

## **National Framework for Maternity Services** Incorporating a National Antenatal Health Risk Factors Strategy

March 2017

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# Acronyms and abbreviations

AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
CALD	Culturally and linguistically diverse – applies to women and families whose first language is not English, or whose family background involves migration from a non-English speaking country
CCPHPC	Community Care and Population Health Principal Committee
MCPWG	Maternity Care Policy Working Group
MSIJC	Maternity Services Interjurisdictional Committee
NAHRFS	National Antenatal Health Risk Factors Strategy
NCMIs	National Core Maternity Indicators
NFMS	National Framework for Maternity Services
NMSP	National Maternity Services Plan 2010-2015
OECD	Organisation for Economic Cooperation and Development
WHO	World Health Organization

# Definitions

The definitions provided below are derived from the National Maternity Services Plan 2010-2016 and the National Framework for Universal Child and Family Health Services unless otherwise referenced.

Antenatal	The period between conception and the onset of established labour <sup>1</sup>
Continuity of care	The practice of ensuring that a woman knows her maternity care provider(s) and receives care from the same provider, or small group of providers, throughout pregnancy, labour, birth and the postpartum period
Evidence based care	Services reflect the best evidence available or harness practice wisdom where evidence is not available <sup>2</sup>
First antenatal visit	The first visit specifically for antenatal care following confirmation of the pregnancy
Health inequalities	Differences in health status or in the distribution of health determinants between different population groups (e.g. differences in infant mortality rates between women from different socioeconomic backgrounds)
Health outcome	A change in the health status of an individual, group or population that is attributable to a planned intervention or series of interventions, regardless of where such an intervention was intended to change health status
Health professional	A person who provides proper health care in a systematic way professionally to any individual in need of health care services, including midwives, obstetricians, general practitioners, paediatricians, Aboriginal health workers, nurses and Allied Health professionals
Perinatal	The time around birth, up to 28 days post-delivery
Postnatal	The period after the birth of the baby, usually defined as the six weeks after birth
Woman-centred	This implies that care: <ul style="list-style-type: none"> <li>• Is focused on the woman's individual, unique needs, expectations and aspirations, rather than the needs of institutions or professions</li> <li>• Recognises the woman's right to self-determination in terms of choice, control, and continuity of care</li> <li>• Encompasses the needs of the baby, the woman's family, significant others and community, as identified and negotiated by the woman herself<sup>3</sup></li> <li>• Addresses the woman's social, emotional, physical, psychological, spiritual and cultural needs and expectations<sup>4</sup></li> </ul>

# Executive summary

The birth of a child is one of the most, if not the most, significant events in a woman's life and not only changes her life, but also the life her partner and family. In Australia, women and their families are able to access world class maternity services that support a woman and her family during this important time in their lives.

The National Framework for Maternity Services (NFMS) provides guidance for planning and delivery of women-centred, safe high quality health care across the maternity continuum of care, with the aim to ensure equitable access to maternity care for all women that supports optimal outcomes for a woman and her baby.

The NFMS follows on from the National Maternity Services Plan (2010-2015) with the expectation that jurisdictions will align their jurisdictional plans with the vision, values and principles to improve health outcomes and the woman's experience through her maternity continuum of care.

The NFMS sets out an overarching vision, values and underpinning principles to guide the further development of maternity services across Australia.

## Vision

*All women in Australia have access to evidence based, high quality maternity care that achieves optimal health outcomes for the mother, baby and family now and into the future.*

## Values

Achieving this Vision will be guided by the following Values:

- **Respect** – A woman's choices, preferences and values are respected and supported by maternity services and providers.
- **Accountability** – Maternity services and providers are accountable for the provision of safe and quality outcomes that aligns with a woman's needs.
- **Excellence** – Maternity services are evidence based, innovative and informed by research and the application of best practice to achieve optimal outcomes.
- **Leadership** – Maternity services, providers, women, their families and communities lead the delivery of the vision, values and principles at a national, state and service level.

## Principles

Along with the Vision and Values, the following Principles will underpin the future planning and development of maternity services.

1. **Woman-centred** – Women and their families, support networks and communities are at the heart of maternity services and are empowered to make informed choices regarding their care.
2. **Culturally safe** – Maternity services reflect an understanding of the diversity between and within cultures, supporting a woman's wellbeing, and meets the needs of the woman, her partner and/or support network including her community.
3. **Safe, high quality maternity care** – Maternity services across the care continuum are safe and provide high quality care to a mother and baby, promoting a healthy lifestyle and responding to a woman's antenatal health needs.
4. **Access** – All women, including Aboriginal and/or Torres Strait Islander women, culturally and linguistically diverse women, women living in socioeconomically disadvantaged communities and rural and remote women and their families, have access to high quality, safe, evidence-based maternity care.
5. **Equity** – Recognising that many of the determinants of health lie outside the health system, health and maternity services work with other sectors and communities to address inequality in maternity outcomes.
6. **Collaboration** – Through collaboration and partnership between women, care providers and health services, all women have access to a seamless service across the maternity continuum with defined transition points when required to transfer care between care providers and health services.
7. **Sustainable** – Services achieve the desired maternity care outcomes with the most cost-effective use of resources, while improving the capacity of the system to sustain workforce and infrastructure, to innovate and to respond to emerging needs.

The National Antenatal Health Risk Factors Strategy (NAHRFS) outlines key modifiable, treatable and emergent health conditions during pregnancy. Examples of modifiable risks include domestic and family violence, smoking, obesity, nutrition, alcohol consumption. Examples of treatable conditions include chronic conditions such as diabetes and perinatal mental health and examples of emergent health conditions include gestational diabetes.

In terms of outcomes measures, the existing National Core Maternity Indicators monitor the safety and quality of maternity care and are used to assess and support continual improvement. They will continue in the NFMS and are set out in section 4. Other key measures are maternal morbidity and

mortality and perinatal morbidity and mortality data. Potential further measures to be developed could include data relating a woman's experience of maternity care services.

The NFMS is intended to be used by jurisdictions to develop maternity service plans that are aligned to the vision and principles, as well as the NAHRFS. AHMAC is responsible for ensuring currency of the NFMS with a review occurring at regular intervals.

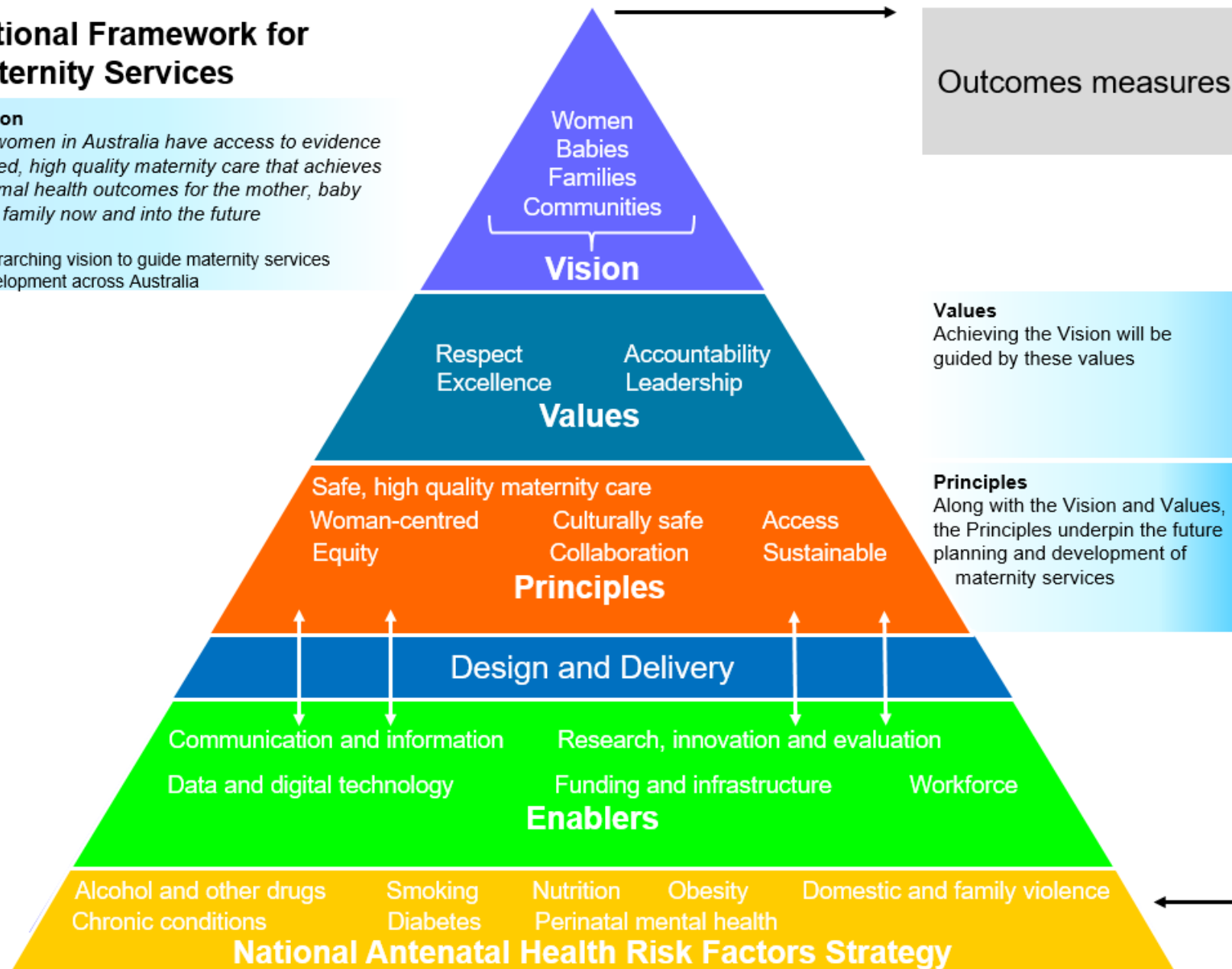
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## National Framework for Maternity Services

### Vision

*All women in Australia have access to evidence based, high quality maternity care that achieves optimal health outcomes for the mother, baby and family now and into the future*

Overarching vision to guide maternity services development across Australia



Outcomes measures

### Values

Achieving the Vision will be guided by these values

### Principles

Along with the Vision and Values, the Principles underpin the future planning and development of maternity services

**National Antenatal Health Risk Factors Strategy**



# 1 Scope and Approach

## 1.1 Scope

The NFMS scope includes the maternity continuum spanning antenatal, intrapartum, and postnatal periods for women and babies, in both the public and private sectors, and includes the transition to child and family health services and intersections with the broader health and social service systems.

## 1.2 Approach

In 2016, The Maternity Care Policy Working Group (MCPWG) was established under the auspices of the Community Care and Population Health Principal Committee (CCPHPC), a principal committee of the Australian Health Ministers Advisory Council (AHMAC) to oversee the National Framework for Maternity Services project. The MCPWG engaged an independent consultant to undertake the development of the consultation draft NFMS.

The development of the NFMS consultation draft involved two consultation phases:

Phase 1 - Face to face consultations were facilitated in all states and territories in Australia; in addition to an online survey. Discussions covered the key components for inclusion in the consultation draft of the NFMS.

Consultations included discussions based on the maternity journey including the critical interactions that may arise along the journey and themes and strategies that are conducive to a safe and supportive maternity journey.

These discussions were used to develop the vision, values and principles of the consultation draft of the NFMS to allow for flexibility in targeting different priorities across the maternity care continuum and in all states and territories.

Phase 2 - A second consultation phase will seek broad stakeholder and public comment on the consultation draft of the NFMS which will inform the development of the draft NFMS.

## 1.3 How to read this document

Section 1 – Scope and approach – This section outlines the scope of the NFMS, the approach for the development of the consultation draft and guidance in relation to reading this document.

Section 2 – Background – Provides an overview of the current context for the delivery of maternity services in Australia, its performance and outcomes. It also outlines the policy context and decisions regarding the development of the NFMS.

Section 3 – Framework – The core of the document that outlines the vision, values and principles for the NFMS.

Section 3.6 – National Antenatal Health Risk Factors Strategy – Discusses the key modifiable, treatable and emergent health conditions during pregnancy that may impact the delivery of an optimal outcome for a woman and her baby.

Section 3.7 – Enablers – Overview of the key supporting mechanisms that need to be in place in order to underpin the achievement of the vision, values and principles of the NFMS as well as the NAHRFS.

Section 4 – Outcome measures – Describes the existing National Core Maternity Indicators, as well as the opportunity to develop new outcomes measures and the continuing importance of the collection and reporting of maternal and perinatal morbidity and mortality data.

Appendix – Provides information concerning:

- How the NFMS was developed;
- The key findings of a process evaluation of the development and implementation of the previous National Maternity Service Plan (2010-2015). The evaluation has informed the development of the NFMS;
- The current National Core Maternity Indicators which will be updated regularly to inform this enduring NFMS.

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## 2 Background

### 2.1 Australia's maternity services

The birth of a child is one of the most, if not the most, significant events in a woman's life and not only changes her life, but also the life her partner and family. Every day, more than 800 women in Australia give birth. Women and their families are able to access world class maternity services that support a woman and her family during this important time in their lives.

The deliveries occur across a range of settings and the vast majority result in good health outcomes for the mother and her baby. This is supported by data that shows Australia's maternity services are of high quality and amongst the best in the world.

#### 2.1.1 Maternity continuum of care

The maternity service system relies on a range of health practitioners to deliver safe, high quality maternity care including primary health care providers, general practice obstetrics, obstetricians, midwives, anaesthetists, neonatologists, neonatal nurses, paediatricians, health workers and allied health practitioners.

Healthy pregnant women will receive care from one or a combination of these health practitioners. The level of care received by a woman and her baby should match her needs at any stage during the maternity care continuum, including transition between services, and may be supported by the broader health sector and social sector services.

The provision of evidence-based information to women and their families across the maternity continuum is critical. Access to evidence based information will enable a woman through self determination to assess her unique needs and make choices accordingly.

#### 2.1.2 AIHW and WHO statistics

The Australian Institute of Health and Welfare's report 'Australia's mothers and babies 2014' showed that 307,844 women gave birth in Australia in 2014 with a birth rate of 59 per 1000 women of reproductive age (15 - 44 years). This rate has declined from a recent peak of 66 per 1,000 women in 2007.

The average age of women giving birth has increased from 29.7 years in 2004 to 30.2 years in 2014. The average age for Aboriginal and/or Torres Strait Islander mothers increased from 24.8 in 2004 to 25.5 in 2014.

In 2014, 22% of mothers were aged 35 and over and the average age of first-time mothers was 28.7 years old (28.0 in 2004).

Seventy-two per cent of women giving birth in 2014 lived in major cities and 67% were born in Australia; 4.2% of women giving birth were indigenous, compared to the proportion of indigenous women of reproductive age in the population of 3.4%.

AIHW statistics showed that almost all women birthing in Australia had at least one antenatal visit (99.9% in 2014). Ninety-five per cent had five or more visits, 87% had seven or more and 57%

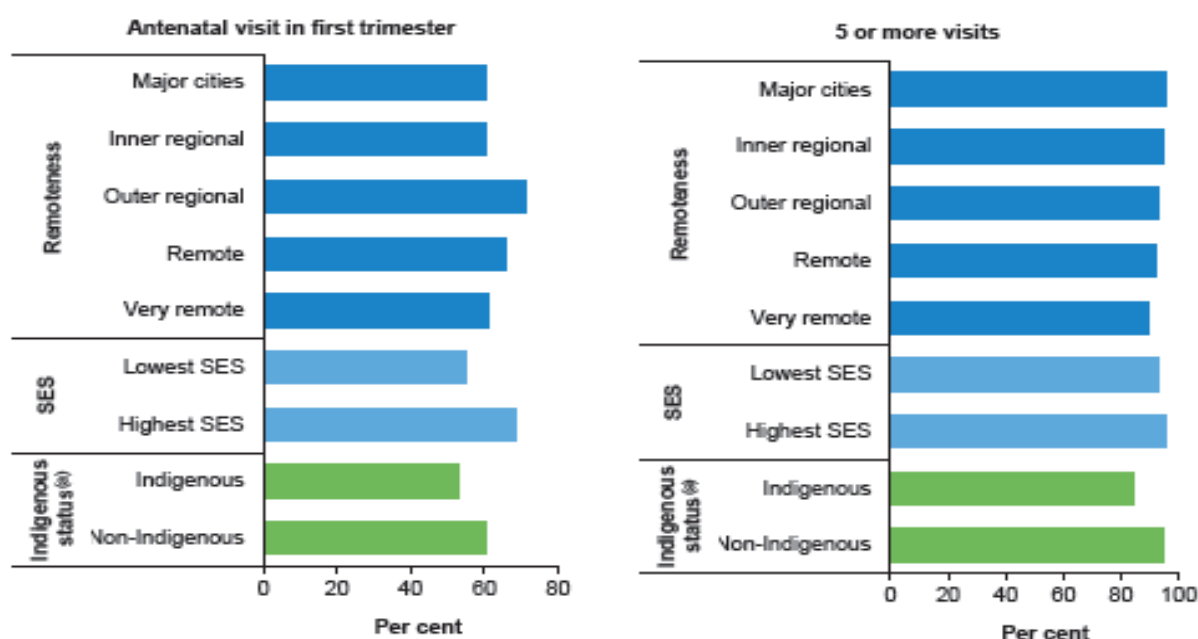
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had 10 or more visits. The data indicates that maternity services in Australia are progressing in meeting the recommendation of the National Antenatal Care Guidelines of 10 antenatal visits for a woman's first pregnancy without complications and seven visits for subsequent uncomplicated pregnancies. From an international perspective, the World Health Organisation recommends a standard model of four or more antenatal visits, as this increases the likelihood of the woman receiving effective maternal health interventions during antenatal visits. The WHO estimated, globally, antenatal care coverage (four or more antenatal visits) at 85% in 2013. With 95% of women birthing in Australia having five or more antenatal visits, Australia's maternity services are exceeding WHO expectations.

According to AIHW, 43% of women attended at least 1 antenatal visit in their first 10 weeks of pregnancy and 62% of women attended in the first trimester (less than 14 weeks). Early and regular antenatal care is linked to improved maternal health and fewer interventions in late pregnancy, 12% of women did not begin antenatal care until after 20 weeks' gestation.

Fifty-five per cent of women living in the lowest socioeconomic status (SES) areas attended antenatal care in the first trimester whereas, among the highest SES areas, 68% of women interacted with antenatal services in 2014. On average AIHW found that in 2014 Indigenous women attended 1 less antenatal visit than non-Indigenous women and were less likely to engage with antenatal services as early as non-Indigenous women (average weeks' gestation was 14 weeks at their first antenatal visit compared to 13 weeks for non-Indigenous).

Figure 1: Antenatal visits in the first trimester and 5 or more antenatal visits, by selected maternal characteristics, 2014



(a) Age-standardised percentages.

Source: Australia's mothers and babies 2014, AIHW

Almost all births in Australia took place in hospital in 2014 (98%), 1.8% in birthing centres and 0.3% at home or on the way to the hospital. Seventy three per cent of hospital births occurred in a public hospital, the median length of stay after birth was 3 days; 21% of mothers were discharged within 2 days of giving birth and 65% between 2 and 4 days.

One third of women had caesarean sections in 2014 (33%); 85% of women who had a previous caesarean section had a repeat caesarean section. Most vaginal births were non-instrumental (81%), those that were instrumental were more commonly vacuum extraction (11%) rather than forceps (8%) in 2014.

The average gestational age for babies born in 2014 was 38.6 weeks, with 91% being born at term (37 to 41 weeks) and 8.6% were pre-term. Less than 1% of babies were born post-term. A significant proportion of twins and other multiple births (63%) were born pre-term in 2014.

Ninety six per cent of babies born in hospital were discharged to home (4% relates to discharges to another hospital or perinatal death). The median length of stay for babies who were discharged to home was 3 days, 92% of babies stayed 5 days or less. The median length of stay for pre-term babies and low birthweight babies were 7 days and 8 days respectively.

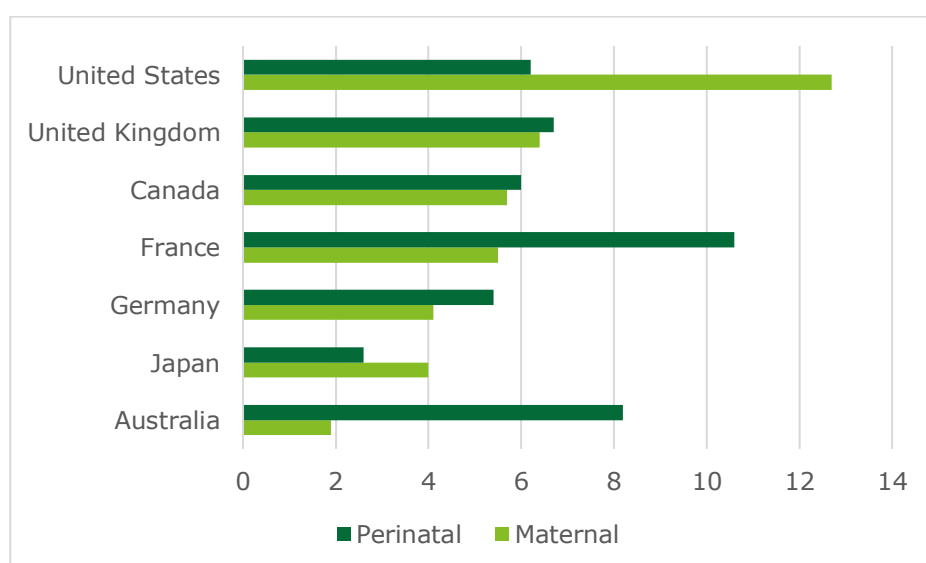
Fifteen per cent of live born babies were admitted to a special care nursery (SCN) or neonatal intensive care unit (NICU) in 2014. Babies born to Indigenous mothers were 1.5 times as likely to be admitted to an SCN or NICU as those of non-Indigenous mothers.

There are higher rates of perinatal deaths amongst babies born to Indigenous mothers. In 2014 there were 14 perinatal deaths for every 1,000 births of Indigenous mothers, compared to 9 per 1,000 of non-Indigenous mothers.

### 2.1.3 Outline and performance of services – mortality and morbidity

OECD data shows that maternity services in Australia are high quality and among the best in the world however Figure 2 and Appendix 5.3 demonstrate that there is still progress to be made to improve health outcomes across the country. Although the Australian perinatal death rate (deaths per 1,000 total births) has decreased dramatically it is still one of the highest among some OECD nations as shown in Figure 2 however this demonstrates that Australia has the lowest maternal mortality rate (deaths per 100,000 live births) among select OECD countries.

Figure 2: Maternal mortality rate, 2013



Note: When 2013 data are not available, the most recent data are used. In particular, the maternal mortality and perinatal mortality rate in Canada are 2012 and 2011 figures. The maternal mortality rate for the United States is a 2007 figure.

Source: OECD database<sup>5</sup>

The Australian perinatal death rate is relatively high compared to the United States, United Kingdom, Canada, Germany and Japan, as shown in Figure 2 (noting that due to differential issues, e.g. different legislative requirements, data definitions, means of data collection, between jurisdictions can lead to a higher death rate being reported). According to AIHW, congenital abnormalities are the leading cause of perinatal deaths in Australia, accounting for 29 per cent of perinatal death<sup>6</sup>.

The safety and quality of Australian maternity services is monitored using the National Core Maternity Indicators (morbidity indicators). The National Core Maternity Indicators consist of 15 discrete indicators, of which 3 are new indicators, while 12 have been updated with the most recently available 2013 national perinatal data.

The statistics for these 15 indicators are presented in Appendix 7.3 which shows Australia has experienced an unfavourable change in nine of these indicators from 2004 to 2013. This data will be regularly reviewed and updated in the Appendix as part of the enduring NFMS.

## 2.2 The policy journey so far

### 2.2.1 National Maternity Services Plan 2010-2015 (NMSP)

The NMSP was developed in 2007-2009 and endorsed by the Australian Health Ministers Advisory Council (AHMAC) in 2010. The aim of the NMSP was to guide policy and program development for all jurisdictions to improve coordination and ensure better access to maternity services across Australia.

The NMSP included four priority areas: access; service delivery; workforce; and infrastructure. For each priority area, the NMSP outlined actions and an implementation plan. The NMSP ended in 2016.

There are a number of national initiatives overseen by AHMAC to guide safety and quality of maternity services in Australia and it is acknowledged that individual jurisdictions have already undertaken a significant amount of work in response to the NMSP and to improve care and outcomes for women, babies and their families.

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## 2.3 Why a Framework

### 2.3.1 Decision of the COAG Health Council

At the April 2016 COAG Health Council meeting, Health Ministers agreed to the development of a National Framework for Maternity Services. The project incorporates two components:

- a. Evaluation of the processes that occurred in developing and implementing the National Maternity Services Plan 2010 – 2015
- b. Development of an enduring National Framework for Maternity Services incorporating an Antenatal Health Risk Factors Strategy.

### 2.3.2 Role of Maternity Care Policy Working Group

The Maternity Care Policy Working Group (MCPWG) was established in June 2016 under the auspices of the Community Care and Population Health Principal Committee (CCPHPC), a principal committee of AHMAC.

The MCPWG is a time-limited working group and comprises of policy experts from all jurisdictions and has been tasked with progressing the decision of Health Ministers.

The work of the MCPWG will be progressed through CCPHPC and AHMAC for endorsement.

### 2.3.3 Benefits of a framework approach

A process evaluation was undertaken to evaluate the processes that occurred in developing the NMSP. Feedback from this included concerns that the NMSP was too prescriptive in its recommended actions for implementation and did not have the flexibility to be applied consistently across the country due to differences in population needs in each jurisdiction.

It was therefore understood that an enduring framework would allow jurisdictions to plan their maternity services as per the principles based guidance of a framework to tailor to their specific needs but with the overall outcomes congruent with those specified in the Framework.

A development of a framework is consistent with the concepts of National Health Care Reform with a focus on outcomes rather than inputs. Such an approach recognises the diversity of services within and between jurisdictions and as a result different priorities and actions areas may be developed in each jurisdiction. A framework provides a structure to plan and deliver service reforms without stifling innovation. This approach aligns with other developed national health services frameworks and plans as outlined in Section 3.3.



# 3 The Framework

## 3.1 Purpose of the Framework

The purpose of the NFMS is to provide an overarching, enduring approach for the planning of maternity services in Australia by providing a national vision, values, and principles while supporting flexibility in planning based on diversity in geographies, demographics, workforces and service delivery models between and within jurisdictions.

## 3.2 Overarching vision, values and principles

The overarching vision, values and principles act as a singular unifying goal for maternity services across Australia. Because the NFMS recognises that each jurisdiction is currently at a different stage of development and maternity services will change over time, the NFMS is:

- Flexible: the NFMS will be adaptable to suit the unique situation faced by each jurisdiction.
- Enduring: the NFMS will account for the dynamic nature of maternity services. The NFMS will be assessed every three years.
- Measurable: the NFMS will continue the development of clinical indicators and data bases that will inform evidence based decisions.

The NFMS benefits women in Australia by promoting the use evidence-based practices, ensuring the high-quality of maternity services, improving access to maternity services and promoting woman-centred services. The NFMS will incorporate a *National Antenatal Health Risk Factors Strategy* (NAHRFS), identifying preventative environmental risk factors and strategies that can be implemented to contribute to positive birth outcomes.

## 3.3 Key framework linkages

The NFMS will provide principle-based guidance for the provision of maternity services in all Australian jurisdictions. The NFMS will work in association with other health frameworks and plans that are being developed or are currently in place and relate to various factors that will affect a mother and her baby's care such as mental health and child and family health services.

The Healthy, Safe and Thriving: National Strategic Framework for Child and Youth Health <sup>7</sup> is focussed on improving health outcomes for Australia's children and youth. The link between postnatal care and child health services is critical to ensure the provision of sustained and continuous health services to a mother and her baby/child. This includes universal and targeted prevention services and early intervention for those children identified as in need; this can start from birth and education to parents can start even before this point.

The National Framework for Universal Child and Family Health Services outlines a vision for child and family health services for all children in Australia aged birth to eight years. Core service elements are described which assist in the delivery of a consistent approach to the provision of child and family health services.

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The National Framework for Child and Family Health Services - secondary and tertiary services promotes evidence based practice in secondary and tertiary services, innovation and flexibility in delivery of care to all children and families with a need for secondary and tertiary level child and family health services, including those who exhibit vulnerabilities due to impacts of adverse childhood experiences and disadvantage with the primary aim of optimising a child's functioning and quality of life.

Australian National Breastfeeding Strategy 2010 – 2015 currently under review aims to contribute to improving the health, nutrition and wellbeing of infants and young people, and the health and wellbeing of mothers, by protecting, promoting, supporting and monitoring breastfeeding.

The Fourth National Mental Health Plan (2009-2014)<sup>8</sup> and the subsequent Fifth National Mental Health Plan (yet to be formally released) seeks to improve the understanding of mental health and wellbeing with the aim of improving health outcomes as well as social outcomes such as housing and employment. The health and wellbeing of the mother and her baby is pivotal to the NFMS and therefore the role of mental health education and support is important to ensuring improved health outcomes.

The Framework for the National Perinatal Depression Initiative 2008-09 to 2012-13 is an important linkage for the NFMS. Research indicates that each year around one in ten Australian women experience depression during pregnancy and almost one in five experience depression in the weeks and months after giving birth. If left untreated, this can have a negative impact on new mothers, their babies, families and friends.

The National Plan to reduce violence against women and their children 2010-2022<sup>9</sup> seeks to ensure women and their children live free from violence in safe communities. Domestic and family violence is a leading preventable contributor to death, disability and illness for women of reproductive age; antenatal screening provides invaluable opportunity to identify and support women experiencing domestic and family violence.

Equity of access to maternity services is important to eliminate inequalities some populations may face such as CALD and Aboriginal and/or Torres Strait Islander populations. The Cultural Respect Framework 2016-2026<sup>10</sup> relates to the accessibility of the Australian health system and looks to ensure cultural values are recognised, respected and incorporated in the provision of health services.

In meeting the objectives of the Cultural Respect Framework, the NFMS vision, values and principles align with the goals of the Cultural Respect Framework to include accessible and culturally safe and respectful maternity care to Aboriginal and/or Torres Strait Islanders and CALD populations.

The National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework (2016-2023)<sup>11</sup> was developed to guide national Aboriginal and/or Torres Strait Islander health workforce policy and planning with the aim of achieving equitable health outcomes by providing a strong and supported health workforce. It was developed within the policy context of the National Aboriginal and Torres Strait Islander Health Plan (2013-2023). In achieving the goals of the NFMS, health workforce planning will be integral to its success and therefore there will be strong linkages between this framework and NFMS to ensure inequalities in workforce representation and provision of health services to Aboriginal and/or Torres Strait Islander populations is eliminated.

As described above, the NFMS aligns with other existing frameworks in relation to the provision of health services. In planning for maternity services, jurisdictions need to be cognizant of these frameworks to ensure they provide an all-encompassing service which meets the objectives of the NFMS as well as all other applicable frameworks and provides a link from one setting to the next.

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### 3.4 The Vision

*All women in Australia have access to evidence based, high quality maternity care that achieves optimal health outcomes for the mother, baby and family now and into the future.*

### 3.5 Values

Achieving this Vision will be guided by the following Values:

- **Respect** – A woman's choices, preferences and values are respected and supported by maternity services and providers.
- **Accountability** – Maternity services and providers are accountable for the provision of safe and quality outcomes that aligns with a woman's needs.
- **Excellence** – Maternity services are evidence based, innovative and informed by research and the application of best practice to achieve optimal outcomes.
- **Leadership** – Maternity services, providers, women, their families and communities lead the delivery of the vision, values and principles at a national, state and service level.

### 3.6 The Principles

Along with the Vision and Values, the following Principles will underpin the future planning and development of maternity services.

1. **Woman-centred** – Women and their families are at the heart of maternity services and are empowered to make informed choices regarding their care.

Maternity services focus on the woman and are co-ordinated according to the woman's clinical need, preferences and values including her intellectual, cultural, emotional and psychosocial needs.

The focus of care should be to meet the needs of the woman and her baby. Each woman should decide the way that her partner and family are involved. All women are supported to make informed choices in accordance with their needs with consistent, evidence-based information provided to them by health practitioners, allowing the woman time to understand the information provided, with the use of a health literate interpreter if appropriate. Such an approach enables respectful and shared decision-making.

- 2. *Culturally safe*** - Maternity services reflect an understanding of the diversity between and within cultures, supporting a woman's wellbeing, and meets the needs of the woman, her partner and/or support network including her community.

Every woman has the right to receive maternity care that accounts for her individual cultural needs. Cultural safety is based on respect, dignity, empowerment, and autonomy. Maternity services are culturally competent, clinically appropriate and delivered in a culturally safe environment that supports a woman's physical and emotional wellbeing.

- 3. *Safe, high quality maternity care*** – Maternity services across the care continuum are safe and provide high quality care to a mother and baby, promoting a healthy lifestyle and responding to a woman's antenatal health needs.

Maternity care is provided to women and their families within a wellness paradigm, to support uncomplicated pregnancy and physiological birth, while recognising the need to respond to emerging medical complications in a timely and appropriate manner. Birthing safety is not an absolute. There are degrees of safety in relation to maternity services delivery. These degrees are influenced by a range of factors, for example, the health status of the mother; the availability of a capable workforce to support a range of birthing services. Maternity services are made available as close as possible to where the woman resides, providing clinical care that is evidence based and links to specialist care using available resources and technology, with access to appropriate consultation and care referral arrangements.

Pregnant women may be affected by a variety of potentially preventable health issues, many of which can be effectively targeted through better awareness, screening, education and support before and throughout the pregnancy. Clinical care is provided in the areas of health prevention and promotion to better inform and support a woman, her partner and/or support network including her community, to make healthy lifestyle choices. Pregnant women may also be effected by chronic conditions, existing or emerging during pregnancy, which can be managed and treated through early clinical interventions.

The National Maternity Services Capability Framework have identified four components to consider when planning for the provision of safe maternity services; these include complexity of care, workforce, clinical support services, safe and service networks and integration.

Maternity services operate within national and state safety and quality systems for monitoring and evaluating outcomes contributing to continual improvement and delivery of high quality services.

4. **Access** – All women, including Aboriginal and/or Torres Strait Islander women, culturally and linguistically diverse women, women living in socioeconomically disadvantaged communities and rural and remote women and their families, have access to high quality, safe, evidence-based maternity care.

Women who are vulnerable due to social or economic circumstances and women from specific population groups may need additional support to access maternity care. Consideration should be given to service designs and models that flexible, woman centred, culturally appropriate and community based.

Primary health care providers play a vital role in the delivery of maternity care and interface with specialist service providers. However the delivery of primary health care in rural and remote areas can be impacted by lack of infrastructure and skilled workforce. In addition women and their families living in rural and remote areas may have difficulty in accessing maternity care due to distance, transportation and cost.

5. **Equity** – Recognising that many of the determinants of health lie outside the health system, health and maternity services work with other sectors and communities to address inequality in maternity outcomes.

Health inequalities are best addressed through continuity of care models that involve collaboration with a multidisciplinary team with the needs of the woman and her family at the centre of the care.

Governments, health services and providers work collaboratively and flexibly to engage with specific populations where health, including perinatal, outcomes are below average. These population groups include Aboriginal and Torres Strait Islander women, culturally and linguistically diverse (CALD) women, women in prisons, young pregnant women, women living in rural and remote communities and populations experiencing socioeconomic disadvantage.

Engaging early with maternity services enables the woman and her family to be supported in accessing appropriate advice and specialist care where needed to improve health outcomes.

6. **Collaboration** – Through collaboration and partnership between women, care providers and health services, all women have access to a seamless service across the maternity continuum with defined transition points between care providers and services.

Developing partnerships and embedding collaboration across the maternity care continuum, between women, health services and health practitioners is critical to optimise a woman's maternity care experience including seamless transition between services at defined transition points. This collaborative and cooperative approach should also occur within and between jurisdictions, health providers (public, private and not-for-profit), other health and social services sectors and communities.

7. **Sustainable** – Services achieve the desired maternity care outcomes with the most cost-effective use of resources, while improving the capacity of the system to sustain workforce and infrastructure, to innovate and to respond to emerging needs.

Maternity services are affordable and delivered cost effectively making best use of available resources and are aligned to the communities' needs.

These services are delivered by a qualified, multidisciplinary and diverse workforce, where the potential of each health practitioner is utilised across the maternity care continuum, harnessing the knowledge and skills of health practitioners to deliver safe, high quality maternity care. A multidisciplinary workforce will include contributions from a range of health practitioners.

Services are supported by appropriate investment in equipment and associated infrastructure. Investment should be aligned to the areas that will deliver the greatest impact in improving outcomes.

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### 3.7 National Antenatal Health Risk Factors Strategy

The National Antenatal Health Risk Factors Strategy (NAHRFS) outlines key modifiable, treatable and emergent health conditions during pregnancy.

#### 3.7.1 Purpose of NAHRFS

A pregnant woman and her baby may be affected by a variety of health risk factors, many of which can be effectively targeted through awareness, education and support before and throughout pregnancy.

Antenatal care provides an opportunity to improve the health of the pregnant woman and her unborn baby. This period establishes the health trajectory of the unborn baby over the course of his/her life. Early and regular antenatal care provides women and their families with access to information and a range of services that will support them to make informed choices about their maternal healthcare and reduce the risks identified below.

The National Preventative Health Strategy, *Australia: the Healthiest Country by 2020*, identifies the importance of effective prevention strategies to assist in the reduction of the burden of disease, better use of health resources and substantial economic benefit over time. The preventable, population risk factors and associated strategies listed below are national priorities.

Apart from preventable health risk factors, a woman and her baby could potentially face health challenges as a result of a pre-existing chronic condition or conditions that develop during the course of a pregnancy. These types of health risks will need careful management during a woman's maternity journey. While not exhaustive, examples of some key conditions include diabetes and perinatal mental health. Further detail and associated strategies are listed below.

The expectation is for jurisdictions to explicitly incorporate the strategies below in the development of their state-based maternity plans, building on guidance provided in the Antenatal Care Guidelines, as well as other national and state strategies and plans focused on promoting healthy behaviours and reducing the burden of disease.

#### 3.7.2 Antenatal screening

Early and regular antenatal care has been identified as critical to promote the health and wellbeing of the mother and baby and provide information and advice regarding perinatal risk.

All perinatal health professionals must have a clear understanding of the concept of risk assessment and management to improve the quality of care and safety for mothers and babies, while reducing preventable adverse clinical incidents. An integral component of antenatal care is the timely diagnosis and appropriate management of maternal problems and detection of foetal conditions to inform choice and the continuing plan of care. The National Midwifery Guidelines for Consultation and Referral also stipulate when to refer women to ensure appropriate care is provided when risk factors are present or when complications arise.

Each provider of maternity services should have an explicit plan for antenatal care for all women; all women should have access to these comprehensive screening services including a detailed clinical history, physical examination and relevant tests.

A risk and needs assessment including previous obstetric, medical and social history, must be carried out to ensure that every woman has a plan of care adapted to her own particular requirements for antenatal, intrapartum and postnatal care.

Women with complex medical needs should be referred to an obstetrician, where possible, as soon as possible after pregnancy is confirmed and, where necessary, be seen at a combined consultation with the team that will be caring for her.

Information should be available in different languages (as well as access to interpreters as appropriate) with particular cultural beliefs or sensitivities appropriately reflected.

### 3.7.3 Key risk factors

Identification of risk factors and risk factor strategies, including prevention and intervention, consultation, referral frameworks and improved community partnerships are components of antenatal care.

According to WHO, a risk factor is any attribute, characteristic or exposure of an individual that increases the likelihood of developing a disease or injury<sup>12</sup>. In the maternity context, there is no internationally agreed definition of risk factors and what they include. In developing any plans to manage antenatal risk, women should be at the centre of these discussions and all plans should be made in conjunction with a woman, her partner and/or support network.

The Eunice Kennedy Shriver National Institute of Child Health and Human Development suggests that factors that place a pregnancy at risk can be divided into four categories: existing health conditions, age, lifestyle factors, and conditions of pregnancy<sup>13</sup>. Table 1 lists risk factors identified by The Eunice Kennedy Shriver National Institute of Child Health and Human Development and shows whether these risk factors are mentioned in the *Clinical Practice Guidelines Antenatal Care-Modules 1&2*, Australian Department of Health website, and *Creating a better future together. National Maternity Strategy 2016-2026*.

Table 1: Risk factors mentioned in *Clinical Practice Guidelines Antenatal Care-Modules 1&2*, Department of Health website, and *Creating a better future together. National Maternity Strategy 2016-2026*

Risk factor category	Risk factors	1	2	3
Lifestyle Factors	Alcohol use	✓	✓	✓
	Nutrition*	✓	✓	
	Domestic violence (DV)*	✓		✓
	Cigarette smoking	✓	✓	✓

Note:

✓ indicates 1) Mentioned in *Clinical Practice Guidelines Antenatal Care-Modules 1&2* or (2) Mentioned in Department of Health website, or 3) Mentioned in *Creating a better future together. National Maternity Strategy 2016-2026*

\*These risk factors are not mentioned in the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

As identified above, some of the key preventable risks to a woman during her pregnancy continuum of care include alcohol and other drugs consumption, nutrition, domestic violence and smoking. Other risk factors relate to chronic conditions, especially diabetes and also perinatal mental health. These health risks are a focus of this National Antenatal Health Risk Factor Strategy.



These risk factors are discussed in more detail below and include a summary of the suggested mitigation strategies to improve maternal outcomes.

## Alcohol and other drugs

Pregnancy may be an opportunity for women, their partners and other people living in their household to change their patterns of alcohol and other substance use<sup>14</sup>. There is sufficient evidence that maternal intake of alcohol, nicotine and other drugs can have an adverse impact on developing fetuses.

Fifty per cent of women reported drinking alcohol at some time during their pregnancy<sup>15</sup>. The Australian Longitudinal Study on Women's Health found more than half of the women who, before pregnancy, were drinking at levels considered risky for pregnant women stopped drinking at those levels during pregnancy. Over one-third or more did not. In contrast, women with higher education attainment, and older women are less likely to consume alcohol while pregnant.

Guidance for health practitioners in relation to pregnant women and alcohol consumption is presented in the Clinical Practice Guidelines Antenatal Care-Module 1. The strategy suggests that health professionals provide information to women at the first antenatal visit.

The Final Report of the National Ice Taskforce found that the use of amphetamine-type stimulants by mothers during pregnancy can have detrimental effects on a newborn child including cleft lip, cardiac defects, low birth weight, growth reduction and reduced head circumference. The Final Report also found some evidence that prenatal exposure to amphetamines continues to impede a child's health outcomes into adulthood. However, it is difficult to isolate the true impact of maternal drug use during pregnancy from the broader social context, given that the children of women who use drugs during pregnancy tend to be exposed to a range of other risk factors.

The National Drug Strategy 2010 - 2015 (the Strategy) provides an overarching framework for action to minimise the harm to individuals, families and communities from alcohol, tobacco and other drugs.

The Strategy aims for an equitable, evidence based approach to deal with drug use in the community through incorporating law enforcement, prevention, early intervention and health care strategies.

Specific actions arising from the Strategy include:

- Continue preventive approaches to alcohol, tobacco and other drug use during pregnancy, including community education.
- Develop coordinated measures to prevent, diagnose and manage foetal alcohol spectrum disorders and make available appropriate supports to affected children and families.
- Consider the introduction of health warning labels, including pregnancy health warnings, on alcohol products.

A holistic approach should be adopted and referral to Drug and Alcohol services is encouraged if a woman finds it difficult to decrease their alcohol and other drugs consumption.

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## Smoking

Cessation of smoking prior to pregnancy offers the best protection for infants and maximizes the possibility that women and men will integrate intrinsic motives about quitting for their own health with the motivation of quitting for their babies' health<sup>16</sup>

Smoking during pregnancy has many detrimental effects for both the mother and baby. There is strong evidence that tobacco smoking during pregnancy is associated with poorer perinatal outcomes including low birthweight, pre-term birth and perinatal death.

Overall, the number of women smoking during pregnancy decreased from 17 per cent in 2006 to 12 per cent in 2013. Around one fifth (22 per cent) of those who reported smoking during the first 20 weeks of pregnancy did not continue to smoke after 20 weeks of pregnancy<sup>17</sup>.

Statistics show that demographic and socio-economic background have correlations with smoking in pregnancy. The rate of pregnant women who smoke was significantly higher for teenage pregnancies at 42 per cent and 52 per cent for Aboriginal and Torres Strait Islander women's pregnancies<sup>18</sup>. Women with low socioeconomic status, less education and who are unmarried are more likely to smoke during pregnancy. Aboriginal and Torres Strait Islander women are more likely to smoke during pregnancy and are less likely to access antenatal care in the first trimester, when many risk factors could be addressed<sup>19</sup>.

A strategy to identify women who smoke and support them reduce or quit smoking is presented in the Clinical Practice Guidelines Antenatal Care-Module 1, which suggests that health professionals should assess smoking status and discuss related risks at the first point of contact. Continuing to monitor with a non-judgemental approach is important to encourage pregnant women to quit smoking and reduce the chance of relapse.

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) advise that all pregnant women and their partners who smoke should receive clear information about the risks of smoking and the support available to them to help them stop, such as the Quit line.

## Nutrition

Nutrient intake during pregnancy is one of the main modifiable factors influencing maternal and infant outcomes<sup>20</sup>. A healthy diet is important for both mother and baby throughout pregnancy to ensure they get the nutrients they need to stay healthy and for the baby to develop and grow<sup>21</sup>

Maternal nutrition during pregnancy and in the peri-conception period is a key modifier of health outcomes for both mother and child in the long term<sup>22</sup>. Socioeconomic status and geographical factors (e.g. availability of fresh food in rural and remote areas) have a significant impact.

The Australian Longitudinal Study on Women's Health Research has demonstrated that, while women appear to make alterations to their diets while pregnant, many still do not obtain the nutrients they require. Australian studies indicate that the folate, fibre, iodine and iron intake of pregnant women does not meet national recommended levels<sup>23 24</sup>. Many women need to increase their intake of specific nutrients before, during and after pregnancy. Nutrition recommendations and strategies for the first trimester are presented in Table 2. The Australian Dietary Guidelines also provide more advice concerning healthy eating during pregnancy.

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Table 2: Nutrition recommendations for the first trimester

<b>Folate</b>	Inform women that dietary supplementation with folic acid, from 12 weeks before conception and throughout the first 12 weeks of pregnancy, reduces the risk of having a baby with a neural tube defect and recommend a dose of 500 micrograms per day.
<b>Fibre</b>	Offer women who are experiencing constipation information about increasing dietary fibre intake and taking bran or wheat fibre supplementation.
<b>Iodine</b>	Advise women who are pregnant to take an iodine supplement of 150 micrograms each day. Women with pre-existing thyroid conditions should seek advice from their medical practitioner before taking a supplement.
<b>Iron</b>	Do not routinely offer iron supplementation to women during pregnancy.

Source: Clinical Practice Guidelines: Antenatal Care-Module 1

## Obesity

Pre-pregnancy advice, antenatal and postnatal care can assist women who have a baby to achieve and maintain a healthy weight by adopting a balanced diet and being physically active<sup>25</sup>

AIHW estimates that one in five mothers are classified as obese<sup>26</sup>. Pregnant women who are obese have an increased risk of thromboembolism, gestational diabetes, pre-eclampsia, post-partum haemorrhage and wound infections, and their babies have higher rates of congenital anomaly, stillbirth and neonatal death compared with pregnant women who are not obese<sup>27</sup>. As a result, any pregnancy of an obese woman is high risk, requiring higher levels of obstetric and paediatric support, with greater associated health care costs<sup>28</sup>.

A strategy to support obese and overweight women during her pregnancy is presented in the Clinical Practice Guidelines Antenatal Care-Module 1, suggesting that assessing the women's BMI and having a discussion about weight gain during pregnancy should be done at the first antenatal visit. The guidelines emphasise that health professionals should take a respectful, positive, and supportive approach when providing information about healthy eating and physical activity in an appropriate format.

Until the safety of weight loss in obese pregnant women can be established, there can be no practice recommendations for these women to intentionally lose weight during the pregnancy period<sup>29</sup>.

## Domestic and family violence

Antenatal screening presents an opportunity to identify domestic violence and therefore can better identify victims and offer interventions that can lead to beneficial outcomes<sup>30</sup>

Domestic and family violence is a leading preventable contributor to death, disability and illness for women of reproductive age. Pregnancy provides valuable opportunities to screen for domestic violence as many women have regular contact with health care professionals in this period.

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Screening is an important part of ongoing national and state campaigns to stop domestic and family violence.

Although screening for domestic and family violence during antenatal care occurs in most Australian jurisdictions, the AIHW acknowledges that the data on domestic violence during pregnancy is currently limited. This is because results from the screening process are not necessarily recorded in the data system. Furthermore, domestic violence incidences tend to be under-reported due to its sensitive nature.

Several strategies have been proposed by the AIHW <sup>31</sup> to promote a nationally consistent screening strategy and improved data collection, including:

- Develop and implement a minimum set of standard questions during a screening, based on the questions currently in use across jurisdictions
- Seek to implement a nationally consistent screening approach by encouraging all midwives to use a recommended validated domestic violence screening tool
- Maintain a flexible screening approach consistent with the National Antenatal Care Guidelines that enables screening in different ways for different populations
- Ensuring staff are trained and aware of domestic and family violence issues, where to access information and how to respond.

## Chronic conditions

There is an increasing prevalence of chronic conditions in Australia with about half of all Australians having a chronic disease and one in five having multiple chronic diseases. Furthermore, chronic conditions are appearing earlier in life and person may live longer with complex care needs.

Chronic conditions:

- have complex and multiple causes;
- usually have a gradual onset, although they can have sudden onset and acute stages;
- occur across the life cycle, although they become more prevalent with older age;
- can compromise quality of life and create limitations and disability;
- are long term and persistent, and often lead to a gradual deterioration of health and loss of independence; and
- while not usually immediately life threatening, they are the most common and leading cause of premature mortality.

There are a number of chronic conditions that may affect pregnant women including arthritis, diabetes, asthma, cardiovascular disease, kidney disease and musculoskeletal conditions.

Whilst the National Strategic Framework for Chronic Conditions (the Framework) does not specifically target chronic conditions in pregnant women, it does provide an encompassing policy for the prevention and management of chronic conditions in Australia. In addition, the Framework provides direction for the development and implementation of policies, strategies, actions and services to address chronic conditions and improve health outcomes.

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## Diabetes

Diabetes is a serious complex condition which can affect the entire body. Type 1 diabetes is an auto-immune condition in which the immune system destroys the cells in the pancreas that produce insulin. Type 2 diabetes, the most common form of diabetes, is a progressive condition in which the body becomes resistant to the normal effects of insulin and/or gradually loses the capacity to produce enough insulin in the pancreas.

Gestational diabetes mellitus (GDM) occurs during pregnancy and generally leaves following birth. GDM places pregnant women and their babies at significant risk during and after the pregnancy with half of women who had GDM developing type 2 diabetes.

According to Diabetes Australia, GDM in Australia is becoming more prevalent with between 5% and 10% of pregnant women developing GDM.

Risk factors for DGM include:

- Are over 25 years of age;
- Have a family history of type 2 diabetes;
- Are overweight;
- Are from an Indigenous Australian or Torres Strait Islander background;
- Are from a Vietnamese, Chinese, middle eastern, Polynesian or Melanesian background;
- Have had gestational diabetes during previous pregnancies;
- Have previously given birth to a large baby; and
- Have a family history of gestational diabetes.

The Australian National Diabetes Strategy 2016 – 2020 (the Strategy) serves as a collaborative framework for governments and all sectors of the community, including non-government organisations, people with diabetes, their families and/or carers, health care professionals, researchers and industry to work together in reducing the occurrence, morbidity and mortality from diabetes and its related complications.

The Strategy acknowledges the burden, both economic and social, of the disease and provides several action areas including:

- promote coordination of health resources across all levels of government;
- facilitate coordinated, integrated and multidisciplinary care;
- increase recognition of patient needs across the continuum of care;
- recognise the different roles and responsibilities of all levels of government and the non-government sector;
- prevent, detect and manage diabetes;
- improve diabetes services and care; and
- improve uses of primary care services.

The Strategy is underpinned by several goals, including:

- Prevent people developing type 2 diabetes,
- Promote awareness and earlier detection of type 1 and type 2 diabetes, and
- Reduce the impact of pre-existing and gestational diabetes in pregnancy.

The Strategy acknowledges that whilst it is essential for all women to be included in general preventative care, women who have a history of GDM require particular focus in terms of health

and lifestyle due to a high risk of future diabetes. In response Goal 4 of the Strategy aims to reduce the impact of pre-existing and gestational diabetes in pregnancy and highlights a number of potential areas for action and measures of progress.

## **Perinatal mental health**

Depression and anxiety are known to affect women during pregnancy and the first year following the birth of a baby, the perinatal period. The National Perinatal Depression Initiative sets the standard for improving prevention and early detection of mental health conditions particularly anxiety and depression during pregnancy and in the perinatal period.

Maternity services and health practitioners should aim to work in partnership with women and their families to promote social and emotional wellbeing and improve the mental health of parents, infants and their families. This can be achieved through routine screening for depression using the Edinburgh Postnatal Depression Scale during pregnancy and the perinatal period, follow up treatment, support and care for women and their families who are identified as experiencing poor mental health.

Training and development for health practitioners in screening and appropriate referral should be supported by services offering care to pregnant women.

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## 3.8 Enablers

### 3.8.1 Key enablers

To deliver the vision “*All women in Australia have access to evidence based, high quality maternity care that achieves optimal health outcomes for the mother, baby and family now and into the future*” a number of key enablers underpin its achievement.

Key enablers include:

- **Communication and information** – communicating information is important to support women to make informed choices to enable the development of a partnerships and embed collaboration across the maternity continuum of care;
- **Research, innovation and evaluation** – embedding the process of systematically investigating and studying outcomes achieved, applying the results of research to improve services and evaluating and learning from the outcomes;
- **Data and digital technology** – data is important to inform care and practices and digital technology, will impact service delivery;
- **Funding and infrastructure** – it is important to ensure the funding of services and infrastructure is sustainable now and into the future;
- **Workforce** – focus on the continued development of a skilled and sustainable workforce through education and training to support the effective and efficient delivery of maternity care services for improved outcomes for a woman and her baby.

#### Communication and information

Education around the maternity continuum of care and antenatal health will help women make well-informed choices regarding their maternity care. Ensuring this information is provided by health professionals in an easy to understand and a culturally and linguistically appropriate format is crucial. This may involve access to health literate interpreters and additional support to those women whose first language is not English and with learning disabilities.

It is important that women are sufficiently informed to make choices appropriate to their needs. The role of education is therefore important and spans the whole maternity continuum of care starting with education on sexual health for children and adolescents, and must be culturally and age appropriate. Education prior to conception is considered critical to ensure each woman is aware of the importance of her wellness and wellbeing such as issues around diabetes, weight management, smoking, alcohol and mental health.

Data underpins the continued development of evidence-based **information** that needs to be used to inform best practice e.g. the development and use of guidelines such as the National Antenatal Care Guidelines. Care can vary greatly and differences in outcomes can arise in the absence of evidence. Quality and safety factors will be informed by women’s experiences and evidence-based approaches<sup>32</sup>.

Effective communication and information underpins the development of a collaborative and cooperative approach, which will be required to efficiently and effectively support a woman’s continuum of care and beyond. This includes collaboration within and between jurisdictions, health providers (public, private and not-for-profit), other health and social services sectors, researchers

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and communities. The availability of an electronic health record plays an important role in supporting the transfer of information and communication between sectors.

Engaging women and communities in design and delivery of maternity care services is an important mechanism to support the development of collaborative approaches within and across sectors.

Effective communication, cooperative approaches, and collaborations provide an opportunity for more targeted, personalised, integrated and seamless service experiences by a woman and her family. The views and experiences of women themselves, and of their families and communities, are fundamental to the planning of health services<sup>33</sup>. A respectful environment will help facilitate this cooperative approach and will incorporate culturally appropriate and sensitive care, underpinned by cultural mentors in the workforce and having a maternity care workforce whose composition more closely reflects the representation of Indigenous and CALD families in our communities.

A woman's understanding of the choices available to her is fundamental to her maternity care and critical to a collaborative service. The presence of respect and availability of information is pivotal to ensuring a woman feels safe and comfortable making her choice based on evidence-informed support by health professionals and recognising the impact of those choices not just immediately but in the long term.

## Research, innovation and evaluation

Embedding evidence-based practice is a vital component of building an effective and sustainable maternity care service. Evidence-based practice must be underpinned by investment in research and **data**, sharing of learnings, and a culture of continued evaluation and assessment. 'Nationally endorsed' data collection approaches will help ensure consistent information is provided which informs clinical practice.

Health practitioners, service providers, research institutes, technology firms, potentially entrepreneurs and women can partner in the design of service solutions to ensure the needs of women and organisations are met.

A culture of innovation should go hand-in-hand with an evaluation culture. A key component of propagating research and innovation is the conversion of research into practice, which can be supported by systems that encourage clinicians and organisations to change behaviours in line with better practice. A network to share learnings will assist in improving efficiency of research and innovation, which is particularly important when resources are limited. Government and service providers will increasingly rely on an evolving and growing evidence base to assess value for money, and how to achieve the best outcomes for women, their families and communities.

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## Data and digital technology

Underpinning an outcomes focus and **research, innovation and evaluation**, there needs to be effective collection, storage and analysis of data that can also provide information to women and health professionals on the best evidence-based care options.

A key component is **data** collection (not only health related but also socio-economic) and analysis that efficiently provides an understanding of maternity care outcomes. The collection of nationally consistent and comparable data, collated and analysed at the national and sub-national levels, will support monitoring of performance and progress against jurisdictional plans. Pursuing adoption of digital solutions to improve efficiency of data collection will be vital to ensure the accuracy of data sets, whilst preserving core service provision.

The adoption of assistive digital technologies can support the delivery of information to women and their families. These technologies can also assist client care and will enable precious human resources to be deployed with priority, enabling jurisdictions and health providers to meet increasing demand and expectations of informed women, their families and communities.

To make the most of technology, jurisdictions and maternity care services will need to consider how to build a skills base in information and communication technology and data analytics. Attracting and retaining these skills will enable implementation of digital solutions, implementation and management of predictive data analytics systems, and efficient collection and analysis of outcome data. Data should inform focus areas and should be constantly reassessed.

Practically and technically, maternity care service providers need the skills to continue to build an evidence base, and the capability to design outcomes, measure performance and learn in a way that facilitates continuous improvement across service models.

A planned approach across maternity care services to implementing information and communications technology systems (for example, an electronic health record) will improve efficiency and reliability of data sharing, and continuity and integration of care. This will assist in mitigating significant challenges that are already seen in the health care system with interfacing of data silos.

## Funding and infrastructure

Governments, the private and not-for-profit sectors, private health insurers, communities and clients will need to ensure there is a planned approach for the funding and delivery of new services and infrastructure, guided by **data** and **information** and **research** and **evaluation**, in order to deliver an outcomes focus and support an appropriately skilled **workforce** that delivers maternity services that meet the needs and informed choices of women, their families and communities.

Such an approach will facilitate development of an integrated and collaborative maternity continuum of care with services delivered through a range of maternity care models. These services will be developed and commissioned in a manner that ensures they are funded based on outcomes supported by evidence based practice.

Within the context of sustainable resourcing, appropriate care should be affordable to support reduction in inequalities and improve health outcomes for all women irrespective of socio-economic background or location.



## Workforce

Increased demand for an appropriately skilled workforce, along with a need to attract new skills to maternity care services, amplifies the focus on relevant education and training programs, requiring greater collaboration between services and educational institutions to plan for the future workforce. Collaboration with the education sector will also be an important enabler for fostering **research, innovation** and **evaluation**, leveraging the scale of large institutions to develop programs to incentivise and attract innovation.

Education also incorporates workforce training which is conducive to a skilled and sustainable workforce and has a direct impact on the quality of care provided to women. Governments will continue to collaborate with professional bodies and education providers to support appropriate education accreditation and workforce credentialing arrangements. Likewise, governments, private and not-for-profit providers will need to collaborate and cooperate to ensure that the workforces' scope of practice is optimised to ensure the continued provision of quality and safe care in an outcomes focused environment.

As outlined in the National Maternity Services Capability Framework maternity services are responsible for the provision of a competent maternity workforce with the appropriate skill mix to ensure the provision of high quality care suitable to the clinical demand. This includes medical, midwifery and ancillary staff.

A variety of models of maternity care are currently delivered by obstetricians, midwives and general practitioners in both the public and private sector in Australia. There are a number of ways care can be configured depending on the sector, the complexity of care, the way the care is organised and the location<sup>34</sup>.

Geographic, demographic and workforce availability and skill are considerations that will influence the availability of certain models of care to women. Continuity of care has been identified as an important feature of maternity care for women and particularly beneficial for vulnerable women.

To ensure quality and safe outcomes, providers will need to ensure that the workforce continue to improve their practices by applying best practice approaches across a range of services. As part of these approaches, there is a need to recognise the differences of providing care to Aboriginal and/or Torres Strait Islander, CALD and rural and remote communities supported by specific training and skills. An appropriately skilled workforce in an environment of continual learning and development will support delivery of maternity services that meet the needs and informed choices of women, their families and communities.

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# 4 Outcome measures

The National Maternity Services Plan highlighted the need to develop nationally consistent clinical indicators

## 4.1 National Core Maternity Indicators

The National Core Maternity Indicators (NCMIs) are clinical indicators that apply to the field of maternity care. The purpose of the NCMIs is to monitor the safety and quality of maternity care to ensure that there is continual improvement following the introduction of the NMSP. The data collected from these indicators help maternity services (public, private, not for profit) continue to make improvements for the benefit of mothers and their babies.

The first ten NCMIs were developed by the Australian Institute of Health and Welfare and endorsed by AHMAC in December 2011. Two additional indicators were developed in 2015. Table 3 outlines 12 NCMIs and the purposes of those indicators. It is important to consider all these measures in planning to delivery maternity care and in measuring success.

Table 3: 12 National Core Maternity Indicators

	Purposes
<b>Antenatal period</b>	
A1a Smoking in the first 20 weeks of pregnancy for all women giving birth	This indicator is used to monitor public health and assess the effectiveness of smoking cessation advice in the antenatal period in the antenatal period.
A1b Smoking after the first 20 weeks of pregnancy for all women giving birth and who reported smoking during pregnancy	
A2 Antenatal care in the first trimester for all women giving birth	This indicator is used to assess the accessibility of antenatal services.
<b>Labour and births</b>	
B1 Induction of labour for selected women giving birth for the first time	This indicator is used to benchmark practice.
B2 Unassisted (non-instrumental) vaginal birth for selected women giving birth for the first time	This indicator is used to benchmark practice.
B3 Assisted (instrumental) vaginal birth for selected women giving birth for the first time	This indicator is used to benchmark practice.

B4a Episiotomy for women having their first baby and giving birth vaginally unassisted (non-instrumental)	This indicator is used to benchmark practice.
B4b Episiotomy for women having their first baby and giving birth vaginally assisted (instrumental)	
B5 Caesarean section for selected women giving birth for the first time	This indicator is used to benchmark practice.
B6 Women having their second birth vaginally whose first birth was by caesarean section	The indicator is used to benchmark practice for vaginal birth following caesarean section.
B7 General anaesthetic for women giving birth by caesarean section	This indicator is used to benchmark anaesthetic care in association with caesarean section.
<b>Birth outcomes</b>	
C1a Third and fourth degree tears for all vaginal first births	Third and fourth degree perineal lacerations cause significant ongoing maternal morbidity. This is an outcome indicator that measures their occurrence.
C1b Third and fourth degree tears for all vaginal births	
C2 Apgar score of less than 7 at 5 minutes for births at or after term	This indicator of the condition of the baby after birth provides an outcome measure of intrapartum care and resuscitation of the newborn.
C3 Small babies among births at or after 40 weeks gestation	This indicator aims to identify intrauterine growth restriction for babies born at or after 40 weeks gestation. This indicator is used to benchmark practice.

Source: National Core Maternity Indicators<sup>35</sup>, National core maternity indicators—stage 3 and 4: results from 2010–2013<sup>36</sup>

These 12 NCMIIs will continue to capture important national maternity care data that will enable providers and the community to be informed about the performance of the maternity care service system. Further NCMIIs will be developed as appropriate.

## 4.2 Other maternal and perinatal data measures

Other key measures are maternal morbidity and mortality and perinatal morbidity and mortality data. The AIHW's National Maternity Data Development Project (NMDDP) commenced five years ago and aims to develop comprehensive and consistent national data collection in relation to maternal and perinatal health, including maternity models of care data and the establishment of ongoing national maternal and perinatal mortality data collection and reporting.

Key aspects of the Project include data development of clinical and psychosocial factors that could be introduced into the National Perinatal Data Collection, improving reporting on maternal and perinatal morbidity and mortality, developing a standardised nomenclature for maternal models of care, improving accessibility and capture of data and improving the readability and reporting of maternity data.

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The National Perinatal Data Collection (NPDC) is a national population-based cross sectional data collection of pregnancy and childbirth. The data are based on births reported to the perinatal data collection in each state and territory in Australia. It is managed by AIHW in partnership with states and territories.

Data collected and reported on as a result of this project will inform the development of jurisdictions' maternity services plans.

### 4.3 Performance monitoring and evaluation

While the continued use and development of the National Core Maternity Indicators initiated by the NMSP should be supported, there is still a need to further develop a system level of performance monitoring and evaluation. Key features could include:

- Outcomes focussed measures, including being able to link outcomes with service models
- Include and be informed by qualitative data about women's experience of care
- Focus on the entire maternity continuum of care, e.g. there are no postnatal indicators in the National Core Maternity Indicators
- Cover all the performance domains of health care, e.g. effectiveness, access, equity, quality, efficiency, sustainability.

The opportunity to develop further measures and systemically collect data relating to the maternity continuum of care will inform further maternity service planning and future reviews. These reviews will occur at regular intervals and will be oversighted by AHMAC.

# 5 Appendix

## 5.1 Methodology for development of NFMS

### 5.1.1 Process methodology

To identify the key components of an overarching vision and underpinning principles of the NFMS, the NMSP was used as a starting point to facilitate discussion.

Face to face consultation workshops were facilitated throughout the country as well as an online survey. Discussion covered the key components needed to be included in the NFMS vision and principles to ensure better maternal outcomes and consistent standards for maternity services throughout the country.

Review of other vision statements and principles from countries including the UK, New Zealand and Ireland were used to inform discussion, as well as reviewing the NMSP vision and principles. Based on feedback received in these consultations and from the online survey, the vision and principles for the NFMS were developed to incorporate the key components discussed (see section 8.3.2 and 8.3.3 below).

The agenda for the consultation workshops (consistent with the questions in the online survey) centred on the vision and principles and what components were considered fundamental to be included.

The second part of the workshop involved a session around the maternity continuum of care, for the stakeholders to identify the critical interactions and risks that may arise along this continuum of care. Stakeholders were also asked to discuss the themes and strategies that are conducive to a safe and supportive maternity experience.

These discussions were used to ensure the vision and the principles developed for the NFMS would be able to capture these key interactions and themes and minimise the risks that may arise to ensure the framework could be flexible and enduring to target different priorities throughout the country.

### 5.1.2 Consultation on NFMS vision

The majority of stakeholders from around the country agreed that maternity care should be woman centred, focussing on her clinical needs, preferences, values and choices taking into account her emotional, physical, mental and spiritual wellbeing. The definition of woman centred care focusses on the woman but includes her baby and chosen support group, including partner, family and friends. Decision making ultimately lies with the woman.

Many stakeholders discussed the importance of recognising that pregnancy and birth are normal and healthy life events and so should not be planned or evaluated through an illness model. This is consistent with framework visions from the UK, Ireland and New Zealand. Too heavy a focus on risk and categorising women into low risk and high risk models can mean woman lose perspective and her experience becomes too methodological. A culture focused on a wellbeing paradigm promotes the normalcy of the maternity continuum of care.

Statistics shows that Aboriginal and Torres Strait Islander populations experience substantially poorer maternal and perinatal outcomes- characterised by higher rates of death, preterm birth and a higher proportion of low birthweight babies-compared with their non-Indigenous counterparts. The framework aims to target inequality of health services and outcomes of Aboriginal and Torres Strait Islander populations as well as disadvantaged groups such as refugees, women in prisons and non-English speaking populations.

Therefore stakeholders wanted the vision to incorporate all Australians and women birthing or resident in Australia having equal access to high quality maternity and neonatal care.

Other key components identified included:

- The need to consider not just the mother but the baby and broader family
- Culturally safe
- Promoting evidence-based care
- Ensuring quality services
- Promoting equity and access to maternity services
- Need for a shorter, aspirational vision statement than the vision contained in the National Maternity Service Plan.

### 5.1.3 Consultation on NFMS principles

Stakeholders identified a number of key areas of focus for the principles including woman-centred care, informed choices, quality and safety and evidence-based practice. The sustainability of an appropriately qualified workforce was also key point of discussion.

Continuity of care, including the importance of communication and collaboration between service providers was also identified. Access, particularly for Aboriginal and Torres Strait Islander women, rural and remote women and other disadvantaged populations, as well as sustainability were also seen as important. Another area of focus was the need for seamless transitions between maternity and child health.

There was also discussion regarding the importance of information and data to monitor and evaluate health outcomes. Stakeholders identified the need to align investment with outcomes.

Feedback from the online survey suggested that safe and high quality care and equity should be key components of the principles that underpin the National Framework for Maternity Services. Woman centred care, evidence based care and equal access were also frequently referenced.

Other areas of discussion included:

- Woman-centred care should include her family's needs as well as her preferences and values
- Continuity of care should include pre-conception with the need for universal access to high quality services and seamless transition between antenatal, postnatal and child health services
- In order for women to make informed choices they need support by being provided with consistent information by health professionals, allowing the woman time to understand the information provided, with the use of a health literate interpreter if appropriate
- Services need to take into account all women's spiritual, emotional, cultural, clinical and physical needs
- Reducing health inequality need to focus on a range of disadvantaged populations including Aboriginal and Torres Strait Islanders, non-English speaking populations, refugees, women in prisons and victims of domestic and family violence

- The importance that maternity care needed to recognise the importance of a woman's family
- Importance of appropriately trained and qualified health workforce.

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## 5.2 Process Evaluation Report – Key Findings

The Process Evaluation Report has been produced to provide commentary in relation to the development and implementation of the National Maternity Services Plan (NMSP). The findings from this report will be used to inform the development of the National Framework for Maternity Services (NFMS) including key lessons learnt.

### 5.2.1 Key message

A key message from participants was that the Plan was well received due to the extensive consultations that were held in the development stage, however it was noted that the actions and recommendations were too specific and prescriptive.

Targeted consultation was undertaken in each jurisdiction. Participants reviewed the process in which the NMSP was developed and subsequently implemented by answering questions regarding the governance arrangements in place, the resources made available, stakeholder engagement and implementation. Participants also provided insight into the lessons learned from the experience of the process and opportunities for future improvement which can be considered when developing the NFMS.

### 5.2.2 Governance

The findings show that clear governance structures were put in place with progress being reviewed by Maternity Services Inter-Jurisdictional Committee (MSIJC). However, participants of the evaluation found that these structures weren't as effective in practice; one participant noted that several process reports could be stuck in the review and endorsement process at once, limiting their usefulness on release.

### 5.2.3 Funding

One of the biggest weaknesses identified was the insufficient funding made available to implement the NMSP. Many participants suggested that more progress could have been achieved had more resources been made available. In most cases, the onus fell on the jurisdictions to provide funding to support strategies.

### 5.2.4 Stakeholder engagement

Participants agreed that stakeholder engagement was strong; jurisdictions either made use of existing models of engagement or, where appropriate, set up dedicated reference and advisory groups to facilitate consultation with key representative bodies. However, participants noted that due to time constraints, some groups were omitted from consultation.



### 5.2.5 Implementation

There was some variation in responses with regards to implementation. Some NMSP actions were progressed more than others; some participants noted many actions remained outstanding. Funding was cited as the key reason for the lack of progress. Participants suggested the extent to which NMSP recommendations were actioned was dependent on the political will and budgetary capacity of those leading implementation in that jurisdiction.

Many respondents commented that one of the key strengths of the NMSP process was the role of the MSIJC. They noted that the committee facilitated ideas and experience sharing and provided direction and support. However, frequent membership changes limited the success of this group which has now been disbanded.

One of the most important lessons learned, as described by participants, was ensuring sufficient funding was made available for all phases of implementation and to ensure this included realistic timelines for completion.

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### 5.3 National Core Maternity Indicators

The safety and quality of Australian maternity services is monitored using the National Core Maternity Indicators (morbidity indicators). The National Core Maternity Indicators consist of 15 discrete indicators, of which 3 are new indicators, while 12 have been updated with the most recently available 2013 national perinatal data.

The statistics for these 15 indicators are presented in the following table which shows Australia has experienced an unfavourable change in nine of these indicators from 2004 to 2013.

**Table: 15 National Core Maternity Indicators**

	Baseline proportion (2004 figures)	Proportion in 2013	Change
<b>Antenatal period</b>			
A1a Smoking in the first 20 weeks of pregnancy for all women giving birth	12.70%	11.20%	Favourable decrease
A1b Smoking after the first 20 weeks of pregnancy for all women giving birth and who reported smoking during pregnancy	71.40%	73.60%	Unfavourable increase
A2 Antenatal care in the first trimester for all women giving birth	64.20%	62.50%	Unfavourable decrease
<b>Labour and births</b>			
B1 Induction of labour for selected women giving birth for the first time	31.10%	36.10%	Unfavourable increase
B2 Unassisted (non-instrumental) vaginal birth for selected women giving birth for the first time	51.90%	47.10%	Unfavourable decrease
B3 Assisted (instrumental) vaginal birth for selected women giving birth for the first time	22.80%	25.30%	Unfavourable increase
B4a Episiotomy for women having their first baby and giving birth vaginally unassisted (non-instrumental)	16.20%	18.40%	Unfavourable increase
B4b Episiotomy for women having their first baby and giving birth vaginally assisted (instrumental)	60.70%	69.60%	Unfavourable increase
B5 Caesarean section for selected women giving birth for the first time	25.30%	27.50%	Unfavourable increase
B6 Women having their second birth vaginally whose first birth was by caesarean section	13.10%	13.60%	Favourable increase
B7 General anaesthetic for women giving birth by caesarean section	8.20%	6.40%	Favourable decrease
<b>Birth outcomes</b>			
C1a Third and fourth degree tears for all vaginal first births	5.20%	5.20%	No change

C1b Third and fourth degree tears for all vaginal births	3.00%	3.00%	No change
C2 Apgar score of less than 7 at 5 minutes for births at or after term	0.90%	1.30%	Unfavourable increase
C3 Small babies among births at or after 40 weeks gestation	2.10%	1.60%	Favourable decrease

Source: AIHW database (2016)<sup>37</sup>

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