

Severe Maternal Morbidity (SMM)



NATIONAL PERINATAL
EPIDEMIOLOGY CENTRE

Based on the findings of Severe Maternal Morbidity in Ireland Annual Report 2022



In this audit, a case of SMM was defined as a pregnant or recently-pregnant woman who experienced any one of sixteen maternal morbidities/care events.

334 SMM

Among 53,256 maternities in the 19 Irish maternity units in 2022

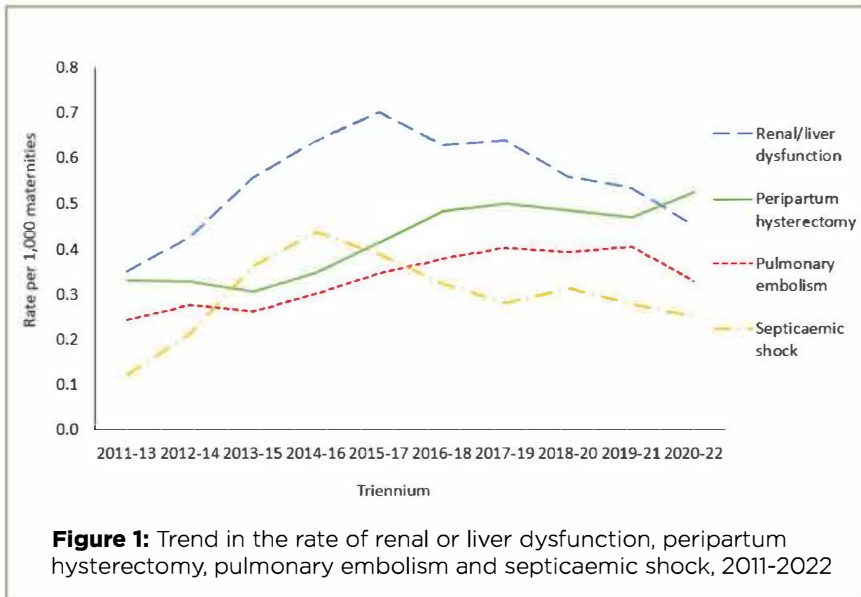
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Incidence of women experiencing a SMM is one in 159 maternities (6 per 1000 maternities)



145 women

(43%) were admitted to Intensive Care Unit/Critical Care Unit

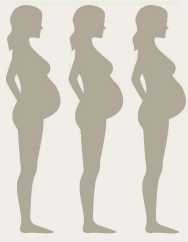


16 Maternal Morbidities/Care Events audited, defined as:

- major obstetric haemorrhage (MOH) – estimated blood loss ≥ 2500ml and or transfused 5 units of blood
- uterine rupture
- peripartum hysterectomy
- eclampsia
- renal or liver dysfunction
- pulmonary oedema
- acute respiratory dysfunction
- pulmonary embolism
- cardiac arrest
- coma
- cerebrovascular event
- status epilepticus
- septicaemic shock
- anaesthetic complications
- admission to an intensive care or coronary care unit
- interventional radiology

Most common morbidities





x3

Multiple pregnancies were more than three times more common in cases of SMM than in all maternities (5.7% vs. 1.8%)



BMI

2 x SMM risk

- Women with high BMI had 40% higher risk of MOH and 70% higher risk of PH.
- Women with high BMI had 60% higher risk of ICU admission



x7

Perinatal mortality rate (PMR) was 7 times higher in women experiencing SMM

Selected Recommendations

Based on findings from this and previous reports, the NPEC Severe Maternal Morbidity Group makes the following recommendations

- Robust clinical audit on adverse maternal outcomes requires the protected time of clinical staff. Funding should be provided by the Health Service Executive (HSE) to facilitate the same. Owner; Quality and Patient Safety Directorate (NQPSD)
- A public health education programme on maternal morbidity and modifiable risk factors should be developed. Owner; in discussion with the National Women and Infants Health Programme (NWIHP) to progress this.
- Internationally, social inequalities have been shown to impact on risk of SMM. There is a need to establish the evidence in this regard in Ireland. This requires improved maternity data at national level and more research.

There is an opportunity with the Maternal Newborn Clinical Management System (MN_CMS) data from Irish maternity units to mine data at national level. These data could be collated to identify the influence of risk factors for SMM in Ireland including ethnicity, maternal age, body mass index (BMI), smoking, employment status and other socio-economic factors. This should overcome the current deficit in the pregnant population data at national level. Owner; the NPEC to progress this.

It is important that we always consider the data in the context of the individual woman's experience. The significant trauma associated with SMM events during the experience of childbirth can have a profound psychological effect on a woman, her partner and their families. While available in some units, formal debriefing and further support should be available for all women and their partners following a severe maternal morbidity across all units in Ireland. This is the responsibility of all clinical staff and we are all capable of doing it well.

Professor Richard A. Greene,
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The full report is available
on the NPEC **website**

