Australasian Health Facility Guidelines

Part B - Health Facility Briefing and Planning

0510 – Maternity Unit

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Australasian Health Facility Guidelines

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01 INTRODUCTION

1.1 PREAMBLE

This Health Planning Unit (HPU) has been developed by the Australasian Health Infrastructure Alliance (AHIA). This revision has been informed by an extensive consultation process that was completed in 2022.

The document is intended to be used by design teams, project managers and end users to facilitate the process of planning and design.

1.2 INTRODUCTION

This HPU outlines the requirements for the planning and design of maternity services and broadly encompasses antenatal, interpartum and postpartum care in inpatient and outpatient settings.

This document should be read in conjunction with the Australasian Health Facility Guidelines (AusHFG) generic requirements described in:

- Part A: Introduction and Instructions for Use
- Part B: Section 80 - General Requirements and Section 90 - Standard Components
- Part C: Design for Access, Mobility, Safety and Security
- Part D: Infection Prevention and Control.

The following specialised services and facilities are excluded from the scope of this document:

- reproductive / infertility units
- milk banks
- clinical genetics units.

The following related AusHFG resources should also be referenced where appropriate:

- HPU390 Neonatal Care Unit
- HPU155 Ambulatory Care and Community Health
- HPU520 Operating Unit
- AusHFG Arts in Health Framework

1.3 POLICY FRAMEWORK

Before undertaking a project, planners and project staff are encouraged to familiarise themselves with jurisdictional plans, policies and guidelines relating to maternity services. Key maternity services policies include:

- COAG Health Council (Department of Health), August 2019, Woman-centred care – Strategic directions for Australian maternity services (https://www.health.gov.au/resources/publications/woman-centred-care-strategic-directions-for-australian-maternity-services).
- The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), November 2017, Maternity Care in Australia – A framework for a healthy new generation of Australians.
- Ministry of Health. 2011. New Zealand Maternity Standards: A set of standards to guide the planning, funding and monitoring of maternity services by the Ministry of Health and District Health Boards.

Information relating to jurisdictional policies and guidelines are listed in the Appendices in the Further Reading and References sections.

1.4 DESCRIPTION

1.4.1 Description of Maternity Health Planning Unit (HPU)

Maternity care refers to preconception care, antenatal care, labour and birth care, and postnatal care for women and their babies up to six weeks after birth. Strong relationships and linkages between maternity, neonatal and other specialist services are vital to quality maternity care.

This HPU outlines the specific requirements for planning and designing hospital based maternity services. The national maternity frameworks outlined in 'Woman-centred care – Strategic directions for Australian maternity services' and the RANZCOG's 'Maternity Care in Australia – A framework for a healthy new generation of Australians' have been used to inform the development of the HPU. This includes being underpinned by the core values of safety, respect, choice and access.

A maternity unit may include preconception and antenatal outpatient services, a birth suite and inpatient beds to support antenatal and postnatal care. Depending on the role of service, extended services may be provided including newborn care / neonatal intensive care services and access to an operating suite for caesarean births. Typical service components include:

- **Preconception care** includes counselling and the provision of biomedical, behavioural and social health interventions to optimise the health of women and their partners prior to pregnancy to improve health related outcomes for themselves and their children. In a hospital setting, this would be provided as an outpatient service in facilities with a maternal fetal medicine (MFM) unit, typically a level 6 service. Preconception care is also commonly provided in community based settings.
- **Antenatal care** is a routine part of pregnancy care which aims to support and monitor the woman and detect complications early so they can be actively managed. The range of services being provided in outpatient settings is increasing with less reliance on inpatient care. While much of this care is provided in hospital settings, midwifery led clinics may also be conducted in community based settings and there is growing use of virtual models of care. Examples of antenatal care include:
    - outpatient clinics - midwives, GP, obstetricians and other specialist services
    - day stay monitoring of mother and/or fetus including Cardiotocography (CTG), ultrasound, pathology, blood pressure
    - multidisciplinary screening, assessment and treatment, e.g. mental health and domestic violence screening
    - exercise, relaxation and parent education classes - in hospital or community settings
    - inpatient care for a range of conditions such as pre-eclampsia.
- **Birth suites** provide a number of birth rooms which can be used in a flexible way to accommodate different service models and approaches to care. This includes labour, birth and immediate postnatal phases followed by transfer to a postnatal inpatient bed one to two hours after the birth. The room may also be used for women who are discharged home directly from the bith suite.

  Planned and unplanned caesarean sections will occur in an operating theatre. The mother will need to be recovered and ideally not separated from her child so that skin to skin contact is maintained. The mother may commence her birthing journey in the suite.

  A birth centre service will manage midwifery led low risk births and may accommodate women with antenatal care, labour, postnatal care to discharge.

- **Postnatal care** may include:
    - general recovery in an inpatient unit of mother and baby
    - parenthood education
    - lactation education
    - outpatient clinics
    - community / home-based follow-up for extended periods in some cases.

Models outlined in this document support 'rooming-in' that enables the mother to access and hold her baby when needed, as well as providing infant feeding support. Due to this model, maternity units do not routinely include neonatal cots, however it is acknowledged that some lower level services may allocate a small number of cot spaces to support step down transfers of infants from networked neonatal care units.

1.4.2 Terminology

Maternity

Encompasses the period of a woman's pregnancy, labour and birth and postnatal period up to 6 weeks after the birth. Includes the disciplines of obstetrics and midwifery and the term is used to represent both.

Birth Room

A room designed to support any woman through labour, birth and the early postnatal period. For the purposes of this document, it is assumed that requirements do not change and a delivery room and birth room are one and the same and will be adapted to support a range of care needs.

Birth Centre

Refers to a separate section of a birth suite, a separate unit within the hospital or a separate location on a health care site where midwives provide low risk women with antenatal, intrapartum and a short period of postnatal care for mother and baby.

Facilitated Group Antenatal Care

This model provides facilitated group antenatal care for between eight to 12 women and often their partners / support persons. These women have the same number of scheduled antenatal appointments times and the model allows women to share and learn from each other. Access to alternate rooms, such as large education type spaces, may be needed depending on local jurisdictional models of care.

Maternal Fetal Medicine (MFM)

MFM specialists are obstetricians who specialise in high risk pregnancies. MFM services are typically only provided within Level 6 maternity services.

Virtual Care

Virtual care involves an interaction between a woman and a clinician, or between clinicians, occurring remotely through the use of information technologies. This includes telehealth services, as well as other technologies such as the use of cameras, monitoring devices and apps for remote maternal and fetal surveillance.

02 PLANNING

2.1 OPERATIONAL MODELS

2.1.1 Woman Centred Care

The Australian national strategy for maternity services 'Woman-centred care – Strategic directions for Australian maternity services' outlines the key principles required to ensure maternity services are equitable, safe, women centred, informed and evidence based.

Woman-centred care considers the woman's individual circumstances, and aims to meet the woman's physical, emotional, psychosocial, spiritual and cultural needs. It enables individual decision-making and self-determination for the woman to care for herself and her family. Woman-centred care respects the woman's ownership of her health information, rights and preferences while protecting her dignity and empowering her choices (COAG Health Council, 2019).

2.1.2 Service Capability

Jurisdicional role delineation descriptions / clinical services frameworks assist with planning for maternity services, with the aim of improving the quality of maternity care and optimising outcomes for women and their babies. The overall aim is to provide safe, sustainable and appropriately supported maternity services. Requirements relating to Level 1 to 6 maternity services are described, including the complexity of care provided, workforce requirements, required capability of associated clinical support services and integration of the service within a wider health care network.

It is essential that the planning and design process for maternity units is informed by the service capability, with consideration of clinical support services requirements e.g. pathology, pharmacy medical imaging, surgical services, intensive care services and allied health.

2.1.3 Models of Care

A range of models of care, with continuity of care underpinning each approach, may be used by maternity services. Major model categories are described in the Maternity Care Classification System (November 2014) published by the Australian Institute of Health and Welfare. Refer to Appendix 5.5 for a summary of these models.

Key elements of the model of care for hospital based maternity services are outlined below. This includes recent trends and anticipated future changes. Models of care for the individual facility, as part of a broader network of services, will require definition prior to commencing the planning and design process. This should include patient flow mapping across the care continuum that will then underpin the planning and design solution.

2.1.4 Outpatient / Day Stay Services

Maternity outpatient services encompass preconception care (for relevant services), antenatal and postnatal care including education, counselling and support services. These are provided as planned / routine services.

The size and scale of the maternity service may influence planning associated with outpatient / day stay services. Considerations may include:

- the location of antenatal clinics. Services may provide routine antenatal visits in a community based setting, via hospital in the home (HITH) services or virtual care
- throughput as small services may need access to bookable rooms rather than dedicated space

- a requirement to develop a single location for all maternity related services so that all service components are collocated. This may also include gynaecology outpatient services. The arrangement will be dependent on local requirements
- a requirement for specialist services, usually provided to a catchment, such as MFM services.

Ultrasound services will routinely be provided by the hospital medical imaging unit or by private services located in the community. Where a MFM service is provided, ultrasound services may be provided, but will only routinely provide these services to high risk mothers and those being assessed by an assessment / early pregnancy service.

2.1.5 Virtual Models of Care

Virtual models of care, such as telehealth, are increasingly being implemented, particularly in rural areas, to avoid women having to travel long distances., There has not been the same level of uptake of telehealth appointments for maternity services compared to other service specialties as many women prefer attending outpatient appointments in person for reassurance and to hear their baby's heartbeat. Where appropriate, virtual models can support a woman to stay at home longer in a more comfortable environment and facilitate a better patient experience.

Virtual models of care must be considered during the clinical services planning process to inform the facility solutions required, including the types and quantum of spaces and information and technology communication (ICT) infrastructure needed to support virtual care. All patient consult and meeting rooms should be designed to support virtual care to enable clinicians to move seamlessly between in-person and virtual consultations / meetings with women and their partners, and other clinicians.

The provision of remote monitoring is anticipated to increase in the future as technology continues to improve and associated service models are clearly defined. This may include monitoring devices for blood pressure and blood sugar levels, as well as the potential to provide remote fetal monitoring where clearly defined clinical governance arrangements and emergency protocols are established.

2.1.6 Early Pregnancy Assessment Service

Early Pregnancy Assessment Services (EPAS) provide care and support, within a sensitive and confidential environment, for women who are experiencing threatened miscarriage, ectopic pregnancy and other early pregnancy conditions, usually defined as up to 20 weeks gestation.

There are a range of approaches regarding the optimal location of these services and this will depend on the service capability and projected activity. Dedicated EPAS units are typically only provided in tertiary centres. For smaller facilities, it is more commonly combined with maternity and / or gynaecology services. Women will usually be referred to the EPAS following presentation to the Emergency Department (ED). Clinical pathways should support the rapid transfer of women at risk of miscarriage from ED to a more appropriate environment for improved patient wellbeing and support.

Given the significant psychological impact of early pregnancy loss, it is important that a discrete waiting area is provided that is separate to antenatal and postnatal services with separation of patient flows where possible. The service should not be located near to the birth suite. If the room used is shared with maternity assessment services, then the fit out must be appropriate to ensure that antenatal equipment including cardiotocography (CTG) can be stored out of sight.

Ultrasound will be required for the majority of women referred to an EPAS and therefore close proximity to ultrasound services is essential, including consideration of after hours access. These services will also require access to multi-disciplinary staff work areas.

2.1.7 Maternity Acute Assessment Units

The development of services focussed on the optimal management of women presenting with acute / unplanned obstetric presentations has been a key enhancement to maternity models of care in recent years. A key driver for these models is to divert acute presentations that were previously assessed in the birth suite (or the ED) to an maternity assessment service. This optimises patient flow and enables the birth suite to focus resources and care for women during the intrapartum period.

Acute assessment units are typically only provided in Level 4 maternity units and above as a demand management strategy, to reduce pressure on the birth suite and ED, and to improve the patient experience. There has been an increasing demand for these services , which is partly driven by the national 'Safer Baby Bundle' initiative, whereby women are better informed on reducing the risk of stillbirth including reporting concerns relating to decreased fetal movement. It is anticipated that this will be a continued growth area for maternity services.

Presentations to a maternity acute assessment unit may include:

- unplanned fetal surveillance for women greater than 20 weeks gestation
- assessment of new acute symptons in pregnancy including hypertension, decreased fetal movement, severe vomiting and diarrhoea, sepsis
- preeclampsia monitoring
- iron infusions
- postnatal woman (up to two weeks postnatal) requiring urgent medical review for wound infection, endometritis, haematoma, abscess or mastitis.

Routine antenatal appointments would not typically be seen by this service, however some women requiring regular monitoring may attend an acute assessment unit if a maternity day assessment unit is not available. Depending on demand, many units will operate extended hours or 24/7.

2.1.8 Maternity Triage Services

Some tertiary level maternity services have moved to a centralised model for maternity presentations whereby all acute maternity presentations, including for birthing, come through a central access point and are triaged accordingly. For example, if a woman is imminently about to give birth, they will be triaged and then directed straight to the birthing suite.

The Birmingham Symptom Specific Obstetric Triage System is used in facilities within Australia to provide a uniform assessment with clinical prioritisation of the common conditions that women present within maternity triage.

Under this model, women present to a central triage and registration area and are then streamed to the most appropriate location, similar to an ED. Access to a triage room may be required where a greater level of privacy is required to complete the triage assessment.

2.1.9 Birth Suites

Services will need to assess approaches to the birth suite. The number of birth rooms to be provided will be informed by clinical services planning based on projected demand. Each birth room will include an attached ensuite.

The service will also need to decide what proportion of birth rooms will include a birthing pool. A pool, where provided, must be deep and wide enough for effective water immersion for pain relief during labour and birth (where supported). Water immersion during the first stage of labour is associated with a reduction in the epidural / spinal analgesia and a decreased length of the first stage of labour (RANZCOG 2017). Historical utilisation rates of birthing pools vary significantly, however from a consumer perspective, there is increasing demand for pools within birth rooms and it is expected that this demand will continue to grow. Feedback from consumers regarding the use of birthing pools demonstrates high levels of consumer satisfaction and an improved birth experience.

There are some contraindications to using the pools depending on local operational policies, however where possible, women should be provided with the choice regarding access to a birthing pool given it provides a proven, alternative pain relief method. This will need to be considered on a project by project basis in the context of historical and projected utilisation rates and the capital cost impact.

The use of birthing pools should be based on local policies and protocols for water immersion during labour and birth.

2.1.10 Birth Centres

Birth centres may be provided alongside other hospital services or in a freestanding location. A birth centre may be:

- collocated with a birth suite as part of a broader maternity service
- provided as a discrete centre within a hospital building
- provided as a discrete centre on a hospital site.

The service is based on women screened as low risk and protocols need to be established to transfer the mother or baby in the event of an emergency or when a more complex level of care is required.

The centre, where a discrete service is provided, will be self-contained and operate as a ‘one-stop-shop’ for care. Women will begin to visit for antenatal care, then for the birth and may revisit for some postnatal follow up. Most postnatal follow up will be undertaken at home.

A birthing pool will routinely be provided for water immersion.

2.1.11 Operating Theatres

Those services capable of providing caesarean sections will usually access an operating theatre and Stage 1 recovery in the main hospital theatre suite. Operating theatres are also accessed for other procedures such as assisted deliveries and manual removal of a placenta. While many procedures are planned, the birth suite must be closely located to facilitate rapid access in emergencies and unplanned procedures.

Access to the emergency theatres is undertaken in response to a risk assessment / clinical level of urgency. Jurisdictions will have policies in place relating to emergency surgery and the maximum timeframe for the various categories of clinical urgency including life threatening obstetric cases where there is immediate risk of loss of life for the mother or fetus. Although RANZCOG (2019) recommends that there is ‘no specific time interval attached to the various categories of urgency of caesarean section’ as each case should be managed according to the clinical evidence of urgency, historically the optimal ‘decision to delivery’ interval for Australia and New Zealand has been noted as 30 minutes.

Selected services may provide a dedicated obstetrics theatre, collocated alongside the birth suite. This model is less common and may be implemented if the distance to the main operating theatre suite is too far or if projected activity justifies a dedicated theatre/s.

RANZCOG (2019) recommends that large teaching hospitals will require at least one dedicated obstetric theatre ideally located adjacent to the birth suite and which is quarantined from non-obstetric cases in all but the most dire of circumstances. It is recommended that an additional theatre is required for every 4000 births (or part thereof).

2.1.12 Homebirths

Where a maternity service provides a homebirth program, staff will require access to workspace, car parking and equipment storage space. The location of these services will require confirmation given homebirth programs are often based in community settings.

2.1.13 Bereavement Services

Parents presenting with perinatal loss require access to a range of multidisciplinary team members including MFM and bereavement specialists.

Facilities must support bereavement by providing areas that are family focussed and non-clinical in appearance and where partners can stay, with appropriate access to amenities e.g. kitchenette and shower / toilets. This is typically provided on the birth suite (ideally on the peripherapy) and must be designed to meet cultural requirements. This includes access to culturally sensitive outdoor space where feasible. A family may come and go for several days when a baby is stillborn. 'Cold cots' or chilling mats are required to appropriately accommodate the baby. Refer to Section 4.1.5 Family Bereavement Room for considerations of location, acoustic and other requirements.

Access to a multipurpose room will be required to accommodate a range of functions including counselling and follow-up care associated with perinatal loss. This will need to include videoconferencing capabilities.

2.1.14 Additional Considerations

Services will need to consider the following requirements to ensure provision of appropriate design solutions:

- Accessible facilities to appropriately support disabled women or family members. This will include provision of an accessible bedroom and ensuite on inpatient units.
- The need for safe design to support those with mental health and related issues based on the outcomes of a risk assessment Staff should conduct a risk assessment to determine operational responses that will be needed to support the safe care of the woman in the maternity inpatient environment.
- Bariatric capability requirements.

2.2 OPERATIONAL POLICIES

The following issues should be considered in the development of the operational model for the unit, as they will all impact the configuration and overall space requirements of the unit.

Operational policies should be developed as part of the project planning process. Refer to Part B Section 80 General Requirements for further information.

2.2.1 Hours of Operation

Birth suites and maternity inpatient services operate 24 hours per day, seven days per week.

Birth centres may not routinely operate out of hours. When a woman is in labour, she will contact midwifery staff and be met at the birth centre.

Maternity acute assessment services may operate extended hours or 24/7.

Planned outpatient services are typically delivered during standard business hours only, with increasing provision of extended evenings and weekends.

Consideration needs to be given to the hours of operation for virtual care models to ensure appropriate safety for staff providing these services after hours.

2.2.2 Management of Breast Milk

Expressed breast milk (EBM) must be stored in a suitable refrigerator / freezer. This may be located in a centralised staff-only secure area on the inpatient unit, such as a milk room or a medication room, or individual refrigerators may be provided within an inpatient bedroom. The provision of individual refrigerators supports woman-centred models of care, however the capital and recurrent cost implication of providing this must be considered.

Where a centralised model is implemented, each baby should have their labelled bottles stored in an allocated area within the fridge so that the right baby receives the right milk. Two staff will be required to check the EBM in and out of the milk fridge / freezer and ensure accurate identification / labelling. Continuous temperature monitoring will be required. Processes may vary based on local jurisdictional policies. It is recommended that a refrigerator is provided on the birth suite to support storage of breast milk as some mothers express antenatally. This may be provided in the medication room to ensure it is located in a staff only, secure area.

Donor human milk services (‘milk banks’) have not been included in the scope of this document. Storage of donated breast milk is typically provided on neonatal units, however this may be required on smaller maternity units for neonates who have been transferred back from higher level units. Refer to local jurisdictions policies relating to milk bank services.

2.2.3 Pain Management

Various methods of support / pain management may be used within the birth room including but not limited to:

- support and encouragement from chosen birth companion(s) and/or professional care providers (who need to be accommodated comfortably within the room)
- active movement including; walking, sitting, standing, kneeling, squatting, side-lying, lying prone and leaning forward
- access to birth support ropes, leaning mantle piece and/or ladder to assist with active birthing
- water immersion in a shower or birthing pool
- acupressure, acupuncture, massage, aromatherapy

- audio-visual supports for individualised music, calming sounds and images (personal choice)
- views to outdoor/green spaces and access to outdoor areas where possible
- murals and artwork within the room
- medications including nitrous oxide / oxygen
- epidurals
- warm perineal packs (used during second stage of labour to prevent perineal tearing)
- sterile water injections
- access to food and fluids and ice chips.

Many of these will require access to appropriate storage on the unit.

2.2.4 Newborn Screening

A range of screening will be conducted on newborns including screening for rare diseases and hearing. These activities will usually be conducted at the bedside.

Local access to storage will be required on postnatal inpatient units and Birth Centres for:

- newborn blood spot screening cards. These should be located in an easily accessible, dedicated secure space to avoid them being misplaced. Collocation with the pathology bay is ideal
- bilirubinometer for testing of of neonatal jaundice
- newborn hearing screening equipment – this includes a range of equipment items typically located on trolleys.

2.2.5 Bathing Newborns

Three broad models are used to provide bathing options for newborns on postnatal inpatient units and include:

- a fixed baby bath within the inpatient bed room suite, although this can restrict space. Where provided, this must be separate to, and not used as, a hand wash basin;
- a mobile bath, with consideration of cleaning processes and adequate storage to accommodate the bath when not in use;
- a room used for bathing demonstrations and general use by parents. With the increase use of single bed rooms, this shared space provides an opportunity for new mothers to engage with others. The number of baths needed will depend on the size of the unit but assumes staggered use. Mobile baths are recommended to reduce the infection control risks associated with additional plumbing.

The preferred approach for the unit must be considered within the context of the average length of stay and anticipated utilisation of baby baths, infection control risks associated with microorganisms found in water and drains, and the capital cost impact of the proposed solution.

Dedicated baby baths are not required on the birth suite, and where required on occasion, access to a mobile bath is recommended.

2.2.6 Education

Both antenatal and postnatal education programs will be provided by maternity services.

Antenatal classes may be provided from a range of sites, including community settings or shared access to postnatal education rooms.

Postnatal education is usually provided in the postnatal inpatient unit where a large multifunctional space is used. This is an important part of the wellness model of care to encourage women to gather and provide support relating to parenting whilst participating in education sessions. This may include breastfeeding support and bathing demonstrations.

All classes should be able to be accessed virtually, e.g., for women following caesarean. Appropriate ICT infrastructure will be required to enable this.

Storage will be required for the range of props used for both antenatal and postnatal classes. This is commonly provided through cupboards within the room.

The multifunctional room will also be used for other functions such as family visits and photographer sessions, and may be shared between two inpatient units.

2.2.7 Resuscitation

Access to neonatal resuscitation equipment will be required wherever a woman is giving birth. This will include the provision of appropriate equipment in every birth room, located out of sight in a cupboard, and the use of portable resuscitation units, located in dedicated bays / alcoves, on maternity assessment units.

Access to a neonatal resuscitation room is required on antenatal and postnatal inpatient units. Transferring the baby to this room is preferred rather than manoeuvring heavy resuscitation equipment into the bedroom and to ensure appropriate access by staff around the infant resuscitaire. Access to a resuscitation room will also be required from the recovery area following caesarean delivery.

Evidence supports resuscitation of the baby beside the mother while the cord is still connected which has positive clinical benefits for the mother and baby. This is referred to as ‘delayed cord clamping’. This has not been widely implemented due to lack of access to appropriate equipment, however it is anticipated to be more commonly implemented in the future due to the strong evidence of improved outcomes. Requirements include a small resuscitation device that can be bought to the bedside or theatre while intubating and resuscitating the baby, as well as sufficient space around the bed to attend to the baby and mother.

2.2.8 Retrieval Services

For facilities that do not have a dedicated neonatal care services on site, a small number of cot spaces are commonly provided for maternity units. This will support step down transfers of infants from networked neonatal care units and to provide sufficient space to allow for neonatal retrieval services to prepare and stabilise an infant prior to transfer to a hospital with a higher level of care.

An area or room of sufficient size is required to support the provision of emergency care by the neonatal retrieval team. This is commonly provided through an appropriately sized procedure room or a two cot bay that can be flexibly used to accommodate the one infant when required for emergency care. This area should be located close to the staff station for ease of access to provide support when required.

2.3 PLANNING MODELS

2.3.1 Location

24 hour access is required to a birth suite. The location, signage and wayfinding strategy should ensure that families can find the services quickly and easily. Where provided, acute assessment units may also require after hours or 24/7 access.

Birth services should ideally be located to provide a quiet environment with outlook and outdoor access during labour for both mother and partner. Access to dedicated and secure outdoor areas are of particular importance for units providing services to large numbers of Indigenous women.

Planning should consider the proximity of 24 hour and eight hour operational zones. While reception points may be available during business hours, these will not routinely be occupied out of hours so signage and wayfinding should function across the continuum. Arts in Health initiatives can support health care logistics with visual objects assisting with wayfinding cues

Units should be located in areas that minimise staff working in isolation or having to traverse unoccupied areas at night. The positioning of units should optimise the workforce efficiency and capacity for staff to observe and assist each other.

The travel route between the birth suite and emergency operating theatres must be as direct as possible via a non-public access route. Where possible, locating the birthing unit on the same level as theatres is recommended.

2.4 FUNCTIONAL AREAS

2.4.1 Functional Zones

Functional zones may include:

- entry, reception, public amenities and waiting
- outpatient / day stay services
- acute assessment unit
- birth suite
- inpatient unit
- clinical support services
- staff areas including workspaces, support space and amenities.

2.4.2 Entry / Reception / Public Amenities / Waiting

The design of this area will depend on the size of the service. For tertiary facilities, retail facilities may be included such as a coffee lounge and a baby boutique, although these facilities might best be located in the main entry of the hospital.

Smaller services may not be able to support a dedicated reception area. Where they are provided, they should be positioned and designed to safely observe and respond to women accessing the unit and waiting area.

Appropriate ICT infrastructure will be required to support self-registration and/or queueing systems. These systems assist with reducing the number of people waiting for long periods.

The reception area may also provide clerical admission services, which will require the secure storage of records and other information, e.g. lockable cupboards or other operational procedures, when the reception area is unoccupied. Where provided, reception areas will generally operate during business hours only. As women and their partners may access the unit out of hours, a video intercom system will alert the midwives when a woman arrives. Wayfinding from the entry to the birth suite should be easy to navigate and not be reliant on the availability of a reception service.

Public amenities are required in this area.

Interior design strategies should be calming and offer positive distractions to reduce stress. Features that distract women / patients (e.g. artwork) may also be helpful and have an additional positive impact on health care staff.

2.4.3 Outpatient / Day Stay Services

The arrangement of outpatient services for planned presentations will be dependent on the size and scale of services. Services may range from a few consult rooms through to complex services, and day stay services including monitoring and procedures. Tertiary centres may also provide an MFM service to manage women whose pregnancies may be associated with maternal or fetal complications.

Where a dedicated outpatient service is provided as part of a maternity unit, a reception point will be provided with oversight of the entry and waiting area. This reception point will direct visitors to their point of care and act as an access control point.

Larger services may:

- require sub wait areas closer to the point of care
- cluster consult, interview and procedure rooms in pods, sharing clinical support where possible.

Facilities may also include a room for education and facilitated group antenatal programs.

A midwife-led, birth centre model will include women being seen at a birth centre, at home or a community setting.

Virtual models of care will continue to be provided for women and will require access to appropriate space and ICT equipment to support these services.

In addition to routine outpatient attendances, it may be necessary for some women to attend hospital during the antenatal period on a day or half-day basis for maternal and fetal assessment and monitoring (CTG), ultrasound, blood tests etc. In small hospitals, the ambulatory care unit may be utilised. Large regional centres will have a dedicated maternity day stay unit. Day stay facilities will be a discrete space with patient bays for both beds and chairs, with patient bays overseen by a staff base.

2.4.4 Maternity Acute Assessment Unit

As outlined in Section 2.1.7, an acute assessment unit may be provided for higher level services to manage women presenting with unplanned obstetric presentations.

Facility requirements will be similar to outpatient services with a mix of consult rooms, interview rooms and day stay bays / rooms, however there is a higher level of patient privacy required. This may be delivered through open bays with half or full height walls between bays, as well as consideration of some enclosed and larger sized rooms to support a range of unplanned presentations e.g. women who are birthing quickly and the possibility of a late stillbirth.

Access to a procedure room/s and ultrasound services is essential, as well as neonatal resuscitation capabilities for women who may give birth within the unit.

Given acute assessment units are the first point of presentation to a hospital, access to a negative pressure room should be considered.

Close access to the ED is required for urgent transfers, e.g. for sepsis.

Other considerations include access to an appropriate bereavement area, access to multidisciplinary team support areas and access to outdoor / green spaces.

2.4.5 Birth Suite

The birth suite is a secure and discrete unit that will include birth rooms, space for family and other support people and other clinical support space. Larger services will provide access to an assessment room and additional bed bays to manage the acute phase of pre and post-delivery care.

Access to the birth suite should be restricted to maintain the privacy of mothers during labour and birth. A partner or support person will routinely be present during this time. Some mothers may have additional family members such as children and close friends. A lounge area will be provided in a location adjacent to birth rooms so that visitors can have time alone. Each birth room will have an attached ensuite.

Smaller services may be able to share clinical support areas but this should not adversely impact on the physical and acoustic separation needed.

Access to safe outdoor space is ideal to facilitate mobility during labour. This will require consideration of sufficient space to move around, appropriate shading, seating and greenery.

Selected services may provide a dedicated obstetrics operating room. Where provided, this space will be adjacent to the birth suite so that it is easily accessible . Recovery bays will be required for the mother and to undertake initial baby health checks.

When designing the birth suite, reference should be made to the BUDSET (Birthing Unit Design Spatial Evaluation Tool, Foureur et al., 2010). This tool provides recommendations to support the delivery of a calming and reassuring birthing environment to minimise the adrenaline response which can stop / slow down labour due to the reduction in oxytocin.

This includes considerations relating to privacy; the bed; access to immersion in water; shower and ensuite toilet; lighting; windows; noise; décor, including artworks or art-based wall and ceiling treatments: furniture and equipment; ability and space to move around; inclusion of nature; olfactory aspects; personal items; provisions for support people and cultural considerations.

2.4.6 Inpatient Unit

Where antenatal beds are provided, these may be in a separate unit where patient numbers can support this model or as a module within an inpatient unit with both antenatal and postnatal beds.

Ideally, maternity inpatient units will provide single bed rooms. This supports rooming-in models and allows a partner to stay overnight. Two bed rooms may be an option where this will positively affect the wellbeing of new mothers, e.g. Indigenous communities, young mums. The proportion of single bedrooms provided should be informed by the local demographics and cultural considerations.

A dedicated ensuite will be provided to all single and two bed rooms.

Postnatal maternity services support a wellness model. Provision of space is important for women to gather, breastfeed and participate in shared groups as part of the promotion of parenting and education for mothers. Clinical support areas for postnatal beds may be shared with the antenatal zone, depending on the functional relationships and unit size.

Inpatient bed rooms may need to support some neonatal low level treatment such as phototherapy.

2.4.7 Clinical Support Services

Smaller services will be able to share selected utility, storage, disposal and cleaners rooms. Larger services may need to provide these facilities within each part of the service.

Consultation with users, to determine storage requirements, will be required. Local needs must also be considered, through consultation with mana whenua in New Zealand, for example, where refrigerated storage of placentas may be required on some maternity units.

Consideration should be given to changing technologies and the associated impact on space e.g. changing from single use to reusable items; moving from paper based to electronic baby health records.

Storage spaces should be designed to allow for flexibility of use and to accommodate future changes in operational processes.

Within outpatient clinics, dirty utility rooms are not ideal and instead, clean-up rooms are indicated with bench space to manage selected activities.

2.4.8 Staff Areas

Staff areas will include staff work areas, support space and a range of staff amenities.

The provision of staff work areas will be dependent on the size and complexity of the service and local jurisdictional policies and staffing profile. Ideally, work areas will be collocated with a maternity service to promote communication and team based care.

Except for selected positions, e.g. unit managers, staff works areas will be provided in staff only accessible areas. Midwives operating in a group practice will ideally be located in a shared office. This will facilitate case management and clinical supervision.

Access to meeting rooms will be required to support collaborative case reviews, ongoing education and staff debriefing.

Staff will need access to a range of amenities. Staff without dedicated work space will need access to lockers.

Staff working in a birth suite may be required to change at the beginning and end of their shift. Where this is required, based on local operational policies, access to change rooms will be required. Change facilities will be needed if an operating room is collocated.

Staff working in a birth suite may be limited in leaving the unit during extended shifts of up to 12 hours and it is recommend that a staff room will be accessible within this unit.

Consideration should be given to planning requirements to support resilience against future pandemics. This may include locating a meeting / training room with kitchenette so that it may be used to provide temporary expanded capacity for staff rooms.

Access to outdoor space for staff should also be provided where possible.

2.5 FUNCTIONAL RELATIONSHIPS

The maternity unit should have close proximity to:

- operating theatres
- neonatal care services.

Other functional relationships that need to be facilitated include:

- ED
- clinical support services such as medical imaging, pathology and pharmacy services
- ambulance transport bays and/or helipad for retrieval services
- intensive care unit
- high dependency / close observation units
- gynaecology inpatient beds.

03 DESIGN

3.1 ACCESSIBILITY

The assessment unit, birth suite and birth centre require 24 hour access. A direct and dedicated entry with drop-off parking for cars, taxis and ambulances is preferred. Delivery by ambulance should ideally not be via the ED.

The birth centre should ideally have its own entry with internal links to the main birth suite (where located on site) and to the operating unit, in particular close proximity to emergency theatres . If the assessment units do not have dedicated entries, specific arrangements will need to be made for after-hours access.

Access during normal hours should be via the reception area. After-hours access for expectant mothers and their support persons should be via the birth area. After-hours policy may allow restricted access to partners or support persons in the inpatient area and parents of neonates in the neonatal special care area.

Planning should minimise the number of night entrances and ensure that staff and the public can access the unit through entrances adjacent to car parks, to limit the time outside of the facility at night.

3.2 PARKING

Parking and drop-off will be required for:

- ambulances, taxis, private vehicles with women in labour
- on call staff
- fleet vehicles used by midwives providing outreach services
- deliveries of flowers and gifts.

For staff parking, refer to AusHFG Part C ‘Design for Access, Mobility, Safety and Security’.

3.3 DISASTER PLANNING

Each unit will have operational plans and policies detailing the response to both internal and external emergency situations.

For further information refer to:

- jurisdictional disaster management and business continuity plans
- AusHFG Part B: Section 80 General Requirements.

3.4 INFECTION CONTROL

Contemporary birth rooms are designed with negative airflow and so the provision of negative pressure birth rooms with associated anteroom are not common. A key recommendation arising from the COVID-19 pandemic is that one birth room should include a collocated area for donning and doffing PPE for those patients requiring airborne isolation precautions. Consideration must also be given to access for PPE donning and doffing throughout the unit.

For further information refer to:

- AusHFG Part D Infection Prevention and Control
- Jurisdictional engineering services guidelines

3.5 ENVIRONMENTAL CONSIDERATIONS

3.5.1 Acoustics

Acoustic treatment is essential in the birth rooms to allow the mother to vocalise during labour without this noise being heard in the corridor or adjacent rooms. It is also essential for the family bereavement room.

Refer to the Birth Room Design information contained at Section 5.7 for further information.

Crying babies, especially at night, can be a major source of distress to others. Single bed rooms with appropriate acoustic treatments will help reduce this impact.

Refer to AusHFG Part C for further information.

3.5.2 Natural Light

Natural light contributes to a sense of wellbeing for all building occupants including patients, staff and other users.

Higher levels of natural light may help people better orient themselves in the building thus enhancing wayfinding. Glare and heat should be minimised.

3.5.3 Privacy

Ensure that doors to birth rooms, when opened, do not provided a view of the labouring woman to others outside the room. Outdoor areas, where provided in an adjacent location to birth rooms, should not allow observation by external onlookers.

3.5.4 Interior Décor

Interior décor includes furnishings, style, colour, textures, ambience, perception and style. This can help prevent an institutional atmosphere. However, cleaning, infection control, fire safety, slip and falls risks, patient care and the patients' perceptions of a professional environment should always be considered.

Birth rooms should provide a calm and safe setting where mothers can control and alter, as much as possible, the room environment. Where possible, the room will be designed to hide medical equipment, e.g. medical gases, monitors etc. Where possible, finishes should be less clinical, e.g. window finishes. Home like interiors are preferred to promote a calm and stress free environment. The inclusion of functional artworks (through interior décor and furnishings) should be considered.

Refer to Section 5.7 for further information.

3.5.5 Artwork

Care should be taken in the selection of artwork to ensure no distress to parents who have very sick newborns or who have experienced a stillbirth, neonatal death or a baby with an abnormality.

Cultural appropriateness, including Indigenous families, also needs to be considered.

Display of artwork within the spaces will be guided by environmental, aesthetic and cultural parameters. The selection of artwork for patient areas is encouraged to be curated in consultation with Arts in Health staff, Nurse Unit Managers, and/or via project user group governance to ensure suitability of artworks within sensitive areas.

3.5.6 Wayfinding

Signage for access to the Birth Suite or Birth Centre should be easily identifiable to avoid delay, especially for retrieval teams.

Refer to:

- AusHFG Part C
- Wayfinding for Healthcare Facilities, NSW Government 2022
- Jurisdictional wayfinding and signage guidelines

3.6 SPACE STANDARDS AND COMPONENTS

3.6.1 Human Engineering

Human engineering covers those aspects of design that permit effective, appropriate, safe and dignified use by all people, including those with disabilities. Refer to AusHFG Part C for further information.

3.6.2 Ergonomics

Maternity units should be designed and built in such a way that patients, staff, visitors and maintenance staff are not exposed to avoidable risks of injury. The design of a birthing pool will need to consider the safety of mother, baby and staff, including:

- provision of a birthing pool deep enough for water immersion during labour with specific dimensions required to accommodate accidental or planned water birth, should this be supported by jurisdictional policies. Birth with full immersion under water is essential for the safety of the baby
- the height of the birthing pool should not be too high so unassisted transfer into the bath becomes an issue, noting most baths are designed so a woman sits on the edge and swings her legs over and in
- clinical staff assisting with labour and / or a water birth or assisting the woman out of the birthing pool in an emergency
- staff cleaning the birthing pool after use.

Refer to:

- AusHFG Part C
- Birth Room Design information contained at Section 5.7.
- AusHFG Standard Components

3.6.3 Access and Mobility

Women accessing maternity units will often have other children with them in prams. Spaces, including waiting areas, should be designed to accommodate prams and wheelchairs.

The design should comply with AS/NZS 1428 Design for Access and Mobility (Set) (Standards Australia).

3.6.4 Building Elements

Building elements include; walls, floors, ceilings, doors, windows and corridors and are addressed in detail in the section on Building Elements in AusHFG Part C.

Floors: Floor waste provided in birth room ensuites will be designed so that obstruction of drainage point is avoided when birth equipment is used, e.g. birth stools. Birth rooms and operating theatres used for birth will need to consider the slip rating of floors. There is a high risk of slips and falls owing to a range of fluids present, e.g. water from the birthing pool and other body fluids or waste associated with birthing.

Doors and doorways: Ensure that doorways are sufficiently wide and high enough to permit the manoeuvring of beds, wheelchairs, trolleys and equipment without risk of damage or manual handling risks. Doors into the birth room should not contain an observation window so the privacy of occupants is not compromised.

Windows: Birth room windows should be sized so that an outlook is provided, yet the privacy of the woman is protected. Therefore, floor to ceiling windows are not desirable in this case.

3.7 SAFETY AND SECURITY

Consideration of safety and security risks should begin during the planning and design phase of a healthcare facility and should continue to be tested during the construction, use and post occupancy stages.

3.7.1 Safety

Key considerations include:

- procedures to ensure a mother can be removed quickly from a birthing pool, where provided, should her health deteriorate or the need arises. Ideally, float mats will be provided as they are quick and easy to use and provision for rapid emptying of the water. This approach negates the need for ceiling mounted hoist systems
- locating staff write-up areas within a birth room on the side of the room closest to the entry door
- inclusion of duress alarms in all birth rooms and where staff work in isolation
- spatial allowances should consider the addition of prams. It is very unlikely that parents will leave prams unattended.

3.7.2 Security

Security can be enhanced by incorporating principles of territorial reinforcement, surveillance, space management and access control into design decisions. Additional security may be needed as newborns may be at risk of unplanned removal or under child protection arrangements. Considerations include:

- minimising entry and egress doors to all areas with newborn babies. These doors should be controlled with CCTV
- the use of reed switches, electric locking and video intercom on external doors and entries
- swipe card readers may be required to both sides of internal doors, to allow access for authorised staff

- implementation of a system that provides baby with an electronic tag that notifies staff when the unit boundary is breached. To date, it has been difficult to find a suitable product. Parents will also need to be educated regarding their responsibilities during their hospital stay (i.e. care by parent models).

Specific security procedures should be developed and implemented. The staff station should be located at the main entrance to allow staff to monitor access and egress. Attention should be paid to reception desk security and a duress alarm system.

Good visibility from the staff station to unit entries is required. The number of relatives / visitors admitted in the area should be controlled by either restricting the number of relatives / visitors attending at any one time and or restricting visiting hours to set times. Courtyards, where provided, should be securely screened / fenced and adequately monitored (from staff station, CCTV, etc.).

For further information refer to AusHFG Part C.

3.8 FINISHES

3.8.1 General

Finishes in this context refers to walls, floors, windows and ceilings. For further details refer to AusHFG Parts C and D.

3.8.2 Wall Finishes

Adequate wall protection should be provided to areas that will be regularly subjected to damage. Particular attention should be given to areas where bed or trolley movement occurs such as corridors, doors, bed head walls, treatment areas, equipment and linen trolley bays.

3.8.3 Floor Finishes

Refer to TS7 - Floor Coverings in Healthcare Buildings, Issue V1.1 (NSW Health, 2009).

3.8.4 Ceiling Finishes

Ceiling finishes should be selected with regard to appearance, cleaning, infection control, acoustics and access to services. Birth rooms may also contain hooks set into the ceiling so that birth support ropes can be attached. These birth support ropes are used during labour and the hook will need to be strong enough to hold the weight of the women (weight restrictions may apply).

3.9 FIXTURES, FITTINGS & EQUIPMENT

3.9.1 Definition

The Room Data Sheets (RDS) and Room Layout Sheets (RLS) in the AusHFG define fixtures and fittings as follows.

- fixtures: items that require service connection, e.g. electrical, hydraulic, mechanical, that include, but are not limited to hand basins, light fittings, medical service panels etc. but exclude fixed items of serviced equipment
- fittings: items attached to walls, floors or ceilings that do not require service connections such as curtain and IV tracks, hooks, mirrors, blinds, joinery, whiteboards etc.

A detailed RDS and RLS is provided for the birth room and incorporates lessons learned from many recent projects.

While many rooms used across a maternity unit are standard components, the nature of the business will affect requirements. For example:

- storage is not required for urinals in dirty utility rooms

- hooks in ensuites for equipment such as IV fluids and catheter bags are not required but may be used to keep kneeling pads off the floor when not in use.

Refer to:

- Standard Components – RDS and RLS for further detailed information.

3.10 BUILDING SERVICE REQUIREMENTS

3.10.1 General

In addition to topics addressed below, project staff may also refer to jurisdictional guidelines relating to engineering services.

3.10.2 Air Handling Systems

All components of the unit should be fully air-conditioned.

Each birth room should ideally have individual air-handling systems. If the thermostats are located inside the birth room, the controls should be located out of the reach of children and under the control of the woman and staff. Premature babies may require an ambient room temperature of 26°C once the baby is born although this is typically provided within the infant resuscitaire (Australian and New Zealand Committee on Resuscitation, ANZCOR Guideline 13.8 The Resuscitation of the Newborn in Special Circumstances, 2021)

3.10.3 Electrical Services

It is essential that services such as selected clinical equipment, emergency lighting, telephones, duress alarm systems (including the central computer) and electronic locks are connected to the emergency power supply.

Within the birth room, alarms and other associated requirements should be located so that they do not detract from the domestic feel of the space and are not in the direct line of sight of the women when in the birthing pool, on the bed or leaning on the mantel piece.

3.10.4 Information Technology and Communications

Systems may include:

- a critical care camera located in one birth room so that the clinical team can discuss aspects of care with the neonatal / paediatric retrieval service should this be required
- wireless technology
- radiofrequency identification (RFID) for access control etc.
- duress alarm systems - fixed and / or personal as required
- nurse / emergency call systems
- voice / data (telephone and computers)
- videoconferencing capacity / telemedicine
- electronic medical records
- picture archiving communication system (PACS)
- patient administration systems (PAS)
- paging and personal telephones replacing some aspects of call systems
- patient multimedia devices including bedside monitors that function as televisions, computer screens for internet access, etc.

- bar coding for supplies
- e-learning and simulation
- e-medication management and e-storage systems, e.g. automated dispensing systems.

All communication systems should be compatible with existing or planned overall hospital systems including staff and emergency call systems. Annunciator panels should be clearly visible in corridors and be the scrolling type so that all rooms can be seen. The ability to control audibility at night should be a criterion when selecting systems.

Consideration should be given to future technological advances and the impact on planning and design e.g. increased use of mobile devices at the bed side, digitisation of baby health records. Local operational policies should be reviewed in consultation with users.

3.10.5 Hydraulic Services

Warm water systems will be required. The water temperature in the birthing pool will need to be maintained at a comfortable level for the woman who may be in the birthing pool for several hours at a time.

Ensure provision of ability to rapidly fill and discharge water when filling and emptying birthing pools.

3.10.6 Lighting

Dimmable lighting is essential in all patient areas where high dependency care is provided, i.e. birth assessment rooms, birth room ensuites and bathrooms and baby bathing, examination and resuscitation areas.

3.10.7 Medical Gases

Refer to Standard Components for detailed information regarding medical gases. Service panels at bed and infant resuscitaire are usually enclosed.

For anaesthesia requirements in birth rooms, refer to PS 55 Recommendations of Minimum Facilities for Safe Administration of Anaesthesia in Operating Suites and Other Anaesthetising Locations (Australian and New Zealand College of Anaesthetists, 2021).

04 COMPONENTS OF THE UNIT

Standard Components Rooms / spaces are defined as:

- Standard Components (SC) which refer to rooms / spaces for which room data sheets, room layout sheets (drawings) and textual description have been developed;
- standard components – derived rooms are rooms, based on a SC but they vary in size. In these instances, the standard component will form the broad room 'brief' and room size and contents will be scaled to meet the service requirement; and
- non-standard components which are unique rooms that are usually service-specific and not common.

The standard component types are listed in the attached Schedule of Accommodation.

The current Standard Components can be found at: www.healthfacilityguidelines.com.au/standard-components.

4.1 NON-STANDARD COMPONENTS

Non-standard components are unit-specific and provided in accordance with specific operational policies and service demand.

4.1.1 Assessment Room

Description and Function

An assessment room is located in the birth suite and is used to conduct patient examinations and monitor fetal heart beat etc. at the very early stages of labour. It can also be used for the administration of drugs to induce labour and to undertake procedures.

The room should be designed to allow for flexibility of use and to accommodate any changes in the woman's condition.

The room will be required to accommodate a birthing bed (located in the middle of the room), chair for support person, fixed examination light, CTG, Workstation on Wheels and hand wash basin. Space may also be required for a mobile resuscitation trolley. A medical services panel will be required.

Location and Relationships

These rooms should be located in close proximity to the staff station to allow ongoing supervision. The assessment room should be in close proximity to birth rooms for ease of transfer when labour is established. An ensuite will be attached.

4.1.2 Neonatal Resuscitation Room

Description and Function

This separate area is an emergency treatment room in the Birth Suite for babies who are compromised and need emergency intervention / support, e.g. oxygen, resuscitation, and stabilisation prior to transfer to a neonatal intensive care unit (NICU) within the hospital or externally via a neonatal retrieval service.

Location and Relationships

This area should be located centrally within the inpatient unit, but should have privacy from other women and support persons in the unit.

Plan an appropriate route for transfer / evacuation of the newborn to the Neonatal Care Unit should it be required.

Considerations

Medical gases, resuscitation and emergency equipment are required. Bench space for write up is also necessary, as well as a hand wash basin.

Where the room is used to support retrieval services, specific access and design requirements must be developed in consultation with medical retrieval services and local jurisdictional policies.

ICT requirements for telehealth and Newborn Emergency Transport Service (NETS) monitoring will be required e.g. a ceiling camera.

4.1.3 Newborn Bathing Room

Description and Function

A room for infant examination, demonstration of baby bathing techniques as part of parent education. This room may also be used as a combined area for bathing all newborns. The size of the room will depend on operational policies regarding demonstrations and whether bathing will occur in the inpatient bed room and use of mobile baths.

Location and Relationships

The room may be a separate room in the postnatal zone.

Considerations

Attention to height of benches and mounting of baby baths. Provision of a height adjustable bench should be considered.

Local operational policies in relation to baby bathing should be considered.

Adjustable air conditioning to ensure room warmth will be required.

Access to both sides of the bath should be considered.

4.1.4 Family Bereavement Room

Description and Function

The family bereavement room is provided to support parents experiencing perinatal loss.

Location and Relationships

The room will be located in the birth suite ideally located on the periperaphy. Direct access to a Bereavement Room from the Acute Assement Unit will also be required where provided.

Considerations

The Family Bereavement Room must be family focussed and non-clinical in appearance. It should support partners and family and have provision for overnight stay, with appropriate access to amenities e.g. kitchenette and shower / toilets.

The room should be home-like and configured with a lounge so that it is comfortable for counselling, follow up care and to support a family to gather to spend time with the deceased baby.

‘Cold cots’ or chilling mats will be required to appropriately accommodate the baby.

The design must consider cultural requirements, including access to culturally sensitive outdoor space where possible. The selection of artwork should be curated in consultation with Arts in Health staff, Nurse Unit Managers, and/or via project user group governance to ensure suitability of artworks. The Art should be supported by soft wall sconce lighting / lamps rather than standard ceiling light fixtures.

The location of the Family Bereavement Room room is a key decision that should be discussed early in the planning process. The room should ideally be located in a low traffic area. Consideration should be given to acoustic requirements (e.g.other babies crying) and privacy (e.g. no vision panel in the door). Where possible, a separate entrance and access to natural light should be made available.

Access to videoconferencing capabilities will be required. This room may be combined with the Multipurpose Room in smaller units.

4.1.5 Multipurpose Room

Description and Function

The Multipurpose room will be used for women to gather and provide support to each other whilst also participating in parent education sessions. The room may also be accessed by antenatal services depending on the location of the room and inpatient unit size.

For smaller units this room may also be used as a bereavement room when required.

Location and Relationships

The room will be located on the postnatal inpatient unit and can typically be shared between two units.

Considerations

Provision of a beverage bay should be provided.

There is a significant volume of storage associated with postnatal and antenatal education. Storage will be required within the room to accommodate these items.

Baby bathing demonstrations via use of a mobile baby bath may be provided in this room depending on operational practices.

Access to videoconferencing capabilities will be required.

The Multipurpose room should be designed to allow for flexibility of use and to accommodate future changes in operational processes.

4.1.6 Milk Preparation and Storage

Description and Function

The Milk Preparation / Storage Room provides storage of EBM and formula including bench space to make up formula and associated storage. Access to refrigerated / frozen storage of EBM must be secure with consideration of local jurisdictional policies relating to the safe management of breast milk.

This is usually a staff only area and should be a lockable room. Requirements include:

- refrigerators (with temperature monitoring and alarms)
- freezers (with temperature monitoring and alarms)
- bench space for preparation
- a sink to dispose of unused milk products
- a hand wash basin, Type B
- storage of formula, breast pumps and associated consumables.

Location and Relationships

- This room will be located on postnatal inpatient units.

Considerations

It is essential that each newborn receives the right feed. All feeds must be clearly labelled and identifiable.

Local operational practices should be confirmed regarding sterilising and reprocessing requirements in relation to usage of single use items for breast pump accessories and bottles.

05 APPENDICES

5.1 SCHEDULE OF ACCOMMODATION

Indicative Schedules of Accommodation are provided in the following tables.

Area allocations will need to be adjusted in line with the the number of birth rooms, inpatient beds and ambulatory care spaces required. This will be based on a clinical services plan which examines future service trends and projected activity.

- Scenario 1: Level 3 maternity service within a small hospital incorporating 2 birth rooms, 5 maternity inpatient beds and 2 cots to support step-down transfers of infants from networked neonatal care units.
- Scenario 2: Level 5 / 6 maternity services within a large / principal referral hospital incorporating 10 birth rooms, 28 inpatient beds and and an Acute Assessment Unit incorporating a mix of consult rooms, interview rooms and day stay bays/rooms.

An indicative SOA for planned outpatient services is not included. Where this is provided, the types of areas required will be similar to those outlined for the Acute Assessment Unit. Further information is provided in HPU 155 Ambulatory Care & Community Health.

The ‘Room / Space’ column describes each room or space within the unit. Some rooms are identified as ‘Standard Components’ (SC) or as having a corresponding room which can be derived from a SC. These rooms are described as ‘Standard Components – Derived’ (SC-D).

The ‘SD/SD-C’ column identifies these rooms and relevant room codes and names are provided. All other rooms are non-standard and will need to be briefed using relevant functional and operational information provided in this HPU.

In some cases, Room / Spaces are described as ‘Optional' or ‘o’. Inclusion of this Room / Space will be dependent on a range of factors such as operational policies or clinical services planning.

ENTRY / RECEPTION / WAITING

AusHFG Room Code	Room / Space	SC / SC-D	Scenario 1: 2 Birth Rooms, 5 IPU beds, 2 cots		Scenario 2: 10 Birth Rooms, 28 IPU beds, AAU		Remarks
			Qty	m2	Qty	m2	
RECP-10	Reception	Yes	1	10 (o)	1	15	The provision of a reception in the smaller unit will depend on the resourcing model.
WAIT-10	Waiting	Yes	1	10	1	15	Area recommendation is indicative and will depend on the no. of people to be accommodated. 1.2m2 recommended per seat, 1.5m2 per wheelchair space.
BVM	Bay - Vending Machine	Yes			1	3 (o)	Optional
BWTR	Bay - Water Fountain	Yes			1	1 (o)	Optional
PAR	Parenting Room	Yes			1	9	
WCAC	Toilet - Accessible	Yes	1	6 (o)	1	6	Includes baby change facilities. Optional for smaller units depending on location of accessible toilets with adjacent units.
WCPU	Toilet - Public	Yes	1	3	2	3	May be shared with adjacent units.
	Discounted Circulation %		25%		25%		

ACUTE ASSESSMENT UNIT

An Acute Assessment Unit manages unplanned obstetric presentations and are typically only provided in Level 4 maternity units and above, as a demand management strategy to reduce pressure on the birth suite and ED, and to improve the patient experience.

The indicative SOA below does not incorporate a central triage service, which may be provided in some tertiary services, whereby all acute maternity presentations, including for birthing, will come through a central access point and are triaged accordingly. This will require access to a central triage and registration area similar to an ED.

Access to staff work areas and staff amenities will be required, depending on opportunities to share with collocated services.

AusHFG Room Code	Room / Space	SC / SC-D	Scenario 1		Scenario 2		Remarks
			Qty	m2	Qty	m2	
WAIT-10	Waiting	Yes			1	20	Assume oversight from reception noted above.
WAIT-S	Waiting - Sub	Yes				5 (o)	Optional. Requirements will depend on size of unit. A separate sub-wait is required for EPAS where combined with the AAU to support separation of flows. Refer to Section 2.1.6.
INTV	Interview Room	Yes			1	12	Numbers of rooms are indicative and will depend on local requirements. Secondary egress may be required depending on local risk assessment and jurisdictional policies.
CONS	Consult Room	Yes			5	12	Numbers of rooms are indicative and will depend on local requirements.
PBTR-H-9	Patient Bay - Holding	Yes			8	9	This will be provided as a mix of beds and chairs. Number of bays is indicative.
1BR-H-12	1 Bed Room - Holding	Yes			4	12	Where a room is used for EPAS ensure that antenatal equipment including cardiotocograph (CTG) can be stored out of sight.
	Family Bereavement Room				1	15	Proximal access to a bereavement space is essential. Provision within the AAU will depend on the size of the units and location relative to the birth suite. Consideration of acoustic requirements and provision of a less clinical environment with a facilities to allow for family to stay overnight. Sensitivity to location should be considered
ENS-ST-A1 ENS-ST-A2 ENS-ST-A3 ENS-ST-B ENS-ST-C	Ensuite - Standard	Yes			4	5	Attached to 1 Bed Room - Holding. May be provided as alternative ensuite arrangement ENS-ST-A1, ENS-ST-A2, ENS-ST-A3, ENS-ST-B or ENS-ST-C.
WCPT	Toilet - Patient	Yes			1	4	
ENS-ACC	Ensuite - Accessible				1	7	Combined accessible toilet / shower for access from open bays and other clinic rooms
PROC	Procedure Room	Yes			1	20	
ULTR	Ultrasound Room	Yes			1	18	Access to Toilet - Patient required
CLUP-7	Clean-up Room	Yes			1	7 (o)	Optional depending on local operational policies for reprocessing of ultrasound transducers. Requires unidirectional dirty to clean flows.
SSTN-10	Staff Station	Yes			1	12	
OFF-CLN	Office - Clinical Workroom	Yes			1	12	
OFF-WS	Office - Workstation	Yes				4.5	A number of workstations may be required within the clinical zone. Number and area allocation will depend on staff profile and local jurisdictional policies.
BHWS-B	Bay - Handwashing, Type B	Yes			2	1	1 between 4 open bays.
BMEQ	Bay - Mobile Equipment	Yes			1	4	
BLIN	Bay - Linen	Yes			1	2	
BRES	Bay - Resuscitation Trolley	Yes			1	1.5	
BPTS	Bay - Pneumatic Tube Station	Yes			1	1 (o)	Optional depending on hospital wide provision.
BWC	Bay - Wheelchair Park	Yes			1	3	
BBEV-OP	Bay - Beverage, Open Plan	Yes			1	4	
CLN-MED-20	Medication Room	Yes			1	10	Share with IPU for smaller services. For storage of unpacked sterile consumables. May be provided as a combined Clean Store / Medication Room depending on local jurisdictional policies.
CLN-10	Clean Store				1	6	
DTUR-10	Dirty Utility	Yes			1	10	
STGN	Store - General	Yes			1	8	
CLRM	Cleaner's Room	Yes			1	5	
DISP-8	Disposal Room	Yes			1	8 (o)	Optional. May be shared with adjacent units.
	Discounted Circulation %		32%		32%		

BIRTH SUITE

AusHFG Room Code	Room / Space	SC / SC-D	Scenario 1: 2 Birth Rooms		Scenario 2: 10 Birth Rooms		Remarks
			Qty	m2	Qty	m2	
	Assessment Room		1	20	3	20	Number of assessment rooms will depend on clinical services planning. COB to be considered depending on service model.
ENS-ST-A1 ENS-ST-A2 ENS-ST-A3 ENS-ST-B ENS-ST-C	Ensuite - Standard	Yes	1	5	3	5	With assessment rooms. May be provided as alternative ensuite arrangement ENS-ST-A1, ENS-ST-A2, ENS-ST-A3, ENS-ST-B or ENS-ST-C.
BIRM-A	Birthing Room, Without Pool	Yes	2	34	10	34	The proportion of birth rooms to be provided with a pool will be determined on a project by project basis. Includes storage.
BIRM-B	Birthing Room, With Pool	Yes		40.5		40.5	The proportion of birth rooms to be provided with a pool will be determined on a project by project basis. Includes storage.
ENS-BR	Ensuite - Birthing	Yes	2	7	10	7	With birth room
	Bay - PPE		1	3	1	3	Attached to one birth room for donning and doffing PPE to support isolation requirements. Refer to contemporary guidance re requirements to support future pandemics. Use as additional mobile equipment bay during non-pandemic periods.
	Family Bereavement Room		1	15	1	15	Dedicated space for perinatal loss. Recommend collocate with one birth room and locate in quieter area of unit. In smaller unit this room would be provided as a multipurpose room to also be used for parent education. Consideration of acoustic requirements and provision of a less clinical environment. Refer to HPU Section 2.1.13 for further information.
	Neonatal Resuscitation / Procedure Room		1	15	1	15	Where used for retrieval services 25m2 will be required to support the workings of the team. Refer to the local Retrieval Coordination Centre to confirm requirements. This function may also be provided through a 2 cot bay that can be flexibly used to accomodate the one baby being prepared for transfer.
SSTN-14	Staff Station	Yes	1	12	1	16	Share with IPU for smaller services.
OFF-CLN	Office - Clinical Workroom	Yes	1	12	1	15	Share with IPU for smaller services.
CLN-10	Clean Store	Yes			1	10	Share with IPU for smaller services. For storage of unpacked sterile consumables. May be provided as a combined Clean Store / Medication Room.
MED-14	Medication Room	Yes			1	14	Share with IPU for smaller services. To include fridge for storage of EBM.
CLN-MED-20	Clean Store / Medication Room	Yes	1	12			Clean store and medication rooms may need to be separated depending on local jurisdictional policies and access control/security requirements. Additional area will be required if provided as separate rooms.
DTUR-10	Dirty Utility	Yes	1	10	1	12	Share with IPU for smaller services.
BPATH	Bay - Pathology Point of Care Te	Yes			1	3	POCT
	Bay - Storage		1	1	1	1	Secure storage for newborn screening
BMEQ	Bay - Mobile Equipment	Yes	1	2	2	4	Equipment and trolleys
BLIN	Bay - Linen	Yes	1	2	2	2	
BBW	Bay - Blanket / Fluid Warmer	Yes	1	1	2	1	Collocate with linen bays
BRES	Bay - Resuscitation Trolley	Yes	1	1.5	1	1.5	For adults
BHWS-B	Bay - Handwashing, Type B	Yes	1	1	4	1	Locate in corridors including entrances to unit.
STEQ 14	Store - Equipment	Yes	1	8	1	24	Share with IPU for smaller services.
STGN	Store - General	Yes	1	9	1	15	Consumables. Share with IPU for smaller services.
CLRM	Cleaner's Room	Yes	1	5	1	5	Share with adjacent units for smaller units.
DISP-10	Disposal Room	Yes	1	8	1	10	Share with adjacent units for smaller units.
LNPT-10	Lounge - Patient / Family	Yes	1	12	1	20	Design to consider cultural considerations and access to outdoors where appropriate.
BBEV-ENC	Bay - Beverage, Enclosed	Yes	1	5	1	5	Accessible by families and located alongside lounge. Share with IPU for smaller services.
OFF-1P-9	Office - 1 Person	Yes	1	9	1	9	Unit Manager. Number and area allocation will depend on staff profile and local jurisdictional policies.
MEET-20	Meeting Room	Yes			1	20	Meetings and education
SRM-15	Staff Room	Yes			1	20	May be shared with Ante/Postnatal for small services.
SHST	Shower - Staff	Yes			1	3	May be shared with Ante/Postnatal for small services.
WCST	Toilet - Staff	Yes	1	3	2	3	May be shared with Ante/Postnatal for small services.
BPROP	Bay - Property,Staff	Yes			1	3	May be shared with Ante/Postnatal for small services.
CHST-10	Change - Staff	Yes			2	15 (o)	Optional depending on local operational policies re changing pre and post shift.
	Discounted Circulation %		35%		35%		

INPATIENT UNIT – ANTENATAL / POSTNATAL

The proportion of single bedrooms provided should be informed by the local demographics and cultural considerations, however a high proportion of single bed rooms is usually preferred.

For the smaller unit scenario it is assumed that support areas are shared with the Birth Suite.

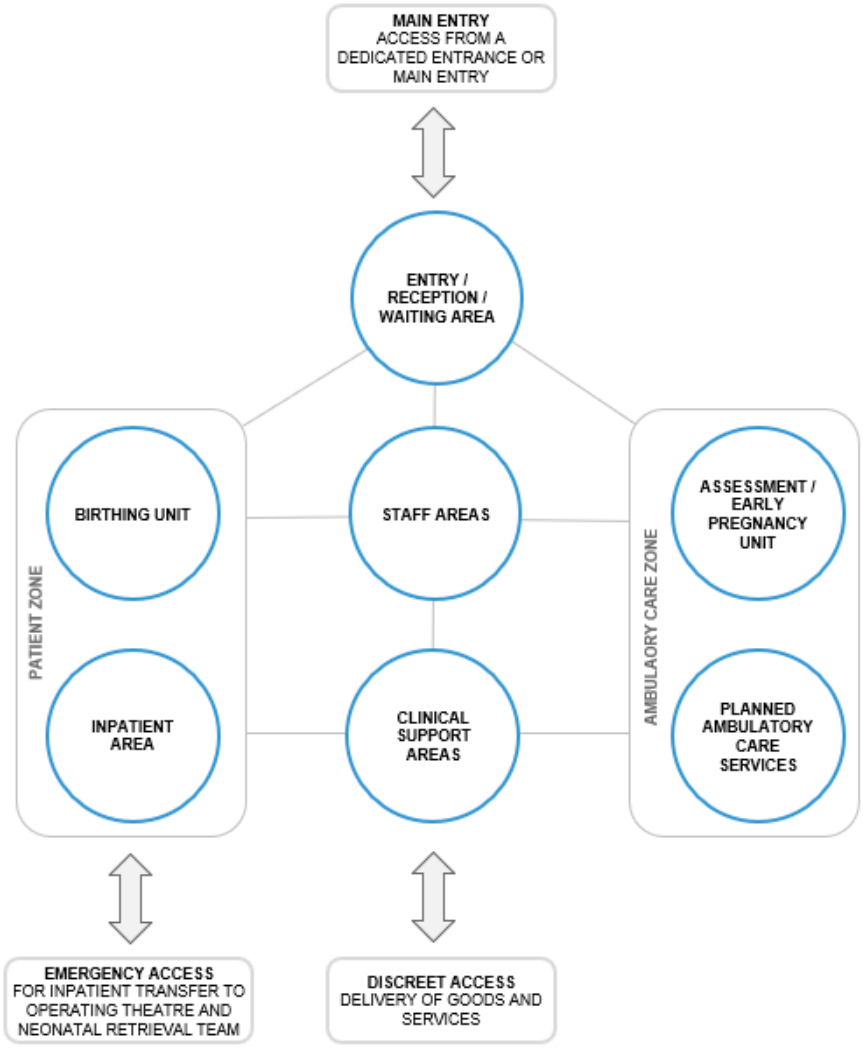
AusHFG Room Code	Room / Space	SC / SC-D	Scenario 1: 5 IPU beds		Scenario 2: 28 IPU beds		Remarks
			Qty	m2	Qty	m2	
1BR-ST-A1 1BR-ST-A2 1BR-ST-A3 1BR-ST-B1 1BR-ST-B2 1BR-ST-B3 1BR-ST-D	1 Bed Room	Yes	5	16.5	25	16.5	Refer to available jurisdictional guidance where relevant. Consideration to be given to bariatric requirements depending on service requirements / role of the unit across the network. If using an 8,400mm structural grid refer to 1BR-ST-A2, 1BR-ST-A3 (both with inboard ensuite), 1BR-ST-B2 or 1BR-ST-B3 (both with outboard ensuite) or 1BR-ST-D (back to back ensuite). For 1 Bed Rooms on a 7,800mm structural grid, refer to 1BR-ST-A1 or 1BR-ST-B1.
1BR-IS-N1	1 Bed Room - Isolation, Negative Pressure	Yes			1	16.5	Provision of an N class room in smaller units will be subject to service requirements. Number of rooms provided will be subject to contemporary guidance relating to resilience against future pandemics.
ANRM	Anteroom	Yes			1	6	Attached to N Class room.
2BR-ST-A1	2 Bed Room	Yes			1	29 (o)	Optional, number of multi-bed rooms will depend on local demographics and cultural considerations.
ENS-ST-A1 ENS-ST-A2 ENS-ST-A3 ENS-ST-B ENS-ST-C	Ensuite - Standard	Yes	4	5	26	5	One per 1 Bed Room and 2 Bed Room. May be provided as alternative ensuite arrangement ENS-ST-A1, ENS-ST-A2, ENS-ST-A3, ENS-ST-B or ENS-ST-C.
ENS-ACC	Ensuite - Accessible	Yes	1	7	1	7	Designed to AS1428. Caters for independent wheelchair user and replaces standard ensuite.
NBLD	Neonatal Bay - Low Dependency Care	Yes	2	12.5			Number of cot bays is indicative and dependent on service profile. Typically provided on lower level units to support step down transfers where there is no dedicated neonatal care service on site. Two combined neonatal bays may be flexibly used to support retrieval services. Refer to the local Retrieval Coordination Centre to confirm requirements.
	Neonatal Resuscitation				1	15	Shared with birth suite for smaller units.
	Newborn Bathing Room		1	12 (o)	1	20 (o)	Optional depending on local operational model. Refer to HPU Section 2.2.5
LNPT-10	Lounge - Patient / Family	Yes			1	20	Also used for interviews / family meetings. Share with birth suite for smaller unit. Design to consider cultural considerations.
BBEV-OP	Bay - Beverage, Open Plan	Yes			1	4	Collocate alongside lounge
	Multipurpose / Parent Education Room				1	20	Parent education and other functions. Include beverage bay and storage for education. May be shared between 2 IPUs eg 30m2 shared between 2 units. Must support virtual classes. Smaller units share access to multipurpose/bereavement room.
SSTN-14	Staff Station	Yes			1	14	Assume share with Birth Suite for smaller unit.
OFF-CLN	Office - Clinical Workroom	Yes			1	15	Assume share with Birth Suite for smaller unit.
BHWS-B	Bay - Handwashing, Type B	Yes	1	1	2	1	Corridor locations. No. to be based on design
BLIN	Bay - Linen	Yes	1	2	2	2	
BMEQ	Bay - Mobile Equipment	Yes	1	2	3	4	
BRES	Bay - Resuscitation Trolley	Yes			1	1.5	Share with birth suite for smaller units.
BMT	Bay - Meal Trolley	Yes	1	4 (o)	1	4 (o)	Optional. Provision will depend on food services model. Space dependent on size and capacity of meal trolleys
CLN-10	Clean Store	Yes			1	10	Shared with Birth Suite for smaller services. For storage of unpacked sterile consumables. May be provided as a combined Clean Store / Medication Room depending on local jurisdictional policies.
MED-14	Medication Room	Yes			1	10	Shared with Birth Suite for smaller services. May be provided as a combined Clean Store / Medication Room depending on local jurisdictional policies.
DTUR-12	Dirty Utility	Yes			1	12	Shared with Birth Suite for smaller services.
	Milk Preparation & Storage		1	6	1	10	Includes storage of powdered formula, refrigerated ready-made formular and secure refrigerated storage for EBM (depending on local operational model. Refer to HPU Section 2.2.2). Assumes single use items for breast pump accessories and bottles.
STEQ-14	Store - Equipment	Yes	1	8	1	22	Spare bassinets, transport humidicrib.
STGN	Store - General	Yes			1	15	Share with birth suite for smaller unit. Storage requirements to be confirmed with Users given changes over time including relating to single use items vs reprocessing, baby bundle initiatives etc.
CLRM	Cleaner's Room	Yes			1	5	May be shared with adjacent unit
DISP-10	Disposal Room	Yes			1	8	May be shared with adjacent unit
	Discounted Circulation %		35%		38%		

STAFF AREAS AND AMENITIES

This list is indicative only and will be dependent on local arrangements, management structures and staff profiles.

AusHFG Room Code	Room / Space	SC / SC-D	Scenario 1		Scenario 2		Remarks
			Qty	m2	Qty	m2	
MEET-20	Meeting Room	Yes	1	12	1	20	
OFF-1P-9	Office - 1 Person	Yes		9		9	Number and area allocation will depend on staff profile and local jurisdictional policies.
OFF-WS	Office - Workstation	Yes		4.5		4.5	Number and area allocation will depend on staff profile and local jurisdictional policies.
STFS-10	Store – Files	Yes	1	1	1	4	
SRM-15	Staff Room	Yes	1	15	1	18	Number and area allocation will depend on staff profile and local jurisdictional policies.
WCST	Toilet – Staff	Yes	1	3	2	3	Number and area allocation will depend on staff profile and local jurisdictional policies.
BPROP	Bay - Property, Staff	Yes	1	2	1	4	Number and area allocation will depend on staff profile and local jurisdictional policies.
BMFD-3	Bay - Multifunction Device	Yes	1	3	1	7	
	Discounted Circulation %		25%		25%		

5.2 FUNCTIONAL RELATIONSHIPS / DIAGRAMS



5.3 REFERENCES

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5.4 FURTHER READING

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- NSW Health, 2009, TS7 - Floor Coverings in Healthcare Buildings, Issue V1.1 (NSW Health, 2009), no. V1.1, NSW Government, North Sydney, NSW
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- NSW Health, 2022 Maternity – Towards Normal Birth in NSW

5.5 MATERNITY SERVICES MAJOR MODEL CATEGORIES

The following information is an extract from the Maternity Care Classification System published by the Australian Institute of Health and Welfare.

Model	Description
Private obstetrician (specialist care)	Antenatal care provided by a private specialist obstetrician. Intrapartum care is provided in either a private or public hospital by the private specialist obstetrician and hospital midwives in collaboration. Postnatal care is usually provided in the hospital by the private specialist obstetrician and hospital midwives and may continue in the home, hotel or hostel.
Private midwifery care	Antenatal, intrapartum and postnatal care is provided by a private 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.
General Practitioner obstetrician care	Antenatal care provided by a GP obstetrician. Intrapartum care is provided in either a private or public hospital by the GP obstetrician and hospital midwives in collaboration. Postnatal care is usually provided in the hospital by the GP obstetrician and hospital midwives and may continue in the home or community.
Shared Care	Antenatal care is provided by a community maternity service provider (doctor and/or midwifery staff under an established agreement, and can occur both in the community and in hospital outpatient clinics. 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).
Combined Care	Antenatal care provided by a private maternity service provider (doctor and/or midwife) in the community. Intrapartum and early postnatal care provided in the public hospital by hospital midwives and doctors. Postnatal care may continue in the home or community by hospital midwives.
Public hospital maternity care	Antenatal care is provided in hospital outpatient clinics (either onsite or outreach) by midwives and/or doctors. Care could also be provided by a multidisciplinary team. Intrapartum and postnatal care is provided in the hospital by midwives and doctors in collaboration. Postnatal care may continue in the home or community by hospital midwives.
Public hospital high risk maternity care	Antenatal care is provided to women with medical high risk / complex pregnancies by maternity care providers (specialist obstetricians and/or maternal-fetal medicine subspecialists in collaboration with midwives) with an interest in high risk maternity care in a public hospital. Intrapartum and postnatal care is provided by hospital doctors and midwives. Postnatal care may continue in the home or community by hospital midwives.
Team midwifery care	Antenatal, intrapartum and postnatal care is provided by a small team of rostered midwives (no more than 8) in collaboration with doctors in the event of identified risk factors. Intrapartum care is usually provided in a hospital or birth centre. Postnatal care may continue in the home or community by the team midwives.

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 with collaboration with doctors in the event of identifies 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.
Remote area maternity care	Antenatal and postnatal care is provided in remote communities by a remote area midwife (or a remote are 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 (involving temporary relocation prior to labour) by hospital midwives and doctors.

5.6 ASSESSMENT OF BIRTH ROOM NUMBERS

The anticipated number of births as determined in the Clinical Services Plan, average lengths of stay, number of elective caesarean sections booked directly into the operating suite thus bypassing the Birth Suite, policies re early discharge programs and management of planned inductions of labour will all affect:

- the number of birth rooms required; and
- the number of postnatal inpatient beds required.

For the purposes of estimating birthing room numbers, one room should be allocated for every 300 births. This is based on the birthing models and assumes approximately one delivery per room per 24 hours.

5.7 BIRTH ROOM DESIGN

BIRTH ROOM

Giving birth and being born are probably the most dramatic experiences of a lifetime. Supportive resources that constitute an ambient environment with appropriate lighting, sound and colour are essential for the mother and particularly the baby, after his / her 9 months of relative peace and darkness.

Domestic colours reflective of nature, natural aromas, personally selected music and soft lighting will contribute to a calm atmosphere.

Accommodation needs to provide space for the woman to move freely and change position (as she would at home) and should be able to accommodate standing, walking, sitting, kneeling, squatting, lying down and semi recumbent positions. Each activity / position may require various kinds of support such as a birth stool, leaning place / mantel piece, chairs, beanbags, floor mat, Swiss ball or a birth support rope hung from the ceiling hook.

The hospital bed will not be the central focus of the room.

Other requirements include:

- visual privacy from corridor and control over who enters the room (‘please knock’ sign). Observation windows should not be used.
- acoustic management in and between rooms and from the room to the corridor including solid core doors with high grade door seals and walls to 50DB acoustic rating
- control of lighting through dimmable systems
- a fixed procedure light over the bed. Alternative products that are less intrusive may be possible.
- natural light and, where possible, views
- individual control of room temperature
- bed is not the first object seen on entering the room (implies this is where woman must position herself)
- space to walk around in the room and to adopt a range of positions
- access to the outdoors where possible

- ability to change furniture (room to move the bed away from centre of room when not in use) and fittings within the space (such as mattress, pillows, bean bag, Swiss balls, grab rails or shelves) or bring items from home (such as bed cover / doona with familiar / personal odour which is comforting and calming).
- benches with curved edges at various levels for leaning / squatting
- domestic décor as much as possible: colours, artwork
- music: CD player, MP3 docking station and possibly TV / DVD for supporters, if not the mother
- aromatherapy using electric burner
- access to an ensuite with shower and birthing pool within the room - not the ensuite (refer to details below)
- concealed gases and equipment, including newborn resuscitation equipment
- access to drinks and refreshments for mother and supporters
- space for family members including children, both inside the birth room and outside. A day bed may be used for rest at various stages of the labour by supporters
- ensuring all windows have domestic style window coverings for privacy
- bench space for point of care documentation which will include access to networked computers for staff
- a single entry door to the room is preferred. Birth bed dimensions are typically 234cm wide, 91cm wide (without rails) and 99cm (with rails raised). The bed can manage weight of up to 227kg.

BIRTHING POOLS

Each health service will develop policies regarding the use of water for pain relief during labour and water birth should it occur. Birthing pools are an integral feature of the Birth Room. Features include:

- a birthing pool that allows the woman to fully immerse in the water and change positions and deep enough for a woman on hands and knees to have her pelvis completely covered if the baby is born in the water (must be completely submerged - not half in and half out)
- access should be provided on three sides of the birthing pool
- the birthing pool should be able to be filled quickly and the temperature of the water maintained
- owing to the shape and set out of the birthing pool, an extended wide bore tap may be needed. When not in use, this should be pushed out of the way so that it is not used as a support.
- medical gases will be located at the birthing pool
- an emergency and staff assist button will be provided at the birthing pool
- ceiling hoists are not ideal and floatation mats are a better choice to get the woman out of the birthing pool quickly should her condition deteriorate
- rapid emptying is not so important. Should a woman become distressed, the floatation device mats require the birthing pool to be full so that buoyancy is provided and the woman is easily transferred to a trolley.
- the birthing pool surface should be smooth and impervious and easy to clean

- consideration must be given to how the midwife will position herself in order to monitor the fetal heart and observe second stage and birth, while the woman is in the birthing pool. Design and equipment should support ergonomically optimal practices.
- non slip flooring needs to be provided immediately adjacent to the birthing pool

BIRTH ROOM ENSUITES

A dedicated ensuite should be provided to each birth room. Features include:

- grab rails on each wall of the shower recess. This should be set at a height that allows the woman to squat and hold onto the rails.
- two shower heads with hoses should be fitted so the woman can position to gain the most relief
- the water waste should be designed so it is not obstructed should the women choose to use equipment such as a birthing stool or Swiss ball in the shower
- the rooms should be sized to allow for a support person or for a midwife should the baby be born in the shower;
- toilet does not need the grab rail surrounds as found in inpatient units since these may impede access to the assist person during the birth of the baby (as the baby may emerge while the mother is on the toilet)

For additional information refer to:

- Your Birth Space: How to plan, negotiate and create an optimal birth environment, Queensland Centre for Mothers and Babies
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