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Incidence Data

Queensland Newborn Screening
ACKNOWLEDGEMENTS

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. The Queensland Office of the Australian Bureau of Statistics for its assistance and advice,

. The staff of the Perinatal Data Collection,

. The Newborn Screening Unit for their contribution.
INTRODUCTION

The Queensland Perinatal Data Collection commenced in November 1986 after State legislation under Part II of the Health Act 1937 was amended to include ‘Division XII - Perinatal Statistics’ requiring that perinatal data be provided to the Chief Executive for every child born in Queensland. The collection was established to provide a basic source of information for research into obstetric and neonatal care and to assist with the planning of Queensland’s health services. In addition, it enables the monitoring of neonatal morbidity and congenital anomalies.

This report presents summary statistics based on the data collected for 2015.

Changes are routinely introduced to the collection on a financial year basis. Calendar year publications will reflect these changes as far as possible. The introduction of ICD-10-AM Seventh Edition occurred from 1 July 2012. For previous years, notations are made where relevant for items or coding that have changed in mid-year.
**DATA COLLECTION**

Perinatal Data Collection forms were forwarded to Queensland Department of Health by public hospitals, private hospitals, and homebirth practitioners or in the case of hospitals using electronic systems, an extract was provided. The forms were designed to be an integral part of the mother’s medical record, both to reduce duplication of recording and to ensure optimum accuracy of data. The Statistical Collections and Integration Team (previously Data Collections Unit), which conducts the collection, has encouraged the practice that wherever possible, midwives complete the forms and suggests that the forms be considered an essential part of the nursing summary. For homebirths, the responsibility for the completion and return of the forms rests with homebirth practitioners.

The Obstetric Summary and Neonatal Notes (MR63D) form collected antenatal, intrapartum and postpartum data. Two editions of the Obstetric Summary and Neonatal Notes (MR63D) forms were used in 2015. These forms (January to June 2015 and July to December 2015 MR63D) are shown in Appendix B. It is also important to note that a large number of birthing hospitals now submit data electronically.

In addition to information from these forms, the collection was supplemented by information from Medical Certificates of Cause of Perinatal Death from the Registrar-General’s Office.
EXPLANATORY NOTES

Scope

The statistics shown in this report relate to confinements/births that occurred in Queensland during 2015 and were reported to the Perinatal Data Collection. Confinements/births that occurred outside Queensland, but where the mother was usually resident in Queensland, were 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. The scope of the Collection ceases at the point of formal separation - discharge, transfer or death.

Data quality

A number of quality control procedures have been employed to ensure that the statistics produced are reliable. The Statistical Collections and Integration Team 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.

Definitions

Actual place of birth

Actual place where the birth of the baby occurred.

Apgar score

A numerical scoring system usually applied at one minute and five minutes after birth to evaluate the condition of the baby, based on heart rate, respiration, muscle tone, reflexes and colour.

Antenatal care type

The place or type of practitioner from whom antenatal care was received during the pregnancy.

Assessment for chronicity scan

An ultrasound to distinguish between twins who share a membrane. This will identify those multiples who share a chorion and are at risk of twin to twin transfusion syndrome.

Assisted conception

The current pregnancy was the result of assisted conception; that is, there was a method used to increase the chance of fertilisation in the infertile or subfertile woman or couple.

Augmentation

Intervention after the spontaneous onset of labour to assist the progress of labour.

Baby

A product of conception that is born alive or if stillborn is of at least 20 weeks gestation and/or 400 grams in weight.

Baby’s place of death

The location of death of the baby.

Birth

The process by which a baby is expelled or extracted from the mother. The number of births per year is equal to the number of livebirths and stillbirths in that year.
Birth order
The order of each baby of a multiple birth.

Birthweight
The first recorded weight of the newborn baby, usually measured in the first hour after birth. Low birthweight babies are those whose weight is less than 2,500 grams and this category includes very low birthweight babies whose weight is less than 1,500 grams as well as extremely low birthweight babies whose weight is less than 1,000 grams.

Congenital anomaly
A structural defect or chromosomal abnormality, including deformations that are present at birth and diagnosed prior to separation from care.

Cord pH
The measurement of the umbilical cord pH.

CTG in labour
Indicating whether Cardiotocography (CTG) monitoring was performed.

Date of admission
The date of admission of the mother for birth to the facility where the confinement takes place.

Date of confinement
The date the mother births her baby and in the case of a multiple birth the date of the birth of the first baby.

Estimated date of confinement
Estimated date of birth as indicated by ultrasound scan, date of last menstrual period or clinical assessment.

Fetal scalp pH
Measurement of the fetal scalp pH.

First day of the last menstrual period
Date of the first day of the mother’s last menstrual period (LMP).

Fluid baby received in the birth episode
The type of fluid ingested by the baby at any time prior to discharge.

Fluid baby received 24hrs prior to discharge
The type of fluid ingested by the baby in the twenty four hours prior to discharge.

FSE in labour
Indicating whether Fetal Scalp Electrode (FSE) monitoring was performed.

Gestation
The estimated gestational age of the baby in completed weeks as determined by clinical assessment. Preterm births are identified as those babies whose gestation is less than 37 completed weeks. In cases of multiple births where an intrauterine fetal death (IUFD) occurred, the gestational age is estimated as the age at death and not the age at birth.

GrandMultipara
A pregnant woman who has had at least five previous pregnancies resulting in a livebirth or stillbirth.
**Hepatitis B vaccination status**
The Hepatitis B vaccination status of the baby at birth.

**Indigenous Status**
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/she lives.

**Induction**
Intervention to stimulate the onset of labour.

**Intended birth place**
The intended place of birth of the baby at the onset of labour.

**Labour and birth complication**
Complication arising within labour or birth that may have significantly affected care during this time.

**Livebirth**
The complete expulsion or extraction from the mother of a baby which shows evidence of life, (eg: has a heartbeat), irrespective of birthweight or gestational age.

**Macerated**
The softening and breaking down of skin from prolonged exposure of a dead fetus to amniotic fluid.

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

**Method of birth**
The method of complete expulsion or extraction from it’s mother of a product of conception.

**Method of birth of last birth**
The method of complete expulsion or extraction from its mother of a product of conception in last birth event.

**Morphology ultrasound scan**
An ultrasound to allow the early diagnosis of morphologic abnormalities.

**Mortality rates**
Stillbirth rate - the number of stillbirths per 1,000 births.
Neonatal mortality rate - the number of neonatal deaths per 1,000 livebirths.
Perinatal mortality rate - the number of perinatal deaths per 1,000 births.

**Mother**
A woman who gave birth to one or more babies in Queensland during the reference period.

**Multipara**
A pregnant woman who has had at least one previous pregnancy resulting in a livebirth or stillbirth.

**Neonatal death**
The death of a live born baby within the first 28 days of life.
**Non-Pharmacological Analgesia administered during labour**

The type of non-pharmacological analgesia used by the mother to relieve pain during the labour and/or birth.

**Nuchal translucency ultrasound**

An ultrasound to assess for trisomy 21 chromosomal abnormalities.

**Outcome of previous pregnancies**

The number of previous pregnancies resulting in stillbirths (of at least 20 weeks gestation and/or 400 grams), spontaneous abortion or induced termination of pregnancies (of less than 20 weeks gestation and less than 400 grams) or livebirth outcomes.

**Perinatal death**

A stillbirth or neonatal death.

**Perinatal period**

The perinatal period commences at 20 completed weeks (140 days) of gestation and ends 28 completed days after birth.

**Period in ICN/SCN**

Total number of whole or part calendar days that baby spent in intensive care nursery/special care nursery.

**Pharmacological Analgesia administered during labour**

Type of pharmacological agents administered to the mother by injection or inhalation to relieve pain during labour and/or birth.

**Plurality**

The number of births resulting from a pregnancy. Plurality of a pregnancy is determined by the number of livebirths or by the number of fetuses that remain in utero at 20 weeks gestation and that are subsequently born separately. In multiple pregnancies, or if gestational age is unknown, only livebirths of any birthweight or gestational age, or fetuses weighing 400g or more, are taken into account in determining plurality. Fetuses aborted before 20 completed weeks are excluded.

**Position of congenital anomaly**

The laterality of the structural abnormalities (including deformations) present at birth.

**Pregnancy complication**

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

**Presentation**

That part of the fetus which is lowermost in the uterus at birth.

**Primipara**

A pregnant woman who has had no previous pregnancy resulting in a livebirth or stillbirth.

**Primary reason for induction**

Primary reason for the need to induce labour.

**Principal accoucheur**

The principal person assisting the mother in the birth of the baby.
Puerperium
The six week period for the mother following birth.

Puerperium complication
The medical and obstetric complications of the mother occurring during the postnatal period up to the time of separation from care.

Puerperium procedures and operations
Any procedure or operation the mother had during the puerperium.

Separation date
Date on which an admitted patient completes an episode of care.

Smoking
An indicator of whether the mother has smoked any cigarettes at any time during the pregnancy.

State/Territory of birth
The state/territory in which the birth occurred.

Stillbirth
The complete expulsion or extraction from the mother of a product of conception of at least 20 weeks gestation and/or 400 grams birthweight which, after separation, did not show any signs of life, that is, did not have a heartbeat.

Underlying cause of perinatal death
The disease or condition present in either the fetus, neonate or mother which, in the opinion of the certifier, was the single underlying cause of the perinatal death, i.e. the disease condition which initiated the train of events which lead to death.

Water Birth
An indicator of whether the birth was a water birth. For a birth to be considered a water birth, the baby’s head must remain submerged under water until after the body is born.
**APPENDIX A: UNPUBLISHED DATA AVAILABLE FROM THE PERINATAL DATA COLLECTION**

(Release of data is subject to confidentiality restrictions)

**MOTHER**

<table>
<thead>
<tr>
<th>Place of birth</th>
<th>Puerperium complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Separation type</td>
</tr>
<tr>
<td>Country of birth</td>
<td>Date of separation</td>
</tr>
<tr>
<td>Indigenous status</td>
<td>Place of transfer</td>
</tr>
<tr>
<td>State of usual residence</td>
<td>Smoking during pregnancy (status and number)</td>
</tr>
<tr>
<td>Statistical local area of usual residence</td>
<td>Smoking cessation advice</td>
</tr>
<tr>
<td>Marital status</td>
<td>Puerperium procedures &amp; operations</td>
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<td>Weight</td>
<td>Parity</td>
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<tr>
<td>Height</td>
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</table>

<table>
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<th>Accommodation status</th>
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<td>Antenatal transfer</td>
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<td>Antenatal transfer place</td>
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<td>Time of antenatal transfer</td>
<td></td>
</tr>
<tr>
<td>Reason for antenatal transfer</td>
<td></td>
</tr>
<tr>
<td>Assisted conception methods</td>
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<td>Date of admission</td>
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</table>

**BABY**

<table>
<thead>
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<th>Date of birth</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Time of birth</td>
<td>Birthweight</td>
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<tr>
<td>Gestation</td>
<td>Plurality</td>
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<tr>
<td>Sex</td>
<td>Born alive/stillborn</td>
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<td>Route of administration of vitamin K</td>
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<tr>
<td>Apgar score (1 and 5 minutes)</td>
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<tr>
<td>Time to establish respirations</td>
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<tr>
<td>Resuscitation methods</td>
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<tr>
<td>Neonatal morbidity</td>
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<tr>
<td>Neonatal treatment methods</td>
<td></td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td></td>
</tr>
</tbody>
</table>

| Antenatal diagnosis of congenital anomalies |                          |
| Indigenous status of baby |                        |
| Days in ICN |                          |
| Days in SCN |                          |
| Main reason for admission to ICN/SCN |                        |
| Fluid received in the birth episode |                    |
| Fluid received in the 24hrs prior to discharge |                |
| Use of a bottle |                        |
| Date of separation |                      |
| Separation type |                        |
| Place of transfer |                      |

**PERINATAL DEATHS**

<table>
<thead>
<tr>
<th>Date of death</th>
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<tbody>
<tr>
<td>Age at death</td>
<td>Indigenous status of baby</td>
</tr>
<tr>
<td>Place of death</td>
<td>Macerated (stillbirths)</td>
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<td>When heartbeat ceases</td>
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<td>Post-mortem performed</td>
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<td>Post-mortem confirmed</td>
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<td>Main and other maternal diseases</td>
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<td>Main and other causes of death</td>
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</table>
APPENDIX B
PERINATAL DATA COLLECTION FORM (MR63D) January to June 2015
## PERINATAL DATA COLLECTION FORM (MR63D) January to June 2015 (continued)

### BABY
- **BABY'S UR N.:** [Field]
- **DATE OF BIRTH:** [Field]
- **INDICATIONS STATUS - BABY:**
  - Apgar 1
  - Apgar 2
  - Apgar 3
  - Other (Specify)
- **SEX:**
  - Male
  - Female

### TIME OF BIRTH
- **antenatal hour:** [Field]
- **postnatal hour:** [Field]

### WEIGHT AT BIRTH
- **Birth weight:** [Field]

### HEAD CIRCUMFERENCE AT BIRTH
- **Birth head circumference:** [Field]

### BIRTH STATUS
- **Birth status:**
  - Stillborn
  - Necrotic

### POSTNATAL DETAILS
- **Mother's newborn mortality:**
  - No
  - Yes

### POSTNATAL PROCEDURES AND GROWTH
- **Diagnosis:**
  - Neurological
  - Respiratory distress

### MOTHER'S PREGNANCY COMPLICATIONS
- **Any supplement medicated:**

### DISCHARGE DETAILS
- **Discharge date:** [Field]

### CONGENITAL ANOMALY
- **Type of fluid baby received:**
  - Type A
  - Type B

### ADDITIONAL CONGENITAL ANOMALY DESCRIPTION OR DETAILS.
APPENDIX C: 2015 PERINATAL DATA COLLECTION FORM CHANGES (MR63D)

New Items:

**Congenital Anomaly**
- Was anomaly diagnosed antenatally?
  - Yes/No

**Antenatal Screening**
- Was antenatal screening for domestic violence performed?
- Was antenatal screening for alcohol use performed?
- Was antenatal screening for illicit drug use performed?
- Was antenatal screening for Edinburgh Depression Score performed?

**Immunisation**
- Was immunisation for influenza received during this pregnancy?
- Was immunisation for pertussis received during this pregnancy?

**Assisted Conception**
- Frozen embryo transfer/embryo transfer

**If labour induced**
- Main reason for induction
- 1\textsuperscript{st} additional reason for induction
- 2\textsuperscript{nd} additional reason for induction

**2\textsuperscript{nd} Additional reason for caesarean**

**Labour and Delivery Complications**
- Primary PPH (500-999ml)
- Primary PPH (1000-1499)
- Primary PPH (=>1500ml)
REFERENCES