

RCSI MSS September

Rationale for measurement

Demonstrates the volume of clinical activity in each organisation and information is reported on the total number of mothers delivered, the total numbers of births, the number of multiple pregnancies, and transfers in and out to hospitals.

Measurement methodology and data sources:

Local extracts submitted monthly and extrapolated for analysis and publication.

Target

These figures are not formatted in a way to support comparison with other hospitals or aggregation with other data.

Performance

Hospital	Activity	2022 September	2022 Year to date
Cavan Hospital	Total Mothers delivered $\geq 500g$ (n)	110	894
	Multiple pregnancies (n)	2	20
	Total births $\geq 500 g$ (n)	112	913
	In utero transfer – admitted (n)	0	4
	In utero transfer – sent out (n)	0	7
Drogheda Hospital	Total Mothers delivered $>500g$ (n)	262	2100
	Multiple pregnancies (n)	5	33
	Total births $>500 g$ (n)	267	2133
	In utero transfer – admitted (n)	0	3
	In utero transfer – sent out (n)	0	17
		2022 August	2022 Year to date
Rotunda	Total Mothers delivered $>500g$ (n)	740	5422
	Multiple pregnancies (n)	18	90
	Total births $>500 g$ (n)	759	5513
	In utero transfer – admitted (n)	(Reported Quarterly)	9 for Q2 2022
	In utero transfer – sent out (n)	(Reported Quarterly)	0 for Q2 2022

PERINATAL MORTALITY RATE (ADJUSTED)

Definition

The Adjusted Perinatal Mortality Rate is defined as Stillbirth and early neonatal death > 2500 grams excluding lethal congenital defects/1000 deliveries.

Rationale for measurement

The perinatal mortality rate is recognised as an indicator of the quality and safety of antenatal and perinatal care.

Measurement methodology and data sources:

Local data extracts submitted monthly and extrapolated for analysis and publication.

Target

The figures beneath are not formatted in a way to support comparison with other hospitals or aggregation with other data. Context is provided in the graph in section 'Perinatal Deaths \geq 2.5kg without a Congenital Anomaly (Perinatal Adjusted)'.

Performance

Hospital	2022 September	2022 Year to date
Cavan General Hospital	0	0
Drogheda Hospital	3.7 per 1,000 (n=1)	1.4 per 1,000 (n=3)
	2022 August	2022 Year to date
Rotunda Hospital	(Reported Quarterly)	0.51 per 1,000 for Q2 2022 (n=1)

- *September 2022 Perinatal Mortality Rate (Adjusted) for Cavan (0) was below the national rate of $1.69 \pm 35-2.0$ (IMIS 2020). September 2022 Perinatal Mortality Rate (Adjusted) for Drogheda Hospital (3.7) was above the national rate of $1.69 \pm 1.35-2.0$ (IMIS 2020). Q2 2022 Perinatal Mortality Rate (Adjusted) for Rotunda (0.51) was below the national rate of $1.69 \pm 1.35-2.0$ (IMIS 2020).*

PERINATAL DEATHS \geq 2.5KG WITHOUT A CONGENITAL ANOMALY (PERINATAL ADJUSTED)

Rationale for measurement

Perinatal mortality Rate – Adjusted (PNMR-A) is defined as the number of perinatal deaths (stillbirths and early neonatal deaths) weighing 2.5kg or more without physiological or structural abnormalities that develop at or before birth and are present at the time of birth per 1,000 births. PNMR-Adjusted is an important indicator of the quality of care provided in Irish maternity services.

Measurement methodology and data sources:

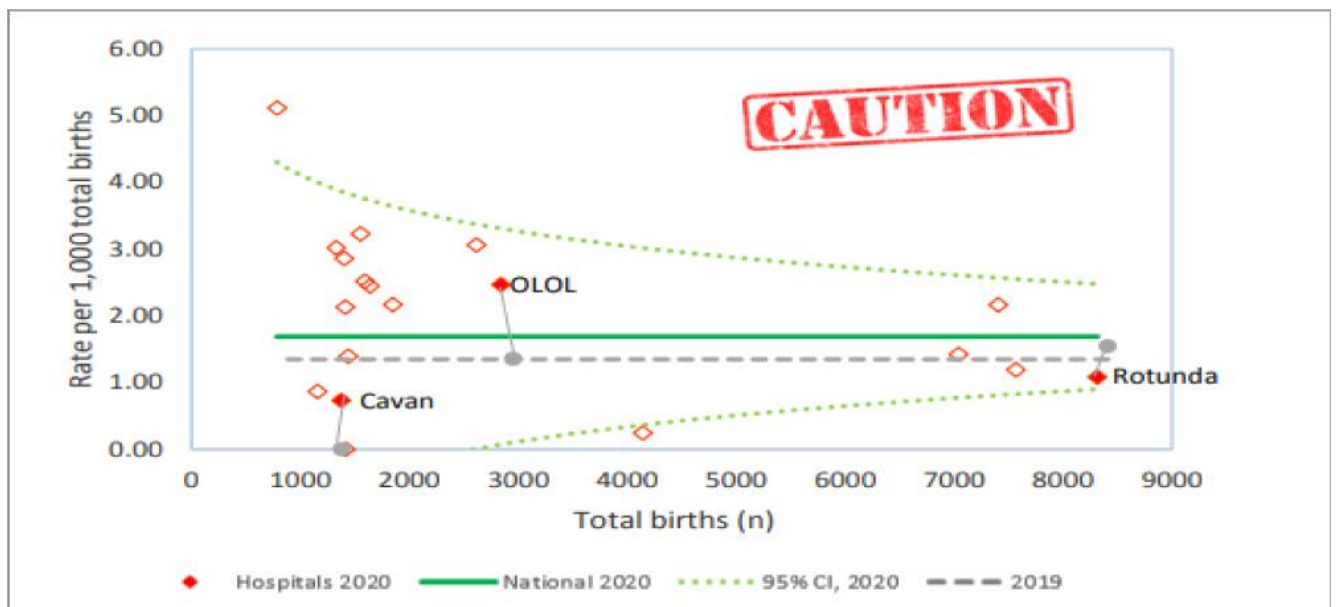
Maternity Units in the Rotunda, Drogheda and Cavan Hospitals submit perinatal mortality data on a monthly basis to the RCSI HG, which in turn is made available to the National Women and Infants Health Programme Clinical Programme *Irish Maternity Indicator System (IMIS)*. The IMIS report is published on an annual basis and allows scrutiny of individual hospital processes and outcomes for women and infants, while bench marking them against national performance.

Variations in PMR – Adjusted between maternity units could potentially be due to random chance or reflect differences in baseline characteristics of the childbearing population. For this reason, funnel plots are used to assess performance outcomes for individual maternity units in comparison to the overall average. The funnel plot is a scatter diagram of individual maternity unit mortality rates against the total number of births within that unit.

In the funnel graph below:-

- The national rate for PNMR-A is indicated by the solid straight green line for 2020 and by a dashed grey line for 2019
- The curved dashed lines (the 95% confidence interval for 2020) represent the limits within which 95% of units are expected to lie
- Solid diamond-shaped markers represent the RCSI HG maternity hospitals/units
- The width of the confidence interval is adjusted to allow for meaningful comparison between unit-specific rates and the national rate. The confidence interval is wider for smaller units reflecting the lack of precision in rates calculated based on small numbers. The confidence interval narrows for larger maternity units, giving the diagram a 'funnel' shape.

Performance



Note:

Maternity units include in their figures of perinatal deaths babies that are transferred in utero from other units and die in their hospital. Annual rates of perinatal deaths ≥ 2.5 kg without a congenital anomaly should be **interpreted with caution**.

Drogheda, Cavan and Rotunda are all within the 95% confidence interval for 2020 (curved dashed lines).

NEONATAL ENCEPHALOPATHY (NE)

Rationale for measurement

Neonatal encephalopathy (NE) is a complex disease of a new-born infant and can be defined as clinical findings in three or more of the following domains: level of consciousness, spontaneous activity when awake or aroused, posture, tone, primitive reflexes, and autonomic system. NE can result from a wide variety of causes. Hypoxic Ischaemic Encephalopathy (HIE) is a subset of NE and is the most common cause of NE; however not all encephalopathies have a HIE.

Measurement methodology and data sources:

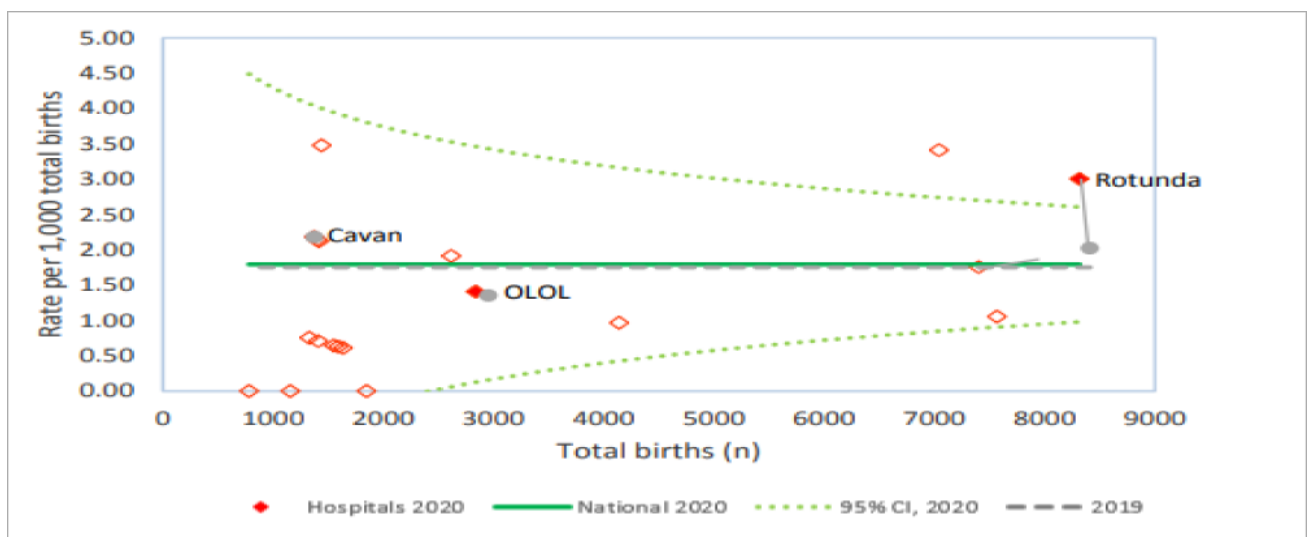
Maternity Units in the Rotunda, Drogheda and Cavan Hospitals submit perinatal mortality and morbidity data on a monthly basis to the RCSI HG, which in turn is made available to the National Women and Infants Health Programme Clinical Programme *Irish Maternity Indicator System (IMIS)*. The IMIS report is published on an annual basis and allows scrutiny of individual hospital processes and outcomes for women and infants, while benchmarking them against national performance.

Variations in Neonatal Encephalopathy (NE) rates between maternity units could potentially be due to random chance or reflect differences in baseline characteristics of the childbearing population. For this reason, funnel plots are used to assess performance outcomes for individual maternity units in comparison to the overall average. The funnel plot is a scatter diagram of individual maternity unit mortality rates against the total number of births within that unit.

In the funnel graph below:-

- The national rate NE is indicated by the solid straight green line for 2020 and by a dashed grey line for 2019
- The curved dashed lines (the 95% confidence interval for 2020) represent the limits within which 95% of units are expected to lie
- Solid diamond-shaped markers represent the RCSI HG maternity hospitals/units
- The width of the confidence interval is adjusted to allow for meaningful comparison between unit-specific rates and the national rate. The confidence interval is wider for smaller units reflecting the lack of precision in rates calculated based on small numbers. The confidence interval narrows for larger maternity units, giving the diagram a 'funnel' shape.

Performance



Description: All infants with ≥ 35 weeks' gestation who, during the first week of life, have either seizures alone and/or signs of neonatal encephalopathy
Caution is advised when dealing with small values

Drogheda and Cavan are within the 95% confidence interval for 2020 (curved dashed lines)
Rotunda is outside the 95% confidence interval for 2020 (curved dashed lines)

BREASTFEEDING RATES

Introduction

Breastfeeding, also called nursing, is the process of feeding human breast milk to a child, either directly from the breast or by expressing (pumping out) the milk from the breast and bottle-feeding it to the infant. The World Health Organization (WHO) recommends that breastfeeding begin within the first hour of a baby's life and continue as often and as much as the baby wants.⁽¹⁾

Rationale for measurement

Breastfeeding has many health benefits for both the mother and infant. Breast milk contains all the nutrients an infant needs in the first six months of life. Breastfeeding protects against diarrhoea and common childhood illnesses such as pneumonia and may also have longer-term health benefits for the mother and child, such as reducing the risk of overweight and obesity in childhood and adolescence. WHO recommends that infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health.

IMIS Rates

Measurement methodology and data sources

Maternity Units in the Rotunda, Drogheda and Cavan Hospitals submit perinatal data on a monthly basis to the RCSI Hospital Group, which in turn is made available to the National Women and Infants Health Programme Clinical Programme *Irish Maternity Indicator System (IMIS)*. The IMIS report is published on an annual basis and allows scrutiny of individual hospital processes and outcomes for women and infants, while benchmarking them against national performance.

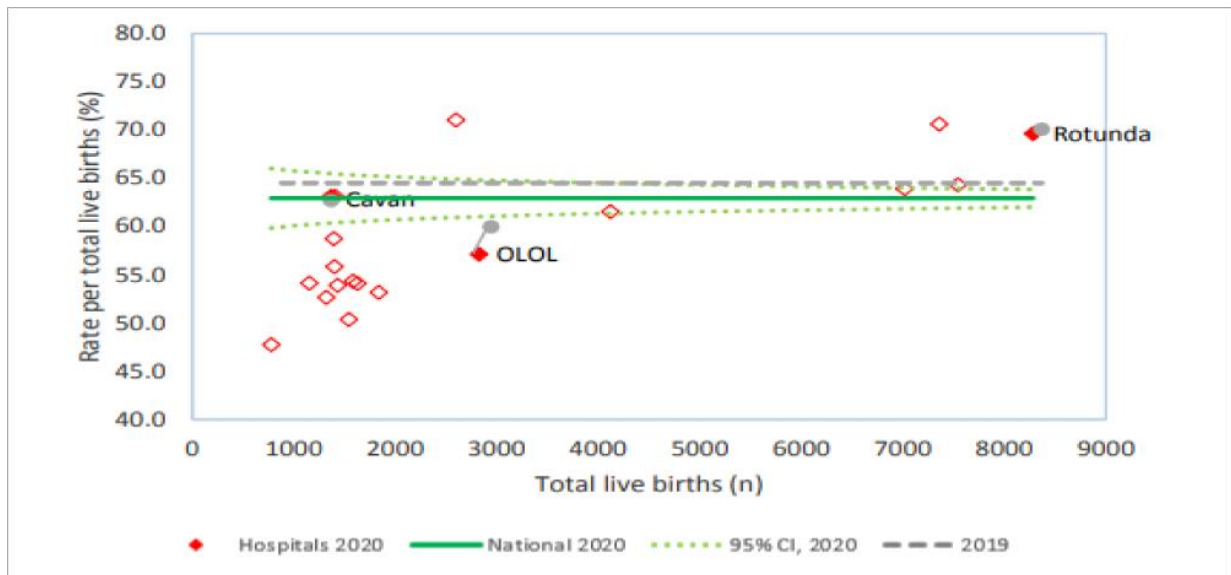
Variations in breast feeding rate between maternity units could potentially be due to random chance or reflect differences in baseline characteristics of the childbearing population. For this reason, funnel plots are used to assess breast feeding rates for individual maternity units in comparison to the overall average. The funnel plot is a scatter diagram of individual maternity unit breast feeding rates against the total number of births within that unit.

In the funnel graph below:

- the national rate for breast feeding in 2020 is indicated by the solid straight green line
- the curved dashed lines (the 95% confidence interval for 2020) represent the limits within which 95% of units are expected to lie.
- the width of the confidence interval is adjusted to allow for meaningful comparison between unit-specific rates and the national rate. The confidence interval is wider for smaller units reflecting the lack of precision in rates calculated based on small numbers. The confidence interval narrows for larger maternity units, giving the diagram a 'funnel' shape.

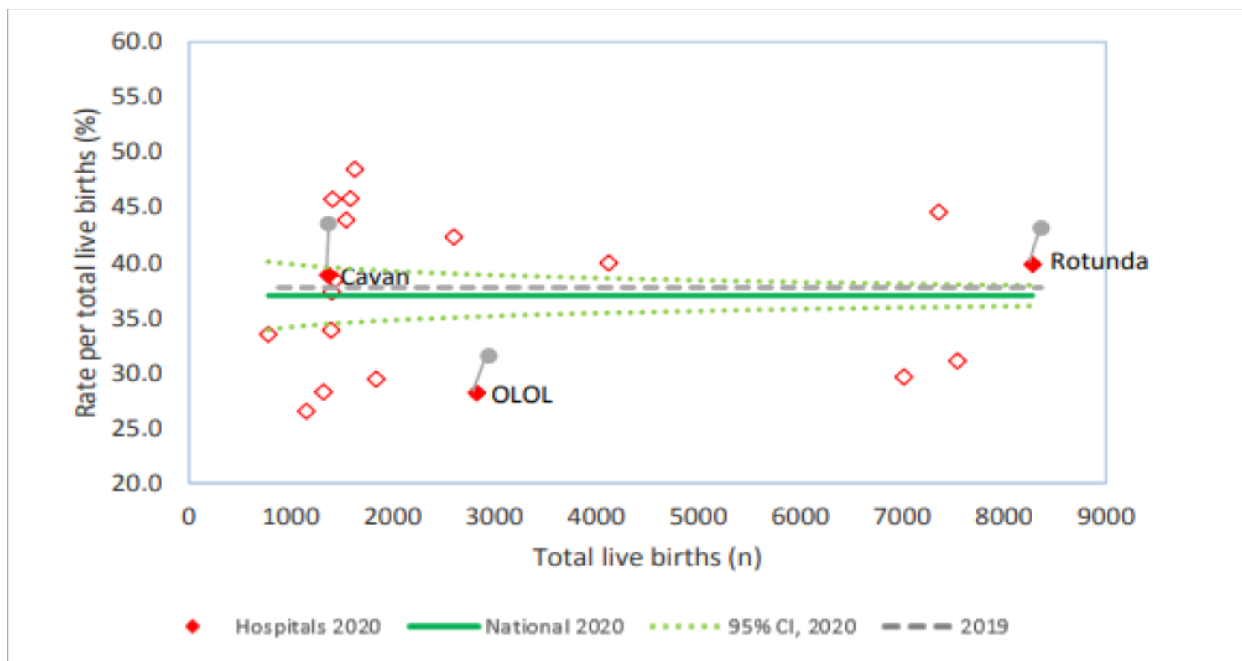
Performance

Breastfeeding initiated Breastfeeding Rates - Chart



- Nationally, in 2020, 62.9% of woman initiated breastfeeding at their baby’s first feed
- Rotunda and Cavan hospitals had rates above the national average at 69.6% and 63.1% respectively
- Drogheda had a rate of 57.1% which is below the national average and outside the 95% confidence interval

Breastfeeding (BF) exclusively on discharge Breastfeeding (BF) exclusively on discharge – Chart



- nationally, in 2020, 37% of women were breast-feeding exclusively on discharge
- within the RCSI Hospital Group, Rotunda and Cavan hospitals had rates above the national average at 39.8% and 38.9% respectively
- Drogheda had a rate of 28.2% which was below the national average and outside the 95% confidence interval

RCSI Hospital Breast Feeding Rates

Measurement methodology and data sources

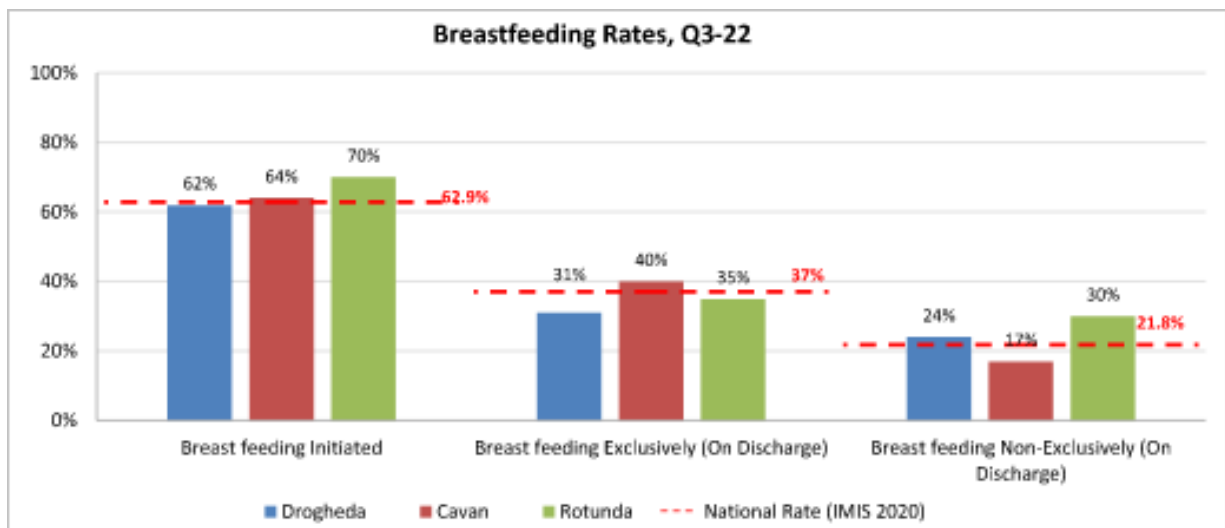
Breastfeeding initiated: Numbers of babies breastfed at first feed following birth, i.e., direct from the breast or expressed. Rate is calculated per total live births. Nationally, in 2020, 62.9% of woman initiated breastfeeding at their baby's first feed (IMIS 2020).

Breastfeeding (BF) exclusively on discharge: Numbers of babies who receive only breast milk without any additional food or drink, not even water, prior to discharge. Rate is calculated per total live births. Nationally, in 2020, 37% of woman were breast-feeding exclusively on discharge (IMIS 2020).

Breastfeeding (BF) non-exclusively on discharge: Number of babies who were breastfed and had other food or drink prior to discharge. Rate is calculated per total live births. Nationally, in 2020, 21.8% of woman were breast-feeding non-exclusively on discharge (IMIS 2020).

Maternity Units in the Rotunda, Drogheda and Cavan Hospitals submit perinatal data on a monthly basis to the RCSI Hospital Group. This data is also made available to the National Women and Infants Health Programme Clinical Programme *Irish Maternity Indicator System (IMIS)*.

Performance



- Cavan and Rotunda Hospitals are above the national rate for breast feeding initiated. Drogheda Hospital is performing below the national rate
- Cavan Hospital is performing above the national rate for breast feeding exclusively on discharge. Drogheda and Rotunda Hospitals are below the national rate
- Rotunda and Drogheda Hospitals are above the national rate for breast feeding non-exclusively on discharge. Cavan Hospital is below the national rate

