Maternal and perinatal data collection

Objectives: To provide advice on maternal and perinatal data collection.

Target audience: All health practitioners providing maternity care, and patients. In addition, this may provide useful information for those responsible for planning the delivery of maternity services.

Background: This statement was first developed by Women’s Health Committee in July 2010 to provide advice on maternal and perinatal data collection and most recently reviewed in July 2021.

Funding: The development and review of this statement was funded by RANZCOG.
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1. Plain Language summary

Most women in Australia and New Zealand have uncomplicated pregnancies and give birth to healthy babies. However, pregnancy and childbirth can also be associated with unintended outcomes, including life-threatening medical complications. The well-being of mothers and babies tells us a lot about the overall well-being of a community, reflecting both the effectiveness of our health care system and the status of women and children in our society.

Monitoring key indicators such as stillbirth rates, maternal deaths, breast feeding rates, and preterm birth are a cornerstone of maintaining quality in health care. By collecting and analysing these outcomes, we can focus on reducing preventable complications and target areas for improvement in maternity care.

Collecting information on all births in a population also provides important data on demographic trends, which helps guide governments health and economic policy decisions. These data are also important resources for medical and public health research.

For all these reasons, states and territories in Australia and New Zealand must collect a minimum dataset on births and report these to the relevant government departments. There are very strict privacy regulations for the use of these data.


This document summarizes RANZCOGs guiding principles for data collection on mothers and babies.

2. Summary of recommendations

<table>
<thead>
<tr>
<th>Recommendation 1</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A perinatal and maternal data set must be collected from all pregnancies across Australia and New Zealand.</td>
<td>Consensus-based recommendation</td>
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<thead>
<tr>
<th>Recommendation 2</th>
<th>Grade and reference</th>
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<td>Minimum data set will be determined on State/Territory/Country jurisdiction/requirements.</td>
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In addition to these standard items, specific attention must be paid to:

1. **Maternal and Perinatal, Morbidity and Mortality**
   The data set collected must include both perinatal and maternal outcomes, reporting both morbidity and mortality. Each parameter must be clearly defined to ensure uniformity of reporting and achieve maximal ascertainment.

2. **Clinical Indicators**
   The data collected should enable appropriate clinical indicators to be assessed such as those mutually agreed by RANZCOG and ACHS.
### 3. Model of Care
Data should include:
- Intended model of care (i.e. prior to the development of any complications);
- Model of care at birth;
- Duration before birth of transfer of model of care.

### 4. Place of Birth
Data must include:
- Intended place of birth (i.e. prior to the development of any complications);
- Place of birth;
- Duration before birth of transfer of place of birth.

#### Good Practice Note
Reporting and analysis of maternal and perinatal data should be contemporaneous, with agreed time frames that allow early assessment of any changes to maternity service delivery.

#### Good Practice Note
Reporting must be transparent and available to service providers, relevant authorities and the public.

#### Good Practice Note
Reporting should be accessible to consumers.

#### Recommendation 3
Perinatal and maternal data should be subject to regular and random audit and validation. Audit of data collection against birth registrations is recommended to ensure completeness of data.

#### Recommendation 4
RANZCOG supports the inclusion of consumer-reported outcomes into routine maternity data collection. (consensus based recommendation)

### 3. Discussion and Recommendations

#### 3.1 What data should be collected?
A perinatal and maternal data set must be collected from all pregnancies across Australia and New Zealand. The data set must be structured so as to enable both regional and international comparisons. Where regional differences exist, additional parameters may be collected with a view to directing specific improvements in care and outcomes. Audit tools that can be utilised include The Ten Group classification system (TGCS) for analysis of mode of birth rates between units.

#### Recommendation 1
A perinatal and maternal data set must be collected from all pregnancies across Australia and New Zealand.

Consensus-based recommendation
3.2 What other specific data should be collected?

In addition to the standard demographic, obstetric and neonatal data collection specific attention must be paid to:

i. Maternal and Perinatal, Morbidity and Mortality

The data set collected must include both perinatal and maternal outcomes, reporting both morbidity and mortality. Each parameter must be clearly defined to ensure uniformity of reporting and achieve maximal ascertainment.

ii. Clinical Indicators

The data collected should enable appropriate clinical indicators to be assessed such as those mutually agreed by RANZCOG and ACHS, or the NZ Committee and NZ Ministry of Health.

iii. Model of Care

Data must include:

- Intended model of care (i.e. prior to the development of any complications);
- Model of care at birth;
- Duration before birth of transfer of model of care.

iv. Place of Birth

Data must include:

- Intended place of birth (i.e. prior to the development of any complications);
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In addition to the standard demographic, obstetric and neonatal data collection specific attention must be paid to:

1. **Maternal and Perinatal, Morbidity and Mortality**
   
   The data set collected must include both perinatal and maternal outcomes, reporting both morbidity and mortality. Each parameter must be clearly defined to ensure uniformity of reporting and achieve maximal ascertainment.

2. **Clinical Indicators**
   
   The data collected should enable appropriate clinical indicators to be assessed such as those mutually agreed by RANZCOG and ACHS and Ministry of Health (NZ).

3. **Model of Care**
   
   Data should include:
   
   - Intended model of care (i.e. prior to the development of any complications);
   - Model of care at birth;
   - Duration before birth of transfer of model of care.
3.3 How should reporting and analysis be undertaken?

Collection of data alone does not improve outcomes. Timely and relevant reporting and analysis of maternal and perinatal data should lead to recommendations for improvements in care, based on that data.

When comparisons are made between models of care or places of birth, it is important to take steps to ensure that, for the purposes of comparison, each subset had an equivalent obstetric risk profile.

Reporting and analysis of maternal and perinatal data should be contemporaneous, with agreed time frames that allow early assessment of any changes to maternity service delivery.

Reporting must be transparent and available to service providers, relevant authorities and the public.

Reporting should be accessible to consumers so that their choice in determining models of care and types of service delivery is based on accurate information regarding relevant benefits and risks.

### Good Practice Note
Reporting and analysis of maternal and perinatal data should be contemporaneous, with agreed time frames that allow early assessment of any changes to maternity service delivery.

### Good Practice Note
Reporting must be transparent and available to service providers, relevant authorities and the public.

### Good Practice Note
Reporting should be accessible to consumers.

3.1 How should data collection be audited for completeness and quality?
Perinatal and maternal data should be subject to regular and random audit and validation to ensure that collection and recording methodologies are sound.

### Recommendation 3
Perinatal and maternal data should be subject to regular and random audit and validation. Audit of data collection against birth registrations is recommended to ensure completeness of data.

Audit of data collection against birth registrations is recommended to ensure completeness of data.
3.2 How can the experience of women be incorporated in maternity and perinatal data collection? Pregnant women are active partners in their maternity care, and there is a growing recognition of the importance of consumer voices in health service planning, delivery and evaluation. “Partnering with consumers” is now an integral part of the National Safety and Quality Health Service (NSQHS) Standards. The Victorian Healthcare Experience Survey is an example of how women’s experiences of care can be incorporated into perinatal services performance indicators. 

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4. References


5. Links to other College statements

Evidence-based Medicine, Obstetrics and Gynaecology (C-Gen 15)

6. Patient information

A range of RANZCOG Patient Information Pamphlets can be ordered via:
https://www.ranzcoq.edu.au/Womens-Health/Patient-Information-Guides/Patient-Information-Pamphlets

7. Useful links

The Maternity Information Matrix (MIM) is a summary of data items in Australian national and jurisdictional data collections as of July 2016. The MIM includes 45 data collections and nearly 500 data items. (Available online at http://maternitymatrix.aihw.gov.au/Pages/About-the-MIM.aspx)

The Australian Institute of Health and Welfare have developed National Core Maternity Indicators to assist in improving the quality of maternity services in Australia by establishing baseline data for monitoring and evaluating practice change. https://www.aihw.gov.au/reports-data/population-groups/mothers-babies/overview
Australia’s Mothers and Babies reports https://www.aihw.gov.au/reports-statistics/population-groups/mothers-babies/reports

New Zealand Ministry of Health, New Zealand Maternity Clinical Indicators - series

Health Quality & Safety Commission New Zealand - Perinatal & Maternal Mortality Review Committee
Appendices

Appendix A Women’s Health Committee Membership

<table>
<thead>
<tr>
<th>Name</th>
<th>Position on Committee</th>
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<tbody>
<tr>
<td>Professor Yee Leung</td>
<td>Chair and Board Member</td>
</tr>
<tr>
<td>Dr Gillian Gibson</td>
<td>Deputy Chair, Gynaecology</td>
</tr>
<tr>
<td>Dr Scott White</td>
<td>Deputy Chair, Obstetrics and Subspecialties Representative</td>
</tr>
<tr>
<td>Associate Professor Ian Pettigrew</td>
<td>Member and EAC Representative</td>
</tr>
<tr>
<td>Dr Kristy Milward</td>
<td>Member and Councillor</td>
</tr>
<tr>
<td>Dr Will Milford</td>
<td>Member and Councillor</td>
</tr>
<tr>
<td>Dr Frank O’Keeffe</td>
<td>Member and Councillor</td>
</tr>
<tr>
<td>Prof Steve Robson</td>
<td>Member</td>
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<tr>
<td>Professor Sue Walker</td>
<td>Member</td>
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<tr>
<td>Dr Ray Watson</td>
<td>Member and Councillor</td>
</tr>
<tr>
<td>Dr Susan Fleming</td>
<td>Member and Councillor</td>
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<tr>
<td>Dr Sue Belgrave</td>
<td>Member and Councillor</td>
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<tr>
<td>Dr Marilyn Clarke</td>
<td>ATSI Representative</td>
</tr>
<tr>
<td>Associate Professor Kirsten Black</td>
<td>Member</td>
</tr>
<tr>
<td>Dr Thangeswaran Rudra</td>
<td>Member</td>
</tr>
<tr>
<td>Dr Nisha Khot</td>
<td>Member and SIMG Representative</td>
</tr>
<tr>
<td>Dr Judith Gardiner</td>
<td>Diplomate Representative</td>
</tr>
<tr>
<td>Dr Angela Brown</td>
<td>Midwifery Representative</td>
</tr>
<tr>
<td>Ms Ann Jorgensen</td>
<td>Community Representative</td>
</tr>
<tr>
<td>Dr Ashleigh Seiler</td>
<td>Trainee Representative</td>
</tr>
<tr>
<td>Prof Caroline De Costa</td>
<td>Co-opted member (ANZJOG member)</td>
</tr>
<tr>
<td>Dr Christine Sammartino</td>
<td>Observer</td>
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Appendix B Overview of the development and review process for this statement

i. Steps in developing and updating this statement

This statement was originally developed in July 2010 and was reviewed most recently in May 2021. The Women’s Health Committee carried out the following steps in reviewing this statement:

- Declarations of interest were sought from all members prior to reviewing this statement.
- Structured clinical questions were developed and agreed upon.
- An updated literature search to answer the clinical questions was undertaken.
- At the May 2021 face-to-face committee meeting, the existing consensus-based recommendations were reviewed and updated (where appropriate) based on the available body of evidence and clinical expertise. Recommendations were graded as set out below in Appendix B part iii).
ii. Declaration of interest process and management

Declaring interests is essential in order to prevent any potential conflict between the private interests of members, and their duties as part of the Women’s Health Committee.

A declaration of interest form specific to guidelines and statements was developed by RANZCOG and approved by the RANZCOG Board in September 2012. The Women’s Health Committee members were required to declare their relevant interests in writing on this form prior to participating in the review of this statement.

Members were required to update their information as soon as they become aware of any changes to their interests and there was also a standing agenda item at each meeting where declarations of interest were called for and recorded as part of the meeting minutes.

There were no significant real or perceived conflicts of interest that required management during the process of updating this statement.

iii. Grading of recommendations

Each recommendation in this College statement is given an overall grade as per the table below, based on the National Health and Medical Research Council (NHMRC) Levels of Evidence and Grades of Recommendations for Developers of Guidelines (2009). Where no robust evidence was available but there was sufficient consensus within the Women’s Health Committee, consensus-based recommendations were developed or existing ones updated and are identifiable as such. Consensus-based recommendations were agreed to by the entire committee. Good Practice Notes are highlighted throughout and provide practical guidance to facilitate implementation. These were also developed through consensus of the entire committee.

<table>
<thead>
<tr>
<th>Recommendation category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Evidence-based</td>
<td>A Body of evidence can be trusted to guide practice</td>
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<tr>
<td></td>
<td>B Body of evidence can be trusted to guide practice in most situations</td>
</tr>
<tr>
<td></td>
<td>C Body of evidence provides some support for recommendation(s) but care should be taken in its application</td>
</tr>
<tr>
<td></td>
<td>D The body of evidence is weak and the recommendation must be applied with caution</td>
</tr>
<tr>
<td>Consensus-based</td>
<td>Recommendation based on clinical opinion and expertise as insufficient evidence available</td>
</tr>
<tr>
<td>Good Practice Note</td>
<td>Practical advice and information based on clinical opinion and expertise</td>
</tr>
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Appendix C Full Disclaimer

Purpose

This Guideline has been developed to provide general advice to practitioners about women’s health issues concerning maternal and perinatal data collection and should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any person. It is the responsibility of each practitioner to have regard to the particular circumstances of each case. Clinical management should be responsive to the needs of the individual person with a need for maternal and perinatal data collection and the particular circumstances of each case.

Quality of information

The information available in the maternal and perinatal data collection is intended as a guide and provided for information purposes only. The information is based on the Australian context using the best available evidence and information at the time of preparation.

While the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) had endeavoured to ensure that information is accurate and current at the time of preparation, it takes no responsibility for matters arising from changed circumstances or information or material that may have become subsequently available. The use of this information is entirely at your own risk and responsibility.

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