





National Clinical Programme

The first 5 years

Martin McNicholl



Contents

Introduction	3
The Work of the Programme	4
Clinical Guidelines & Reports	4
Clinical Leadership	4
Collaboration	4
Research	5
Communications & Media	5
Clinical Guidelines & Reports	6
Programme Guidelines	6
Programme Reports	10
non-Programme Guidelines	10
Clinical Leadership	12
HSE/HIQA Maternity Services Investigations	12
Perinatal Infection Subgroup	12
2. Quality Assurance Subgroup	15
3. Irish Multi-Disciplinary Obstetric Emergency Training (IMOET)	18
4. Medications in Pregnancy	19
National Maternity Strategy	19
Other clinical leadership positions held by the Clinical Lead of the Programme inclu	ude:19
Collaboration	20
Research	22
Communications & Madia	25



Introduction

The National Clinical Programme for Obstetrics and Gynaecology was established in May 2010 as a joint initiative between HSE Clinical Strategy and Programmes Division and Institute of Obstetricians and Gynaecologists, Royal College of Physicians of Ireland.

Professor Michael Turner of the UCD Centre for Human Reproduction at the Coombe Women and Infants University Hospital has been Clinical Lead for the Programme since 2010, the overarching aim of which is to 'improve choices in women's healthcare'.

The Programme takes direction and guidance from the Clinical Advisory Group, selected from obstetricians and gynaecologists from the Institute. This group is currently chaired by Professor Robbie Harrison, and has the following obstetricians/gynaecologists as members:

Prof. Robbie Harrison (chair) Dr Heather Langan Dr Keelin O'Donoghue Prof Amanda Cotter Dr Liz Dunn Dr Maire Milner Dr Barry O'Reilly Dr Mike Robson Prof. Michael Turner Dr Bridgette Byrne Dr Rhona Mahony **Dr Sharon Cooley** Dr Cathy Allen Dr Sharon Sheehan Dr Sam Coulter-Smith Dr Claire O'Loughlin Dr Geraldine Gaffney Dr Ulrich Bartels Dr Edgar Mocanu Dr Katie Field Dr Una Fahy

The Programme established a multi-disciplinary National Working Party (NWP) to harvest the views of and gain consensus from the range of healthcare providers associated with maternity services, including midwifery, obstetrics, gynaecology, anaesthesia and allied health professionals. The NWP reports, through the Clinical Lead, to the Clinical Strategy and Programmes Division in the HSE.

Membership of this Working Party is listed below.

Prof. Brian Cleary (pharmacy)

Margaret Philbin (midwifery)

Dr Geraldine Gaffney

Dr Mike Robson

Dr Una Fahy

Dr Martin White

Dr Rhona Mahony

(neonatologist)

Cinny Cusack (AHP)

Dr Keelin O'Donoghue

Prof. Michael Turner

Sheila Sugrue (midwifery)

Dr Sharon Sheehan

Dr Sam Coulter-Smith

This document outlines the work undertaken by, and under the auspices, of the Programme which has had a significant impact on the quality of care afforded in the Irish, publicly-funded maternity services.

Three Programme Managers served the Programme over this five year period:

Jun 2010 – Nov 2011: Grace Turner Nov 2011 – Aug 2013: Brian Lee

Aug 2013 – Apr 2014: No Programme Manager

Apr 2014 – Present: Martin McNicholl



The Work of the Programme

For the purposes of this document, the work of the Programme has been categorised into the five workstreams described in Figure 1 below.



Figure 1. Programme Workstreams

Clinical Guidelines & Reports

This section of the document itemises the clinical guidelines, reports, position papers and other relevant documents which were either developed by or in association with the Programme.

Clinical Leadership

This section of the document describes the circumstances in which the Programme took the lead for national initiatives relating to the maternity services, examples of which include holding the chair position on a number of national sub-groups reporting to the National Steering Group for the implementation of the recommendations made in the maternity services investigations reports.

Collaboration

The Programme works continuously with other organisations, agencies, divisions and programmes in the health and related sectors to develop services, reports and systems relating to the maternity services. This section describes the key collaborations undertaken and on-going by the Programme.



Research

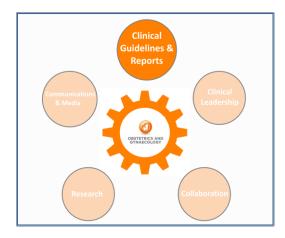
The focus of the research undertaken in the UCD Centre for Human Reproduction at the Coombe Women and Infants University Hospital is on modifiable fetomaternal risk factors in pregnancy and health services implementation research. The reports and documents produced by the Programme have been strongly influenced by the ongoing work at the UCD Centre. This section describes the key research and implementation science undertaken at the Centre which has supported the Programme's work.

Communications & Media

The Programme regularly provides information to the general public, the Dáil and the Minister for Health about current topics relating to the maternity services. This information may influence policy design and implementation. This section describes a number of key communications and media events and their potential impact.



Clinical Guidelines & Reports



Over the course of its first five years, the Programme has developed over 30 clinical practice guidelines and reports. In addition, it has worked with a range of other agencies, programmes and specialist health organisations to assist with their development of guidelines and reports which impact upon clinical care of the pregnant woman. This section itemises all the relevant guidelines and reports.

Programme Guidelines

The Programme published it first national clinical guideline in 2010, *Ultrasound Diagnosis of Early Pregnancy Miscarriage*. Each guideline development follows a rigorous process of development, review and endorsement before it is published, typically taking six months from commissioning to publication. Since the first publication, the following clinical guidelines have been developed and published by the Programme:

Title	Date Published	Comment
Irish Maternity Early Warning System (IMEWS) – now a NCEC National Clinical Guideline	November 2014	The IMEWS clinical practice guideline was originally published as a Programme guideline in 2013. In 2014, it was updated to add a 'Consider Maternal Sepsis' box and other minor amendments to align with recent research findings. In November 2014, once the NCEC had adopted and quality assured it, the Minster for Health launched the guideline as a NCEC National Clinical Guideline. The IMEWS guideline is a 'first in the world' where an early warning system has been implemented nationally specifically for pregnant women.
Ultrasound diagnosis of early pregnancy loss	December 2010	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.
Obesity and pregnancy	June 2011	This guideline is due to be updated to align its recommendations with the most recent research findings about obesity and pregnancy.
The diagnosis and management of pre-eclampsia and eclampsia	September 2011	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.



Title	Date Published	Comment
Investigation and management of late fetal intrauterine death and stillbirth	October 2011	Presented at the Programme's National Summit focusing on clinical guidelines in Farmleigh House in October 2012
Delivery after previous caesarean section	October 2011	Presented at the Programme's National Summit focusing on clinical guidelines in Farmleigh House in October 2012
Intrapartum fetal heart rate monitoring	June 2012	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.
Management of obstetric anal sphincter injury	April 2012	Developed in association with the Therapy Professions Committee.
Ovarian Hyperstimulation Syndrome (OHSS) diagnosis and management	April 2012	Developed in association with the Irish Fertility Society
Management of early pregnancy miscarriage	April 2012	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.
The use of Anti D immunoglobin for the prevention of RHD Haemolytic disease of the newborn	June 2012	 Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014. Developed in association with the Irish Haematology Society
Management of multiple pregnancy	June 2012	Presented at the Programme's National Summit focusing on clinical guidelines in Farmleigh House in October 2012
Antenatal routine enquiry regarding violence in the home	June 2012	Developed in association with the Rape Crisis Centre
Management of pelvic girdle pain in pregnancy and post-partum	August 2012	Developed in association with the Therapy Professions Committee.



Title	Date Published	Comment
Prevention and management of primary postpartum haemorrhage	November 2012	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.
Venous thromboprophylaxis in pregnancy	November 2013	 Developed in association with consultant haematologists / Irish Haematology Society Presented at the Programme's National Summit focusing on clinical guidelines in Farmleigh House in October 2012
Methadone prescribing and administration in pregnancy	April 2013	Presented at the Programme's National Summit focusing on clinical guidelines in Farmleigh House in October 2012
Tocolytic treatment in pregnancy	April 2013	
Antenatal magnesium sulphate for fetal neuroprotection	April 2013	Presented at the Programme's National Summit focusing on clinical guidelines in Farmleigh House in October 2012
Preterm prelabour rupture of membranes (PPROM)	April 2013	
Investigation of postmenopausal bleeding	July 2013	
Nutrition during pregnancy	August 2013	
Fetal growth restriction - recognition, diagnosis and management	May 2014	Developed in association with Perinatal Ireland, which is funded by HRB
The management of second trimester miscarriage	July 2014	 Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014. Presented at the 2nd Early Pregnancy Loss Forum in RCPI in December 2014.



Title	Date Published	Comment
Guidelines for the critically ill woman in obstetrics	August 2014	Developed jointly with the Clinical Programmes for Anaesthesia and Critical Care.
Parvovirus B19 exposure / infection during pregnancy	September 2014	One of a suite of Infections in Pregnancy guidelines produced under the auspices of the Perinatal Infection Project of the National Steering Group for the implementation of the maternity services investigations reports, 2013.
Resuscitation for the pregnant woman	October 2014	 Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014. Developed in association with the Clinical Programme for Anaesthesia
The diagnosis and management of ectopic pregnancy	November 2014	Presented at the 2 nd Early Pregnancy Loss Forum in RCPI in December 2014.
Bacterial infections specific to pregnancy	February 2015	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.
Cord prolapse	March 2015	Presented as one of the obstetric emergency training videos at the IMOET (Irish Multi-Disciplinary Obstetric Emergency Training) inaugural meeting in Dublin Castle in September 2014.

In addition to the published clinical guidelines listed above, there are approximately 20 others which have been commissioned and which will be published in due course. In the short term however (by mid-2015), the following clinical guidelines will be prioritised in response to the reports to HSE on the maternal services:

- Listeriosis
- Urinary Tract Infection
- Chickenpox in pregnancy
- The use of oxytocin to augment labour



Programme Reports

The table below lists the reports and position papers produced by the Programme.

Title	Date Published	Comment
Perinatal Data Collection and Analysis	September 2011	A review of existing knowledge in relation to data collection in maternity and neonatal healthcare in Ireland.
Consultant Workforce Planning for obstetrics and gynaecology 2012-2022	May 2011	A report into the existing and future needs for Obstetricians/Gynaecologists in Ireland, taking into consideration demographic, training and other factors.
Implementation of the findings of a national enquiry into the misdiagnosis of miscarriage in the Republic of Ireland: impact on quality of clinical care	December 2014	This report concludes that there were no incidences reported of miscarriage misdiagnosis in the three years following the implementation of the findings of the Miscarriage Misdiagnosis report, 2012. Submitted to Fertility and Sterility.

Non-Programme Guidelines

The table below lists the maternity-related guidelines developed by other programmes and health agencies, which were reviewed and endorsed by the Programme.

Title	Date Published	Comment
Guidelines for the Management of Pre and Gestational Diabetes Mellitus from Pre-conception to the Postnatal period	Pre-2010	Published by the Office of Nursing and Midwifery Services Director
HIV and Pregnancy	Pre-2010	This guideline is soon to be superseded by the Preventing Perinatal Transmission, which was developed by the following team and endorsed by the Programme: Prof Karina Butler, OLCHC & TCUH Dr Wendy Ferguson, The Rotunda Hospital Ms Michele Goode, OLCHC & Dr Fiona Lyons, St James' Hospital (SJH) & CWIUH



Title	Date Published	Comment
National Guidelines on referral and forensic clinical examination in Ireland	2014	Published by National SATU Guidelines Development Group
Guidelines for health professionals working in a maternity setting in the care of a woman with concealed pregnancy	September 2011	Published by the Crisis Pregnancy Agency
National Infant Feeding Policy for Maternity and Neonatal Services	November 2012	Published by the National Breastfeeding Strategic Implementation Monitoring Committee, HSE
Diagnosis, staging and treatment of patients with gestational trophoblastic disease	March 2015	Published by the National Cancer Care Programme



Clinical Leadership



Given its unique position and responsibilities to provide strategy and guidance for all 19 publicly-funded maternity units in Ireland, the Programme plays a pivotal role in a number of national initiatives relating to the maternity services which originate in parts of the health services other than the Clinical Strategy and Programmes Division. This section describes these initiatives, the role of the Programme and the results achieved to date.

HSE/HIQA Maternity Services Investigations

In 2013, the HSE and HIQA each published a report into the findings of the maternity services investigations following the death of Savita Halappanavar at University Hospital Galway in October 2012.

In late 2013, a National Steering Group was established by the HSE to oversee the implementation of the recommendations made in the reports. The Clinical Lead for the Programme was invited to form part of that Steering Group.

Whilst the recommendations varied in nature and content, the development of strategy and guidance for at least four of them were suited to the role of the Programme. As such, the Programme's Clinical Lead adopted the role of Chairperson for four projects and the establishment of four sub-groups which report to the National Steering Group. The projects are:

1. Perinatal Infection Project

A multi-disciplinary perinatal infection subgroup was established to oversee the development of reports, guidelines and advice relating to infection in pregnancy. Underpinning the objectives of the subgroup is the premise that pregnant women with infection may need to be treated differently than a non-pregnant patient. The subgroup met on four occasions in 2014, and the key documents and reports developed by the subgroup are described in the table below.

The Project Manager for this subgroup is Dr Karen Power who, while contributing to and guiding this work, has also been involved with several national groups representing maternity services including: The National Sepsis Steering Committee, the Early Warning Score Steering Group, Expert Advisory Group for the HTA of the use of information technology for early warning and clinical handover systems, the National Surveillance of Maternal Bloodstream Infection Steering Group and the Group B Strep Working Group.



Title	Туре	Date Published	Comment
Parvovirus B19 Exposure/Infection during Pregnancy	Guideline	Sept 2014	Clinical practice guideline.
IMEWS Version 1.1	Guideline	Jul 2014	The original IMEWS clinical practice guideline (July 2013) was updated as part of the subgroup's work to include a customised sepsis six box (a world-first), to align the guideline's EWS with other national EWS and some refinement of normal vital sign rates based on recent research findings.
NCEC National Clinical Guideline: Irish Maternity Early Warning System	Guideline	Nov 2014	The IMEWS guideline was updated in line with the IMEWS chart, formatted and internationally reviewed to be brought to NCEC standard as their 4 th published guideline.
NCEC National Clinical Guideline: Sepsis Management	Guideline	Feb 2015	This was the first national clinical guideline on Sepsis.
Bacterial Infections specific to Pregnancy	Guideline	Feb 2015	Clinical practice guideline. This guideline serves as an introduction to a suite of clinical guidelines which addresses infection in pregnancy, and emphasises the prevention of pregnancy-specific bacterial infections in the first instance.
Chickenpox in Pregnancy	Guideline	2015	In peer review
Listeriosis in Pregnancy	Guideline	2015	In peer review
Management of UTI in Pregnancy	Guideline	2015	In peer review
"The Irish Maternity Early Warning System"	Clinical article	Nov 2014	Published in the Irish Medical Journal



Title	Туре	Date Published	Comment
"Maternal bacteremia and the Irish maternity early warning system"	Clinical Article	Nov 2014	Published in the International Journal of Gynecology and Obstetrics
"The Maternal Early Warning Criteria: A Proposal From the National Partnership for Maternal Safety"	Clinical article	Feb 2015	Published in The American College of Obstetricians and Gynecologists (Green Journal)
"Customisation of the Systemic Inflammatory Response Syndrome criteria for the diagnosis of maternal sepsis"	Clinical article	Publication pending	Submitted to the International Journal of Gynecology and Obstetrics
"C-reactive protein in early pregnancy"	Clinical article	Publication pending	Submitted to the European Journal of Obstetrics and Gynecology and Reproductive Biology
"Evaluation of point-of-care maternal lactate testing in normal pregnancy"	Clinical article	Publication pending	Submitted to Physiological Measurement
"The measurements of the biomarker, C-reactive protein, in women in the first half of pregnancy"	Implementation Report	Dec 2014	Submitted to the National Steering Group for HIQA/HSE Maternity Services Investigations.
"Point-of-care lactate in early pregnancy"	Implementation Report	Oct 2014	Submitted to the National Steering Group for HIQA/HSE Maternity Strategy
"Lactate measurements in the third trimester of pregnancy"	Implementation Report	Jan 2015	Submitted to the National Steering Group for HIQA/HSE Maternity Strategy



2. Quality Assurance Project

The multi-disciplinary Quality Assurance subgroup was established following the recommendation of the HSE NIMT investigation (2013). The core objectives were to develop national data collection arrangements and to review arrangements for collecting, reviewing, and reporting maternal morbidity and mortality. This involved developing a standardised set of processes and systems to measure the quality of obstetric care across the 19 maternity units. This has not been done before in Ireland and, literature reviews indicate, also appears to be a first internationally. Dr Léan McMahon, health policy researcher and data analyst, manages the work of the Quality Assurance (QA) subgroup.

The first phase of the QA project was to establish an agreed set of quality metrics for obstetric, anaesthetic, and neonatal care, with agreed definitions. A (paper-based) QA data collection instrument was developed (called QA1) and was sent to all maternity units in July 2014 to begin gathering data on a monthly basis.

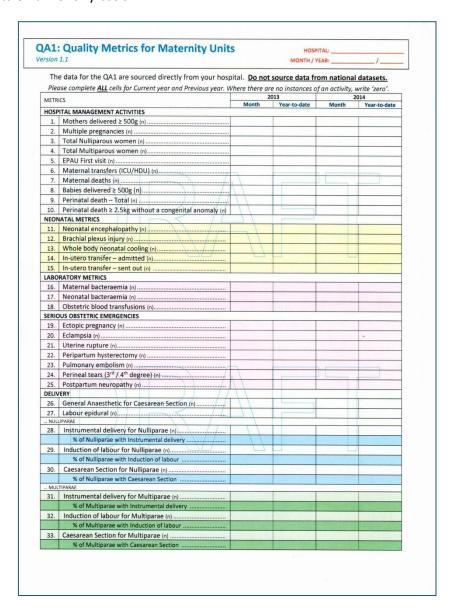


Figure 2. Copy of QA1 Report



Initially, the monthly data collection is to be used at and by the maternity unit only, until such time as all maternity units are assuredly collecting the data in a standard way using the same sources and applying the same definitions. The within-unit data collection allows each maternity unit's senior management team to assess the monthly performance of their unit over time and to identify outliers for further investigation at the local level. (Inter-unit comparison of data will form part of a later phase of work of the QA subgroup.)

Towards the end of the first phase of work, a software utility was developed using Microsoft Excel to capture, store and report on the monthly QA1 data. This was distributed to all 19 maternity units in February 2015, and is currently being used to collect and report on monthly data. The screenshot below shows the Data Entry screen of the utility.

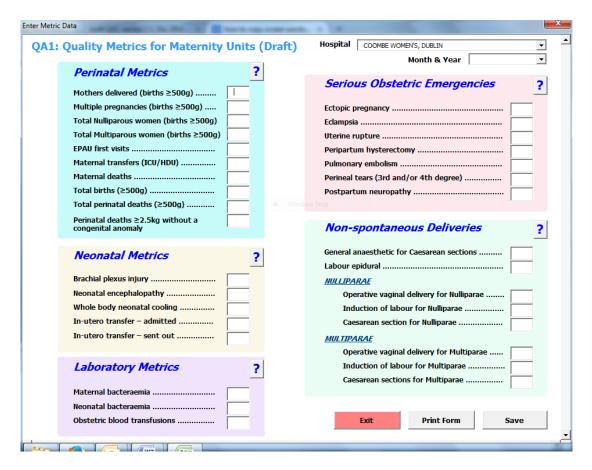


Figure 3. Screen shot of data collection software utility

The QA1 software utility allows each maternity unit to print line charts for each of the 30 metrics. These line charts display the data for each month in the current year and the previous year (see sample below).



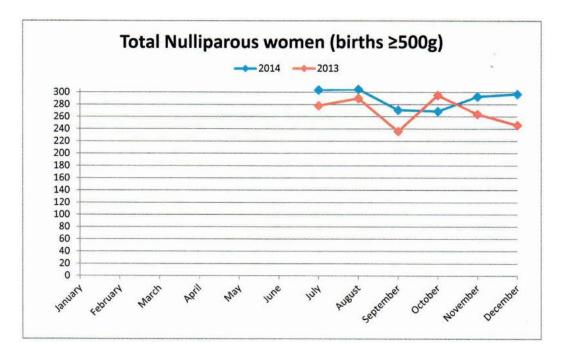


Figure 4. Sample Run-Chart

The second phase of the QA project comprised the development of funnel charts for national statistics for those metrics (of the 30) for which data are available on national minimum datasets (i.e. HIPE and NPRS). The funnel charts were developed for 2012 and 2013 data and a set of customised charts was developed for each maternity unit, plotting the unit's measurement against the national statistics. A sample funnel chart is shown in Figure 5 below.

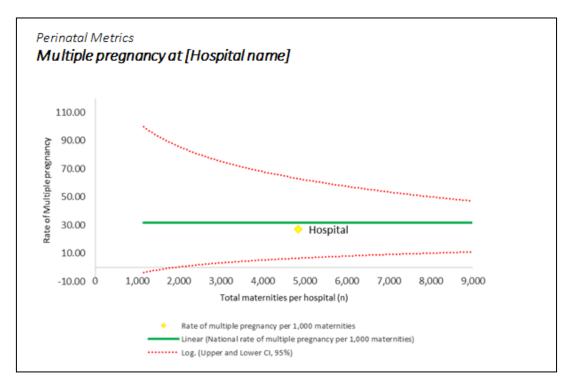


Figure 5. Sample funnel chart for multiple pregnancy, 2012



As QA1 data becomes available and 'fit for purpose', they will replace the use of national minimum datasets for developing national benchmarks. The overarching objective of national benchmarking is to improve learning and safety in maternity services in Ireland.

3. Irish Multi-Disciplinary Obstetric Emergency Training (IMOET)

The third subgroup chaired by the Programme's Clinical Lead was that established to develop a suite of multi-disciplinary obstetric emergency training. Jean Kilroe, project manager of the IMOET, coorganised the inaugural meeting, which was held in Dublin Castle in September 2014, and was attended by over 150 delegates representing all relevant disciplines. Over the course of the day, 10 specialists presented information on the management of an obstetric emergency. The presentations were made on the following topics:

Topic	Speaker
Maternal Sepsis	Professor Michael Turner
Major Postpartum Haemorrhage	Dr Bridgette Byrne
Maternal Collapse	Dr Larry Crowley
<u>Eclampsia</u>	Professor Louise Kenny
The Management of Pulmonary Embolism	Professor John Higgins
Early Pregnancy Vaginal Bleeding	Professor Michael Gannon
Shoulder Dystocia	Dr Mike Robson
Intrapartum Fetal Monitoring CTG	Professor Declan Devane
<u>Cord Prolapse</u>	Dr Mary Higgins
Teamwork and Obstetric Emergencies	Dr Niamh Hayes



Videos of these presentations, slides used and guidelines, where available, are available as a resource to all maternity units on the Obstetrics and Gynaecology Programme website www.hse.ie/obsgynae/imoet.

4. Medications in Pregnancy

The Programme's Clinical Lead provides oversight to the Medications in Pregnancy Programme, which is managed by Mairéad McGuire, who is seconded from the Chief Pharmacist role in the Coombe Women and Infants University Hospital. The Programme is currently developing standard prescribing guidelines for pregnancy for all maternity units, which are due to be circulated for consultation in June 2015.

National Maternity Strategy

In April 2015, the Minister for Health, Leo Varadkar announced the establishment of a Steering Group to advise on the development of a National Maternity Strategy.

The Group held its first meeting in early May and is expected to conclude its work by the end of the year. Publication of the National Maternity Strategy is one of the Minister's key priorities for 2015. The Programme's Clinical Lead was invited to be a member of the Steering Group.

Other clinical leadership positions held by the Clinical Lead of the Programme include:

- Member of the RCPI National Taskforce on Obesity
- Member of HSE National Sepsis Group
- Member of the Advisory Group for the Department of Health's Guideline for the Protection of Life Bill
- Member of the Institute of Obstetricians and Gynaecologists' Executive Council, representing the Programme
- ❖ Member of the FSAI Advisory Group on Folic Acid Food Fortification
- Member of Advisory Group for NPRS Birth Notification System
- Member of Systematic Literature Review, Integrated Care Programmes, Maternity Care
- Member of Clinical Advisory Group, Programme for Obstetrics and Gynaecology
- Chair of the National Working Party for the Programme



Collaboration



No clinical programme can afford to work in isolation, and this applies especially to the Programme for Obstetrics and Gynaecology. Give the vast array of health services and agencies on which the specialty has an impact, and which impact on the specialty, the Programme has worked with a significant number of other programmes, agencies and organisations to develop guidance and steer policy for the care of pregnant women and their babies. This section describes a selection of the key collaborations undertaken by the Programme, along with a brief description of the initiative and outcomes, where available.

Description/Outcome	In Collaboration with	Date
Establishment of Programme Implementation Boards at each of the maternity hospitals and units. The Programme worked with the management teams of all maternity hospitals and units to establish these multidisciplinary boards, which are used to inform of the developments (guidance, reports etc) of the Programme.	All maternity hospitals and units	2010
Health Technology Assessment for the new NCEC National Clinical Guidelines – EWS and Clinical Handover systems. This concluded that the implementation of electronic early warning and clinical handover systems has the potential to improve safety and efficiency of care and increase hospital bed capacity.	HIQA	2014
An Audit of Neural Tube Defects (NTDs) in Ireland 2009-2011 showed that the rate of NTDs in Ireland had stopped declining, and that a renewed focus may be necessary on folic acid food fortification.	HSE Eurocat	2012
Clinical Article; "National variations in operative vaginal deliveries in Ireland". Published in the International Journal of Gynecology and Obstetrics.	ESRI	2014



Description/Outcome	In Collaboration with	Date
Review of applications for Consultant Obstetrician/Gynaecologists at various hospitals across the country.	HSE Consultant Appointments Unit	2010
Development and review of clinical practice guidelines relating to gynaecological cancer.	NCCP	2013-2015
National Maternity Services Charter. This charter will be available for consultation from June 2015, and will inform the development of the National Maternity Strategy.	HSE National Advocacy Unit	2014-15
Report: "Implementation of the findings of a national enquiry into the misdiagnosis of miscarriage in the Republic of Ireland: impact on quality of clinical care". This report was written in collaboration with Professor William Ledger of the School of Women's and Children's Health, University of New South Wales, Australia. The report concludes that there were no cases of Miscarriage Misdiagnosis since the implementation of the findings of the national inquiry in 2011/12	University of New South Wales, Australia	2011
Patient Safety Statement. The work of the Quality Assurance subgroup was used to inform the development of a Maternity Hospital Patient Safety Statement, a list of 10 maternity metrics to be published regularly by each hospital to inform members of the public of the level of quality of care at the hospital. These 10 metrics form part of the 30 metrics provided in the QA1 report.	HSE Quality Improvement Division, Department of Health	2015
Report: "Does pregnancy offer us a chance to reduce obesity in Ireland?" This report was carried out in collaboration with Professor Richard Layte of the ESRI, and published in an ESRI Research Bulletin in 2013.	ESRI	2013



Research



Whilst organisationally and operationally distinct from the Programme, the research work undertaken and publications produced at the UCD Centre for Human Reproduction at the Coombe Hospital, of which Professor Turner is Head, is regularly and often used to inform the work and deliverables of the Programme. In general, there is a strong emphasis on undertaking research at the Centre which can, and does, influence health policy, strategy and guidance in Ireland, and sometimes internationally.

The UCD Centre for Human Reproduction was established in 2007 to conduct clinical research in obstetrics and gynaecology at the Coombe Hospital. The research currently focuses on:

- Maternal obesity
- Maternal nutrition
- Intrauterine fetal growth
- Caesarean section
- Critical maternal illness
- Periconceptual Folic Acid
- Maternal smoking

Over 80 research papers have been developed and published during the period 2010-2015. Of these, 11 are directly relevant to the work of the programme, and have been used to inform policy, strategy and/or guidance developed by or in collaboration with the Programme.

The table below lists the publications and describes how they were used by the Programme.

Publication	Date	Comment
The use of quality control charts to analyse caesarean section nationally	International Journal of Gynecology and Obstetrics, 2011	An examination and analysis of caesarean section rates at all 19 maternity units in Ireland in 2009 using control charts yielded results which render this method as useful to identify hospitals where obstetric practices should be reviewed.



Publication	Date	Comment
What models of maternity care do pregnant women in Ireland want?	Irish Medical Journal, 2011	A survey of over 500 women attending the Coombe Women and Infants University Hospital for antenatal care in 2010 was conducted to ascertain women's preferences for models of maternity care. Almost half (46%) of respondents expressed a preference that their delivery would occur in a doctor-led unit; 43% preferred a midwifery-led unit.
Management of early pregnancy bleeding	Forum(ICGP), 2011	A Women's Health information article for GPs.
Maternity Services for obese women in Ireland	Irish Medical Journal, 2011	The paper describes the results of a survey into Ireland's (then) 20 maternity units' services available and offered to obese pregnant women. The results showed variations in practices and facilities. The paper concluded that standard guidelines should be developed and implemented.
Obesity levels in a national cohort of women 9 months after delivery	American Journal of Obstetrics and Gynecology, 2013	The study was an examination of the relationship between maternal obesity nine months after delivery and socioeconomic variables. The conclusion was to recommend that public health interventions should be prioritised for socioeconomically disadvantaged women.
The impact of new guidelines on screening for gestational diabetes mellitus	Irish Medical Journal, 2013	The study examined the impact of the new GDM screening guidelines at the Coombe Women and Infants University Hospital. There was an increase of 22% of women screened, and an increase of 3% in those diagnosed with GDM. The paper concluded that these trends should lead to improved outcomes and reduced costs.
Antenatal rubella immunity in Ireland	Irish Medical Journal, 2013	The findings of this national study recommended that prevention of rubella requires that health services should focus on vaccination of young, nulliparous women born outside the EU.



Publication	Date	Comment
Variations in operative vaginal deliveries in Ireland	International Journal of Gynecology and Obstetrics, 2014	This study, in collaboration with ESRI, compared the percentage of OVD among all 19 public maternity units in Ireland. Wide variations were found in the range of OVD and instrument choice, raising questions about practice and training in obstetrics.
A national survey of implementation of guidelines for gestational diabetes mellitus	Irish Medical Journal, 2014	Following the publication of GDM guidelines by the HSE in 2010, a survey was carried out to determine the extent of the implementation of the guidelines. The results suggest significant variation in implementation of GDM guidelines, which may lead to differences in clinical outcomes depending on where the woman presents for obstetric care.
Maternal bacteremia and the Irish maternity early warning system	International Journal Gynecology and Obstetrics, 2015	This study examined whether the introduction of the IMEWS in 2013 improved the recording of vital signs in women with proven bacteremia. The results concluded that, among eligible women with bacteremia, the introduction of the IMEWS was associated with improvement in recording of vital signs, particularly respiratory rate.



Communications & Media



With the knowledge and expertise accumulated over its first five years, the Programme is often approached to provide advice, commentary and information on a vast array of topics, reports and work relating to perinatal care. Whilst, individually, these requests can usually be subsumed into the day-to-day operations of the Programme, the time and effort spent in preparation for such events forms a significant part of its overall work effort. That said, many instances provide mutually beneficial opportunities, both for the Programme in terms of

enhancing its profile and for audiences in terms of the quality of information received. This section describes some of these opportunities availed of during the first five years of the Programme.

- ❖ The Programme's Clinical Lead has spoken at a number of events at O&G meetings around the country (including Mullingar, Galway, Rotunda, Belfast and Cork). The Clinical Lead opened the Irish Multi-disciplinary Obstetric Emergency Training (IMOET) inaugural meeting and presented on maternal sepsis (September 2014) and also presented at the Programme's Early Pregnancy Loss Fora (December 2014).
- The Programme has provided information in response to Parliamentary Questions on a number of specialist clinical topics, for example:
 - ♦ Inheritance of sickle-cell genes
 - ♦ Maternity care of migrant women
 - ♦ Variation in caesarean section rates in Ireland
 - ♦ Fetal abnormality testing
 - ♦ Measures to reduce the number of stillbirths
 - ♦ Endometriosis
- The Programme has provided information for national media on a range of clinical matters. In addition, at the request of the HSE Director General and others, the Programme's clinical lead has appeared on national broadcast to address issues such as:
 - ♦ HIQA report on maternity services relating to the death of Savita Halappanavar in Galway University Hospital in 2012;
 - ♦ Staffing issues at Portlaoise Maternity unit;
 - ♦ Neonatal deaths at Portiuncula Hospital, Ballinasloe;
 - ◆ Campaign for updated national folic acid food fortification. A recent clinical research paper 'Maternal folic acid supplementation trends 2009-2013' published in the AOGS showed that the rate of periconceptual folic acid supplementation decreased in the 5 years 2009-13. A UCD media coverage report in April 2015 showed that,



after print, broadcast and internet coverage, there were over 2 million media impressions over the four days starting 22nd April 2015.

- Review and commentary from the Programme on national publications, including:
 - HSE National Perinatal reports
 - ◆ Department of Health NCEC guideline for IMEWS
 - ◆ National reports of the Hospital In-Patient Enquiry (HIPE) and the National Perinatal Reporting System (NPRS), produced by the Healthcare Pricing Office
- The Programme organised and executed two national summits for the specialty:
 - ♦ The first summit was held in Dublin Castle in November 2011; the aim was to highlight the work of the Programme. The Clinical Lead introduced the summit and provided the 100+ multi-disciplinary audience with an update on the Programme's key initiatives. Guest speakers included:
 - Mr Philip Fagan, State Claims Agency on Obstetric Negligence Claims
 - Ms Sheila Sugrue, Lead Midwife, on Home Births
 - Ms Deirdre Mulholland, HIQA, on Developing Standards
 - Dr Philip Crowley, HSE, on Clinical Governance
 - Regional Updates from Dr Chris Fitzpatrick, Dr Sam Coulter-Smith, Prof Richard Greene and Dr Gerry Bourke
 - ◆ The second summit was held in October 2012 in Farmleigh House and focused on obstetric clinical guidelines. The Programme's Clinical Lead opened the session by presenting on Delivery after Previous Section. Guest speakers included:
 - Mr Brian Cleary, pharmacist, on Methadone and Pregnancy
 - Prof. John Higgins, obstetrician, on Venous Thromboprophylaxis in Pregnancy
 - Dr Keelin O'Donoghue, obstetrician, on Late Fetal Intrauterine Death and Stillbirth
 - Dr Fionnuala Breathnach, obstetrician, on Multiple Pregnancy
 - Dr Etaoin Kent, obstetrician, on Magnesium Sulphate for Fetal Protection
 - Dr Mike Robson, obstetrician, on Oxytocin during Labour
 - Dr Alan Finan, neonatologist, on Neonatal Networks
- ❖ The Programme organised the first of two Early Pregnancy Fora in February 2011 at the Royal College of Physicians of Ireland. The event was attended by over 100 people from all relevant disciplines, and the Programme's Clinical Lead
 - ◆ Dr Peter McParland, obstetrician, on Ultrasound Diagnosis of Early Pregnancy Miscarriage
 - Prof. John Morrison, obstetrician, on Second Trimester Miscarriage
 - ♦ Prof. Leslie Regan, obstetrician NHS, Recurrent Miscarriage
 - Prof. William Ledger, obstetrician UK, on Review of Ultrasound Practice
 - ◆ Dr Keelin O'Donoghue, obstetrician, on Setting up an Early Pregnancy Unit
 - Dr Cathy Allen, obstetrician, on Reducing Miscarriage following ART



- Prof. Michael Turner, obstetrician, on The Psychological Impact of Miscarriage
- The Programme assisted with the organisation of the Second Early Pregnancy Loss Forum in December 2014. This forum was opened by Ms Angela Fitzgerald, HSE Acute Hospitals Division, and attended by over 100 people from all disciplines associated with the specialty. Speakers included:
 - ♦ Prof. Michael Turner, obstetrician, Introduction
 - ◆ Dr Jennifer Donnelly, obstetrician, The Role of Ultrasound in Early Pregnancy
 - Dr Nadine Farah, obstetrician, The Management of Second Trimester Miscarriage
 - ◆ Dr Keelin O'Donoghue, obstetrician, Pregnancy after Miscarriage
 - Prof. Michael Gannon, obstetrician, The Diagnosis and Management of Ectopic Pregnancy
 - Ms Sheila Power, psychotherapist, Experience of Couples after Miscarriage
 - Ms Anne McKeown, Bereavement Coordinator, Challenges in Establishing Bereavement Services
 - Ms Dee Kirk, Medical Social Worker, Social Support following Early Pregnancy Loss
 - Rev. Daniel Nuzum, Hospital Chaplain, Role of the Chaplain following Early Pregnancy Loss
- The Programme has used web and app technologies to provide access points to the Programme's key reports, guidelines and other deliverables, including:
 - ◆ The development of a dedicated micro-website www.hse.ie/obsgynae on the HSE's website for all information published by the Programme, including:
 - Programme guidelines (30);
 - Non-Programme Guidelines (relating to maternity and endorsed by the Programme);
 - Videos, slides and other information relating to the Irish Multi-Disciplinary Obstetric Emergency Training (IMOET) event held in Dublin Castle in September 2014;
 - Irish Maternity Early Warning System
 - Infection in Pregnancy information.
 - ◆ The development of an app (O+G Ireland) available on the Apple App Store, and used to store copies of all clinical guidelines, position papers and reports. This app has had over 4,000 downloads since it was launched in 2012.