH	SUH	Total
Risk of Life or Health to the Woman (section 9)	2	0	1	0	3
Risk of Life or Health in Emergency to the Woman (section 10)	1	0	0	0	1
Condition Likely to Lead to Death of Foetus (section 11)	4	3	4	3	14
Early Pregnancy (section 12)	16	13	0	0	29

4.6 Ambulatory Gynae 2021

Ambulatory gynaecology services are one-stop, see and treat clinics as they provide an important diagnostic and treatment facility for women attending gynaecology services. Internationally, these clinics have demonstrated improved patient safety and experience, minimising unnecessary hospital admissions and providing timely gynaecology care to patients referred as urgent and non-urgent.

In March 2021 a new Ambulatory Gynaecology unit was opened in Letterkenny, within its first year 576 women were see in the unit. In the Salto group we currently have 3 ambulatory gynaecology units, funding to open 2 additional units has been secured from NWIHP, these are expected to open in late 2022.

This is the clinical activity for the Ambulatory Gynaecology service in Saolta:

Group Summary Table of Activity 2021

Treatments	GUH 2021	LUH 2021	MUH 2021	Total 2021
Total Attendance	536	578	1,103	2,217
NEW	478	576	821	1,875
REVIEW	58	2	282	342
DNA	44	16	319	379
% Rate of DNA	7.6%	2.7%	22.4%	14.6%
TVS	289	224	1042	1555
Hysteroscopy – Diagnostic	210	340	206	756
Hysteroscopy – Operative	32	50	46	128
Mirena – In	61	137	245	443
Mirena – Out	20	43	150	213

GUH Ambulatory Gynae 2021:

Key Achievements

A total of 546 women were seen in the Ambulatory Gynaecology unit in GUH in 2021 which is an increase from the 2020 total of 350. The increase in service activity that was envisaged at the start of 2021 was curtailed by the reduced capacity of clinic sessions and referrals due to staffing challenges. A new Ambulatory Gynaecology nursing post was created and Lisa O Connell SM was successful and commenced her new role in December 2021.

GUH Activity for 2020 and 2021:

Treatments	Total 2020	TOTAL 2021
Total Attendance	350	536
NEW	331	478
REVIEW	19	58
DNA	7	44
Rate of DNA	2.0%	7.6%
TVS	177	289
Hysteroscopy – Diagnostic	140	210
Hysteroscopy – Operative	28	32
Ring Pessary	Data Not Available	6
Mirena – In	47	61
Mirena – Out	17	20
Bloods taken	6	12

GUH CANP Role:

2021 a year of learning and progression

My role as Candidate ANP in Ambulatory Gynaecology commenced April 2021. I was fortunate to have had experience as nursing support in the Ambulatory Gynae Service in MUH for over 8 years. However the transition from support person to actually performing various diagnostic and therapeutic procedures has been challenging, daunting at times but also hugely rewarding. It required a large amount of support and encouragement from my Consultant Obstetric and Gynaecologist mentors.

The role has a large component of monitoring performance of the service this includes monitoring clinical performance such as timelines of seeing and treating Post-Menopausal Bleeding (PMB) and the planning and coordination of clinics with clerical colleagues on a daily basis is vital for the clinics structure to be maintained and for urgent referrals to be seen within national guidelines.

I am progressing through the required training for this ANP role, I am currently undertaking a postgraduate Certificate in Diagnostic Outpatient Hysteroscopy through the University of Bradford and Professional Diploma in Early Pregnancy and Gynaecology Ultrasound Courses through UCD and is due to qualify in early 2022 with both of these.

Ambulatory Gynaecology Service MUH 2021:

Activity 2020 v 2021:

Treatments	Total 2020	Total 2021
Total Attendance	1,238	1,103
NEW	937	821
REVIEW	301	282
DNA	318	319
Rate of DNA	20.4%	22.4%
TVS	1029	1042
Hysteroscopy – Diagnostic	170	204
Hysteroscopy – Operative	25	46
Ring Pessary	12	50
Mirena – In	275	245
Mirena – Out	126	150
Bloods taken	165	133

Figures include Family Planning service which is provided in the Ambulatory setting in MUH.

Ambulatory Gynaecology Service LUH 2021:

Opened on the 20/03/2021

Treatments	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Total Attendance			9	53	58	74	64	60	65	64	79	52	**578**
NEW			9	53	58	74	64	60	65	64	78	51	**576**
REVIEW			0	0	0	0	0	0	0	0	1	1	**2**
DNA			0	0	1	2	4	2	0	2	1	4	**16**
Rate of DNA			0%	0%	1.7%	2.6%	5.9%	3.2%	0%	3.0%	1.3%	7.1%	**2.7%**

Treatments	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TVS			8	44	33	31	31	22	11	15	18	11	**224**
Hysteroscopy – Diagnostic			5	35	35	45	46	34	40	34	35	31	**340**
Hysteroscopy – Operative			2	9	5	6	2	5	7	6	5	3	**50**
Ring Pessary			0	0	1	0	0	0	0	0	0	0	**1**
Mirena – In			3	9	12	27	18	22	18	10	9	9	**137**
Mirena – Out			2	1	5	5	6	7	9	4	4	0	**43**
Bloods taken			0	4	0	0	3	4	1	3	3	4	**22**

Key Achievements

The Ambulatory Gynaecology Unit in LUH opened on the 29th March 2021. Situated within the Gynaecology Ward, each clinic is staffed by Consultant, candidate Advanced Nurse Practitioner, Staff Nurse and Health care Assistant.The unit sees on average 60 patients per month.

The service aims to be a see and treat clinic with transvaginal scanning, outpatient hysteroscopy and biopsies being carried out as well as vulval biopsies and insertion and removal of IUCDs. Viewpoint system is used for all aspects of documentation allowing letters to GP sent that day with results letters being sent to the patient and GP within a 2-week timeframe.

Patient feedback from a survey taken at the end of the year gave encouraging results with 98% of patients seen having an overall “very good” experience and 95% of patients wishing to avail of the service again if the need arose.

LUH CANP Role:

2021 a year of learning and progression

In 2021, the first cANP in Ambulatory Gynaecology was appointed to Letterkenny,

I gained the competency of Nurse Hysteroscopist through the University of Bradford. I commenced the MSc in Advanced Practice in September 2021 through NUIG, with another year to complete alongside the Gynaecological scanning which will be completed through UCD next year. It is a very rewarding role, seeing the unit up and running and I valued the opportunity to be involved in the development of the unit from the start. With support from my DOM and Clinical Lead I have been equipped to develop the service and identify areas for development. I have been involved in education regarding my role and the role the Unit plays in gynaecology services in Donegal. I am looking forward to continuing to expand the service as my role develops and to continue to provide a see and treat service to the women of Donegal.

4.7 Saolta Colposcopy Services 2021

There are currently 4 colposcopy units located within the Salta Hospital group each of which are part of the National Cervical Screening Programme. Each of the colposcopy clinic have an identified Consultant lead and a small team of Nurse colposcopists working at specialist and Advanced level. Services operate under a memorandum of understanding (MOU) agreed between the unit and CervicalCheck Ireland. Monthly, quarterly and annual report of activity and performance are generated from each unit. These metrics are submitted to local management, Saolta W&C MCAN and Cervical Check and capture waiting times for new appointments, timelines for treating high and low grade referrals, type of procedure performed, result of referral, histology outcomes and waiting time for results

As with all other services in 2021, colposcopy services were affected by the world wide pandemic, in terms of a short term impact an achivement of KPIs for low grade referrals. Thanks to the hard work and dedication of the team in each of our Colposcopy units each unit is achieving the National KPI.

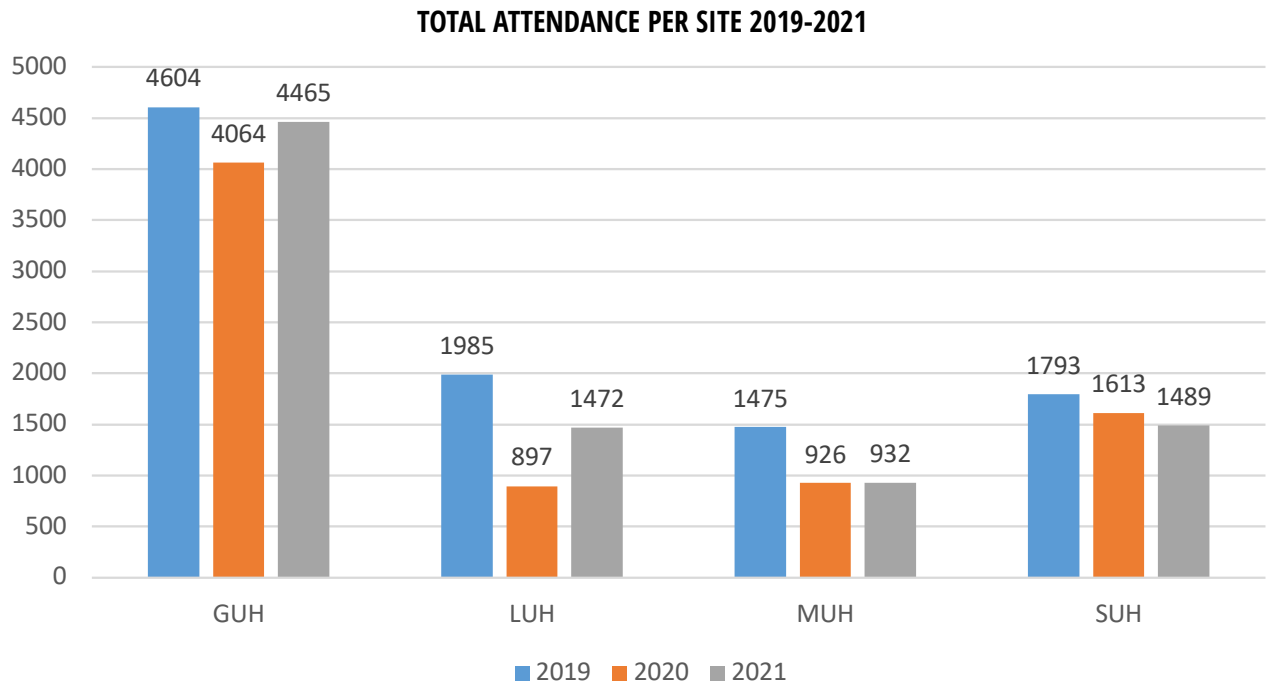
Clinical statics for the Colposcopy services in the Saolta University Healthcare Group:

Group Histology Result Summary Table:

Histology Result 2021	GUH	LUH	MUH	SUH	Total
Cancer	27	3	4	5	39
Cervical Cancer	23	3	4	5	35
Adenocarcinoma in situ	26	12	2	2	42
CIN 3	237	85	60	107	489

Group Activity Summary Table:

Activity 2021	GUH	LUH	MUH	SUH	Total
Total Attendance	4,465	1,472	932	1,489	8,358
New Referrals	1504	616	490	601	3211
Follow Ups	2961	856	442	888	5147
Non-Attendance	339	64	180	159	742
% Non-Attendance	7.1%	4.2%	16.2%	9.6%	8.2%



GUH Colposcopy Clinic Report 2021:

Activity:

Colposcopy Clinic Activity 2021

	Attended		Attended	Total
New Referrals.	1504	Follow Up	2961	4465
High grade	203	Low grade	1022	1225
Non Attendance	40		299	339
LLETZ treatments				351
Cervical Biopsy			2120	
Ablative Treatment				N/A
Cold Coagulation				124
Diathermy Destruction.				9

Performance in relation to Cervical check standards 2021:

Histology Result 2021	Diag. Biopsy	Excision	Total
Cancer	15	12	Total cancers=27 (Cervical cancer =23)
Adenocarcinoma in situ / CGIN	12	14	26
CIN3	123	114	237
CIN2	283	111	394
CIN1	1070	82	1152
CIN Uncertain Grade	0	0	0
VAIN3	7	0	7
VAIN2	16	0	16
VAIN1	64	0	64
VIN3	0	0	0
VIN2	4	0	4
VIN1	5	0	5
HPV / cervicitis only	278	15	293
No CIN / No HPV (normal)	224	3	227
Inadequate	13	0	13
Other*	0	0	0
Total	**2,114**	**351**	**2,465**

GUH 2021 Cancers Summary:

Number of Cancers	Type
23	Cervical cancers. 17 Squamous cell carcinoma. 3 Adenocarcinoma. 2 Adenosquamous cell carcinoma. 1 Adenosarcoma.
2	Endometrial
2	Vulval

Staff Development

Marguerite Bourke staff Midwife/ Nurse became accredited as a Nurse Colpscopist with the British Society of Colposcopy & Cervical Pathology (BSCCP) and Carmel Whiriskey staff nurse commenced her training in Colposcopy. Assumpta Casserly CNS was promoted to Candidate Advanced Midwife Practitioner and continued her Masters in Advanced Nursing Practice.

Research & Publications & Audit

An Audit of the number of patients discharged back to primary care after the first visit to Colposcopy from September 1st to October 31st 2020.

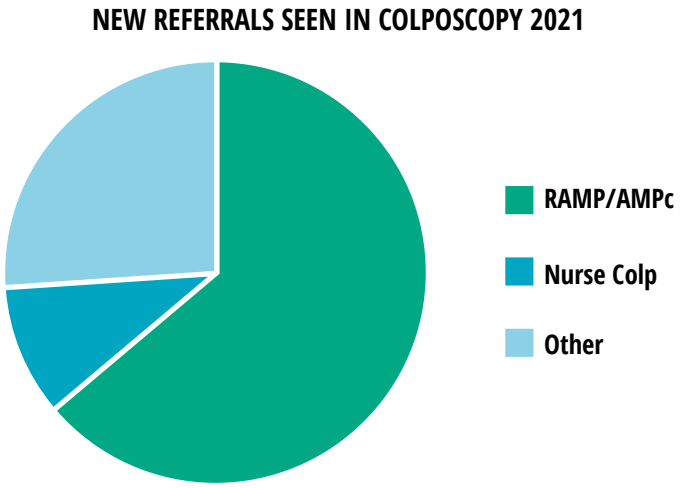
Register Advanced Nurse Practitioners (rANP) report Colposcopy clinic GUH 2021.

- Patricia Rogers rANP
- Assumpta Casserly cANP

Area of Practice: Women's Preventive Health report colposcopy

Summary of Case load: Colposcopy caseload 1/01/2021 to 31/12/2021:

rANP/cANP Activity	Activity managed by rANP	Percentage of overall clinic total
Number of new referrals seen by RAMP or Candidate AMP	966	63.8%
Number of LLETZ treatments carried out by RAMP or Candidate AMP	151	43%
Number of thermal ablative (cold coagulation) treatments carried out by RAMP or Candidate AMP	86	64.6%



Education Achievements :

- Audit: completed and presented Review of then number of patients discharged back to primary care after first visit to Colposcopy 1/9/2020 to 31/10/2020.
- Assumpta Casserly continued her studies on MSc in Advanced Nursing Practice and progressed with work on her dissertation "The experiences of self-sampling HPV testing as a means of cervical cancer screening-A Qualitative evidence synthesis". Assumpta is also a nurse prescriber.
- Both Patricia and Assumpta attended the British Society of Colposcopists and Cervical Pathology (BSCCP) Annual Conference 16 -17th April 2021 and Patricia attended the BSCCP Training seminar on April 15th 2021. Due to Covid, they were held via video conferencing.
- Patricia has continued to deliver lectures on Cervical Screening and Colposcopy in UCG to undergraduate and postgraduate midwifery students and on Women's Health Study

LUH Colposcopy Clinic Report 2021

Activity:

Colposcopy Clinic Activity 2021				
	Attended		Attended	Total
New Referrals.	616	Follow Up	856	1472
High grade	47	Low grade	304	351
Non Attendance	64			64
LLETZ treatments	123			123
Cervical Biopsy	617			617
Ablative Treatment	61			61
Cold Coagulation	0			0
Diathermy Destruction.	0			0

in relation to Cervical check standards 2021:

Histology Result 2021	Diag. Biopsy	Excision	Total
Cervical Cancer	0	3	3
Adenocarcinoma in situ / CGIN	3	9	12
CIN3	33	52	85
CIN2	72	26	98
CIN1	241	19	260
HPV / cervicitis only	194	11	205
No CIN / No HPV (normal)	47	4	51
Inadequate	7	0	7
Other*/Polyp/Pipelle	22	1	23
Total	**619**	**125**	**744**

Cancer :

Number of Cancers	Type
2	Squamous Cell Ca (Stage 1A1)
1	Endocervical Adenocarcinoma (Stage 1B)

Colposcopy Unit LUH liaise closely with and refer onwards to Gynecological Oncology team in St James's Hospital Dublin when a cancer diagnoses is made.

Staff Development :

Regina McCabe (Accredited Nurse Colposcopist) retired in March 2022 after many years of dedicated service to the Colposcopy service in LUH. Charlene Bogan has now taken up the post of Accredited Nurse Colposcopist (CNS). A Registrar, and Staff Nurse are now undertaking the BSCCP Colposcopist training.

MUH Colposcopy Clinic Report 2021

Team

Dr. Ulrich Bartels, Lead Colposcopist/ Consultant Obstetrician & Gynaecologist

Ita Lynskey, CNS in Colposcopy

Priscilla Fair, CNM2, Ambulatory Gynaecology Department

Sophie Flynn, Staff Nurse / Colposcopy Trainee

Siobhan Gallagher, Staff Officer

Karen Carroll, Assistant Staff Officer

Denise Nolan, Assistant Staff Officer

Eimear Horan, Assistant Staff Officer

Service

Mayo University Hospital is one of the 15 Colposcopy designated centres providing Colposcopy services across Ireland within the Irish Cervical Screening Programme. The Colposcopy service at Mayo University Hospital is Consultant led. One clinical nurse specialist is trained and providing Colposcopy service in Mayo University Hospital. An additional nurse has been recruited and has commenced Colposcopy Training.

Activity

MUH Colposcopy Clinic Activity 2021

	Attended		Attended	Total
New Referrals		Follow Up		
Colposcopy	464	Colposcopy	196	**660**
New Cytology	26	Review Cytology	246	**272**
High grade	63	**Low grade**	336	**399**
Non Attendance		**Non Attendance**		
Colposcopy	34	Colposcopy	26	**60**
New Cytology	3	Review Cytology	117	**120**
LLETZ treatments				**140**
Cervical Biopsy				**227**
Polypectomy				**10**
Ablative Treatment				**0**
Cold Coagulation				**0**
Diathermy Destruction.				**0**

Performance in relation to Cervicalcheck standards 2021

Histology Result 2021	Diag. Biopsy	Excision	Total
Cervical Cancer	1	3	4
Adenocarcinoma in situ / CGIN	0	2	2
CIN3	7	53	60
CIN2	25	32	57
CIN1	72	23	95
CIN Uncertain Grade	2	0	2
VAIN3	0	0	0
VAIN2	0	0	0
VAIN1	0	0	0
VIN3	0	0	0
VIN2	0	0	0
VIN1	0	0	0
HPV / cervicitis only	42	10	52
No CIN / No HPV (normal)	82	17	99
Inadequate	0	0	0
Endometrial - Proliferative	4		4
Endometrial - Secretory	1		1
Endometrial - Hyper Complex	1		1
Other*	0	0	0
Total	**237**	**140**	**377**

2021 Cancers Summary

Number of Cancers	Type
4 (3 patients)	Micro-invasion
2	Adenocarcinoma cervix
6	Total

Reporting

Monthly, quarterly and annual report of activity (colp1) were generated and submitted to Cervicalcheck each month. Failsafe, crosscheck and missing mandatory data are run monthly - monitored and followed up.

SUH Colposcopy Clinic Report 2021

Activity:

SUH Colposcopy Clinic Activity 2021

	Attended		Attended	Total
New Referrals.	601	Follow Up	888	**1489**
High grade	65 (other clinical indicator High Grade =33)	Low grade 425 (Low grade clinical indicator =63	Misc. Other 15 (Further investigation on going to account of this)	**601**
Non Attendance	(NEW) 44	(F/Up) 111	(Tx) 4	**159**
LLETZ treatments	109	-	-	**109 (+13 under GA)**
Cervical Biopsy	480	-	-	**480**
Ablative Treatment	-	-	-	**0**
Cold Coagulation	4	-	-	**4**
Diathermy Destruction.	-	-	-	**0**

Histology Result 2021	Diag. Biopsy	Excision	Total
Cervical Cancer	3	2	5
Adenocarcinoma in situ / CGIN	1	1	2
CIN3	67	40	107
CIN2	68	27	95
CIN1	220	33	259
CIN Uncertain Grade	2	-	2
VAIN3	1		1
VAIN2	1		1
VAIN1	1		1
VIN3			
VIN2	1		1
VIN1			
HPV / cervicitis only	80	3	89
No CIN / No HPV (normal)	14	-	15
Inadequate	2	-	2
Other*/Polyp	21	3	24
Total	**482**	**109**	**602**

Number of Cancers	Type
5	Squamous Cell Ca Cervix. Referred to tertiary Centers for surgery and further management.
5	Total

Team Members:

Dr Vimla Sharma, Consultant Obstetrician/ Gynaecologist / Lead Colposcopist

Dr Heather Langan, Consultant Obstetrician/ Gynaecologist

D. Nirmala Kondaveeti, Consultant Obstetrician/ Gynaecologist

Ms Jennifer Curley, Clinical Nurse Manager/ Trainee Nurse Colposcopist

Ms Triona McIntyre, RGN

Ms Mary Delaney, RGN

Ms Geraldine Burke, Staff Midwife

Ms Yvonne Sherrin, HCA

Ms Patricia Murphy, Administrative Officer

Mr Lee Cawley, Administrative Officer

Ms Jacinta Fitzpatrick, Administrative Officer

Partnership Services

The service continued to work in partnership with Irisoft UK, which provides a patient management and audit software system known as Compuscope. The Coombe Hospital cytology lab as well as Quest Diagnostic cytology lab, continues to provide high-risk HPV and cytology testing services for the clinic.

Multidisciplinary team meetings were held at one-to two-monthly intervals and were facilitated by Dr Avril Cullen, Consultant Histopathologist, SUH, but were impacted by the HSE Cyber attack and COVID restrictions, we hope to return to our regular schedule in summer 2022.

Staff Development

Dr Nirmala Kondaveeti and Clinical Nurse manager Jenny Curley attended the British Society

for Colposcopy and Cervical Pathology (BSCCP) annual conference held online due to COVID restrictions.

Dr Kondaveeti re accredited as a BSCCP trainer.

Our CNM II has almost completed her Nurse colposcopist training. (Awaiting OSCE exam date).Ger Burke Staff Midwife Joined the colposcopy team at the beginning of March 2021

Service Development

We opened our Rapid Access Gynae Clinic in early 2021 this was following review of our KPI breaches for Low Grade cytology referrals and the high number of other clinical indication referrals into the colposcopy clinic. Within the first years we had saved 186 colposcopy clinic appointments. This enabled clearance of the outstanding breaching Low grade cytology referrals.

Research & Publications & Audit

Dr Nirmala Kondaveeti and Clinical Nurse manager Jenny Curley presented at the BSCCP Annual Congress conference 2021 (online) ”ASC-H (Atypical squamous cells cannot exclude high grade): High grade or Low grade? A 4 year, retrospective review of ASC-H referrals to Sligo Colposcopy Clinic”.

4.8 Urogynaecology Report 2021

GUH Urogynaecology report 2021

The GUH urogynaecological service continues to develop despite the limitations and challenges imposed by the Covid-19 pandemic.. This is the activity for Urogynaecology in GUH for 2021.

Diagnosis and Treatments

	2019	2020	2021
Total number of Urodynamic tests performed	60	43	40
Break down of diagnosis following Urodynamics			
Stress Urinary Incontinence:	20(33%	14 (32.5%)	12(30%
Mixed Urinary Incontinence:	7(11.6%)	6 (13.9%)	6 (20%)
Normal	16(26.6%	10 (23.2%)	10 (25%)
Detrusor over activity	11(18.3%	9 (20.9%)	9 (22.5%)
Voiding dysfunction:	6(10%)	4 (9.3%)	2(5%)
Cystistat: for the treatment of painful bladder symptoms, non-specific cystitis and recurrent cystitis	Data not available	55	76

Surgery:

The pause on use of Mesh in urogynaecology is still in place. Prolapse repairs and apical suspension using absorbable sutures were carried out when possible. This activity is included in to the Gynaecology Surgery section.

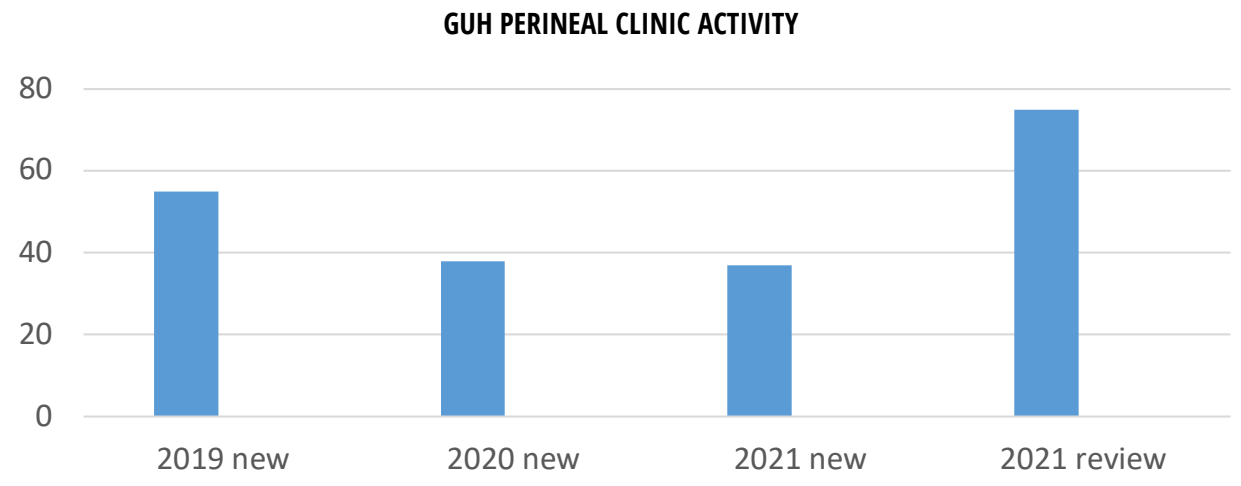
We continue to be indebted to the Physiotherapists in women's health, who provide the bulk of conservative management for patients with prolapse and urinary symptoms and continue to facilitate a combined clinic on a Monday morning

Service Development

In 2021 the first Clinical Nurse Manager in Urogynaecology in GUH was appointed, Ms Geraldine Adair. This post will contribute to a specialist urogynaecology nursing service for women with pelvic floor and bladder dysfunction alongside the existing Urogynaecology Consultants, Specialist Physiotherapist and the rest of the multidisciplinary team.

Perineal clinic

The Perineal clinic was also interrupted by the pandemic but none the less continued to see patients when possible. Special thanks are given to Ms Aisling Hogan, Colorectal Surgeon for her invaluable contribution to the Perineal Clinic as well as Debbie Fallows and Rachel Clarke, Physiotherapists.



4.9 HSCP Gynaecology Report 2021

The Health and Social Care Professions (HSCPs) are core service providers to women and their partners, children, other service users and staff in the Women's and Children's MCAN. This section highlights the activity and services delivered by the principal HSCP teams in Gynaecology. Other HSCP Services also have involvement in the care we deliver to our service users.

Physiotherapy

Physiotherapy Referrals		2016	2017	2018	2019	2020	2021
Galway	Outpatients	305	242	251	271	211	201
Portiuncula	Inpatients (combined Obs & Gynae data)	-	-	-	-	77	78
	Outpatients (combined Obs & Gynae data)	256	477	537	601	562	466
Sligo	Outpatients (combined Obs & Gynae data)	95	94	207	224	190	307
Letterkenny	Outpatients	63	109	101	137	149	134
Physiotherapy Activity – Number Treatment Sessions		**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Galway	Urinary Incontinence	204	166	163	164	111	82
	Pelvic Organ Prolapse	76	58	58	70	73	75
	Faecal Incontinence	9	8	6	25	16	27
	Pelvic Pain/Overactive Pelvic Floor	16	10	12	12	11	17
	Total Gynae Outpatient Treatments GUH	305	242	239	271	211	201
	Number and % Direct from Urogynaecology Clinic *	91 (30%)	99 (40%)	99 (40%)	85 (31%)	87 (41%)	63 (32%)
Sligo	Outpatients (combined Obs & Gynae data)	286	230	507	541	593	629
Letterkenny	Outpatients	134	218	208	274	305	296

Physiotherapy Service in Galway

Gynaecology OPD

Hospital: UHG Physiotherapy	2017	2018	2019	2020	2021
Urinary Incontinence	166	163	164	111	82
Pelvic Organ Prolapse	58	58	70	73	75
Faecal Incontinence	8	6	25	16	27
Pelvic Pain/Overactive Pelvic Floor	10	12	12	11	17
Urogynaecology Clinic *	99 (40%)	99 (40%)	85 (31%)	87 (41%)	63 (32%)

*Urogynaecology clinic – direct referral to Physiotherapy from clinic, thus improving access to physiotherapy management

Services provided include:

- Direct referral of patients from Urogynaecology and Perineal Clinics
- 1:1 Physiotherapy outpatient appointments for women with musculoskeletal issues during and after pregnancy, as well as women of all ages with gynaecological/pelvic floor conditions.

Achievements 2021:

- Implementation of new Clinical Specialist post in Ambulatory Gynaecology, aimed at providing a Waiting list triage service to Urogynaecology Consultant from 2022 onwards.

Physiotherapy Service in Portiuncula

This Physiotherapy service is provided in both the in and outpatient setting, including ICU in the rare event it is required.

The out patient service is provided to consultant (in the main) and GP referrals from Roscommon and East Galway. We also accept referrals from outside our catchment area if the specialist service is not available there.

The service is provided by 0.8 WTE senior Physiotherapist. This allocation is from the general staffing levels and not a Physiotherapist appointed specifically for this service.

The demand on the service has increased over the past year, resulting in longer waiting lists. Referrals have remained consistently high and are increasing year on year.

As part of the role, we also provide input into teaching of NCHDs and midwives.

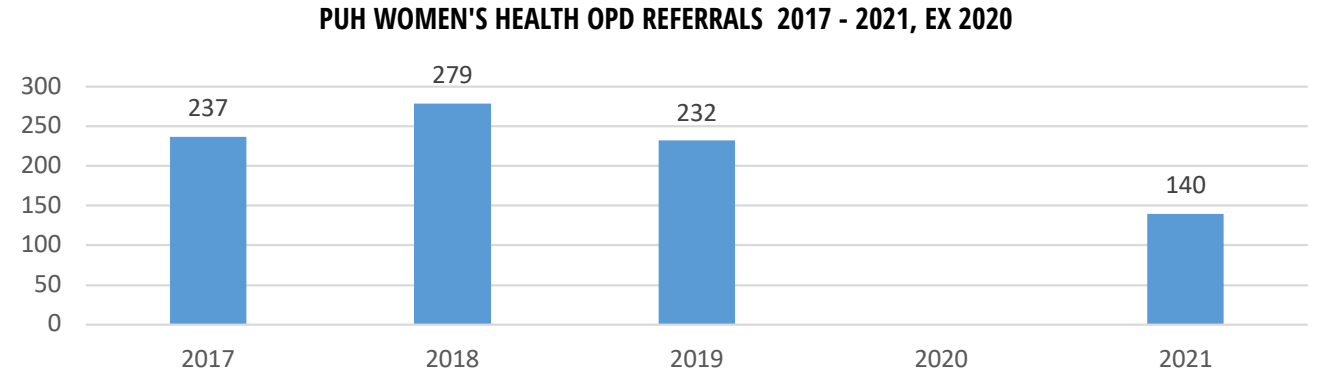
We offer the following services:

Gynaecology Services

- Continence care for bladder and bowel
- Sexual Dysfunction, including dyspareunia and vaginismus
- Chronic Pelvic Pain
- Oncology – post radiation and surgical complications
- Painful Bladder Syndrome
- Post-operative care for all urogynaecological patients
- MSK conditions
- Prolapse assessment

As the catchment area for the gynaecology services is not defined, we provide both direct and indirect (e.g. advice) treatment to those referred. Some patients are referred on to their local services (where possible) to avoid them having to travel to Ballinasloe.

Limited access to Clerical Admin support is reflected in the statistics that can be presented.



Physiotherapy Service in Letterkenny

Services Provided

Outpatient services are provided on a 1-to-1 basis for women who require postnatal care related to pelvic floor dysfunction and Diastasis recti abdominus. Services are also provided to women who require Physiotherapy care for pelvic floor / gynaecolical conditions.

MEDICAL SOCIAL WORK

Medical Social Work Service in Galway

Crisis Pregnancy & Termination of pregnancy:

Medical social workers continue to offer supportive, non-biased counselling to women presenting with a crisis pregnancy at any stage of this pregnancy e.g. unplanned pregnancy, or on diagnosis of fetal abnormally. Counselling is offered on all options, including parenting, abortion and adoption, within the relevant legal guidelines.

There has been a noted increase in persons seeking international protection within our client referral group. There have been a number of cases where women have sought a termination but are outside the criteria under Irish Legislation. This is further complicated by Brexit where the United Kingdom, no longer part of the EU, is considered a Third County. This cohort of women are not covered under the common area agreement with Ireland and the UK and it becomes necessary to work with Embassies to seek visas to support termination care and support in alternative EU countries. This work is time sensitive and time consuming and vital to the continuity of care, intervention and support of women engaged with Maternity Social Work services.

Nutrition and Dietetics 2021 Activity in Letterkenny

Gynaecology Patient Contacts	New	Review	Total
Gynaecology Ward	27	6	33

There is no dedicated service for gynaecology patients and no outpatient service.

4.9 Gynaecology Contributors

Galway University Hospital:

Dr Susmita Sarma,
Consultant Gynaecologist

Ms Runagh Burke,
CANP Ambulatory Gynaecology

Ms Marguerite Burke,
Nurse Colposcopist

Ms Assumpta Casserly,
cANP Colposcopy

Ms Patricia Rogers,
rANP Colposcopy

Ms Debbie Fallows,
Urogynacology Physiotherapist

Ms Geraldine Adair,
Clinical Nurse Specialist Urogynaecology

Ms Aishling Hogan,
Consultant Colorectal Surgeon

Ms Rachel Clarke,
Physiotherapist

Mr Donal Gill,
Principal Social Worker

Ms Catherine O'Sullivan,
A/Physiotherapy Manager in Charge 3

Ms Clare Greaney,
CNM2 IT & Data Management

Letterkenny University Hospital:

Ms Shelley Gillespie,
cANP Ambulatory Gynaecology

Ms Regina McCabe,
Nurse Colposcopist

Ms Charlene Bogan,

Ms Alison Johnston,
CNM IT & Data Management

Mr Tommy Kerr,
Physiotherapy Manager

Mayo University Hospital:

Dr Ulrich Bartels,
Lead Colposcopist/ Consultant Obstetrician & Gynaecologist

Ms Ita Lynskey,
CNS in Colposcopy

Ms Priscilla Fair,
CNM2,
Ambulatory Gynaecology Department

Ms Sophie Flynn,
Staff Nurse / Colposcopy Trainee

Ms Siobhan Gallagher,
Staff Officer

Ms Karen Carroll,
Assistant Staff Officer

Ms Denise Nolan,
Assistant Staff Officer

Ms Eimear Horan,
Assistant Staff Officer

Ms Jacinta Byrne,
Clinical Midwife Manager II, Quality,
Patient safety and Audit

Portiuncula University Hospital:

Ms Roisin O Hanlon,
Physiotherapy Manager

Ms Sheila Melvin,
CNNM2 IT & Data Management

Sligo University Hospital:

Dr Vimla Sharma,
Consultant Obstetrician/ Gynaecologist / Lead Colposcopist

Dr Heather Langan,
Consultant Obstetrician/ Gynaecologist

Dr Nirmala Kondaveeti,
Consultant Obstetrician/ Gynaecologist

Ms Jennifer Curley,
Clinical Nurse Manager/ Trainee Nurse Colposcopist

Ms Triona McIntyre,
RGN

Ms Mary Delaney,
RGN

Ms Geraldine Burke,
Staff Midwife

Ms Yvonne Sherrin,
HCA

Ms Patricia Murphy,
Administrative Officer

Mr Lee Cawley,
Administrative Officer

Ms Jacinta Fitzpatrick,
Administrative Officer

Ms Geraldine O'Brien,
CNM2 Quality Assurance

Women's & Children's Managed Clinical & Academic Network:

Professor John Morrison,
Clinical Lead

Siobhan Canny,
Director of Midwifery

Kathleen McGrath,
Data Analyst

CHAPTER 5

Paediatrics

5.0 Introduction

Saolta University Health Care Group provides acute and specialist paediatric services to the West and North West of Ireland (counties Galway, Mayo, Roscommon, Sligo, Leitrim and Donegal and adjoining counties). We have a relatively dispersed rural population (1/6 of the national population-circa 830,000) spread across one third of the land mass of Ireland. There are 158,914 children and young people under the age of 16 years living in the Saolta region (2016 Census).

CSO population figures for children under 16 years of age (2016)

Galway	Mayo	Roscommon	Leitrim	Sligo	Donegal
57139	28362	14564	7312	14180	37357

In 2021 a significant number of children availed of ED (n= 39576), OPD (n= 48107) inpatient (n=14967) and day care (n=8085) services. 93 children required transfer to CHI for paediatric critical care services. Staff across all sites demonstrate a continuous commitment to the development and delivery of a safe quality healthcare service to children and young people in the region.

5.1 HSE Cyber Attack: Impact on Paediatric Services in Saolta

Services across Saolta were severely impacted by the HSE cyberattack. Elective admissions and out-patient work was cancelled and Wi-Fi, email, radiology and virtual meeting communications were suspended. Galway University Hospitals were worst affected as the healthcare records are electronic. The curtailment of non-emergency services negatively impacted waitlists in 2021, however, efforts have been made to catch up with projected 2022 waitlists in line with expectations. The Paediatric staff throughout Saolta have to be commended for their dedication and creativity in establishing "workarounds" to bypass electronic systems yet still provide first-class care to their patients.

5.2 Paediatric Report Unscheduled Care

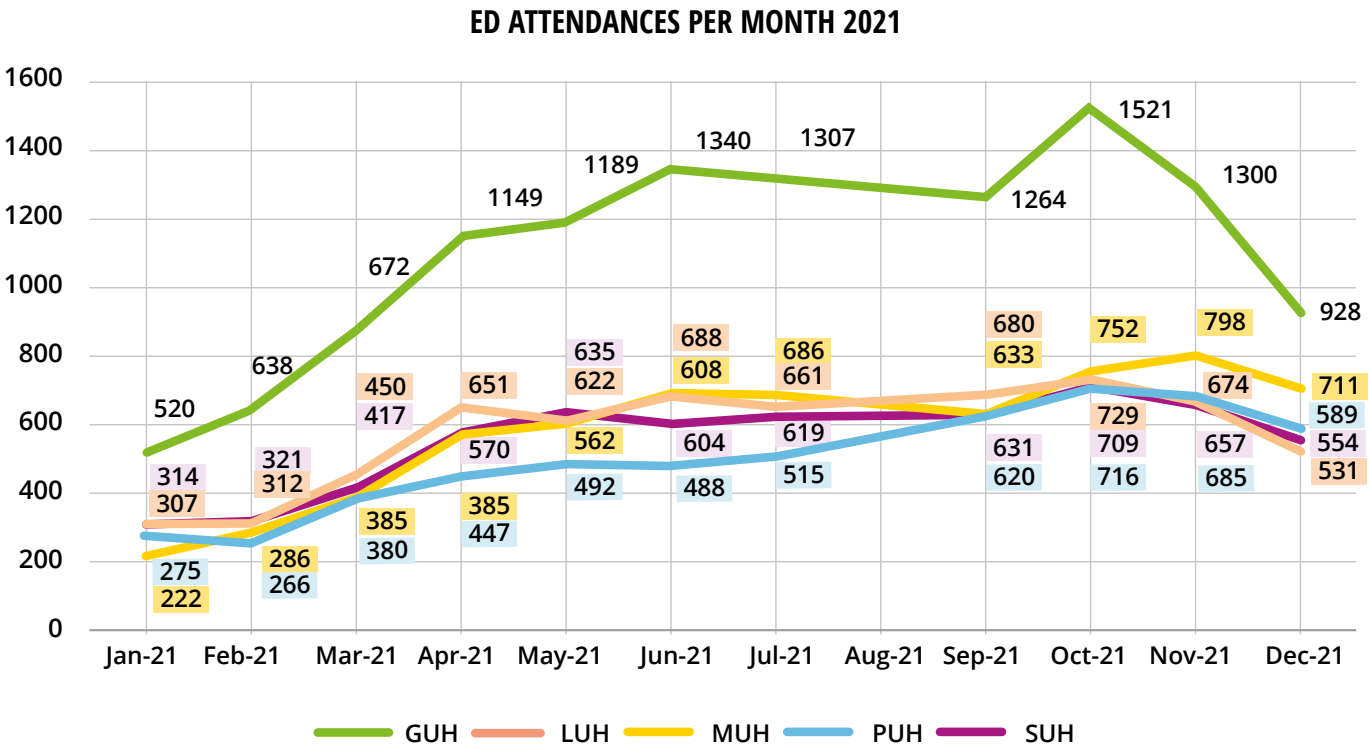
5.2.1 ED Admissions Summary

2021 Emergency Department	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Saolta Grand Total
Paediatric attendances	13,129	6,900	6,969	5,964	6,614	39,576
Paediatric Admissions	1,553	1,690	1,057	1,247	906	6,453
% Paediatric admitted	11.82%	24.49%	15.17%	20.91%	13.70%	16.31%

5.2.2 Emergency Department Paediatric Attendances

Registration Year	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Saolta Grand Total
2018 Total	14,769	7,172	8,598	6,520	7,449	44,508
2019 Total	15,537	6,957	9,296	7,168	8,057	47,015
2020 Total	11,000	5,481	5,480	4,363	5,531	31,855
2021 Total	13,129	6,900	6,969	5,964	6,614	39,576

5.2.3 ED Attendances per Month



GUH Paediatric ED Heather Stanley Staff Nurse, Dr. Moya Ni Chollatain Paediatric Registrar, Marian Madden ANP Acute Paediatric Medicine, Dr. Rachel Fallon GP Specialist Paediatric Emergency Department, Dr. David Hughes Paediatric SHO

5.2.4 Emergency Department Paediatric Admissions

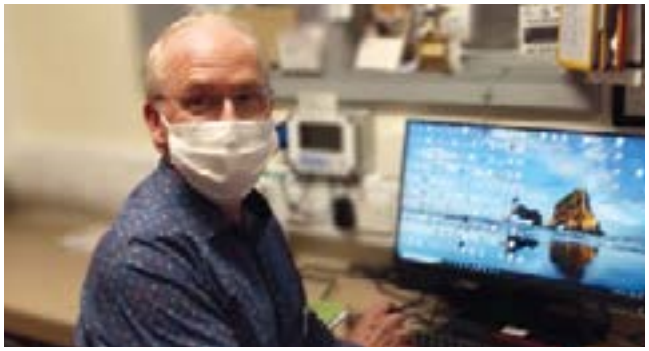
Registration Year	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Grand Total
2018 Total	2,579	1,760	1,187	1,652	1,487	8,665
2019 Total	2,714	1,740	1,178	1,584	1,467	8,683
2020 Total	1,121	1,408	663	1,016	1,051	5,259
2021 Total	1,553	1,690	1,057	1,247	906	6,453

5.2.5 Percentage admitted from the Emergency Department

Registration Year	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Grand Total
2018 Total	17.5%	24.5%	13.8%	25.3%	20.0%	19.5%
2019 Total	17.5%	25.0%	12.7%	22.1%	18.2%	18.5%
2020 Total	10.2%	25.7%	12.1%	23.3%	19.0%	16.5%
2021 Total	11.8%	24.5%	15.2%	20.9%	13.7%	16.3%

Ms Lorraine Williams, CMN2, in the newly configured Children's Area in ED, Audio/Visually separated from adults in Sligo University Hospital

5.2.6 SSOU (Short Stay Observation Unit) & PDU (Paediatric Decision Unit)



MUH Consultant Paediatrician Prof M. O'Neill

There is a Paediatric Short Stay Observation Unit (SSOU) in PUH consisting of a 3 bedded unit and a Paediatric Decision Unit (PDU) in MUH consisting of a six beded unit, including 1 isolation room. These units provide a short stay service for the assessment, observation and treatment of children for up to 6 hours, with senior decision making and a consequent reduction in unnecessary overnight admissions and improved patient experiences. Activity and data captured for 2021 is not a reflection of the services provided as COVID 19 restrictions changed how care was delivered with paediatric emergency care (ED) moved to the paediatric ward.

5.2.7 ICU Admissions

Registration Year	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Grand Total
2019 Total	62	6	10	6	6	90
2020 Total	8	5	11	4	5	33
2021 Total	31	8	16	5	3	63

GUH Age Breakdown (Number)	
Neonate <1 month	2
Infant <1 year	5
Preschool 1-4 years	7
Child 5-16 years	17
Total	**31**

GUH Paediatric Discharge Destination (Number)	
Other Hospital	12
Home	1
St Bernadette's (Paediatric Ward GUH)	15
Adult Ward GUH	3
Total	**31**

GUH Admission Diagnosis to ICU (Number)	
Respiratory	13
Diabetes/Endocrine	6
Neuro/Seizures	3
Surgical/Post Op/Trauma	4
Cardiac	2
Polypharmacy overdose	3
Total	**31**

5.2.8 Paediatric Transfers

Registration Year 2021	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Grand Total
Transfers out	59	62	16	34	44	**215**
Transfers in	10	10	7	4	12	**43**

5.2.9 Paediatric Transfers to the PICU in CHI at Crumlin/Temple St

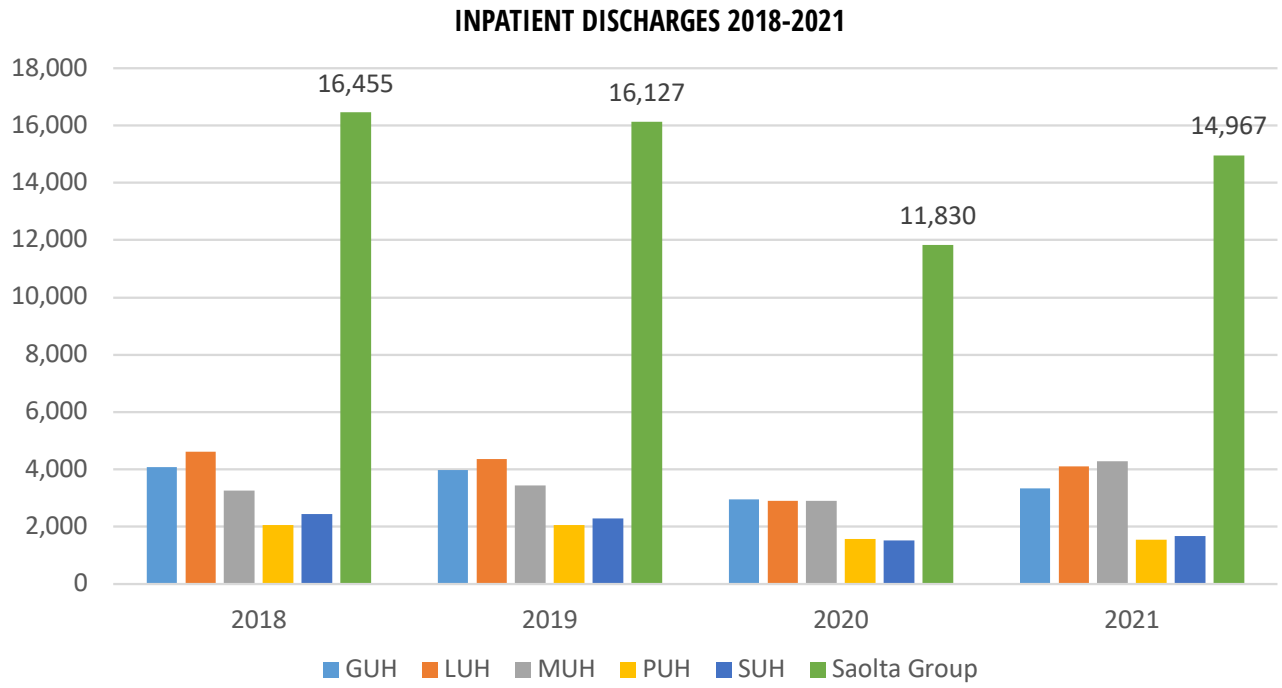
2021		Local Teams	IPATS	NISTAR Neo	NNTP	Unknown	Total
Source of admission	GUH	13	13	1	10	0	37
	LUH	4	7	0	2	1	14
	MUH	7	2	0	3	3	15
	PUH	6	7	0	1	0	14
	SUH	4	2	0	6	1	13
Grand Total		**34**	**31**	**1**	**22**	**5**	**93**

**This data includes the number of transfers from the Saolta Hospitals for all children admitted to the PICU in CHI (OLHSC) and PICU (TSH) in 2021.*

Over 40% of all critical transfers in children were completed by the local site teams.

5.3 Paediatric Report Scheduled Care

5.3.1 Inpatient Activity



Year	GUH	LUH	MUH	PUH	RUH	SUH	Saolta Grand Total
2018 Total	4074	4613	3270	2047	1	2451	16,456
2019 Total	3973	4364	3434	2056	1	2300	16,128
2020 Total	2950	2900	2897	1561	0	1522	11,830
2021 Total	3334	4113	4295	1,542	2	1681	14,967

** This data includes both scheduled and unscheduled care- medical surgical and speciality admissions*

PUH Paediatric team including Medical, Nursing, HCA, NCHD, Household, Clerical and Play Specialist staff

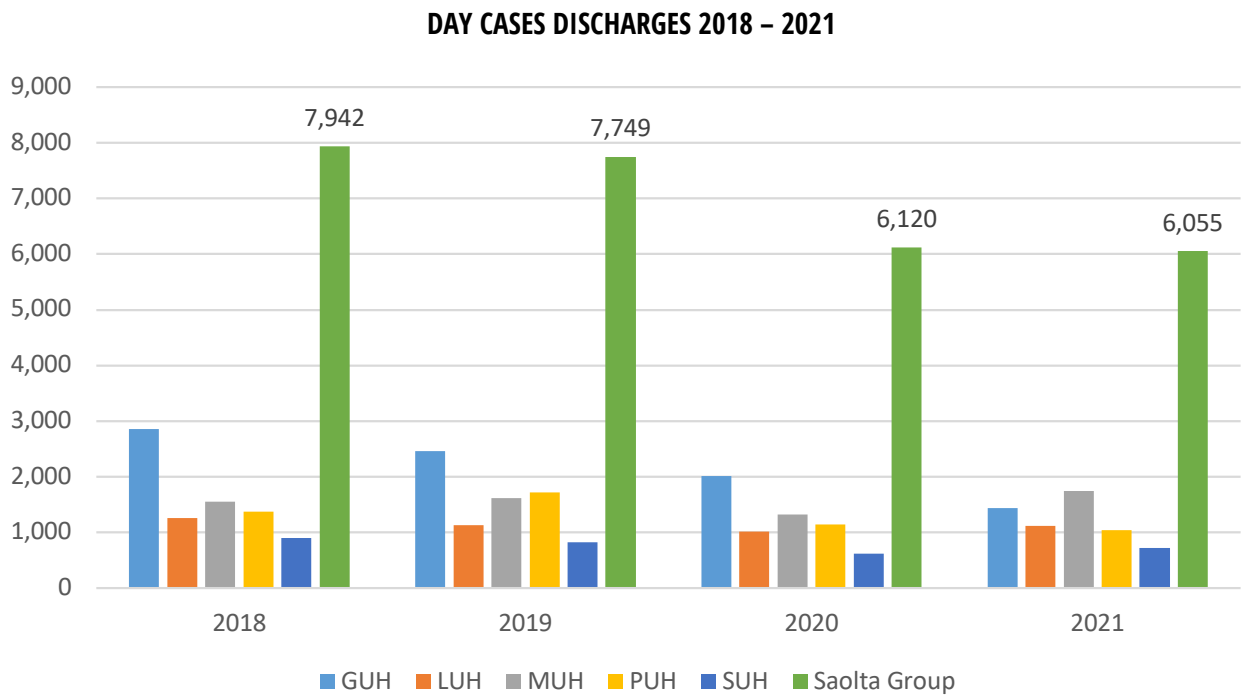
5.3.2 Paediatric Inpatient Discharges by Speciality

Inpatient Discharges by Speciality 2021	GUH	LUH	MUH	PUH	RUH	SUH	Saolta Total
Paediatrics	1555	3095	3926	1284		942	10,802
Cardiology	2	1					3
Cardio-Thoracic Surgery	1						1
Dental Surgery		1		1			2
Dermatology	21						21
Endocrinology	240		11				251
Gastro-Enterology	4	1	6				11
Gastro-Intestinal Surgery	1						1
General Medicine	51	10	39				100
General Surgery	243	265	217	235		216	1,176
Gynaecology	5	19	1	7		7	39
Haematology	3						3
Infectious Diseases	1						1
Maxillofacial	22			2			24
Neonatology	396	254				200	850
Ophthalmology	11	1				7	19
Oral Surgery	23						23
Orthopaedics	335	248	85			136	804
Otolaryngology (ENT)	94					172	266
Plastic Surgery	252				2		254
Respiratory Medicine	7	1					8
Rheumatology	5						5
Urology	52	9					61
Other	10	208	10	13		1	242
Total	**3334**	**4113**	**4295**	**1542**	**2**	**1681**	**14,967**

5.3.3 Average Length of Stay as a Paediatric Admission in days

Year	GUH	LUH	MUH	PUH	SUH	Saolta Grand Total
2021 AVLOS	2.68	1.25	2.87	1.92	1.91	**2.13**

5.3.4 Paediatric Day Case Discharges



Paediatric Day case discharges - Saolta University Health Care Group

Year	GUH	LUH	MUH	PUH	RUH	SUH	Saolta Grand Total
2018 Total	2863	1263	1549	1372	156	895	8098
2019 Total	2464	1134	1613	1720	147	818	7896
2020 Total	2016	1016	1327	1148	43	613	6163
2021 Total	1442	1119	1742	1035	13	717	6068

**Patients admitted surgically or medically who require a bed for day*

GUH Paediatric Daycare Waiting Area

5.3.5 Paediatric Day Case Discharges by Speciality

Day Case Activity by Speciality 2021	GUH	LUH	MUH	PUH	RUH	SUH	Saolta Total
Paediatrics	687	893	1603	736		419	4,338
Clinical Immunology	12						12
Dental Surgery	8	131		78		34	251
Dermatology	71			1		3	75
Gastro-Enterology	14	2				3	19
General Medicine	1	4	4				9
General Surgery	10	33	112	44		47	246
Gynaecology	4	3	1				8
Haematology	2						2
Maxillofacial	17			103		7	127
Neonatology	37	8					45
Neurology						4	4
Ophthalmology	53					31	84
Oral Surgery	34						34
Orthopaedics	71	24	20			13	128
Otolaryngology (ENT)	186					140	326
Paediatric Endocrinology	102		2				104
Plastic Surgery	91			1	13		105
Radiology	1					13	14
Respiratory Medicine	1						1
Urology	39	20		72		3	134
Other	1	1					1
Total	**1442**	**1119**	**1742**	**1035**	**13**	**717**	**6,068**

5.3.6 Paediatric Outpatient attendances

Year	GUH	LUH	MUH	PUH	RUH	SUH	Saolta Grand Total
2018 Total	22476	9167	9681	4589	400	10720	57033
2019 Total	23180	9055	9672	4589	419	11242	58157
2020 Total	19167	6084	5848	3037	228	9920	44284
2021 Total	19963	6612	6684	4421	239	10388	48107

**Not all general paediatric appointments are captured on IPMS such as community and outreach clinics*

***This table includes all children under the age of 16 years attending all OPD specialities across the Group e.g. Orthopaedics, ENT, Urology, Plastics, dermatology & Ophthalmology. This is reflected in the range of numbers attending OPD e.g. Children attend PUH for general paediatric and dermatology services.*

***MUH attendance number excludes selected urgent referrals preferentially triaged to PDU.

5.3.7 New, Review and DNA OPD Activity 2021(Paediatric Speciality Only)

Site	New Patients Seen 2021	Review Patients Seen 2021	Total Paediatric Patients Seen 2021	DNA's 2021	Rate of DNA 2021
GUH	1742	5766	7508	933	11.1%
LUH	1135	2095	3230	588	15.4%
MUH	445	3639	4084	1162	22.2%
PUH	836	2958	3794	1682	30.7%
SUH	1257	4436	5693	501	8.1%
Saolta Group	5415	18894	24309	4866	16.7%

**This table includes children attending Medical Paediatrics OPD only and does not include other specialities across the group.*

5.3.8 Paediatric OPD Waitlist Trends 2021

Site	0-6 Months	6-12 Months	12-18 Months	18+ Months	Total
GUH	1,054	353	107	122	1,636
LUH	433	11	8	5	457
MUH	237	31	2	0	270
PUH	338	4	4	2	347
SUH	414	172	116	34	736
Saolta	2,476	571	237	163	3,446

**At the end of 2021 as of the 23/12/2021 the above table shows the number of children waiting for a Medical Paediatric OPD on each site and the wait times.*

Newly refurbished children's area in the Outpatients Department in Sligo University Hospital.

5.3.9 Paediatric Day Assessment Clinic/Ambulatory Care

Registration Year	Galway University Hospitals	Letterkenny University Hospital	Mayo University Hospital	Portiuncula University Hospital	Sligo University Hospital	Grand Total
2021	3049	893	1379	1075	1689	8085

**Mayo data includes scheduled care activity in PDU.*

MUH Paediatric Unit Senior Staff Nurse Karen Staunton and Senior Staff Nurse Mary Clarke

5.4 Specialist Regional Reports

5.4.1 Endocrinology; Childhood Diabetes

5.4.1.1 Childhood Diabetes Data 2021

Hospital	Total No. Of Children with Type 1 Diabetes	Total No. of new diagnoses in 2021	Total no. of children with a CSII	Mean HbA1c
GUH	202	21	67	8.3%
LUH	110	12	69	8.0%
MUH	104	11	22	8.2%
PUH	58	11	13	8.3%
SUH	87	9	57	8.0%
TOTAL	**561**	**64**	**228**	**8.2%**

5.4.1.2 Newly diagnosed Children 2021 Age Group and Sex

Hospital	Total No. of Patients	Total Aged 0-4.99 yrs			Total aged 5-9.99 yrs			Total aged 10- 14.99 yrs			Total aged 15-15.99yrs		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
GUH	21	5	2	3	3	1	2	10	6	4	3	2	1
LUH	12	0	0	0	6	3	3	6	2	4	0	0	0
MUH	11	3	-	-	5	-	-	3	-	-	0	0	0
PUH	11	2	0	2	5	1	4	2	0	2	2	1	1
SUH	9	1	-	-	5	-	-	3	-	-	0	-	-
TOTAL	64	11			24			24			5		

5.4.1.3 Endocrine Service GUH

The Paediatric Endocrine service in GUH provides an inpatient service, a daily ambulatory service for patients with complex endocrine conditions who require endocrine testing, a consultation service for neonates in the NICU and an outpatient service. The service also takes referrals from hospitals within the Saolta Group. This service was established in 2018 and all patients with complex endocrine conditions who were previously attending tertiary endocrine services in Dublin have since been re-patriated back for care closer to home. This service is currently run by Consultant only. Endocrinology relies heavily on dynamic testing for which an endocrine nurse is required. Nurse education is also very important for patients with adrenal insufficiency, hypopituitarism, diabetes insipidus, precocious puberty etc. Urgent development of infrastructure, HSCP services, and staffing is needed in order to meet the current and future demands of the service.

5.4.2 Respiratory Service

5.4.2.1 General Respiratory and Asthma Service

The Respiratory service for Saolta is based in GUH and consists of 0.25 Consultant WTE and a newly appointed Respiratory CNS 1.0 WTE in 2021. The service provides secondary level care for in-patient and out-patients in the local and supra-regional catchment area. Patient groups include ex-premature infants with bronchopulmonary dysplasia, oxygen dependent infants and children, non-CF bronchiectasis, non-invasive ventilation (NIV) starts, NIV coordination and titration, elective sleep studies, asthma clinics and reviews, and airway anomaly diagnosis and follow-up. The demand for this service continues to increase particularly for asthma clinics and for patients being transferred from Children's Health Ireland. There is a large demand for disease specific out-patient sessions where pulmonary function testing can be accessed by paediatric patients.

5.4.2.2 Activity Data

GUH Activity	Total
Admitted Sleep Study	58
NIV/Complex Respiratory	20
Asthma	335

5.4.2.3 Cystic Fibrosis (CF) Service

The CF service in GUH provides inpatient care, daily rapid access care, and outpatient clinics for all children with CF within Saolta. It is staffed with 0.25 WTE Consultant, 0.5 WTE nurse, 0.4 Dietician, 0.4 psychologist, 0.5 physiotherapist. GUH is one of the six nominated specialist paediatric CF centres nationally and patients are seen in a dedicated CF Unit. There are currently 64 patients attending GUH for their care which is coordinated with their local hospitals in a child and family-centred approach. The vast majority of patients are enrolled in the CF Registry of Ireland and are participant in coordinated research with Children's Health Ireland. An increased workforce is envisaged to meet the Slaintecare objective of outreach clinics to children in most need and in areas of deprivation.

5.4.3 Neurology Specialist Report

The number and types of conditions encountered in a paediatric neurology service is vast. The impact of a neurological diagnosis is enormous. Childhood epilepsy and other neurological diseases are often complex and highly unpredictable, with frequent acute deteriorations, and a particular cause of anxiety for families, paediatricians and AHPs. A quarter of all paediatric admissions to hospital would benefit from a paediatric neurology service. Epilepsy affects 0.5-1% of the childhood population. Approximately 30% of a neurodisability cohort experience a seizure-related disorder. Psychological disorders (complicating presentations) are prevalent. Neurology diagnostics have exponentially advanced in 10 years, with therapeutics and the explosion in patient-specific care surrounding genetic diagnoses, precision medicines, parental involvement in care. Fetal and perinatal neurology is a service increasing at GUH.

5.4.3.1 Current general paediatric neurology service

There is currently (2021) no comprehensive Paediatric Neurology service at GUH. Since 2016, there is a 0.5 WTE General Paediatrician with Paediatric Neurology Expertise AND in 2021 (July) a Locum Consultant General Paediatrician with S.I Neurology (temporary). Due to capacity and infrastructural issues, reviews are prioritised from GUH (Galway Region), though some patients attend (mainly via prior arrangement and neonatal neurology follow up) from the Roscommon/ Mayo/Sligo and Donegal regions. In line with the models of care, a further consultant Paediatric Neurology Post is required to serve wider region of Mayo and Roscommon and 5/7 (9am-5pm) daily cover at GUH.

The current active paediatric neurology patient cohort at GUH is ~350 patients (>200 epilepsy). At GUH, sources of referral to Paediatric Neurology are diverse and include.

- OPD (GPs, paediatricians, psychiatrists, surgeons) physios, AMOs, OTs, audiologists.
- The emergency department.
- Admitted in-patient acute consults.
- Day cases, for rapid assessment
- NICU and antenatal fetal medicine: regionalised at GUH, success depends on availability of specialist input. Neurology consultation for fetal and perinatal neurology is increasing.
- Consultation service to existing developmental paediatrics service
- Consultation service to regional CAMHS
- Adolescents transitioning/shared with the adult neurology/epilepsy department.

5.4.3.2 Clinics

Twice weekly clinics occur, with a case mix of general paediatric patient follow-ups, and general paediatric neurology, epilepsy and other complex disorders. We transition our patients to local on-site adult Neurology services. NCHD or consultant phone appointments answer daily patient queries.

5.4.3.3 Paediatric Neurology Nursing

We are in the process of recruiting an approved Paediatric Neurology/Epilepsy Clinical Nurse Specialist. Paediatric Neurology ANP is required to serve GUH and the wider region and future developing networks.

5.4.3.4 Neuroimaging

We have intermittent access to neuroimaging and MRI including GA, with significant outpatient waiting list times. We do not have Paediatric Radiology or Neuroradiology expertise in GUH, but are actively seeking funding for two FTE Paediatric Radiology posts. There are no neuroradiology conferences at GUH.

5.4.3.5 Neurophysiology

EEG is a fundamentally critical tool utilized to support a paediatric neurology services for diagnosis, follow-up and monitoring of epilepsy AND in the evaluation of the many non-epileptic disorders. Careful joint neurophysiology and/or paediatric neurology evaluation is usually required, given the many different age epochs and conditions of presenting children (preterm baby to the adolescent). Referral pathways for children having EEGs is potentially expansive. Since 2002-to date EEG reporting is performed once weekly by a 0.5 WTE adult service consultant, despite significantly increased demands. While children attending GUH avail of a routine EEG (see EEG Table), there is insufficient capacity to offer EEG in line with national recommendations, expand the basic range of testing. The majority of EEGs from the Mayo-Roscommon and Sligo-Donegal region are performed outside of GUH, mainly at CHI, Dublin. All telemetries are done in CHI Dublin, there is no (comprehensive) overnight video-telemetry EEG monitoring service.

A consultant neurophysiologist post is required for GUH and regional referrals for routine EEG, sleep EEG, neonatal unit EEG, ICU and video-telemetry EEG investigations, at GUH. NCS/EMG would be included in such a role (see below). Capital investment for in-patient EEG recording system with mounted camera to accompany neurophysiology will be required in future.

EEGs at GUH 2021	Number (n)/%
Total Routine and portable EEGs performed in EEG Dept (Adult and Paediatric)	665
% Total EEG Paediatric Group	46%
Paediatric DNA	6
Paediatric Routine	264
Paediatric Portable	5
sleep deprived EEG's	18

5.4.3.6 EMG/Nerve Conduction Studies

These are currently no EMG/NCSs available at GUH, and such children are referred to CHI Dublin.

5.4.3.7 Supporting Professionals integral to Paediatric Neurology Service/Network

Neuropsychology

We currently have no neuropsychologist. A general Paediatric psychologist serves the entire Paediatrics Dept. A neurology specific psychology WTE is required for the future.

Neurology Dietetics

There is no Paediatric neurology specific dietician. As the service expands a dietician with ketogenic diet expertise is required for the future.

Neurology NCHDs

There are no specific Paediatric neurology trainees/ scheme in Ireland. Our trainees are general Paediatrics and GP. This emphasizes the importance of expanded ANP capacity in the future.

5.4.4 Allergy Service

Approximately 5% of children have food allergy (FA), may be as high as 10%. Approximately 1% peanut allergy, 6% egg allergy in Ireland.

Up to 20% of children have eczema, similar numbers for other allergic conditions, asthma and allergic rhinitis. Anaphylaxis, severe life-threatening form of an allergic reaction, is most commonly associated with peanut, tree nut and milk allergy in children.

Primary prevention of peanut allergy involves early identification of those 'at risk' for development of FA and initiating safe early exposure. Those 'at risk' include infants with eczema which may amount to 1 in 5 infants. Infants with severe eczema, especially those with egg white allergy, require early diagnostic testing and safe introduction of peanut once deemed appropriate. The latter procedure is typically performed in the outpatient setting of an allergy clinic. Currently this service is significantly limited at UHG owing to limitation of specialist nursing support.

5.4.4.1 Current staffing

0.25 General Paediatrician with special interest in Allergy and Immunology

0.2 Clinical Nurse Specialist, Adult

0.1 General Practitioner, MSc Allergy

5.4.4.2 Catchment area

All children up to 16 years from the Saolta area: Donegal, Sligo, Leitrim, Mayo, Roscommon, Galway, as well as Clare and Westmeath.

5.4.4.3 Services currently provided

In addition to FA education and patient support, the following specific services are provided.

GUH Outpatients Allergy Clinics		
New patient Allergy Clinic:	3 per month	15 patients per clinic
Return patient Allergy Clinic	1-2 per month	20 patients per clinic
Nurse Led Clinics	1 per month	5 patients per clinic
Penicillin Drug Provocation Clinic:	1 per month	5 patients per clinic

5.4.4.4 Oral food challenges

This service has been on hold at UHG since late 2021 owing to the pandemic impact on staffing. The service is awaiting the appointment of a clinical nurse specialist in allergy.

5.4.4.5 Drug Testing

UHG run an efficient penicillin (B lactam) provocation-testing clinic following initial proforma-based screening via primary care. This clinic runs monthly, approximately 4-6 children screened per clinic. Children deemed unsuitable for single dose drug provocation testing, undergo a combination of skin prick testing +/- graded drug challenge +/- avoidance.

5.4.4.6 Venom immunotherapy

Children deemed to be at risk for venom anaphylaxis undergo diagnostics followed by subcutaneous immunotherapy.

5.4.4.7 Sublingual immunotherapy

Children with clinically significant allergic rhinitis may undergo sublingual immunotherapy most commonly to grass pollen but also dust mite. We have an estimate of 10 children annually on SLIT.

5.4.5 Cardiology Service

The paediatric Cardiology service in GUH provides an inpatient service, a rapid access ambulatory care service, a NICU and postnatal ward echocardiography service and an outpatient cardiology clinic service. There is a full-time Paediatrician with Expertise in Cardiology (PEC) (0.5 WTE Gen Paeds/0.5 WTE Paediatric Cardiology) in post since September 2021, with a CNM 2 working in a CNS role in support of the service, in post since January 2022. There is shared care with the Children's Heart Centre in Childrens Health Ireland (CHI) at Crumlin for a number of complex patients, both pre-operative and postoperative. Outpatient referrals are accepted from all hospitals within the Saolta group, with urgent referrals accepted on a case-by-case basis. Several pathways have been developed to streamline the more common types of referral.

Two new echocardiogram machines have been purchased in support of the service, one for the NICU and one for the Paediatric ward/ outpatients department. Further equipment that is needed include Holter monitors, ward-based telemetry, exercise stress testing and ECG machines. HSCP services that need to be developed in support of the service include dietetics, psychology, medical social work and speech & language therapy. There are currently three outpatient slots available per month for Paediatric Cardiology; development of infrastructure would allow more space for more clinics.

5.4.5.1 Four Year Paediatric Echocardiogram Activity

Echocardiography			
Year	**Departmental**	**NICU Consultant**	**Total**
2018	493	0	493
2019	511	27	538
2020	466	50	516
2021	*621	87	708

**Figure includes departmental and Paediatric Cardiology Consultant who began in the role in September 2021*

5.5 Children's Nursing

5.5.1 Introduction

Children's Nurses possess a unique knowledge and skillset and continue to play a central role in the care of children across the Saolta group. Aligned with the Model of Care for Paediatric Healthcare Services in Ireland (2016), Sláinte Care (2019) and Leading The Way A National Strategy for the future of Children's Nursing in Ireland (2021) the focus for 2021 was on progressing and developing advanced and paediatric nurse specialist posts to meet current, emerging and future service needs. The value of these roles is acknowledged, through the provision of quality care, a safe environment and effective patient outcomes that address patient/family expectations, promote wellness and care closer to home.

The Advanced Nurse Practitioners (ANP) roles will play an important role in the implementation of these strategies. In the Saolta group, there are currently three

GUH St Bernadette's Paediatric Unit Staff Nurse Blanaid O Sullivan and HCA Emer Byrne.

RANP in Paediatrics: cANP Acute Paediatric Medicine (GUH) and RANP Paediatric Diabetes (LUH and GUH).

5.5.2 ANP Reports

5.5.2.1 Candidate ANP in Acute Paediatric Medicine

There is one cANP who has been in post since Aug 2020 and she will be the first Registered ANP in Acute Paediatric Medicine commencing in her role in autumn 2022. The RANP (Acute Paediatric Medicine) will provide autonomous, safe, timely and evidence-based care and interventions to paediatric patients from 4 months to eve of their 16th birthday at an advanced nursing practice level in paediatric ED.

Marian Madden cANP Acute Paediatric Medicine GUH

This involves undertaking and documenting a complete episode of patient care of patients who are within the inclusion criteria, which include comprehensively assessing, diagnosing, planning, treating, and discharging paediatric patients in accordance with collaboratively agreed local policies, procedures, protocols, and guidelines and/or service level agreements/ memoranda of understanding.

Service Profile

The cANP provides clinical expertise, education and leadership to improve patient flow, reduce costs, and ultimately increased patient satisfaction The cANP sees children from 4 months to the eve of their 16th birthday who present to ED with conditions involving the:

- Respiratory System,
- Neurological System,
- Ear Nose and Throat System,
- Gastroenterology System ,
- Urinary System
- The Febrile Child

This also includes patients with a Triage Category 2, 3, 4, 5 if presenting complaint is within RANP's agreed scope of practice. It is anticipated that the RANPs (Acute Paediatric Medicine) will have a weekly scheduled nurse led review clinic.

5.5.2.2 RANP Paediatric Diabetes: (Letterkenny University Hospital)

The Registered Advanced Nurse Practitioner (RANP) in paediatric diabetes at LUH is an experienced practitioner who employs advanced decision-making skills in the clinical environment through interdisciplinary collaboration and caseload management of children and families who live with Type 1 Diabetes.

Autonomous clinical patient reviews are performed by the RANP, who conducts a comprehensive health history and physical assessment of patients referred for continued assessment of their diabetes management. Responsibilities include supportive and continued age appropriate education for child and families who live with this chronic condition. This enables families to manage day to day life and use problem solving skills to achieve improved glycaemic control, thus reducing hospital admissions and also reducing associated co-morbidities and delayed development of complications associated with poorly managed diabetes.

Extensive education to child and families also facilitates improved access to technological advancements such as insulin pump therapy or continuous glucose monitors, which, with the correct support can provide families with an opportunity to improve control and quality of life for the child/young person and their families. The RANP will also titrate or commence the child/ young person on medication therapies as necessary, ensures appropriate referral to allied health professionals/teams, conducts serial evaluation of progress and maintains audits of outcomes. The extended role of the RANP contributes to the provision of a consistent and accessible service for children, young people and their families living with Type 1 Diabetes by enhancing safe, child and family-centred care, improving patient experience times, quality of life and clinical outcomes.

5.5.2.3 RANP Paediatric Diabetes: (University Hospital Galway)

Clinical:

The Registered Advanced Nurse Practitioner (RANP) in paediatric uses advanced decision-making skills in the clinical environment through interdisciplinary collaboration and caseload management of children and families who live with Type 1 and Type 2 Diabetes. This includes:

- Paediatric Diabetes Clinics (2nd,3rd and 4TH Mondays Monthly)
- Autonomous clinical patient reviews at clinic and conduct comprehensive health history and physical assessment of Children/Adolescents who attend the above clinics.
- Being mentor for Other members of the Paediatric Diabetes Team both Nursing and Medical
- Providing Transition Clinics (5th year/Leaving Certificate Year) 15-20 patients 4 clinics/year
- Coordinating coordinate the transition of young people from Paediatric services to young adult services and follow them up in Young Adult services
- Lead Nurse at a Young Adult Clinics once a month

Pump Service Galway University Hospital

RANP is the Lead Nurse lead for the Insulin Pump service in GUH for all children under 5 years. It also includes all children under 5 years from Mayo University Hospital and Portiuncula University Hospital are commenced on insulin Pump therapy in Galway University. This involves pre assessment and education of parents over a 4-5-week period on insulin pump therapy and regular follow up.

We also commence 4-5 children on insulin Pumps monthly on children over 5 years. The insulin Pump education programme consists of 5 education sessions over a 5-week period. Once commenced on insulin Pump therapy reviews are done twice weekly for the 1st few weeks until established on Insulin Pump Therapy.

Follow Up Calls and Virtual sessions

This involves 20 patients weekly or Bi weekly who are on Pump technology or CGM Technology which includes virtual follow via Carelink uploads, Dexcom uploads and Libre Uploads and feedback to parents on adjustments required with follow up clinic appointments.

Education

This includes education to nursing and medical staff on all aspects of Diabetes Management including Technologies which includes CGM and New insulin Pump technologies and students undertaking the HDip/Masters in Diabetes in NUI.

5.5.3 Paediatric Clinical Nurse Specialists Report

Across Saolta the Paediatric Clinical Nurse Specialist (CNS/CMN2) roles include Diabetes, Respiratory/CF, Cardiology, Neurodevelopmental, Neurology, Paediatric Outreach and Complex Needs.

5.5.3.1 CNS Respiratory (University Hospital Galway)

Paediatric respiratory care is seeing significant changes. The areas of sleep, poorly controlled asthma and long-term non-invasive ventilation are growing at a rapid rate and becoming a large part of the service provided by the nurse specialist in paediatric respiratory medicine in GUH. The CNS works closely with Respiratory Consultant to ensure the patients follow and or are referred on the appropriate respiratory pathways (local, regional, tertiary).

The (CNS) provides direct care to outpatients and inpatients with a wide range of conditions: Cystic fibrosis, paediatric sleep medicine, long- term non-invasive ventilation, asthma, neuromuscular disorders, tracheostomy care, non-CF bronchiectasis and general respiratory services for local children. Referrals are accepted from the paediatric department, OPD, Asthma clinics, ED multi-disciplinary team in consultation with the Consultant Paediatrician.

The CNS service provides leadership in clinical practice, acts as a resource with the primary focus to ensure that the patients receive timely and appropriate respiratory care through assessment, planning, implementation and evaluation of care delivery in line with agreed standards. This includes:

- Initiating person centred assessment and treatment plans
- Continuous/ongoing education and training for patients and their families to enable them to manage their condition enabling informed choice of treatment options.
- An inpatient service including assessment, education and health and well- being.
- An outpatient service which involves attending clinics and assessments, and providing outpatient appointments when/if needed.
- Working collaboratively with MDT colleagues across primary and secondary care to provide a seamless service delivery to the patient and family. Facilitating the safe transfer of complex NIV dependent children discharged from CHI to GUH and then to home.

Summary of activity

The CNS attends a general paediatric clinic every week. The following is activity captured in 2021. There are no designated paediatric respiratory clinics outside the Asthma clinics but the priority in 2022 is to explore this within the available resources in OPD GUH.

GUH	Asthma	Sleep Medicine	Virtual Consultations	Nurse Led
Number of Patients	26-30 per month	4-5 per month	301	172

5.5.3.2 CNS Paediatric Cystic Fibrosis/Asthma service (Mayo University Hospital)

At present there is one full time CNS providing direct care to children with Cystic Fibrosis asthma, bronchiectasis, protracted bacterial bronchitis, viral wheeze and the child with complex needs with respiratory symptoms. Since Covid-19, in 2020, 0.5WTE of this service has been reallocated into general paediatric respiratory medicine.

The CNS role involves direct clinical care for inpatients, outpatients and children who attend ED/PDU. This comprises of assessments including inhaler technique, exercise testing and pulmonary lung function testing. It also consists of health and well -being promotion support, education and training for children, their families and communities.

Summary of activity:

MUH	Asthma
Clinics	3 per month
Number of Patients	24-28 per clinic
Asthma Supportive virtual	213
Asthma Treatment call	326
Quality Indicator follow up	
(@ 72 hrs and 3/52)	70 children (140 calls with additional 60)
Total 200	
Asthma Total (attendances and virtual)	730
Asthma DNA	141

	Allergy	CF
Clinics	1 per month	4 per year

There is no specific coded nurse led clinic. Patients attend the CNS for lung function testing, exercise testing and bronchodilator challenges. At this visit action plans are developed or revisited and inhaler

technique is assessed. Once the information has been collated from this visit it is discussed with the consultant. The parent is then contacted by phone to advise of any changes and need for further follow up

For children over 2 years with a cough/asthma who attend ED/PDU/Paediatric Ward there is a CNS service to call them within 72 hours and a follow up call in 3 weeks as a safety net to reduce need for further admission.

A monthly allergy clinic has been developed 2021 which provides education, skin prick testing and auto injector training

With the implementation of the Model of Care in Cystic Fibrosis the numbers attending the service have reduced dramatically. Patients attend clinics and are reviewed only if necessary and care is led by the child's designated specialist CF centre.

Challenges to the service would include the 0.5 not being replaced and no clerical support.

Improvements

In 2021 MUH introduced the Asthma Quality indicator on parent knowledge, treatments, action plan was implementation to monitor the implementation of treatment plans. All children admitted are included in this health and well- being support, where the CNS will contact the parents within 72 hours and at 3 weeks post discharge. The contact details for the CNS are given for the parent to contact if there are any issues/ concerns. It provides a safety net to ensure that they have the correct information and prevent readmission.

Children who are chronic coughers at home can take a recording of the cough and email it to the CNS for follow up instead of attending ED.

In 2021 the CNS completed the Paediatric Allergy Training course with the Royal College of Paediatrics and Child Health in the UK. This was a three part course which provided the CNS with the knowledge and skills required to effectively manage children with common and severe allergies, and their comorbid allergic conditions. As a result of this in 2021 an allergy clinic has been established providing education, skin prick testing and autoinjector training.

In 2021 CPAP training commenced on the paeds ward. The CNS was involved in roll out of this, providing weekly training sessions for staff.

5.5.3.3 CNS Paediatric Respiratory (Sligo University Hospital)

The respiratory nurse (CNS) in Sligo provides individualised holistic care to children and their families providing a service for children with asthma who inpatients, attend the outpatients and/or the emergency department attending all clinics in the general paediatric outpatients. This includes direct assessments and care, arranging the appropriate follow up at respiratory clinics, nurse led clinics or virtual follow support and health promotion.

The CNS service embraces providing a valuable link for the cystic fibrosis patient cohort, allowing care closer to home and reducing the need to travel to specialist centre providing a phlebotomy service this patient cohort, which require blood taking and central line access care and flushing. This includes a monthly cystic fibrosis clinic working closely with the multidisciplinary team.

Capturing accurate activity was difficult in 2021 due to Cyber-attack and clinic coding. The following outlines a summary of available data for 2021.

SUH Respiratory CNS	Contact, virtual/day ward /OPD
CF Paeds	176
CF Adults	56
Asthma /Viral Wheeze	471

The CNS provides education to nursing staff, contributes to the development of guidelines and education leaflets for the paediatric service. In the future the aim to provide a more streamline community based care for the asthma patients.

5.5.4 Saolta Quality Improvement Report

Our Quality Improvement (QI) priorities in paediatric care continues to be driven by our compliance with national and local standards and a vision to deliver 'a healthier future for children and young people.' The Saolta University Hospital Group for 2021 remains focussed on restoring services for children and young people post Covid 19, including the achievement of the best clinical outcomes and ensuring that all children and young people have access to the care they need.

The emphasis over the last year (since starting in May 2021) for the QI programme of work was built upon the concept of delivering improvements in care, quality and safety by the everyday, ongoing use of continuous improvement. A significant part of this has been to encourage participation in quality improvement activities, aimed at providing safe care and improved outcomes for children through the delivery of high-quality care, with two centrally driven improvement priorities for 2021.

- Saolta Children's Networks of Care.
- The Care of the Critically Ill/Injured Child.

Each of these priorities is a multi-year programme which brings together quality & risk, clinical front line staff and subject matter experts in developing an improvement plan by understanding the problem to allow us to focus on what matters, reviewing our data and trailing changes and measuring their impact.

5.5.4.1 Saolta Children's Networks of Care

In paediatrics, we are continuing to develop our local, regional and national networks and collaborating with a wide range of partners to improve outcomes for children and young people. This allows for better information sharing helping improve healthcare for our children, young people and their families with an improved patient centred care and experience. Establishing these networks of care also provides us with a strong united voice from staff who care for children to ensure that the changes, challenges and opportunities that exist in childrens healthcare today are met through care, leadership, advocacy and influence.

The following outlines the programme of work of 2021, with a strong focus on positively influencing the direction and delivery of childrens healthcare in Saolta university Healthcare Group. This was through these networks providing the governance structures that leads, promotes and enables a child centred culture of quality, safety and improved outcomes within the resources available as we implement the National Model of Care for Paediatric Healthcare in Ireland (2016).

- Collaborative working with the All Island Cardiology Network and establishing Saolta Children and Young Person's Cardiology Network In Q3 2021.
- The Children and Young Persons Respiratory Network- Establishing Respiratory Nurse Interest Group in Q3 2021
- The Children's Nursing Networks – Establishing the Saolta Senior Children's Network Group (SSCNG) in Q2 2021 and Children's Nurse Specialist group in Q3 2021

Continuing to develop these networks of care will promote best practice, standardise practice and service delivery, ensure regulatory and legislative requirements are met, and act as both educational tools and a basis for audit.

PUH Nursing, NCHD and Household Staff

PUH Nursing, NCHD and Household Staff

5.5.4.2 Saolta Children and Young Persons Diabetes Network

We have established the first Paediatric Diabetes Network in Ireland. Galway and Sligo work in partnership with each other in the provision of services across the Saolta Group. This has been expanded to include specialist tertiary diabetes care and an insulin pump service to the whole catchment area. There are currently over 500 children with type 1 diabetes attending the Saolta Network. Galway and Sligo function as the hub for delivery of this service, with monthly outreach clinics that have already been established. Almost all children with type 1 diabetes previously attending tertiary services in Dublin have been re-patriated to deliver care closer to home. We run a busy insulin pump service. There is Paediatric diabetes CNS/ANP support at peripheral sites such as Mayo, Portiuncula and Letterkenny which is essential to ensure consistent locally-delivered services. The Network meets quarterly with the aim of standardising diabetes care across the Saolta Group and offering equal access to insulin pump therapy.

5.5.4.3 Saolta Critically Ill/Injured Child Project (SCIIP)

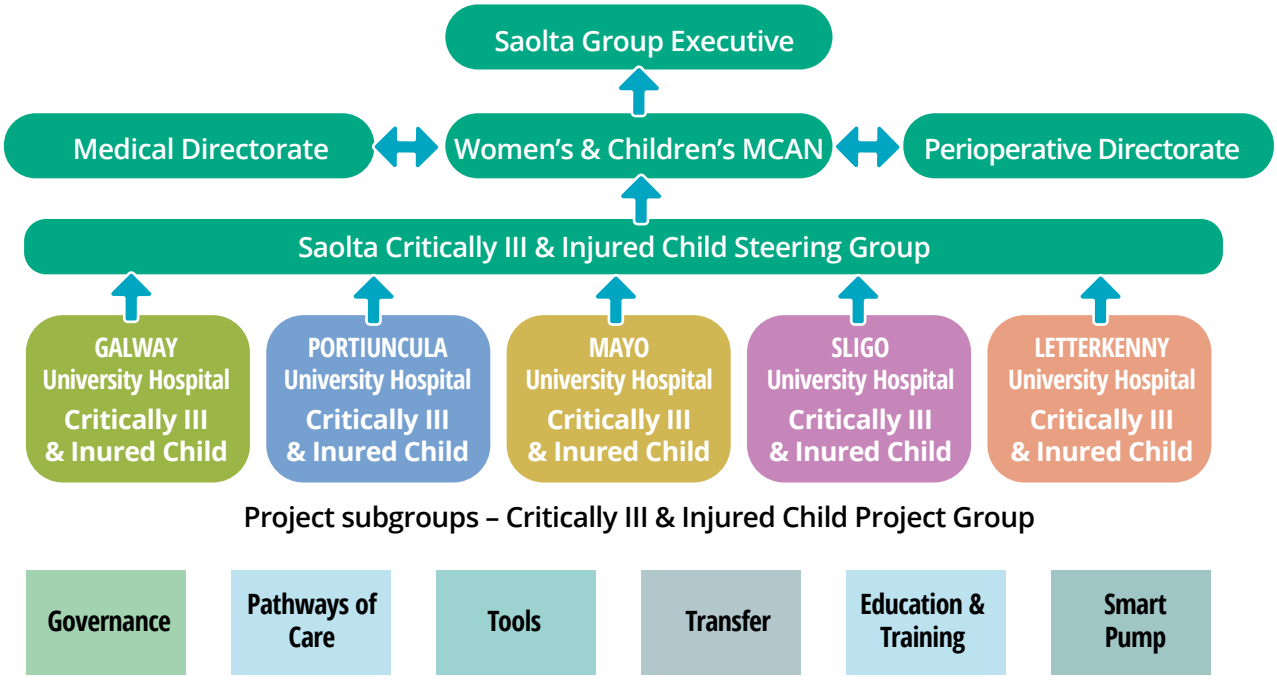
Critically ill and injured children may present in emergency departments, children's outpatient and assessment services or become critically ill whilst an in-patient. A successful outcome for the critically ill child depends upon the quality of care received from the first contact with the health service. There should be a seamless system of care from the recognition, escalation, stabilisation, management and transfer of the critically ill child.

The National Clinical Care Programmes set out the expectations of effective care. These include the Model of Care for Adult Critical Care (2014), Model of Care for Anaesthesiology (2019), Model of care for Paediatric Anaesthesia (2015) and Model of Care for Paediatric Critical Care (2019), The Irish Paediatric Early Warning System (PEWS) (2016), and The Emergency Medicine Programme (2012).

In Q4 2021 the Saolta Project(SCIIP) was initiated with multidisciplinary teams from across Saolta working together to co-design and deliver a dynamic QI programme to support Saolta hospital teams develop a system wide framework to improve the recognition and response to children who are at risk of deterioration. The primary aims were to ensure that children receive safe and high-quality health care regardless of the setting in which it is delivered, that mechanisms are in place in all settings to protect children from harm, enable them to access to the health care that they need and positively influencing the outcomes for our children. Strengthened clinical governance, establishing collaborative clinical care pathways, medication safety with coordination of safety standards in all areas where children experience care was seen as an opportunity for improvement.

We have identified 6 project sub groups; governance, pathways of care, tools, transfer, education &training and smart pump. Each subgroup has a clear objective and deliverables identified. This is a sample of some of the deliverables:

- Ensuring the implementation of appropriate organisational systems for the early recognition and escalation of care
  - Irish Children's Triage System (ICTS)
  - Paediatric Early Warning System (PEWS)
  - Safety huddles
  - ISBAR
- Supporting the National Implementation Plan for the management of Septic Shock and Sepsis Associated Organ Dysfunction in Children (SSCGC)



- Agreeing and implementing collaborative pathways of care for the critically ill child. and the transfer of critically ill children, in the absence of Irish Paediatric Critical Care Transport Service (IPATS)
- Identifying the mandatory education and training requirements of the multidisciplinary team caring for the critically ill child including the provision of education and training
- The implementation of the National Paediatric and Neonatal Smart- Pump Project across Saolta hospitals

These objectives and deliverables will guide our work for 2022.

5.5.4.4 Additional QI 2021 commenced and/or advanced in 2021.

Notwithstanding the unprecedented and continued impact of Covid-19, 2021 saw a number of important developments, including:

- Scoping a Hybrid Professional Development pathway for nurses in Children Services: Saolta Diploma Children's Nursing Registration Programme with CHI.
- Engagement with Helium Arts Programme for Saolta: Improving the healthcare experience of children and teenagers through arts, craft and play.
- Engagement with the Healthy Childhood Programme: Supporting Health Promotion and child/parent empowerment.
- Progressing The "Little Journey App" (PUH pilot site)- A Digital Platform APP in Improving Child and Parent experience of scheduled day surgery:
- Establishing a Roscommon University Hospital (RUH) Dental Project: Supporting care pathways and nursing staff education in scheduled care.
- Developing a Support Resource for all New Nursing Staff working in children services: The development of a Saolta Children's Nursing Orientation Support Workbook.
- Establishing a SSCNG Documentation Work stream: To progress the standardisation of nursing practice guidelines, bedside documentation, nursing assessments and care planning.
- Assurance of high quality treatment and care through using the staff engagement in Paediatric Quality Care Metrics(QCM), Peer QCM Audits ,the development of Paediatric Quality Nurse Champions, the standardisation of Paediatric Quality boards and a Saolta approach to Children's QCM education.
- Delivering blended care: Maintaining the use of technology to deliver care virtually where clinically appropriate: Nursing virtual consultations and telemedicine.

This is not an exhaustive list

5.5.4.5 Looking ahead: Priorities in 2022

Our focus on QI patient and staff safety remains at the forefront of what we do and how we approach the challenges that the COVID-19 pandemic has brought – whilst working with renewed ambition to improve care and support our staff. We need to continue deliver and develop the children's services with a clear vision, which is aligned with the National Models of Care, Leading The Way: A National Strategy for the Future of Children's Nursing in Ireland 2021-2031, Slainte Care Implementation 2021-2023 and Saolta Strategy 2019-2023.

Priority 1: Continued advancement of the objectives of the SCIIP Project.

Priority 2: Developing relationships and partnerships with public and primary health agencies to promote wellbeing of children,

Priority 3: Quality Assurance: Development of Paediatric QCM network and Paediatric Dashboard

Priority 4: "Leading the Way" Nursing Strategy Saolta Self -Assessment and QIP

Priority 5: Growing our own workforce for the future

Priority 6: Child and Family Engagement

Priority 7: Progression towards integrated healthcare for children and adolescents as part of the national paediatric model of care i.e networks, integrated posts.

5.6 Education

5.6.1 Children's Nursing Education Report

Regional Children's and Young Persons Education – (RCYP) group

Since the introduction of the Regional children's and young people nurse education group west/Midwest/ northwest in 2017 nurses, midwives and other healthcare professionals have actively engaged with the group and its continuing professional development programmes. In the current health economy in Ireland, greater integration to ensure more standardised and safer care and better outcomes for patients along with value for money and skills utilisation is critical in maintaining a health service, which has finite resources and infinite demand.

The continuing developments of the COVID-19 pandemic created particular challenges for clinical sites, which had a resulting, impact on the delivery of education during this time. This ranged from the immediate response to service need for urgent education and the support of the implementation of the COVID-19 Vaccination programme to maintaining continuing professional education in a fast changing society and clinical world. These challenges were further compounded by the 2021 cyberattack on HSE systems. The RCYP group continued to explore innovative means to build sustainable capacity within the capability of the CNMEs and services to meet the demand for education and training for nurses and midwives working with children and young people across all healthcare settings within the region. A phased return to classroom-based programmes in 2021 has been well received, as has the continuation of remote access education.

The transition to online education since 2020s has given greater access to programmes in a time efficient manner for participants. This has allowed greater access to expertise from outside the region such as national and internal experts over a wide range of programmes. Such as the online collaboration on the Child with a Life Limiting Condition level a programme with Children's Centre of Nurse Education (CCNE) and Children's Health Ireland (CHI).

5.6.2 Summary of Activity of Programmes Delivered via WebEx:

Programmes delivered via WebEx 2021	Number of attendees CNME Mayo/ Roscommon	Number of attendees CNME Galway	Number of attendees CNME Donegal	Number of attendees CNME Sligo	Total
Child with a life limiting condition (CCLA) Level A programme webinar 1					
CCLA webinar series x 8 sessions	585		178		763
Eating disorders in the child and young person webinar series x 5 sessions	253	318	176	210	957
Autism Webinar series x 5 sessions	243				243
Trauma Informed Practice: Where do we begin webinar series x 6 sessions	1170				1170
Fundamentals of Neonate in the general paediatric unit		20			20
Care of the New born webinar	138				138
Positive Behaviour Support Workshop	3				3
Total	**2392**	**338**	**354**	**210**	**3294**

5.6.3 Summary of Activity of Programmes Delivered in Classroom

Programmes delivered in Classroom 2021	Number of attendees CNME Mayo / Roscommon	Number of attendees CNME Galway	Number of attendees CNME Donegal	Number of attendees CNME Sligo	Total
Situational Awareness of the unwell child in the Emergency Department - MDT approach	16		22		38
National Anaphylaxis Programme	47		5		52
Paediatric Life Saving Programme (PLS)			39		39
Medication Management in the Child	6			11	17
Neurosurgery in children and young people	32	20			52
Venepuncture in children and young people	6				6
Non Invasive ventilation NIV in children in the acute setting		6			6
Injection Technique Training Programme	7	1			8
Anaphylaxis: National Anaphylaxis Education Programme for Healthcare Professionals (Mass Vaccination Prog)	3	1		1	5
HEARTCODE BASIC LIFE SUPPORT COURSE FOR HEALTHCARE PROVIDERS (Mass Vaccinators Prog)	4	1		1	6
Mass vaccination suite (Children's')		10			10
Total	**121**	**39**	**66**	**13**	**239**

Developments

2021 has demonstrated that there is a requirement for both classroom based programmes, online and blended learning programmes. The recent collaboration with CHI Temple Street across the RCYP group/Saolta Healthcare Group/CHO 1/CHO2 on the Pilot of the Neurosurgery Programme was very successful and is now being implemented nationally. A critical success of the RCYP group is its adaptability to clinical needs and evolving educational approaches. It continually explores new mediums to best support its clinical stakeholders. This has been and continues to be critical in the development of RCYP continuing professional development programmes with clinical stakeholders. However, a challenge has been the availability of expert and knowledgeable resources to implement online and blended learning programmes. For example, a Learning Technologist in each CNME in the RCYP group is required to further enhance and develop the capability and capacity of the blended learning approach to continuing professional development in the region.

Factors critical to the ongoing success of the RCYP group

- Support from senior nurse/midwife managers
- Seek support for relevant resources for CNMEs re implementation of blended/online learning (this is already in progress)
- Be cognisant of all stakeholders e.g. other children's services in the country not just the west
- Continue to build strong links with CHI and CCNE
- To support the implementation of Leading the Way: A National Strategy for the Future of Children's Nursing in Ireland 2021-2023

5.7 Integrated Services

5.7.1 Clinical Nurse Coordinators Life Limiting Conditions

Within the Saolta group there are currently two Clinical Nurse Coordinator's for Children with Life Limiting Conditions (CNC) in Saolta with one is based in Letterkenny University Hospital (LUH) providing the service for children living in Co. Donegal. The other post is based in University Hospital Galway (UHG) covering Mayo University Hospital (MUH) and Portiuncula University Hospital (PUH) including children living in counties Galway, Mayo and Roscommon.

Hospital	New Referrals 2020	New Referrals 2021	Deaths 2020	Deaths 2021	Discharges 2020	Discharges 2021	Total no. of children 2020	Total no. of children 2021
Galway/Mayo/ Portiuncula	13	17	7	9	3	1	48	52
Donegal	4	5	1	0	0	4	27	35

The primary focus of the children's outreach nurse is the child and family adding value to existing services so that children with life limiting conditions can be cared for in so far as possible in the home setting. The CNC coordinates the children's care in collaboration with health care professionals in the acute and community settings, smooths the transition between services for families caring for a child with a life limiting condition and in particular those requiring home care at the end of their lives thus ensuring continuity in care, This also includes being an informed resource, facilitating education and training as required and supporting the collection of data in relation to children with LLCs.

These posts are embedded in the local children's services of their managing hospital. The current paediatric outreach services are insufficient to meet the increased needs and geographical spread in the Saolta group. Going forward it is anticipated that an additional 1.5 WTE is needed to support the delivery of a quality and equitable service for children and families.

5.8 Health and Social Care Professions (HSCP)

The Health and Social Care Professions (HSCP) are core service providers to women and their partners, children, other service users and staff in the Women's and Children's MCAN. This section highlights the activity and services delivered by the principal HSCP teams in Paediatrics. Other HSCP Services also have involvement in the care we deliver to our service users.

5.8.1 Physiotherapy

Physiotherapy Referrals:		2016	2017	2018	2019	2020	2021
Galway	Inpatient	-	-	-	-	131	133
	Outpatient	-	-	-	-	226	119
	Clinic	-	-	-	-	143	37
	Total Referrals GUH	**-**	**-**	**627**	**1032**	**500**	**289**
Portiuncula	Inpatient	-	-	-	-	77	78
	Outpatient	-	141	135	150	99	155
	Total Referrals PUH	**-**	**-**	**-**	**-**	**176**	**233**
Sligo	Inpatient	189	226	230	233	138	141
	Outpatient	122	113	129	207	152	166
	Total Referrals SUH	**311**	**339**	**359**	**440**	**290**	**307**
Letterkenny	**Total Referrals LUH**	**253**	**237**	**259**	**233**	**176**	**150**
Mayo	Inpatient		105	136	117	57	66
	Outpatient						340
Physiotherapy Activity Number Treatment Sessions:		**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Galway	Inpatient	-	-	-	-	407	418
	Outpatient	-	-	-	-	746	574
	Clinic	-	-	-	-	333	299
	Total Activity GUH	**-**	**-**	**-**	**-**	**1486**	**1291**
	Total GUH Number Patients Seen	-	-	753	1124	653	451
Portiuncula	Inpatients	216	127	224	-	127	78
Sligo	Inpatient	437	456	546	442	473	282
	Outpatient	659	860	906	1120	842	942
	Total Activity SUH	**1096**	**1316**	**1452**	**1562**	**1315**	**1224**
Letterkenny	Total Referrals LUH	**552**	**498**	**524**	**482**	**389**	**224**
Mayo	Inpatient	-	-	358	362	161	150
		-	-	786	847	586	639

5.8.1.2 Physiotherapy Service in Galway

Service overview

The paediatric physiotherapy team consists of 2.0WTEs; 1.0 WTE Senior Physiotherapist, 0.5 WTE Senior Physiotherapist CF and 0.5 WTE Staff grade physiotherapist. As a team, we cover a broad range of conditions in many clinical settings such as

Inpatient physiotherapy

- St Bernadette's children's ward: Any patient requiring physiotherapy admitted for medical, surgical, orthopaedic, and respiratory and neurology conditions.
- Outreach service for any patient <16yrs on any ward in UHG as required
- St Angela's post-natal ward: infants requiring physiotherapy post-natally with Musculoskeletal (MSK) conditions.

Outpatient physiotherapy

- MSK service for children 0-16 years: patients are referred by consultants in GUH and nationally.
- Respiratory patients: OPD service for children that present with complex respiratory conditions that require specialist physiotherapy input for airway and secretion clearance such as neuromuscular disease, bronchiectasis, recurrent RTI's and chronic atelectasis .
- Neuro-developmental delay:
- Assessment for children with gross motor delay to identify potential long term needs of patients

Clinics

- Physiotherapy is a key component of twice weekly neurodevelopmental clinics, led by consultant neonatologists. The assessment and care delivered by the physiotherapy team at these clinics has led to better recognition of the physiotherapy role in managing complex patients. Attendance has simultaneously facilitated improved patient centred care, enabling patient to access different therapies on the same day.
- Weekly orthopaedics Ponseti clinic for the management of Congenital Talipes Equinovarus is led by the senior physiotherapist in Merlin Park Hospital under clinical governance of visiting orthopaedic consultants from Children's Hospital Ireland (CHI).

Challenges:

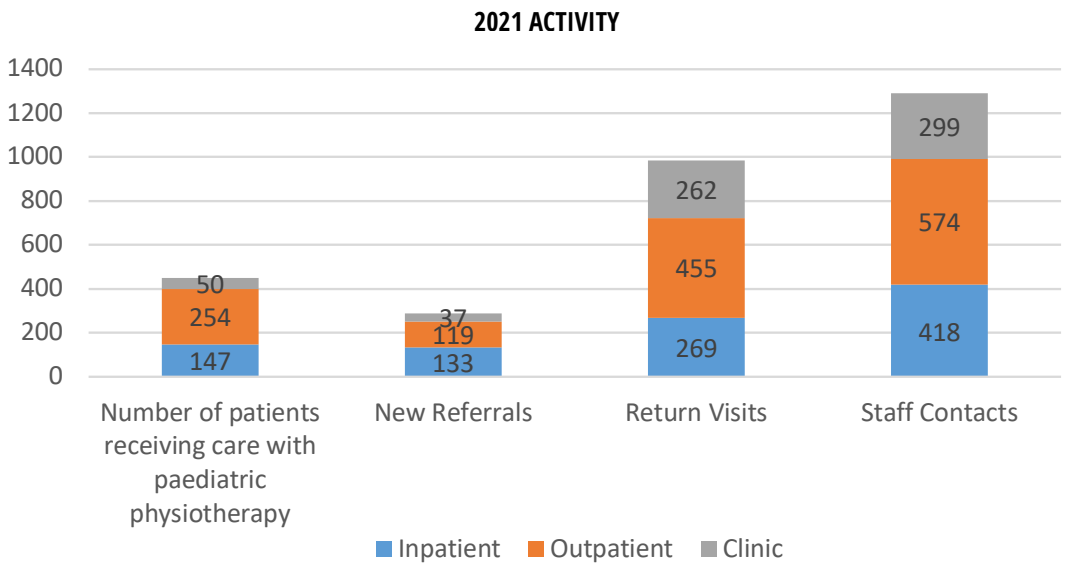
Staffing: Due to the ongoing Covid pandemic, staffing and services were considerably impacted throughout the year.

Clinics: The complex upper limb clinic was discontinued due to limitations caused by the covid pandemic. An MDT clinic established for children with complex neuro-disability and orthopaedic needs also has not be able to continue in 2021 due to the departure of the paediatric orthopaedic consultant in 2020

Achievements:

Over 2021, a pathway for the DDH has been developed alongside the Neonatology, Orthopaedic and Radiology departments. This will be in line with National Selective Ultrasound Screening Programme for Developmental Dysplasia of the Hip in Infants. This includes the development of a physiotherapy led Pavlik Harness clinic, which is due to commence in April 2022. This will ensure that children requiring treatment and weekly reviews will be able to access services locally.

A Clinical Specialist Physiotherapist post in Paediatric Orthopaedics has been approved and should be recruited in mid-2022. This role will be key, working alongside CHI consultants at an advanced level to develop services in GUH, as well as overseeing specialised clinics such as Ponseti and DDH.



5.8.1.3 Physiotherapy Service in Portiuncula

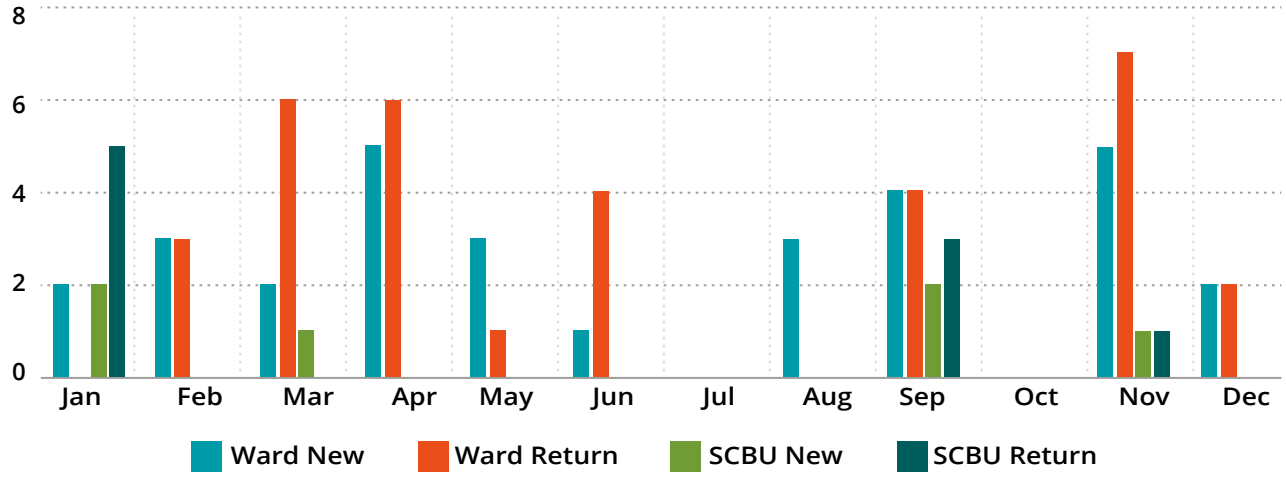
Paediatric physiotherapy service is provided in both the in and outpatient setting, including SCBU and ICU, which is rare enough fortunately.

The ward based services see a range of conditions for advice and treatment for conditions such as:

- Neonatal conditions: Erb's palsy, Congenital Talipes Equinovarus, Congenital Talipes Calcaneovarus, Neurological conditions (including congenital and acquired)
- Torticollis
- Respiratory, including Dysfunctional Breathing
- Plagiocephaly advice and treatment, if appropriate
- MSK and orthopaedics, including conditions with persistent pain
- Oncology
- Complex chronic and life-limiting conditions, requiring planned discharges of patients who may potentially have frequent readmissions, in the absence of other therapy disciplines, with limited access to equipment and space to rehabilitate this group of patients

Neurodevelopmental care is provided to patients transferred from a tertiary centre and awaiting discharge home.

PAEDIATRIC IN PATIENT PHYSIOTHERAPY ACTIVITY 2021

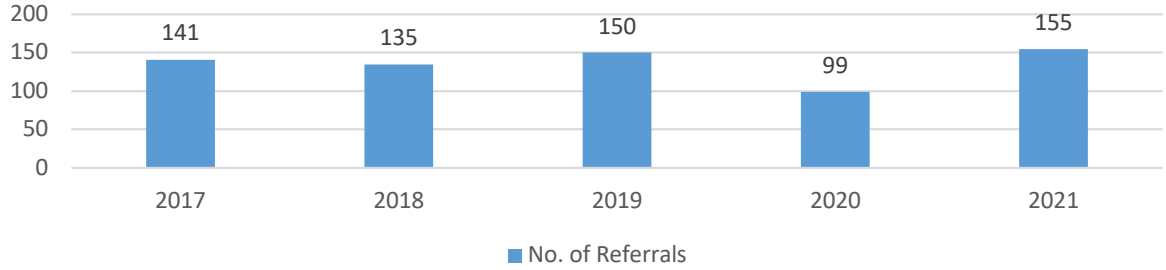


The outpatient service is provided to consultant (in the main) and GP referrals from Roscommon and East Galway (2021 = PUH 52, GP 3, Tertiary 99 (e.g. MPUH, UHG, CHI, etc.)) primarily for conditions relating to musculoskeletal, Rheumatology and Orthopaedic conditions, either traumatic or persistent pain. Recently there has been an increase in referrals for Respiratory conditions, particularly for Dysfunctional Breathing.

The service in both areas is provided by a number of different Physiotherapists, depending on the condition and level of experience available. This allocation is from the general staffing levels and, in 2021, there is no Physiotherapist appointed specifically for this service. A clinical risk has been identified and staffing changes are to be implemented in 2022.

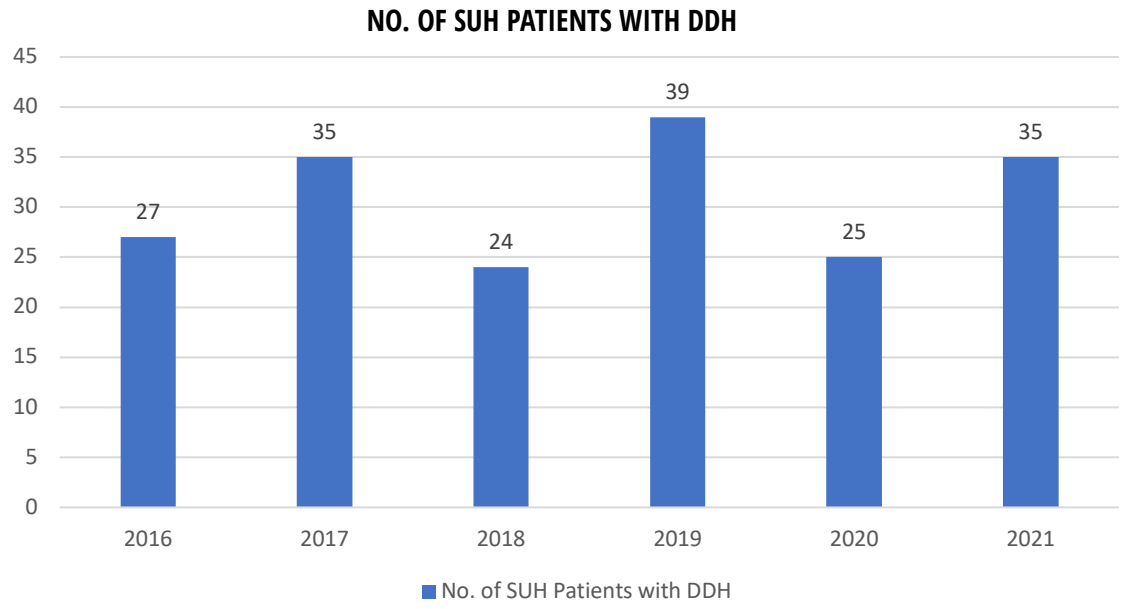
We accept referrals from consultants and GPs, and we work closely with the PCCC service to ensure that children needing specialist neurological treatment and MDT care are referred on to the most appropriate local service.

PAEDIATRIC OUT PATIENT PHYSIOTHERAPY REFERRALS RECEIVED 2017 - 2021



An outstanding aim would be to appoint specific clerical support to release clinical staff and ensure more accurate triage and reporting to the MCAN.

5.8.1.4 Physiotherapy Service in Sligo



5.8.1.5 Physiotherapy Service in Mayo

The paediatric physiotherapy service at Mayo University Hospital to date has been delivered via the senior Respiratory Physiotherapist (0.25WTE) and a staff physiotherapist (0.75WTE outpatient). Approval was received in 2021 to upgrade the staff grade position to Senior Paediatric in Paediatrics. This will deliver the required governance for inpatient and outpatient Paediatric services in MUH, support the development of physiotherapy in SCBU and the development of DDH pathway.

The physiotherapist attends the Paediatric Asthma clinics (x3 per month) and completes the Shuttle Testing for this group of children. This service is re-establishing post Covid.

There are ongoing discussions with Paediatric services in the Community regarding management of paediatric referrals between acute and Primary Care.

5.8.2 Nutrition and Dietetics

5.8.2.1 Nutrition and Dietetics Service in Galway

Referrals	2019	2020	2021
General Paediatric	91	193	204
Cystic Fibrosis (0.4WTE)	88	80	67
Activity – Number Treatment Sessions	2019	2020	2021
General Paediatric	149	547	1171
Cystic Fibrosis (0.4WTE)	248	353	228

Nutrition and Dietetics Achievements in Galway:

General Paediatrics:

- The dedicated Paediatric Dietitian post in Galway has been in position for 2 years resulting in more complex dietetic patients been seen closer to home. The ability to provide shared dietetic care services between CHI/Galway community services and GUH has increased exponentially providing optimum patient care. The Enteral feeding dietetic service has expanded hugely now seeing up to 400 consults in paediatric tube feeding in 2021.
- Weekly dietetic led OPD clinic
- Dietetic cover to the dayward for complex infants typically on enteral feeds
- OPD consultation facilities upgraded to become more paediatric friendly in consultation with other HSCPs
- Ongoing expansion of services and continuous professional development in the areas of allergy, cardiology, neuro-disability, neurology, eating disorders and complex infant feeding with focus on enteral and parenteral feeding.
- Ongoing education provided:-
  - Lectured on the 'Masters of Science in Adolescent Health' on the Health and Development module for National University of Ireland, Galway
  - Education session for NCHD induction to GUH and teaching on the Postgraduate Education programme for NCHDs

Cystic Fibrosis:

- Dedicated CF Dietitian 0.4 WTE in Galway providing both inpatient and outpatient services.
- Facilitated Telehealth consultations during Covid.
- Ongoing continuous professional development in the area of Paediatric Cystic Fibrosis
- Contributed towards updating the Cystic Fibrosis section in the Irish Nutrition support Reference Guide

Diabetes:

The allocated 0.5 Senior Diabetes Dietitian post was filled in September of 2021. This post was vacant for the majority of 2021 (total of 9 months) and patients were seen on a needs basis only. This included new type 1 patients admitted onto the ward or patients highlighted by the diabetes team as urgent.

New developments since the post has been filled include

- Weekly Dietetic led clinic
- Updated resources for carbohydrate education and newly diagnosed patients.
- Carbohydrate content of inpatient meals collated and resource developed
- Education session for nursing staff on nutrition and diabetes
- Ongoing continuous professional development in the area of Paediatric Diabetes

5.8.2.2 Nutrition and Dietetics in Letterkenny:

Referrals	2021
No. of Diabetic Referrals	75
Review Treatment Sessions	2021
Diabetes Treatment Sessions	88

	New	Review	Total
Paediatric Ward	67	117	184
Outpatients	50	227	277
Telephone Appointment	21	247	268
Paediatric Diabetes			88
NNU	5	13	18

Achievement

Appointment of 0.5 WTE for paediatrics, filled on temporary basis.

Challenges

No community dietetic resource for child with complex needs meaning all remain under care of acute dietitian. Currently over 20 community patients on NG and PEG feeds under acute service which greatly reduces capacity for acute setting.

5.8.2.3 Nutrition & Dietetics in Mayo University Hospital:

1 WTE for Paediatric service MUH. No allocation of Dietetic WTE to diabetes or cystic fibrosis services.

This 1 WTE also provides inpatient cover to maternity ward (inpatient Hyperemesis Gravidum/ Gestational Diabetes Mellitus/pregnancies at risk of malnutrition etc) and weekly presentation to newly diagnosed GDM patients.

Paediatric Referrals	2021
Total Paediatric new referrals	221 (inclusive of CF and DM below)
Cystic Fibrosis new referrals	1
Diabetes New Referrals	11
Paediatric In- Patient Review Activity	2021
Total In Patient Reviews	947 (inclusive of DM and CF)
CF Reviews	2
Diabetes Reviews	99
Paediatric Out-Patients	2021
General Out-Patients New	1
General Out-patients Review	113 (inclusive of CF and DM)
CF Review	6
DM Review	88

5.8.2.4 Nutrition and Dietetics in Portiuncula:

Referrals	2021
No. of Diabetic Referrals	10
Review Treatment Sessions	2021
Diabetes Treatment Sessions	10
General Paediatric Treatment Sessions	148

5.8.2.5 Nutrition and Dietetics in Sligo:

Referrals	2021
In-Patient Referrals	54
Out Patient Referrals	204
No. of New Diabetic Referrals	8
Review Treatment Sessions	2021
Inpatient Review Treatment Sessions	115
Outpatient Review Treatment Sessions	181
Diabetes Treatment Sessions	178

5.8.3 Medical Social Work

5.8.3.1 Medical Social Work in Galway

The Role of Medical Social Work in a Paediatric Setting:

Families of children with children attending paediatric services often experience intense psycho social stressors and hardship that can negatively impact on their mental, emotional, social and financial well-being. They can often find it difficult to advocate for themselves and their child when faced with a complex medical and health care system. Medical Social Workers in paediatric settings provide a wide variety of services and interventions to assist these families such as individual or group counselling, connections to community supports and resources, crisis intervention and facilitating effective communication between parents, children and the multidisciplinary team.

One of the primary responsibilities of the Medical Social Worker is to help the parents and the young person cope with the emotional and psychosocial trauma and strain that comes with a chronic and life altering diagnosis. Chronic conditions can result in sudden or unexpected changes that can be deeply stressful and concerning for parents. At time of anxiety and vulnerability the Medical Social Worker provide patients and families with compassionate support and short-term counselling. Social Workers have a strong grounding and understanding in a family dynamics, coping resources, mental and emotional health and have a high level of competence in social and cultural understanding. Social workers will assist families link with appropriate supports in their community to enable them cope, to the best of their ability, with their illness, diagnosis etc.

Paediatric Medical Social Work in GUH:

The existing Medical Social Work staffing resource is insufficient to meet the overall demands and referrals the GUH generates. The deficits in staffing are stark when compared to the levels set out under the paediatric model of care and compared to other similar sized hospitals in Ireland.

GUH Medical Social Work Paediatric Resource 2022:

Speciality	Recommendation	GUH WTE	Existing Deficit
Diabetes	1.0	0	1.0
Cystic Fibrosis	0.5	0	0.5
Cardiology	0.6	0	0.6
Disability	0.5	0	1.0
Neurology	0.5	0	0.5
General Paediatric	1.4	0.8	1.0
Total	**4.5**	**0.8**	**3.7**

GUH Paediatric Medical Social Work Data 2021:

Referrals	2021
Inpatient Referrals	212
Outpatient Referrals	59
Contacts	2021
Inpatient Contacts	285
Outpatient Contacts	60

The Covid 19 pandemic brought many opportunities to work and deliver intervention and services in a new innovative way. A number of social work appointments and supportive counselling sessions that were originally face-to-face moved to virtual settings. While this was an initial challenge in terms of IT access and infrastructure, once set-up and available it offered parents in particular a more constructive use of time in that they did not need to travel or attend on-site for appointments and allowed attend from their own home or a space they considered supportive and safe.

The Medical social worker works with the multi-disciplinary team, in particular the AHP's, to provide specific parent group supports; for example, 'Tiny Gym' group sessions for pre term babies and parents discharged from the neo natal unit and small group sessions providing emotional support and education to parents of children newly diagnosed with Cystic Fibrosis.

5.8.3.2 Medical Social Work in Sligo:

Referrals	2021
Inpatient Referrals	57
Outpatient Referrals	12
Contacts	2021
Inpatient Contacts	285
Outpatient Contacts	60

5.8.4 Paediatric Clinical Psychology Service (University Hospital Galway)

The Paediatric Psychology Service at UHG consists of 1 WTE Senior Clinical Psychologist. Children, Young People and their Families (CYPF) with health conditions experience four times more psychological distress than their healthy peers. The Paediatric Psychology Service aims to meet the psychological needs of children and their families in the context of their physical illness, with the primary purpose of improving psychological outcomes, health outcomes, overall wellbeing and quality of life for patients. The Paediatric Clinical Psychology Service aims to deliver an accessible, efficient and effective service in close collaboration with the consultant paediatricians and other members of the paediatric team, incorporating international best practice standards.

Paediatric Psychology Service provides a psychology service to children under the care of a consultant paediatrician at UHG who present with psychological issues related to their medical conditions. This includes in-patient, out-patient, direct and in-direct work as well as systemic work with families, staff and allied agencies that support young people in the course of their daily lives.

Referrals are accepted from the paediatric department multi-disciplinary team in consultation with the Consultant Paediatrician. Common support provided includes:

- Support and management of the impact of a diagnosis on the child and family
- Coping with or adjusting to a medical condition
- Coping with a complex treatment regime
- Support for procedural distress
- Promoting adherence to treatment and improving the uptake of medical treatment
- Psychological support for complex decision-making in relation to surgical and medical interventions
- Pain or symptom management
- Assessment and intervention regarding medically unexplained symptoms
- Coping with acute physical illness or injury.
- Consultation with paediatric team members including provision of a psychological formulation of presenting issues with a view to promoting positive patient engagement in their medical care.
- Joint working and collaboration with multi-disciplinary team colleagues to provide coordinated best practice interventions
- Signposting of services or supports
- Development of psychoeducational materials for patients and families

A common referral issue to paediatric psychology in 2021 was Medically Unexplained Symptoms (MUS) or functional symptoms. Children and young people with Medically Unexplained Symptoms often have associated causative or maintaining psychological factors. These children often see multiple medical teams and have unnecessary investigations in the search for a diagnosis. A well-co-ordinated, psychologically informed care pathway reduces the unnecessary use of resources and potential harm. By working closely with the medical team, a psychological assessment can help staff and families to develop an alternative narrative for symptoms, drawing on a biopsychosocial model. Developing an agreed biopsychosocial formulation that illustrates the interaction between psychological factors and the physical experience can lead to some resolution of the difficulties and provide a roadmap for treatment which aims to facilitate a return to normal life.

During 2021 the Paediatric Psychology Service developed targeted psychoeducational supportive information for patients. An information leaflet to support children and their parents attending the ambulatory care pathway for a blood draw was developed in collaboration with nursing colleagues. A leaflet was also developed to help patients and their families understand and cope with distressing medically unexplained symptoms and functional presentations. During 2021 Paediatric Psychology also took part in providing training to the paediatric team and to National University of Ireland Galway students at both masters and doctorate level. The service continues to be involved in evaluating outcomes and patient experience with a view to service improvement.

Paediatric psychology does not have sufficient resource to meet presenting needs and currently prioritises patients who meet certain specified criteria. Feedback to date has highlighted that children, their families and their medical teams greatly value access to a psychological service in a timely manner at times of great need. Unfortunately a significant waiting list has developed for patients who wish to access paediatric psychology. Some patients, including those with significant psychological distress and resulting functional impact on their lives, have been waiting 12 months for paediatric psychology service as of 2021 year end.

Paediatric Clinical Psychology Data 2021

Paediatric Clinical Psychology	2021
Total number of referrals received	118
Inpatient referrals	25
Outpatient referrals	93
Number of children and families who received a service	65
Number of contacts	286
Waiting list (as of Dec 2021)	54
Longest waiting time (as of Dec 2021)	12 months

Further Development of the Paediatric Clinical Psychology Service in 2022

Paediatric Psychology aims to develop group interventions for children and families in partnership with multi-disciplinary colleagues in 2022. It is envisaged that paediatric psychology will target provision of support for children and their families struggling with chronic pain. Chronic pain in children is common with 1 in 4 children having a chronic pain episode in childhood. Paediatric chronic pain is linked to significant psychological, physical and social concerns for affected children and their families. It is linked to high levels of distress, decreased quality of life and associated functional disability such as missed school days. It also ranks among the most expensive paediatric health conditions. Paediatric Psychology plans to coordinate and facilitate multi-disciplinary group interventions for children and families coping with chronic pain in 2022 in line with best practice intervention recommendations.

5.8.5 PHARMACY

5.8.5.1 Pharmacy University Hospital Galway

We currently have 0.4 WTE senior pharmacist for paediatrics covering the paediatric ward, paediatric ED, paediatric ambulatory care, paediatric out patients and paediatric cystic fibrosis patients. A staff grade pharmacist provides cover to paediatrics when the senior pharmacist is on annual leave.

During this time the following is provided:

1. Attendance at the daily safety huddle
2. A daily visit to the paediatric ward, paediatric ED and paediatric ambulatory care to perform medication histories on all inpatients and review all drug charts for accuracy and appropriateness of each medicine prescribed.
3. Proactive advice to other healthcare professionals involved in the care of the paediatric patient e.g. advice to nurses on appropriate medicine administration and advice to doctors on dosing adjustments, monitoring or appropriate choice of medicines based on guidelines.
4. Ensure access to the CHI Formulary is maintained and readily accessible
5. Attend weekly paediatric Cystic Fibrosis MDT meetings and perform medication reviews of the cystic fibrosis patients attending clinic each week

Some of the quality improvements in which pharmacy were involved in 2021 include:

1. Replacement of the mini tablets used for access to the CHI Formulary with larger iPads in the paediatric ward, paediatric ED, and paediatric ambulatory care. These are more user friendly and make the CHI Formulary easier to access.
2. Training of a staff grade pharmacist in paediatrics to provide cover when the senior pharmacist is on annual leave.

5.8.5.2 Pharmacy Portiuncula University Hospital

Pharmacy QI initiatives in paeds 2021:

1. **Paediatric diabetic kardex** – Final draft agreed and the kardex is in use since March 2021
2. **Paediatric inpatient kardex** – Update of paediatric inpatient kardex for neonates and children in PUH with changes incorporated based on feedback from local stakeholders
3. **Medication safety moments for neonates and paediatrics** – Bite - sized information nuggets, each highlighting a single medication safety issue of relevance to prescribers and nursing staff. They are usually based on medication errors that are picked up on kardex review on the paediatric ward. They are circulated once a week to medical and nursing staff to improve medication safety for neonates and paediatrics.

4. **Prescribing information sheets for ED** – A prescribing information sheet was developed for prescribers in ED with information on prescribing anti-emetics, antibiotics and IV fluids in paediatrics. Dosing charts with measurable doses of Oral Morphine (Oramorph®) for children aged one month to 18 years were developed particularly for ED to reduce error with prescribing and administration of oral morphine for paediatrics
5. **Blue Paediatric folder and Green neonatal folder for ED and ICU** – Blue paediatric folder developed with information on prescribing and administration of analgesia, IV medications, glucose concentrations, antibiotics and sedation for ICU and ED Green neonatal folder developed with information on prescribing and administration of IV antibiotics, analgesia and commonly used medications in neonates for ED and ICU
6. **Analgesia dosing information charts** – Paracetamol PO/PR and NSAID dosing charts were developed in line with the Crumlin formulary to allow measurable doses of these agents to be given Education provided to all staff on paediatrics on these information charts at the daily safety huddle
7. **Education and training** – Do an education session every six months for the new medical teams on good prescribing practice and on prescribing of antibiotics in paediatrics Induction and training sessions for all staff in ED and ICU on the "Paediatric medication and PUH Paediatric Guidelines shared drive". Do an education session every six months for the surgical doctors on the prescribing information sheet with information on "Doses of commonly used medications in children requiring surgery > 3 years old". Regularly attend the safety huddles on the paediatric ward to launch new guidelines/ discuss any medication errors

5.8.6 PLAY SPECIALIST

The Play specialist posts across Saolta are outlined in the table below.

UHG	PUH	MUH	SUH	LUH	Saolta
1.0	0.5	0.5 Funded through charity*Gearoid smile*	1.0	0.6	Total 3.6

The Hospital Play Specialist role is varied, it needs to be flexible, organised and child led facilitating a safe and happy child-friendly space for children in the healthcare system. This service is provided to all children who are inpatients and those attending the outpatient services, direct and in-direct work with families and staff that support children in their experience of care. The aim of the play specialist and playroom on the wards is that patient care extends beyond the medical realm, aiding the child's recuperation and recovery time, helping with anxiety and boredom levels and positively influencing their experience of care.

2021 was another difficult year for children a who were in hospital, attending the ED, outpatient clinics or awaiting surgeries or treatment but there were some opportunities for changing how we work with children and families.

The continuing Covid -19 restrictions on visiting in hospital meant that our volunteers (CIHI) were not able to be in the hospital. Haven gone from having a team over 40 CIH play volunteers in GUH , to having none creating additional challenges for the delivery of the play service. The biggest change has been creating dedicated time slots for the playroom affecting the opportunity to interact with all children by up to a half.

Despite this in 2021, the play specialists continued to facilitate:

- One to one play for everyday play and recreation
- Individualised play programmes through collaborative MDT care plans,
- Scheduled one to one play care in particular for those who have to attend hospital frequently or who are in need of longer-term care e.g. attending for infusions,
- Providing all children with individually packed play packs(through Children in Hospital Ireland),
- Distracting a patient during inserting or removing a cannula/ taking bloods/ dressing or undressing wounds
- One to one working with distressed/anxious children
- Supporting families- Giving space and time to parents/carers, relieving them for a while from the stress associated with their child being ill and in hospital.

5.8.6.1 Play Specialist (University Hospital Galway)

In GUH for 2021, there were two key initiatives in the delivery of play. The establishment of neonatal developmental play sessions 'Tiny Gym' in conjunction with the Physiotherapist. This involves delivering play sessions in small groups for pre-term babies discharged from the neo natal unit and their parents with information provided for age appropriate play and developmental toys/resources. A Cubbie, was also received (funded through the Charity, Sick Kids in Galway Foundation in partnership with the Galway Atlanta aquarium) and is used to support children with additional/special needs and children who maybe a bit worried/anxious, upset and or challenging behaviour.

The key priorities for 2022 is to re-establish the volunteer programme (CIHI) and the third level education programme student placements to pre-covid times. This would facilitate consistent opportunities for play in OPD clinics, ED and the ward and increase the opportunities for preparing children for elective surgery/ taking bloods/ infusions, by the using medical dolls/ equipment to show children what to expect and answer any of their concerns

5.8.6.2 Play Specialist (Mayo University Hospital)

Throughout 2021, the play specialist service continued to be adapted to be able to facilitate play for children during the Covid 19 pandemic. The average number of children engaged by the play specialist: was 15-20 per day, which involved the children attending the Paediatric Decision Unit as well as those admitted to ward. The play specialist service also involved facilitating support for parents and patients where mental health concerns arose providing emotional support and referrals as appropriate in the wider context of relevant clinical and CAMHS teams. Additional supports also included psychoeducational play activities to help support compliance with care plans and additional resources for patients to take home with them to support coping skills.

Group play could no longer be continued and meet IPC guidelines, which required the service and activities to be flexible and adaptive with a greater emphasis on working to support the parents/carers in order for them to support their children. This also meant a greater focus on:

- One to one bed side engagement for all children
- Increased development of play and art activity packs and contents to maximize opportunity for parents/carers to engage playfully with their children and to promote helpful emotional co-regulation within the family unit.
- Reviewing and facilitation of toys to meet IPC guidelines and support developmental play with single use or wipe only play/art materials.
- The adaptation of distraction play for procedures, no longer use bubble blowing for breath work to include more visual and aural sensory play.
- Acquiring and implementing a sensory pain relief resource that could be used by nurses during certain procedures (PVC/LP) that facilitated the patient to be less distressed during that procedure through physical distraction.

The biggest challenge has been facilitating only one to one play, as the only play person on the ward and adapting to rely more on fostering play between parent/carers when amongst peers or with the play specialist not possible. Patients generally find the time long and relying only on parents who are usually stressed to some degree by the fact of being in hospital, is not ideal in reducing patients own stress responses.

Newly decorated playroom in the Paediatric Ward in Sligo University Hospital.

5.8.7 Occupational Therapy

5.8.7.1 Occupational Therapy Service in Galway

Currently there is 1 WTE OT in post providing Occupational Therapy (OT) input to the inpatient Paediatric Ward and Outpatients referred by the Paediatric Consultants based in Galway University Hospitals. The Acute Paediatric OT service aims to see a wide range of children on the ward with various presentations including marked prematurity; developmental concerns; feeding difficulties; physical and sensory difficulties. OT provides input to children and their parents who require support with enhancing daily living skills which may include self-care (getting ready to go out, eating a meal, using the toilet), being productive (going to nursery or school) and leisure (playing or completing hobbies). OT supports parents and children by adapting the environment or task and influencing the child's capabilities through rehabilitation or compensation.

Examples of OT intervention in the acute ward:

- postural support in relation to feeding, or to promote respiratory function
- recommendations in relation to equipment aids and appliances to support development both on the ward and in the home environment
- advice around sensory processing and providing input to reduce impact of sensory sensitivities whilst the child is in the acute environment
- Promoting developmental and play skills whilst on the ward to maintain or enhance skills at a time of acute illness, trauma or elective procedure.
- Parental support to engage children in their daily occupations on discharge from acute unit
- Examples of Outpatient OT intervention:
- Joint working and collaboration with multi-disciplinary team colleagues to provide coordinated best practice interventions in areas such as pain management intervention for children experiencing chronic pain
- Splinting
- Assessment for signposting of services or supports

Activity Data

Context

There was no ward based Occupational Therapy Service for the first 3 quarters of the year. As the service was re-established on the inpatient ward from October 2021, a large portion of time during the final quarter was initially spent on service development.

In terms of client time, a large amount of time was spent screening files on the ward, to determine their suitability for OT input and from there, educate the team on appropriate OT referrals.

Data collated from final quarter as follows:

22 were seen for direct OT assessment and intervention.

- 6 underwent postural assessments and seating recommendations
- 5 required referral to Community Disability Network Team OTs to support complex discharge planning
- 6 were seen pre and post Pelvic Osteotomy Surgery, as part of the Developmental Dysplasia of the Hip Pathway
- 5 trauma patients were seen
- 2 were seen for upper limb splinting (with onward referral to outpatients)
- Prior to October 2021, the breakdown of cases seen is as follows:
- 10 trauma/orthopaedic paediatric cases seen throughout the year by OT covering the adult ward.
- 7 paediatric outpatients were seen virtually

Service improvements

As a newly developed service, a focus for 2021 was service development; building resources such as assessment tools, a stock of postural equipment, and development of policies and pathways.

The paediatric HSCP team has reinstated monthly meetings with a focus on group CPD.

Another focus has been education of staff on the OT role and highlighting appropriate referrals through systematic screening and team education.

Working relationships have been established with acute paediatric OT teams in other similarly sized units and the GUH OT has been involved in the establishment of a National Working Group for Acute Paediatric OTs. This will promote CPD and skill development in this setting.

Storage facilities to house a small amount of equipment and resources in the Paediatric unit have been approved and will be completed in 2022.

Challenges

Staffing: Due to the ongoing Covid pandemic, staffing and services were considerably impacted throughout the year. The OT in post worked remotely for the first three quarters which greatly impacted on service delivery and service awareness. The onsite OT service commenced in the last quarter.

Environment: There is currently high demand in the paediatric department for suitable treatment space to deliver therapy which has additionally been compounded by Covid 19 restrictions.

Lack of suitable storage facilities for equipment has also been a challenge.

Key priority

Given the positive effects and outcomes of the first quarter of service delivery, and positive data also coming from early 2022, the goals for the coming year are to enable the Occupational Therapy Service to continue to evolve and develop.

- To continue to develop an appropriate referral base through screening and education
- To continue to develop Paeds OT resources within the department such as referral criteria and prioritisation
- Additional storage: Provision of storage space would allow for the procurement of equipment for use with both in patients and outpatients.
- Additional equipment : The types of equipment that we would benefit from are positioning aids for smaller infants and children with complex needs, seating for inpatient use, toys/resources to support assessment and treatment

Our long term vision is to have further Occupational Therapy Staff to develop speciality based OT. Specific areas where OT service and further OT positions could be developed include:

- Pre and Post Botox therapeutic intervention
- Developmental Clinics
- Orthopaedics
- Neurology
- Neonatology/NICU
- Hand Therapy

5.8.7.2 Occupational Therapy Service in Sligo

Referrals	2021
Inpatient Referrals	4
Outpatient Referrals	1
Treatment Sessions	2021
Inpatient Treatment Sessions	3
Outpatient Treatment Sessions	1

5.9 Paediatric Contributors

Galway University Hospital:

Dr Niamh McGrath,
Paediatric Consultant

Ms Anne Matthews,
CNM 3,
Paediatric Department

Dr Hazel Moore,
Paediatric Clinical Psychologist

Ms Ciara Breen,
Occupational Therapy Manager

Professor Nicholas Allen,
Consultant Paediatrician/
Paediatric Neurologist

Dr. Elaine Reade,
Consultant Paediatrician

Ms Sheila Moran Senior Paediatrics and Neonatal Pharmacist

Ms Lisa Porter,
Play Specialist

Ms Aoife Fitzgerald,
Senior Paediatric Dietitian

Ms Racheal Murphy,
Senior Occupational Therapist

Ms Sinead Molloy,
Diabetes Nurse

Ms Marian Madden,
RANP in Acute Paediatric Medicine, ED

Ms Helen M Burke,
RANP Diabetes

Ms Susan Massey,
RANP Respiratory

Ms Colette Goonan,
Clinical Nurse Coordinator for Children with Life Limiting Conditions

Ms Catherine O'Sullivan,
A/Physiotherapy Manager in Charge 3

Mr Donal Gill,
Principal Social Worker

Ms Fiona Malone,
HIPE Manager

Letterkenny University Hospital:

Ms Marion Doogan,
ADOM/Service Manager

Ms Alison Johnston,
CNM IT & Data Management

Ms Leonard Molloy,
IT Manager

Ms Avril McCloskey,
Diabetes

Ms Sinead McLaughlin,
HIPE Casemix Coordinator

Mr Tommy Kerr,
Physiotherapy Manager

Mayo University Hospital:

Dr Hillary Stokes,
Consultant Paediatrician

Ms Maria Hobson,
Diabetes Nurse

Professor Michael O'Neill,
Consultant Paediatrician

Ms Lorna O'Connor,
CNS Respiratory

Ms Mairead Loftus,
Specialist Coordinator/Nurse Tutor

Ms Breda Murphy,
Play Specialist

Ms Imelda Byrne,
CNM3

Ms Chris Kirk,
MIS and Applications Manager

Ms Bernadette Garvey,
HIPE Manager

Ms Fiona McGrath,
Physiotherapy Manager

Portiuncula University Hospital:

Ms Gene Nevin,
CNM3

Ms Fiona Duffy,

Ms Róisín O Hanlon,
Physiotherapist Manager

Ms Kathy Harkins,
Pharmacist

Dr Francis Neenan,
Consultant Paediatrician

Dr Muhammad Shahid,
Consultant Paediatrician

Ms Ann Marie Furlong,
CNM2

Ms Roisin Meleady,
CNM2 Diabetes

Ms Eilish Barrett,
Dietitian

Ms Maeve Holmes,
Dietitian

Ms Hilda Dolan,
HIPE Manager

Sligo University Hospital:

Dr Dara Gallagher,
Consultant Paediatrician

Ms Bernie Clancy,
Clinical Nurse Manager 3

Ms Barbara Brehony,
IT Manager

Ms Rachel Wirtz,
Clinical Specialist Paediatric & Neonatal Physiotherapist

Ms Annette Bruce,
RANP Respiratory

Ms Geraldine O'Brien,
CNM2 Quality Assurance

Ms Marguerite Mullen,
HIPE Manager

Women's & Children's Managed Clinical & Academic Network:

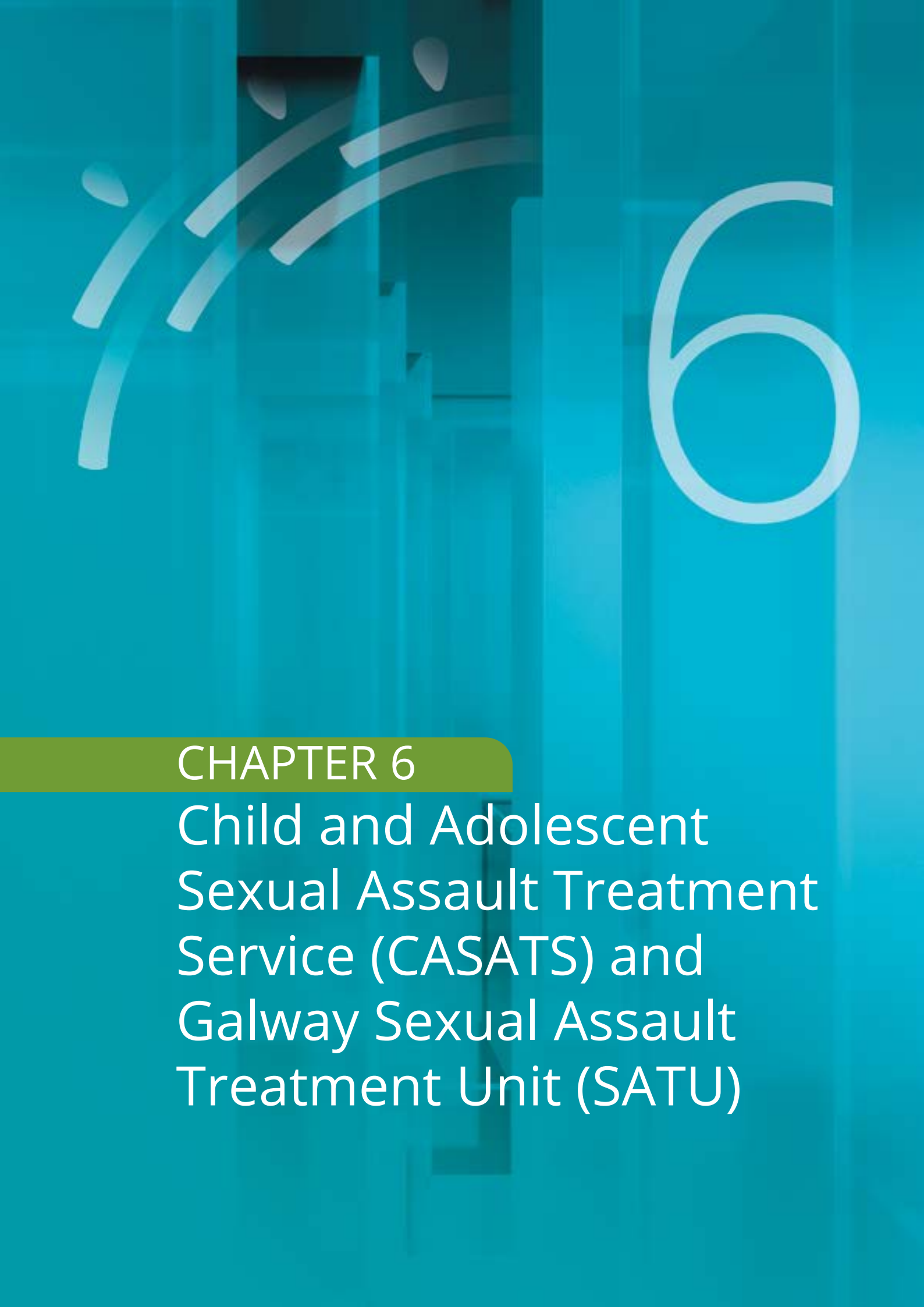
Dr Mary Herzig,
Consultant General and Respiratory Paediatrician,
Clinical Director Paediatrics & Neonatology

Ms Siobhan Horkan,
Director of Paediatric Nursing

Ms Karen Leonard,
CNM3,
Paediatrics Quality Improvement

Ms Ailish Mohan,
Business Manager

Ms Kathleen McGrath,
Data Analyst



CHAPTER 6

Child and Adolescent Sexual Assault Treatment Service (CASATS) and Galway Sexual Assault Treatment Unit (SATU)

6.1 Child and Adolescent Sexual Assault Treatment Service (CASATS) 2021

Dr Joanne Nelson, Clinical Director CASATS & Consultant Paediatrician,
CNS SAFE: Cathy Bergin, Mary Mahony, Susan Hogan, Caitriona Shortt
and Caitriona Freeney

The Child and Adolescent Sexual Assault Treatment Unit (CASATS), is based in Galway, but serves a wide geographical area in West and Mid-West Ireland. It has been an HSE service since April 2011. It is co-located with SATU services, established in Galway since 2009. CASATS provides Forensic Medical evaluation for children 0-14 years suspected of having been sexually abused. CASATS also supports adolescents 14-18 years presenting outside the forensic timeframe. Acute adolescent cases 14-18 years are assessed through SATU services, on the same site, with capacity for joint CASAT/ SATU Forensic Examination depending on the best interests of the child. The service remains the only 24/7 service in Ireland for child sexual abuse. In 2021, 102 children engaged with the CASATS service, which continued to support child victims and their families throughout the COVID 19 pandemic.

Barnahus: is a child-centred response to sexual abuse. Initially established in Iceland and subsequently throughout much of Europe, Ireland endorsed the model in 2018, with a Pilot project in Galway serving West and Mid-West Ireland. This evolved into a substantive multi-disciplinary service, which is a collaboration between the HSE, Tusla, The Garda Síochana and voluntary agencies (ASSC and Galway RCC). Barnahus translates as "Child House". The model is based on the principle that undertaking the forensic interview and providing support quickly will improve criminal justice and therapeutic outcomes for child victims of sexual abuse. Barnahus prevents re-traumatisation by avoiding repeated questioning. It embraces all relevant services required to assess, document, investigate and prosecute cases of sexual violence against children and to assist and support the child and (non-offending) family members in the immediate and longer term. Children access all services under one roof.

In 2021, as well as interagency case planning and active collaboration for cases of suspected child sexual abuse in West and Mid-West Ireland, much work was devoted to finalising arrangements for a purpose built facility for Barnahus West with a view to all members of the Barnahus team moving into permanent premises on the Tuam Road, Galway in January 2022. In 2021, interagency working was undertaken predominantly by videolink and online due to the SARS CoV-2 pandemic, including regular referral and planning meetings, case discussions and interagency education.

The CASATS service, adopted a new name in 2021 – The Hazel Clinic @ Barnahus West, and continued to provide a 24/7 rota covered by two consultant forensic physicians working closely with their adult SATU colleagues and with four expert Clinical Forensic Nurse Specialists (CNS). There was active and ongoing training of doctors and nurses in developing skills and knowledge for paediatric forensic examinations in sexual offences medicine working in compliment with SATU services.

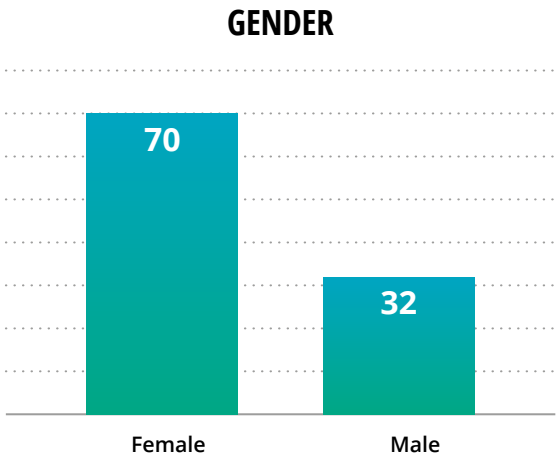
6.1.2 Achievements CASATS Galway 2021

- Three CNSs passed their Sexual Assault Nurse Examiner Paediatric (SANEP) exams.
- RCC and ASSC volunteers resumed "face to face" psychological support for victims of sexual violence and their families.
- In August/September and November 2021, an additional number of support nurses were recruited and trained which greatly enhanced the 24 hour on-call roster.
- The CASATS Clinical Director presented an overview of Regional and National developments in Child Sexual Abuse Services within the Barnahus model in Ireland at the 2021 National SATU Study Day, Cork and for the Faculty of Forensic and Legal Medicine, UK.
- Challenges for CASATS Galway 2021
- Recruitment and training of new CASATS forensic medical and nurse examiners
- Ongoing impact of the SARS CoV-2 pandemic on clinical services.

6.1.3 CASATS Galway Executive Report 2021

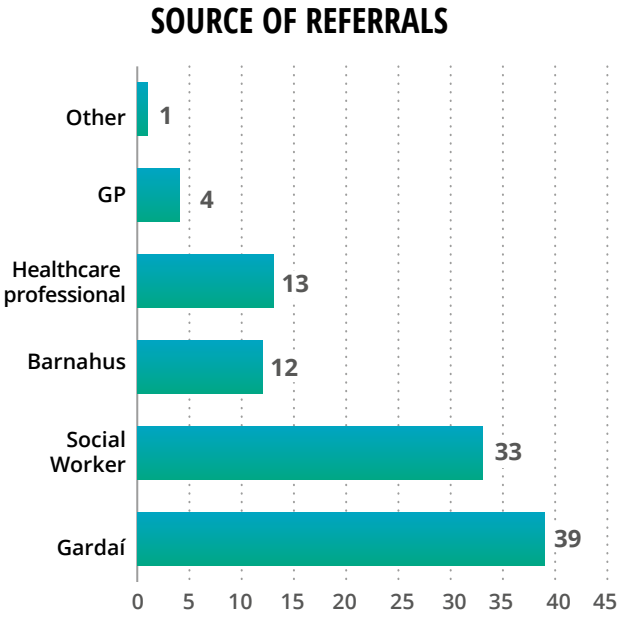
Total Attendances:

- The total number of CASATS patients in 2021 was 102. Of these 101 patients were seen "face to face". One patient did not physically attend the unit despite initial engagement. This represented a small decrease of 5% from the 108 patients supported in 2020.
- 17 patients were aged between 14-18 years of age. There were 20 additional patients aged 14-18 years of age attending through Adult SATU services, all eligible for Barnahus support.
- 15 (15%) CASATS patients attended out of hours (between 16.00-08.00 Mon-Fri or over the weekends/bank holidays).
- Of the 101 attendees in Galway CASATS in 2021, 13 were acute forensic examinations and 88 were non-acute forensic examinations.
- Gender, Age Profile, Referral source:
- 70 (69%) patients were female, and 32 (31%) patients were male. The mean age was 8 years.



Intimate images:

Of the 101 patients attending, 91 consented to intimate images, which were taken using a colposcope with an attached camera. Photodocumentation was not undertaken in 10 attendees because it was declined by the patient or caregiver or not possible given the age or cooperation of the patient.



Counties of Referral:

The majority of referrals to CASATS came from Limerick (n=23), Donegal (n=16), Galway (n=12) and Roscommon (n=9).

Medications:

- Emergency contraception was prescribed and given to 1 patient.
- A Hepatitis B vaccination schedule was commenced for 6 patients.
- STI prophylaxis (Azithromycin) was prescribed and given to 2 patients.
- No patients required HIV post exposure prophylaxis in 2021.
- 97 (95%) of patients had STI screening carried out as part of their initial examination, 1 patient had STI screening done at follow-up. An STI screen was not indicated for 1 patient. Two patients declined STI screening. One patient did not attend the unit.

Alleged Perpetrators:

Child perpetrators (Defined as <13 years at the time of the alleged assault)

- 6 (6%) of cases involved child perpetrators.

Teenage Perpetrators (Defined as 14-17 years at time of alleged assault)

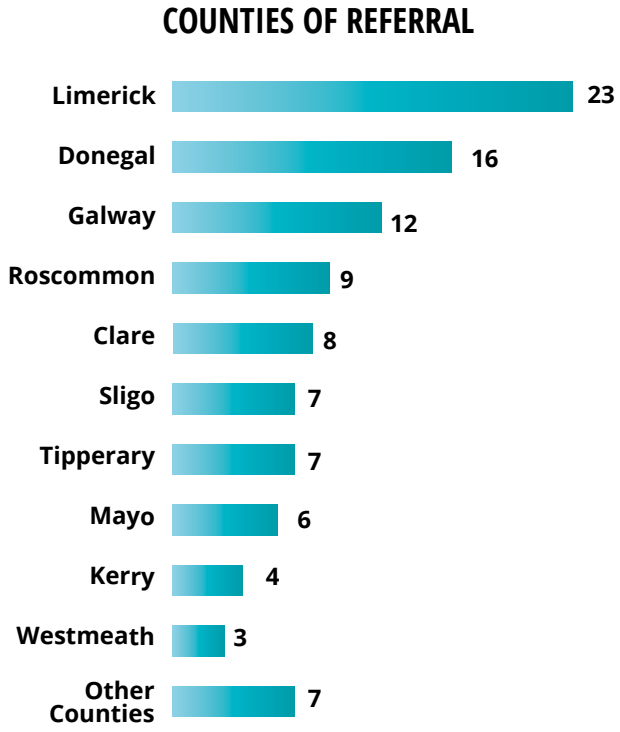
- 18 (18%) of cases involved teenage perpetrators.

Adult Perpetrators (Defined as ≥ 18 years at the time of the alleged assault)

- 27 (26%) of cases the alleged adult perpetrator was a family member.
- 21 (21%) of cases the alleged adult perpetrator was known to the patient.
- 4 (4%) of cases there were multiple adult perpetrators.

Age of Perpetrator Unknown

- In 26 (25%) of cases there was no definitive allegation of child sexual abuse however examination was deemed appropriate due to other concerning factors e.g. online child exploitation, inappropriate sexualised behaviour, concerning medical presentations.



Support Worker in Attendance:

In 2021, 20 (20%) of patients and their caregivers had access to an ASSC (Accompaniment Support Services for Children) volunteer at their initial attendance in CASATS. This small number reflected COVID restrictions, which impacted on the ASSC support worker's ability to attend the unit. The CASAT service aimed to limit the number of people attending the unit in line with government advice on COVID restrictions. 21 (21%) had access to ASSC telephone support for families of CASATS patients.

6.1.4 Acknowledgements

We would like to extend enormous thanks to all our dedicated staff, to our partner agencies in the Barnahus, to the Forensic Accompaniment volunteers from ASSC, to the Galway RCC volunteers and to those who have supported and endorsed the Barnahus in its infancy. We look forward to innovation, expansion, research, and interagency development focused on best meeting the needs of the children and their families going forward.

In September 2021, we said goodbye to Dr Roger Derham, Consultant Gynaecologist and longstanding Forensic Physician for both SATU and CASAT services who retired. We would like to express our sincere gratitude to Dr Roger Derham, who has contributed greatly to the services over time and was one of the main instigators of a gold standard forensic medical service for children, which has evolved into the Hazel Clinic @ Barnahus West. Dr Derham is much missed and we wish him well in his future endeavours.

6.1.5 Glossary of Terms

ASSC: Advocacy and support services for children

CASATS: Child and Adolescent Sexual Assault Treatment Service

CNS: Clinical Nurse Specialist

RCC: Rape Crisis Centre

SANEP: Sexual Assault Nurse Examiner for Paediatrics

SATU: Sexual Assault Treatment Unit

STI: Sexually Transmitted Infection

6.2 Galway Sexual Assault Treatment Unit (SATU) 2021

Clinical Director: Dr. Andrea Holmes
Forensic Clinical Nurse Specialists: Ms. Susan Hogan, Ms. Caitriona Shortt, Ms. Cathy Bergin and Ms. Mary Mahony
Unit Manager: Ms. Maeve Geraghty

Attendances:

There were 100 new attendees at the Galway SATU, an increase of 12% from 2020. Of these,

- 55 (55%) were Option 1 (sexual assault within previous 7 days and accompanied by An Garda Siochána for forensic sampling and medical care)
- 25 (25%) were Option 2 (sexual assault at any time, medical care without forensic samples)
- 20 (20%) were Option 3 (non-Garda referral, sexual assault within previous 7 days, stored forensic samples)
- 89% (58 of 65) patients were seen within 3 hours of a request to a SATU for a Forensic Clinical Examination (Options 1 & 3)
- 94% of patients reported incidents which took place within the Republic of Ireland
- 6% of patients reported incidents which took place outside the Republic of Ireland
- An Garda Síochána referred 62% of patients, 17% patients self-referred and 21% patients were referred by others (RCC, GP's, ED etc.)
- October 2021 was the busiest month with 19 patients presenting
- Monday was the day of the week with the highest attendance rate (n=20)
- 75% of attendances occurred between the hours of 08:00 and 19:59, Monday-Sunday
- 67% (67) patients had the opportunity to speak to a Psychological Support Worker at the first SATU visit however, due to the Covid-19 pandemic physical attendance of Psychological Support Workers in SATU ceased for a number of months for infection control reasons.

Reported Sexual Crimes

- 82% (82) were recent sexual assaults (< 7 days)
- 94% (94) of cases involved a single assailant
- 6 % of cases involved multiple assailants
- In 54% cases the assailant was known to the patient i.e. friend, family member, ex-intimate partner, intimate partner or acquaintance of more than 24 hrs. In 46% of cases the assailant was unknown, a stranger or recent acquaintance (≤ 24 hrs)
- 80% of incidents occurred between the hours of 20:00 – 07:59

Patient Profile

- 95 % of patients were female, 5 % of patients were male
- Mean patient age at time of assault was 24 years of age; the youngest 14 years of age and the oldest being over 75 years of age. Please note, SATU sees patients age 14 years and above.
- 65% (65) patients reported the incident to An Garda Síochána
- 20% (20) patients had an forensic examination and storage of evidence without initially reporting to An Garda Síochána
- 74% patients had consumed alcohol in the previous 24 hours; of these 55% patients had consumed >6 standard drinks of alcohol
- 16% of patients had taken recreational drugs prior to the reported incident
- 24% of patients were concerned that drugs were used to facilitate sexual assault
- 25% of patients were unsure if drugs were used to facilitate sexual assault

Medical Care

- 62% of patients had no physical injuries
- 33% of patients had physical injuries that did not require follow-up
- 4 patients were referred to, or seen in, hospital due to physical injuries
- 1 additional patient was hospitalised for mental health reasons
- All patients who required Emergency Contraception received it
- All 67 patients who were possibly exposed to Chlamydia trachomatis were offered prophylactic treatment at the first SATU visit
- 40 (40%) patients were appropriately given Hepatitis B vaccination at the first SATU visit; of these 85% have completed or are in the process of completing the vaccination schedule
- 2% (2) patients received Post Exposure Prophylaxis (PEP) for HIV
- All patients were offered a follow-up appointment for STI screening, of these, 83% patients attended first follow-up appointment

Achievements Galway SATU 2021

- Three CNSs passed their Sexual Assault Nurse Examiner Paediatric (SANEP) exams.
- Rape Crisis Centre (RCC) and Advocacy and Support Services for Children (ASSC) volunteers resumed face to face psychological support for victims of sexual violence.
- In August/September and November 2021 an additional number of assisting nurses were recruited and trained which has greatly enhanced covering the 24 hour on-call roster.
- With the help of Community Gardaí, stickers advertising SATU services were distributed on bathroom doors at bars and venues throughout the West and Mid-West region.
- Galway Forensic Physicians and Clinical Nurse Specialists gave presentations, undertook clinical audits, facilitated training and professional examinations with a variety of colleagues and allied professionals.
- All members of the Galway SATU team contributed to the design of the new Willow Centre which will be co-located with the Child and Adolescent Sexual Assault Treatment Service (CASATS) at Barnahus West in 2022.
- The Galway team continued to lay the foundations for multiagency work as part of Barnahus West, which will benefit our 14-18 year old patients.

Challenges for SATU Galway 2021

- Recruitment and training of new forensic medical examiners for Galway SATU.
- Ongoing impact of the SARS CoV-2 pandemic on clinical services.

6.2.1 Acknowledgements:

In September 2021, Dr Roger Derham, who has contributed greatly to the adult and paediatric service as a Forensic Examiner since 2009, retired from clinical practice. We would like to express our gratitude for his teaching, support, enthusiasm and many diverse talents and wish him well in his future endeavours.

6.3 Donegal Sexual Assault and Treatment Unit 2021

Clinical lead: Dr Chris King
Forensic Clinical Nurse Specialists: Ms. Connie Mc Gilloway ANP, Ms Brídín Bell
Unit Manager: Ms Sharon Curran

Attendance:

- 101 attendances at the Donegal SATU, an increase of 23 (30%) from 2020
- 93 (92%) reported incidents took place within the Republic of Ireland.
- 73 (78%) reported incidents took place in Donegal, 9 (10%) reported incidents took place in Sligo/Leitrim.

Attendance: Month, Day and Time of Day

- June, August, October and November were the busiest months in 2021 with 52 (52%) cases presenting during these periods.
- Wednesday was the busiest day with 21 (21%) patients presenting to SATU on this day.
- 72 (71%) incidents occurred between the hours of 20.00 – 07.59hrs.

Type of Reported Sexual Crime, Assailant, Relationship to Assailant

- 48 (48%) were recent sexual assaults.
- 94 (94%) cases involved a single assailant
- 5 (5%) cases involved multiple assailants
- 10(10%) cases, reported the alleged assailant/s was a stranger or unknown
- 56 (56%) cases, reported the alleged assailant/s was a recent acquaintance/friend/acquaintance.
- 25 (25%) cases, reported the alleged assailant/s was a person in authority or family member.
- 14 (14%) cases, reported the alleged assailant was an ex-intimate or intimate partner. Gender, Age Profile (at the time of the incident) ,

Gender, Age Profile, Referral Source

- 92% (n=93) identified as female, 6% (n=6) male and 2% (n=2) identified as another gender.
- The age profile of patients attending the Donegal SATU was comparative to previous years with a mean age of 25 years. 69 (69%) patient attendances were 25 years-of-age and under, 36% under 18 years of age and 33% between 18 and 25 years-of-age.
- 41% of patients were either attending 2nd level or 3rd level educational facilities.

Referral Source

- 49 (49%) patients were referred by An Garda Síochána.
- However, an additional 23 (23%) patients who attended SATU and had not previously reported the incident to An Garda Síochána went on to report the incident following SATU support.
- 8 of these 23 chose to the storage of evidence option and had a forensic clinical examination without initially reporting to An Garda Síochána. 3 of these 8 patients subsequently reported their assault to An Garda Síochána. This emphasises the importance of allowing people to pause and deliberate on whether or not they want to engage in the criminal justice system, whilst at the same time receive both physical and psychological trauma informed holistic care.
- 13 (13%) patients were self-referrals
- 40 (40%) patients were referred by others; these include Donegal Rape Crisis Centre, Donegal Womens Domestic Violence Services, Addiction Services, Mental Health Services, Acute Hospitals and 3rd level student services. There has been an increase in the numbers of patients self-referring to the service from 9 in 2020 to 13 in 2021.
- Prior to the pandemic 15-20% of all referrals to the Donegal SATU came from General Practitioners. However, over the past two years only 4% of patient referrals have come from General Practitioners.
- Patients Reporting to An Garda Síochána / Time Frame from Incident to SATU
- 72 (72%) patients reported the incident to An Garda Síochána, of these;
  - 40 (55%) reported within 7days, of these;
  - 38 (52%) reported within 72 hours and 27 (37%) of these reported within 24 hours. Patients who had a FCE without initially reporting to An Garda Síochána
- 8(8%) patients had a FCE without initially reporting to An Garda Síochána of these 3(38%) made a formal complaint to An Garda Síochána

Psychological Support Worker in Attendance

86 (93%) patients had the opportunity to speak to a Psychological Support Worker at the first SATU visit. 10 (10%) patients did not have the opportunity to speak to a Psychological Support Worker as there was no one

available. 11(11%) patients declined a Psychological Support Worker. Physical Trauma

- 30 (30%) patients had physical injuries, of these;
  - 27 (90%) had superficial trauma, 2 (7 %) had injuries where follow-up was required and 1 (3%) was hospitalised due to injury.

Alcohol and Drug Use Prior to the Reported Incident

- 48 (48%) patients had consumed alcohol in the previous 48 hours:
- 22 (23%) patients had consumed > 6 standard drinks of alcohol.
- 13 (13%) patients had taken recreational & prescription drugs prior to the reported incident.
- 19 (19%) patients were concerned that drugs were used to facilitate sexual assault.

Emergency Contraception (EC)

- 45 female patients presented within 120 hours of the incident; of these;15 patients were appropriately administered EC in the SATU.

Sexually Transmitted Infection Prophylaxis and (STI) Screening

- 31 (30%) patients received Chlamydia prophylaxis.
- 58(56%) commenced Hepatitis B immunisation programme.

Follow-up Appointment for Sexual Health Screening

- 70 (71%) patients who attended the SATU were given an STI review appointment, of these;
- 69 (99%) patients attended first follow-up appointment.
- 2 (2%) additional patients were cared for and follow-up via SATU to SATU referrals Outcome of Sexual

Health Screening and additional Screening at Follow-up.

Follow up Appointments for Sexual Health Screening

Follow-up care after the initial visit continued to remain high with 97% of patients attending 1st follow-up appointments.

- 2 (3%) patients had a positive result for Chlamydia.
- 1 (2%) patient had a positive result for Hepatitis C
- 3 (9%) patients had a positive result for Bacterial Vaginosis.

Opportunistic Cervical Screening

In addition, acknowledging that women who have experienced sexual violence are reluctant to partake in cervical screening programmes, the Donegal SATU commenced an opportunistic cervical screening programme in 2017 under the governance of Letterkenny University Hospital and the National Cervical Screening Programme (NSCP). Women 25-years-and-over who had previously not accessed the free national cervical screening programme, were delayed in accessing the programme or were unlikely to avail of the programme due to a history of sexual violence are offered a cervical screen at their follow-up appointment. Between 2017 and 2021, 25 patients availed of this programme. Of these, 24% were referred on to colposcopy and gynaecology services for further investigations and assessment. The importance of this opportunistic cervical screening programme not only supports trauma-informed care but recognises the importance of trauma informed care in reducing the risk of cervical cancer. In addition, patient feedback throughout the years has suggested patient-centred appointment time flexibility and the provision of satellite clinics are a contributing factor to high attendances at the Donegal SATU follow-up clinics.

Staff Developments

There have been great strides to improve staffing levels within the Donegal SATU during the year. The service welcomed Ms Deborah Marshall, ANP in Sexual Health and an experienced Forensic Clinical Examiner to the Forensic Examiner team in July 2021. Deborah has been a great addition to the SATU in the northwest and the on-call cover she provided during the year was a welcome respite for the team.

We also welcomed Ms Sharon Curran in December 2021. Sharon commenced working as the new SATU Administrator. With many years of experience working in key areas within the HSE and TUSLA, Sharon skills will enhance processes within the SATU service. The Donegal SATU has a special interest in ensuring an equitable quality service for all and in early 2021 led out on a national study regarding patients attending SATUs with mental health vulnerabilities,

Connie Mc Gilloway RANP presented the study at the International Conference on Survivors of Rape. Connie is also leading out on a national project in improving access to the Sexual Assault Treatment Unit through the use of Irish Sign Language (ISL) for members of the Irish Deaf Community. This project is being implemented in collaboration of An Garda Síochána, the Donegal and Dublin Rape Crisis Centres, CHIME, the Deaf Society of Ireland, Trinity College Dublin and Justisigns. It is anticipated that the project will be completed by the 2nd quarter of 2022.

CHAPTER 7

Academic Report

7.1 Academic Report

The Academic Report section of the Annual Clinical Report is included in this chapter. This section provides data regarding the years 2020 and 2021 as there was no academic section included in the new format report last year. The academic report of the Women's and Children's MCAN, Saolta University Hospital Healthcare Group, is aimed at collection of data relevant to undergraduate education, postgraduate education, research outputs, and awards, relevant to all of the multidisciplinary professional areas. To this end, such a report should ideally include the data for the medical staff, nursing, midwifery, physiotherapy, social work, dietetics and all of the allied and ancillary health professionals who contribute to clinical care in these areas. In reality, this section of the report falls short of that broader remit. There are many reasons for this. It is difficult to identify, and capture, all of the information and outputs for all staff and programmes across five hospital sites. In addition, this Annual Clinical Report is primarily an account of clinical activity and service provided. Finally, much of the academic content relevant to this report is allied to our academic institution, University of Galway, and is reported otherwise and hence available. It is our plan to examine how this section of the report may be worked on in the coming years. The initial sections of this chapter are focused on the academic departments of Obstetrics & Gynaecology and Paediatrics. In summary, the report this year provides a general overview and describes some of the ongoing academic activity and outputs.

7.1.2 Obstetrics & Gynaecology Academic Department

STAFF – Galway University Hospital

Professor John J Morrison
Head of Department / Consultant

Dr Geraldine Gaffney
Senior Lecturer / Consultant

Dr Michael O'Leary
Clinical Lecturer / Consultant

Dr Susmita Sarma
Consultant

Dr Katharine Astbury
Consultant

Dr Tom O'Gorman
Consultant

Dr Nikhil Purandare
Consultant

Dr Una Conway
Consultant

Dr Mark Dempsey
Consultant

Dr Sarah Campbell
Consultant

Dr Yvonne O'Brien
Consultant

Clinical Lecturers/Tutors

Dr Siobhan Carruthers (Galway)

Dr Roger Derham (Galway)

Dr Grace Traynor / Dr Ann Spellman (Sligo)

Dr Jennifer Doherty (Letterkenny)

Dr Fiona Kyne (Castlebar)

Dr Evelyn Burke (Ballinasloe)

Clinical Teachers in Obstetrics and Gynaecology

Letterkenny University Hospital, Mayo University Hospital, Portiuncula University Hospital, and Sligo University Hospital.

Professor Edward Aboud
Letterkenny General Hospital, Co. Donegal

Dr Ulrich Bartels
Mayo General Hospital, Castlebar, Co. Mayo

Dr Marie Christine De Tavernier
Portiuncula Hospital, Ballinasloe, Co. Galway

Dr Hilary Ikele
Mayo General Hospital, Castlebar, Co. Mayo

Dr Ravi Garrib
Sligo General Hospital, Sligo

Dr Nasser
Portiuncula Hospital, Ballinasloe, Co. Galway

Dr Naveed Khawaja
Portiuncula Hospital, Ballinasloe, Co. Galway

Dr Chris King
Letterkenny General Hospital, Co. Donegal

Dr Nirmala Kondaveeti
Sligo General Hospital, Sligo

Dr Heather Langan
Sligo General Hospital, Sligo

Dr Murtada Mohammed
Mayo General Hospital, Castlebar, Co. Mayo

Professor Maebh Ni Bhuinneain
Mayo General Hospital, Castlebar, Co. Mayo

Dr Vimla Sharma
Sligo General Hospital, Sligo

Dr Matt McKernan
Lecturer, Letterkenny General Hospital, Co. Donegal

External Examiner

The external examiner for the academic Department of Obstetrics & Gynaecology in 2020 and 2021 was Professor Euan Kevelighan, Swansea University, Wales.

Academic Administrator

Ms Breda Kelleher

7.1. 3 Overview

The remit of the Academic Department of Obstetrics & Gynaecology includes undergraduate education, postgraduate education, research and the advance of clinical activity within the department. The undergraduate medical student teaching programme for Obstetrics & Gynaecology is carried out within the Department of Obstetrics & Gynaecology at University Hospital Galway and in the following affiliated hospital academies: Mayo General Hospital, Castlebar, Portiuncula Hospital, Ballinasloe, Sligo General Hospital and Letterkenny Hospital, Donegal. The undergraduate student numbers have increased significantly in recent years. This has resulted in the appointment of dedicated tutors in the affiliated academy sites.

There are a host of postgraduate medical activities ongoing within the Department of Obstetrics and Gynaecology and at GUH. An educational meeting is held in the department every Monday from 1:00pm to 2:00pm. This meeting is available for midwifery staff, postgraduate medical staff, and undergraduate medical students. On the first Monday of every month the subject of the meeting is caesarean section audit. The emergency caesarean sections for the previous month are considered and discussed. On the third Monday of the month, perinatal morbidity and mortality cases for the previous month are discussed. This is held in conjunction with the paediatric and pathology staff. On the fourth Monday of the month a research meeting is held for all staff. This research meeting is presented by internal members of staff and frequently external speakers are invited to present their research from other units. Every Wednesday morning at 8.00am, a case presentation/literature review meeting is held for the Consultants, SpRs, Registrars and SHO's.

Formal one-day education meetings are held every year.

7.1.4 Undergraduate Student Awards

Henry Hutchinson Stewart Medical Scholarship 2021

Róisín Thornton
Scholarship/1st prize in Obstetrics & Gynaecology

Henry Hutchinson Stewart Medical Scholarship 2020

Orla Moran
2nd prize in Obstetrics & Gynaecology

7.1.5 Obstetrics and Gynaecology

Sample Peer Reviewed Publications Abstracts And Presentations

Ryan GA, Nicholson SM, Crankshaw DJ, Morrison JJ. Spontaneous Human Myometrial Contractility in the Third Trimester of Pregnancy in Relation to Past Mode of Delivery.

Am J Perinatol. 2021; 38(02):126-130

Hayes-Ryan D, Khashan AS, Hemming K, Easter C, Devane D, Murphy DJ, Hunter A, Cotter A, McAuliffe FM, Morrison JJ, Breathnach FM, Dempsey E, Kenny LC, O'Donoghue K; PARROT Ireland trial group. Placental growth factor in assessment of women with suspected pre-eclampsia to reduce maternal morbidity: a stepped wedge cluster randomised control trial (PARROT Ireland).

BMJ 2021; 374:n1857

Ismail KI, Burke N, Burke G, Breathnach F, McAuliffe FM, Morrison JJ, Turner MJ, Dornan S, Higgins JR, Cotter A, Geary M, McParland P, Daly S, Cody F, Mulcahy C, Dicker P, Tully E, Malone FD; Perinatal Ireland Research Consortium. The prediction of morbidity related to vaginal delivery in nulliparous women – A secondary analysis from the genesis multicenter trial.

Eur J Obstet Gynecol Reprod Biol. 2021; 264:276-280

Finucane EM, Biesty L, Murphy D, Cotter A, Molloy E, O'Donnell M, Treweek S, Gillespie P, Campbell M, Morrison JJ, Alvarez-Iglesias A, Gyte G, Devane D. Feasibility study protocol of a pragmatic, randomised controlled pilot trial: membrane sweeping to prevent post-term pregnancy-the MILO Study.

Trials 2021; 22(1):113

Mustafa M, Bogdanet D, Khattak A, Carmody LA, Kirwan B, Gaffney G, O'Shea PM, Dunne F.

Early gestational diabetes mellitus (GDM) is associated with worse pregnancy outcomes compared with GDM diagnosed at 24-28 weeks gestation despiteearly treatment.

QJM 2021; 114(1):17-24

Wemken N, Drage DS, Cellarius C, Cleere K, Morrison JJ, Daly S, Abdallah MA, Tlustos C, Harrad S, Coggins MA. Emerging and legacy brominated flame retardants in the breast milk of first time Irish mothers suggest positive response to restrictions on use of HBCDD and Penta- and Octa-BDE formulations.
Environ Res. 2020; 80:108805

Patient and Doctor Attitudes Towards Obesity in Pregnancy
S. Lee, Y. O'Brien, K. Astbury
Women and Children's Directorate, University College Hospital Galway.
Irish Medical Journal June 2021 Vol 114; 6, 375

Murphy NC, Burke N, Breathnach FM, Burke G, McAuliffe FM, Morrison JJ, Turner MJ, Dornan S, Higgins J, Cotter A, Geary MP, Cody F, McParland P, Mulcahy C, Daly S, Dicker P, Tully EC, Malone FD.
Inter-hospital comparison of Cesarean delivery rates should not be considered to reflect quality of care without consideration of patient heterogeneity: An observational study.

Eur J Obstet Gynecol Reprod Biol. 2020; 250:112-116

Griffin TP, Joyce CM, Alkanderi S, Blake LM, O'Keeffe DT, Bogdanet D, Islam MN, Dennedy MC, Gillan JE, Morrison JJ, O'Brien T, Sayer JA, Bell M, O'Shea PM. Biallelic CYP24A1 variants presenting during pregnancy: clinical and biochemical phenotypes.

Endocr Connect. 2020; 9(6):530-541.

Abdallah MA, Wemken N, Drage DS, Tlustos C, Cellarius C, Cleere K, Morrison JJ, Daly S, Coggins MA, Harrad S. Concentrations of perfluoroalkyl substances in human milk from Ireland: Implications for adult and nursing infant exposure.

Chemosphere 2020; 246:125724

Caesarean section rates in primigravid women categorised by age and BMI
Simran A Ganeriwal, Gillian A Ryan, Michael Geary & Nikhil C Purandare (2021) Journal of Obstetrics and Gynaecology.

Examining the role and relevance of the critical analysis and comparison of cesarean section rates in a changing world
Simran Ganeriwal, Gillian A Ryan, Nikhil C Purandare, CN Purandare CN.
Taiwan J Obstet Gynecol. 2021 Jan

Conservative management of Pelvic Organ Prolapse: Indian contribution
GA Ryan, N C Purandare, SA Ganeriwal, CN Purandare.
J Obstet Gynecol India (2021)

Clinical update on COVID-19 in pregnancy: A review article.
Ryan, G.A., Purandare, N.C., McAuliffe, F.M., Hod, M. and Purandare, C.N.
(2020), J. Obstet. Gynaecol. Res., 46: 1235-1245.
doi:10.1111/jog.14321

Determining the Risk of Cesarean Delivery in the Nulliparous Population Stratified by Age and BMI.
GA Ryan, S Ganeriwal, M Geary, NC Purandare,

American Journal of Obstetrics & Gynaecology Jan 2020

Determining the risk of cesaerean delivery in the nulliparous women stratified by age and BMI

GA Ryan, S Ganeriwal, N Purandare. Presented at SMFM, Dallas, Feb 2020

Decreased Response of Nulliparous Myometrium to Oxytocin and Ergometrine in an in-Vitro Setting
GA Ryan, DJ Crakshaw, JJ Morrison Presented at SMFM, Dallas, Feb 2020

Women's Views after a first Caesarean Section and Preference for Involvement in a Future Randomised Trial on Mode of Birth.
GA Ryan, K O Doherty, F McAuliffe, J Morrison.
Presented at SMFM, Dallas, Feb 2020. Presented at the RCOG Annual Academic Meeting Feb 27th and 28th 2020

Case report series of unusual urological conditions antenatally and postnatally
Zibar Davor, Sarma Susmita
EUGA 2020

Compliance with enhanced recovery after surgery in a gynaecological oncology service in the west of Ireland
C O'Gorman, E Loughnane, D Zibar, L O'sullivan, SA Azman, K Astbury M O'leary
ESGO 2020
International Journal of Gynecologic Cancer 2021; 31:A187

The Impact of Age and Smoking on Persistent HPV post LLETZ Treatment
Zibar D, O' Sullivan L, Astbury K, Galway University Hospital
BSCCP Annual Scientific Meeting 14th – 16th April 2021

Audit to determine complications and feasibility of ovarian transposition after radical hysterectomy for cervical cancer in Galway University Hospital
Davor Zibar, Nicola Whelan, Joanne Higgins, Michael O Leary
University Hospital Galway, Galway, Ireland

IOG 2019

Case Report: The Evolution Of Placenta Accreta Spectrum In Images- From Asherman's To Percreta.
Lorna Ann Smith 1, Gillian Ryan 1, Gabrielle Colleran 2, Una Conway 1, John Morrison

Department Of Obstetrics And Gynaecology, University Hospital Galway.

JOGS 2021

Bowel Perforation in Pregnancy: Case Report

Mareena Ravindher (1), Nada Warreth (1), Gillian A Ryan (1,2) Nikhil Purandare(1, 2), Babak Meshkat (3)
1. Department of Obstetrics and Gynaecology, Galway University Hospital, Galway, Ireland
2. Department of Obstetrics and Gynaecology, National University of Ireland, Galway, Ireland
3. Department of Colorectal Surgery, Galway University Hospital, Galway, Ireland
JOGS 2021

An audit of post-operative catherisation durations in gynaecological oncology patients in Galway University Hospital.
Shriya Varghese.
JOGS 2021

Caesarean section rates in primigravid women categorised by age and BMI
Simran A Ganeriwal, Gillian A Ryan, Michael Geary & Nikhil C Purandare (2021) Journal of Obstetrics and Gynaecology.

Examining the role and relevance of the critical analysis and comparison of cesarean section rates in a changing world
Simran Ganeriwal, Gillian A Ryan, Nikhil C Purandare, CN Purandare CN.
Taiwan J Obstet Gynecol. 2021 Jan

Determining the Risk of Cesarean Delivery in the Nulliparous Population Stratified by Age and BMI.
GA Ryan, S Ganeriwal, M Geary, NC Purandare, American Journal of Obstetrics & Gynaecology Jan 2020
Presented at SMFM, Dallas, Feb 2020

Determining the risk of cesarean delivery in the nulliparous women stratified by age and BMI
GA Ryan, S Ganeriwal, N Purandare.

Decreased Response of Nulliparous Myometrium to Oxytocin and Ergometrine in an in-Vitro Setting
GA Ryan, DJ Crakshaw, JJ Morrison

Women's Views after a first Caesarean Section and Preference for Involvement in a Future Randomised Trial on Mode of Birth.
GA Ryan, K O Doherty, F McAuliffe, J Morrison
Presented at the RCOG Annual Academic Meeting Feb 27th and 28th 2020

Academic Report MUH 2020-2021 - Obstetrics and Gynaecology

A. Publications:

1. Leitao S, Manning E, Greene RA, Corcoran P; Maternal Morbidity Advisory Group*. Maternal morbidity and mortality: an iceberg phenomenon. BJOG. 2022 Feb;129(3):402-411. doi: 10.1111/1471-0528.16880. Epub 2021 Sep 23. PMID: 34455672.

2. Greene RA, McKernan J, Manning E, Corcoran P, Byrne B, Cooley S, Daly D, Fallon A, Higgins M, Jones C, Kinsella I, Murphy C, Murphy J, Bhuinneain MN; Maternal Morbidity Advisory Group. Major obstetric haemorrhage: Incidence, management and quality of care in Irish maternity units. Eur J Obstet Gynecol Reprod Biol. 2021 Feb;257:114-120. doi: 10.1016/j.ejogrb.2020.12.021. Epub 2020 Dec 23. PMID: 33383410.

3. Chambers G, McDermott D, Kearns A, Bhuinneain MN. Maintaining patient participation in medical education in the context of a pandemic. Educ Health (Abingdon). 2021 May-Aug;34(2):86-87. doi: 10.4103/efh.EfH_307_19. PMID: 34937305.

4. Javaid A, Gleeson N, Sobota A, Shahabuddin Y. How do medical students rate their learning experience at the gynecological oncology multidisciplinary team meeting? A comparison of attendance in-person and online due to COVID-19 exigency. Edorium J Cancer 2021;6:100010C01AJ2021.

5. Sobota A, Ozakinci G. "Will It Affect Our Chances of Having Children?" and Feeling "Like a Ticking Bomb" -The Fertility Concerns and Fears of Cancer Progression and Recurrence in Cancer Treatment Decision-Making Among Young Women Diagnosed With Gynaecological or Breast Cancer. Front Psychol. 2021 Jun 2;12:632162. doi: 10.3389/fpsyg.2021.632162. PMID: 34149518; PMCID: PMC8206503.

B. Conference presentations:

1. Sobota A., U. Bartels. "Management of term prelabour rupture of membranes - a regional maternity unit experience". Poster presented at RCOG Virtual Congress 2021, 2021 Jun 9-12.

2. O'Gorman, C., S. Milne, G. Lambe, A. Sobota, P. Beddy, and N. Gleeson. "Opportunistic assessment of bone mineral density on computed tomography in the gynaecological oncology setting." Poster presented at International Gynaecological Cancer Society Conference, Sept 2020

3. Anca Trulea, Reham Alkhalil. Improving Access to Ambulatory Gynaecology Service in Mayo University Hospital, Poster presentation, JOGS 2020 and RCOG 2021

4. Gabriela Mahon, Iulia Irimia. A five year review of maternal and neonatal outcomes of patients transferred out of Mayo University Hospital, Poster presentation JOGS 2020

5. Samah Hassan, Kamal Elmahi, Meabh NiBhuinneain. Clinical Audit on risk assessment of Venous Thromboembolism during pregnancy and puerperium in Mayo University Hospital, Poster presentation JOGS 2020

6. A Trulea, U Browne, C Coughlan, A Jesudason, D Munro, C O'Halloran. eReferral to CAMHS-ID Servives from GPs , Digital Health Transformation MSc Poster and Final Project Presentation, University of Limerick May 2021 https://hsedigitaltransformation.ie/news/student-final-year-projects-2021-msc-digital-health-transformation#11

7. Gillian A. Corbett, Aoife Sweeney, Ulrich Bartels. Post Covid Obstetric Syndrome – Is Growth Restriction a Feature? Poster presentation, JOGS 2021

8. Samah Hassan, Dr Kamal Elmahi, Dr Meabh NiBhuinneain. Risk assessment of venous thromboembolism during pregnancy and puerperium in Mayo university Hospital. Poster presentation, JOGS 2020

9. Sara Mohan, Hifsa Sial, Hilary Ikele. Obstetric Anal Sphincter Injury: Current Practices in Mayo University Hospital, Poster Presentation JOGS 2021

10. Hifsa Sial, Sara Mohan, Hilary Ikele. Colpocleisis: A case series, Poster presentation, JOGS 2021

C. Undergraduate Medical Student Summer Research Club, Mayo Medical Academy, NUI Galway

1. Jia Min Cheryl Chun, Sara Mohan, Anca Trulea, M Ni Bhuinneain. Documentation and causal factors of perinatal deaths in Mayo University Hospital: A 10 year perinatal audit of learning. Presented at JOGS 2021 and Atlantic Corridor Medical Student Research Conference 2021

2. Cian Finnegan, Camilla Curtis. Remote consultations in psychiatry during the COVID-19 pandemic: help or hindrance? An Irish rural hospital perspective, Presented at Atlantic Corridor Medical Student Research Conference 2021

3. Jerilyn Jia Lin Lee, Anca Trulea, M Ni Bhuinneain. Evaluating the effectiveness of Postmenopausal bleeding track to rule out endometrial cancer: A prospective audit JOGS 2021 Manuscript in draft – not submitted yet. Presented at Atlantic Corridor Medical Student Research Conference 2021

4. Katie Moran, M Ni Bhuinneain. Bereavement standards in pregnancy loss and perinatal death – an interim report (Work with GPs deferred due to Covid-19 vaccination program) Presented at Atlantic Corridor Medical Student Research Conference 2021

5. Tala Abdullatif, Sylvia Sorial, Angela Kearns, Gillian Chambers. Teaching Empathy to Medical Students – an interim report (Work ongoing) Presented at Atlantic Corridor Medical Student Research Conference 2021

6. Rachel Murphy, Anca Trulea, M Ni Bhuinneain. Second cycle audit of the recognition and response to postpartum haemorrhage by the staff of the Department of Obstetrics and Gynaecology in Mayo University Hospital, Ireland. Presented at Atlantic Corridor Medical Student Research Conference 2021 and NPEC Oral Presentation 2022

D. Invited International Presentation

1. NiBhuinneain M, European ESTHER Alliance Meeting 2020 (on-line) 01.12.2020. Improving health service quality through health partnerships.

2. NiBhuinneain M, Trulea A, Ikele H, Reproductive, Maternal, Newborn and Family Planning Care during Covid-19, LSCH-BCW-MUH-NUIG Irish Aid/ESTHER Workshop, November-December 2020 online

E. Invited National Presentations

1. Trulea A, Fair P, Termination of Pregnancy Service in Mayo University Hospital, START Group Conference Galway, 2020

2. Trulea A, Fair P, Care and considerations for woman presenting up to 12 weeks gestation, Termination of Pregnancy National Education Programme, November 2021

3. Hilary Ikele, Experience of Colpocleisis in Mayo University Hospital, Nuffield Visiting Society Annual Conference, Mayo University Hospital, 14th May 2022

4. Trulea A, Introduction of Termination of Pregnancy Service in Mayo University Hospital, Nuffield Visiting Society Annual Conference, Mayo University Hospital, 14th May 2022

F. National Awards

1. National VTE Quality Improvement Award Winner Ireland 2021, Samah Hassan, Dr Kamal Elmahi, Dr Meabh NiBhuinneain

G. Small Grant Awards

1. 2020: ESTHER Ireland / Irish Aid. Mayo Londiani, Kenya, Brighter Communities in conjunction with NUI Galway and Kenyatta University. Rural Community Covid-19 Response – Education and resource management.

2. 2021: ESTHER Ireland / Irish Aid. Institute of Obstetricians and Gynaecologists, RCPI with East Central and Southern Africa College of Obstetrics and Gynaecology Collaboration Program Start-Up Partnership grant. Global surgery strengthening through post-graduate training partnership.

H. International Society Committee Appointment 2021-2023

1. International Federation of Gynaecology and Obstetrics (FIGO.org) Well Woman Health and Care.

List of presentations from PUH:

Presented at JOGS Virtual Meeting on 27th November 2020

Does wearing a Fitbit increase Physical Activity Levels in Gestational Diabetes
Clodagh Murray, Lisa O'Sullivan, Tariq Bholah, Marie-Christine De Tavernier

Clinical Audit of the Management of Primary Postpartum Haemorrhage in Portiuncula University Hospital
Lisa O'Sullivan, Marie-Christine De Tavernier

Prophylaxis of Venous Thromboembolism: Completing the Audit Cycle
Lisa O'Sullivan, Tariq Bholah, Marie-Christine De Tavernier

Daily Low-Dose Aspirin to reduce the Risk of Pre-eclampsia: an Audit of current Practices in Portiuncula University Hospital
Tariq Bholah, Lisa O'Sullivan, Marie-Christine De Tavernier

A rare Case of Caesarean Scar Ectopic Pregnancy
Rahema Amjad, Tara Ibrahim, Lisa O'Sullivan, Naser Giumaa

Presented at JOGS Virtual Meeting on 26th November 2021

From Referral to Recovery – A Review of the Management of Postmenopausal Bleeding in Portiuncula Hospital
Madeline Robinson, Mona Abdelrahman, Marie-Christine De Tavernier

Preventing and Managing Major Postpartum Haemorrhage in Portiuncula Hospital
Madeline Robinson, Marie-Christine De Tavernier

Presented at PUH audit Meeting 15th November 2021

Surgical Antimicrobiol Prophylaxis: Audit Repair of Third and Fourth Degree Perineal Tears
Madeline Robinson, Sabrina O'Regan

Surgical Antimicrobiol Prophylaxis: Audit of Gynaecological Procedures
Sabrina O'Regan

List of Presentations SUH:

Clinical Audit on Pregnancy Outcome of Morbidly Obese Women (BMI >39.9kg/m2) in Sligo University Hospital (SUH), IRELAND
Saadat I, Fatima S, Tummaluru B, Harte P, Kondaveeti N

Clinical Audit on Rate of Postpartum haemorrhage (PPH) after Vaginal
Delivery in SUH
Dr Irum Saadat Reg obs/gynae, Dr Hifsa Sial SHO, Dr Vimla Sharma Consultant obs/gynae, Patricia Harte, Mary Fitzpatrick (Audit).

Dermoid Cyst With Foci Of Squamous Cell Carcinoma
H. Sial, I. Sadaat , R. Garrib , J. Postle

A Case Report Of Fallopian Tube Torsion: A Rare Cause Of Lower Abdominal Pain
I.Saadat, H.Sial , M.Shakoor, R. Garrib

7.1.6 2020 and 2021 Paediatric Academic Report

This paediatric academic report represents a sample of activity from the University of Galway (formerly NUI Galway) Paediatric Academic Department (undergraduate, and post-graduate students) as well as a sample of academic activity (largely informal), undertaken by medical staff (NCHDs and Consultants) across the hospitals in Saolta affiliated with University of Galway. The report combines the years 2020 and 2021 (completed in 2022) due to the COVID-19 Pandemic which interrupted a wide range of clinical and academic activity.

Academic Dept of Paediatrics University of Galway

The Academic Department of Paediatrics is part of University of Galway Medical School, main office located in the Clinical Science Institute, adjacent to Galway University Hospital. The formal NUI Galway academic team is comprised of one Established Professor, one Senior Lecturer, and Lecturers (Tutors) distributed across academies.

Affiliated hospitals of Saolta host teaching and clinical placements for the undergraduate programme within Medical Academies of University of Galway, situated in Mayo, Sligo, Letterkenny, and Portiuncula University Hospitals. This is comprised mainly of tutor staff, Deans of the Medical Academies, and senior clinical staff with or without honorary NUI Galway affiliations (e.g. Honorary Professor/Honorary Senior Lecturer), through the academic Clinician Advancement Programme

(ACAP), University of Galway. ACAP is designed to encourage academic engagement and contribution by senior Saolta clinicians. Reciprocally, the program is intended to strengthen education, scholarship and innovation capacity of the Saolta Healthcare network. We acknowledge that some consultants are not yet have honorary appointments through ACAP, but play a vital role in the education of our medical students and NCHDs in the clinical environment, contributing as clinical lecturers informally. Similarly, NCHDs play a vital part as role models/mentors and clinical teachers to in medical education, though largely informal, there are also formal opportunities.

Remit of the Paediatric Academic Department

Undergraduate

With the assistance of the affiliated hospitals (and respective University of Galway Medical Academies), it is the goal of the paediatric department to provide an informative and valuable learning experience in a safe and friendly environment. Students are exposed to a wealth of clinical cases and patient interactions during their attachments, with an emphasis of bedside teaching. Teaching is delivered via a variety of modes including bedside tutorials, hands on patient history and examination, out-patient interactions, classroom interactive teaching sessions, simulation, Webcasts, skills seminars, problem-based learning, and slide-shows. The majority of paediatric medical students spend one semester of their penultimate medical year attending an academy.

The curriculum is currently delivered in modular format with two modules, one in each semester. During semester one, students are introduced to basic concepts in the practice of paediatrics, whilst semester two introduces further application of knowledge, in-depth learning and case management. The availability of excellence in clinical exposure and teaching due to expansion into the affiliated hospital academies has enabled increased capacity with delivery of parallel programs at each site.

The assessment process includes an MCQ exam and a case report at the end of module 1, and a written (modified essay questions) paper and OSCE at the end of module two. Formative assessment is an integral component of each semester. Competency-based assessment is also part of the curriculum with the recent introduction of Mini-CEXs. Students actively provide course feedback which is incorporated into curriculum development.

The opportunity for exposure to undergraduate research and paediatric electives are provided outside the teaching curriculum. Undergraduates are also provided with the opportunity to present original research at national and international meetings.

Staff involved in delivery of the teaching, course delivery and assessment are presented below, with an emphasis on clinical activity, and dependency on our affiliated academies and medical staff in Saolta at GUH, PUH, MUH, LUH and SUH.

University of Galway Paediatric Academic Staff

Chair/Head of Department/Established Professor: Prof. NM Allen

Senior Lecturer: Dr E Moylett

Lecturer: Dr R Geoghegan

Tutors: Dr. Naveen Malik and Dr. Rachel Fallon

Administration: Ms D Monroe

Academies: University of Galway Paediatric Tutor (Lecturer) Staff

Dr Caroline Richardson – Donegal Academy

Dr Ann Dolan/Patricia Marley – Sligo Academy

Dr Shyam Pathak – Mayo Academy

Dr Noor Farahnadiah Nurdin - Portiuncula Academy

Galway University Hospital, Paediatric Clinical Consultant Staff

Dr D O'Donovan / Dr E Ryan (Honorary SLs) / Dr O Flanagan / Dr A Lyons / Dr M Herzig / Dr Niamh McGrath / Dr. E Reade / Dr. J Letshwiti / Dr. A. Ryan

Mayo University Hospital, Paediatric Clinical Consultant Staff

Dr (Honorary Prof) M O'Neill / Dr H Stokes / Dr AT Elabbas

Portiuncula University Hospital, Paediatric Clinical Consultant Staff

Dr P Cahill / Dr F Neenan / Dr R Cooke / Dr P Curran (Honorary SL) / Dr J Nelson

Sligo University Hospital, Clinical Consultant Staff

Dr R Tummaluru / Dr D Gallagher / Dr. Bilal Java / Dr G Harrison

Letterkenny University Hospital, Clinical Consultant Staff

Dr M Thomas / Dr B Power / Dr M Azam

Paediatric Undergraduate Examinations (Report 2020)

The external examiner for the paediatrics in 2019-20 was Dr. Thomas Bourke, Senior Lecturer/Consultant Paediatrician, Queens University Belfast

Final Undergraduate Paediatric Results

207 students completed the 4MB3 course in 2019-2020:

Results	% students
H1	19.5%
H2	39%
Pass	31%
Fail	10.5%
Gold Medal Winner	Emma Callaghan

National Henry Hutchinson's intervarsity awards in Paediatrics 2021

1st Sinead Burke, NUI Galway

3rd Emma Callaghan, NUI Galway

Paediatric Undergraduate Examinations (Report 2021)

The external examiner for the paediatrics in 2020-21 was Dr. Thomas Bourke, Senior Lecturer/Consultant Paediatrician, Queens University Belfast

Final Undergraduate Paediatric Results

210 students completed the 4MB3 course in 2020-2021:

Results	% students
H1	9.6%
H2	43.3%
H3	37.5%
Fail	5.8%
Gold Medal Winner	Eoin Donnelan

National Henry Hutchinson's intervarsity awards in Paediatrics 2021

1st Rosie Waldron, NUI Galway

3rd Dominic Butler, NUI Galway

Paediatric University of Galway Postgraduate students

PhD Student: Dr. Siobhan McCormack. Severe neurological imPairment In iREland (SPIRE): CONCEPT: CONsensus Clinical datasEt, Prevalence and healthcare uTilisation. Supervisor: Prof. Nicholas Allen, Prof. Denise McDonald.

PhD Student: Alessia Arbini: Human induced pluripotent stem cell modelling for *KCNA2*-related developmental encephalopathy and epilepsy. Supervisor: Prof. Nicholas Allen, Co-supervisor: Prof. Sanbing Shen (REMEDI group).

PhD Student: Rachel Stewart: Human induced pluripotent stem cell modelling for *KCNQ2*-related developmental encephalopathy and epilepsy. Supervisor: Prof. Nicholas Allen, Co-supervisor: Prof. Sanbing Shen (REMEDI group).

Dr J. Nelson is Lead Investigator for an Irish Paediatric Surveillance Unit (IPSU) *National Epidemiological study of subdural haemorrhage in infancy in the Republic of Ireland*. November 2019- 2024. Funding for 3 years of study administrator granted from Child & Family Agency December 2021. Research SpR: Dr Miriam Smyth. Paediatric SpR, CHI Crumlin.

MSc. in Adolescent Health (University of Galway)

A Masters Degree in Adolescent Health launched in 2021 in collaboration with the Discipline of Children's Studies (University of Galway). This Degree spans a range of Modules, some of which are led by the Academic Dept/Discipline of Paediatric (Dr. E. Moylett and R. Geoghegan), with teaching and assessment contributions by clinical colleagues.

Paediatric NCHD Education: Clinical Department

NCHD education is delivered on a daily basis with the assistance of the paediatric teams at our affiliated Hospitals, with hands on consultant-led teaching (bedside teaching, and supervised Patient Handover). Educational activities include weekly paediatric case presentations, and journal club and depending on sites, formal lecture series delivered by Consultants, and other inter-disciplinary team members. The Case Presentation session is an opportunity to review cases with valuable learning points. In addition, all NCHDs are trained in neonatal resuscitation. Perinatal morbidity and mortality meetings are conducted in conjunction with obstetrics/gynaecology and pathology departments. NCHDs are encouraged to become involved in research projects during their period of attachment as well as to present at national/international meetings.

Due to the COVID-19 Pandemic, the annual Saolta-wide Western Regional Education Network (WREN) meeting (2020 and 2021), were deferred.

Sample Full Paper Publications: Saolta and University of Galway

Arbini A, Gilmore J, King MD, Gorman KM, Krawczyk J, McInerney V, O'Brien T, Shen S, Allen NM. Generation of three induced pluripotent stem cell (iPSC) lines from a patient with developmental epileptic encephalopathy due to the pathogenic KCNA2 variant c.869T>G; p.Leu290Arg (NUIGi052-A, NUIGi052-B, NUIGi052-C). Stem Cell Res. 2020 Jul;46:101853.

Sazali HB, Allen NM, Murphy A. PHACE syndrome: importance of distinguishing infantile haemangioma from capillary malformation. Arch Dis Child Fetal Neonatal Ed. 2020 Nov;105(6):662.

Benson KA, White M, Allen NM, Byrne S, Carton R, Comerford E, Costello D, Doherty C, Dunleavey B, El-Naggar H, Gangadharan N, Heavin S, Kearney H, Lench NJ, Lynch J, McCormack M, Regan MO, Podesta K, Power K, Rogers AS, Steward CA, Sweeney B, Webb D, Fitzsimons M, Greally M, Delanty N, Cavalleri GL. A comparison of genomic diagnostics in adults and children with epilepsy and comorbid intellectual disability. Eur J Hum Genet. 2020 Aug;28(8):1066-1077.

de la Cruz BM, Ding Y, McInerney V, Krawczyk J, Lu Y, Yang G, Qian X, Li W, Howard L, Allen NM, O'Brien T, Gallagher L, Shen S. Derivation of two iPSC lines from a sporadic ASD patient (NUIGi033-A) and a paternal control (NUIGi034-A). Stem Cell Res. 2020 Apr;44:101722.

Semple A, Clark T, Allen NM, Krishnananthan T, Nwokoro C, Girodon E, Porzio M, Herzig M. Identification of a novel cystic fibrosis mutation in three patients of South Asian descent. Clin Respir J. 2020;14(6):586-588.

Lyons A, Allen NM, Flanagan O, Cahalane D. Catatonia as a feature of down syndrome: An under-recognised entity? Eur J Paediatr Neurol. 2020 Mar;25:187-190.

Allen NM, Weckhuysen S, Gorman K, King MD, Lerche H. Genetic potassium channel-associated epilepsies: Clinical review of the Kv family. Eur J Paediatr Neurol. 2020 Jan;24:105-116.

McGlacken-Byrne SM, O'Rahelly M, Cantillon P, Allen NM. Journal club: old tricks and fresh approaches. Arch Dis Child Educ Pract Ed. 2020 Aug;105(4):236-241

Morrison JC, Finnegan R, Cleary A, Twomey E, Allen NM. Acute Necrotizing Encephalopathy (ANE) Triggered by Influenza. Am J Neurorad. Oct 2020.

Hedrich UBS, Lauxmann S, Wolff M, Synofzik M, Bast T, Binelli A, Serratosa JM, Martínez-Ulloa P, Allen NM, King MD, Gorman KM, Zeev BB, Tzadok M, Wong-Kisiel L, Marjanovic D, Rubboli G, Sisodiya SM, Lutz F, Ashraf HP, Torge K, Yan P, Bosselmann C, Schwarz N, Fudali M, Lerche H. 4-Aminopyridine is a promising treatment option for patients with gain-of-function KCNA2-encephalopathy. Sci Transl Med. 2021 Sep;13(609):eaaz4957.

Weerts MJA, Lanko K, Guzmán-Vega FJ, Jackson A, Ramakrishnan R, Cardona-Londoño KJ, Peña-Guerra KA, van Bever Y, van Paassen BW, Kievit A, van Slegtenhorst M, Allen NM, Kehoe CM, et al. Delineating the molecular and phenotypic spectrum of the SETD1B-related syndrome. Genet Med. 2021 Nov;23(11):2122-2137.

Ding Y, O'Brien A, Marcó de la Cruz B, Yang M, Lu Y, Qian X, Yang G, McInerney V, Krawczyk J, Lynch SA, Howard L, Allen NM, O'Brien T, Gallagher L, Shen S. Derivation of four iPSC lines from a male ASD patient carrying a deletion in the middle coding region of NRXN1α gene (NUIGi039-A and NUIGi039-B)and a male sibling control (NUIGi040-A and NUIGi040-B). Stem Cell Res. 2021 May;53:102254.

Ding Y, O'Brien A, de la Cruz BM, Yang M, Fitzgerald J, Yang G, Li W, McInerney V, Krawczyk J, Lynch SA, Howard L, Allen NM, O'Brien T, Gallagher L, Shen S. Derivation of iPSC lines from two patients with autism spectrum disorder carrying NRXN1α deletion (NUIGi041-A, NUIG041-B; NUIGi045-A) and one sibling control (NUIGi042-A, NUIGi042-B). Stem Cell Res. 2021 Apr; 52:102222.

Reade E, O'Regan M, Allen NM. The Importance of Classification and Genetics in Childhood Epilepsies. Hospital Professional News. 2021 Sept Pg 44-47.

Kennedy L, O'Donovan D. Nationwide Survey on High-Flow Nasal Cannula Use in Neonatal Units. Issue: Ir Med J; Jan 2022; V115; No. 1; P533.

Breathnach A, Geoghegan R, Moylett E. Parental intentions regarding introduction of common food allergens during complimentary feeding. Pediatr Allergy Immunol. 2021 Aug;32(6):1384-1387.

Finnegan R, Stanzelova A, Verbruggen T, Fahey D, Harte J, Smyth B, Moylett E. Paediatric management of a tuberculosis outbreak in an Irish Direct Provision Centre. Ir J Med Sci. 2021 Oct 15.

Allen HI, Gillespie P, Vazquez-Ortiz M, Murphy AW, Moylett EM. A cost-analysis of outpatient paediatric penicillin allergy de-labelling using telemedicine. Clin Exp Allergy. 2021 Nov 10.

Coughlan S, Elbadry M, Salama M, Divilley R, Stokes HK, O'Neill MB. The Current Use of Lumbar Puncture in a General Paediatric Unit. Ir Med J. 2021; 114(5):354.

Diskin C, Byrne D, Normand C, O'Neill MB. The early experience of doctors training in paediatrics: patient safety culture and the role and influence of the registrar. Ir J Med Sci. 2022 Feb;191(1):271-278.

Branagan A, Canty N, O'Halloran E, Madden M, O'Neill MB. Evaluation of the Quick Wee method of inducing faster clean catch urine collection in pre-continent infants: a randomized controlled trial. World J Pediatr. 2022 Jan;18(1):43-49.

Woon Y, Moylett E Parental Attitude to Influenza Infection: Willingness for Childhood Vaccination. J Pediatr Neonat Care. 2020; 6: 169.

Allen HI, Marta Vazquez-Ortiz, Andrew W Murphy, Edina H Moylett. De-labeling Penicillin-Allergic Children in Outpatients Using Telemedicine: Potential to Replicate in Primary Care. J Allergy Clin Immunol Pract. 2020 May;8(5):1750-1752.

Fitzgerald C, Linnane B, George S, Ni Chroinin M, Mullane D, Herzig M, Greally P, Elnazir B, Healy F, Mc Nally P, Javadpour S, Cox D, Fitzpatrick P. Neonatal screening programme for CF: Results from the Irish Comparative Outcomes Study (ICOS). Pediatr Pulmonol. 2020 Sep;55(9):2323-2329.

Paediatric Audit

Clinical audit is a key component of paediatric clinical activity, some of which is presented to the hospital group, nationally or published as research.

Sample of Paediatric NCHD Research Presentations

Oral Presentation British Society for Paediatric Radiology. 4-5th November 2021: CL Lehane, FC Caulfield, EC Curtis, LK Kyne, SM Maguire, MS Smyth, BT Treston, JK Nelson. Epidemiological study of subdural haemorrhage in infancy in the Republic of Ireland.

Oral Presentation Irish Paediatric Association. 3rd Dec 2021: MS Smyth, CL Lehane, AOR O'Riordan, EC Curtis, LK Kyne, SM Maguire, FC Caulfield, BT Treston, JK Nelson. Epidemiological study of subdural haemorrhage in infancy in the Republic of Ireland

Oral Presentation: Avoiding overuse in care. Service Evaluation of a New Regional based Spasticity Management Clinic at Enable Ireland and University Hospital Galway. Aoife Flynn, Aisling Lyons. Choosing Widely: EAPS, Barcelona October 2020.

Sample of Paediatric non-research presentations/ Invited Lectures

International Scientific Session. Doctors Updates, France 28th Jan 2020. J Nelson. Child Sexual Abuse.

Faculty of Forensic and Legal Medicine UK. Webinar. 15th May 2021. J Nelson. A. Walsh. M Eoghan. Overview of Sexual Assault Forensic Clinical Services in Ireland

National Annual SATU Study Day, 13 th October 2021, Cork. J Nelson, A. Walsh. Forensic Medical Services for Children within the Barnahus Model in Ireland.

Jansen L, Salama M, O'Neill MB. The Pale Child. Irish Paediatric Association. Limerick Dec 2021.

Classification and Aetiology in Childhood Epilepsy: A general neurology perspective? Prof. Nicholas Allen. Hebei Children's Hospital, Hebei Province, China 29th Oct 2021.

Sample of other roles and activities of Paediatric Staff

Prof. Michael O'Neil (MUH) roles in NCHD Training and Education:

1) Nation Specialty Director Basic Specialist Training Paediatrics RCPI
2) Director of International Residency Training Program in Paediatrics RCPI
3) National Doctors Training and Planning Training Lead for SUH, MUH and LUH.

Dr. Joanne Nelson, PUH is adjunct Senior Clinical Lecturer NUL, and serves as Clinical Examiner and Educational Supervisor, Faculty of Forensic and Legal Medicine 2020-current and an RCPI NCHD National Trainer 2016 –current, in this area.

Dr. Edina Moylett is the GP Western Training Committee Hospital representative for paediatrics, the Paediatric Medicine Module Lead, Serves as Extern Examiner for the Paediatrics Programme UCC, and sits on NIAC as the paediatric representative.

Paediatric Report by, Professor NM Allen, on behalf of Academic Dept of Paediatrics, University of Galway, Consultant Paediatrician S.I Neurology, GUH

7.2 Saolta Maternity Service Joint Training in 2021

Each of the Maternity units is Saolta provide a large amount of accredited training for Midwives and Medial staff such as PROMPT, Neonatal resuscitation and Fetal monitoring. In 2021 a number of group wide education and training forums and training sessions these are as follows:

Human Factors Training

In numerous reports investigating maternal and neonatal deaths teamwork, communication, and interpersonal skills were cited as particular areas of concern.

In 2021, 4 individual days of Human Factors Training was coordinated by the Saolta Healthcare Group and provide my 'Baby Life Training' aimed at improving maternity outcomes and staff satisfaction through development of individual and team human factors skills. Aproximately 60 Midwives and Obstetricians from across the group participated on this virtual training. The course explored the vital role that nontechnical skills such as communication, team-working, leadership, situational awareness and decision making, play in improving patient safety.

Saolta W&C MCAN Maternity Multidisciplinary Policy, Guideline, Clinical Care Pathways and Audit Committee

The purpose of this is to facilitate consistency and quality of maternity, early pregnancy, gynaecology and neonatal care through standardisation of policies, guidelines, care pathways and audit for the Saolta Maternity Hospital Group. Currently we have over 120 approved multidisciplinary policy, procedure, guideline and pathway available on Q Pulse. This fourm oversees the development, review and implementation of clinical practice guideline within Maternity services.

PROMPT train the trainer Programme:

Teams, including Obstetricians, Midwives and Anesthetists, from each site within the Saolta Healthcare group and a team from NUIG attended a 2 day Train the Trainer workshop, 22nd and 23rd November, provide by the UK based PROMPT team. This Programme was facilitated by virtual means to each of the sites. The purpose of training new PROMPT instructors and providing an update to existing instructors. Over 60 Maternity staff from across the group participated on this training session

National Communication Training Module

The National Healthcare Communication Programme is designed to support healthcare staff to learn, develop and maintain their communication skills with patients, their families and with colleagues. In 2021, over 44 multi-disciplinary staff in Maternity services across Saolta participated in a "train the trainer" programme for Module: Making Connections and Module 3 : Challenging Consultations. These trainers are leading out on the roll out of these module at site level

7.3 Midwifery Practice Development Unit, UHG, Saolta & School of Nursing and Midwifery, NUIG

Introduction

Midwifery programmes are provided by the School of Nursing and Midwifery, National University of Ireland, Galway (NUIG) in association with the University Hospital Galway (UHG), Portiuncula University Hospital (PUH), Mayo University Hospital (MUH) and Sligo University Hospital (SUH). The Midwifery Practice Development team for the Saolta University Hospital Group provides support to students during their clinical placements. The team also support staff in professional development, multidisciplinary education and updating policy, guidelines, audit and clinical care pathways for the Saolta group.

Staff of Midwifery Practice Development Unit, Saolta

Practice Development Co-ordinator	
Heather Helen	
Clinical Placement Co-ordinators	
Claire Galvin (PUH)	Mary Reidy (UHG)
Frances Burke (MUH)	Susan Moylan (UHG)
Karlene Kearns (SUH)	Marie Sheedy (UHG)
Barbara Bradley (UHG)	Dawn Whittaker (UHG)
Allocation Liaison Officer	
Claire Fuller	
Administrator	
Geraldine Mc Hugh	
Midwifery Clinical Skills Facilitator	
Caroline Hession	
(Post Registration Programme Co-ordinator)	
Meadhbh Hughes (UHG)	

Midwifery Education

The Higher Diploma in Midwifery

In February 2021, ten Midwifery Students completed their Higher Diploma in Midwifery programme at University Hospital Galway. These students were all offered a Staff Midwife Post within the Saolta Healthcare Group. On 1st March 2021, a further 15 students commenced their Midwifery Programme at University Hospital Galway and continued in clinical placement throughout 2021.

Bachelor of Midwifery Science (September 2021)

- Year 1 Class of 2021: 23 midwifery students commenced the four year programme with clinical placement in UHG, MUH, PUH and SUH.
- Year 2 Class of 2020: 23 midwifery students continued with midwifery placements in all four sites and specialist placements in theatres, gynaecology services and primary healthcare.
- Year 3 Class of 2019: 23 midwifery students continued with core midwifery placements, neonatal and mental health placements in a variety of sites. These students also had a clinical placement in the Midwife led service and a high dependency care placement which was facilitated in labour wards in all four sites.
- Year 4 Class 2018: 13 midwifery students commenced internship with placements in UHG, MUH, PUH and SUH

Clinical Teaching

Student midwives must successfully complete both clinical and theoretical components of the programme, to be eligible to register as a midwife with Nursing and Midwifery Board of Ireland (NMBI). Clinical teaching is primarily provided by midwives/preceptors, with support from the clinical placement co-ordinators from the Practice Development team and lecturers from the School of Nursing and Midwifery (NUIG).

Community Midwifery Placements

With the introduction of the revised undergraduate midwifery curriculum in September 2018, all undergraduate students have a requirement to complete a 4 week placement in Midwifery led care while the higher diploma midwifery students do a 2 week placement. This experience is obtained in:

- The Midwife Led Antenatal hospital based clinics and Midwife Led Outreach Antenatal Clinics on various sites.
- Early Transfer Home programme was re-introduced in March 2021 in UHG which provided students with valuable experience of community based post-natal care

Assessment Process for Student Midwives

Theoretical and clinical assessments are ongoing throughout the academic year. Theoretical modules are assessed using a variety of methods: course work, reflective essays, examinations, MCQs, poster presentations and OSCEs. The pandemic which continued to pose a challenge was exacerbated by an attempted cyber-attack at NUIG during 2021. Teaching, learning and assessment strategies were primarily in person with some use of online methods.

Clinical practice is assessed by achieving clinical competencies, as outlined by NMBI and the School of Nursing and Midwifery NUI Galway. Clinical competencies are assessed by midwives/preceptors, in collaboration with the clinical placement co-ordinators and link lecturers as appropriate. A national NMBI competency assessment tool was implemented in September for the 2018 first year students.

Postgraduate Diploma in Public Health Nursing

The Child and Maternal Health module was undertaken as part of the Postgraduate Diploma in Public Health Nursing at NUIG. Students were facilitated to undertake the clinical component of this module in UHG Maternity Unit, PUH, MUH and SUH.

Professional Development in UHG

Due to COVID-19 restrictions, 2021 remained to be challenging year for all. Professional Development Training continued to be coordinated and provided by the Midwifery Practice Development team through a blended learning approach using a combination of zoom and classroom based training.

The mandatory training week was introduced in January 2021. This pilot project introduced the concept of staff being released to do the majority of their mandatory midwifery training in a scheduled week.

Fetal Monitoring Workshops:

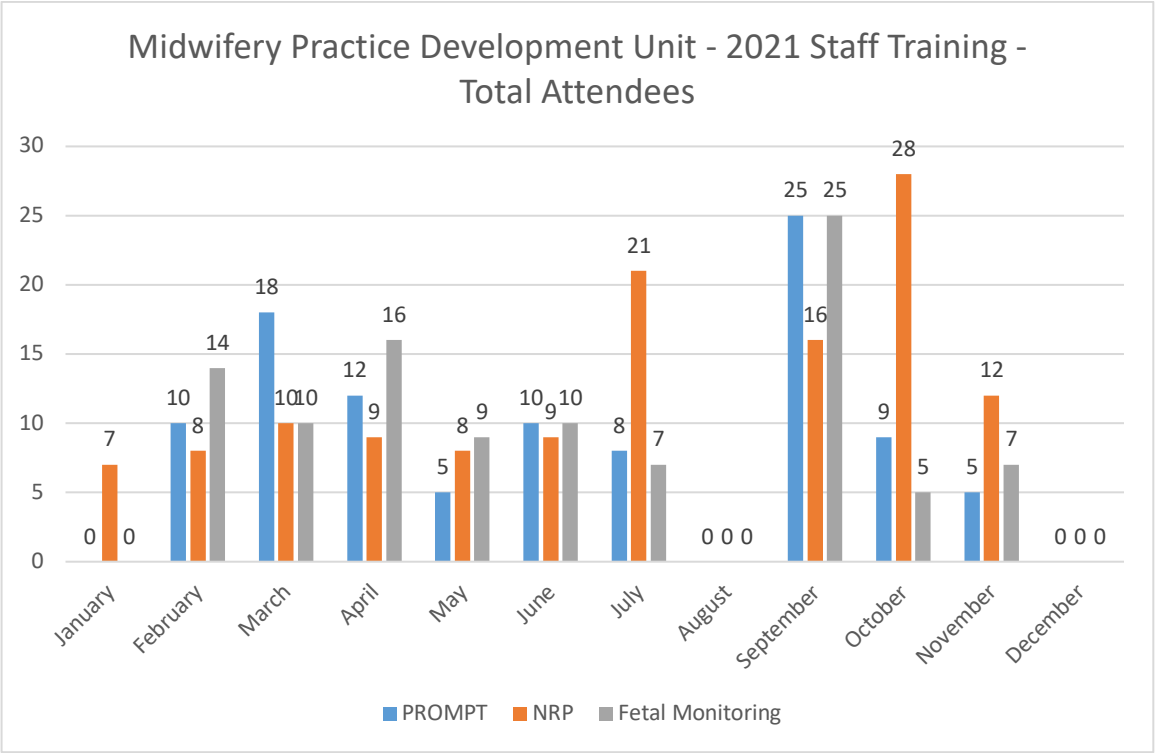
Facilitated by practice development team, clinical midwives and obstetricians. The aim of these workshops is to facilitate mandatory multi-professional training in fetal monitoring requirements.

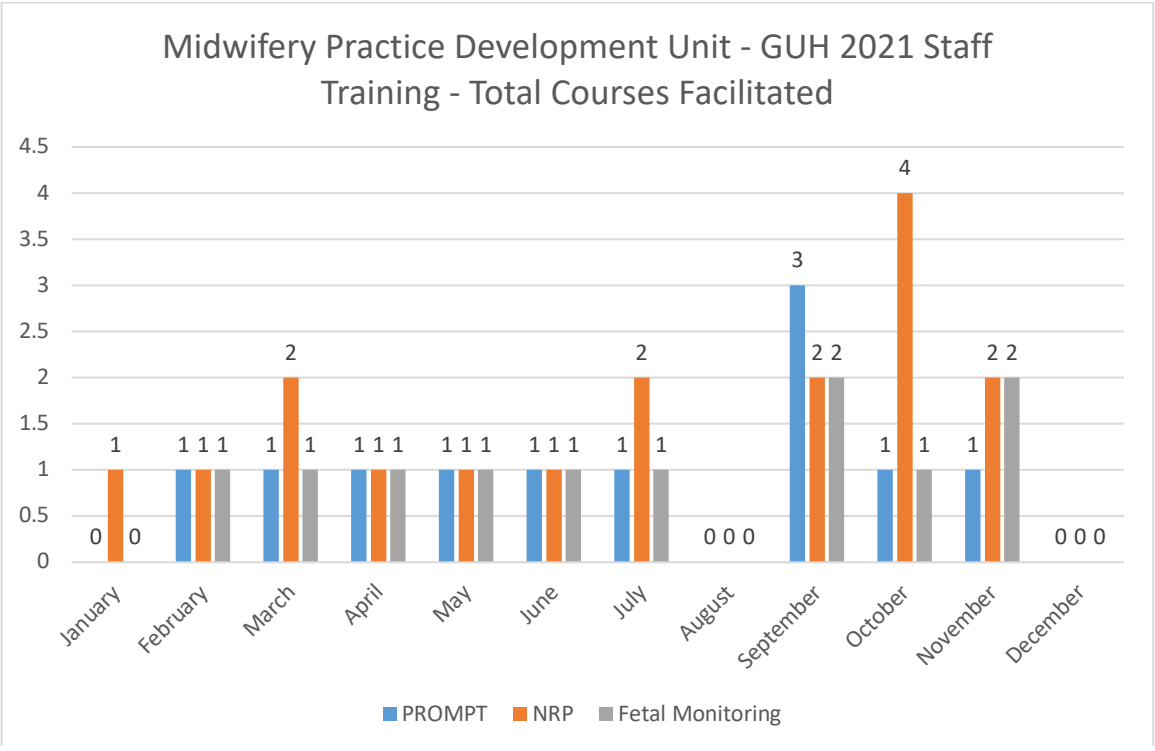
Neonatal Resuscitation Provider Course:Facilitated by neonatal instructors for all midwifery, neonatal and medical staff on an ongoing basis to meet mandatory neonatal resuscitation requirements.

Practical Obstetric Multi-professional Training (PROMPT): Facilitated by practice development team, clinical midwives and obstetricians. The aim of these workshops is to facilitate mandatory, multi-professional training in the management of obstetric emergencies

Updates in the clinical area on skills and drills:

Skills and drills in relation to NRP, Fetal Monitoring and Obstetric Emergencies are run frequently within the department to help support professional development.





National Communication Module

Workshops continued throughout 2021 on the National Healthcare Communications Programme Module 1 "Making Connections" for all members of the Multidisciplinary Team.

Perineal Suturing Workshop:

Facilitated by the Practice Development Team.

This workshop is designed to facilitate practitioners to acquire or update their knowledge and skills on perineal assessment and repair.

High Dependency Maternity Care Module:

This postgraduate (Level 9) Module, continued in 2021.

The aim of this module is to provide education for midwives on high dependency care needs, for women requiring level 1 care during pregnancy and childbirth. It runs as a stand alone option or credits awarded can be accumulated towards other postgraduate courses, and is available to midwives nationally.

Additional Study Days:

Study days provided in 2021 in conjunction with the Centre for Nurse and Midwifery Education (CNME): Breastfeeding workshops, Preceptorship, Documentation in Clinical Practice, Bereavement study days, Perinatal Mental Health, Gynecology study days, STABLE, Care of the newborn study day, Induction Day of new Nurse/Midwives and Audit training.

UHG & PUH Education Committee

Educational needs of staff are identified and relevant education sessions are organised to support professional development.

Post Graduate Midwifery Training 2021

Sligo University Hospital Post Graduate Midwifery Training 2021

Name	Awarded	Higher Education Institute
Kathryn Henry CMM2 Labour ward	Postgraduate diploma in Quality and safety in Health and social care	GMIT
Rhona McDaid Staff Midwife	Completed year 1 Masters in Bereavement and loss	RCSI & Irish hospice foundation
Sinead McHale CMM1 SCBU	Year 1 of Master of Science in leadership &management in healthcare certificate	GMIT
Irene McNicholas CMM3 Maternity	Postgraduate diploma in Quality and Safety in Health and Social care	GMIT
Jessica McHale Staff Nurse RSCN	Diploma in Neonatal nursing	RCSI
Karen Grennan Staff Nurse RSCN	Diploma in Neonatal nursing	RCSI
Patricia McArdle RGN RM	Bachelor in Nursing studies	GMIT

7.4 Midwifery Post Graduate Training

Mayo University Hospital Post Graduate Midwifery Training 2021

Name	Awarded	Higher Education Institute
Kathryn Henry CMM2 Labour ward	Postgraduate diploma in Quality and safety in Health and social care	GMIT
Rhona McDaid Staff Midwife	Completed year 1 Masters in Bereavement and loss	RCSI & Irish hospice foundation
Sinead McHale CMM1 SCBU	Year 1 of Master of Science in leadership &management in healthcare certificate	GMIT
Irene McNicholas CMM3 Maternity	Postgraduate diploma in Quality and Safety in Health and Social care	GMIT
Jessica McHale Staff Nurse RSCN	Diploma in Neonatal nursing	RCSI
Karen Grennan Staff Nurse RSCN	Diploma in Neonatal nursing	RCSI
Patricia McArdle RGN RM	Bachelor in Nursing studies	GMIT

Sligo University Hospital Post Graduate Midwifery Training

Name	Awarded	Higher Education Institute
Juliana Henry Director of Midwifery	Diploma in leadership and Quality improvement	RCPI
Niamh McGarvey Assistant Director of Midwifery	Diploma in leadership and Quality Improvement	RCPI
Leona Mulvey Staff Midwife	Post graduate diploma in health sciences	St Angela's Sligo
Leanne Smith Staff Midwife	Post graduate diploma in health sciences IBCLC recertification	St Angela's Sligo
Joanne Moore Staff Midwife	Postgraduate Diploma in health sciences	St Angela's Sligo
Nicola Greene Staff Midwife	High dependency maternity care module	NUIG
Lynne Cunningham Staff Midwife	IBCLC recert	IBLCE
Barbara Carney Staff Midwife	Msc in ultrasonography (ongoing)	UCD

Letterkenny University Hospital Post Graduate Midwifery Training

Name & Position	Qualification	Higher Education Institute
Meghan Mc Gettigan Staff Midwife	Professional Certificate : Examination of the New-born. Level 9. Sept 2020 for 1 year.	UCD
Catherine Dinan Lactation Consultant	Master of Science in Advancing Health & Social Care.	LYIT (ATU)
Lorna Sweeney Bereavement CMM2	Masters of Science Loss & Bereavement. Sept 2019 for 2 years	RCSI

Galway University Hospital Post Graduate Midwifery Training

Name & Position	Qualification	University
Claire Joyce Staff Midwife	High Dependency Maternity Care Certificate	NUIG
Carmel Callinan Staff Midwife	High Dependency Maternity Care Certificate	NUIG
Ciara Garvin Staff Midwife	High Dependency Maternity Care Certificate	NUIG
Sabrina Casey Staff Midwife	High Dependency Maternity Care Certificate	NUIG
Lorraine Mc Dermott Staff Midwife	MHSc Diabetes commenced	NUIG
Dawn Whiiaker Clinical Placement Coordinator	Post Graduate Diploma in Healthcare Simulation and Patient Safety	NUIG

Caroline Hession Clinical Skills Facailator	Post Graduate Diploma in Healthcare Simulation and Patient Safety	NUIG
Sharon Hynes Clinical Nurse Manager 2	Post Graduate diploma in Advanced practice Nurse Prescribing	NUIG
Carmel Connelly Clinical Midwife Manager 2	Certificate : Biomechanics for Birth -2021 – RCN Postgraduate Diploma in Leadership & Quality	RCPI
Pauline Tarpey Clinical Midwife Manager 2	Msc. Healthcare leadership, quality and innovation.	RCSI
Helen Murphy Director of Midwifery	Postgraduate Diploma in Leadership & Quality- 2020-2021-	RCPI
Karrie Gibbons Staff Midwife	MSc in Ultrasound	UCD
Mariosa Caden Staff Midwife	Certificate in early pregnancy ultrasound	UCD
Helen Byrnes	Nurse prescriber course	NUIG
Clodagh Lynch Staff Midwife	Examination of the New-born	UCD
Charlotte Elliott Staff Midwife	Nurse prescriber course	NUIG
Siobhan O Connor Clinical Midwife Manager 2 Perinatal Mental Health	Nurse prescriber course	NUIG
Tracy Sugrue Clinical Midwife Manager 2	Nurse prescriber course	NUIG
Mandy Brennan Clinical Midwife Manager 1	Examination of the New-born	UCD
Martina Calpis Staff Midwife	Examination of the New-born	UCD
Runagh Burke Candidate Advance Nurse Practitioner	Nurse Prescribing Diploma in early pregnancy and Gynaecology Ultrasound Outpatient Diagnostic Hysteroscopy and therapeutic practices MSC in Nursing advanced practice	NUIG UCD University of Bradford NUIG
Assumpta Casserly Candidate Advance Nurse Practitioner		
Marguerite Bourke Staff Midwife	Colposcopist	BSCCP Birmingham
Chloe O Malley Staff Midwife	High Dependency Maternity Care	NUIG
Cathy Regan Staff Midwife	High Dependency Maternity Care	NUIG
Gemma Mc Carty Staff Midwife	Post Grad Cert in Health Promotion, Approaches to Cardiovascular health and Diabetes prevention	NUIG

Portiuncula Post Graduate Midwifery Training 2020 & 2021

Name and post	Qualification	Higher Education Institute
Andréa Shaughnessy Staff Midwife	Post Graduate certificate in Nurse Midwifery Prescribing course	NUIG
Amy Molloy Staff Midwife	Post Graduate certificate in Nurse Midwifery Prescribing course	NUIG
Kirsty Esplin Staff Midwife	Module in High dependency maternity care	NUIG
Diane Fitzgerald Staff Midwife	Module in High dependency maternity care	NUIG
Sarah Mc Walter Staff Midwife	Module in High dependency maternity care	NUIG
Mischa Mc Nulty Staff Midwife	Post Graduate certificate in Nurse Midwifery Prescribing course	NUIG
Sherifat Abmbola Aachukan Staff Nurse	Principles of Neonatal Nursing	CME Dublin / RCSI

HSCP

Title of Audit:	3rd and 4th degree tears at UHG 2020	For office use: audit number
Date of report:	March 2022	
Department/Speciality:	Obstetrics and Gynaecology, Physiotherapy	Re-audit date: 2021

Audit lead/author:	Debbie Fallows, Ruth Kilkenny,Aoife Burke Tara Murphy (Registered Midwife, LW)	Job title: Chartered Physiotherapists in WH, UHG Reg Midwife, LW

CHAPTER 8

Quality & Patient Safety

8.1 Quality & Patient Safety

Maintaining and improving the Quality and Patient Safety of care provided in our service requires the ongoing commitment of everyone who works in the Women's & Children's MCAN. The Quality and Patient Safety (QPS) Department focuses on improving the quality of care our patients receive by reducing avoidable harm, identifying and embedding best practices across all areas, and putting the foundations in place to drive improvements in Quality and Safety.

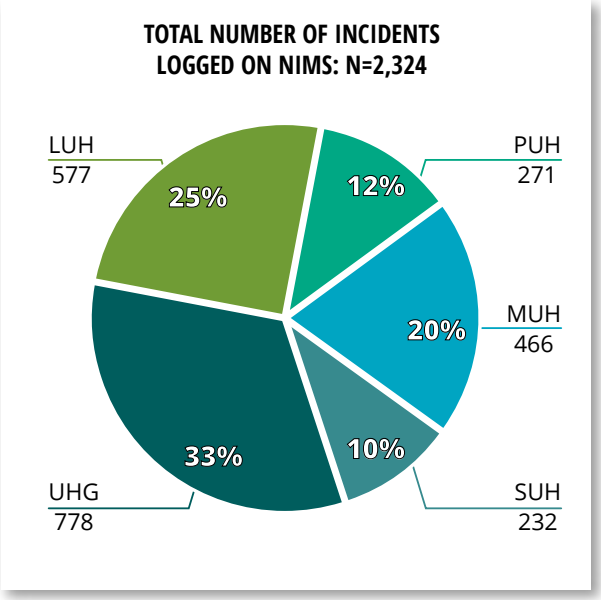
In line with the Health Information and Quality Authority (HIQA) National Standards for the Conduct Review of Patient Safety Incidents, The Clinical Director for Quality and Patient Safety and the Group Quality and Patient Safety Managers are responsible for ensuring that the patient safety structures and processes in place meet the standards necessary to deliver care. The Saolta Group Serious Incident Management Team (SIMT) provides the overall governance for incident review and recommendations for learning.

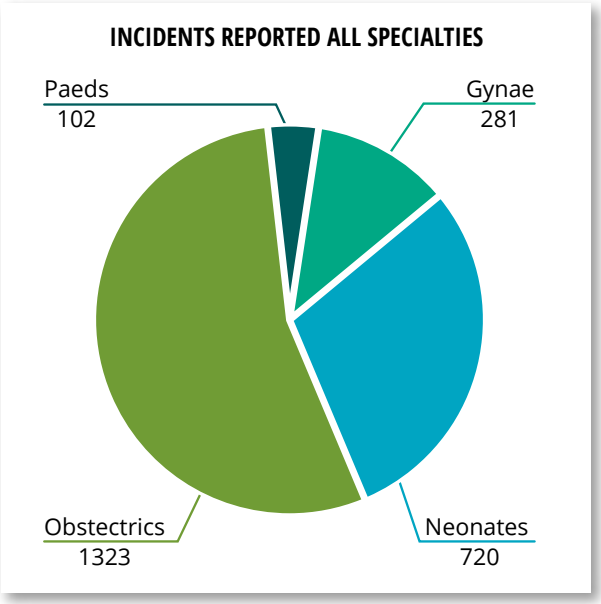
All incidents are initially reported on QPulse at the point of care/occurrence. This is currently the Quality Management Electronic Information System that assists services to manage their quality, risk and safety processes. The incidents are then logged on to the National Incident Management System (NIMS) which is the principal source of national data on incident and claim activity for the Irish Health Service. Moving forward there are plans for 2022 to roll out direct entry on to NIMS at the point of care/ occurrence to streamline incident reporting processes and reduce duplication of data inputting. Incidents that meet the HSE criteria as a Serious Reportable Events (SRE's) are flagged and escalated nationally on this system. Incidents such as SRE'S require further review in line with the HSE Incident Management Framework (IMF) 2022. This updated policy has explicit links to the Open Disclosure Policy and its definitions are aligned with related legislative and policy changes. Supporting documentation may be accessed on:

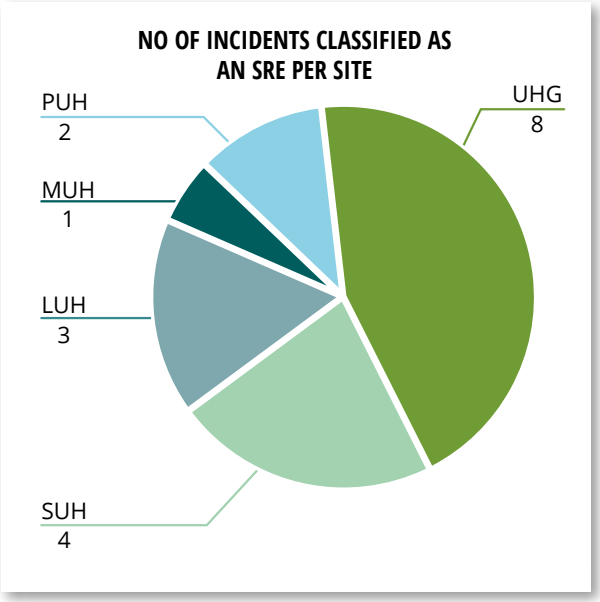
https://www.hse.ie/eng/about/qavd/incident-management/

In line with this policy all incidents reported are reviewed by the local services and the Quality and Patient Safety Team. Incidents are identified that require further review at this point. A Preliminary Assessment Review (PAR) is completed which is reviewed locally by QPS and the service and issues are identified and recommendations for further learning are made. There may be escalation to the Pre- Serious Incident Management Team (Pre- SIMT) for further consideration. A decision is made by the Clinical Director in QPS if this incident warrants further review either internally/ externally.

As part of the National Maternity Strategy plan (rec 29.6), the National Women's & Infants Health Programme (NWIHP) set up the ObstetricEvent Support Team (OEST). This Team consists of an Obstetrician, Midwife and Q&S. Certain Serious Reportable Events (SREs) come within their scope and have to be escalated to them within 72 hours. Saolta Group have engaged with this team in late 2021.







8.2 KPIs

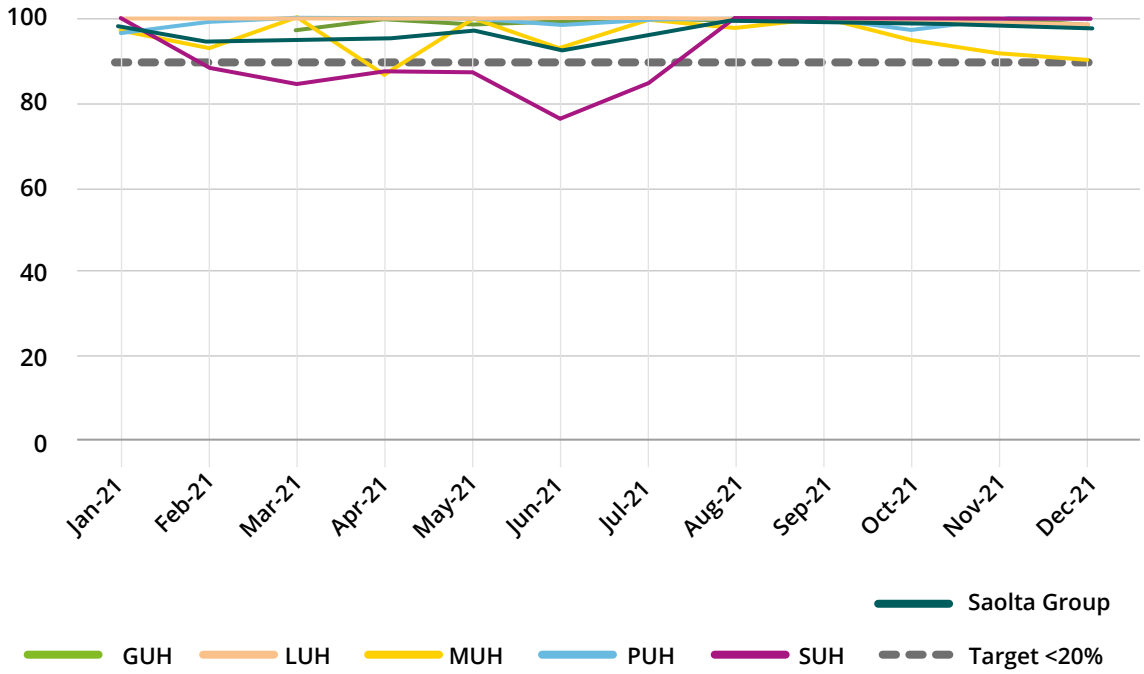
The following KPIs were the agreed suite for 2021. The sites submitted data on a monthly basis so that patterns and variance against targets could be reviewed. The KPIs were discussed at MCAN meetings and improvements were made to improve compliance as possible.

Women's and Children's MCAN Key Performance Indicators (KPIs)

- % of serious incidents being notified within 24 hours of occurrence to the State Claims Agency.
- % of Serious Reportable Events which require review completed within 125 calendar days of incident occurrence.
- % of complaints investigated within 30 working days of being acknowledged by the complaints officer.
- % of women receiving one-to-one midwifery care throughout labour and delivery.
- % of Shifts on Labour ward where a CMM2/ CMM3 is in charge / coordinating the shift.
- % of Women receiving antenatal care via a supported model of midwifery care.
- % of Category 1 caesarean sections for fetal distress or maternal emergency in which the decision to delivery interval is within 30 minutes.
- % of Caesarean sections per total mothers delivered.
- % of patients referred for PMB who require histological investigation and have investigation within 56 calendar days of referral.
- % of ADULT women waiting > 15 months for inpatient treatment.
- % of ADULT women waiting > 12 months for an outpatient appointment.
- All gynaecological oncology patients should have their surgery within 6 weeks of the clinician's decision to operate.
- % of High Grade Colposcopy patients seen within 4 weeks of referral.
- % of Low Grade Colposcopy patients seen within 8 weeks of referral.
- % of children with Type 1 DM receive insulin via CSII.
- % of children waiting > 15 months for inpatient treatment.
- % of children waiting > 12 months for an outpatient appointment.
- % of patients (< 16 years old) admitted to adult wards via ED.
- % of babies arriving into NICU/SCBU with a temperature of <36.5 degrees celsius
- % of infants with risk factor for DDH and negative clinical exam have USS between 4 weeks +0 and 6 weeks +6 (adjusted for prematurity)
- % of maternity hospitals / units that have completed and published monthly Maternity Patient Safety Statements (2 months in arrears).
- % of NCHD with EWTD <48 hour working week (NCHD).
- % of NCHD with EWTD <24 hour shift (NCHDs).
- % of Absenteeism.
- % of patients (>14years) seen by a forensic clinical examiner within 3 hours of a request to a SATU for a forensic clinical examination.
- Agency Costs (Med/Dental & Nursing, HSCP, Admin Agency Costs)
- Overtime Costs.
- Basic Pay Costs.
- Value of Claims Awaiting Primary Consultant Action.

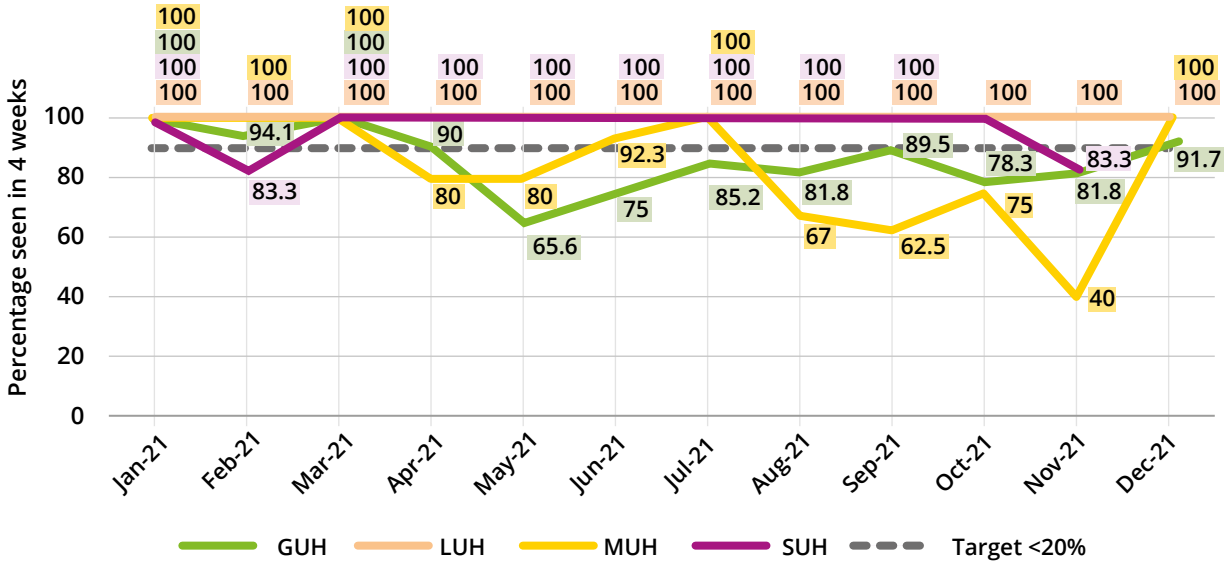
The following graphs plot some of the key KPIs that were worked on during 2021:

% OF WOMEN RECEIVING ONE-TO-ONE MIDWIFERY CARE THROUGHOUT LABOUR AND DELIVERY.



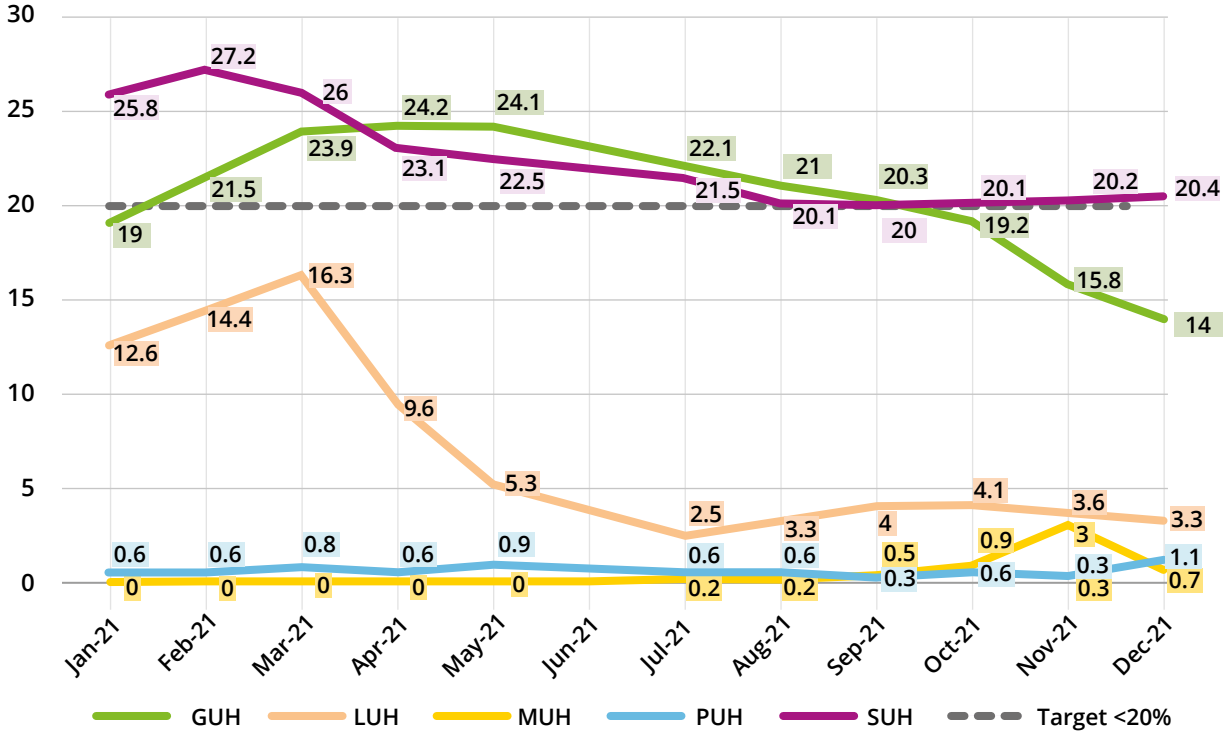
All sites remained above the target of 90% for 2021 bar SUH in the summer.

% OF HIGH GRADE COLPOSCOPY PATIENTS SEEN WITHIN 4 WEEKS OF REFERRAL.



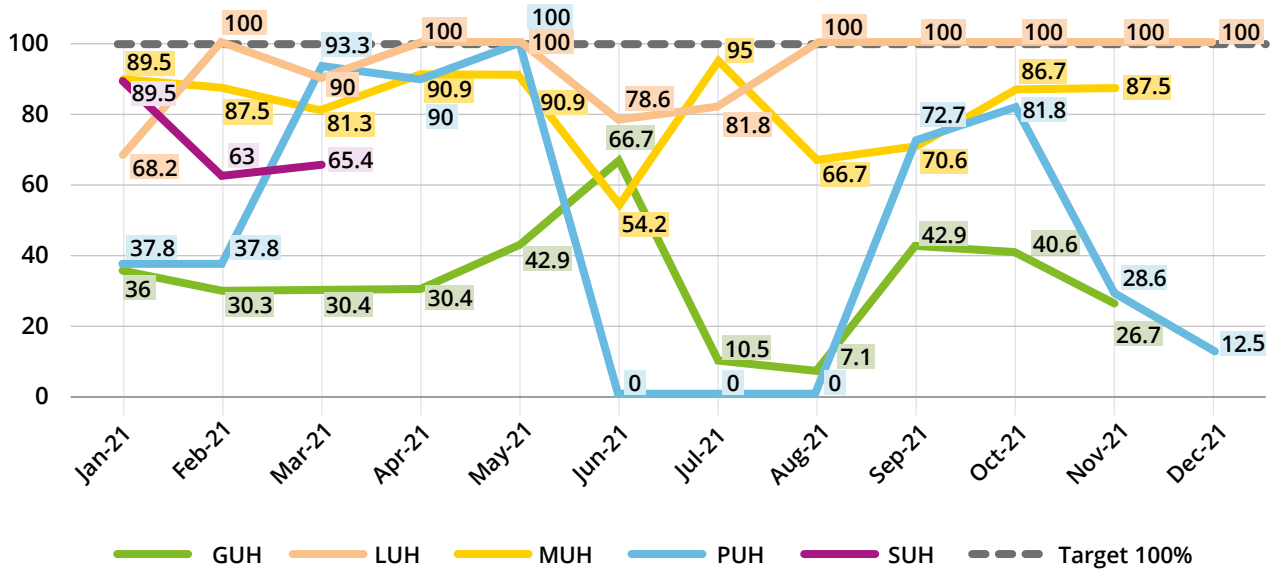
LUH is consistently at 100%, GUH and MUH are inconsistent and SUH is just beginning to show a disimprovement.

% OF CHILDREN WAITING > 12 MONTHS FOR AN OUTPATIENT APPOINTMENT.



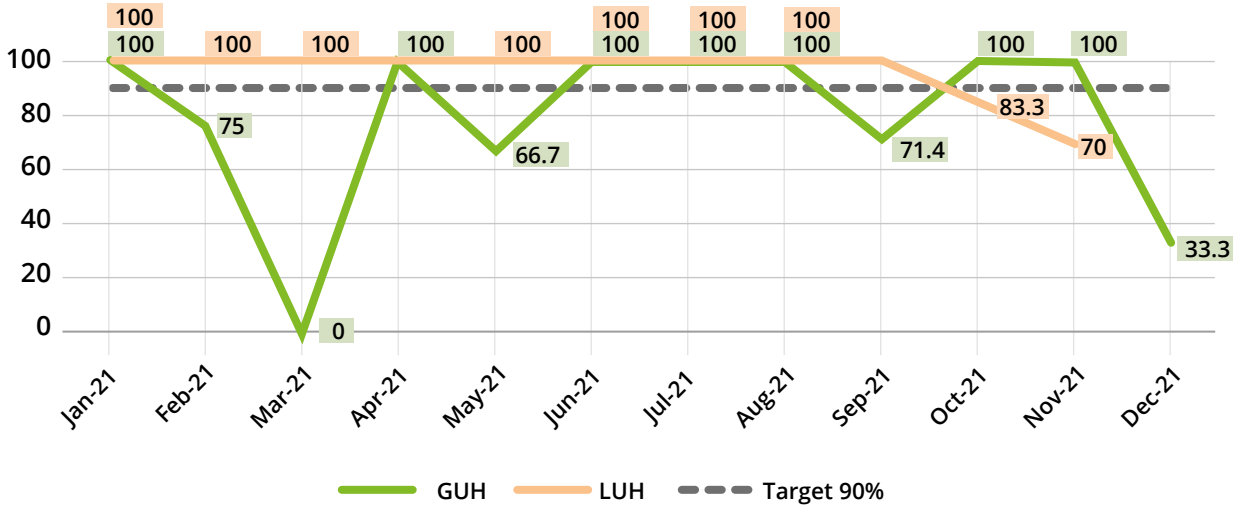
**MUH and PUH remained consistently under the target of less than 20% for all of 2021, with GUH and SUH bringing their numbers waiting over 12 months below the target and LUH bringing theirs significantly down also.*

% OF INFANTS WITH RISK FACTOR FOR DDH AND NEGATIVE CLINICAL EXAM HAVE USS BETWEEN 4 WEEKS +0 AND 6 WEEKS +6 (ADJUSTED FOR PREMATURITY)



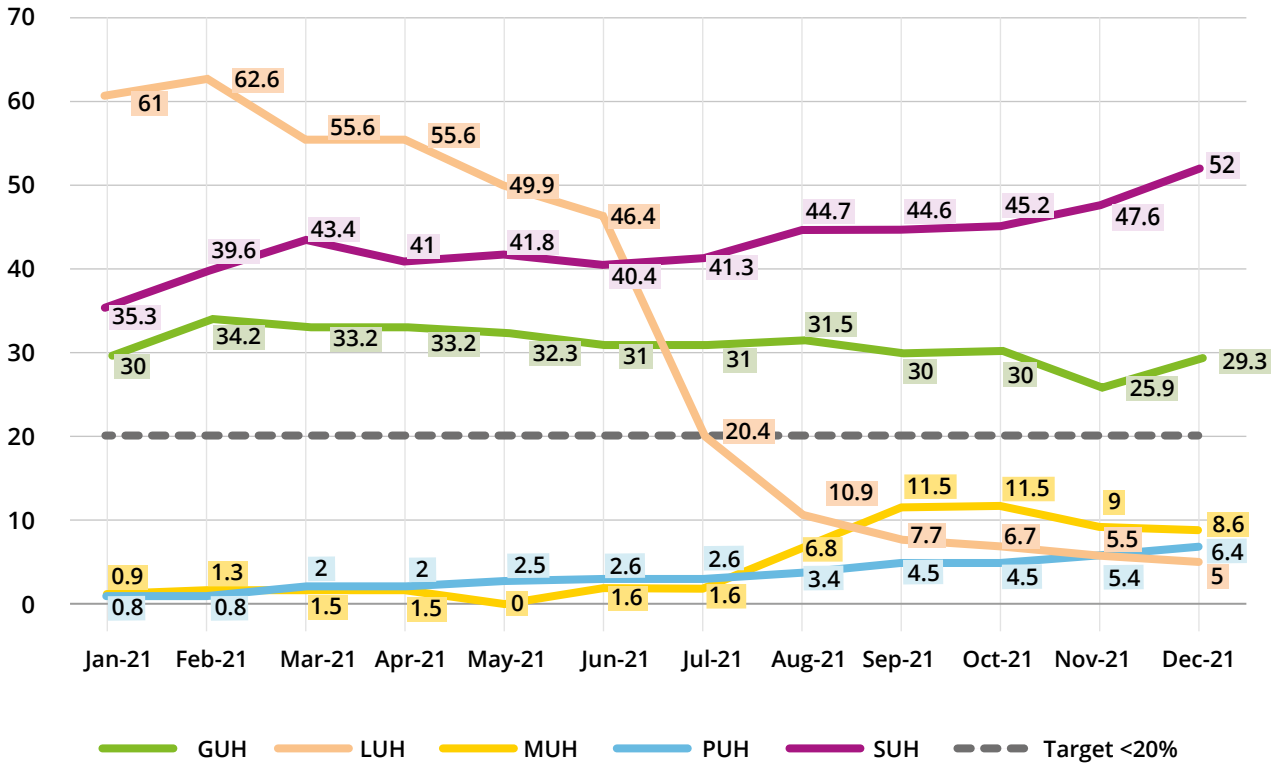
Challenges with recording the KPI in SUH and MUH. In general LUH is the only site reaching the 100% target.

% OF PATIENTS (>14YEARS) SEEN BY A FORENSIC CLINICAL EXAMINER WITHIN 3 HOURS OF A REQUEST TO A SATU FOR A FORENSIC CLINICAL EXAMINATION.



*These percentages represent small numbers ranging from 1 per month to 13 per month.

% OF ADULT WOMEN WAITING > 12 MONTHS FOR A GYNAECOLOGY OUTPATIENT APPOINTMENT.



MUH and PUH have been consistently under the target of <20% waiting 12 months.

LUH made significant improvement in bringing their Waiting List numbers below the target in 2021.

GUH and SUH have some challenges in meeting the target during this year.

8.3 Maternity Patient Feedback – the Saolta group

Having a baby is a unique and life-changing event. All maternity units face the challenge of having to meet appropriate safety standards at the same time as ensuring that the users of their services have a good experience at such an important time in their lives.

The Saolta Hospital Groups Strategy 2018- 2023 and Patient and Public Engagement framework 2020-2023 stated the organisations committed to using patient feedback and data to inform service developments. This commitment to person centred care is also demonstrated in the HSE values statement and the HIQA National Standards for Safer Maternity Safer Better Maternity Services

Patient feedback holds an important place within the Women's and Children's MCAN as firstly it is the right thing to do as well as it offers a unique insight into the experience of the patient and, through this, into the quality of the care they receive.

Improving our process and mechanisms to capture the views of service user feedback in our Maternity units is an important part of being able to full access the quality of the service and for driving future service improvements.

Building on the findings of the national maternity patient experience survey in was published in May 2020 the aim of which was to learn from experiences of the women and to improve the safety and quality of the maternity care in Ireland. The W&C MCAN committed to improving our real time process and mechanisms to capture the views of service user feedback in our Maternity units. We view this as an important part of being able to full access the quality of the service and for driving future service improvements.

In 2021, on a number of sites we introduced bespoke comment card analysis for use in all antenatal, intrapartum, and postnatal services and designed and trialled the introduction of a maternity service users a forum in GUH, depending on the results of the trial this forum would be rolled out to all sites.

Sources of feedback through reactive approaches a range of sources, that are in place in each unit include

- Letters & emails of compliments and complaint to management team
- Thank-you cards
- HSE "Your service: Your say"
- Comment cards
- Senor Midwife care rounds
- Pilot "Maternity voices "forum in GUH

Through these mixed method approach to feedback collection and from what we have learnt from the National Maternity Patient Engagement Survey we have been able to gather the views and opinions of users, in addition to using national tools. This is a summary of the progress made in 2021 with progressing implementation of the quality Improvements plan developed in response to Maternity Service user feedback.

Maternity Voices: The University Hospital Galway Experience 2021:

The experience of the pilot Maternity voices group in Galway has been evaluated, and is currently being rolled out in all of the Saolta sites.

Maternity Voices in partnership with University Hospital Galway is a Service User improvement Group made up of a team of women and service providers inclusive of the MDT working together to review and contribute to the development of local Maternity Care. This includes listening to and seeking out the voices of women, families and carers using maternity services.

The first meeting was held on the 10 November 2021 in the Ardilaun Hotel. Whose Shoes was used to break the ice and set the themes for the Group to work with.

The service users requested a policy of their choice to be reviewed per meeting which is great for discussion. They are involved in the planning of service improvements within the departments such as the Home from Homeroom. The group started with 4 service users and meet bimonthly and since expanded to 10 service users and is going from strength to strength.

We agreeded to hold regular meetings in a neutral venue off the hospital site to engage with recent service users. At the early meeting we agreed clear terms of reference and established effective ways for this forum to work . Feedback collected by this forum is reported back to service providers as well as to the Maternity Management team. An example of an output from this forum includes an issues identified within the Group in regards to the "My Child 0-2" booklet were raised with the National Breastfeeding Group. Wordings within the booklet was changed to reflect this feedback.


Saolta
Grúpa Ollscoile Cúram Sláinte
University Health Care Group