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# **Report on the evaluation of the Perinatal National Minimum Data Set**

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Sydney

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# Preface

The Perinatal National Minimum Data Set (NMDS) was first specified in 1997 and has been amended in minor ways since. Annual reports on perinatal health have been produced from this data set by the AIHW National Perinatal Statistics Unit (NPSU). In 2003, the Statistical Information Management Committee (SIMC) agreed to include the Perinatal NMDS in its program of review of the quality and utility of national minimum data sets approved by SIMC and its predecessor.

The review was undertaken by the NPSU in consultation with the National Perinatal Data Development Committee (NPDDC). The valuable cooperation of survey respondents from state and territory health authorities, hospitals and research organisations and the contribution by the NPDDC are very much appreciated.

This publication contains the report of the review and an addendum. The report was prepared by Paula Laws and Elizabeth Sullivan of the NPSU, who would like to acknowledge the support of the School of Women's and Children's Health, UNSW and the Sydney Children's Hospital.

The report and its recommendations were submitted to SIMC in December 2003 and some data development work was undertaken between December 2003 and the SIMC meeting in August 2004 when the report was endorsed for release. To reflect work done during this period, an addendum is included at the end of this publication.

Richard Madden  
Director  
Australian Institute of Health  
and Welfare

Ric Marshall  
Chair  
Statistical Information Management  
Committee

# Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
ASCCSS	Australian Standard Classification of Countries for Social Statistics
HDSC	Health Data Standards Committee
LMP	First day of the last menstrual period
NAGATSIHID	National Advisory Group for Aboriginal and Torres Strait Islander Health Information and Data
NHDC	National Health Data Committee
NHDD	<i>National Health Data Dictionary</i>
NHIG	National Health Information Group
NHIMG	National Health Information Management Group
NMDS	National Minimum Data Set
NPDDC	National Perinatal Data Development Committee
NPSU	National Perinatal Statistics Unit
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
SA	South Australia
SACC	Standard Australian Classification of Countries
SIMC	Statistical Information Management Committee
Tas	Tasmania
Vic	Victoria
WA	Western Australia

# Summary and recommendations

The evaluation of the Perinatal National Minimum Data Set (NMDS) was funded by the Australian Health Ministers' Advisory Council (AHMAC), through the National Health Information Group (NHIG). It has been conducted by the AIHW National Perinatal Statistics Unit (NPSU) in consultation with the National Perinatal Data Development Committee (NPDDC).

The aim of the evaluation was to assess the quality and utility of the NMDS, to determine whether the data collection suits current requirements and to identify changes required to improve data quality and consistency.

The method used for the evaluation included:

- a review of compliance, that is the extent to which data for 2000 were collected and/or provided by states and territories in accordance with NMDS specifications as published in the *National Health Data Dictionary* (NHDD) Version 8.0;
- a review of utility, based on consultations with data providers and users, using a survey tool designed for a previous NMDS evaluation, of the Admitted Patient Care NMDS; and
- formulation of recommendations for future data development and the assignment of priorities, undertaken by the AIHW NPSU in consultation with the NPDDC.

A summary of the recommendations compiled from the evaluation of utility and the compliance evaluation is presented below. Recommendations for modifications to existing data elements and proposals for new data elements are discussed. Priorities have been attached to each recommendation to guide the development of work programs that include implementation of the recommendations. Many recommendations are for further data development work to be undertaken. Any proposals for new or modified data elements that arise from such data development work would be submitted (with business cases) for approval to the Health Data Standards Committee (HDSC), the Statistical Information Management Committee (SIMC), and the NHIG (or their successors) before they are incorporated into the NMDS.

Further discussion relevant to the recommendations is included in Chapters 3 to 5 of this report.

## General recommendations

- That the NMDS continue. As a whole, it was considered highly important and highly useful by most survey respondents.

- That work continue to improve the completeness and accuracy of data reporting for all data elements but, in particular, those noted as of concern in the compliance evaluation.
- That the wording of the NMDS data collection period be changed to ‘Years ending 31 December each year’.
- That selected perinatal data elements that are already in the *National Health Data Dictionary*, collected by the states and territories, and supplied to the NPSU, be placed on a work program for consideration as additions to the Perinatal NMDS.
- That there be clarification of state and territory privacy and confidentiality barriers to supplying Perinatal NMDS data elements used in population-based reporting.
- That, although survey respondent comments have been summarised in this report, they will be available in full to inform subsequent data development work.
- That the considerable efforts of the states and territories and other survey respondents in providing information for this evaluation be recognised and applauded.
- That this report be published by the NHIG and/or AIHW.

## **Recommendations relating to existing and proposed new data elements and concepts**

### **Perinatal NMDS—data elements included**

#### **Actual place of birth**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation, including suggested changes to the data domains. The distinction between *Birth centre, attached to hospital* and *Birth centre, freestanding* is no longer seen as important, therefore, it is recommended that these be combined into one *Birth centre* domain. It is also recommended that a new domain, *Community health centre*, be added.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

#### **Birth order**

It is recommended that this data element be reviewed to address the suggested change in the Guide for Use. The Guide needs to better explain the birth order arising from cases involving fetal deaths and multiple gestation.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

## **Birth plurality**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation regarding the Guide for Use. The Guide needs to better explain the birth plurality arising from cases involving fetal deaths and multiple gestation.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

## **Country of birth**

It is recommended that 'Country of birth' of the mother be reported in accordance with the *National Health Data Dictionary* data domain for all jurisdictions. For data from 1 July 2001, the classification should be the ABS *Standard Australian Classification of Countries* (SACC) (ABS 1998).

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD data domain.

## **Date of birth**

It is recommended that 'Date of birth' of both mother and baby be reported in accordance with the *National Health Data Dictionary* format for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD format.

## **Establishment identifier**

It is recommended that this data element be removed from the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for preparation of the necessary NHDC submission.

## **First day of the last menstrual period**

It is recommended that this data element be removed from the NMDS, but be retained in the *National Health Data Dictionary*. A new data element 'Estimated date of confinement' will be developed in its place.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for preparation of the necessary NHDC submission.

## **Gestational age**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation. These include suggested changes to the definition and

context to address the widespread use of ultrasound for determining gestational age. The Guide for Use needs to better explain the reporting of gestational ages for fetal deaths.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Indigenous status**

Work on improving the quality of Indigenous identification in the perinatal data needs to continue. It is recommended that the suggestions in this report for improvement in the quality of these data be communicated to the National Advisory Group for Aboriginal and Torres Strait Islander Health Information and Data (NAGATSIHID) and the AIHW for consideration.

*Priority:* High

*Recommendation:* The NHIG notes the comments in this evaluation and refers them to the NAGATSIHID and the AIHW for consideration.

It is recommended that 'Indigenous status' of the mother be reported in accordance with the *National Health Data Dictionary* data domains for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD format.

### **Infant weight, neonate, stillborn**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

### **Method of birth**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation, including suggested changes to the data domains and the Guide for Use. It is recommended that the *Other* domain be removed. The Guide needs to better explain the reporting of instances where two domains are applicable, for example, forceps used during caesarean section.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Onset of labour**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **Person identifier**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **Separation date**

It is recommended that 'Separation date' of the mother be reported in accordance with the *National Health Data Dictionary* format for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD format.

## **Sex**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **State/Territory of birth**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **Status of the baby**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation, including suggested changes to the Guide for Use. The Guide needs to better explain the reporting of babies with an Apgar score of 0 at 1 minute, as live births.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

## **Perinatal NMDS—supporting data elements and data element concepts**

### **Birthweight**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

### **Establishment number**

It is recommended that 'Establishment number' be reported in accordance with the *National Health Data Dictionary* definition for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD definition.

## **Establishment sector**

It is recommended that 'Establishment sector' be reported in accordance with the *National Health Data Dictionary* definition for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD definition.

## **Gestational age**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Live birth**

It is recommended that this data element concept be reviewed to address the suggested additions to this definition. It needs to better explain the reporting of babies with an Apgar score of 0 at 1 minute, as live births.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

## **Neonatal death**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Neonate**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Perinatal period**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Region code**

It is recommended that this data element be removed from the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for preparation of the necessary NHDC submission.

## **State/Territory identifier**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Stillbirth (fetal death)**

It is recommended that this data element concept be reviewed to address the suggested wording changes to the definition.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

## **New data elements**

### **Anaesthesia administered during labour**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Analgesia administered during labour**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Apgar score at 5 minutes**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Intended place of birth**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Estimated date of confinement**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner. It is intended that this item would replace the current NMDS item 'First day of the last menstrual period'.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Length of stay (antenatal)**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Parity**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Perineal status**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Presentation at birth**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Previous births by caesarean section**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Resuscitation of baby**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Smoking status during pregnancy**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Type of augmentation of labour**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

### **Type of labour induction**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

# 1 Introduction

This report presents the findings of an evaluation of the Perinatal National Minimum Data Set (NMDS). The evaluation was funded by the Australian Health Ministers' Advisory Council (AHMAC), through the National Health Information Group (NHIG). This committee was formerly named the National Health Information Management Group (NHIMG). The evaluation was conducted in consultation with the National Perinatal Data Development Committee (NPDDC).

The aim of the evaluation was to assess the quality and utility of the Perinatal NMDS to determine whether the data collection suits current requirements and to make recommendations to improve data quality and consistency. The evaluation uses a methodology developed by the Australian Institute of Health and Welfare (AIHW) for evaluating national minimum data sets (AIHW 2003). The methodology incorporates: a review of compliance, that is the extent to which data are collected and/or provided by states and territories in accordance with NMDS specifications as published in the *National Health Data Dictionary* (NHDD); a review of utility, based on consultations with data providers and users; and formulation of recommendations for future data development.

## This report

This chapter describes the Perinatal National Minimum Data Set and outlines the purpose of the evaluation.

Chapter 2 describes the methodology that has been developed and used as the basis for the current evaluation.

Chapter 3 describes the results from the review of utility, a consultation process involving a survey of data collectors and users. Information is presented on the users of the NMDS, the uses of the NMDS, the utility of the NMDS and individual data elements, that is the extent to which they are perceived as important and useful, and possible areas for data development.

Chapter 4 describes the results of the compliance review, including information on the scope of the data provided by states and territories and the extent to which the data provided for each data element comply with *National Health Data Dictionary* definitions and domain values.

Chapter 5 presents summary statistics for each individual data element obtained from the utility survey, as well as comments on existing data elements obtained from both the utility and compliance evaluations. It also outlines suggestions for new data elements.

This is followed by the appendixes, which include the survey used as the basis for the review of utility<sup>1</sup> and a list of survey respondents and non-respondents.

## The Perinatal National Minimum Data Set

A national minimum data set (NMDS) is a core set of data elements agreed by the National Health Information Group (NHIG) for mandatory collection and reporting at a national level. An NMDS is contingent upon a national agreement to collect uniform data and to supply it as part of the national collection. The standards make data collection activities more efficient, by reducing duplication of effort through standardisation of core data items; more effective, by ensuring that information to be collected is relevant and appropriate to its purpose; and more comparable and consistent, for reporting purposes.

An NMDS includes agreement on specified data elements (discrete items of information or variables) and supporting data element concepts as well as the scope of the application of those data elements and the statistical units for collection. Definitions of all data elements that are included in NMDS collections in the health sector are included in the *National Health Data Dictionary*.

The Perinatal NMDS is a specification for data that are collected on all births in Australia in hospitals, birth centres and the community. Data are collected from patient administrative and clinical record systems and forwarded to the relevant state or territory health authority on a regular basis. Data for each year ending 31 December are then provided to the AIHW National Perinatal Statistics Unit (NPSU) for national collation, on an annual basis.

The Perinatal NMDS forms the basis for nationally comparable data for births, including the National Perinatal Data Collection and the annual *Australia's Mothers and Babies* report series.

## Purpose of the evaluation

The Perinatal NMDS was first specified in 1997 and has been amended in relatively minor ways since then, in response to a range of different requirements. However, there have been relatively few attempts to date to assess the quality and utility of the NMDS-based data in a comprehensive manner. As considerable resources are used at the state and territory level to collect it and at the national level to collate it, a comprehensive evaluation of the NMDS was considered necessary to determine whether the data collection suits current requirements and to plan actions to improve data quality and consistency.

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<sup>1</sup> Explanatory notes and attachments accompanying the survey are available from the NPSU on request.

## 2 Methodology

While undertaking the recent evaluation of the Admitted Patient Care NMDS, the AIHW developed an enhanced methodology for NMDS reviews. This methodology has been utilised for the current evaluation of the Perinatal NMDS. Further details on the process of developing this methodology can be found in the *Report on the Evaluation of the Admitted Patient Care National Minimum Data Set* (AIHW 2003).

### Compliance evaluation

The purpose of the compliance evaluation is to assess the quality and consistency of the data provided by states and territories. The NMDS is contingent upon a national agreement to collect uniform data and to supply it as part of the national collection. This means that data elements should be collected or at least reported using standard definitions and domain values and reported for all births within scope. However, there tends to be some variation in the way in which data are reported among the states and territories.

Through assessing the ability of states and territories to comply with the NMDS specifications (data definitions, domain values and scope), actions can be taken to improve the data quality and consistency (such as data element development) where necessary.

The latest data available for this evaluation were for 2000 and were based on the specifications in the *National Health Data Dictionary Version 8.0* (AIHW 1999), whereas the data currently being collected are based on the most recent version, the *National Health Data Dictionary Version 12* (NHDC 2003). As the compliance evaluation is based on data provided by states and territories, assessments of compliance have been made according to the specifications in the *National Health Data Dictionary Version 8.0*.

The compliance evaluation was based on documentation provided with the 2000 data supplied by the states and territories to the NPSU; and communications between the NPSU and the jurisdictions during compilation of the 2000 National Perinatal Data Collection and during the preparation of this report.

The compliance evaluation involved assessing for each data element in the 2000 data:

1. whether states and territories had provided it;
2. whether it was provided in accordance with the NMDS specifications as published in the *National Health Data Dictionary Version 8.0* (i.e. whether the NHDD definition and domain values were used);
3. whether it was reported for every birth (scope).

The overall scope of data provided by states and territories was also assessed, that is, whether data were provided for all births.

## Evaluation of utility

In order for an NMDS to be effective, the information collected should be relevant and appropriate to its purpose. Therefore the aim of evaluating the utility of the NMDS is to get an understanding of whether the data collection suits current requirements such as informing policy development and reporting on performance. If the NMDS does not suit the requirements of data providers and/or data users, the data will not be collected in a consistent manner and will not be usable. If these stakeholders do not believe particular data elements are important and/or useful, these data elements could be removed from the NMDS. If a data element is considered highly important and highly useful, it should remain unchanged. However, if a data element is considered to be highly important, but not useful, it may be a function of the way it is defined, in which case it needs to be modified through data development.

In order to evaluate the utility of the NMDS, the NPSU consulted with data providers and users of the NMDS specifications and NMDS-based data through a comprehensive survey developed for this purpose.

The survey sought the views of users of the NMDS, either as a tool for collection of data or as a specification of data for analysis, on its usefulness and whether it suits their current requirements. Specific questions were asked about the users and uses of the NMDS specifications and NMDS-based data, including individual data elements and data element concepts; the utility of the NMDS as a whole and of individual data elements; and areas for development including modifications to data elements, new data elements or changes to scope. Although specific views were sought, additional comments and recommendations, or any other input that could assist the evaluation, were encouraged.

The survey sought comments on the most recent version of the *National Health Data Dictionary*, Version 12 (NHDC 2003), as the data currently being collected are based on this version. It was thought essential that user comments be based on current data elements; therefore, any proposed revisions or data development would not duplicate that previously done.

Information on the National Health Information Agreement processes for changing NMDS items was attached to the survey so that respondents understood that changing the NMDS would not be a trivial exercise, and that, for example, business cases would be necessary for most proposed changes. A copy of the survey is included in Appendix A.

The survey was sent by post to 28 organisations or sections within organisations, including state/territory data providers, AIHW users, and other data users. The survey was posted in August 2003 for return by 26 September 2003. A list of survey recipients is included in Appendix B and C.

## **Recommendations for data development**

The results of the compliance evaluation and the evaluation of utility have identified priorities for future development of the NMDS and have formed the basis for the recommendations to the NHIG presented in this report. Recommendations have been made in consultation with the NPDDC and state and territory data providers, keeping in mind the assessment criteria for the development of national minimum data sets approved by the NHIG, such as the fit with national strategic directions and the likely benefits at the national level. Where recommendations involve the inclusion of new data elements or the revision of current data elements, the NPSU, in consultation with the states and territories and other stakeholders, will consider them within data development work program planning and, as appropriate, work towards developing submissions including detailed background information to be considered by the Health Data Standards Committee (HDSC), the Statistical Information Management Committee (SIMC) and the NHIG.

# **3 Evaluation of utility**

This chapter describes the results from the review of utility, a consultation process involving a survey of data providers and users. Information is presented on the users of the NMDS, the uses of the NMDS, the utility of the NMDS and individual data elements, that is the extent to which they are perceived as important and useful, and possible areas for data development. Detailed comments provided by respondents on individual data elements are included in Chapter 5 of this report.

## **Respondents**

A total of 22 responses to the survey were received (Appendix B). In order to allow effective interpretation of the survey results, respondents were asked to indicate whether they were responding on behalf of themselves, on behalf of their unit or section within their organisation or on behalf of their organisation as a whole. The majority of respondents were responding on behalf of their unit or section within their organisation (Table 3.1).

**Table 3.1: Respondent types**

<b>Respondent</b>	<b>Number</b>
On behalf of themselves	4
On behalf of their unit or section within an organisation	11
On behalf of their organisation	7
<b>Total</b>	<b>22</b>

In order to gain an understanding of the types of organisations that use the NMDS specifications and NMDS-based data, respondents were asked to indicate from a list of 15 user groups (or identify additional user groups) the main user group to which they belonged. A list of the user groups is presented in Question 1.1 of the survey (Appendix A).

The main user groups identified through the survey were the state and territory health authorities which collect and provide the NMDS data for national collation, public hospitals, the Australian Institute of Health and Welfare and universities/research organisations (Table 3.2). All state and territory health authorities provided responses to the survey and were able to provide comments from a data collection/provider perspective.

Responses were received from three units within the AIHW, crossing the divisions of Health, Welfare, and Resources.

Other respondents included the Australian Bureau of Statistics and one private hospital. Unfortunately the respondents did not represent the whole range of users of

the data, as there are a number of other user groups including government departments, interest groups and students.

## Uses of the NMDS specifications and NMDS-based data

The survey sought information from respondents about current use of the NMDS specifications and NMDS-based data. Respondents were asked questions relating to the purpose for which they use the NMDS specifications or NMDS-based data, how they access NMDS specifications and NMDS-based data, their overall knowledge of the NMDS specifications and NMDS-based data, and their frequency of use.

### Purpose

In order to gain an understanding of use of the NMDS specifications and NMDS-based data, respondents were asked to indicate from a list of nine purposes (or identify additional purposes) the three most common purposes for which they use the NMDS specifications and/or NMDS-based data. A list of common uses for the NMDS specifications and/or NMDS-based data is presented in Question 2.1 of the survey (Appendix A).

The four most common purposes for using the NMDS specifications and/or the NMDS-based data identified by respondents were:

1. statistical reporting
2. epidemiological research
3. comparisons and benchmarking
4. collection and reporting of NMDS-based data.

The purposes identified by respondents tended to vary depending on their user group (Table 3.2). State and territory health authorities reported a large range of uses for the NMDS specifications and NMDS-based data, including:

- statistical reporting
- epidemiological research
- comparisons and benchmarking
- collection and reporting of NMDS-based data
- planning and monitoring health resources
- software development.

Other purposes for which the NMDS specifications and NMDS-based data are being used which had not been specified in the survey were:

- teaching
- monitoring pregnancy outcomes in state/territory.

## **Level**

The majority of respondents indicated that they used the NMDS-based data at the state/territory level, followed by the national level. Respondents from the AIHW and other research organisations were the main users of national-level data. State and territory health authorities most commonly used the data at the state/territory level, with some indicating they also used data for a hospital group or for one hospital only.

## **Access to NMDS specifications**

The most common sources used by respondents to access the NMDS specifications overall were the NPSU's data specifications and state/territory data specifications. These were followed by the *National Health Data Dictionary* publication, the *National Health Data Dictionary* publication online and the Knowledgebase.

## **Source of NMDS-based data**

The most common source of NMDS-based data that respondents use was the NPSU's *Australia's Mothers and Babies* publication. State and territory health authorities identified their state or territory hospital perinatal database as the most common source of NMDS-based data they use, followed by state or territory publications. NPSU publications, such as *Congenital Malformations Australia*, were also a common source of NMDS-based data identified by respondents.

**Table 3.2: Purposes for which the NMDS specifications and NMDS-based data are being used, by user group**

User group	Plan/ monitor state/ territory health resources	Compare/ benchmark	Health services research	Epidemiological research	Statistical reporting	Facility planning	Collect/ report NMDS-based data	Casemix & classification development	Software development
State or territory health authority	✓	✓	✓	✓	✓	✓	✓	✓	✓
Other state or territory government department									
Commonwealth Department of Health and Ageing									
Other Commonwealth government department									
Australian Institute of Health and Welfare				✓			✓		
Public hospital			✓	✓	✓	✓	✓	✓	✓
Private hospital									
Other health service provider					✓				
University or other research organisation	✓		✓						
Private planning consultant									
Clinical equipment/therapeutic device company									
Pharmaceutical company									
Software developer									
Interest group									
Student									

## **Knowledge and frequency of use**

Most respondents indicated that they were familiar with the NMDS specifications and/or the NMDS-based data (Table 3.3). Respondents from the state and territory health authorities were more likely to indicate that they were very familiar with the NMDS specifications and/or the NMDS-based data, while those from elsewhere generally indicated they were familiar. Respondents were more likely to be familiar with the NMDS-based data than the NMDS specifications, which may be related to the less frequent use of the NMDS specifications by respondents compared to the NMDS-based data.

**Table 3.3: Respondents' rating of overall knowledge of the NMDS specifications and NMDS-based data**

<b>Knowledge</b>	<b>NMDS specifications</b>	<b>NMDS-based data</b>
Very familiar	6	6
Familiar	9	11
Unfamiliar	6	3
Not answered	1	2
<b>Total</b>	<b>22</b>	<b>22</b>

Most respondents indicated that the NMDS specifications and NMDS-based data were used on an occasional basis; however, some also used the specifications on a daily or weekly basis (Table 3.4). The use of the NMDS specifications and NMDS-based data by respondents from the state and territory health authorities ranged from daily to occasionally, with most respondents indicating that they used the NMDS-based data more often than the specifications. Respondents from other organisations most commonly indicated that they used both the NMDS specifications and the NMDS-based data occasionally.

**Table 3.4: Respondents' rating of their frequency of use of the NMDS specifications and NMDS-based data**

<b>Frequency</b>	<b>NMDS specifications</b>	<b>NMDS-based data</b>
Daily	2	3
Weekly	2	4
Monthly	2	3
Occasionally	8	6
Never	4	3
Not answered	4	3
<b>Total</b>	<b>22</b>	<b>22</b>

## **Utility**

The main purpose of the survey was to gain an understanding of whether the NMDS is useful and whether it suits the current requirements of users. In order to assess the utility of the NMDS, respondents were asked to rate the importance and usefulness of the NMDS overall and each individual data element, and to indicate which data elements should remain unchanged, which should be modified and which deleted.

When assessing importance, respondents were asked to think of how significant they believe the NMDS and each data element are to a national collection of data on births. When assessing usefulness, respondents were asked to keep in mind whether the NMDS and each data element suit their current requirements. Importance could be rated as 'Not important', 'Important', 'Highly important' or 'Unsure'. Usefulness could be rated as 'Not useful', 'Useful', 'Highly useful' or 'Unsure'.

If all respondents think a data element is 'Highly important' and 'Highly useful', it should remain unchanged. However, if respondents indicate that a data element is 'Highly important', but 'Not useful', it may be a function of the way it is defined, in which case it needs to be modified.

Table 3.5 provides respondents' ratings of the importance and usefulness of the NMDS and individual data elements and concepts. It is important to note that three respondents completed Sections 1 and 2 of the survey only, and did not complete the remainder due to their lack of familiarity with the data and/or data specifications. Of respondents who did complete this section, not all provided a rating for every data element; therefore, the frequencies will not add to the total number of respondents (19) for every data element.

Ninety-five per cent of respondents who provided a rating for the importance of the NMDS overall rated it as either important (11%) or highly important (84%), and 89% rated it as either useful (32%) or highly useful (58%). Only 5% did not think the NMDS was useful. A further 5% were unsure of its importance and 5% of its usefulness.

Two respondents commented that the Perinatal NMDS is important for international comparisons and to assess changes over time. The few concerns raised with the NMDS overall were that it is limited, should be standardised, and that it is not as useful as it could be. The comment was made that there are many more data items which are collected by all states and territories and provided to the NPSU, that are included in the NHDD but have not been formally incorporated into the NMDS. It was pointed out that the perinatal data are collected and provided in calendar years, not financial years as the NMDS states.

**Table 3.5: Respondents' rating of the importance and usefulness of the NMDS and individual data elements and data element concepts**

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<b>Perinatal NMDS</b>		2	16	1	1	6	11	1
<b>Data elements included</b>								
Actual place of birth	1	5	13		1	7	10	1
Birth order		5	14		1	6	11	1
Birth plurality		2	17		1	3	14	1
Country of birth	1	5	13		1	5	12	1
Date of birth	1	4	14		1	4	14	
Establishment identifier	2	3	13	1	2	3	12	2
First day of the last menstrual period	6	7	5	1	6	8	4	1
Gestational age		2	16	1		3	15	1
Indigenous status		2	17			4	15	
Infant weight, neonate, stillborn			19				19	
Method of birth			19			1	18	
Onset of labour		2	17		1	3	15	
Person identifier		6	8	5		6	8	5
Separation date	1	5	11	2	1	4	12	2
Sex		3	16			3	16	
State/Territory of birth		3	15	1		3	15	1
Status of the baby		1	18			3	16	
<b>Supporting data elements and data element concepts</b>								
Birthweight	1		17	1	1		16	1
Establishment number	1	7	9	2	1	7	8	2
Establishment sector	1	8	6	2	1	9	5	2
Gestational age		4	14	1		3	15	1
Live birth			16	2			16	2
Neonatal death			18			1	17	
Neonate			15	1		1	15	1
Perinatal period		1	16	1		2	16	1
Region code	1	5	7	5	1	5	7	5
State/Territory identifier		4	13	1		4	12	2
Stillbirth (fetal death)		2	15	1		1	15	1

# Data development

Respondents were asked their views on possible areas for development of the NMDS, including possible changes to the scope, or any other priorities for definitional development. The views of respondents are summarised in this section.

## Scope

The scope of the Perinatal NMDS as published in the *National Health Data Dictionary* is:

All births in Australia in hospitals, birth centres and the community. The data set includes information on all births, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.

One respondent commented that the wording of the Perinatal NMDS scope should be changed to include all live births regardless of gestational age. The suggestion was: 'The scope of this minimum data set is all births in Australia in hospitals, birth centres and the community. The data set includes information on all live births, and all stillbirths of at least 20 weeks gestation and/or 400g birth weight.'

A further comment was that while the Perinatal NMDS is sufficient for broad national health reporting, it needs to be enhanced for epidemiological health research.

## Priorities for data development

It was seen as a priority for data development to have a stable set of quality data. The importance of providing more than just a summary of the numbers of births and outcomes for the mother and baby was noted. One respondent stated that they would not like to see any of the current items removed from the NMDS. A general comment was that the NMDS should encompass more areas than it does currently, and that the addition of further items would be beneficial.

It was noted that the NPSU should only request data elements using the data domains published in the NHDD. It was seen as a priority to add perinatal-related NHDD items to the NMDS that are already being provided by the states and territories. It was also seen as a priority to develop new items for the NMDS that include risk factors and outcome indicators, such as smoking, previous caesarean sections, and breastfeeding. A further recommendation was that a more formal process be developed for seeking agreement for the addition of new items to the NMDS, in terms of an agreed plan, documentation and signatures of agreement.

One of the issues which emerged as a priority was the need to review and improve existing NMDS items, including removing items that are not used or are of poor quality. More specifically, two respondents recommended that 'First day of the last menstrual period' be removed or phased out, and replaced with a data element that is more accurately collectable, such as 'Estimated date of confinement'.

Another priority suggested was to ensure that when a maternity item is written, it is not ambiguous, and that clinicians are able to document and interpret information in the same way. One respondent recommended phasing out the terms 'induction' and 'augmentation', and replacing them with 'spontaneous uterine activity' and 'obstetric intervention'. It was thought important to standardise definitions and reportable occurrences across all states and territories.

Two state/territory respondents commented that baby-level items should be attributed to each baby of a multiple, and not to the mother or the first baby of a multiple only. An example of this is 'Method of birth', where currently one method is recorded for each mother, but not for each baby. It was suggested that homebirths, babies 'born before arrival' and mothers admitted post delivery should be identified and treated separately from admitted mothers.

Many of the data elements include a *Not stated* option. It was suggested that, for data quality reasons, this should not be offered as an input variable but should be used for output only if the field is left blank.

Other priorities mentioned were the need to include models of care and items on clinical quality of care. It was suggested that the future of the NMDS should take into account the forthcoming recommendations of the National Maternity Data Collaboration. The introduction of defined performance indicators nationally was seen as another priority.

## **Persons who should be consulted for future data development**

Most respondents identified a wide range of stakeholders who should be consulted in relation to data development; however, it is seen as essential to consult especially with those who are involved in the collection of the data.

Stakeholders identified by respondents included:

- state and territory health authorities, including data providers
- state and territory perinatal epidemiology units
- state and territory perinatal, infant and maternal mortality or morbidity committees
- state and territory representatives on the Health Data Standards Committee (HDSC)
- content experts related to data review and development
- current data users and potential data users
- health information services coders
- health managers
- clinicians, obstetricians and midwives
- maternity units
- epidemiologists
- women, consumers and consumer groups

- a sample of all institutions who utilise the *Australia's Mothers and Babies* report.

And more specific organisations and committees such as the:

- Australian Institute of Health and Welfare (AIHW)
- Commonwealth Department of Health and Ageing
- National Perinatal Data Development Committee (NPDDC)
- OBSTET Consortium (for and on behalf of NSW Health)
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG).

## **Other issues raised by respondents**

Other issues raised by respondents tended to be broader than comments on the NMDS and are probably outside the scope of this evaluation. They are included here for completeness.

It was proposed that the representational layout of all date data elements in the NHDD be changed from eight characters to ten characters. That is, the day, month and year should be separated by dots or dashes, in order to allow for direct importing and exporting of the data from a database application. It was also suggested that invalid dates be left blank to allow for storage in a 'date' format.

One respondent thought illicit drug dependency was an important issue due to the worldwide trend of increasing drug use by those of childbearing age. It was suggested that a feasibility study involving linkage of the perinatal data with the Alcohol and Other Drug Treatment Services NMDS would give some indication of whether Australia is following this trend.

Other data linkage work was recommended. It was suggested that the Perinatal NMDS data be linked with hospital morbidity data in order to look at comorbidities and postnatal conditions for mothers and babies. Linkages with death data were also thought to be important for monitoring outcomes.

There was concern from one jurisdiction regarding the fact that the NPSU requests data items from the states and territories that are not part of the Perinatal NMDS. It was felt that the data extract sent to NPSU should not exceed the data items specified in the NMDS.

There appeared to be confusion among several data providers and users regarding use of the Knowledgebase. It was suggested that the Knowledgebase needs to be more user friendly, so that the Perinatal NMDS data elements and concepts, and their definitions, can be accessed more easily.

It was recommended that the NPSU consider setting up more easily accessible data, such as interactive data cubes on the AIHW web site.

# 4 Compliance evaluation

## National summary

### Scope

The Perinatal National Minimum Data Set (NMDS) is a specification for data that are collected on all births in Australia in hospitals, birth centres and the community. It includes both live and stillbirths, of at least 20 weeks gestation or 400g birthweight. Data are collected from patient administrative and clinical record systems and forwarded to the relevant state or territory health authority on a regular basis. Data for each year ending 31 December are then provided to the Australian Institute of Health and Welfare (AIHW) National Perinatal Statistics Unit (NPSU) for national collation, on an annual basis.

This evaluation examines the 2000 data provided by the states and territories as it compares to the *National Health Data Dictionary* (NHDD) Version 8.0 (AIHW 1999). This version of the NHDD was current at the beginning of the data collection period (1 January – 30 June 2000).

### Use of national standard definition, domain values and NMDS scope

This is a national summary of the information to be presented in more detail on the following pages. Of the 21 data elements in the NMDS, the national standard definition was used for 15 (71%) data elements by all states and territories for which the data elements were provided. The national standard domain values were used for 8 (38%) data elements by all jurisdictions for which the data elements were provided. For 11 (52%) of the data elements, data were provided for all reported births. There were only 6 (29%) data elements for which all jurisdictions used the national standard definition and domain values and provided it for all reported births (Table 4.1).

**Table 4.1: National summary of the use of the *National Health Data Dictionary* definition and domain values and NMDS scope**

Data element	NHDD definition used?	NHDD domain values used?	Provided for all* reported births?
Actual place of birth	Yes	No	Yes
Birth order	Yes	Yes	Yes
Birth plurality	Yes	Yes	Yes
Country of birth	Yes	No	No
Date of birth (mother)	Yes	No	Yes
Date of birth (baby)	Yes	No	Yes
Establishment identifier—State identifier	N/A	N/A	No
Establishment identifier—establishment sector	N/A	N/A	No
Establishment identifier—region code	N/A	N/A	No
Establishment identifier—establishment number	Yes or N/A	Yes or N/A	No
First day of the last menstrual period	Yes or N/A	No or N/A	No
Gestational age	Yes	Yes	Yes
Indigenous status	Yes	No	No
Infant weight, neonate, stillborn	Yes	Yes	No
Method of birth	Yes	No	Yes
Onset of labour	Yes	Yes	No
Person identifier	Yes	Yes	Yes
Separation date	Yes or N/A	No or N/A	No
Sex	Yes	Yes	Yes
State/Territory of birth	Yes	Yes	Yes
Status of the baby	Yes	No	Yes

\* More than about 99.5% of reported births.

*Note:* For the NHDD definition and domain values, 'Yes' indicates compliance by all jurisdictions and 'No' indicates that not all jurisdictions were compliant. N/A = not applicable.

The measure of whether the data element was provided for all reported births has been reported as 'Yes' in the tables summarising this information in this section of the report and on the sections on each data element, if the data were missing or reported as 'not reported' for no more than 0.5% of separations. The text accompanying the summary tables in the sections on the data elements details situations in which the data were missing for more than 0.5% of records.

## State and territory summary

The state and territory summary provides information on the number and percentage of data elements for which the *National Health Data Dictionary* definition and domain values were used and the number and percentage of data elements which were reported for all births. Items which were not requested by the NPSU or

were requested incorrectly are excluded from Table 4.2; therefore, the total number of items assessed is 16. Out of the states and territories, Victoria, Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory all had equally high use of the *National Health Data Dictionary* definition for reporting data elements (100%). The jurisdictions with the highest use of the *National Health Data Dictionary* domain values were Western Australia and the Australian Capital Territory (100%). Victoria, Queensland and the Australian Capital Territory provided data elements according to the NMDS scope for almost all births (94%) (Table 4.2).

**Table 4.2: State and territory summary of the use of the *National Health Data Dictionary* definition and domain values and NMDS scope**

State/territory	NHDD definition used?		NHDD domain values used?		Provided for all* reported births?	
	Number	Per cent	Number	Per cent	Number	Per cent
NSW	15	94	15	94	14	88
Vic	16	100	13	81	15	94
Qld	15	94	13	81	15	94
WA	16	100	16	100	13	81
SA	13	81	11	69	13	81
Tas	16	100	14	88	11	69
ACT	16	100	16	100	15	94
NT	16	100	11	69	13	81
<b>Total</b>	<b>123</b>	<b>96</b>	<b>109</b>	<b>85</b>	<b>109</b>	<b>85</b>

\* More than 99.5% of reported births.

*Note:* The following data items, which were not requested correctly by the NPSU, have been excluded from the totals: 'State identifier', 'Establishment sector', 'Region code', 'Method of birth' and 'Status of the baby'.

## Assessment of individual data elements

This section reports on the assessment of compliance for each data element in the Perinatal NMDS reported by states and territories for 2000. It details states' and territories' use of the national standard, domain values and NMDS scope and provides details of the use of non-standard *National Health Data Dictionary* definitions and domain values and non-standard use of scope. Information is also provided on mapping required from state and territory data sets to comply with the national standard domain values, and any additional information or comments from states and territories to assist in the evaluation.

A number of data elements were non-compliant with the Perinatal NMDS specifications for 2000. The reasons given included concerns about confidentiality and legislative restrictions. These concerns are applied differently across jurisdictions and persist despite data being used for population-based reporting.

The order of data elements presented in this section is the same as in Table 4.1.

## Data Element Name: Actual place of birth

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000003	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> The actual place where the birth occurred.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes			No	Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes			No	Yes	
ACT	Yes		Yes		Yes	
NT	Yes			No	Yes	

### Details of use of non-standard NHDD definition and domain values:

Most states and territories used the NHDD definition and domain values. Victoria and Tasmania provided the data in the format of *1 Hospital, 2 Birth centre, 3 Home, 4 Born before arrival, 8 Other, 9 Not stated*. This is the format in which the NPSU requested this item for data prior to 2000. The Northern Territory provided this item in the format of *1 Hospital, 3 Remote community health centre, 4 Home, 8 Other, 9 Not stated*. There are no birth centres in the Northern Territory.

### Details of use of non-standard NMDS scope:

Not applicable. 'Actual place of birth' was provided for all reported births in each state/territory.

**Was mapping required from state and territory data sets?**

The Victorian, Tasmanian and Northern Territory data were mapped to be consistent with the other states and territories. ‘Born before arrival’ births were recoded to *8 Other*, as were ‘Remote community health centre’ births from the Northern Territory.

**Additional information:**

Not applicable.

## Data Element Name: Birth order

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000019	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> The order of each baby of a multiple birth.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values were used by all states and territories.

### Details of use of non-standard NMDS scope:

Not applicable. 'Birth order' was provided for all reported births in each state/territory.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Not applicable.

## Data Element Name: Birth plurality

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000020	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> The total number of births resulting from this pregnancy.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	Yes	Yes	Yes
Vic	Yes	Yes	Yes
Qld	Yes	Yes	Yes
WA	Yes	Yes	Yes
SA	Yes	Yes	Yes
Tas	Yes	Yes	Yes
ACT	Yes	Yes	Yes
NT	Yes	Yes	Yes

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values were used by all states and territories.

### Details of use of non-standard NMDS scope:

Not applicable. 'Birth plurality' was provided for all reported births in each state/territory.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Although Victoria were compliant with the NHDD definition, domain values and scope for 'Birth plurality', they were not compliant with the Guide for Use. The Guide states that 'fetuses compressed in the placenta at 20 or more weeks are excluded'; however, Victoria does include these fetuses.

## Data Element Name: Country of birth

Evaluation NMDS: Perinatal	Other NMDSs: Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000035	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> The country in which the person was born.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes			No	Yes	
WA	Yes		Yes			No
SA	Yes		Yes		Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes			No	Yes	

### Details of use of non-standard NHDD definition and domain values:

The data domain specified in the NHDD Version 8.0 was the *Australian Standard Classification of Countries for Social Statistics* (ASCCSS).

All states and territories, except for Queensland and the Northern Territory, reported 'Country of birth' using the ASCCSS. Queensland collected 'Country of birth' using the ABS ASCCSS classification; however, in order to confidentialise data for reporting purposes this item was provided to the NPSU in previously agreed groupings. The codes provided were 2-digit codes, representing 18 countries or groups of countries, as well as other and unknown categories. Mappings for these groupings were provided with the extract.

The Northern Territory used the *Standard Australian Classification of Countries* (SACC), which is specified in the current data dictionary and the two previous editions (Versions 10, 11 and 12), but was not current at the time of data collection.

A data domain value of 9999 was reported in Western Australia for 1,294 births (5.1%). This code is not valid in ASCCSS; however, it is a value NPSU requests for where 'Country of birth' is unknown. Small numbers of 1-digit supplementary codes for inadequate data, including 1, 2, 3 and 4, were recorded in New South Wales and Western Australia, and a larger amount in the Northern Territory (1.0%).

#### **Details of use of non-standard NMDS scope:**

There was a relatively large number of missing values for 'Country of birth' in Western Australia (5.1%). This jurisdiction was the only one to use the domain 0 *Inadequately described*, which is valid in ASCCSS.

#### **Was mapping required from state and territory data sets?**

Queensland provided mappings for the agreed 'Country of birth' groupings, and the data were mapped to be consistent with the ASCCSS codes. Data from the Northern Territory were mapped from SACC to ASCCSS using the ABS concordance.

#### **Additional information:**

As of 1 July 2001, the Country of birth classification has changed to the *Standard Australian Classification of Countries* (SACC) (from NHDD Version 10). There appears to be confusion among the states and territories regarding which version of the data dictionary to use. That is, some jurisdictions are using the current data dictionary (Version 12) definitions and data domains to provide data from two years before, when an earlier version of the NHDD would have been current. This is particularly important for this data element, as it is one of the few Perinatal NMDS items that have changed since the NMDS started in 1997.

## Data Element Name: Date of birth (mother)

Evaluation NMDS: Perinatal	Other NMDSs: Community mental health care Health labour force Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000036	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> The date of birth of the person.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes			No	Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes			No	Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes			No	Yes	

### Details of use of non-standard NHDD definition and domain values:

All states and territories, excluding Victoria, South Australia and the Northern Territory, used the NHDD date format. Victoria and the Northern Territory provided full dates; however, the codes were reversed (i.e. YYYYMMDD). South Australia provided the year of birth only (i.e. 9999YYYY), and these dates were recoded to 99999999.

**Details of use of non-standard NMDS scope:**

Although South Australia provided the 'Date of birth' of mother for all reported births, the dates were incomplete, therefore 100% were recorded as missing.

**Was mapping required from state and territory data sets?**

The dates for Victoria and the Northern Territory had to be reversed. Dates from South Australia could not be used, and were entered as 99999999.

**Additional information:**

South Australia does not provide the full date of birth for reasons of confidentiality; however, mother's age is provided. South Australian legislation prevents the release of identifiable data from its perinatal collection.

## Data Element Name: Date of birth (baby)

Evaluation NMDS: Perinatal	Other NMDSs: Community mental health care Health labour force Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000036	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> The date of birth of the person.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes			No	Yes	
WA	Yes		Yes		Yes	
SA	Yes			No	Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

All states and territories, excluding Queensland and South Australia, used the NHDD date format. For Queensland, almost all of the dates of birth were provided as the 1st of the month. South Australia also provided the month and year of birth only (i.e. 99MMYYYY).

**Details of use of non-standard NMDS scope:**

Not applicable. 'Date of birth (baby)' was provided for all reported births in each state/territory.

**Was mapping required from state and territory data sets?**

Not applicable.

**Additional information:**

Queensland legislation currently prevents the release of identifiable data from its perinatal data collection. A confidentialised date of confinement indicating the first day of the month and year of the actual confinement date is calculated for all perinatal records. Date fields supplied to the NPSU are altered (confidentialised) in line with the revised confinement date so as to retain the original relativity, that is, the number of days between any two related dates remains the same.

South Australia does not provide the full date of birth for reasons of confidentiality. South Australian legislation also prevents the release of identifiable data from its perinatal collection.

## Data Element Name: Establishment identifier—State identifier

Evaluation NMDS: Perinatal	Other NMDSs: Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000050	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b>  All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> Identifier for the establishment in which episode or event occurred. Each separately administered health care establishment to have a unique identifier at the national level. Establishment identifier is a composite data element and is a concatenation of State identifier, Establishment sector, Region code and Establishment number.  <b>State identifier</b> An identifier for State or Territory (Knowledgebase ID: 000380, Version number 2).			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	N/A	N/A	No
Vic	N/A	N/A	No
Qld	N/A	N/A	No
WA	N/A	N/A	No
SA	N/A	N/A	No
Tas	N/A	N/A	No
ACT	N/A	N/A	No
NT	N/A	N/A	No

### Details of use of non-standard NHDD definition and domain values:

The NPSU did not request 'State identifier', therefore, none of the states or territories provided data for this item.

### Details of use of non-standard NMDS scope:

Not applicable.

**Was mapping required from state and territory data sets?**

Not applicable.

**Additional information:**

'State identifier' was not requested or provided; however, 'State/Territory of birth' was provided. Although these two items should be the same in most instances, 'State identifier' was not provided separately.

## Data Element Name: Establishment identifier—Establishment sector

Evaluation NMDS: Perinatal	Other NMDSs: Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000050	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> Identifier for the establishment in which episode or event occurred. Each separately administered health care establishment to have a unique identifier at the national level. Establishment identifier is a composite data element and is a concatenation of State identifier, Establishment sector, Region code and Establishment number. Establishment sector A section of the health care industry (Knowledgebase ID: 000379, Version number 2).			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	N/A		N/A			No
Vic	N/A		N/A			No
Qld	N/A		N/A			No
WA	N/A		N/A			No
SA	N/A		N/A			No
Tas	N/A		N/A			No
ACT	N/A		N/A			No
NT	N/A		N/A			No

### Details of use of non-standard NHDD definition and domain values:

The NPSU did not request 'Establishment sector', therefore, none of the states or territories provided data for this item.

### Details of use of non-standard NMDS scope:

Not applicable.

**Was mapping required from state and territory data sets?**

Not applicable.

**Additional information:**

'Patient classification at hospital of birth' (i.e. public/private) is collected and provided to the NPSU by all jurisdictions, although there are large numbers of missing values in New South Wales and Western Australia for this item. Patient status, however, can differ from hospital status (which is required for 'Establishment sector').

'Establishment sector' was requested for the first time in 2003, for the 2001 perinatal data, and will be requested on an ongoing basis by the NPSU. This will allow national analysis of interventions and outcomes by private and public hospital type.

## Data Element Name: Establishment identifier—Region code

Evaluation NMDS: Perinatal	Other NMDSs: Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000050	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> Identifier for the establishment in which episode or event occurred. Each separately administered health care establishment to have a unique identifier at the national level. Establishment identifier is a composite data element and is a concatenation of State identifier, Establishment sector, Region code and Establishment number.  <b>Region code</b> An identifier for location of health services in an area (Knowledgebase ID: 000378 Version number 2).			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	N/A		N/A			No
Vic	N/A		N/A			No
Qld	N/A		N/A			No
WA	N/A		N/A			No
SA	N/A		N/A			No
Tas	N/A		N/A			No
ACT	N/A		N/A			No
NT	N/A		N/A			No

### Details of use of non-standard NHDD definition and domain values:

According to the NHDD Version 8.0, domain values for this data element are as specified by the individual states and territories and there are no standard categories that have to be reported. The NPSU did not request 'Region code', therefore, none of the states or territories provided data for this item.

**Details of use of non-standard NMDS scope:**

'Region code' was not provided for any birth in any state or territory.

**Was mapping required from state and territory data sets?**

Not applicable.

**Additional information:**

The only information known about the location of establishments in the Perinatal Data Collection is the state or territory. 'Region code' was not requested because the NPSU does not have approval for conducting regional geographic analysis.

**Data Element Name: Establishment identifier—Establishment number**

Evaluation NMDS: Perinatal	<b>Other NMDSs:</b> Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000050	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b>  All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b>  Identifier for the establishment in which episode or event occurred. Each separately administered health care establishment to have a unique identifier at the national level. Establishment identifier is a composite data element and is a concatenation of State identifier, Establishment sector, Region code and Establishment number.  Establishment number  An identifier for establishment, unique within the State or Territory (Knowledgebase ID: 000377, Version number 2).			

**Use of National Standard definition, domain values and NMDS scope:**

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	N/A		N/A			No
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

**Details of use of non-standard NHDD definition and domain values:**

All states and territories, excluding South Australia, provided hospital codes for 'Establishment number'. Tasmania codes all private hospitals as 4444, for

confidentiality reasons. In addition to the standard NHDD domain values, most states and territories also use the code 8888 for non-hospital births (e.g. homebirths).

**Details of use of non-standard NMDS scope:**

Apart from South Australia, all jurisdictions provided either an 'Establishment number' (or private hospital code), or the code 8888 for all births.

**Was mapping required from state and territory data sets?**

Not applicable.

**Additional information:**

South Australia does not provide data for 'Establishment number' for reasons of confidentiality; however, it does provide data on hospital size according to the number of births per annum.

## Data Element Name: First day of the last menstrual period

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000056	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> Date of the first day of the mother's last menstrual period (LMP).			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	N/A	N/A	No
Vic	Yes	No	No
Qld	N/A	N/A	No
WA	Yes	Yes	No
SA	N/A	N/A	No
Tas	Yes	Yes	No
ACT	Yes	Yes	No
NT	Yes	No	No

### Details of use of non-standard NHDD definition and domain values:

New South Wales, Queensland and South Australia did not provide 'First day of the last menstrual period' to the NPSU. Both Victoria and the Northern Territory provided this item, but in the reversed date format (i.e. YYYYMMDD).

### Details of use of non-standard NMDS scope:

Of the five states and territories which provided this data item, all had large numbers of missing values. These included 57.8% (2,123) missing from the Northern Territory, 40.8% (2,404) from Tasmania, 26.4% (6,658) from Western Australia, 23.5% (14,678) from Victoria, and 15.6% (746) from the Australian Capital Territory.

### **Was mapping required from state and territory data sets?**

Dates from Victoria and the Northern Territory had to be reversed.

#### **Additional information:**

New South Wales explained that it is reluctant to provide this data element, as it is used by the NPSU to calculate gestational ages in conjunction with the baby's date of birth. It believes that this item is uncertain for the majority of mothers, and when used to calculate gestational age, it results in very different figures compared to the New South Wales state reports. New South Wales instead accepts the best clinical estimate of gestational age where the 'First day of the last menstrual period' is in doubt, or is inconsistent with the clinical condition of the baby. New South Wales indicated that it would provide this item in the future if the NPSU were to agree not to recalculate gestational ages.

Queensland legislation currently prevents the release of identifiable data from its perinatal data collection, therefore this item is not provided. The NPSU has previously agreed to receive 'Gestational age' in completed weeks (by clinical assessment) instead of 'First day of the last menstrual period'. Queensland indicated that it would be prepared to provide this item if it were confidentialised.

South Australia does not provide data for 'First day of the last menstrual period' for reasons of confidentiality.

## Data Element Name: Gestational age

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000060	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b>  All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b>  The estimated gestational age of the baby in completed weeks as determined by clinical assessment.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values used by all states and territories.

### Details of use of non-standard NMDS scope:

Not applicable. 'Gestational age' was provided for all reported births in each state/territory.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Not applicable.

## Data Element Name: Indigenous status

Evaluation NMDS: Perinatal	Other NMDSs: Community mental health care Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000001	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes			No		No
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

All states and territories, except Tasmania, used the NHDD domain values. Tasmania provided this item with only two domains – 1 *Indigenous* and 9 *Other*. There were 5,837 mothers assigned a value of 9, and it is unclear how many of these were non-Indigenous and how many were unknown or not stated.

**Details of use of non-standard NMDS scope:**

Around 99.0% (5,837) of births from Tasmania were in the *Other* category for Indigenous status. Although this category includes non-Indigenous mothers, it is likely that a large proportion of these mothers have an unknown/not stated Indigenous status. In its annual report for 2000, Tasmania reports 4,473 not stated responses for Indigenous status (75% of all mothers in 2000) (DHHS 2003).

The other states and territories had comparatively few, if any, not stated responses, but none more than 0.5% (Table 4.3).

**Table 4.3: Use of the 'Not stated' data domain by states and territories, excluding Tasmania**

State	Number	Per cent
NSW	50	0.1
Vic	0	0.0
Qld	10	0.0
WA	0	0.0
SA	0	0.0
ACT	6	0.1
NT	8	0.2

**Was mapping required from state and territory data sets?**

Not applicable.

**Additional information:**

Clearly, the data from Tasmania for this data element are not of high quality; however, Tasmania is actively pursuing improvements in the collection of Indigenous status data.

## Data Element Name: Infant weight, neonate, stillborn

Evaluation NMDS: Perinatal	Other NMDSs: Institutional health care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000010	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 3	
<b>Definition:</b> The first weight of the live born or stillborn baby obtained after birth, or the weight of the neonate or infant on the date admitted if this is different from the date of birth.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?	
NSW	Yes	Yes	Yes	
Vic	Yes	Yes	Yes	
Qld	Yes	Yes	Yes	
WA	Yes	Yes	Yes	
SA	Yes	Yes	Yes	
Tas	Yes	Yes		No
ACT	Yes	Yes	Yes	
NT	Yes	Yes		No

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition was used by all states and territories.

### Details of use of non-standard NMDS scope:

Both Tasmania and the Northern Territory had greater than 0.5% missing values for 'Infant weight, neonate, stillborn'. Tasmania had 0.7% (41) missing, while the Northern Territory had 0.6% (23) missing.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Not applicable.

## Data Element Name: Method of birth

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000093	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> The method of complete expulsion or extraction from its mother of a product of conception.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	Yes	No	Yes
Vic	Yes	No	Yes
Qld	Yes	No	Yes
WA	Yes	No	Yes
SA	Yes	No	Yes
Tas	Yes	No	Yes
ACT	Yes	No	Yes
NT	Yes	No	Yes

### Details of use of non-standard NHDD definition and domain values:

All states and territories provided all of the NHDD data domains. Apart from Queensland, all jurisdictions also provided an additional two categories to the NHDD data domains (which NPSU requests). These domains further divide caesarean sections into 6 *Elective caesarean section* and 7 *Emergency caesarean section*, thus making 4 *Caesarean section (unspecified)*.

Tasmania provided all of the correct NHDD categories and the additional two categories, but they were numbered differently: 1 *Spontaneous vaginal*, 2 *Caesarean section (unspecified)*, 3 *Elective caesarean section*, 4 *Emergency caesarean section*, 5 *Forceps*, 6 *Vaginal breech*, 7 *Vacuum extraction*, 8 *Other*, 9 *Not stated*. This is the format in which the NPSU requested this item for data prior to 2000.

**Details of use of non-standard NMDS scope:**

Not applicable. 'Method of birth' was provided for all reported births in each state/territory.

**Was mapping required from state and territory data sets?**

The 'Method of birth' categories for Tasmania were mapped to be consistent with the other states and territories.

**Additional information:**

Not applicable.

## Data Element Name: Onset of labour

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000113	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> Manner in which labour started.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes		Yes			No
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values used by all states and territories.

### Details of use of non-standard NMDS scope:

Around 2.1% (121) of births from Tasmania had a missing response for 'Onset of labour'.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Not applicable.

## Data Element Name: Person identifier

Evaluation NMDS: Perinatal	Other NMDSs: Community mental health care Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000127	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> Person identifier unique within establishment or agency.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values used by all states and territories at the collection level.

### Details of use of non-standard NMDS scope:

Not applicable. 'Person identifier' was provided for all reported births in each state/territory.

### **Was mapping required from state and territory data sets?**

Some jurisdictions provide duplicate mother records (and therefore Person identifiers), because a mother record is provided for every birth. This means that some mother records are deleted by the NPSU, due to multiple births.

### **Additional information:**

In addition to the identifier provided by the collection authorities, Victoria, Tasmania, the Australian Capital Territory and the Northern Territory also provide a unit record number for the mother, from the hospital. This data item, however, contains several missing values in each of these jurisdictions.

## Data Element Name: Separation date

Evaluation NMDS: Perinatal	Other NMDSs: Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000043	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 5	
<b>Definition:</b> Date on which an admitted patient completes an episode of care.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	Yes	Yes	No
Vic	Yes	Yes	Yes
Qld	Yes	Yes	Yes
WA	Yes	Yes	No
SA	N/A	N/A	No
Tas	Yes	Yes	No
ACT	Yes	Yes	Yes
NT	Yes	No	No

### Details of use of non-standard NHDD definition and domain values:

All states and territories, except for South Australia, provided this data item. The Northern Territory was the only jurisdiction which provided the data in a non-standard date format (i.e. YYYYMMDD).

### Details of use of non-standard NMDS scope:

New South Wales, Western Australia, Tasmania and the Northern Territory had greater than 0.5% not stated responses for 'Separation date'. Western Australia had 4.0% (1,008), New South Wales had 2.6% (2,267), Tasmania had 1.1% (67), while the Northern Territory had 0.7% (26) not stated.

It is important to note that a separation date will only be provided in cases where an admission has occurred. Home births and those occurring at free standing birth centres will not involve an admission and therefore a separation date will not be supplied.

**Was mapping required from state and territory data sets?**

Dates from the Northern Territory had to be reversed.

**Additional information:**

South Australia does not provide 'Separation date' for reasons of confidentiality. South Australia provides length of stay, therefore, it is not considered necessary to provide 'Separation date'.

## Data Element Name: Sex

Evaluation NMDS: Perinatal	Other NMDSs: Community mental health care Institutional health care Institutional mental health care Palliative care	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000149	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 2	
<b>Definition:</b> The sex of the person.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?		NHDD Domain Values used?		Provided for all reported births?	
NSW	Yes		Yes		Yes	
Vic	Yes		Yes		Yes	
Qld	Yes		Yes		Yes	
WA	Yes		Yes		Yes	
SA	Yes		Yes		Yes	
Tas	Yes		Yes		Yes	
ACT	Yes		Yes		Yes	
NT	Yes		Yes		Yes	

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values used by all states and territories.

### Details of use of non-standard NMDS scope:

Not applicable. 'Sex' was provided for all reported births in each state/territory.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Not applicable.

## Data Element Name: State/Territory of birth

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000155	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> The State/Territory in which the birth occurred.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	Yes	Yes	Yes
Vic	Yes	Yes	Yes
Qld	Yes	Yes	Yes
WA	Yes	Yes	Yes
SA	Yes	Yes	Yes
Tas	Yes	Yes	Yes
ACT	Yes	Yes	Yes
NT	Yes	Yes	Yes

### Details of use of non-standard NHDD definition and domain values:

Not applicable. NHDD definition and domain values used by all states and territories.

### Details of use of non-standard NMDS scope:

Not applicable. 'State/Territory of birth' was provided for all reported births in each state/territory.

### Was mapping required from state and territory data sets?

Not applicable.

**Additional information:**

Not applicable.

## Data Element Name: Status of the baby

Evaluation NMDS: Perinatal	Other NMDSs:	<b>Collection Year:</b> 2000	
		<b>Knowledgebase ID:</b> 000159	
		<b>NHDD version:</b> 8.0	
<b>Scope:</b> All births in Australia in hospitals, birth centres and the community, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.		<b>Version number:</b> 1	
<b>Definition:</b> Status of the baby at birth.			

### Use of National Standard definition, domain values and NMDS scope:

State	NHDD Definition used?	NHDD Domain Values used?	Provided for all reported births?
NSW	Yes	No	Yes
Vic	Yes	No	Yes
Qld	Yes	No	Yes
WA	Yes	No	Yes
SA	Yes	No	Yes
Tas	Yes	No	Yes
ACT	Yes	Yes	Yes
NT	Yes	No	Yes

### Details of use of non-standard NHDD definition and domain values:

All states and territories, except for the Australian Capital Territory, provided 2000 data for 'Status of the baby' using the following data domains: *0 Stillbirth, 1 Livebirth, 9 Not stated*. This is the format in which the data were requested by the NPSU. The Australian Capital Territory was the only jurisdiction which provided this data item according to the NHDD format (i.e. *1 Livebirth, 2 Stillbirth, 9 Not stated*).

### Details of use of non-standard NMDS scope:

Not applicable. 'Status of the baby' was provided for all reported births in each state/territory.

**Was mapping required from state and territory data sets?**

Data from the Australian Capital Territory were mapped to be consistent with the other jurisdictions.

**Additional information:**

For the 2001 perinatal data, the states and territories have been requested to provide this item using the correct NHDD domains.

# 5 Comments on data elements

This chapter brings together summary information on the utility and importance of the NMDS data elements, comments and suggestions from both the utility and compliance evaluations, and other comments obtained throughout the NMDS evaluation.

## Existing data elements

This section provides summary statistics for each individual data element obtained from the utility survey, as well as comments and recommendations for change from both the utility and compliance evaluations.

### Data elements included

#### Actual place of birth

Ninety-five per cent of respondents who provided a rating for the importance of this data element rated it as either important (26%) or highly important (68%), and 89% rated it as either useful (37%) or highly useful (53%). Five per cent rated it as not important and 5% as not useful. A further 5% were unsure of the usefulness of this data element.

Two respondents commented that the concept of designated birth centres has become less important and useful over the years. This is due to delivery suites becoming less clinical and more comfortable for mothers, and because 'team care' is becoming more widespread in hospitals. Another respondent suggested that the categories *Birth centre, attached to hospital* and *Birth centre, free-standing* be combined, as only one jurisdiction reported births in free-standing birth centres for 2000.

Several respondents commented that this item should be used in conjunction with 'Intended place of birth', in order to differentiate between intended homebirths and babies 'born before arrival' (BBAs). It was recommended that the item incorporate BBAs, as well as whether there was a qualified attendant at the birth. It was also suggested that community health centres, including health clinics in remote areas, be added as a separate category for this data element. These are currently included under *Other*.

#### Birth order

All respondents who provided a rating for the importance of this data element rated it as either important (26%) or highly important (74%), and 89% rated it as either useful (32%) or highly useful (58%). Five per cent rated it as not useful, and a further 5% were unsure of the usefulness of this data element.

There were only two comments regarding this data element. One respondent suggested that the item should distinguish between a singleton birth and the first of a multiple birth. This would enable the data item to stand alone, rather than having to be used in conjunction with 'Birth plurality'.

Another respondent suggested that the Guide for Use for this data element should address the birth order of multiple births where an intrauterine fetal death (IUFD) of at least one fetus occurs prior to 20 weeks gestation and/or 400g birthweight.

### **Birth plurality**

All respondents who provided a rating for the importance of this data element rated it as either important (11%) or highly important (89%), and 89% rated it as either useful (16%) or highly useful (74%). Five per cent rated it as not useful, and a further 5% were unsure of the usefulness of this data element.

Comments were made that 'Birth plurality' is a crucial data element, which is increasing in importance due to increases in the prevalence of assisted conception and multiple births, and the use of folate.

It was suggested that the Guide for Use for this item is confusing and that the loss of fetuses from multiple pregnancies is not collected in a meaningful or useful way. Another respondent commented that the Guide does not address intrauterine fetal deaths in multiple births that are of 20 weeks or more gestation and/or 400g birthweight, that remain in utero but are not compressed in the placenta.

### **Country of birth**

Ninety-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (26%) or highly important (68%), and 89% rated it as either useful (26%) or highly useful (63%). Five per cent rated it as not important and 5% as not useful. A further 5% were unsure of the usefulness of this data element.

The comment was made that 'Country of birth' is important because it reflects the changing demographics of Australia as a multicultural society. It was also stated that this data element is useful for appropriate culturally sensitive care.

It was recommended that it should be made clear that this data element concerns the mother. Another respondent commented that 'Country of birth' is not as useful as ethnicity.

### **Date of birth**

Ninety-five per cent of respondents who provided a rating for the importance of this data element rated it as either important (21%) or highly important (74%), and 95% rated it as either useful (21%) or highly useful (74%). Five per cent rated it as not important and 5% as not useful.

It was stated that 'Date of birth' is a very powerful item for linkage and validation purposes. One respondent commented that the baby's date of birth is important in

order to be able to examine the effects of seasonality on outcomes, but for the mother it is less important, and age may be sufficient.

### **Establishment identifier**

Eighty-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (16%) or highly important (68%), and 79% rated it as either useful (16%) or highly useful (63%). Eleven per cent did not think the data element was important and 11% not useful. A further 5% of respondents were unsure of its importance and 11% of its usefulness.

Several respondents gave reasons why 'Establishment identifier' is important, including for audit, linkage and services planning, to identify individual hospitals for state/territory purposes, and for appropriate comparison nationwide. It was noted that this item should be the same as that used in other data collections, in order to ensure the ability to link records at the patient level.

One respondent expressed concern, suggesting that the item is unnecessary for the Perinatal NMDS and that it could be derived from other fields such as hospital codes. It was not felt to be important to provide this data at a national level, as it is not seen as the NPSU's role to compare individual institutions.

The item 'Establishment identifier' is not requested by the NPSU, therefore, it is not provided by state and territories. Only one of the four components of this item—'Establishment number'—is provided. 'Establishment sector' was requested for the 2001 perinatal data. 'Region code' for the establishment is unnecessary for the purposes of the Perinatal NMDS.

A request was made to the AIHW National Data Development Unit for background information on the inclusion of this item in the Perinatal NMDS and the reasons behind it. There was insufficient time, however, for them to process the request prior to the completion of this report.

### **First day of the last menstrual period**

Sixty-three per cent of respondents who provided a rating for the importance of this data element rated it as either important (37%) or highly important (26%), and 63% rated it as either useful (42%) or highly useful (21%). Thirty-two per cent did not think the data element was important and 32% not useful. A further 5% of respondents were unsure of its importance and 5% of its usefulness.

All state/territory data providers and several other data users raised negative issues regarding 'First day of the last menstrual period' (LMP). Two state/territory respondents stated that the item is not used for reporting or any other purpose. Several respondents commented that this item is too often unknown or not provided. Also, the context does not allow for the now widespread use of ultrasound to estimate gestational age.

It was recommended that this item should be replaced by an Estimated Date of Confinement (EDC) data element. This item would be more reliable as it would allow for the different methods of calculating 'Gestational age'. The comment was made

that not all mothers have an LMP; however, all would have an EDC, whether it be derived from the first day of the last menstrual period, ultrasound or another method.

Several jurisdictions do not provide LMP and where the jurisdictions do provide this item, there are large numbers of missing values. Three state/territory respondents suggested that the item be deleted from the Perinatal NMDS. Another suggested that it would be best used only to crosscheck the calculation of gestation in conjunction with the baby's date of birth.

One respondent commented that 'First day of the last menstrual period' is useful for levels of perinatal care analysis and for record linkage at the state/territory level. Another described the item as the 'gold standard' for defining gestational age, and suggested that it is important to also collect information on whether the date is accurate or only an estimate.

### **Gestational age**

Ninety-five per cent of respondents who provided a rating for the importance of this data element rated it as either important (11%) or highly important (84%), and 95% rated it as either useful (16%) or highly useful (79%). Five per cent of respondents were unsure of its importance and 5% of its usefulness.

One respondent commented that 'Gestational age' is the most important determinant of neonatal outcomes. The item was considered to be useful when determined from early ultrasound.

Many respondents raised concerns about the method of calculation of gestational age. It was noted that the manner in which gestational age is clinically determined allows for a wide range of variation.

It was pointed out that the definition and context of this data element do not include the use of ultrasound for determining gestation, and that clinical assessment at delivery is usually only used if the ultrasound dates are uncertain.

One respondent suggested that the Guide for Use should clarify whether babies that die in utero at a gestation of less than 20 weeks, but are not delivered until a gestation of 20 weeks or later, are included in the scope of the Perinatal NMDS. The issue was also raised about which gestational age to record if the baby dies in utero at 20 weeks or more, but is not delivered until later. It was suggested that if the 'First day of the last menstrual period' was used to calculate gestational age in cases such as these, the older gestation would be recorded. If another, more accurate form of clinical assessment was used, the lesser gestation would be considered more accurate.

Another respondent outlined four methods of determining gestational age, each with varying accuracy. These are 'First day of the last menstrual period', dating of ultrasound before 20 weeks gestation, ultrasound after 20 weeks gestation, and clinical assessment after birth. It was suggested that either the ability to report all four calculations should be available, or the calculation method used should be recorded with the estimated gestational age.

### **Indigenous status**

All respondents who provided a rating for the importance of this data element rated it as either important (11%) or highly important (89%), and all rated it as either useful (21%) or highly useful (79%).

It was noted that this data element is important for monitoring the health and wellbeing, and the perinatal outcomes, of this population. One respondent added that 'Indigenous status' will remain an important item for as long as there is significant disparity in the health of Indigenous Australians.

Some respondents raised concerns about quality issues in relation to this data element. It was suggested that steps may need to be taken to ensure the meaningful completion of this item. It was also recommended that 'Indigenous status' should be specified as that of the mother and not of the baby.

It was noted that 'non-white' Christmas and Cocos Islanders should not be included as Aboriginal or Torres Strait Islanders. It was suggested that information on other ethnicities requiring additional health services should be collected for the mother, and perhaps for the baby too.

It was also noted that in the smaller states or territories reporting may only include two categories – *Indigenous* and *Non-Indigenous*.

### **Infant weight, neonate, stillborn**

All respondents who provided a rating for the importance of this data element rated it as highly important (100%), and all rated it as highly useful (100%).

It was noted that this is a crucial element in the data set, and that it is important to examine trends in birthweight in Australia. This item was also seen as an important determinant factor of neonatal outcomes.

One respondent recommended that birthweight and admission weight be collected separately, rather than in the same data element.

### **Method of birth**

All respondents who provided a rating for the importance of this data element rated it as highly important (100%), and 100% rated it as either useful (5%) or highly useful (95%).

There were many comments relating to this item. It was noted that 'Method of birth' is important for monitoring obstetric intervention, therefore, there needs to be continuing debate regarding the proportion of births which result from a normal vaginal birth, a vaginal operative delivery or a caesarean section.

It was suggested that the data domain *Spontaneous vaginal* should be renamed to *Spontaneous cephalic*. Another suggestion was to add the words (*non-breech*) after *Spontaneous vaginal*, since *Spontaneous vaginal* and *Vaginal breech* are not mutually exclusive.

It was recommended that the data domain *Caesarean section* be broken down into *Elective caesarean section* and *Emergency caesarean section*. Seven of the jurisdictions

already collect and provide the data in this way. Another suggestion was that *Caesarean section* be separated into *Caesarean section – labour* and *Caesarean section – no labour*.

It was suggested that the word 'delivery' in the context for this item be replaced with 'birth'. The question was raised about what methods of birth could be coded under *Other*, as all methods of birth are already covered in the data domains.

A suggested addition to the Guide for Use was the sentence: 'Where forceps are used to assist the extraction/delivery of the baby at caesarean section, code as *Caesarean section*'. Two respondents suggested that additional information on unsuccessful instrument application needs to be included in this item, such as failed forceps or failed vacuum extraction, followed by a different method of birth.

A more general comment was that 'Method of birth' should be based on all babies rather than mothers. It is possible for babies of multiple births to be born by different methods; however, currently the method of birth of the first baby only is recorded.

### **Onset of labour**

All respondents who provided a rating for the importance of this data element rated it as either important (11%) or highly important (89%), and 95% rated it as either useful (16%) or highly useful (79%). Five per cent did not think the data element was useful.

It was noted that this item is important for monitoring obstetric intervention. One respondent noted that there is variation in the use of the terms spontaneous and induction. Another stated that this item needs to be kept under review and the effects of onset of labour on method of birth, and maternal and perinatal morbidity, be monitored. It was suggested that the 'induced' domain be separated into *Induced – medical* and *Induced – surgical*. It was also recommended that, for consistency with other items, the *Not stated* category should be coded as 9 rather than 4.

One respondent suggested several new data domains covering various types and combinations of labour induction. It may be more useful to introduce the NHDD item 'Type of labour induction' (or an amended version of this item) into the Perinatal NMDS, rather than to incorporate an extensive range of options under 'Onset of labour'.

### **Person identifier**

Seventy-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (32%) or highly important (42%), and 74% rated it as either useful (32%) or highly useful (42%). Twenty-six per cent of respondents were unsure of its importance and 26% of its usefulness.

Some respondents thought this item to be highly important, for database linkage, to be able to correct errors in data received at various levels of reporting, and for editing purposes at the collection authority level.

Other respondents questioned why a national collection providing aggregate data would need a personal identifier, and commented that they were unsure of the utility

of this data element at a national level, except perhaps to clean the data. It was stated that the data quality for 'Person identifier' is variable, and also that privacy and confidentiality issues need to be addressed. Another respondent commented that a unique record number, rather than a unique person identifier, is more appropriate for NMDS purposes.

### **Separation date**

Eighty-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (26%) or highly important (58%), and 84% rated it as either useful (21%) or highly useful (63%). Five per cent did not think the data element was important and 5% not useful. A further 11% of respondents were unsure of its importance and 11% of its usefulness.

One respondent commented that 'Separation date' is especially important for record linkage at the state and territory level. Another stated that clarification of this item is required, to determine how to address home births and babies born before arrival. A further respondent stated that this item is not considered important, as length of stay can be provided instead.

### **Sex**

All respondents who provided a rating for the importance of this data element rated it as either important (16%) or highly important (84%), and all rated it as either useful (16%) or highly useful (84%).

It was noted that the influence of sex on neonatal outcomes and adult diseases is well known. Therefore this item was seen as important for outcome comparisons and future service planning.

### **State/territory of birth**

Ninety-five per cent of respondents who provided a rating for the importance of this data element rated it as either important (16%) or highly important (79%), and 95% rated it as either useful (16%) or highly useful (79%). Five per cent of respondents were unsure of its importance and 5% of its usefulness.

It was commented that this item is important for demographic distribution, for identification of the states and territories at a national level, and for services planning. One respondent suggested that an *Other* category be added for births that occur outside a state or territory, such as on a boat on the way to Australia.

### **Status of the baby**

All respondents who provided a rating for the importance of this data element rated it as either important (5%) or highly important (95%), and 100% rated it as either useful (16%) or highly useful (84%).

One respondent commented that it would be useful to differentiate between whether the stillbirths occurred prior to the onset of labour or during labour. Another suggested changing the data domains to the following: 1 *Live birth*, 2 *Stillbirth (fetal*

*death) – time of death unspecified, 3 Stillbirth prior to onset of labour, 4 Stillbirth during labour, 9 Not stated.*

## **Supporting data elements and data element concepts**

In general, there appeared to be confusion among survey respondents regarding the data element concepts. There were many questions raised regarding these items. Several respondents saw the concepts as data elements to be collected, and thus commented that the same data were being collected twice, for example for 'Infant weight, neonate, stillborn' (a data element) and 'Birthweight' (a data element concept). These types of comments are not included in this section. Some education of data providers and users about the Perinatal NMDS items and the NHDD may be useful in order to gain more valuable input in the future.

### **Birthweight**

The majority of respondents who provided a rating for the importance of this data element rated it as highly important (89%) and highly useful (89%). Five per cent did not think the data element was important and 6% not useful. A further 5% of respondents were unsure of its importance and 6% of its usefulness.

There were no relevant comments from respondents in relation to this data element concept.

### **Establishment number**

Eighty-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (37%) or highly important (47%), and 83% rated it as either useful (39%) or highly useful (44%). Five per cent did not think the data element was important and 6% not useful. A further 11% of respondents were unsure of its importance and 11% of its usefulness.

The comment was made that 'Establishment number' is a key item for national comparisons as well as having multiple uses at other levels. Others also stated that this item is important for comparative purposes and for data linkage.

One respondent commented that they were not aware of this information being used at a national level in the last 10 years. It was suggested that the title of this data element be changed to 'Establishment number – hospital code'. It was also noted that the Guide for Use should mention the use of leading zeros where establishment numbers are less than five.

### **Establishment sector**

Eighty-two per cent of respondents who provided a rating for the importance of this data element rated it as either important (47%) or highly important (35%), and 82% rated it as either useful (53%) or highly useful (29%). Six per cent did not think the data element was important and 6% not useful. A further 12% of respondents were unsure of its importance and 12% of its usefulness.

One respondent commented that this data element is important for comparison of demographics and outcomes. Another suggested that 'Establishment sector' can be derived from 'Establishment number', and should not be requested separately.

### **Gestational age**

Ninety-five per cent of respondents who provided a rating for the importance of this data element concept rated it as either important (21%) or highly important (74%), and 95% rated it as either useful (16%) or highly useful (79%). Five per cent were unsure of its importance and 5% of its usefulness.

The comment was made that the definition of 'Gestational age' is important in terms of monitoring increasing differences in practice, length of stay and some perinatal outcomes. It was suggested that ultrasound dates may need to be included in this definition as a method for measuring gestational age.

### **Live birth**

The majority of respondents who provided a rating for the importance of this data element concept rated it as highly important (89%), and as highly useful (89%). Eleven per cent were unsure of its importance and 11% of its usefulness.

One respondent raised concerns about this definition in relation to Apgar scores (a numerical score to evaluate the condition of the baby at 1 minute and 5 minutes after birth). It is possible for a baby to have an Apgar score of 0 at 1 minute, indicating a stillbirth, then to have a higher score at 5 minutes, meaning a live birth. It was suggested that some clarification is required in the definition of this data concept regarding the inclusion of these babies as live births.

A suggestion was made that the comments in the data element concept 'Stillbirth (fetal death)' should be added as comments in 'Live birth'. These relate to the definition of a live birth, and make it clear that there is no lower limit for gestational age or birthweight, despite it being unlikely that a live birth of less than 20 weeks gestation would survive.

One respondent commented that this data element concept should be cross referenced to the 'Neonatal death' concept.

### **Neonatal death**

All respondents who provided a rating for the importance of this data element concept rated it as highly important (100%), and 100% rated it as either useful (6%) or highly useful (94%).

It was stated that different definitions of 'Neonatal death' appear to be in use, and that it is necessary to clarify the status of infants who are resuscitated and never show signs of life.

One respondent commented that this data element concept should be cross referenced to the 'Live birth' concept.

## **Neonate**

The majority of respondents who provided a rating for the importance of this data element concept rated it as highly important (94%), and 94% rated it as either useful (6%) or highly useful (88%). Six per cent were unsure of its importance and 6% of its usefulness.

There were no relevant comments from respondents in relation to this data element concept.

## **Perinatal period**

Ninety-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (6%) or highly important (89%), and 95% rated it as either useful (11%) or highly useful (84%). Six per cent were unsure of its importance and 5% of its usefulness.

There were no relevant comments from respondents in relation to this data element concept.

## **Region code**

Sixty-seven per cent of respondents who provided a rating for the importance of this data element rated it as either important (28%) or highly important (39%), and 67% rated it as either useful (28%) or highly useful (39%). Six per cent did not think the data element was important and 6% not useful. Another 28% were unsure of its importance and 28% of its usefulness.

Comments about this item were varied. One respondent stated that analysis by region is useful for time series, and if the identifier is standard. Another comment was that 'Region code' is very important, especially for Indigenous infants.

It was pointed out that the recent evaluation of the Admitted Patient Care NMDS recommended the removal of this item. Regions are not reportable for Queensland, the Australian Capital Territory, the Northern Territory or for private hospitals in Western Australia. The allocation of region codes was seen as having a jurisdiction-specific nature, and as not useful at the national level.

Domain values for 'Region code' are as specified by individual states/territories, meaning that there is no national standard and it cannot be compared nationally. The NPSU does not request this data element, therefore, none of the states and territories provide data for it and it is not used for reporting. The value of maintaining the data element 'Region code' needs to be assessed.

## **State/Territory identifier**

Ninety-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (22%) or highly important (72%), and 89% rated it as either useful (22%) or highly useful (67%). Six per cent were unsure of its importance and 11% of its usefulness.

The comment was made that 'State/Territory identifier' is occasionally useful, especially for specific requests for data and/or analyses. It was also commented that this item is an important demographic identifier.

### **Stillbirth (fetal death)**

Ninety-four per cent of respondents who provided a rating for the importance of this data element rated it as either important (11%) or highly important (83%), and 94% rated it as either useful (6%) or highly useful (88%). Six per cent were unsure of its importance and 6% of its usefulness.

The importance of capturing all terminations of 20 or more weeks was noted. This was believed to be essential for measuring changes in birth defect prevalence.

It was suggested that the word 'separation' in the second part of the definition be replaced with 'expulsion or extraction', so that it would read: 'The death is indicated by the fact that after such *expulsion or extraction* the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles'.

## **Proposed new data elements**

There was general support for introducing a number of new items to the Perinatal NMDS, some of which are currently in the NHDD and are being supplied routinely to the NPSU for national reporting.

The following perinatal items and other NHDD items were proposed in a supplementary questionnaire sent to all jurisdictions. The items were proposed because they are in the NHDD Version 12, and are already being collected by some or all jurisdictions as part of the state/territory perinatal collections. The addition of these items to the Perinatal NMDS would require minimal changes by the jurisdictions to their systems, therefore, it is expected that the jurisdictions would support the required business cases.

The following are NHDD data elements that have the support of at least five of the states and territories, although some items may need review prior to incorporation into the NMDS.

### **Anaesthesia administered during labour**

*Definition:* Anaesthesia administered for the operative delivery of the baby (caesarean, forceps or vacuum extraction).

### **Analgesia administered during labour**

*Definition:* Agents administered to the mother by injection or inhalation to relieve pain during labour and delivery.

## **Apgar score at 5 minutes**

*Definition:* Numerical score to evaluate the baby's condition at 5 minutes after birth.

## **Intended place of birth**

*Definition:* The intended place of birth at the onset of labour.

## **Length of stay (antenatal)**

*Definition:* The length of stay of a patient measured in days calculated from the admission date of the mother to the date of birth of the baby. Total contracted days are included in the length of stay. Leave days are included.

## **Perineal status**

*Definition:* State of the perineum following birth.

## **Presentation at birth**

*Definition:* Presenting part of the fetus (at lower segment of uterus) at birth.

## **Type of augmentation of labour**

*Definition:* Methods used to assist progress of labour.

## **Type of labour induction**

*Definition:* Methods used to induce labour.

There were concerns raised by a few respondents about the idea of introducing new data elements into the Perinatal NMDS. These included the necessary changes to perinatal data collection forms and the limited space available on the A4 forms, and the increase in workload that would come with collecting and providing more items. Another respondent commented that the introduction of additional items may necessitate significant financial costs to upgrade the existing electronic systems, and for the liaison with and education of providers.

Despite these concerns, a number of new data elements (or suites of data elements) were suggested by survey respondents.

## **Alcohol consumption during pregnancy**

Alcohol consumption, particularly hazardous alcohol consumption, was seen as a significant issue to be addressed.

## **Antenatal models of care/Number of antenatal visits**

## **Assisted conception**

### **Attendant at the birth**

It was suggested that this item be collected in order to determine whether a qualified person was present at the birth.

### **Baby identifier**

### **Complication of labour and delivery**

This data element is already included in the NHDD, and is provided by some jurisdictions.

*Definition:* Medical and obstetric complications (necessitating intervention) arising after the onset of labour and before the completed delivery of the baby and placenta.

### **Complications of pregnancy**

This data element is already included in the NHDD, and is provided by some jurisdictions.

*Definition:* Complications arising up to the period immediately preceding delivery that are directly attributable to the pregnancy and may have significantly affected care during the current pregnancy and/or pregnancy outcome.

### **Domestic violence**

It was suggested that a domestic violence indicator be added to the Perinatal NMDS.

### **Early discharge program**

### **Elements related to quality of clinical care**

One respondent thought that items to support clinical quality of care should be included in the Perinatal NMDS. It was suggested that possible additional items may come from the clinical indicators of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) or from the recommendations of the National Maternity Data Collaboration, when they are made available.

### **Estimated date of confinement**

This item was suggested as a data element to replace 'First day of the last menstrual period', as it is believed to be more accurate and useful.

### **Gestational age groups**

It was suggested that a derived data element be added that identifies the main gestational age groups for reporting.

### **Indigenous status (father)**

This data element is already included in the NHDD. It was suggested that the NMDS should collect the Indigenous status of the father, as well as that of the mother.

### **Maternal medical conditions**

This data element is already included in the NHDD, and is provided by some jurisdictions.

*Definition:* Pre-existing maternal diseases and conditions, and other diseases, illnesses or conditions arising during the current pregnancy, that are not directly attributable to pregnancy but may significantly affect care during the current pregnancy and/or pregnancy outcome.

### **Number of days in special/neonatal intensive care**

This data element is already included in the NHDD, and is provided by some jurisdictions. This item was believed to be important to give an indication of the utilisation of these services.

*Definition:* Number of days spent by a neonate in a special care or neonatal intensive care nursery (in the hospital of birth).

### **Past obstetric history**

A data item to collect information on past obstetric history, including previous pregnancies, birth complications and maternal conditions, was recommended. While items such as 'Complications of pregnancy' and 'Maternal medical conditions' are collected in some jurisdictions, these items only provide information regarding the current pregnancy. Past conditions may affect the planning of health care for the mother, for example, her options in terms of place of birth.

### **Previous births by caesarean section**

This new item was suggested in the supplementary survey to the states and territories, and was supported by seven of the jurisdictions.

### **Smoking during pregnancy**

It was noted that smoking during pregnancy is an important factor; however, clear definitions would need to be developed prior to use. It was suggested that a national pilot trial be conducted modelled on data already collected by birth institutions and area health services.

# References

- ABS (Australian Bureau of Statistics) 1998. Standard Australian Classification of Countries (SACC). Cat. No. 1269.0. Canberra: ABS.
- AIHW (Australian Institute of Health and Welfare) 1999. National health data dictionary, Version 8.0. AIHW Cat. No. HWI 18. Canberra: AIHW.
- AIHW (Australian Institute of Health and Welfare) 2003. Report on the evaluation of the Admitted Patient Care National Minimum Data Set. Canberra: AIHW.
- DHHS (Department of Health and Human Services, Tasmania) 2003. Council of Obstetric and Paediatric Mortality and Morbidity: combined annual reports for 2000–2001. Tasmania: DHHS.
- NHDC (National Health Data Committee) 2003. National health data dictionary, Version 12. AIHW Cat. No. HWI 43. Canberra: AIHW.

# **Appendix A: Survey of data providers and users of the Perinatal National Minimum Data Set**

# Survey of data providers and users of the Perinatal National Minimum Data Set



## Contact details

The Australian Institute of Health and Welfare (AIHW) National Perinatal Statistics Unit (NPSU) is interested in obtaining contact details for any follow-up queries and to gain an understanding of the types of organisations using the Perinatal National Minimum Data set (NMDS) specifications and NMDS-based data. This information will also help us interpret responses to the more specific questions that follow.

Please note that the identifying details provided will NOT be used for any purpose other than that specified in the explanatory notes, nor will any individual be identified in the analysis and reporting of results.

Name:	<hr/>		
Position/job title:	<hr/>		
Unit/section:	<hr/>		
Organisation:	<hr/>		
Address:	<hr/>		
City/town:	State:	Postcode:	<hr/>
Telephone:	Fax:	<hr/>	
E-mail address:	<hr/>		
Date this survey was completed:	<hr/>		

**For whom are you responding? Please indicate (X) all that apply.**

Respondent	[X]
On behalf of yourself	<input type="checkbox"/>
On behalf of your unit or section within an organisation	<input type="checkbox"/>
On behalf of your organisation	<input type="checkbox"/>
Comments	

## **1. Users of the Perinatal NMDS specifications and NMDS-based data**

The AIHW National Perinatal Statistics Unit is interested in gaining an understanding of the types of organisations who use the Perinatal NMDS specifications and NMDS-based data. For the purposes of this survey, a user is defined as any person who uses the Perinatal NMDS specifications to either collect or to access and analyse Perinatal NMDS-based data. In order for us to develop an understanding of who the main user groups are, please indicate the main user group to which you belong. This information will also help us interpret responses to the more specific questions that follow.

### **1.1. Please indicate (X) the main user group to which you belong.**

User group	[X]
State or Territory health authority	[ ]
Other State or Territory government department	[ ]
Commonwealth Department of Health and Ageing	[ ]
Other Commonwealth government department	[ ]
Australian Institute of Health and Welfare	[ ]
Australian Bureau of Statistics	[ ]
Public hospital	[ ]
Private hospital	[ ]
Other health service provider	[ ]
University or other research organisation	[ ]
Private planning consultant	[ ]
Clinical equipment / therapeutic device company	[ ]
Pharmaceutical company	[ ]
Software developer	[ ]
Interest group	[ ]
Student	[ ]
Other	[ ]
Please specify _____	

## **2. Use of the Perinatal NMDS specifications and NMDS-based data**

The AIHW National Perinatal Statistics Unit is interested in obtaining information about the way the Perinatal NMDS specifications and NMDS-based data is currently being used. This section includes questions on the purpose for which you use the Perinatal NMDS specifications or NMDS-based data, how you access NMDS specifications and NMDS-based data, your overall knowledge of the NMDS specifications and NMDS-based data, and your frequency of use. This information will also help us interpret responses to the more specific questions that follow.

**2.1. For what purpose do you use the Perinatal NMDS specifications / NMDS-based data?**  
**Rate the three most common purposes, where 1 is the most common and 3 is the least common.**

Purpose	[1,2,3]
Planning and monitoring State/Territory health resources	[ ]
Comparisons and benchmarking	[ ]
Health services research	[ ]
Epidemiological research (e.g. population health research)	[ ]
Statistical reporting	[ ]
Facility planning	[ ]
Collection and reporting of NMDS-based data	[ ]
Casemix and classification development	[ ]
Software development	[ ]
Other	[ ]
Please specify _____	

**2.2. Please indicate (X) at which level you use the data.**

Level	[X]
Data for one hospital only	[ ]
Data for hospital group (within State/Territory or National)	[ ]
Data for State or Territory	[ ]
National	[ ]
International	[ ]

**2.3. Please provide more detail about the purpose(s) for which you use the Perinatal NMDS specifications or NMDS-based data (optional).**

*Examples:*

*Investigation of the number of caesarean sections performed each year by State/Territory.*

*Investigation of the number of low birthweight infants born each year by State/Territory.*

**2.4. Please rate the three most common sources you use to access the Perinatal NMDS specifications, where 1 is the most common and 3 is the least common.**

Source	[1,2,3]
National Health Data Dictionary publication	[ ]
<a href="#">National Health Data Dictionary</a> publication online	[ ]
<a href="#">The Knowledgebase</a>	[ ]
NPSU specifications	[ ]
State/Territory data specifications	[ ]
Hospital-based data specifications	[ ]
Other	[ ]
Please specify _____	
Not applicable, do not access	[ ]

**2.5. Please rate the three most common sources of Perinatal NMDS-based data you use, where 1 is the most common and 3 is the least common.**

Source	[1,2,3]
AIHW NPSU <a href="#">Australia's mothers and babies</a> publication	[ ]
AIHW NPSU <a href="#">Congenital malformations Australia</a> publication	[ ]
Other AIHW NPSU publications	[ ]
Other AIHW publications	[ ]
AIHW NPSU Perinatal Data Collection	[ ]
AIHW NPSU Perinatal Data Collection unit record extract	[ ]
AIHW NPSU Perinatal Data Collection tabulated data (unpublished)	[ ]
Hospital database	[ ]
State or Territory hospital perinatal database	[ ]
State or Territory publications	[ ]
Other	[ ]
Please specify _____	
Not applicable, do not use	[ ]

**2.6. Please rate (X) your overall knowledge of the Perinatal NMDS specifications or the NMDS-based data.**

Knowledge	NMDS specifications	NMDS-based data
Very familiar	[ ]	[ ]
Familiar	[ ]	[ ]
Unfamiliar	[ ]	[ ]

**2.7. Please indicate (X) how often you use the Perinatal NMDS specifications or the NMDS-based data.**

Frequency	NMDS specifications	NMDS-based data
Daily	[ ]	[ ]
Weekly	[ ]	[ ]
Monthly	[ ]	[ ]
Occasionally	[ ]	[ ]
Never	[ ]	[ ]

### **3. Utility**

As outlined in the explanatory notes, the main purpose of this survey is to gain an understanding of whether the Perinatal NMDS is useful and whether it suits your current requirements. In this section, respondents are asked to rate the importance and usefulness of the Perinatal NMDS overall and each individual data element, and to indicate which data elements should remain unchanged, which should be modified and which deleted. Please note, the data elements are as specified in the [National Health Data Dictionary Version 12](#).

**3.1. Please indicate (X) the importance and usefulness of the Perinatal NMDS overall and each individual data element and provide comments on whether you believe each data element should remain unchanged, be modified or deleted.**

When assessing importance, think of how significant you believe the Perinatal NMDS and each data element are to a national collection of data on births. When assessing usefulness, keep in mind whether the Perinatal NMDS and each data element suit your current requirements. If a data element is highly important and highly useful, it should probably remain unchanged. However, if a data element is highly important, but not useful, it may be a function of the way it is defined, in which case it probably needs to be modified.

Within your comments please indicate why a data element should be modified or deleted and describe the proposed modifications, for example, changes to the name, definition, data domains or other aspects.

Please make specific changes directly onto the data items, and provide any other comments that will assist in the interpretation of your response.

Perinatal NMDS	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
Perinatal NMDS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Perinatal NMDS

*Admin. status:* CURRENT      1/07/2000      Version number: 1

*Metadata type:* NATIONAL MINIMUM DATA SET

*Start date:* 1 July 1997

*End date:*

*Latest evaluation date:*

*Scope:* The scope of this minimum data set is all births in Australia in hospitals, birth centres and the community. The data set includes information on all births, both live and stillborn, of at least 20 weeks gestation or 400g birth weight.

*Statistical units:*

*Collection methodology:*

*National reporting arrangements:* State and Territory health authorities provide the data to the Australian Institute of Health and Welfare for national collation on an annual basis.

*Periods for which data are collected and nationally collated:* Financial years ending 30 June each year

*Data elements included:*

- Actual place of birth, version 1
- Birth order, version 2<sup>v</sup>
- Birth plurality, version 1
- Country of birth, version 3<sup>v</sup>
- Date of birth, version 4<sup>v</sup>
- Establishment identifier, version 4<sup>v</sup>
- First day of last menstrual period, version 1
- Gestational age, version 1
- Indigenous status, version 4<sup>v</sup>

♦ new in NMDS this version

▽ modified this version

**Data elements included (continued):**

- Method of birth, version 1
- Infant weight – neonate, stillborn, version 3
- Onset of labour, version 2
- Person identifier, version 1<sup>V</sup>
- Separation date, version 5
- Sex, version 3<sup>V</sup>
- State/Territory of birth, version 1
- Status of the baby, version 1

**Supporting data elements and data element concepts:**

- Birthweight, version 1
- Establishment number, version 4
- Establishment sector, version 3
- Gestational age, version 1
- Live birth, version 1
- Neonatal death, version 1
- Neonate, version 1
- Perinatal period, version 1
- Region code, version 2
- State/Territory identifier, version 3
- Stillbirth (foetal death), version 1

**Data elements in common with other NMDSS:**

**Scope links with other NMDSS:**

**Source organisation:** National Health Information Management Group

**Comments:** Statistical units are entities from or about which statistics are collected, or in respect of which statistics are compiled, tabulated or published.

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♦ new in NMDS this version

▽ modified this version

## **Data elements included**

This section presents the following data elements for review:

Actual place of birth  
Birth order  
Birth plurality  
Country of birth  
Date of birth  
Establishment identifier  
First day of last menstrual period  
Gestational age  
Indigenous status  
Infant weight, neonate, stillborn  
Method of birth  
Onset of labour  
Person identifier  
Separation date  
Sex  
State/Territory of birth  
Status of the baby

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Actual place of birth</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## **Actual place of birth**

### **Identifying and Definitional Attributes**

*Knowledgebase ID:* 000003      *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/96

*Definition:* The actual place where the birth occurred.

*Context:* Perinatal statistics:

Used to analyse the risk factors and outcomes by place of birth. While most deliveries occur within hospitals, an increasing number of births now occur in other settings. It is important to monitor the births occurring outside hospitals and to ascertain whether or not the actual place of delivery was planned.

### **Relational and Representational Attributes**

*Datatype:* Numeric

*Representational form:* Code

*Representational layout:* N

*Minimum size:* 1

*Maximum size:* 1

- |                     |   |                                    |
|---------------------|---|------------------------------------|
| <i>Data domain:</i> | 1 | Hospital                           |
|                     | 2 | Birth centre, attached to hospital |
|                     | 3 | Birth centre, free-standing        |
|                     | 4 | Home                               |
|                     | 8 | Other                              |
|                     | 9 | Not stated                         |

**Guide for use:** This is to be recorded for each baby the mother delivers from this pregnancy.

### *Verification rules:*

#### *Collection methods:*

*Related metadata:* is a qualifier of Intended place of birth vers 1

## Administrative Attributes

#### *Source document:*

*Source organisation:* National Perinatal Data Development Committee

#### **Information model link:**

## NHIM Other setting

*Data Set Specifications:*      *Start date*      *End date*

NMDS - Perinatal 01/07/1997

**Comments:** The development of a definition of a birth centre is currently under consideration by the Commonwealth in conjunction with the States and Territories.

## **Birth order**

## Identifying and Definitional Attributes

*Knowledgebase ID:* 000019 *Version No:* 2

*Metadata type:* Data Element

*Admin. status:* Current

01/07/03

**Definition:** The sequential order of each baby of a multiple birth.

**Context:** Required to analyse pregnancy outcome according to birth order and identify the individual baby resulting from a multiple birth pregnancy. Multiple births have higher risks of perinatal mortality and morbidity. Multiple birth

pregnancies are often associated with obstetric complications, labour and delivery complications, higher rates of neonatal morbidity, low birthweight, and a higher perinatal death rate.

## Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Code

**Representational layout:** N

**Minimum size:** 1

**Maximum size:** 1

**Data domain:** 1 Singleton or first of a multiple birth

2 Second of a multiple birth

3 Third of a multiple birth

4 Fourth of a multiple birth

5 Fifth of a multiple birth

6 Sixth of a multiple birth

8 Other

9 Not stated

**Guide for use:** Stillborns are counted such that, if twins were born, the first stillborn and the second live-born, the second twin would be recorded as code 2 Second of a multiple birth (and not code 1 Singleton or first of a multiple birth).

**Verification rules:**

**Collection methods:** This data should be collected routinely for persons aged 28 days or less.

**Related metadata:** supersedes previous data element Birth order vers 1  
is a qualifier of the data element Birth plurality vers 1

## Administrative Attributes

**Source document:** AS5017 Health care client identification

**Source organisation:** National Perinatal Data Development Committee  
Standards Australia

**Information model link:**

NHIM Birth event

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Perinatal	01/07/1997	
DSS - Health care client identification	01/01/2003	

*Comments:*

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Birth plurality</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Birth plurality

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000020 *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/96

*Definition:* An indicator of multiple birth, showing the total number of births resulting from a single pregnancy.

*Context:* Multiple pregnancy increases the risk of complications during pregnancy, labour and delivery and is associated with higher risk of perinatal morbidity and mortality.

### Relational and Representational Attributes

*Datatype:* Numeric

*Representational form:* Code

*Representational layout:* N

*Minimum size:* 1

*Maximum size:* 1

- Data domain:*
- 1      Singleton
  - 2      Twins
  - 3      Triplets
  - 4      Quadruplets
  - 5      Quintuplets
  - 6      Sextuplets

- 8      Other  
 9      Not stated

**Guide for use:** Plurality of a pregnancy is determined by the number of live births or by the number of foetuses that remain in utero at 20 weeks gestation and that are subsequently born separately. In multiple pregnancies, or if gestational age is unknown, only live births of any birthweight or gestational age, or foetuses weighing 400 grams or more, are taken into account in determining plurality. Foetuses aborted before 20 completed weeks or foetuses compressed in the placenta at 20 or more weeks are excluded.

**Verification rules:**

**Related metadata:** is qualified by the data element Birth order vers 2

## Administrative Attributes

**Source document:**

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Birth event

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Perinatal	01/07/1997	
DSS - Health care client identification	01/01/2003	

**Comments:**

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#">Country of birth</a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Country of birth

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000035      *Version No:* 3

*Metadata type:* Data Element

*Admin. status:* Current

01/07/01

*Definition:* The country in which the person was born.

*Context:* Country of birth is important in the study of access to services by different population sub-groups. Country of birth is the most easily collected and consistently reported of possible data items. The item provides a link between the Census of Population and Housing, other Australian Bureau of Statistics' (ABS) statistical collections and regional data collections. Country of birth may be used in conjunction with other data elements such as Period of residence in Australia, etc., to derive more sophisticated measures of access to services by different population sub-groups and may help in identifying population sub-group(s) that may be at increased risk of cardiovascular disease.

### Relational and Representational Attributes

*Datatype:* Numeric

*Representational form:* Code

*Representational layout:* NNNN

*Minimum size:* 4

*Maximum size:* 4

*Data domain:* Standard Australian Classification of Countries (SACC) 4-digit (individual country) level. ABS catalogue no. 1269.0 (1998).

*Guide for use:* A country, even if it comprises other discrete political entities such as 'states', is treated as a single unit for all data domain purposes. Parts of a political entity are not included in different groups. Thus, Hawaii is included in Northern America (as part of the identified country United States of America), despite being geographically close to and having similar social and cultural characteristics as the units classified to Polynesia.

*Verification rules:* DSS - Health care client identification:

Country of birth for newborn babies should be 'Australia'.

*Collection methods:*

*Related metadata:* supersedes previous data element Country of birth vers 2

## Administrative Attributes

*Source document:* ABS Catalogue No. 1269.0 (1998)

*Source organisation:* Australian Bureau of Statistics

*Information model link:*

NHIM Demographic characteristic

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
NMDS - Admitted patient care	01/07/2000	
NMDS - Admitted patient mental health care	01/07/2000	
NMDS - Admitted patient palliative care	01/07/2001	
NMDS - Alcohol and other drug treatment services	01/07/2001	
NMDS - Community mental health care	01/07/2001	
NMDS - Non-admitted patient emergency department care	01/07/2003	
NMDS - Perinatal	01/07/2001	
DSS - Cardiovascular disease (clinical)	01/01/2003	
DSS - Health care client identification	01/01/2003	

*Comments:* The Standard Australian Classification of Countries (SACC) (ABS 1269.0 1998) supersedes the Australian Standard Classification of Countries for Social Statistics (ASCCSS) which was reported in version 9 of the NHDD.

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Date of birth</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Date of birth

### Identifying and Definitional Attributes

*Knowledgebase ID:* 000036 *Version No:* 4

*Metadata type:* Data Element

*Admin. status:* Current  
01/07/03

<b>Definition:</b>	The date of birth of the person.
<b>Context:</b>	<p>Required to derive age at a point of time for clinical or administrative use.</p> <p>Used for demographic analyses, for analysis by age and for use to derive a diagnosis related group (admitted patients).</p> <p>Requires the collection of the date of birth for the mother and the baby(s).</p>

## Relational and Representational Attributes

<b>Datatype:</b>	Numeric
<b>Representational form:</b>	Date
<b>Representational layout:</b>	DDMMYYYY
<b>Minimum size:</b>	8
<b>Maximum size:</b>	8
<b>Data domain:</b>	Valid date
<b>Guide for use:</b>	If date of birth is not known, provision should be made to collect age (in years) and a date of birth derived from age.
<b>Verification rules:</b>	<p>This field must not be null.</p> <p>For the provision of State and Territory hospital data to Commonwealth agencies this field must:</p> <ul style="list-style-type: none"> <li>• be greater than or equal to Admission date;</li> <li>• be consistent with diagnoses and procedure codes, for records to be grouped.</li> </ul>
<b>Collection methods:</b>	<p>It is recommended that in cases where all components of the date of birth are not known or where an estimate is arrived at from age, a valid date be used together with a flag to indicate that it is an estimate.</p> <p>Data collection systems must be able to differentiate between the date of birth of the mother and the baby(s). This is important in the Perinatal data collection as the date of birth of the baby is used to determine the antenatal length of stay and the postnatal length of stay.</p>
<b>Related metadata:</b>	<p>supersedes previous data element Date of birth vers 3</p> <p>is used in the derivation of Diagnosis related group vers 1</p> <p>is qualified by Estimated date flag vers 1</p> <p>is used in the calculation of Length of stay (antenatal) vers 1</p> <p>is used in the calculation of Length of stay (postnatal) vers 1</p>

## Administrative Attributes

*Source document:*

*Source organisation:* National Health Data Committee

*Information model link:*

NHIM Demographic characteristic

**Data Set Specifications:**

	<i>Start date</i>	<i>End date</i>
NMDS - Admitted patient care	01/07/2003	
NMDS - Admitted patient mental health care	01/07/2003	
NMDS - Admitted patient palliative care	01/07/2003	
NMDS - Alcohol and other drug treatment services	01/07/2003	
NMDS - Community mental health care	01/07/2003	
NMDS - Health labour force	01/07/2003	
NMDS - Non-admitted patient emergency department care	01/07/2003	
NMDS - Perinatal	01/07/2003	
DSS - Cardiovascular disease (clinical)	01/01/2003	
DSS - Diabetes (clinical)	01/01/2003	
DSS - Health care client identification	01/01/2003	

*Comments:* Any new information collections should allow for 0000YYYY. (Refer Standards Australia, AS5017 Health care client identification).

Do not use punctuation (slashes or hyphens) or spaces.

In cases where all components of the date of birth are not known or where an estimate is arrived at from age, use 00 for day and 00 for month and estimate year of birth according to the person's approximate age. As soon as known or on re-presentation, always update the Date of Birth (DOB) field. The use of the Estimated date flag is also to be used to signify that an estimate is being made.

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	<b>Not important</b>	<b>Important</b>	<b>Highly important</b>	<b>Unsure</b>	<b>Not useful</b>	<b>Useful</b>	<b>Highly useful</b>	<b>Unsure</b>
<a href="#"><u>Establishment identifier</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Establishment identifier

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### Identifying and Definitional Attributes

**Knowledgebase ID:** 000050      **Version No:** 4

**Metadata type:** Derived Data Element

**Admin. status:** Current

01/07/03

**Definition:** Identifier for the establishment in which episode or event occurred. Each separately administered health care establishment to have a unique identifier at the national level.

**Context:**

### Relational and Representational Attributes

**Datatype:** Alphanumeric

**Representational form:** Code

**Representational layout:** NNA(N)NNNN

**Minimum size:** 9

**Maximum size:** 9

**Data domain:** Concatenation of:

State/Territory identifier (character position 1)

Establishment sector (character position 2)

Region code (character positions 3 – 4)

Establishment number (character positions 5 – 9)

**Guide for use:**

**Verification rules:**

**Collection methods:**

**Related metadata:** supersedes previous data element Establishment identifier vers 3  
is composed of Establishment number vers 4  
is composed of Establishment sector vers 3  
relates to the data element Person identifier vers 1  
relates to the data element Person identifier type – health care vers 1  
is composed of Region code vers 2  
is composed of State/territory identifier vers 3

## Administrative Attributes

*Source document:*

*Source organisation:* National Health Data Committee

*Information model link:*

NHIM Organisation characteristic

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
NMDS - Admitted patient care	01/07/2003	
NMDS - Admitted patient mental health care	01/07/2003	
NMDS - Admitted patient palliative care	01/07/2003	
NMDS - Alcohol and other drug treatment services	01/07/2003	
NMDS - Community mental health care	01/07/2003	
NMDS - Community mental health establishments	01/07/2003	
NMDS - Elective surgery waiting times	01/07/2003	
NMDS - Non-admitted patient emergency department care	01/07/2003	
NMDS - Perinatal	01/07/2003	
NMDS - Public hospital establishments	01/07/2003	
DSS - Health care client identification	01/01/2003	

*Comments:* Establishment identifier should be able to distinguish between all health care establishments nationally.

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>First day of the last menstrual period</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## First day of the last menstrual period

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000056      *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/96

*Definition:* Date of the first day of the mother's last menstrual period (LMP).

*Context:* Perinatal statistics:

The first day of the LMP is required to estimate gestational age, which is a key outcome of pregnancy and an important risk factor for neonatal outcomes.

Although the date of the LMP may not be known, or may sometimes be erroneous, estimation of gestational age based on clinical assessment may also be inaccurate. Both methods of assessing gestational age are required for analysis of outcomes.

### Relational and Representational Attributes

*Datatype:* Numeric

*Representational form:* Date

*Representational layout:* DDMMYYYY

*Minimum size:* 8

*Maximum size:* 8

*Data domain:* Valid dates or 99999999 if first day is unknown

*Guide for use:* If the first day is unknown, it is unnecessary to record the month and year (i.e. record 99999999).

*Verification rules:*

*Collection methods:*

*Related metadata:* is used in the calculation of Gestational age vers 1

### Administrative Attributes

*Source document:*

*Source organisation:* National Perinatal Data Development Committee

*Information model link:*

NHIM Physical wellbeing

*Data Set Specifications:* *Start date*      *End date*

NMDS - Perinatal

01/07/1997

*Comments:*

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Gestational age</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Gestational age

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000060      *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/96

*Definition:* The estimated gestational age of the baby in completed weeks as determined by clinical assessment.

*Context:* Perinatal statistics:

The first day of the LMP is required to estimate gestational age, which is a key outcome of pregnancy and an important risk factor for neonatal outcomes. Although the date of the LMP may not be known, or may sometimes be erroneous, estimation of gestational age based on clinical assessment may also be inaccurate. Both methods of assessing gestational age are required for analysis of outcomes.

### Relational and Representational Attributes

*Datatype:* Numeric

*Representational form:* Quantitative value

*Representational layout:* NN

*Minimum size:* 2

*Maximum size:* 2

<b>Data domain:</b>	Number representing the number of completed weeks
99	Not stated/unknown.
<b>Guide for use:</b>	<p>This is derived from clinical assessment when accurate information on the date of the last menstrual period (LMP) is not available for this pregnancy.</p> <p>Gestational age is frequently a source of confusion when calculations are based on menstrual dates. For the purposes of calculation of gestational age from the date of the first day of the last normal menstrual period and the date of delivery, it should be borne in mind that the first day is day zero and not day one.</p>
<b>Verification rules:</b>	

**Collection methods:**

**Related metadata:** is calculated using First day of the last menstrual period vers 1  
 relates to the data element concept Gestational age vers 1

## Administrative Attributes

**Source document:** International Classification of Diseases and Related Health Problems, 10 Revision, WHO, 1992

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Physical wellbeing

<b>Data Set Specifications:</b>	<i>Start date</i>	<i>End date</i>
NMDS - Perinatal	01/07/1997	

**Comments:**

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<u>Indigenous status</u>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Indigenous status

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### Identifying and Definitional Attributes

**Knowledgebase ID:** 000001      **Version No:** 4

**Metadata type:** Data Element

**Admin. status:** Current

01/07/03

**Definition:** Indigenous status is a measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin. This is in accord with the first two of three components of the Commonwealth definition. See Comments for the Commonwealth definition.

**Context:** Australia's Aboriginal and Torres Strait Islander peoples occupy a unique place in Australian society and culture. In the current climate of reconciliation, accurate and consistent statistics about Aboriginal and Torres Strait Islander peoples are needed in order to plan, promote and deliver essential services, to monitor changes in wellbeing and to account for government expenditure in this area.

The purpose of this data element is to provide information about people who identify as being of Aboriginal or Torres Strait Islander origin. Agencies wishing to determine the eligibility of individuals for particular benefits, services or rights will need to make their own judgements about the suitability of the standard measure for these purposes, having regard to the specific eligibility criteria for the program concerned.

### Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Code

**Representational layout:** N

**Minimum size:** 1

**Maximum size:** 1

**Data domain:**

1	Aboriginal but not Torres Strait Islander origin
2	Torres Strait Islander but not Aboriginal origin
3	Both Aboriginal and Torres Strait Islander origin
4	Neither Aboriginal nor Torres Strait Islander origin
9	Not stated/inadequately described

**Guide for use:** This data element is based on the Australian Bureau of Statistics' (ABS) standard for Indigenous status. For detailed advice on its use and application please refer to the ABS web site as indicated below in the Source document section.

The classification for 'Indigenous status' has a hierarchical structure comprising two levels. There are four categories at the detailed level of the classification which are grouped into two categories at the broad level. There is one supplementary category for 'not stated' responses. The classification is as follows:

Indigenous:

- Aboriginal but not Torres Strait Islander Origin
- Torres Strait Islander but not Aboriginal Origin
- both Aboriginal and Torres Strait Islander Origin

Non-indigenous:

- neither Aboriginal nor Torres Strait Islander Origin

Not stated/inadequately described:

This category is not to be available as a valid answer to the questions but is intended for use:

- primarily when importing data from other data collections that do not contain mappable data
- where an answer was refused
- where the question was not able to be asked prior to completion of assistance because the client was unable to communicate or a person who knows the client was not available.

Only in the last two situations may the tick boxes on the questionnaire be left blank.

*Verification rules:*

*Collection methods:*

The standard question for Indigenous status is as follows:

[Are you] [Is the person] [Is (name)] of Aboriginal or Torres Strait Islander origin?

(For persons of both Aboriginal and Torres Strait Islander origin, mark both 'Yes' boxes.)

No.....

Yes, Aboriginal.....

Yes, Torres Strait Islander.....

This question is recommended for self-enumerated or interview-based collections. It can also be used in circumstances where a close relative, friend, or another member of the household is answering on behalf of the subject.

When someone is not present, the person answering for them should be in a position to do so, i.e. this person must know the person about whom the question is being asked well and feel confident to provide accurate information about them. However, it is strongly recommended that this question be asked directly wherever possible.

This question must always be asked regardless of data collectors' perceptions based on appearance or other factors.

The Indigenous status question allows for more than one response. The procedure for coding multiple responses is as follows:

If the respondent marks 'No' and either 'Aboriginal' or 'Torres Strait Islander', then the response should be coded to either Aboriginal or Torres Strait Islander as indicated (i.e. disregard the 'No' response).

If the respondent marks both the 'Aboriginal' and 'Torres Strait Islander' boxes, then their response should be coded to 'Both Aboriginal and Torres Strait Islander Origin'.

If the respondent marks all three boxes ('No', 'Aboriginal' and 'Torres Strait Islander'), then the response should be coded to 'Both Aboriginal and Torres Strait Islander Origin' (i.e. disregard the 'No' response).

This approach may be problematical in some data collections, for example when data are collected by interview or using screen-based data capture systems. An additional response category:

Yes, both Aboriginal and Torres Strait Islander.....

may be included if this better suits the data collection practices of the agency concerned.

**Related metadata:** supersedes previous data element Indigenous status vers 3

## Administrative Attributes

**Source document:** Available on the ABS web site. From the ABS Home page ([www.abs.gov.au](http://www.abs.gov.au)) select: About Statistics/About Statistical Collections (Concepts & Classifications) /Other ABS Statistical Standards/Standards for Social Labour and Demographic Variables/Cultural Diversity Variables/Indigenous Status.

**Source organisation:** Australian Bureau of Statistics

**Information model link:**

NHIM Social characteristic

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Admitted patient care	01/07/2003	
NMDS - Admitted patient mental health care	01/07/2003	
NMDS - Perinatal	01/07/2003	
NMDS - Community mental health care	01/07/2003	
NMDS - Admitted patient palliative care	01/07/2003	
NMDS - Alcohol and other drug treatment services	01/07/2003	
NMDS - Non-admitted patient emergency department care	01/07/2003	
DSS - Cardiovascular disease (clinical)	01/01/2003	
DSS - Diabetes (clinical)	01/01/2003	
DSS - Health care client identification	01/01/2003	

**Comments:**

The following definition, commonly known as 'The Commonwealth Definition' was given in a High Court judgement in the case of Commonwealth v Tasmania (1983) 46 ALR 625.

**'An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives'.**

There are three components to the Commonwealth Definition:

- descent
- self-identification
- community acceptance.

In practice, it is not feasible to collect information on the community acceptance part of this definition in general purpose statistical and administrative collections and therefore standard questions on Indigenous status relate to descent and self-identification only.

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Infant weight, neonate, stillborn</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## **Infant weight, neonate, stillborn**

### **Identifying and Definitional Attributes**

**Knowledgebase ID:** 000010      **Version No:** 3

**Metadata type:** Data Element

**Admin. status:** Current

01/07/97

**Definition:**

The first weight of the live-born or stillborn baby obtained after birth, or the weight of the neonate or infant on the date admitted if this is different from the date of birth.

**Context:**

Weight is an important indicator of pregnancy outcome, is a major risk factor for neonatal morbidity and mortality and is required to analyse perinatal services for high-risk infants. This item is required to generate Australian National diagnosis related groups.

## Relational and Representational Attributes

<b>Datatype:</b>	Numeric	
<b>Representational form:</b>	Quantitative value	
<b>Representational layout:</b>	NNNN	
<b>Minimum size:</b>	4	
<b>Maximum size:</b>	4	
<b>Data domain:</b>	Measured weight in grams	
<b>Guide for use:</b>	<p>For live births, birthweight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500 g groupings for birthweight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured.</p> <p>In perinatal collections the birthweight is to be provided for liveborn and stillborn babies.</p> <p>Weight on the date the infant is admitted should be recorded if the weight is less than or equal to 9000 g and age is less than 365 days.</p>	
<b>Verification rules:</b>	For the provision of State and Territory hospital data to Commonwealth agencies, this field must be consistent with diagnoses and procedure codes for valid grouping.	
<b>Collection methods:</b>		
<b>Related metadata:</b>	is used in the derivation of Diagnosis related group vers 1 supersedes previous data element Stillborn, live born baby, infant weight vers 2	
<h2>Administrative Attributes</h2>		
<b>Source document:</b>		
<b>Source organisation:</b>	National Health Data Committee	
<b>Information model link:</b>		
NHIM Physical wellbeing		
<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Admitted patient care	01/07/1997	
NMDS - Perinatal	01/07/1997	
<b>Comments:</b>		

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Method of birth</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Method of birth

### Identifying and Definitional Attributes

**Knowledgebase ID:** 000093      **Version No:** 1

**Metadata type:** Data Element

**Admin. status:** Current

01/07/96

**Definition:** The method of complete expulsion or extraction from its mother of a product of conception.

**Context:** Perinatal statistics:

The method of delivery may affect the health status of the mother and the baby at birth and during the postpartum period.

### Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Code

**Representational layout:** N

**Minimum size:** 1

**Maximum size:** 1

- |                     |   |                                  |
|---------------------|---|----------------------------------|
| <b>Data domain:</b> | 1 | Spontaneous vaginal              |
|                     | 2 | Forceps (assisted vaginal birth) |
|                     | 3 | Vaginal breech                   |
|                     | 4 | Caesarean section                |
|                     | 5 | Vacuum extraction                |

- 8      Other  
 9      Not stated

**Guide for use:** In a vaginal breech with forceps to the after coming head, code as vaginal breech.

**Verification rules:**

**Collection methods:**

**Related metadata:** is used in conjunction with Presentation at birth vers 1

## Administrative Attributes

**Source document:**

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Birth event

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Perinatal	01/07/1997	

**Comments:**

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Onset of labour</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Onset of labour

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### Identifying and Definitional Attributes

**Knowledgebase ID:** 000113      **Version No:** 2

**Metadata type:** Data Element

**Admin. status:** Current

01/07/00

**Definition:** Manner in which labour started.

**Context:** Perinatal care:

How labour commenced is closely associated with method of birth and maternal and neonatal morbidity. Induction rates vary for maternal risk factors and obstetric complications and are important indicators of obstetric intervention.

## Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Code

**Representational layout:** N

**Minimum size:** 1

**Maximum size:** 1

**Data domain:**

1	Spontaneous
2	Induced
3	No labour
4	Not stated

**Guide for use:** Labour commences at the onset of regular uterine contractions, which act to produce progressive cervical dilatation, and is distinct from spurious labour or pre-labour rupture of membranes.

**Verification rules:** 'No labour' can only be associated with caesarean section.

**Collection methods:** If prostaglandins were given to induce labour and there is no resulting labour until after 24 hours, then code the onset of labour as spontaneous.

**Related metadata:**

- is used in conjunction with Method of birth vers 1
- supersedes previous data element Onset of labour vers 1
- is used in conjunction with Type of labour induction vers 1

## Administrative Attributes

**Source document:**

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Birth event

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Perinatal	01/07/2000	

**Comments:**

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Person identifier</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Person identifier

### Identifying and Definitional Attributes

*Knowledgebase ID:* 000127 *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/89

*Definition:* Person identifier unique within an establishment or agency.

*Context:* This item could be used for editing at the establishment or collection authority level and, potentially, for episode linkage. There is no intention that this item would be available beyond collection authority level.

### Relational and Representational Attributes

*Datatype:* Alphanumeric

*Representational form:* Identification number

*Representational layout:* AN(20)

*Minimum size:* 6

*Maximum size:* 20

*Data domain:* Valid person identification number.

*Guide for use:* Individual establishments or collection authorities may use their own alphabetic, numeric or alphanumeric coding systems.

*Verification rules:* Field cannot be blank.

#### *Collection methods:*

*Related metadata:* relates to the data element Establishment identifier vers 4  
is qualified by Person identifier type - health care vers 1

## Administrative Attributes

*Source document:* AS5017 Health care client identification (with adaptation)

*Source organisation:* National minimum data set working parties

*Information model link:*

NHIM Recipient role

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
NMDS - Admitted patient care	01/07/2000	
NMDS - Admitted patient mental health care	01/07/2000	
NMDS - Perinatal	01/07/1997	
NMDS - Community mental health care	01/07/2000	
NMDS - Admitted patient palliative care	01/07/2000	
NMDS - Alcohol and other drug treatment services	01/07/2000	
NMDS - Non-admitted patient emergency department care	01/07/2003	
DSS - Cardiovascular disease (clinical)	01/01/2003	
DSS - Health care client identification	01/01/2003	

*Comments:*

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Separation date</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Separation date

### Identifying and Definitional Attributes

*Knowledgebase ID:* 000043 *Version No:* 5

*Metadata type:* Data Element

*Admin. status:* Current

01/07/99

*Definition:* Date on which an admitted patient completes an episode of care.

*Context:* Required to identify the period in which an admitted patient hospital stay or episode occurred, and for derivation of length of stay.

## Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Date

**Representational layout:** DDMMYYYY

**Minimum size:** 8

**Maximum size:** 8

**Data domain:** Valid dates

**Guide for use:**

**Verification rules:** For the provision of State and Territory hospital data to Commonwealth agencies this field must:

- be <= last day of financial year
- be >= first day of financial year
- be >= Admission date.

**Collection methods:**

**Related metadata:** supersedes previous data element Discharge date vers 4  
is used in the calculation of Length of stay (including leave days) vers 1  
is used in the calculation of Length of stay (postnatal) vers 1

## Administrative Attributes

**Source document:**

**Source organisation:** National Health Data Committee

**Information model link:**

NHIM Exit/leave from service event

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Admitted patient care	01/07/1999	
NMDS - Admitted patient mental health care	01/07/1999	
NMDS - Perinatal	01/07/1999	
NMDS - Admitted patient palliative care	01/07/1999	

**Comments:**

There may be variations amongst jurisdictions with respect to the recording of separation date. This most often occurs for patients who are statistically separated after a period of leave (and who do not return for further hospital care). In this case, some jurisdictions may record the separation date as the date of statistical separation (and record intervening days as leave days) while other jurisdictions may retrospectively separate patients on the first day of leave. Despite the variations in recording of separation date for this group of patients, the current practices provide for the accurate recording of length of stay.

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#">Sex</a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Sex

### Identifying and Definitional Attributes

**Knowledgebase ID:** 000149      **Version No:** 3

**Metadata type:** Data Element

**Admin. status:** Current

01/07/03

**Definition:** The sex of the person.

**Context:** Required for analyses of service utilisation, needs for services and epidemiological studies.

### Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Code

**Representational layout:** N

**Minimum size:** 1

**Maximum size:** 1

**Data domain:**

1	Male
2	Female
3	Indeterminate
9	Not stated/inadequately described

**Guide for use:** An indeterminate sex category may be necessary for situations such as the classification of perinatal statistics when it is not possible for the sex to be determined.

<b>Verification rules:</b>	Code 3 Indeterminate should be queried for people aged 90 days (3 months) or greater.  For the provision of State and Territory hospital data to Commonwealth agencies this field must be consistent with diagnosis and procedure codes, for records grouped in Major diagnostic categories 12, 13 and 14, for valid grouping. For other Major diagnostic categories, sex conflicts should be queried.
<b>Collection methods:</b>	Code 9 is not to be an allowable option when data is being collected ie it is not to be a tick box on any collection forms or computer screens. Systems are to take account of any null values that may occur on the primary collection form. It is suggested that the following format be used for data collection:  What is your (the person's) sex?  ____ Male ____ Female  The term 'sex' refers to the biological differences between males and females, while the term 'gender' refers to the socially expected/perceived dimensions of behaviour associated with males and females – masculinity and femininity.  The Australian Bureau of Statistics advises that the correct terminology for this data element is sex.  Information collection for transsexuals and people with transgender issues should be treated in the same manner. To avoid problems with edits, transsexuals undergoing a sex change operation should have their sex at time of hospital admission recorded.
<b>Related metadata:</b>	is used in the derivation of Diagnosis related group vers 1  supersedes previous data element Sex vers 2

## Administrative Attributes

**Source document:**

**Source organisation:** National Health Data Committee

**Information model link:**

NHIM Demographic characteristic

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Admitted patient care	01/07/2003	
NMDS - Admitted patient mental health care	01/07/2003	
NMDS - Admitted patient palliative care	01/07/2003	
NMDS - Alcohol and other drug treatment services	01/07/2003	
NMDS - Community mental health care	01/07/2003	
NMDS - Non-admitted patient emergency department care	01/07/2003	
NMDS - Perinatal	01/07/2003	
DSS - Cardiovascular disease (clinical)	01/01/2003	
DSS - Diabetes (clinical)	01/01/2003	
DSS - Health care client identification	01/01/2003	

**Comments:**

This item enables standardisation of the collection of information relating to sex (to include indeterminate), gender, people with transgender issues and transsexuals.

In collection systems (ie on forms and computer screens) Male and Female may be mapped to M and F respectively for collection purposes; however, they should be stored within information systems as the codes 1 and 2 respectively.

**DSS – Diabetes (clinical):**

Referring to the National Diabetes Register Statistical profile (December 2000), the sex ratio varied with age. For ages less than 25 years, numbers of males and females were similar. At ages 25 – 44 years, females strongly outnumbered males, reflecting the effect of gestational diabetes in women from this group. For older age groups (45 – 74 years), males strongly outnumber females and in the group of 75 and over, the ratio of males to females was reversed, with a substantially lower proportion of males in the population in this age group due to the higher female life expectancy. AIHW National Mortality Database 1997/98; National Diabetes Register; Statistical Profile, December 2000.

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<u>State/Territory of birth</u>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## **State/Territory of birth**

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### **Identifying and Definitional Attributes**

*Knowledgebase ID:* 000155 *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/96

**Definition:** The State/Territory in which the birth occurred.

**Context:** To enable analyses by State/Territory of delivery.

## Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Code

**Representational layout:** N

**Minimum size:** 1

**Maximum size:** 1

**Data domain:** 1 New South Wales

2 Victoria

3 Queensland

4 South Australia

5 Western Australia

6 Tasmania

7 Northern Territory

8 Australian Capital Territory

9 Other territories (Cocos (Keeling) Islands, Christmas Island and Jervis Bay Territory)

**Guide for use:**

**Verification rules:**

**Collection methods:**

**Related metadata:**

## Administrative Attributes

**Source document:**

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Other setting

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
NMDS - Perinatal	01/07/1997	
DSS - Health care client identification	01/01/2003	

**Comments:**

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Status of the baby</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## **Status of the baby**

### **Identifying and Definitional Attributes**

*Knowledgebase ID:* 000159      *Version No:* 1

*Metadata type:* Data Element

*Admin. status:* Current

01/07/96

*Definition:* Status of the baby at birth.

*Context:* Perinatal statistics:

Essential to analyse outcome of pregnancy.

### **Relational and Representational Attributes**

*Datatype:* Numeric

*Representational form:* Code

*Representational layout:* N

*Minimum size:* 1

*Maximum size:* 1

*Data domain:* 1 Live birth

2 Stillbirth (foetal death)

9 Not stated

*Guide for use:* Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn (World health Organization WHO, 1992 definition).

Stillbirth is a foetal death prior to the complete expulsion or extraction from its mother of a product of conception of 20 or more completed weeks of gestation or of 400 g or more birthweight; the death is indicated by the fact that after such separation the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. (This is the same as the WHO definition of foetal death, except that there are no limits of gestational age or birthweight for the WHO definition.)

*Verification rules:*

*Collection methods:*

- Related metadata:*
- is qualified by Apgar score at 1 minute vers 1
  - relates to the data element concept Live birth vers 1
  - is used in conjunction with Resuscitation of baby vers 2
  - relates to the data element concept Stillbirth (foetal death) vers 1

## Administrative Attributes

*Source document:*

*Source organisation:* National Perinatal Data Development Committee

*Information model link:*

NHIM Physical wellbeing

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
NMDS - Perinatal	01/07/1997	

*Comments:*

**Please provide any additional views or comments you have regarding this Section, which may assist the evaluation.**

## **Supporting data elements and data element concepts**

This section presents the following data elements for review:

Birthweight  
Establishment number  
Establishment sector  
Gestational age  
Live birth  
Neonatal death  
Neonate  
Perinatal period  
Region code  
State/Territory identifier  
Stillbirth (foetal death)

Data element concept	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Birthweight</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Birthweight

### Identifying and Definitional Attributes

*Knowledgebase ID:* 000021 *Version No:* 1

*Metadata type:* Data Element Concept

*Admin. status:* Current

01/07/96

*Definition:* The first weight of the foetus or baby obtained after birth. The World Health Organization further defines the following categories:

- extremely low birthweight – less than 1,000 g (up to and including 999 g)
- very low birthweight – less than 1,500 g (up to and including 1,499 g)
- low birthweight – less than 2,500 g (up to and including 2,499 g).

*Context:* Perinatal.

### Relational and Representational Attributes

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:*

## Administrative Attributes

**Source document:** International Classification of Diseases and Related Health Problems, 10th Revision, WHO, 1992

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Birth event

**Data Set Specifications:** *Start date*      *End date*

**Comments:** The definitions of low, very low, and extremely low birthweight do not constitute mutually exclusive categories. Below the set limits they are all-inclusive and therefore overlap (i.e. low includes very low and extremely low, while very low includes extremely low).

For live births, birthweight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500 gram groupings for birthweight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured.

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Establishment number</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Establishment number

### Identifying and Definitional Attributes

**Knowledgebase ID:** 000377      **Version No:** 4

**Metadata type:** Data Element

**Admin. status:** Current

01/07/03

**Definition:** An identifier for an establishment, unique within the State or Territory.

**Context:** All health services.

## Relational and Representational Attributes

**Datatype:** Numeric

**Representational form:** Identification number

**Representational layout:** NNNNN

**Minimum size:** 5

**Maximum size:** 5

**Data domain:** Valid establishment number

**Guide for use:**

**Verification rules:**

**Collection methods:**

**Related metadata:** is a composite part of Establishment identifier vers 4  
supersedes previous data element Establishment number vers 3

## Administrative Attributes

**Source document:**

**Source organisation:**

**Information model link:**

NHIM Organisation characteristic

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
DSS – Health care client identification	01/01/2003	

**Comments:** This data element supports the provision of unit record and/or summary level data by State and Territory health authorities as part of the NMDS – Emergency department waiting times.

Establishment number should be a unique code for the health care establishment used in that State/Territory or uniquely at a national level.

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Establishment sector</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Establishment sector

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000379      *Version No:* 3

*Metadata type:* Data Element

*Admin. status:* Current

01/07/01

*Definition:* A section of the health care industry with which a health care establishment can identify.

*Context:*

### Relational and Representational Attributes

*Datatype:* Numeric

*Representational form:* Code

*Representational layout:* N

*Minimum size:* 1

*Maximum size:* 1

*Data domain:* 1 Public

2 Private

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:* is a composite part of Establishment identifier vers 4  
supersedes previous data element Establishment sector vers 2

### Administrative Attributes

*Source document:*

*Source organisation:*

*Information model link:*

NHIM Organisational setting

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
DSS - Health care client identification	01/01/2003	

*Comments:*

Data element concept	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Gestational age</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## Gestational age

### Identifying and Definitional Attributes

*Knowledgebase ID:* 000059 *Version No:* 1

*Metadata type:* Data Element Concept

*Admin. status:* Current  
01/07/96

*Definition:* The duration of gestation is measured from the first day of the last normal menstrual period. Gestational age is expressed in completed days or completed weeks (e.g. events occurring 280 to 286 completed days after the onset of the last normal menstrual period are considered to have occurred at 40 weeks of gestation).

The World Health Organization identifies the following categories:

- Pre-term: less than 37 completed weeks (less than 259 days) of gestation
- Term: from 37 completed weeks to less than 42 completed weeks (259 to 293 days) of gestation
- Post-term: 42 completed weeks or more (294 days or more) of gestation.

*Context:* Perinatal.

### Relational and Representational Attributes

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

**Collection methods:**

**Related metadata:** relates to the data element Gestational age vers 1

## Administrative Attributes

**Source document:**

**Source organisation:** National Perinatal Data Development Committee

**Information model link:**

NHIM Physical wellbeing

**Data Set Specifications:** *Start date*      *End date*

**Comments:**

Data element concept	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Live birth</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Comments:

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## Live birth

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### Identifying and Definitional Attributes

**Knowledgebase ID:** 000083      **Version No:** 1

**Metadata type:** Data Element Concept

**Admin. status:** Current

01/07/94

**Definition:** A live birth is defined by the World Health Organization to be the complete expulsion or extraction from the mother of a baby, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of the voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

**Context:** Perinatal.

## Relational and Representational Attributes

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:* relates to the data element Status of the baby vers 1

## Administrative Attributes

*Source document:* International Classification of Diseases and Related Health Problems, 10th Revision, Vol 1, WHO 1992

*Source organisation:*  
National Health Data Committee  
National Perinatal Data Development Committee  
National Perinatal Data Advisory Committee

*Information model link:*

NHIM Birth event

*Data Set Specifications:* *Start date*      *End date*

*Comments:*

Data element concept	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Neonatal death</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Neonatal death

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000101      *Version No:* 1

*Metadata type:* Data Element Concept

*Admin. status:* Current

01/07/96

*Definition:* The death of a live birth which occurs during the first 28 days of life. This may be subdivided into early neonatal deaths, occurring during the first seven days of life, and late neonatal deaths, occurring after the seventh day but before 28 completed days of life.

*Context:* Perinatal.

### Relational and Representational Attributes

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:* relates to the data element Status of the baby vers 1

### Administrative Attributes

*Source document:* International Classification of Diseases, 10th Revision, WHO, 1992

*Source organisation:* National Perinatal Data Development Committee

*Information model link:*

NHIM Death event

*Data Set Specifications:*                          *Start date*                  *End date*

*Comments:* Age at death during the first day of life (day zero) should be recorded in units of completed minutes or hours of life. For the second (day one), third (day two) and through 27 completed days of life, age at death should be recorded in days (WHO 1992).

Data element concept	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Neonate</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## **Neonate**

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### **Identifying and Definitional Attributes**

*Knowledgebase ID:* 000103      *Version No:* 1

*Metadata type:* Data Element Concept

*Admin. status:* Current

01/07/95

*Definition:* A live birth who is less than 28 days old.

*Context:* Perinatal.

### **Relational and Representational Attributes**

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:*

## Administrative Attributes

*Source document:* International Classification of Diseases and Related Health Problems, 10th Revision, WHO, 1992

*Source organisation:* National Health Data Committee, National Perinatal Data Development Committee National Perinatal Data Advisory Committee

*Information model link:*

NHIM Person characteristic

*Data Set Specifications:* *Start date*      *End date*

*Comments:* The neonatal period is exactly four weeks or 28 completed days, commencing on the date of birth (day 0) and ending on the completion of day 27. For example, a baby born on 1 October remains a neonate until completion of the four weeks on 28 October and is no longer a neonate on 29 October.

Data element concept	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#">Perinatal period</a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Perinatal period

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000124      *Version No:* 1

*Metadata type:* Data Element Concept

*Admin. status:* Current

01/07/96

*Definition:* The perinatal period commences at 20 completed weeks (140 days) of gestation and ends 28 completed days after birth.

*Context:* Perinatal.

### Relational and Representational Attributes

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:*

## Administrative Attributes

*Source document:*

*Source organisation:* National Perinatal Data Development Committee

*Information model link:*

NHIM Physical wellbeing

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
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*Comments:* This definition of perinatal period differs from that recommended by the World Health organization (WHO). In the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (WHO, 1992) the perinatal period is defined as commencing 'at 22 completed weeks (154 days) of gestation (the time when birthweight is normally 500 g) and ends seven completed days after birth'.

At the time that WHO first recommended 500 g (and now 22 weeks) as the lower limits for reporting perinatal and infant mortality, Australia had already adopted legal and statistical definitions for birthweight (400 g) and gestational age (20 weeks) limits that were lower than the WHO limits. Also, the upper limit for the perinatal period in Australia was 28 days. These broader definitions in Australia obviously comply with, and extend, the WHO definitions.

To avoid unnecessary confusion between legal and statistical definitions in Australia, for the purposes of perinatal data collection it is recommended that the perinatal period commences at 20 completed weeks (140 days) of gestation and ends 28 completed days after birth.

<b>Data element</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#">Region code</a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## **Region code**

## Identifying and Definitional Attributes

*Knowledgebase ID:* 000378 *Version No:* 2

*Metadata type:* Data Element

*Admin. status:* Current

01/07/97

**Definition:** An identifier for location of health services in a defined geographic or administrative area.

**Context:** All health services

## Relational and Representational Attributes

**Datatype:** Alphanumeric

### ***Representational form:*** Code

### *Representational layout:* AN

*Minimum size:*

*Maximum size:* ?

**Data domain:** Any valid region code created by a jurisdiction.

**Guide for use:** Domain values are specified by individual States/Territories.

Regions may also be known as Areas or Districts.

### **Verification rules:**

#### *Collection methods:*

*Related metadata:* is a composite part of Establishment identifier vers 4

## Administrative Attributes

#### *Source document:*

#### *Source organisation:*

#### *Information model link:*

## NHIM Organisation characteristic

#### *Data Set Specifications:*

## DSS - Health care client identification

*Start date*

### *End date*

01/01/2003

### *Comments:*

Data element	Importance				Usefulness			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>State/Territory identifier</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

## **State/Territory identifier**

### Identifying and Definitional Attributes

*Knowledgebase ID:* 000380 *Version No:* 3

*Metadata type:* Data Element

*Admin. status:* Current

01/07/03

*Definition:* An identifier for Australian State or Territory.

*Context:* Public health care.

### Relational and Representational Attributes

*Datatype:* Numeric

*Representational form:* Code

*Representational layout:* N

*Minimum size:* 1

*Maximum size:* 1

- Data domain:*
- 1 New South Wales
  - 2 Victoria
  - 3 Queensland
  - 4 South Australia
  - 5 Western Australia
  - 6 Tasmania
  - 7 Northern Territory
  - 8 Australian Capital Territory

- 9 Other territories (Cocos (Keeling) Islands, Christmas Island and Jervis Bay Territory)

**Guide for use:**

DSS - Health care client identification:

When used specifically in the collection of address information for a health care client, the following local implementation rules may be applied:

- NULL may be used to signify an unknown address State
- Code 0 may be used to signify an overseas address.

**Verification rules:**

**Collection methods:**

- Related metadata:**
- relates to the data element Address type vers 1
  - relates to the data element Australian postcode vers 1
  - relates to the data element Postal delivery point identifier vers 1
  - is a composite part of Establishment identifier vers 4
  - supersedes previous data element State identifier vers 2
  - relates to the data element Suburb/town/locality vers 1

## Administrative Attributes

**Source document:** Adapted from Australian Standard Geographic Classification, Australian Bureau of Statistics, Catalogue No. 1216.0

**Source organisation:** National Health Data Committee

**Information model link:**

NHIM Address element

<b>Data Set Specifications:</b>	<b>Start date</b>	<b>End date</b>
DSS - Health care client identification	01/01/2003	

**Comments:**

<b>Data element concept</b>	<b>Importance</b>				<b>Usefulness</b>			
	Not important	Important	Highly important	Unsure	Not useful	Useful	Highly useful	Unsure
<a href="#"><u>Stillbirth (foetal death)</u></a>	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Comments:</b>								

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## Stillbirth (foetal death)

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### Identifying and Definitional Attributes

*Knowledgebase ID:* 000160      *Version No:* 1

*Metadata type:* Data Element Concept

*Admin. status:* Current

01/07/96

*Definition:* A foetal death prior to the complete expulsion or extraction from its mother of a product of conception of 20 or more completed weeks of gestation or of 400 g or more birthweight.

The death is indicated by the fact that after such separation the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

*Context:* Perinatal.

### Relational and Representational Attributes

*Datatype:*

*Representational form:*

*Representational layout:*

*Minimum size:*

*Maximum size:*

*Data domain:*

*Guide for use:*

*Verification rules:*

*Collection methods:*

*Related metadata:*

### Administrative Attributes

*Source document:*

*Source organisation:* National Perinatal Data Development Committee

*Information model link:*

NHIM Death event

<i>Data Set Specifications:</i>	<i>Start date</i>	<i>End date</i>
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*Comments:* The World health Organization definition of live birth, and the legal definition used in Australian States and Territories, do not specify any lower limit for gestational age or birthweight. In practice, liveborn foetuses of less than 20 weeks' gestation are infrequently registered as live births. In analysing data from the perinatal collections, it is recommended that the same criteria of

gestational age and birthweight should be used for live births and stillbirths. Births for which gestational age and birthweight have not been recorded (usually occurring outside hospitals) should be included in the perinatal collections if it seems likely that the criteria have been met.

Terminations of pregnancy performed at gestational ages of 20 or more weeks should be included in perinatal collections and should be recorded either as stillbirths or, in the unlikely event of showing evidence of life, as live births.

**Please provide any additional views or comments you have regarding this Section, which may assist the evaluation.**

## **4. Areas for development**

The AIHW National Perinatal Statistics Unit is interested in obtaining your views on possible areas for development of the Perinatal NMDS, including new data elements which you feel would make the NMDS more useful, possible changes to the scope, or any other priorities for definitional development.

### **4.1. Are there any other new data elements that should be included in the Perinatal NMDS?**

### **4.2. Do you have any comments on the scope of the Perinatal NMDS?**

**4.3. What do you see as the priorities for definitional development (data elements, data element concepts, scope)?**

**4.4. Who should be consulted about any proposed data development?**

## **5. Other comments**

**Please provide any additional views or comments you have which may assist the evaluation.**

**If you would like to provide more detail on any of the questions, please e-mail [p.angus@unsw.edu.au](mailto:p.angus@unsw.edu.au).**

*Thank you for your time in completing this survey.*

# **Appendix B: Survey respondents**

Aboriginal and Torres Strait Islander Health and Welfare Unit, AIHW  
Business Information Management Branch, Territory Health Services, NT  
Centre for Family Health and Midwifery, University of Technology, NSW  
Centre for the Study of Mothers' and Children's Health, La Trobe University, Vic  
Children, Youth and Families Unit, AIHW  
Department of Obstetrics and Gynaecology, Women's and Children's Hospital, SA  
Divisional Support Unit for Hospitals and Ambulance Service, Department of Health and Human Services, Tas  
Epidemiology and Surveillance Branch, NSW Health  
Health and Vitals National Project Centre, Australian Bureau of Statistics  
Health Information Centre, Health Department of Western Australia  
Health Information Centre, Queensland Department of Health  
Maternity Data Collaboration Project  
OBSTET Consortium (NSW Health)  
Population Health Research Centre, ACT Health  
Population Health Unit, AIHW  
Pregnancy Outcome Unit, Department of Human Services, SA  
Telethon Institute for Child Health Research, WA  
Victorian Perinatal Data Collection Unit  
Women's Hospitals Australasia and Children's Hospitals Australasia:  
    Department of Newborn Care, Royal Hospital for Women, NSW  
    Maternal Fetal Medicine, Monash Medical Centre, Vic  
    Neonatology, Royal North Shore Hospital, NSW  
    Obstetrics and Gynaecology, Royal North Shore and Ryde Health Service, NSW  
    Women's, Children's and Adolescent Health, Frankston Hospital, Vic

# **Appendix C:**

## **Survey non-respondents**

Australian College of Midwives

Maternity Alliance

Menzies School of Health Research, NT

National Aboriginal Community Controlled Health Organisation

National Centre for Epidemiology and Population Health

NSW Centre for Perinatal Health Services Research

Paediatrics and Child Health Division, Royal Australasian College of Physicians

Royal Australian and New Zealand College of Obstetricians and Gynaecologists



# Addendum

The report on the Evaluation of the Perinatal NMDS was submitted to the Australian Institute of Health and Welfare (AIHW) in December 2003 with the following recommendations. In order to reflect data development work undertaken by the National Perinatal Data Development Committee (NPDDC) since completion of the evaluation, this addendum provides an update of the current status of the work program arising from the recommendations. The *Status* item indicates activities which have taken place in the period January to August 2004, where relevant.

## General recommendations

- That the NMDS continue. As a whole, it was considered highly important and highly useful by most survey respondents.
- That work continue to improve the completeness and accuracy of data reporting for all data elements but, in particular, those noted as of concern in the compliance evaluation.
- That the wording of the NMDS data collection period be changed to 'Years ending 31 December each year'.

*Status: Endorsed by SIMC in 2004.*

- That it be made clear in the Collection methods section of all data elements with a *Not stated* option that this is an output variable, not a collection input variable, which should be used only if the data domain is left blank.

*Status: Advice sought in 2004 from the National Data Development and Standards Unit, AIHW.*

- That the terms 'foetal' and 'foetus' be changed to 'fetal' and 'fetus' throughout the perinatal-related items.

*Status: Changed in 2004 by the National Data Development and Standards Unit, AIHW.*

- That selected perinatal data elements that are already in the *National Health Data Dictionary*, collected by the states and territories, and supplied to the NPSU, be placed on a work program for consideration as additions to the Perinatal NMDS.

*Status: Under discussion by the NPDDC.*

- That there be clarification of state and territory privacy and confidentiality barriers to supplying Perinatal NMDS data elements used in population-based reporting.

- That the Knowledgebase be reviewed with the aim of improving user friendliness, specifically on use and interpretation of Perinatal NMDS data elements and concepts.

*Status: Superseded by the Knowledgebase redevelopment being undertaken by the AIHW.*

- That education of data providers and users about the Perinatal NMDS items and the NHDD be considered. In general, there appeared to be confusion among survey respondents regarding the differences between data elements and data element concepts.

*Status: Superseded by the Knowledgebase redevelopment being undertaken by the AIHW.*

- That, although survey respondent comments have been summarised in this report, they be available in full to inform subsequent data development work.
- That the considerable efforts of the states and territories and other survey respondents in providing information for this evaluation be recognised and applauded.

- That this report be published by the NHIG and/or AIHW.

*Status: Endorsed for publication by the AIHW and SIMC in 2004.*

## **Recommendations relating to existing and proposed new data elements and concepts**

### **Perinatal NMDS—data elements included**

#### **Actual place of birth**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation, including suggested changes to the data domains. The distinction between *Birth centre, attached to hospital* and *Birth centre, freestanding* is no longer seen as important, therefore, it is recommended that these be combined into one *Birth centre* domain. It is also recommended that a new domain, *Community health centre*, be added.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

#### **Birth order**

It is recommended that this data element be reviewed to address the suggested change in the Guide for Use. The Guide needs to better explain the birth order arising from cases involving fetal deaths and multiple gestation.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.

## **Birth plurality**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation regarding the Guide for Use. The Guide needs to better explain the birth plurality arising from cases involving fetal deaths and multiple gestation.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.

## **Country of birth**

It is recommended that 'Country of birth' of the mother be reported in accordance with the *National Health Data Dictionary* data domain for all jurisdictions. For data from 1 July 2001, the classification should be the ABS *Standard Australian Classification of Countries* (SACC) (ABS 1998).

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD data domain.

## **Date of birth**

It is recommended that 'Date of birth' of both mother and baby be reported in accordance with the *National Health Data Dictionary* format for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD format.

## **Establishment identifier**

It is recommended that this data element be removed from the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for preparation of the necessary NHDC submission.

*Status:* Removal of data element from the NMDS endorsed by SIMC in 2004.

## **First day of the last menstrual period**

It is recommended that this data element be removed from the NMDS, but be retained in the *National Health Data Dictionary*. A new data element 'Estimated date of confinement' will be developed in its place.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for preparation of the necessary NHDC submission.

*Status:* Removed from the NMDS in 2004 by the National Data Development and Standards Unit, AIHW.

### **Gestational age**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation. These include suggested changes to the definition and context to address the widespread use of ultrasound for determining gestational age. The Guide for Use needs to better explain the reporting of gestational ages for fetal deaths.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.

### **Indigenous status**

Work on improving the quality of Indigenous identification in the perinatal data needs to continue. It is recommended that the suggestions in this report for improvement in the quality of these data be communicated to the National Advisory Group for Aboriginal and Torres Strait Islander Health Information and Data (NAGATSIHID) and the AIHW for consideration.

*Priority:* High

*Recommendation:* NHIG notes the comments in this evaluation and refers them to NAGATSIHID and the AIHW for consideration.

It is recommended that 'Indigenous status' of the mother be reported in accordance with the *National Health Data Dictionary* data domains for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD format.

### **Infant weight, neonate, stillborn**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

### **Method of birth**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation, including suggested changes to the data domains and the Guide for Use. It is recommended that the *Other* domain be removed. The Guide needs to better explain the reporting of instances where two domains are applicable, for example, forceps used during caesarean section.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to HDSC for changes in 2004. Out-of-session comments received requesting further development by NPDDC.

## **Onset of labour**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

*Status:* Submitted to HDSC for changes in 2004. Out-of-session comments received requesting further development by NPDDC.

## **Person identifier**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **Separation date**

It is recommended that 'Separation date' of the mother be reported in accordance with the *National Health Data Dictionary* format for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD format.

## **Sex**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **State/Territory of birth**

It is recommended that this data element not be changed.

*Recommendation:* Retain the data element unchanged.

## **Status of the baby**

It is recommended that this data element be reviewed to address the issues highlighted in this evaluation, including suggested changes to the Guide for Use. The Guide needs to better explain the reporting of babies with an Apgar score of 0 at 1 minute, as live births.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.

## **Perinatal NMDS – supporting data elements and data element concepts**

### **Birthweight**

It is recommended that this data element concept not be changed

*Recommendation:* Retain the data element concept unchanged.

### **Establishment number**

It is recommended that 'Establishment number' be reported in accordance with the *National Health Data Dictionary* definition for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD definition.

### **Establishment sector**

It is recommended that 'Establishment sector' be reported in accordance with the *National Health Data Dictionary* definition for all jurisdictions.

*Priority:* High

*Recommendation:* That states and territories report this data element in accordance with the NHDD definition.

### **Gestational age**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

### **Live birth**

It is recommended that this data element concept be reviewed to address the suggested additions to this definition. It needs to better explain the reporting of babies with an Apgar score of 0 at 1 minute, as live births.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.

### **Neonatal death**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

### **Neonate**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

### **Perinatal period**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Region code**

It is recommended that this data element be removed from the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for preparation of the necessary NHDC submission.

*Status: Removal of data element from the NMDS endorsed by SIMC in 2004.*

## **State/Territory identifier**

It is recommended that this data element concept not be changed.

*Recommendation:* Retain the data element concept unchanged.

## **Stillbirth (fetal death)**

It is recommended that this data element concept be reviewed to address the suggested wording changes to the definition.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status: Submitted to HDSC for changes in 2004.*

## **New data elements**

### **Anaesthesia administered during labour**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status: Submitted to NPDDC for review in 2004.*

### **Analgesia administered during labour**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status: Submitted to NPDDC for review in 2004.*

### **Apgar score at 5 minutes**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to HDSC for changes in 2004. Endorsed by SIMC for inclusion in the Perinatal NMDS in August 2004.

### **Intended place of birth**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

### **Estimated date of confinement**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner. It is intended that this item would replace the current NMDS item 'First day of the last menstrual period'.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

### **Length of stay (antenatal)**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Endorsed by SIMC for inclusion in the Perinatal NMDS in August 2004.

## **Parity**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

## **Perineal status**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

## **Presentation at birth**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to HDSC for changes in 2004. Endorsed by SIMC for inclusion in the Perinatal NMDS in August 2004.

## **Previous births by caesarean section**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

## **Resuscitation of baby**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Low

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

### **Smoking status during pregnancy**

It is recommended that this data element be developed in consultation with the NPDDC, with a view to including it in the NHDD and then the NMDS in a formal manner.

*Priority:* High

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Submitted to NPDDC for review in 2004.

### **Type of augmentation of labour**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.

### **Type of labour induction**

This data element is already included in the NHDD. It is recommended that it be reviewed (in collaboration with the NPDDC) for possible inclusion in the NMDS.

*Priority:* Medium

*Recommendation:* That this be referred to the NPSU for its data development work program planning.

*Status:* Under discussion by the NPDDC.