Australian Government
Australian Institute of Health and Welfare

Maternity models of care in Australia, 2023

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About

This is the third national release of data on the maternity 'models of care' available to women in Australia. In 2023, around 1,000 models of care were reported as being in use across 251 maternity services in Australia. This report explores the characteristics of these models, including the 11 major model categories they fall into, the women they are designed for, the maternity carers involved in providing them, and the extent of continuity of carer within them.

Cat. no: PER 118

Findings from this report:

- Around 1,000 maternity models of care are in use across Australia and these fall into 11 major model categories
- The most common model of care is public hospital maternity care (41% of models)
- Around 29% of models have continuity of carer across the whole maternity period; 36% have no continuity of carer
- Around 63% of models are targeted at specific groups of women; 37% are not targeted

Maternity models of care

What is a 'model of care'?

A maternity model of care describes how a group of women are cared for during pregnancy, birth and the postnatal period, that is, how maternity care is provided. This includes identifying:

- the women a model is designed for
- the maternity carers involved and the role they play
- aspects of how and where care is provided.

Based on these characteristics, each model of care can be grouped into one of 11 major model categories.

Why do we need to classify them?

Around 300,000 babies are born in Australia each year and while women have some choice around the health providers and care they receive during the maternity period this may depend on where they live and their individual circumstances. Most maternity models of care in Australia include care in either a public or private hospital setting. An Australian Government report on improving maternity services in Australia recommended some changes to improve choices for women and the range of models of care available to them (DoHA 2009); the values of safety, respect, choice, and access, underpin strategic directions that aim to see the range of maternity models of care available across Australia expanded (COAG 2019). To monitor the models of care available to and utilised by women requires the collection of this information in a standardised way.

What is the Maternity Care Classification System?

The Maternity Care Classification System (MaCCS) is a standardised nomenclature for maternity models of care. It can be used to identify, describe, and report on the range of maternity models of care available to women in Australia. Funded by the Commonwealth Department of Health and Aged Care, the MaCCS was developed by the National Perinatal Epidemiology and Statistics Unit at the University of New South Wales and the Australian Institute of Health and Welfare (AIHW), as part of the *National Maternity Data Development Project* (AIHW 2014a, 2016a, 2018). This involved consultation with a range of stakeholders across the country (AIHW 2014b, 2016b).

The MaCCS underpins the AIHW's maternity models of care data collection and the Model of Care National Best Practice Data Set (MoC NBPDS). The MoC NBPDS contains information about the models of care available at maternity services across Australia. Collecting this data on models of care has also facilitated the inclusion of model of care data elements into the National Perinatal Data Collection (NPDC) with 2 model of care data elements added to the specifications for this collection in July 2020.

The AIHW would like to thank and acknowledge the maternity services and jurisdictions that contribute to the maternity models of care data collection. While this release reports on the characteristics of the models themselves, the AIHW plans to use models of care data from the NPDC to report on the models of care women use, as this data becomes available. In the 2021 NPDC, Queensland maternity services collected models of care information for all women giving birth in their jurisdiction. In the AIHW report *Maternity models of care in focus*, Queensland perinatal data and models of care information from the MoC NBPDS are linked and used as a case study to explore the number of women using different models of care in Queensland, whether these vary by maternal characteristics, and outcomes for mothers and babies based on the model of care used. Similar information from other jurisdictions will be available in future years.

References

AIHW (Australian Institute of Health and Welfare) (2014a) *Foundations for enhanced maternity data collection and reporting in Australia: National Maternity Data Development Project Stage 1*, Cat. No. PER 60. Canberra: AIHW, Australian Government.

AIHW (2014b) *Nomenclature for models of maternity care: a consultation report*, Cat. No. PER 64. AIHW, Australian Government.

AIHW (2016a) *Enhancing maternity data collection and reporting in Australia: National Maternity Data Development Project Stage 2*, Cat. No. PER 73. AIHW, Australian Government.

AIHW (2016b) *Maternity Care Classification System: Maternity Model of Care Data Set Specification national pilot report November 2014*, Cat. No. PER 74. AIHW, Australian Government.

AIHW (2018) *Enhancing maternity data collection and reporting in Australia: Stage 3 and 4 Working Paper*, Cat. no. PER 90. AIHW, Australian Government.

Council of Australian Government (COAG) Health Council (2019) *Women-centred care: Strategic directions for Australian maternity services*, Department of Health, Australian Government.

Department of Health and Ageing (DoHA) (2009) *Improving maternity services in Australia: the report of the Maternity Services Review*, DoHA, Australian Government.

How many models of care are there?

The maternity models of care in the Model of Care National Best Practice Data Set (MoC NBPDS) are classified at the maternity service level. Services identify and describe the models of care they offer, and each model has a unique model of care number.

Most maternity services in Australia in 2023 (96%) have at least one model of care classified in the MoC NBPDS, an increase from 93% of services in 2022. While the total number of services with models of care classified in the Maternity Care Classification System (MaCCS) Data Collection Tool (DCT) remains similar at 251, the number of models reported by services in 2023 increased by 125, from 887 to 1,012. Nearly half this increase (46%) was in Victorian services.

While the total number of models of care classified in the MoC NBPDS has increased, the key characteristics of the models of care remain the same and reflects the maternity care options available to women in Australia. It is not expected that further improvements in coverage will significantly change what these models of care look like at the national and jurisdictional level, although it is expected and that the quality of this information will continue to improve.

It is also important to note that models of care in different locations may be similar to, or different from each other with respect to their key characteristics. Every model of care can however be grouped into one of 11 major model categories; this makes it possible to report on the range of models of care available to women using common terminology. See Major model category definitions.

Maternity models of care – at a glance

In 2023, around 1,000 maternity models of care were reported as being in use across 251 maternity services. Most of these (90%) were in public maternity services. Around 37% of maternity services have one model of care, just over one-third (35%) have between 2 and 5 models of care, and 28% have 6 or more models of care. The median number of models of care is higher in public maternity services (4 models of care), than private services (one model of care).

Around 2 in 5 models (41%) fall within the model category of *public hospital maternity care*. This is followed by *shared care* (15% of models), *midwifery group practice caseload care* (14% of models), and *private obstetrician (specialist) care* (11% of models).

The interactive map below (Figure 1) shows the number of models of care in use for Australia and the 3 most common model categories these fall under. Select a State or Territory from the map or from the dropdown menu to see its summary information.

Figure 1: Maternity models of care, by state and territory, Australia, 2023

The map of Australia shows the total number of maternity models of care in each state and territory and the 3 most common major model categories these fall under. It also shows the range and median number of models of care for both public and private maternity services,

Problem creating image.

Notes

1. 'Other' includes private maternity services (hospitals) that are also funded to provide public maternity care.
2. Analyses are based on the models of care being used by maternity services with birthing facilities that were classified in the MoC NBPDS in June 2023.

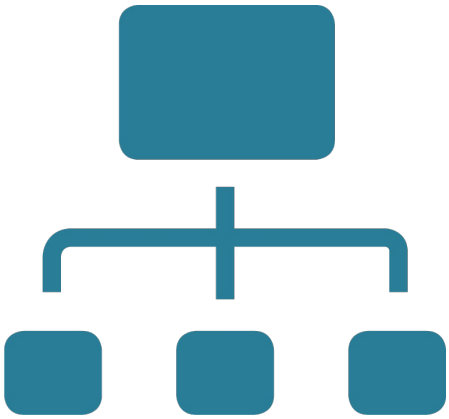
Source: AIHW analysis of the MoC NBPDS.

What do maternity models of care look like?

Around 1,000 maternity models of care were reported as being in use across Australia in 2023. While the total number of models classified in the Model of Care National Best Practice Data Set (MoC NBPDS) has increased since 2022, the key characteristics of these models remain the same and can be explored in the following sections. This includes:

- the 11 categories these models fall into (major model category)
- the *designated* and *collaborative* carers who provide these models of care (maternity carers)
- the extent of continuity of carer within the models (continuity of carer)
- whether the models target a particular group of women (target groups)
- the antenatal and postnatal care and birth settings within the models.

Major model category



41% are classified as *public hospital maternity care*, followed by *shared care* (15%) and *midwifery group practice caseload care* (14%)

Maternity carers

46% have a *midwife - public* as the designated (lead) maternity carer

Continuity of carer

29% have *continuity of carer* through the whole maternity period

Target groups

63% are targeted at specific groups of women who share a common characteristic

Antenatal and postnatal care

75% provide women with access to postnatal visits in a residential setting

Labour and birth settings

97% have birthing within a hospital (birth suite/ labour ward) as a planned setting for birth

What do maternity models of care look like?

Each maternity model of care in the Model of Care National Best Practice Data Set (MoC NBPDS) is grouped into one of 11 major model categories, based on its specific characteristics. The 11 different categories broadly describe the intent of the model of care, although not all women in a model of care will necessarily follow the same journey or receive the same care pathway as the model intends (or was designed for). See Major model category definitions.

The most common major model category is *public hospital maternity care* with 41% of models of care falling into this category. This is followed by *shared care* (15% of models), *midwifery group practice caseload care* (14% of models), and *private obstetrician specialist care* (11% of models). *Public hospital high risk maternity care* is the model category for around 5.3% of models. Other, less common models include g*eneral practitioner (GP) obstetrician care* (3.9%), *combined care* (2.8%), *private midwifery care* (1.9%) and *team midwifery care* (1.6%).

It is important to note there may still be differences between models of care with the same major model category. *Public hospital maternity care* is the model category with the most variation (Donnolley et al 2017). It broadly describes a model of care where antenatal care is provided by midwives and/or doctors in onsite or outreach clinics. Intrapartum (labour and birth) and postnatal care is provided in hospital by midwives in collaboration with doctors as needed. This category is used to describe models that cover a range of clinics, from those run by midwives that target low risk women, to those led by public specialist obstetricians for women with obstetric complexities such as gestational diabetes, multiple pregnancy, or next birth after caesarean section. Around three-quarters (76%) of models classified as *public hospital maternity care* target a specific group of women, compared with 63% of models overall.

In contrast, models classified as *midwifery group practice caseload care* have less variation. This category describes models where antenatal, intrapartum, and postnatal care are provided within a publicly funded caseload model by a known primary midwife, with secondary backup midwives providing cover and assistance, and collaboration with doctors in the event of identified risk factors. Antenatal care and postnatal care are usually provided in the hospital, community, or home with intrapartum care in a hospital, birth centre or home. This model category, by definition, has a public midwife as the designated carer and continuity of carer for the whole duration of maternity care. It is also more likely to target low risk or normal pregnancy (35%, compared with 19% overall) and to provide residential postnatal care (100%, compared with 75% overall).

A *shared care* model category describes models of care where antenatal care is provided by a community maternity service provider (doctor and/or midwife) in collaboration with hospital medical and/or midwifery staff, under an established agreement. It can occur in the community and in hospital outpatient clinics. This would usually include an agreed schedule of antenatal care between the 2 providers. Intrapartum and early postnatal care usually takes place in the hospital, by hospital midwives and doctors, often in conjunction with the community doctor or midwife (particularly in rural settings). Just over half (54%) of models of care in this category target a specific group of women, compared with 63% overall, and 28% have a target group of low risk or normal pregnancy.

Public hospital maternity care is the most common model category in all states and territories, except the Northern Territory where *shared care* (25% of models) and *remote area maternity care* (25% of models) are more common. Queensland and South Australia have a relatively high proportion of models of care classified as *midwifery group practice caseload care* (24% and 21%, respectively).

The data visualisation below (Figure 2) shows maternity models of care by their major model category. Select the drop-down menu to filter by jurisdiction (state or territory). Use the button to access the data table.

Figure 2: Proportion of models of care, by major model category, Australia, 2023

The bar chart shows that public hospital maternity care is the most common model category in Australia (representing 41% of maternity models of care).

Notes

1. Analyses are based on the models of care being used by maternity services with birthing facilities that were classified in the MoC NBPDS in June 2023.
2. Some model categories are not represented in some jurisdictions. This is because health system structures and care frameworks differ between jurisdictions. There may also be a small number of models of care that are not included because they have not yet been classified by maternity services or are state-wide models of care that do not sit under a specific service.

Source: AIHW analysis of the MoC NBPDS.

References

Donnolley NR, Chambers GM, Butler-Henderson KA, Chapman MG & Sullivan EA 2017. 'More than a name: Heterogeneity in characteristics of models of maternity care reported from the Australian Maternity Care Classification System validation study'. *Women and Birth* 30(4): 332–341. doi:10.1016/j.wombi.2017.01.005

What do maternity models of care look like?

The *designated* or *lead* maternity carer is the health professional coordinating the care for women during the antenatal, intrapartum, and postnatal periods. Just under half of all models of care (46%) have a *midwife - public* (midwives employed in the public health system) as the designated carer. This is an essential component of all models classified as *midwifery group practice caseload care* (100%) and is also found in nearly two-thirds of models classified as *public hospital maternity care* (64%). The next most common designated carer is a *shared care* arrangement (15% of models), followed by a *specialist obstetrician - public* (14%), and a *specialist obstetrician - private* (12%). Having a *shared care* arrangement means the model of care does not have a single designated carer and the carer may change at different times or be shared.

Collaborative maternity carers are other health professionals that work in partnership with the designated carer to provide maternity care. Most (96%) models of care have at least one collaborative carer, in addition to the lead or designated carer. Half (52%) of all models of care have one collaborative carer, and this is higher in models classified as *private obstetrician specialist care* (85%), *GP obstetrician care* (85%), and *remote area maternity care* (69%). Just over one-quarter of models (28%) have 2 collaborative carers, and this is higher in models classified as *combined care* (50%) and *shared care* (42%).

Common collaborative carers include a *specialist obstetrician - public* (46% of models), a *midwife - public* (44%) and a *GP obstetrician* (16%). All models of care with a designated carer of *specialist obstetrician - public* have a *midwife - public* as a collaborative carer, while just under three-quarters (71%) of models with a *midwife - public* as a designated carer have a *specialist obstetrician - public* as a collaborative carer. In models with a designated carer of *shared care*, most (92%) have a *midwife - public* as a collaborative carer, half (50%) have a *specialist obstetrician - public;* as a collaborative carer and 44% have a *GP obstetrician* as a collaborative carer.

A *midwife - public* is the designated carer in 46% of models nationally and the most common designated carer across all jurisdictions; it is more common in models of care in Tasmania (65%) and New South Wales (57%). Victoria and the Australian Capital Territory have a higher proportion of models of care with a *specialist obstetrician - private* as the designated carer (19% and 18% respectively, compared with 12% overall).

The data visualisation below (Figure 3) shows maternity models of care by type of designated carer. Select from the drop-down menu to filter by jurisdiction (state or territory). Use the button to access the data table.

Figure 3: Proportion of models of care, by type of designated carer, Australia, 2023

The bar chart shows around 46% of models of care have a midwife - public as the designated or lead carer. The next is a shared care arrangement at 15.1%

Notes

1. A designated carer (otherwise known as the lead carer) is the health professional coordinating the care for women during the antenatal, intrapartum and postnatal periods.
2. Analyses are based on the models of care being used by maternity services with birthing facilities that were classified in the MoC NBPDS in June 2023.

Source: AIHW analysis of the MoC NBPDS.

What do maternity models of care look like?

The *extent of continuity of carer* is a measure of the one-to-one care provided by the same named caregiver across the continuum of maternity care. Over one-third (36%) of models have no continuity of carer in any stage of the maternity period, which means there is no named carer assigned to each woman and care is given by different providers. A similar proportion (35%) have continuity of carer for some part of the maternity period, for example the antenatal period only (19%), or the antenatal and postpartum periods (14%). Around 29% of models have continuity of carer through the whole maternity period, meaning a single named designated carer provides or coordinates care for the antenatal, intrapartum, and postpartum periods. This is higher in Queensland (38%), South Australia (37%), and the Australian Capital Territory (36%) and may be related to the higher number of models classified as *midwifery group practice caseload care*.

The data visualisation below (Figure 4) shows maternity models of care, by the extent of continuity of carer. Select from the drop-down menu to filter by jurisdiction (state or territory). Use the button to access the data table.

Figure 4: Proportion of models of care, by continuity of carer, Australia, 2023

The bar chart shows over one-third of models of care have no continuity of carer. Around one-third have continuity of carer for some part of the maternity period and less than one-third have continuity of carer through the whole duration of the maternity period.

Problem creating image.

Notes

1. The extent of continuity of carer is a measure of the one-to-one care provided by the same named caregiver across the continuum of maternity care, that is, the antenatal (before birth), intrapartum (birthing) and postpartum (after birth) periods.
2. 'Other' includes where there is continuity of carer in the antenatal and intrapartum periods only, or the intrapartum and postpartum periods only.
3. Analyses are based on the models of care being used by maternity services with birthing facilities that were classified in the MoC NBPDS in June 2023.

Source: AIHW analysis of the MoC NBPDS.

The extent of continuity of carer varies by model category. Models classified as *midwifery group practice caseload care*, by definition, have continuity of carer across the whole duration of the maternity period. Models classified as *private midwifery care*, and p*rivate obstetrician specialist care* also have a high level of continuity of carer across the whole duration of the maternity period (100% and 90% of models in these categories, respectively). In contrast, models classified as *team midwifery care*, by definition, have no continuity of carer at any stage of the maternity period. Models classified as *public hospital maternity care*, or *public hospital high-risk maternity care*, or *shared care* are more likely to have no continuity of carer (56%, 54% and 42% of models in these categories, respectively).

The extent of continuity of carer also varies by the type of designated carer. Models of care with a designated carer of *midwife – privately practising*, or *specialist obstetrician – private*, are more likely to have continuity of carer across the whole duration of the maternity period (91% and 83%, respectively). In contrast, three-quarters (75%) of models of care with a designated carer of *specialist obstetrician – public* have no continuity of carer at any stage of the maternity period.

The data visualisation below (Figure 5) shows the extent of continuity of carer by major model category and designated carer. Change the display by selecting either major model category or designated carer.

Figure 5: Continuity of carer, by major model category and designated carer, Australia, 2023

There are two bar charts in the data visualisation. The first chart shows models classified as *midwifery group practice caseload care* have continuity of carer across the whole duration of the maternity period. Most (90%) models classified as *private obstetrician specialist care* also have continuity of carer across the whole duration of the maternity period. In contrast, models classified as *team midwifery care* have no continuity of carer at any stage of the maternity period and models classified as *public hospital maternity care* or *public hospital high-risk maternity care* are also more likely to have no continuity of carer (56% and 54% of models in these categories, respectively). The second chart shows models with a designated carer of *midwife – privately practising* or *specialist obstetrician – private*, are more likely to have continuity of carer across the whole duration of the maternity period (91% and 83%, respectively). In contrast, models of care with a designated carer of *specialist obstetrician – public* are more likely to have no continuity of carer at any stage of the maternity period (75%).

Notes

1. The extent of continuity of carer is a measure of the one-to-one care provided by the same named caregiver across the continuum of maternity care, that is, the antenatal (before birth), intrapartum (birthing) and postpartum (after birth) periods.
2. 'Other' includes where there is continuity of carer in the antenatal and intrapartum periods only, or the intrapartum and postpartum periods only.
3. Whole duration of maternity period includes the antenatal (before birth), intrapartum (at birth) and postpartum (after birthing) periods.
4. Analyses are based on the models of care being used by maternity services with birthing facilities that were classified in the MoC NBPDS in June 2023.

Source: AIHW analysis of the MoC NBPDS.

What do maternity models of care look like?

Some models of care are targeted at specific groups of women with similar characteristics. These may be based on geographical area, risk status, obstetric or medical conditions or social or cultural characteristics. Target groups are not mutually exclusive, so a model of care may have more than one target group. Around 635 (63%) models of care are targeted at specific groups of women who share a common characteristic or set of characteristics, while 37% of models are not specifically targeted to any group of women. The broad target groups of *low risk or normal pregnancy*, and *all excluding high risk pregnancy*, are reported in 19% and 11% of models of care, respectively. *Aboriginal or Torres Strait Islander identification* is a target group in 11% of models; this is higher in the Northern Territory (33%). *Complex or high risk pregnancy* is a target group in 6% of models (Figures 6a and 6b).

Figure 6a: Proportion of models of care with a target group, by jurisdiction, Australia, 2023

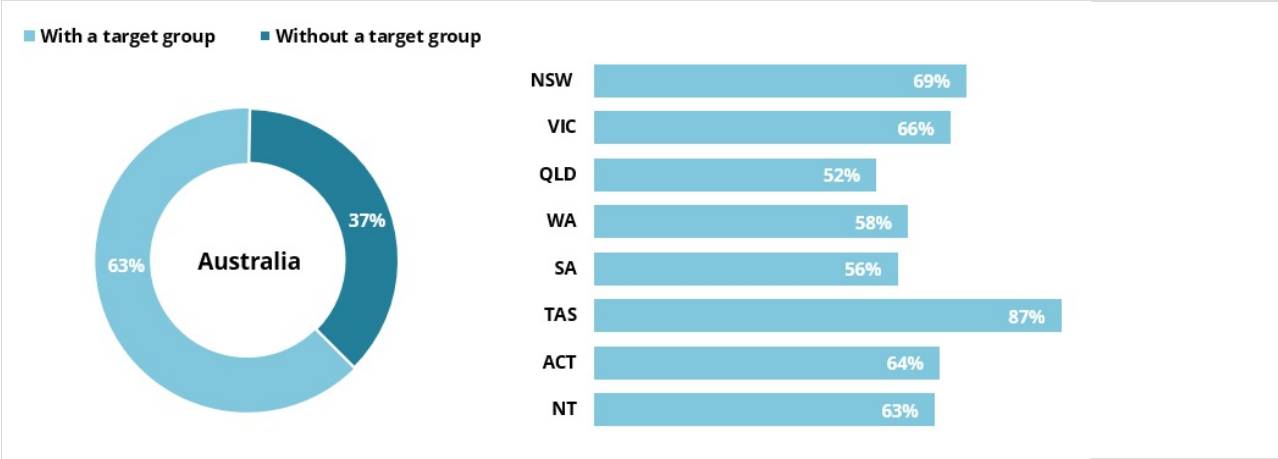
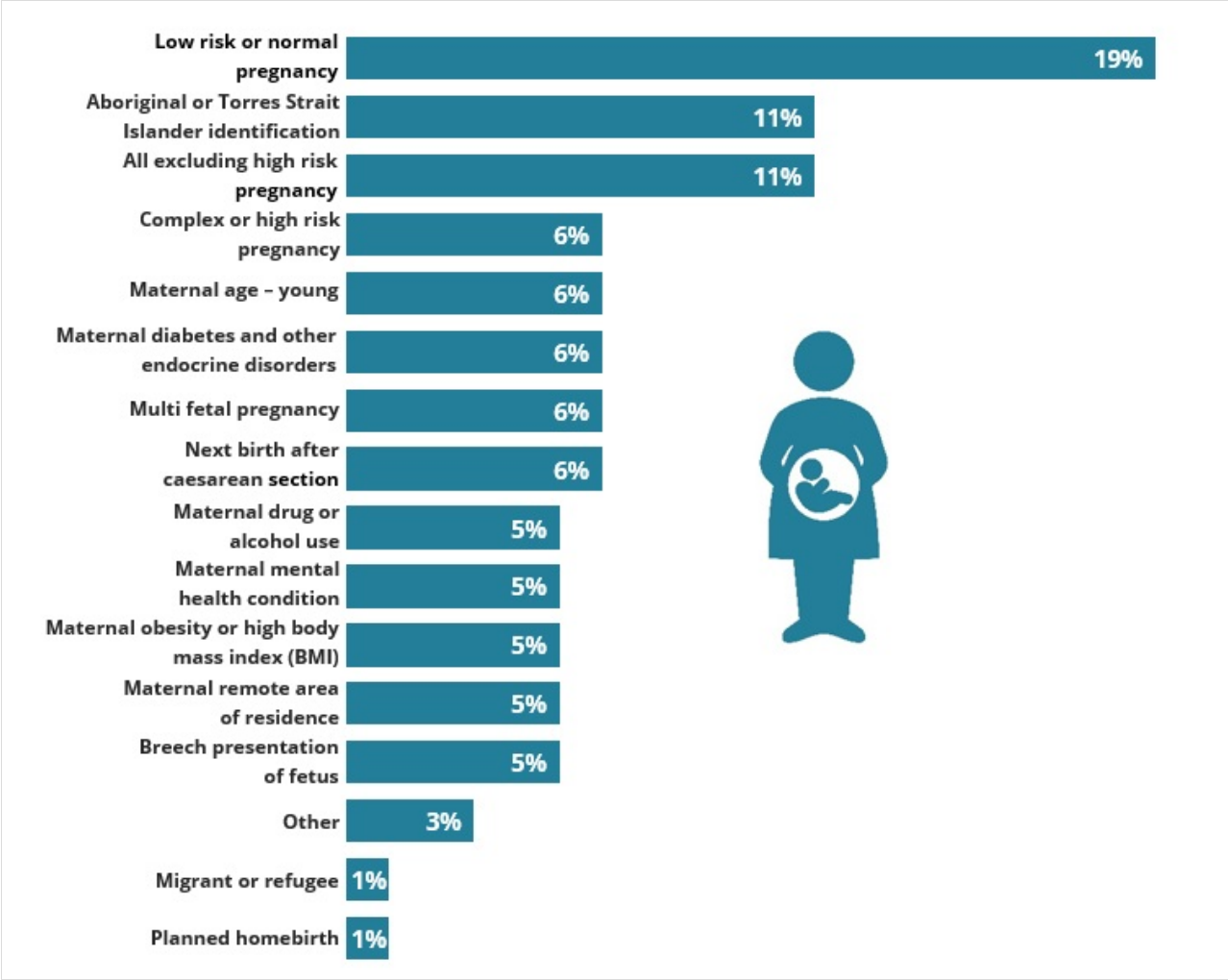


Figure 6b: Proportion of models of care, by target group category, Australia, 2023



Notes

1. A model of care may have more than one target group, so the sum of the individual categories will be greater than the total with a target group.
2. 'Other' includes any other cultural, social, maternity and vulnerable groups not already specified.

Source: AIHW analysis of the MoC NBPDS.

What do maternity models of care look like?

Antenatal and postnatal care

Most maternity models of care (96%) provide antenatal and postnatal care in individual sessions. Some (4.1%) provide this care through a combination of individual and group sessions. These group sessions include both education and clinical care.

Three-quarters (75%) of models of care provide women with access to at least one postnatal visit in a residential setting. All models classified as *midwifery group practice caseload care*, or *team midwifery care*, or *private midwifery care*, offer postnatal visits in a residential setting, compared with 76% of models classified as *public hospital maternity care* and 41% of models classified as *private obstetrician specialist care*.

Labour and birth settings

A model of care may have one or more planned settings for birth. Nearly all (97%) maternity models of care offer birthing within a hospital birth suite or labour/delivery ward as a planned setting for birth.

Around 65 (6.4%) models of care have a birth centre (either stand alone or in a hospital) as a planned setting for birth. Only a small number of these exist. A birth centre is an alternative setting to the conventional hospital setting for labour and birth. A common feature in a birth centre is a homely space, midwife-led care with a philosophy towards normality and avoidance of interventions. A small number of models (3.2%) have the home as a planned setting for birth.

Around 8% of models of care have *routine relocation* of women prior to labour for intrapartum care and birth as part of the model. Women cared for in these models require relocation from their communities to another location prior to labour for intrapartum care and birth. Routine relocation usually applies to models where women reside in a rural or remote community with no access to a birth facility and are routinely relocated to a larger town or city some weeks prior to birth. Routine relocation as a characteristic of a model of care is higher in the Northern Territory (25%) and Tasmania (17%).

How can models of care information be used?

This release is part of a work program to report on the maternity models of care available to women in Australia and looks at the number and characteristics of these models of care. Future reporting will look at measures of access to models of care and outcomes for women and babies using different models of care. A goal outlined in the Australian Government's *National Maternity Services Plan* is to increase access to local maternity care by expanding the range of models of care available (DoH 2010). Classifying the models of care available to women at the service level will provide a picture of the maternity models of care available across Australia and monitoring this over time will help in evaluating whether the range of models of care available to women is expanding. Assigning a major model category to each model of care means the range of models of care available to women can be reported on using common terminology.

Collecting information about maternity models of care facilitates the inclusion of model of care data elements into the NPDC. Two model of care data elements were added to the specifications for this collection from 1 July 2020 and jurisdictions are looking to collect this information. This means that for every woman giving birth in Australia, information about their 'primary' model of care and their model of care at the 'onset of labour or non-labour caesarean section' will be collected. Linking data from the NPDC and the MoC NBPDS will provide information on the number and characteristics of women using different models of care and outcomes for them and their babies. It will also enable mapping and analyses at smaller geographic levels. This will support the aims of the strategic directions for Australian maternity services to improve options for women and maternal and perinatal health across Australia (COAG 2019).

Queensland provided models of care information for all women giving birth in their perinatal collection in 2021. This is the first perinatal models of care data to be assessed as being suitable for reporting and are used as a case study in *Maternity models of care in focus* to show how models of care information from two AIHW data collections may be used together. This report explores the number of women using different models of care in Queensland, whether these differ by maternal characteristics, and selected outcomes for mothers and babies by model of care. Similar information for other jurisdictions will be available in future years.

References

Council of Australian Governments (COAG) Health Council (2019) *Woman-centred care: Strategic directions for Australian maternity services*, Department of Health, Australian Government.

DoH (Department of Health) (2010) *National Maternity Services Plan*, Department of Health, Australian Government.

Data quality and availability

On this page:

About the model of care national best practice data set

The scope of the MoC NBPDS is all models of maternity care available to pregnant and birthing women in Australia. The elements in the data set describe the different characteristics of models of maternity care around 3 domains:

- the women a model is designed for
- the carers working within the model
- how and where care is commonly provided.

Information about each of the data elements in the MoC NBPDS are in Technical notes and on METEOR.

How is data collected?

The Australian Institute of Health and Welfare (AIHW) developed the Maternity Care Classification System (MaCCS) data collection tool (DCT) to collect information on the models of care available at each maternity service. A registered user in each service uses the DCT to classify their models of care, by answering a series of questions on each model of care they offer. This ensures they are classified in a standardised way. The questions used to classify each model of care are in Technical notes.

The DCT has a user guide to help registered users enter their models of care information accurately, and inbuilt validation and tool tips to reduce reporting errors. The AIHW also maintains a helpdesk to support services to classify their models of care. To ensure information is kept up to date, the AIHW asks maternity services to review and update their models of care annually and validates new and updated models when they are submitted. Validation queries are followed up with maternity services. Any models of care with significant data quality queries still attached to them after follow up are excluded from reporting. In this report 4 models of care (less than 1%) were excluded from national reporting.

The information submitted to the DCT forms the basis of the MoC NBPDS. Summary information about each model of care submitted to the DCT is available for each maternity service at the MaCCS website. This includes the model ID number, model name and the major model category it falls under.

Capturing models of care in the National Perinatal Data Collection

Collecting models of care at the service level also facilitates the inclusion of model of care data elements into the National Perinatal Data Collection (NPDC). The 2 model of care data elements going into the NPDC are *primary maternity model of care* and *maternity model of care at the onset of labour or non-labour caesarean section*. The model of care at the onset of labour or non-labour caesarean section may be similar to or different from the primary model of care a woman received through her pregnancy. The MaCCS DCT allocates a unique model ID number to each model of care entered to it. Model ID numbers can then be used to populate the 2 model of care data elements in each woman's perinatal data record and to link NPDC data with other information in the MoC NBPDS. Analyses based on the number of women that use a particular model of care will be possible once these data elements are routinely collected in the NPDC.

NPDC model of care data elements

Primary maternity model of care

Definition:

The maternity model of care a female received for the majority of pregnancy care, as represented by a numeric identifier.

Guide for use:

This value is populated using the Maternity Care Classification System (MaCCS) and is the value of the unique model of care code.

The model of care a female received for the majority of pregnancy care, as determined by the number of antenatal visits within that model of care.

Collection methods:

To be collected once, after the birth.

Maternity model of care at the onset of labour or non-labour caesarean section

Definition:

The model of maternity care a female is under at the onset of labour or at the time of non-labour caesarean section, as represented by a numeric identifier.

Guide for use:

This value is populated using the Maternity Care Classification System (MaCCS) and is the value of the unique model of care code.

Collection methods:

To be collected once, after the birth.

Source: METEOR.

A note about coverage

Most (96%) maternity services with birth facilities had at least one 'active', or 'in use' model of care, classified in the MaCCS DCT on 30 June 2023. Coverage rates are high at 89% or above in all jurisdictions (see Table 1). A national baseline for all maternity models of care is not yet available because:

- Classifying models of care for the MoC NBPDS is voluntary.
- In services that have classified models in the DCT it is possible that not all available models of care have been entered.
- There is a gap in the collection of models of care with a major model category of *private midwifery care* because the AIHW engages primarily with maternity services. While the number of models of care in this category is likely to be small and some hospitals have entered models of care on behalf of private midwives, this category has poorer coverage compared with other model categories.

Table 1: Maternity service engagement with the MaCCS DCT, by jurisdiction, 2023

	Services - public	Services - private	Total	Services with at least 1 active model - public	Services with at least 1 active model - private	Total with at least 1 active model
Jurisdiction	**No.**	**No.**	**No.**	**%**	**%**	**%**
NSW	65	16	81	96.9	86.7	95.1
VIC	41	15	56	100.0	100.0	100.0
QLD	38	16	54	100.0	100.0	100.0
WA	23	8	31	87.0	100.0	90.3
SA	22	4	26	90.9	75.0	88.5
TAS	2	3	5	100.0	100.0	100.0
ACT	2	1	3	100.0	100.0	100.0
NT	4	1	5	100.0	100.0	100.0
Total	**197**	**64**	**261**	**96.5**	**95.1**	**96.2**

Notes

1. Includes maternity services with birth facilities. 'Services - private' includes 3 services that are also funded to provide public maternity care.
2. 'Active' models are those that have been classified and submitted to the MaCCS DCT and are in use at a maternity service on 30 June 2023.

Source: MaCCS DCT, 2023.

How can we improve the collection?

The completeness and quality of the MoC NBPDS will continue to improve as familiarity with the MaCCS DCT grows, with further engagement by maternity services and maternity service providers and with the inclusion of the two model of care data elements into the NPDC. The AIHW will continue its work to improve the accuracy and completeness of the models of care information and to incorporate these data elements into other maternal and perinatal health reporting.

Glossary

Aboriginal and/or Torres Strait Islander
A person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander.

antenatal
The period covering conception up to the time of birth. Synonymous with prenatal.

antenatal care
An episode of care between a pregnant woman and a midwife or doctor to assess and improve the wellbeing of the mother and baby throughout pregnancy. It does not include care where the sole purpose is to confirm the pregnancy. Also known as an antenatal visit.

birth centre
Is commonly known as an alternative setting to the conventional hospital setting for labour and birth. These can either be within a hospital or separate to the hospital, that is, freestanding. A common feature in a birth centre is a homely space, midwife-led care with a philosophy of normality and avoidance of interventions. Only a small number of maternity services around the country have a birth centre by this definition.

collaborative maternity carer(s)
The health professional(s) who collaborate with the *designated* or *lead* maternity carer to provide care for women during the antenatal, intrapartum or postnatal stages of maternity care, based on the women's identified needs and individual circumstances. Collaborative carers have a planned role with each woman in the model of care, however, may not necessarily provide direct clinical care to them.

complex or high-risk pregnancy
A target group within the MaCCS. This is selected if the model is provided in a public hospital by multidisciplinary specialists for complex maternal, medical and fetal conditions and limited obstetric conditions. It is not used for conditions that require obstetric input such as high body mass index (BMI) or gestational diabetes.

continuity of carer
Continuity of carer means care is provided, or led, over the full length of a maternity period (the antenatal, intrapartum, or postnatal period) by the same named carer. Other caregivers may be involved in the provision of care, either as a backup to the named carer or to collaborate in the provision of care, however, the named carer continues to coordinate and provide ongoing care throughout. The MaCCS looks at the extent of continuity of carer across the continuum of maternity care (the antenatal, intrapartum, and postnatal periods) within each model of care. There are 6 categories to describe the extent of continuity of carer within a model ranging from no continuity of carer across any stage of the maternity period to continuity of carer across the whole duration of maternity period – antenatal, intrapartum, and postpartum.

designated maternity carer
The health professional who coordinates the care for a woman during the antenatal, intrapartum and postnatal stages of maternity care, based on the woman's identified needs and individual circumstances. May also be known as the maternity care co-ordinator, primary or lead carer, or named carer within a model. In some cases, this may not be an individual but a multi-disciplinary team or shared care arrangement. The designated maternity carer may not always be the most senior clinician involved in the care of women in the model. Possible values for this data element include:

- specialist obstetrician - public
- specialist obstetrician - private
- general practitioner obstetrician
- midwife – public
- midwife – private
- midwife – privately practising
- general practitioner
- maternal-fetal medicine subspecialist
- Aboriginal maternal infant care practitioner
- nurse
- shared care
- multidisciplinary team
- other.

group antenatal/postnatal sessions
Some models of care offer antenatal and/or postnatal care in groups sessions such as the centering pregnancy ® model. Group sessions consist of two or more women and must include both education and clinical care in a group setting. This does not refer to ‘parenting’ classes or ‘antenatal education’ classes.

hospital (excluding birth centre)
Is a setting for birth that describes areas used for birthing in a hospital other than a 'birth centre'. These areas may be known by a variety of names such as birth suite, delivery suite, labour ward, labour and delivery.

intrapartum
Is the period from the commencement of labour and including the birth.

major model category
This is the overarching descriptor of a maternity model of care based on its characteristics. It describes the intent of a model of care. Although there is variation between different models of care, each can be grouped into one of 11 different categories based on their specific characteristics. These 11 categories are:

- combined care
- general practitioner obstetrician care
- midwifery group practice caseload care
- private midwifery care
- private obstetrician and privately practising midwife joint care
- private obstetrician specialist care
- public hospital high risk maternity care
- public hospital maternity care
- remote area maternity care
- shared care
- team midwifery care.

For a description of these see Major model category definitions.

midwifery caseload
A type of maternity care where women have a primary midwife assigned to them throughout pregnancy, labour and birth and the postnatal period. Each midwife cares for an agreed number (caseload) of women per year. Caseload midwives usually work on a 24-hour on-call basis (this may be organised within a group) and may be employed on an annualised salary. This is also known as a midwifery continuity of carer model of care and may be a private or public arrangement. Midwifery caseload may be managed within a midwifery group practice model where a small number of midwives join together in a group with each midwife having their own caseload and providing backup for the other midwives in the group practice. A key aspect of caseload midwifery practice that differentiates it from *team midwifery* models is that women have a named midwife, caseload midwives have a self-managed workload that is outside of a traditional roster structure and provides a high level of continuity of carer across the continuum of maternity care.

perinatal
Pertaining to, or occurring in, the period shortly before or after birth (usually up to 28 days after).

postnatal / postpartum
Pertaining to the period immediately after the birth and lasts for 6 weeks. The terms postpartum and postnatal are often used interchangeably (including in this report), however, ‘postpartum’ refers to the woman and ‘postnatal’ refers to the baby.

routine relocation
This is where the intention of the model of care is that all women cared for in the model require relocation from their communities to another location prior to labour for intrapartum care and birth. Routine relocation often applies to models where women reside in a rural or remote community where there is no access to an appropriate birth facility and are routinely relocated to a larger town or city some weeks prior to birth. This is not used if the model only requires the transfer of some women with increased risk factors due to complexities of pregnancy.

target group
Some models of care are targeted at specific groups of women with similar characteristics. These may be based on geographical area, risk status, obstetric or medical condition, or social/cultural characteristics. Having a target group does not necessarily mean the model is restricted to only those women (although the model is specifically targeted at them) and other women may also access the model of care. Some models are targeted at more than one group of women so multiple values for this data element may be selected. The possible values for this data element include:

- Aboriginal or Torres Strait Islander identification
- migrant or refugee
- low risk or normal pregnancy
- complex or high risk pregnancy
- breech presentation of fetus
- multi fetal pregnancy
- next birth after caesarean section
- planned homebirth
- maternal diabetes and other endocrine disorders
- maternal obesity or high body mass index
- maternal drug or alcohol use
- maternal age – young
- maternal mental health condition
- maternal remote area of residence
- other specific cultural groups not already specified
- other social groups not already specified
- other vulnerable groups not already specified

- other maternity target group.

See also

Glossary

The major model category is the overarching category or group that a maternity model of care belongs to. While there may be differences between models of care, each one can be grouped into one of 11 categories based on its specific characteristics. Note – while the major model category describes the overall intent of a maternity model of care it does not necessarily mean that all women in a model of care will follow the same journey or receive the same care pathway as the model was designed for.

The 4 most common model categories

Most maternity models of care in Australia fall into one of the following 4 model categories:

Public hospital maternity care

- Antenatal care is provided in hospital outpatient clinics (either onsite or outreach) by midwives and/or doctors. Care may also be provided by a multidisciplinary team.
- This is the broadest model category and includes a range of models of care from those led by midwives that target low risk women to those led by obstetricians that target women with obstetric risk factors such as diabetes.
- Intrapartum and postnatal care is provided in hospital by midwives and doctors in collaboration.
- Postnatal care may continue in the home or community by hospital midwives.

Shared care

- Antenatal care is provided by a community maternity service provider (doctor and/or midwife) in collaboration with hospital medical and/or midwifery staff under an established agreement.
- Can occur both in the community and in hospital outpatient clinics.
- Usually includes an agreed schedule of antenatal care between the two providers.
- Intrapartum and early postnatal care usually takes place in the hospital, by hospital midwives and doctors, often in conjunction with the community doctor or midwife (particularly in rural settings).

Midwifery group practice caseload care

- Antenatal, intrapartum and postnatal care is provided within a publicly funded caseload model by a known primary midwife with secondary backup midwives providing cover and assistance, in collaboration with doctors in the event of identified risk factors.
- Antenatal care and postnatal care is usually provided in the hospital, community or home with intrapartum care in a hospital, birth centre or home.
- This category provides continuity of carer across the whole maternity period.

Private obstetrician specialist care

- Antenatal care is provided by a private specialist obstetrician.
- Intrapartum care is provided in either a private or public hospital by the private specialist obstetrician in collaboration with hospital midwives.
- Postnatal care is usually provided in the hospital by the private specialist obstetrician and hospital midwives and care by midwives may continue in the home, hotel or hostel.
- Most models in this category provide continuity of carer across the whole maternity period.

Other model categories

Maternity models of care that fall into the following model categories are also available at some maternity services, however these are less common:

Public hospital high risk maternity care

- Antenatal care is provided to women with medical high risk/complex pregnancies by public hospital maternity care providers (specialist obstetricians and/or maternal-fetal medicine subspecialists in collaboration with midwives).
- Intrapartum and postnatal care is provided by hospital doctors and midwives.
- Postnatal care may continue in the home or community by hospital midwives.
- This category is *not* used for obstetric-led clinics (models of care) such as those designed for women with diabetes or with risk factors such as high BMI. Models requiring obstetric input but not multi-disciplinary specialised care are classified as *public hospital maternity care*.

General practitioner (GP) obstetrician care

- Antenatal care is provided by a GP obstetrician.
- Intrapartum care is provided in either a private or public hospital by the GP obstetrician in collaboration with the hospital midwives.
- Postnatal care is usually provided in the hospital by the GP obstetrician and hospital midwives.

Remote area maternity care

- Antenatal and postnatal care is provided in remote communities by a remote area midwife (or nurse) or group of midwives, sometimes in collaboration with a remote area nurse and/or doctor.
- Antenatal care may also be provided via telehealth or fly-in-fly-out clinicians in an outreach setting.
- Intrapartum and early postnatal care is provided in a regional or metropolitan hospital (often involving temporary relocation prior to labour) by hospital midwives and doctors.

Combined care

- Antenatal care is provided by a private maternity service provider (doctor and/or midwife) in the community.
- Intrapartum and early postnatal care is provided in a public hospital, by hospital midwives and doctors.
- Postnatal care may continue in the home or community by hospital midwives.
- Usually exists without a shared care agreement, so there is no agreed schedule of visits between providers and the private provider does not provide any care in hospital.

Private midwifery care

- Antenatal, intrapartum and postnatal care is provided by a privately practicing midwife or group of midwives in collaboration with doctors in the event of identified risk factors.
- Antenatal, intrapartum and postnatal care could be provided in a range of locations including the home.
- This category is used when the designated maternity carer is a privately practicing midwife but is not used if the model of care is shared care between a private midwife and a hospital as part of a formal arrangement.

Team midwifery care

- Antenatal, intrapartum and postnatal care is provided by a small team of rostered midwives in collaboration with doctors in the event of identified risk factors.
- Intrapartum care is usually provided in the hospital or birth centre.
- Postnatal care may continue in the home or community by the team midwives.

Private obstetrician and privately practising midwife joint care

- Antenatal, intrapartum and postnatal care is provided by a privately practising obstetrician and midwife from the same collaborative private practice.
- Intrapartum care is usually provided in either a private or public hospital by the privately practising midwife and/or private obstetrician in collaboration with hospital midwifery staff.
- Postnatal care is provided in hospital and may continue in the home.

Technical notes

Abbreviations

Table 2: Abbreviations

Abbreviation	In full
AIHW	Australian Institute of Health and Welfare
BMI	Body Mass Index
COAG	Council of Australian Governments
DCT	Data Collection Tool
GP	General Practitioner
MaCCS	Maternity Care Classification System
MoC NBPDS	Model of Care National Best Practice Data Set
NPDC	National Perinatal Data Collection

Data quality statement

Maternity model of care NBPDS 2022–23: Maternity Care Classification System, 2023; Quality Statement

Model of Care (MoC) National Best Practice Data Set (NBPDS) data elements

MoC NBPDS data elements (PDF 31KB)

Maternity Care Classification System (MaCCS) Data Collection Tool (DCT) questions

MaCCS DCT questions (PDF 90KB)

Notes

Data quality statement

Maternity model of care NBPDS 2022–23: Maternity Care Classification System, 2023; Quality Statement

Data

For previous reports' data tables, see Archived content.

Related material

Resources

Archived content

Previous years' data tables

The data tables below are previously published data from the Model of Care National Best Practice Data Set (MoC NBDPS) that have now been superseded. Data were correct at the time of release but may have changed since then.

For this report's data tables see Data.