Data Quality Statement – Perinatal Data Collection (PDC)
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Health Statistics Centre, Queensland Health

Key Data Quality Points:
• Previously, error rates for missing, incomplete or inconsistent data items were very high. The number of ‘unknown’ values existed despite rigorous quality checks. The introduction of the Perinatal Online (PNO) Application in September 2009 saw an improvement in the quality of the raw data. Since then approximately 80% of data are supplied electronically via either the PNO or hospital software packages. The quality of data has improved markedly and error rates are now significantly lower. The number of errors generated and the time taken to resolve them has reduced.
• The collection has improved with the inception of validation of births with the birth episodes recorded in the Queensland Hospital Admitted Patient Data Collection (QHAPDC).
• Indigenous status data collected for the mother and the baby is of reasonable quality for statistical reporting purposes.

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<th>Description</th>
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<td>The Perinatal Data Collection (PDC) is a compilation of records collected from all public hospitals, private hospitals, and private midwifery or medical practitioners who deliver babies outside hospitals, for all births occurring in Queensland. The PDC is a basic source of information for research into obstetrics and neonatal care; to provide information on neonatal morbidity and congenital anomalies. Information assists in planning of Queensland’s health services and is used for national and state reporting. The collection includes information on antenatal care, the care provided during labour, and the delivery and care provided after birth.</td>
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<td>Chapter 6, Part 1 (Perinatal Statistics) of the Public Health Act 2005 includes a requirement that perinatal data be provided to the Chief Executive of Queensland Health for every baby born in Queensland.</td>
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<td>Unit record information is collected monthly from hospitals (and independent practitioners) in electronic or paper format (Perinatal Data Collection Form – MR63D) for all babies, within 35 days of birth. This information is sourced from clinical and administrative records and</td>
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information systems, including records of antenatal care, the care provided during labour and delivery, and care provided after the birth.

In addition to information from this form, the collection was supplemented by information from pathology and autopsy reports as well as Medical Certificates of Cause of Perinatal Death from the Registrar-General’s Office.

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<td>The purpose of PDC is to collect information at birth for monitoring pregnancy, childbirth and the neonatal period for both the mother and baby(s) in Queensland. The collection provides a basic source of information for research into obstetric and neonatal care and assists with the planning of Queensland’s health services and the monitoring of neonatal morbidity and congenital anomalies.</td>
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The scope of PDC is all live births regardless of gestation and weight, and stillbirths of at least 20 weeks gestation and/or at least 400 grams in weight.

With the exception of perinatal deaths, the scope of the Collection ceases at the point of formal separation from the birth event – discharge, transfer or death.

Perinatal deaths (i.e. those deaths that occur in the 28 day period after birth) are only included for those babies born in Queensland where the death can be established.

PDC covers all birth events recorded by public or private hospitals or independent birthing practitioners. Confinements/births that occurred outside Queensland, but where the mother was usually resident in Queensland, are not captured by the Collection. Conversely, births that occurred in Queensland, but where the mother’s usual residence was overseas or interstate, are included in the statistics.

It includes data items relating to the mother, including demographic characteristics and factors relating to the pregnancy, labour and birth; and data items relating to the baby, including birth status (live or stillbirth), sex, gestational age at birth, birth weight, Apgar score and neonatal length of stay.

Homebirths may not be reported as part of the PDC. The extent of the under-coverage is unknown.
PDC is the ‘source of truth’ for information relevant to the birth supplied to the Commonwealth, under the prescribed national reporting arrangements. This information is used as input to a number of Commonwealth reports including:

- *Australia’s mothers and babies* (AIHW)
- *National Healthcare Agreement Performance Indicators* (COAG Reform Commission)
- *Report on Government Services* (Productivity Commission)

### Timeliness

PDC data are collected on a monthly basis, and finalised on a calendar year basis.

PDC data are required from hospitals and practitioners at the Health Statistics Centre (HSC) within 35 days of the birth. When the perinatal forms are received, data are coded and input manually from the paper forms by the HSC. Data received electronically are manually loaded to the PDC system. Once data are received by the HSC, validation checks are performed and validation reports returned to submitting hospitals or practitioners for corrections/checks.

Approximately 10% of submissions are not received within the required deadline. Delays of up to 16 weeks can occur with the submission of data. There can also be a delay of up to 12 weeks in the return of validation reports from hospitals or practitioners.

Supplementary data from the Registrar-General’s Office are received on a weekly basis but are also subject to delays in people registering births and perinatal deaths.

PDC data for the current calendar year are not considered final until six months after the end of the year, due to ongoing validations and corrections. A complete annual file is supplied to the Commonwealth 16 months after the end of the reference year.

### Accuracy

The responsibility for the quality of the data is with the data provider. The quality of coding clinical conditions is the responsibility of the hospital when data is provided electronically and the HSC when the data is provided in paper form.

To ensure that the statistics produced are reliable, the HSC undertakes extensive validation checks of the data each month when the data is received, then quarterly and annually.
The HSC run a series of input editing checks on the data to check unusual and incomplete data items. These checks include: data entry checks, coding checks, validation queries for internal and external purposes and quarterly queries for unusual, ambiguous or incomplete data items.

Data are checked for valid values, logical consistency, incomplete reporting and missing values. Any potential errors are verified with the hospital contact or practitioner who completed the form. Corrections may be made in response to these edit queries.


Adhoc external audits have been carried out to assess the quality of clinical coding in the PDC. They include:
- Perinatal conditions and ICD10-AM codes;
- Perinatal deaths and ICD10-AM codes.

Not all homebirths may be reported to the HSC.

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<th>Coherence</th>
<th>Perinatal data items may be introduced or amended dependent on national reporting requirements and/or local or planning or reporting needs. As such, analysis of particular data items over time could be significantly impacted.</th>
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<td></td>
<td>The PDC is reconciled against the Queensland Hospital Admitted Patient Data Collection (QHAPDC) and Queensland Registrar’s Deaths registrations to check the number of births and perinatal deaths.</td>
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| Accessibility       | The HSC provides the following products on PDC:  
- Perinatal Statistics – Queensland (annual)  
- Queensland Health Indigenous Key Performance Indicator, Indigenous Birth weights  

The Australian Institute of Health and Welfare (AIHW) report annual data and produce adhoc reports which comprise information supplied by the jurisdictions. These reports can be found at:  
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Information relating to the collection of the PDC, as well as the associated metadata can be found on the Queensland Health Data Dictionary (QHDD), which is managed by the Statistical Standards Unit of the Health Statistics Centre. Further information on the QHDD can be sought by emailing dqstd@health.qld.gov.au.

Definitions and related information for the collection of data at the national level can be sourced from the AIHW’s online metadata repository, METeOR located at [http://meteor.aihw.gov.au/content/index.phtml/itemId/344850](http://meteor.aihw.gov.au/content/index.phtml/itemId/344850)

Statistics and analyses generated from PDC will contain caveat information relevant to the issue being addressed. These caveats may include discussion of coverage, completeness of data supplied, and other inclusion or exclusion criteria used to generate the data. The following technical reports have been published as per the links below:

- Technical notes on compliance with the maternal height and weight measures (at time of conception) included in the PDC from July 2007

- Indigenous identification in administrative data collections and the implications for reporting Indigenous health status

- Measuring Indigenous perinatal outcomes - should we use the Indigenous status of the mother, father or baby?