




National Maternity and Perinatal Audit (NMPA)


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Outline

- Introduction to the NMPA
- Relevance of audit to clinical practice
- Developing maternity care quality indicators
- Looking at and using NMPA results
- Looking forward to 2019 and beyond



The National Maternity and Perinatal Audit

A collaborative project

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Acknowledgements

Project Team

| | |
|----------------------|--------------------------------|
| Jan van de Meulen | Senior Methodological Lead |
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| Ipek Gurul-Urganci | Senior Methodologist |
| Natalie Mott | Statistician |
| Lindsey Mamza | Data Manager |

Clinical Reference Group

Women and Families Involvement Group

Funded by

Commissioned by

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Rationale for the NMPA

- Rates of stillbirth and maternal mortality are higher than in many European countries
- Growing body of evidence pointing towards variation in outcomes
- Countless inquiries concluding e.g. “the majority of births are safe, but some births are less safe than they could, and should be” Kings Fund (2008)
- £100 million in litigation costs over 10 years – higher than any other clinical speciality

Stillbirth rate in UK one of Europe's highest, Lancet finds

Patterns of maternity care in English NHS trusts 2013/14

The Report of the
NHS faces £85.8m compensation bill over maternity blunders

Cost of falling services, where a baby in trust NHS scan was misinterpreted has increased more than seven-fold since 2008

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Rationale for the NMPA

750,000 birth per year

10% of babies

NNAP

MBRRACE - 5.1 per 1000 babies

Each Baby Counts - 1.6 per 1000 babies

MBRRACE - 8.5 per 100,000 women

UKOSS - few hundred women per year

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Our first 2 years

The NMPA has three main elements

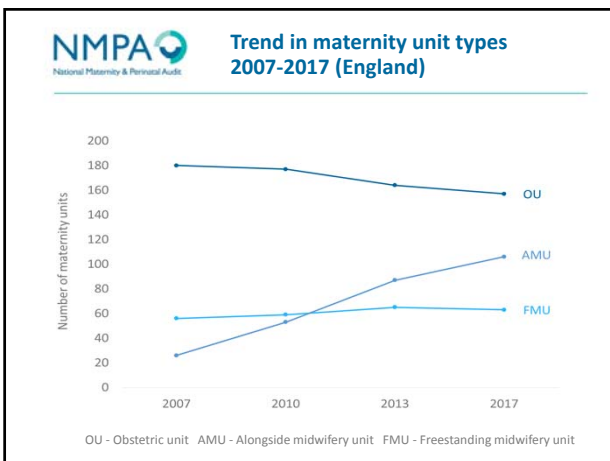
- An **organisational survey** – published August 2017
- A **continuous clinical audit** – published November 2017 repeated annually
- A programme of periodic **sprint audits** – x2 to be published in late 2018

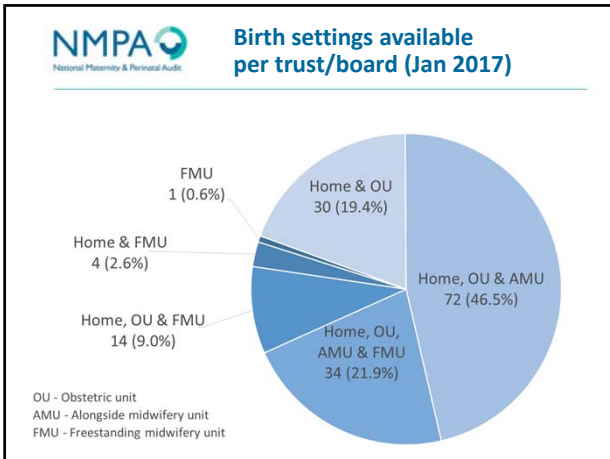


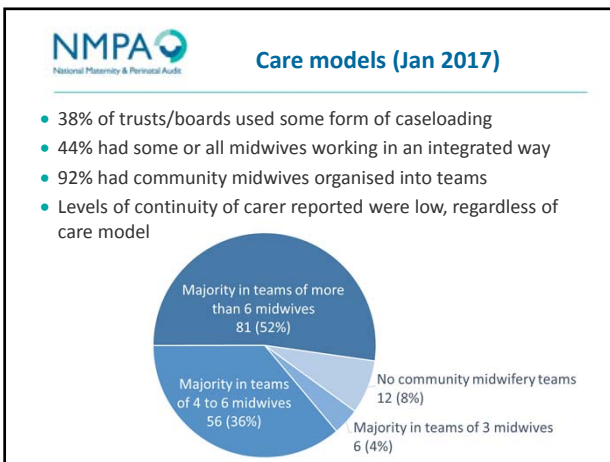
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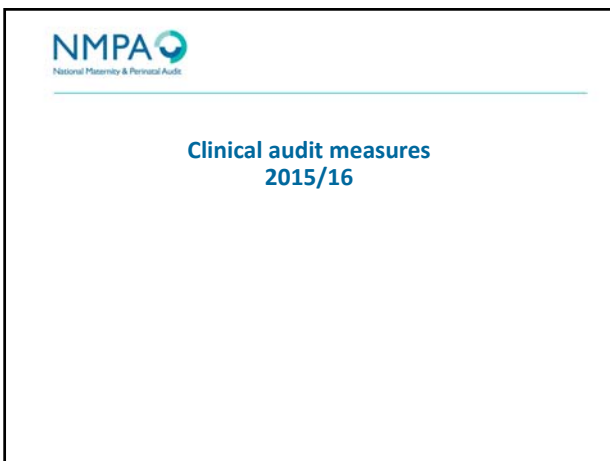
**Organisation of maternity care
2017 report**

www.maternityaudit.org.uk











First clinical report (covering births between 1st April 2015 and 31st March 2016)

- 96% of trusts/boards contributed data to the clinical report
- 92% of births are ascertained in the dataset
- Selection of measures through a process of evaluation – clinical relevance, power, and feasibility
- Characteristics of women and their babies
- 16 risk-adjusted measures of care, 2 of which were used for outlier reporting



| Audit measure category | Measure title | England | Scotland | Wales |
|------------------------|--|---------|----------|-------|
| Antenatal care | Proportion of women who were smokers at booking who smoke at the time of birth | | | |
| | Proportion of women with induced labour | | | |
| Intrapartum Care | Proportion of women with a spontaneous vaginal birth | | | |
| | Proportion of vaginal births with an episiotomy | | | |
| | Proportion of women having an instrumental birth | | | |
| | Proportion of women having a caesarean section | | | |
| | Proportion of elective deliveries performed at <39 weeks of gestation without a documented clinical indication | | | |
| | VBAC rate | | | |
| | Proportion of vaginal births with a 3rd/4th degree perineal tear | | | |
| Maternal morbidity | Proportion of women with severe PPH (>1500ml) | | | |
| | Proportion of women readmitted to hospital as an emergency within 42 days of giving birth | | | |
| Neonatal | Proportion of small-for-gestational age babies born ≥37 weeks who are not delivered before 40+0 weeks | | | |
| | Proportion of singleton, term, liveborn infants with a 5-minute Apgar score of less than 7 | | | |
| | Proportion of liveborn babies with skin to skin contact within 1 hour of birth | | | |
| | Proportion of liveborn babies who are given breast milk for first feed | | | |
| | Proportion of liveborn babies who are given breast milk at discharge home | | | |

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Birth without intervention

- 2015/16 NMPA report:
“In selecting measures for inclusion in the NMPA, there was a strong desire to recognise the importance not only of measuring rates of medical interventions and of adverse outcomes, but also of measuring the proportion of births that occur without interventions.

Inclusion of such a measure could, in conjunction with other NMPA measures, assist trusts/boards in ensuring that they are finding an appropriate balance between intervening ‘too much, too soon’ and ‘too little, too late.’

- Also shortlisted as a ‘National Maternity Indicator’ in England, following a Delphi consensus exercise in late 2016

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Data quality assessments

Site level data quality checks:

- Data completeness (more than 70%)
- Plausible distribution (e.g. gestational age mostly term)
- Internal consistency checks (e.g. no C-sections in freestanding midwifery led units)

Analysis in NMPA report is restricted to:

- a) Sites that pass NMPA data quality checks
- b) Birth records within those sites that contain the required data to construct a measure

The number of sites for which results are available therefore varies from measure to measure, depending on specific data requirements

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Experimental definition agreed by NMPA clinical reference group – adapted from 2007 NCT/RCM/RCOG consensus statement definition

Table 3: Quality of data items required to construct a 'birth without intervention' measure

| Data item required* | % of sites with an obstetric unit (OU) passing data quality checks for this item | | |
|---|--|---------------------------|------------------------|
| | % English sites (n = 151) | % Scottish sites (n = 15) | % Welsh sites (n = 11) |
| Mode of birth | 97 | 100 | 100 |
| Onset of labour | 88 | 100 | 100 |
| Augmentation | 60 | 0** | 81 |
| Episiotomy | 93 | 100 | 82 |
| Anaesthetic during labour and birth | 59 | 100 | 0** |
| % of sites with an OU passing data quality checks for all items | 40 | 0 | 0 |

* All measures also need to pass basic checks for plurality, gestational age, and fetal presentation since measures are restricted to singleton, term, cephalic births.
 ** No sites passed these checks as these items are not included in national data collections.

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Birth without intervention 2015/16 (at sites with adequate data quality for all elements)

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Clinical report summary

- High-quality Great Britain dataset with some variables linked for the first time; allowing national analyses never before possible
- Risk adjusted results on key measures in maternity and neonatal care
- Site-specific results available on our website www.maternityaudit.org.uk

2.7%

3.5%

sustain a third or fourth degree perineal tear

APGAR 7

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Using NMPA data

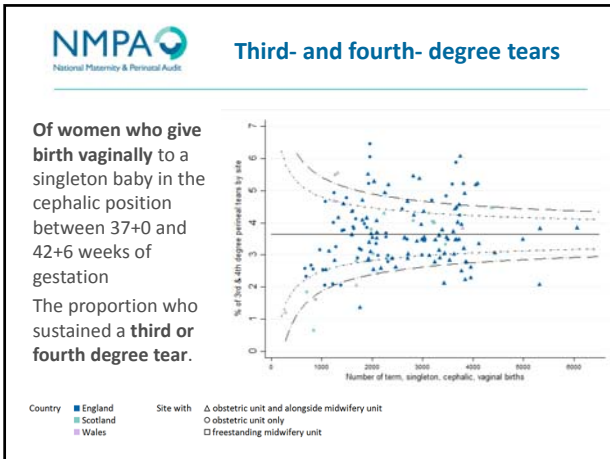
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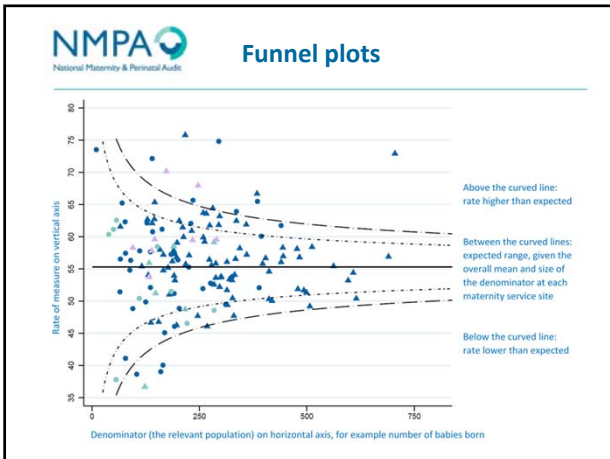
Third- and fourth- degree tears

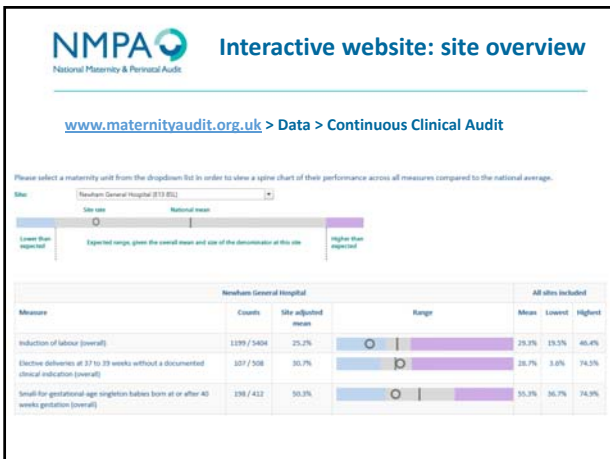
What is measured: Of women who give birth vaginally to a singleton baby in the cephalic position between 37+0 and 42+6 weeks of gestation, the proportion who sustained a third or fourth degree tear.

| Country | England | Scotland | Wales* | Total (Britain) |
|---|---------|----------|--------|-----------------|
| Number of mothers included in analysis | 341,204 | 33,901 | 8,556 | 383,661 |
| Proportion overall sustaining third or fourth degree tear | 3.6% | 3.4% | 3.3% | 3.5% |
| Primiparous women | | | | |
| Spontaneous | 5.4% | 4.9% | 4.5% | 5.3% |
| Instrumental | 7.8% | 7.0% | 8.5% | 7.8% |
| Multiparous women | | | | |
| Spontaneous | 1.6% | 1.5% | 1.4% | 1.6% |
| Instrumental | 4.8% | 4.1% | 5.4% | 4.7% |

*only Hywell Dda Health Board and Cwm Taf University Health Board passed the relevant data quality checks for this measure







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Acting on findings

- Investigate variation outside of expected range (data, organisational & operational factors, case mix, guidance changes, clinical practice)
- Collaborate, e.g. through clinical networks, Local Maternity Systems
- Test improvement interventions incrementally
- Feed back to all involved
- Keep monitoring and feeding back

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Finding similar maternity services

Organisational survey results - maternity and neonatal services details and comparisons

Please select a topic from the menu on the left and the level at which you want to view results using the tabs below

Maternity units
Neonatal units
Services and facilities
Care environment

Neonatal units - Designation

Select site: All sites

Year to view: 2017

View: Table

Download Table Data

| Organisation name | Site Name | Site Code | Designation |
|--|---------------------------------|-----------|-------------|
| Horsham and Mid Sussex University Health Board | North Pole Telford Birth Centre | 76353 | None |
| Horsham and Mid Sussex University Health Board | Prince of Wales Hospital | 76357 | LMU |
| Horsham and Mid Sussex University Health Board | Ingdon Hospital | 76374 | MCU |
| Arden NHS Foundation Trust | Arden Maternity Unit | 82722 | LMU |
| Arden NHS Health Board | North Hall Hospital | 76669 | LMU |
| Arden NHS Health Board | Royal Queen Hospital | 76668 | MCU |
| Arden NHS Health Board | Edgbury Antenatal Bureau | 76661 | None |
| Arden NHS Health Board | Telford Antenatal Unit | 76664 | None |
| Arden and St James NHS Foundation Trust | St James Hospital | 87001 | MCU |

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Some sources of maternity data

Annual:

- National Maternity and Perinatal Audit www.maternityaudit.org.uk
- NHS Digital annual national maternity stats <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-maternity-statistics>
- Public Health Data <https://fingertips.phe.org.uk/profile-group/child-health>

Monthly:

- NHS Digital Maternity Services Data Set (MSDS) monthly reports <https://digital.nhs.uk/data-and-information/publications/statistical/maternity-services-monthly-statistics>
- NHS Digital new maternity services data viewer and monthly dashboard <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/maternity-services-data-set/maternity-services-dashboard>

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Questions?





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Thank you!

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