



Australian   
**Nurse-Family**  
Partnership Program

**Australian Nurse-Family Partnership Program (ANFPP)**

**National Support Service**

# **National Annual Data Report**

**1 July 2019–30 June 2020**

Version: 3 (May 2021)



## Cultural Acknowledgement

The Australian Nurse-Family Partnership Program (ANFPP) National Support Service (NSS) acknowledges the traditional custodians of the lands and waters on which we live and work. We pay respect to elders past and present.

We further acknowledge that Aboriginal and Torres Strait Islander people and communities are diverse and dynamic and continue to evolve and develop in response to historical and present social, economic, cultural and political circumstances. Diversity includes gender, age, languages, backgrounds, sexual orientations, religious beliefs, family responsibilities, marriage status, life and work experiences, personality and educational levels<sup>1</sup>.

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1 Commonwealth of Australia. (2013). National Aboriginal and Torres Strait Islander Health Plan 2013- 2023. Canberra, Australia: Commonwealth of Australia.

## Abbreviations

<b>ABS</b>	Australian Bureau of Statistics
<b>ANKA</b>	ANFPP National Knowledge Access
<b>ANFPP</b>	Australian Nurse-Family Partnership Program
<b>ASQ</b>	Ages and Stages Questionnaire
<b>CQI</b>	Continuous Quality Improvement
<b>CME</b>	Core Model Elements
<b>DANCE</b>	Dyadic Assessment of Naturalistic Caregiver-child Experience
<b>DCS</b>	Data Collection System
<b>DOH</b>	Department of Health
<b>DFV</b>	Domestic and Family Violence
<b>EPDS</b>	Edinburgh Postnatal Depression Scale
<b>FPW</b>	Family Partnership Worker <sup>2</sup>
<b>FTE</b>	Full-time Equivalent
<b>IUIH</b>	Institute for Urban Indigenous Health, Brisbane, Queensland
<b>LBW</b>	Low Birthweight
<b>NFP</b>	Nurse-Family Partnership <sup>®</sup> (USA)
<b>NHV</b>	Nurse Home Visitor

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2 At implementing sites, the Family Partnership Worker position may be referred to by a title that is relevant to the local organisation, including Aboriginal Family Partnership Worker, Aboriginal Community Worker, and Family Community Worker. Where Family Partnership Worker is referred to in ANFPP documents, the term is inclusive of this role irrespective of the local title for the position.



<b>NPC</b>	National Program Centre
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<b>NSS</b>	National Support Service
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<b>NS</b>	Nurse Supervisor
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<b>STAR</b>	Strengths and Risks Framework
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<b>PHCO</b>	Primary Health Care Organisation
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## Executive summary

The Australian Nurse-Family Partnership Program (ANFPP) Annual Report presents client and operational data collected from July 1, 2019 to June 30, 2020 reporting period. Data for this collection were provided by the partner organisations that receive funding from the Department of Health (DOH) to implement the program with Aboriginal and Torres Strait Islander families. The program data used in this report was stored by the ANFPP National Program Centre (NPC) prior to transition to the new ANFPP National Support Service (NSS) established on July 1, 2020. The format of this report is similar to the 2018/19 ANFPP Annual Data Report compiled by the NPC in 2019. The ANFPP NSS acknowledges the contributions of the NPC in data collection, cleaning, storage and reporting for the current reporting period.

From approximately March 2020 to time of reporting, the ANFPP has been operating in often challenging environments created by the COVID-19 pandemic. In order to adhere to social distancing guidelines and protect families and communities, home visiting teams have introduced telehealth and videoconferencing models of care to deliver program content. Teams have continued to deliver the program, in many cases, by adopting creative and innovative strategies developed in partnership with participating families.

### Program Summary (2019–20)

#### *FIDELITY MEASURES*

- The ANFPP client acceptance rate to the program was 77% (NFP target: 75%). This rate is equal to the 2018–19 measure (Table 5)
- Client retention in 2019/20 was 58% (Table 2), which is the same as the retention rate reported in the 2018/19 reporting period and 1% lower than the figure reported in 2017/18.
- In 2019–20, 468 clients entered the program. During this period 32% (n =149) of clients who entered the program during 2019/20, left the program. Overall, for 2019/20, client attrition was 44% - this includes clients who joined the program earlier than the current reporting period. This is slightly more than 42% reported in 2018/19 (Section 5).

A summary of fidelity measures and maternal and child health outcomes is illustrated in Figure 1.

#### *MATERNAL AND CHILD HEALTH OUTCOMES*

- Breastfeeding:** In 2019/20, ANFPP sites in outer regional and remote areas reported higher rates of 'ever breastfeeding' (95.2% and 89.4% respectively) than the national average in 2014-2015 (82.4%). ANFPP sites in major cities and inner regional areas reported lower rates (78.6% and 76.9% respectively). See section 6.3.
- Child development:** Ages and Stages Questionnaires are used to assess child development and identify children who may need further evaluation or early intervention services. In the ANFPP, children are screened at 4, 10, 14 and 20 months of age. The outcomes are presented in tables in section 6.6 of this report. Of the children tested at 20 months, very few scored below cut-off scores for further developmental assessment or referral.


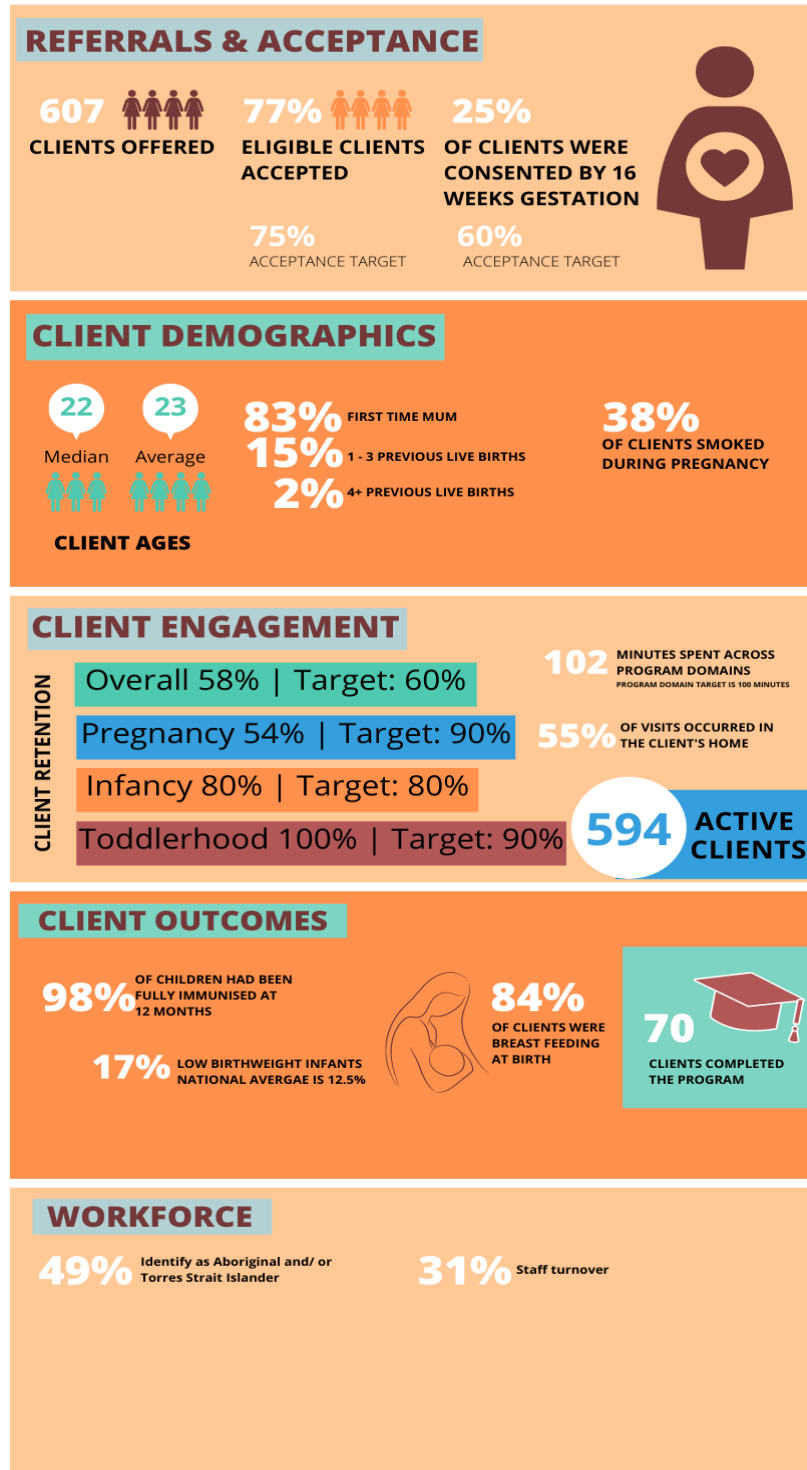
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- iii. **Immunisation:** The ANFPP infant immunisation coverage rate for 2019/20 exceeded the national rate reported by the Australian Institute of Health and Welfare for children aged 12 months and 24 months, as well the national aspirational rate of 95%. See section 6.2.
  - iv. **Preterm birth and low birthweight:** The rate of low birthweight infants born in the ANFPP program in 2019/20 was 16.8% (See section 6.4). The rate of ANFPP preterm infants in 2019/20 was 10% (29/297). This preterm birth rate was considerably lower than 2018/19 reported rate of 17.6%. After excluding preterm infants from the calculation of low birthweight (36% of the low birthweight infants), the 2019/20 ANFPP low birthweight rate was 11.6%.
  - v. **Smoking:** Data on smoking in pregnancy was available for just over half (51%) of the 2019/20 ANFPP client cohort. Smoking rates during pregnancy ranged from 24.8% in major city areas to 53.4% in remote and very remote areas. The ANFPP smoking rate from aggregated remoteness areas was 37.9%. This is a decrease from 44% reported in the 2018/19 reporting period. See section 6.5.

FIGURE 1 ANFPP DATA SUMMARY FROM 1 JULY 2019–30 JUNE 2020



# AUSTRALIAN NURSE-FAMILY PARTNERSHIP PROGRAM

PROGRAM DATA SUMMARY FROM 1 JULY 2019 - 30 JUNE 2020



## 1.0 Introduction

### 1.1 Program Overview

The Australian Nurse-Family Partnership Program (ANFPP) is an evidence-based home visiting program that aims to improve the health, well-being and self-efficacy of first-time mothers pregnant with an Aboriginal or Torres Strait Islander baby. The program is designed to support mothers during pregnancy and until their child is two years of age. Specially trained Nurse Home Visitors (NHV) and Family Partnership Workers (FPW) regularly visit first-time mums, ideally starting early in pregnancy. Funded by the Federal Government as part of the Closing the Gap Strategy, the ANFPP is a component of the Australian Government's commitment to improving the health of Aboriginal and Torres Strait Islander peoples.

The ANFPP is currently delivered in four Australian states and two territories by 13 implementing sites. Twelve implementing sites are Aboriginal Community Controlled Health Organisations and one is a government health department (Appendix 1). The program has been introduced over time in four waves (Table 1). Wave 1 sites established their programs in 2009 and the fourth wave was during 2017.

**TABLE 1 ANFPP PARTNER ORGANISATION BY WAVE AND COMMENCEMENT PERIOD**

Wave	Commencement of the Program	Partner organisation
Wave 1	2009	Central Australian Aboriginal Congress, (Congress), Alice Springs, Northern Territory.
		Wuchopperen Health Service (WHS), Cairns, Queensland.
		Wellington Aboriginal Corporation Health Service - Dubbo (WACHS-Dubbo), Wellington, New South Wales.
Wave 2	May 2016	Institute for Urban Indigenous Health (IUIH-North), North Brisbane, Queensland.
	May 2016	Top End Health Services - Northern Territory Department of Health (TEHS), based in Casuarina, Northern Territory, and providing outreach services to Wadeye, Wurrumiyanga, Gunbalanya, and Maningrida.
Wave 3	April 2017	Danila Dilba Biluru Butji Binnilutlum Health Service Aboriginal Corporation, (Danila Dilba) based in Darwin and Palmerston, Northern Territory.
		Nunkuwarrin Yunti of South Australia Inc, (Nunkuwarrin Yunti) based in Adelaide, South Australia.
		Institute for Urban Indigenous Health (IUIH-South), South Brisbane, Queensland.

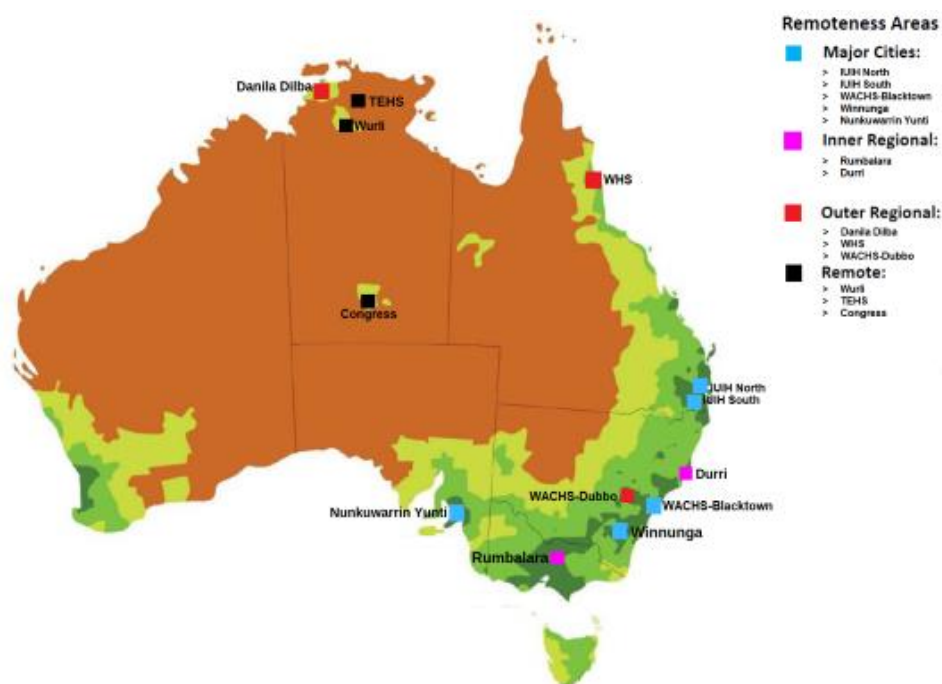
Wave	Commencement of the Program	Partner organisation
Wave 4	June 2017	<p>Wurli Wurlinjang Aboriginal Corporation (Wurli), Katherine, Northern Territory.</p> <p>Wellington Aboriginal Corporation Health Service - Blacktown (WACHS-Blacktown), Blacktown, Western Sydney, New South Wales.</p> <p>Winnunga Nimmitjiah Aboriginal Health Clinic/Health Service (Winnunga), Canberra, Australian Capital Territory (ACT).</p> <p>Durri Aboriginal Corporation Medical Service (Durri), Kempsey, New South Wales.</p> <p>Rumbalara Aboriginal Cooperative Ltd (Rumbalara), Shepparton, Victoria.</p>

Source: ANKA (2018)

### ANFPP PARTNER ORGANISATIONS BY REMOTENESS

ANFPP implementing sites are situated in all five geographic categories outlined in the Australian Statistical Geography Standard framework. In this report, the 'remote' and 'very remote' categories have been collapsed to one category – Remote. The location of individual program sites plays a crucial role in determining the types of services provided to mothers and families as some sites encounter logistical challenges to service delivery that are unique to their location. The ANFPP implementing sites within each geographic category are shown in Figure 2.

FIGURE 2 ANFPP PARTNER ORGANISATIONS, BY REMOTENESS



## 1.2 ANFPP Objectives and Targets

The objective of the ANFPP is to improve maternal and child health and wellbeing for Aboriginal and Torres Strait islander families through:

- assisting women to engage in good preventative health practices
- supporting parents to improve child health and development
- assisting parents to develop a vision for their own future.

The ANFPP is a licenced adaptation of the Nurse-Family Partnership® (NFP), which was developed by Denver’s University of Colorado in the United States. The NFP has 14 Core Model Elements to ensure implementation and service delivery achieves the desired program outcomes including:

- Improved outcomes in pregnancy
- Improved outcomes in child health and development
- Improved parental life course.

Two key variations have been permitted to adapt the NFP model to meet the Australian context.

- ANFPP is delivered to first-time mothers, pregnant with an Aboriginal and/or Torres Strait Islander child in the target regions. Multiparous women may be included under special circumstances.
- A 15<sup>th</sup> Core Model Element has been introduced. ANFPP teams must employ Aboriginal and/or Torres Strait Islander Family Partnership Workers (FPW) to support delivery of the program and who participate in reflective supervision. In addition, with the inclusion of FPW in CME 9, FPW have been considered an integral part of the program since inception.

The ANFPP has adapted NFP materials and education to meet the Australian Aboriginal and Torres Strait Islander context, the health system in Australian jurisdictions, and Australian standards and language usage.

### *THE FIVE PRINCIPLES OF THE ANFPP*

At the heart of the program is acceptance of client autonomy. The client is the expert in her own life, and she can identify the solutions that work for her. The five client-centred principles play a pivotal role by focusing on her strengths, focusing on solutions, understanding only a small change is necessary, realising that the client is the expert and empowering the client to follow her heart’s desire (Australian Nurse-Family Partnership Program, 2018; Rowe, 2016). Home visiting teams keep the five client-centred principles at the forefront of their conversations with clients.





Focus on strengths

**Focus on strengths** - Home visiting teams recognise and respect the clients' strengths. A program aim is to reframe challenging situations with a focus on what the client is doing well and acknowledge the clients' strengths.



Focus on solutions

**Focus on solutions** - Focus is shifted from the problem, to working with the client to envisage success by focusing on solutions. How does the client want to move forward rather than remaining stuck in the difficulties of the past and the present?



Only a small change is necessary

**Only a small change is necessary** - Behaviour change is fundamental to the ANFPP model. Life-transforming changes often begin with the smallest steps and small steps in a purposeful direction are of value.



You are an expert in your own life

**You are an expert in your own life** - In the ANFPP, the focus is on what the client knows will work in her life, culture and environment. Home visiting teams give information and support, listen to the client, learn what information she knows and how she wants to be supported. Individualising support to meet the needs she identifies will increase collaboration and facilitate culturally safe care.



Follow your heart's desire

**Follow your heart's desire** - The client's energy, time and attention will be devoted to changes in her life based on the desires deep in her heart. Home visiting teams discover what matters most to the client. This assists momentum and a desire to begin change processes.



## *PURPOSE OF THE ANFPP ANNUAL DATA REPORT*

The Annual Data Report represents national and site comparison data for the thirteen ANFPP sites although there is a significant variation in the length of program implementation between sites.

The purpose of the Annual Data Report is threefold, to provide data and analysis of:

1. progress against the ANFPP fidelity measures related to client and infant participation in the ANFPP,
2. health outcomes experienced by clients and their babies, and
3. descriptive information about the women who have participated. The National Support Service is reviewing the collection of qualitative data and exploring methods to collect information directly from participating families (in preference to from a third party) and sites for the 2020/21 Annual Data Report. The methods will include thematic data analysis to protect the participant's privacy and confidentiality. The 2019/20 Report does not contain descriptive case studies.

The information in this report can be used to inform progress for the reporting period, as well as to identify existing or new areas for attention and improvement in program delivery through a process of continuous quality improvement (CQI) among ANFPP partner organisations.

The 2019/20 report presents ANFPP data using a regional approach and incorporates context analysis to help understand the reasons behind site variations.



## 2.0 Methodology

To develop this annual report, data from Communicare Data Collection Systems (DCS) used by Wave 1 sites was migrated into the national data set (ANKA – ANFPP National Knowledge Access, 2018). Eight sites (Waves 3 and 4) within this reporting period were at approximately three years of implementation, two sites (Wave 2) were at four years and the Wave 1 sites were in their 11<sup>th</sup> year. Throughout the duration of the program, data specifications have evolved, and DCS have become increasingly sophisticated. As a result of the staggered program implementation and changes to DCS, the number of data items that can be tracked over the duration of the program is at times limited.

ANFPP datasets were collated, analysed and interpreted to develop an understanding of the program's progress against the international NFP performance benchmarks. The datasets provide important information about the program and strategies to enhance program delivery.

To ensure the data presented is as complete as possible, regular data exception reports were provided to sites and gaps or inconsistencies in data were identified and corrected. Although this process was enacted effectively for the current reporting period; in practice, historical data can be difficult for sites to correct retrospectively. The improvement in data completeness, and the increase in sample size accompanying program development and expansion, will improve the rigor of program data analyses.

Detailed methodology descriptions and data limitations are outlined throughout the report. The NSS will continue to improve quality assurance measures around data entry. As part of the quality improvement process, regular feedback will be provided to program sites to enhance data completeness.

## 3.0 Model Fidelity

Fidelity is measured to ensure the program can replicate the outcomes achieved by the original NFP model. Fidelity is measured against the Core Model Elements (CME) of the program and corresponding benchmarks as shown in Table 2.

**TABLE 2 CORE MODEL ELEMENTS RELATED TO CLIENT AND INFANT PARTICIPATION AND ASSOCIATED PERFORMANCE BENCHMARKS**

ANFPP CME	Performance benchmark/Target	2019/20 outcome
1. Client participates voluntarily in the Australian Nurse-Family Partnership Program	100%	100%
2. Client is a first-time mother. Variation to include multiparous mothers on a case-by-case basis has been accepted.	100%	100% (incl. first opportunity to parent and multiparous mums) (Section 5.1)
3. Client meets socioeconomic disadvantage criteria at intake.	100% are women pregnant with an Aboriginal and/or Torres Strait Islander child.	100% (Section 5.1)
4. Client is enrolled in the program early in her pregnancy and receives her first home visit no later than the 28th week of pregnancy	<ul style="list-style-type: none"> <li>• 100% of clients receive their first home visit no later than the 28th week.</li> <li>• 75% of eligible referrals who are intended to be recruited to ANFPP are enrolled in the program.</li> <li>• 60% of pregnant women are enrolled by 16 weeks gestation or earlier</li> </ul>	<ul style="list-style-type: none"> <li>• 87% (Section 3.4)</li> <li>• 77% (see Table 5)</li> <li>• 25% (Figure 1)</li> </ul>

ANFPP CME	Performance benchmark/Target	2019/20 outcome
<p><b>5. Each client is assigned an identified ANFPP nurse who establishes a therapeutic relationship through individual ANFPP home visits.</b></p>	<p>100% of clients are assigned an identified ANFPP nurse. The ANFPP Home Visiting team has a caseload range of between 15–20 clients. Technical, workforce, cultural and contextual guidance and funding considerations are considered in determining final caseload benchmarks appropriate for ANFPP.</p>	<p>100% of clients are assigned an ANFPP nurse.</p> <ul style="list-style-type: none"> <li>• In the 2019/20 reporting period program retention was 58%</li> <li>• 54%</li> <li>• 80%</li> <li>• 100% (Figure 1)</li> </ul>
<p><b>6. Client is visited face-to-face in the home, or occasionally in another setting (mutually determined by the ANFPP nurse and client) when this is not possible.</b></p>	<p>All clients are visited in the client’s home as a minimum of once every four visits across the standard visit schedule (this equates to a total of 16 visits over the life of client involvement in the program, or 25% of completed visits).</p> <p>Home visiting teams acknowledge the importance of conducting visits in the place the client and her child sleeps most often on a regular basis throughout the program.</p>	<p>55% of clients were visited in their home (Section 3.4). In some ANFPP sites, the home is not consistently considered the ideal place for home visits. Program content is often delivered in a car, on the veranda or in a suitable outdoor environment.</p>

ANFPP CME	Performance benchmark/Target	2019/20 outcome
<p><b>7. Client is visited throughout her pregnancy and the first two years of her child's life in accordance with the current standard NFP visit schedule or an alternative visit schedule agreed upon between the client and nurse.</b></p>	<p>Dosage: as per UCD Guidance Document, no benchmark is set for expected number of completed visits.</p> <p>Visit Schedule: as per UCD Guidance Document, the standard visit schedule will guide delivery of the ANFPP unless an alternative visit schedule is developed between a home visiting team and the client.</p>	<p>In 2019/20 the following dosages were observed in each program phase (Section 3.5):</p> <p>Pregnancy: 55%;</p> <p>Infancy: 63%;</p> <p>Toddlerhood: 46%.</p>
<p><b>8. ANFPP nurses and supervisors are registered nurses or registered midwives with a minimum of a baccalaureate /bachelor's degree.</b></p>	<p>100%</p>	<p>100%</p> <p>Records kept by individual sites; recruitment is a site responsibility.</p>
<p><b>9. ANFPP nurses, Family Partnership Workers (FPW), and supervisors will complete the required ANFPP educational curricula and participate in on-going learning activities.</b></p>	<p>100% of ANFPP Nurse Home Visitors, Family Partnership Workers and Nurse Supervisors will complete the required ANFPP educational curricula and participate in on-going learning activities.</p>	<p>All core education attendance and progress are monitored through internal systems. 100% of ANFPP NHV, FPW and Nurse Supervisors currently working in the program have completed or are currently completing core education curricula.</p>

ANFPP CME	Performance benchmark/Target	2019/20 outcome																																																				
<p><b>10. ANFPP nurses, using professional knowledge, judgment and skill, utilise the Home Visit Guidelines, individualising them to the strengths and risks of each family and apportioning time across the six program domains</b></p>	<table border="1"> <thead> <tr> <th>Domain</th> <th>Pregnancy</th> <th>Infancy</th> <th>Toddler</th> </tr> </thead> <tbody> <tr> <td>My Health</td> <td>35-40%</td> <td>14-20%</td> <td>10-15%</td> </tr> <tr> <td>My Home</td> <td>5-7%</td> <td>7-10%</td> <td>7-10%</td> </tr> <tr> <td>My Life</td> <td>10-15%</td> <td>10-15%</td> <td>18-20%</td> </tr> <tr> <td>My Child</td> <td>23-25%</td> <td>45-50%</td> <td>40-45%</td> </tr> <tr> <td>My Family and Friends</td> <td>10-15%</td> <td>10-15%</td> <td>10-15%</td> </tr> <tr> <td>Total</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> </tbody> </table>	Domain	Pregnancy	Infancy	Toddler	My Health	35-40%	14-20%	10-15%	My Home	5-7%	7-10%	7-10%	My Life	10-15%	10-15%	18-20%	My Child	23-25%	45-50%	40-45%	My Family and Friends	10-15%	10-15%	10-15%	Total	100%	100%	100%	<table border="1"> <thead> <tr> <th>Domain</th> <th>Pregnancy %</th> <th>Infancy %</th> <th>Toddler %</th> </tr> </thead> <tbody> <tr> <td>My Health</td> <td>37%</td> <td>20%</td> <td>18%</td> </tr> <tr> <td>My Home</td> <td>10%</td> <td>10%</td> <td>11%</td> </tr> <tr> <td>My Life</td> <td>14%</td> <td>13%</td> <td>14%</td> </tr> <tr> <td>My Child</td> <td>22%</td> <td>41%</td> <td>38%</td> </tr> <tr> <td>My Family and Friends</td> <td>14%</td> <td>13%</td> <td>14%</td> </tr> </tbody> </table> <p>(Section 3.4)</p>	Domain	Pregnancy %	Infancy %	Toddler %	My Health	37%	20%	18%	My Home	10%	10%	11%	My Life	14%	13%	14%	My Child	22%	41%	38%	My Family and Friends	14%	13%	14%
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<p><b>11. ANFPP Nurses and supervisors and Family Partnership Workers apply the theoretical framework that underpins the program (self-efficacy, human ecology, and attachment theories) to guide their clinical work and achievement of the three NFP goals.</b></p>	<p>It is expected that ANFPP nurses and supervisors will apply the theories through current clinical methods/delivery of the program. There is no specific benchmark for this CME</p>	<p>This CME is not directly measurable. However, these theories are incorporated across the training curriculum and provide a focus for Community of Practice meetings.</p>																																																				
<p><b>12. Each ANFPP team has an assigned ANFPP supervisor who leads and manages the team and provides nurses with regular clinical and reflective supervision.</b></p>	<p>A full time ANFPP supervisor can lead a team of no more than eight ANFPP nurses (including community mediators or similar positions where applicable) and a team administrator</p> <p>The minimum team size is four ANFPP nurses with a half time supervisor</p> <p>100%</p>	<p>The 1:8 Nurse: Supervisor: Team ratio was exceeded at 5 sites.</p> <p>(Section 4)</p>																																																				
<p><b>13. ANFPP teams, implementing agencies, and the national units collect</b></p>	<p>Although there are no objectives that relate to the collection and use of data, all the ANFPP benchmarks for the program</p>	<p>Quarterly program fidelity reporting is used to track program fidelity.</p>																																																				

ANFPP CME	Performance benchmark/Target	2019/20 outcome
<p><b>and utilise data to guide program implementation, inform continuous quality improvement, demonstrate program fidelity, assess indicative client outcomes, and guide clinical practice/reflective supervision.</b></p>	<p>are measured through use of regular standardised data collection</p>	<p>More robust CQI activities are planned for 2021.</p>
<p><b>14. High quality ANFPP implementation is developed and sustained through national and local organised support.</b></p>	<p>In principle at least 85% of clients and their children should receive 100% of assessments and have their client record complete.</p>	<p>Monthly exception reporting is used to support Partner Organisation data quality which identifies where required actions have been missed (e.g. ASQ, and EPDS).</p>
<p><b>15. ANFPP teams must employ Aboriginal/and or Torres Strait Islander Family Partnership Workers to support delivery of the program.</b></p>	<p>100% of ANFPP teams employ Aboriginal and/or Torres Strait Islander Family Partnership Workers (FPWs) to support delivery of the program and who participate in reflective supervision.</p>	<p>100% of ANFPP teams employ Aboriginal and/or Torres Strait Islander FPWs. (Section 4)</p>



### 3.1 ANFPP Active Clients by Location

At June 30, 2020 there were 594 active clients in the ANFPP program and half (51%) were living in major cities (Table 3). The 2020 geographical distribution of active clients across Australian Remoteness Areas remains similar to 2019.

**TABLE 3 SUMMARY OF ANFPP ACTIVE CLIENTS AT 30 JUNE 2020**

	Major Cities	Inner Regional	Outer Regional	Remote	Total
Active Clients	304	48	87	155	594*

\* 13 clients have had a change in status after 30 June 2020

Since the ANFPP was introduced in 2009, the national program has received 4000 referrals (Table 4). Of these, 3145 eligible women have been offered a place in the program and 2400 women (76%) accepted. This overall ANFPP acceptance rate meets the benchmark target within Core Model Element (CME) 4 which is: “75% of eligible referrals of women intended to be recruited to ANFPP were enrolled in the program.”

The acceptance rate of referrals to the ANFPP for the duration of the program by Remoteness Area exceeds the benchmark target of 75% in Major Cities, Inner Regional and Outer Regional areas. The acceptance rate in Remote areas (72%) is below the benchmark.

**TABLE 4 SUMMARY OF ANFPP CLIENT REFERRALS, OFFERS, EXITS, GRADUATIONS AND HOME VISITS AT 30 JUNE 2020 FOR THE DURATION OF THE PROGRAM**

	Referrals	Offered	Accepted (%)	Home Visits <sup>^</sup>	Left the program (prior to graduation)	Graduated
Major Cities	1023	892	679 (76%)	9127	331	42
Inner Regional	111	94	73 (78%)	688	24	0
Outer Regional	1479	1118	898 (80%)	16128	638	174
Remote	1387	1041	750 (72%)	19468	433	163
<b>Total</b>	<b>4000</b>	<b>3145</b>	<b>2400 (76%)</b>	<b>45411</b>	<b>1426</b>	<b>379</b>

\* In total there is 1 client that does not fit the definition for Active, Graduated or Left the Program, this is likely due to data entry errors or pending changes and will be audited in the next data review.

<sup>^</sup> Includes attempted visits

Across the duration of the program, 1 out of 6 women enrolled have successfully graduated (Table 4). Fifty-nine percent of those enrolled have left prior to graduation, indicating an overall retention rate of 41%. The benchmark aim for client retention is 60% (CME 5).

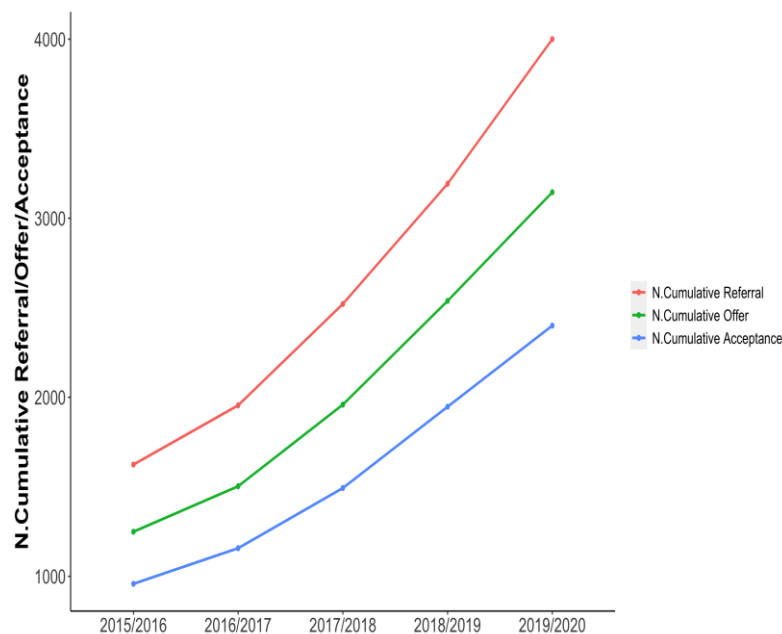
**TABLE 5 SUMMARY OF ANFPP CLIENT REFERRALS, OFFERS, EXITS, GRADUATIONS AND HOME VISITS AT 30 JUNE 2020 FOR THE 2019/20 PERIOD**

	Referrals	Offered	Accepted (%)	Home Visits	Left the program (prior to graduation)	Graduated
Major Cities	379	313	241 (77%)	4229	133	20
Inner Regional	53	46	34 (75%)	443	11	28
Outer Regional	133	94	75 (80%)	1249	69	22
Remote	243	154	118 (77%)	1981	105	0
<b>Total</b>	<b>808</b>	<b>607</b>	<b>468 (77%)</b>	<b>7902</b>	<b>318</b>	<b>70</b>

In 2019/20, a total of 70 clients successfully graduated from the program (Table 5). In 2019/20 the acceptance rate of program place offers exceeded the target benchmark of 75% in all remoteness areas. On April 30, 2020, the proportion of clients who left the program before graduation was similar to previous years. However, during May and June 2020, there was a 40% (n=92) increase in clients who left the program (July 1, 2019 - April 30, 2020 = 226 exit clients versus July 1, 2019 - June 30, 2020 = 318 exit clients). This increase in attrition coincided with the first wave of the COVID-19 pandemic in Australia.

## 3.2 ANFPP Client Referrals and Acceptance Trends

FIGURE 3 CUMULATIVE ANFPP CLIENT REFERRAL, OFFER AND ACCEPTANCE FOR PROGRAM DURATION



Client referrals to the ANFPP program have steadily increased annually (Figure 3).

In 2019/20 there was a 20% increase in the number of women (additional 136) referred to the ANFPP compared to the previous reporting period, an 8% increase in offers (additional 46) and a 9% increase in the number of women (additional 38) accepted to the program.

TABLE 6 CUMULATIVE REFERRALS FOR EACH GEOGRAPHICAL AREA (2018/19 – 2019/20)

Referrals	Major Cities	Inner Regional	Outer Regional	Remote
Cumulative (2018/19)	645	58	1347	1143
Cumulative (2019/20)	1023	111	1479	1387
% Increase	59	91	10	21

ANFPP sites from Wave 1 commenced in 2009. Wave 2 sites commenced in 2016 followed by Waves 3 & 4 in 2017. As the programs have become embedded, the percentages of increase in referrals has steadied compared with the last reporting period, particularly in sites established in Waves 3 and 4 (Table 6).

### 3.3 ANFPP Client Referrals Source Trends

FIGURE 4 ANFPP CLIENT REFERRAL SOURCE FOR PROGRAM DURATION

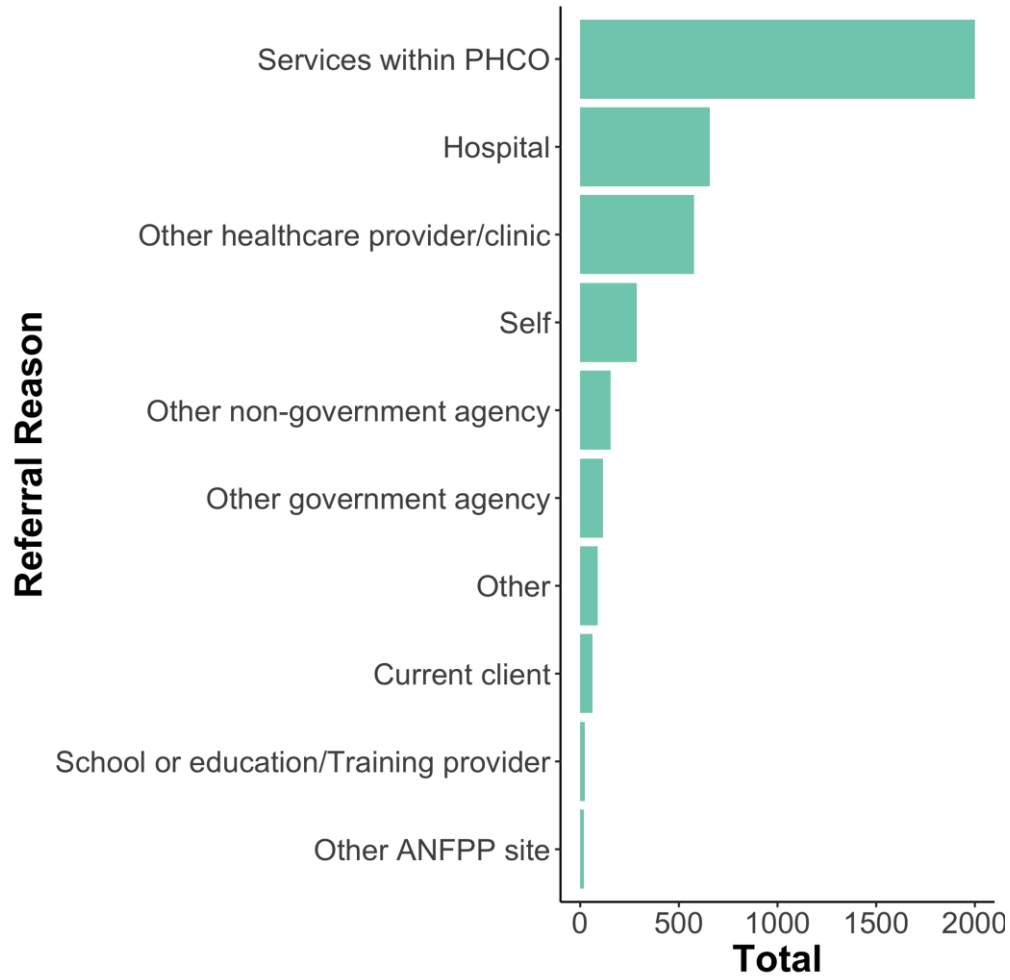


Table 7 shows the top five (%) referral sources for the ANFPP during the 2019/20 financial year. These top referral sources account for 94% (763/808) of referrals to the program.

**TABLE 7 TOP FIVE REFERRAL SOURCES BY ANFPP GEOGRAPHICAL AREA (2019/20)**

Partner Organisation	Services with PHCO	Hospital	Other healthcare provider/ clinic	Self-Referral	Other government agency
Major Cities	129	139*	25	40	25
Inner Regional	25*	6	7	12	0
Outer Regional	62*	11	36	10	5
Remote	199*	2	28	1	1
<b>Total</b>	<b>415</b>	<b>158</b>	<b>96</b>	<b>63</b>	<b>31</b>

\* top referral source for each geographical region

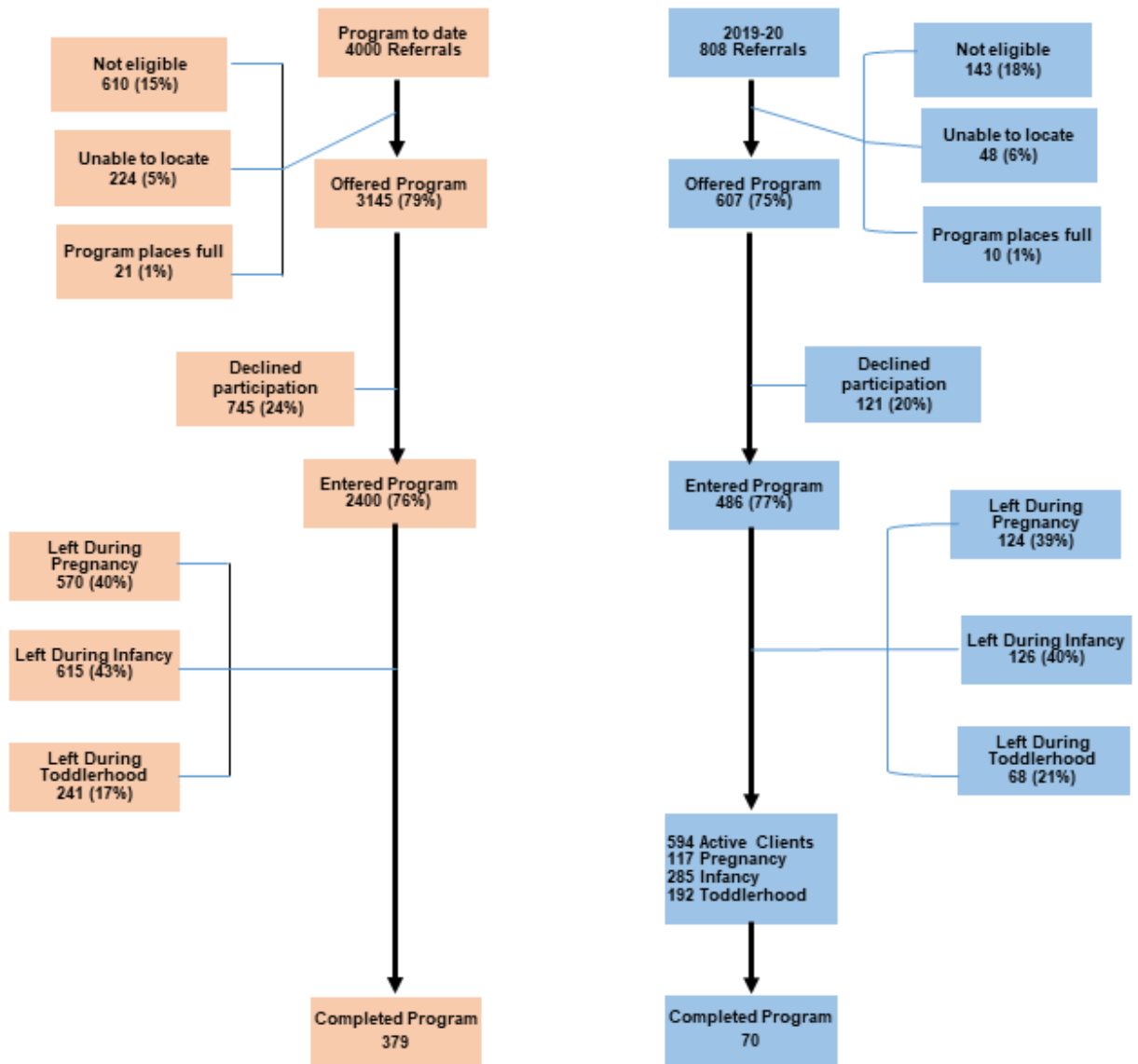
At most sites, the majority of ANFPP clients were referred from the local Primary Health Care organisation (Figure 4 & Table 7). This referral pattern is similar to the previous reporting period.

**TABLE 8 CLIENT ATTRITION: EXIT CLIENTS AS A PROPORTION OF REFERRALS FROM TOP 5 SOURCES (2019/20)**

Referral Source	Exit Clients n (%)
Services with PHCO	164/415 (40%)
Other healthcare provider/clinic	45/96 (47%)
Hospital	38/158 (24%)
Self-Referral	34/63 (54%)
Other government agency	13/31 (42%)

In Table 8, the proportion of exit clients is the number of clients who left the program in the reporting period (2019/20) irrespective of when they joined, divided by the number of clients who consented to join the program in the same reporting period. In 2019/20, 24% of clients who were referred to the program from a hospital referral source (irrespective of when they were referred) left the program, as did 54% of women who self-referred. There was a client retention of approximately 60% of the referrals that came from Primary Health Care organisations during 2019/20.

FIGURE 5 CUMULATIVE CLIENT NUMBERS AND STATUS OVER THE LIFE OF THE PROGRAM



### 3.4 ANFPP Home Visits Analysis

**TABLE 9 PROGRAM DOMAIN BY PROGRAM PHASE IN 2019/20**

(duration is estimated proportion (%) of visit) <b>Remoteness</b>	<b>Phase</b>	<b>My Child</b>	<b>My Family</b>	<b>My Health</b>	<b>My Home</b>	<b>My Life</b>	<b>Total</b>
<b>Major Cities</b>	Pregnancy	23	14	36	11	14	98
<b>Inner Regional</b>	Pregnancy	24	13	38	11	14	100
<b>Outer Regional</b>	Pregnancy	21	16	38	8	12	95
<b>Remote</b>	Pregnancy	21	14	55	12	18	120
	<b>Benchmark</b>	<b>23-25%</b>	<b>10-15%</b>	<b>35-40%</b>	<b>5-7%</b>	<b>10-15%</b>	
<b>Major Cities</b>	Infancy	44	13	20	10	13	100
<b>Inner Regional</b>	Infancy	39	14	17	12	18	100
<b>Outer Regional</b>	Infancy	37	16	21	9	12	95
<b>Remote</b>	Infancy	38	11	21	9	10	89
	<b>Benchmark</b>	<b>45-50%</b>	<b>10-15%</b>	<b>14-20%</b>	<b>7-10%</b>	<b>10-15%</b>	
<b>Major Cities</b>	Toddlerhood	43	14	18	10	14	99
<b>Inner Regional</b>	Toddlerhood	29	17	12	16	22	96
<b>Outer Regional</b>	Toddlerhood	34	14	19	11	15	93
<b>Remote</b>	Toddlerhood	31	14	21	11	13	90
	<b>Benchmark</b>	<b>40-45%</b>	<b>10-15%</b>	<b>10-15%</b>	<b>7-10%</b>	<b>18-20%</b>	

**Key**  Below range  Within range  Above range

The ANFPP Nurse Home Visitors (NHV) and Family Partnership Workers (FPW), using professional knowledge, judgement and skill, use the Home Visit Guidelines, individualising them to the strengths of each family and apportioning time across the ANFPP domains. The aim is to design program implementation according to recommended domain benchmarks which vary depending on the program phases of pregnancy, infancy and toddlerhood (CME 10 – Table 2).

In Table 9, the benchmarks and time apportioned to each domain are expressed as percentages. The recording of percentages for each domain delivered is reported subjectively by practitioners after reflecting on the content of each home visit. Because the recommended benchmarks are estimates and they cover a range of values (e.g. 40-45%), the totals reported by the ANFPP practitioners do not always add up to 100%. Table 9 shows the estimated proportion of time spent in each program domain, by program phase.



**TABLE 10 PERCENTAGE OF VISITS IN THE CLIENT'S HOME (2019/20)**

Remoteness	Client's Home
Major Cities	71%
Inner Regional	54%
Outer Regional	58%
Remote	24%

ANFPP home visiting teams acknowledge the importance of conducting visits in the place the client and her child sleeps most often on a regular basis throughout the program. Core Model Element 6 requires that a client is visited face-to-face in the home, or occasionally in another setting (mutually determined with the client) when this is not possible. In some program sites, the home is not always considered ideal for home visits. Clients may have a preference, or requirement, for the visits to take place in a car, on a veranda, outside in the yard or in another suitable outdoor setting.

In 2019/20 clients who lived in major cities were more likely than those who lived in remote area sites to have a larger proportion of program visits in their home (Table 10). Overall, the percentage of visits in the clients home during 2019/20 (55%) was similar to the previous 2018/19 reporting period (54%).

**TABLE 11 HOME VISITS BEFORE 28 WEEKS (2019/20)**

Remoteness	% of Clients First Home Visits < 28 weeks
Major Cities	95%
Inner Regional	75%
Outer Regional	100%
Remote	86%
Total ANFPP	93%

Core Model Element 4 states that a client is enrolled in the program early in her pregnancy and receives her first home visit no later than the 28<sup>th</sup> week of pregnancy. In 2019/20 the benchmark of 100% was achieved in outer regional sites, and in major cities, 95% of clients received their first home visit at less than 28 weeks of pregnancy (Table 11). Overall, in 2019/20, 93% of ANFPP clients had their first home visit prior to 28 weeks. ANFPP clients who lived in inner regional and remote areas in 2019/20 were less likely than others to receive home visits before 28 weeks. Clients who lived in these regions were also tended to present later for their first antenatal visit (Figure 14).

### 3.5 Home Visits Dosage

In the ANFPP, the client is visited throughout her pregnancy and the first two years of her child’s life in accordance with a standard program visit schedule, or an alternative visit schedule agreed upon between the client and nurse.

The standard schedule of visits is established as:

- Weekly visits upon initial enrolment antenatally for four weeks, then every second week until delivery (14 visits). In this analysis, the ideal number of visits in pregnancy has been adjusted to 9 to account for the fact that a majority of ANFPP clients have not joined the program by 16 weeks
- Weekly visits after infant birth for six weeks, followed by visits every second week until the baby is 21 months of age (The ideal number in infancy – 0-12 months is 28 visits; the ideal number in toddlerhood – 12-24 months is 22 visits)
- Monthly visits from 21 through to 24 months of age

To compare the percentage of home visits completed against program CME benchmarks, data analysis has been restricted to active clients. The home visit dosage calculations are completed for clients when they’ve moved to the next phase of the program. For example, to determine the number of clients that completed the Pregnancy phase, these clients must have moved to the Infancy phase.

In brief;

- Number of clients that have completed Pregnancy phase = Number of clients receiving home visits in Infancy phase. The number of visits a client received in the Pregnancy phase is dependent on the duration of the pregnancy at enrolment.
- Number of clients that have completed Infancy phase = Number of clients receiving home visits in Toddlerhood.
- Number of clients that have completed Toddlerhood = Number of clients graduated.

Home visit dosage is calculated from the number of home visits and telephone visits that included program content.

**TABLE 12 HOME VISITING DOSAGE RATE BY COMPLETED PHASE, 2019/20**

	Pregnancy	Infancy	Toddlerhood	Entire Program
Dosage Rate	55%	63%	46%	48%

Table 12 shows visits completed (dosage) as a proportion of ideal number of visits for completed program phases. The highest proportion of expected visits (63%) was achieved in the Infancy phase of the program. In 2018/19 home visiting dosage rates for pregnancy, infancy and toddlerhood were 55%, 57% and 65% respectively.

### 3.6 ANFFP Client Attrition Analysis

Table 13 shows that client attrition from the program in 2019/20 reporting period totalled 318 clients. An upturn in clients leaving the program appears to have taken place in the year’s final quarter. In the final quarter, the number of clients who left the program increased from 226 to 318 – a 40% increase. This increase is possibly related to the impact of COVID-19. During this time period, implementing sites were required to shift from home visiting to a telehealth model of service delivery.

**TABLE 13 ANFFP CLIENT ATTRITION BY GEOGRAPHICAL AREA FOR THE DURATION OF THE PROGRAM**

Attrition	Major Cities	Inner Regional	Outer Regional	Remote	Total
Cumulative (2018/19)	198/444	13/40	569/524	328/627	1108/1935
Cumulative (2019/20)	331/679	24/73	638/898	433/750	1426/2400
Current (2019/20)	<b>133</b>	<b>11</b>	<b>69</b>	<b>105</b>	<b>318</b>

**TABLE 14 ANFFP CLIENT ATTRITION BY REMOTENESS AND PROGRAM PHASE FOR THE DURATION OF THE PROGRAM**

Remoteness	Pregnancy	Infancy	Toddlerhood	All Phases
Major Cities	163 (49%)	132 (40%)	36 (11%)	331
Inner Regional	13 (54%)	9 (38%)	2 (8%)	24
Outer Regional	240 (38%)	310 (48%)	88 (14%)	638
Remote	154 (36%)	164 (38%)	115 (26%)	433
Total	<b>570 (40%)</b>	<b>615 (43%)</b>	<b>241 (17%)</b>	<b>1426</b>

Over the duration of the program, client attrition is highest in the Infancy phase (43%) and lowest in Toddlerhood (17%) (Table 14). The longer a client remains engaged in the program, the higher the likelihood of retention.

**FIGURE 6 CLIENT ATTRITION BY PHASE FOR DURATION OF THE PROGRAM**

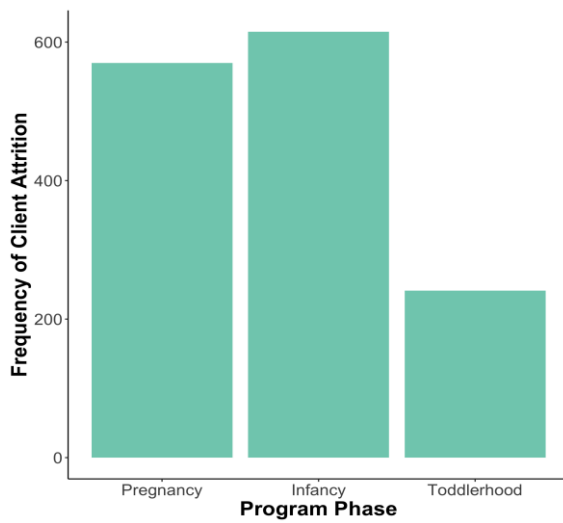
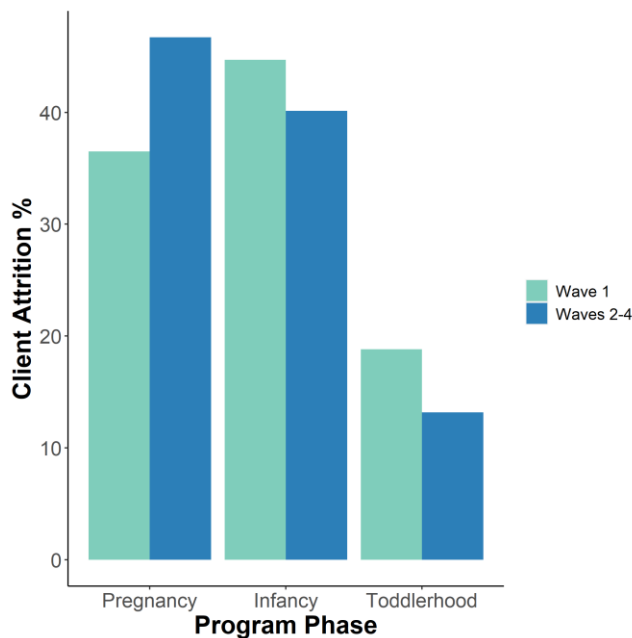


Figure 6 presents the frequencies (from Table 14) of client attrition from ANFPP in each program phase for the duration of the program.

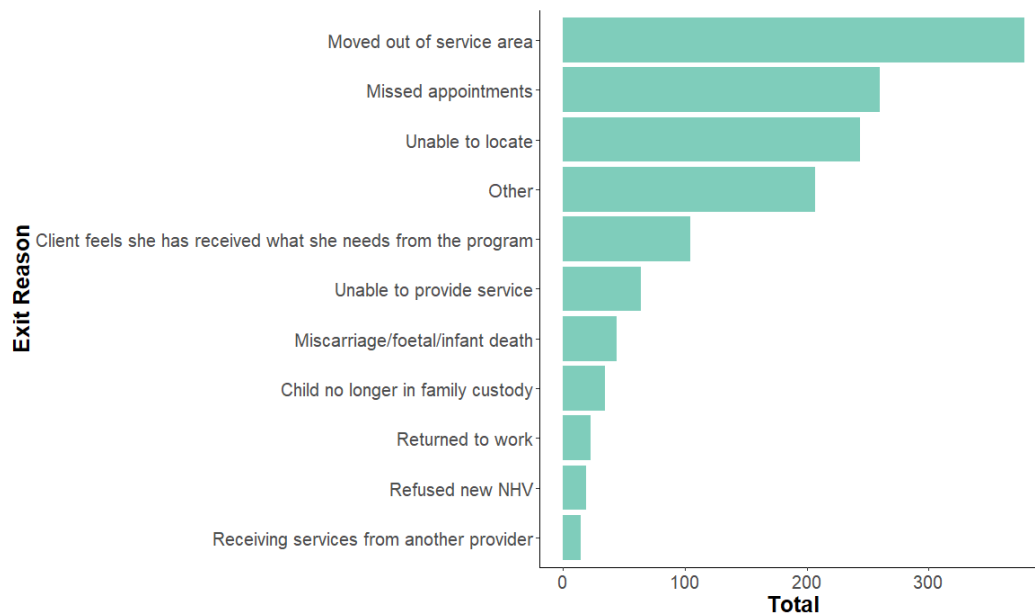
Wave 1 ANFPP sites were established in 2009, whereas Wave 2, 3 & 4 sites were established from 2016 to 2017. In the last reporting period (2018/19), among the Wave 1 sites, attrition was much lower in pregnancy phase and much higher in infancy phase. The differences in client attrition by program phase according to implementation wave are less marked in 2019/20 (Figure 7).

**FIGURE 7 CLIENT ATTRITION BY PROGRAM IMPLEMENTATION FOR THE DURATION OF THE PROGRAM**



A summary of recorded reasons for client attrition for the program duration is provided in Figure 8 below.

**FIGURE 8 RECORDED REASON FOR CLIENT ATTRITION BY FREQUENCY FOR THE PROGRAM DURATION**



Some of the recorded reasons for leaving the program occur infrequently. To protect the privacy and confidentiality of ANFPP participants and sites, in this report we follow the convention of suppressing data in cells with a count of less than 5. This applies to the following recorded reasons for leaving the program: maternal death, dissatisfied with the program, returned to education, incarcerated or other out of home placement for the mother, and refused FPW. These data, with exact cell sizes is available by request from the data team at the NSS.

The three most likely recorded reasons for client attrition in 2019/20 are consistent with the last annual reporting period (Figure 8):

- Client moved out of the service area (27%)
- Excessive missed appointments (18%)
- Unable to locate the client (17%)

It should be noted that a significant proportion of recorded reasons for leaving the program can be viewed as positive e.g. the client felt she had received what she needed from the program, or they returned to work or education. In addition, serious life events including miscarriage, and infant or maternal deaths represent a small but unavoidable proportion of client attrition from the program. Overall, client attrition for the ANFPP program duration is 44%.

In 2019/20, there was a total of 5 clients who were reported as having obtained or returning to employment. There were no reports of clients enrolling or re-enrolling in education.

## 4.0 Workforce

Each implementing site has home visiting teams comprising: A Nurse Supervisor (NS), Family Partnership Workers (FPW) and Nurse Home Visitors (NHV).

This section of the 2019/20 annual report describes:

- ANFPP workforce makeup by site i.e. NS, NHV and FPW
- Proportion of Indigenous and non-Indigenous staff
- ANFPP workforce retention

Core Model Element 12 requires that each ANFPP team has an assigned Nurse Supervisor who leads and manages the team and provides regular clinical and reflective supervision. According to this program benchmark, a Nurse Supervisor can lead a team of no more than eight staff (including NHV and FPW) and a team administrator. Individual reflective supervision should be provided weekly for full-time staff members (approximately 1 hour in length).

**TABLE 15 ANFPP PARTNER ORGANISATION COMPOSITION HOME VISITING TEAM**

Partner Organisation	NS	NHV	FPW	Total
Major Cities	6	24	20	50
Inner Regional	2	4	4	10
Outer Regional	3	10	10	23
Remote**	3*	16	10	29
<b>Total</b>	<b>14</b>	<b>54</b>	<b>44</b>	<b>113**</b>

\*1 NS is part-time FTE; \*\* A social worker is utilised as a member of their ANFPP team

Nurse Home Visitors make up the largest proportion of the ANFPP workforce (NHV 48%; FPW 39%; NS 13%). Without considering the number of part-time staff at the sites (Figure 9), in 2019/20 the 1:8 Nurse: Supervisor: Team ratio was exceeded at 5 sites (Table 15).

**FIGURE 9 SIZE OF THE PROGRAM (WORKFORCE FTE)**

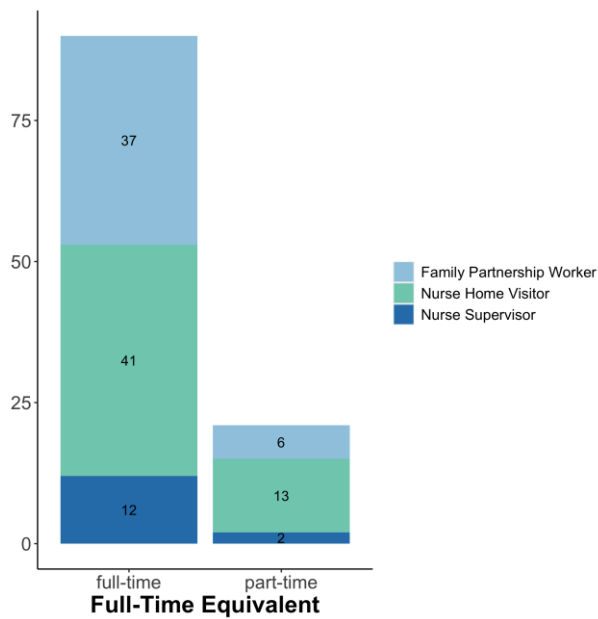


Figure 10 summarises the proportion of Indigenous and non-Indigenous team members that made up the ANFPP Home Visiting teams during 2019/20.

**FIGURE 10 CULTURAL BACKGROUND OF ANFPP HOME VISITING TEAM 2019/20**

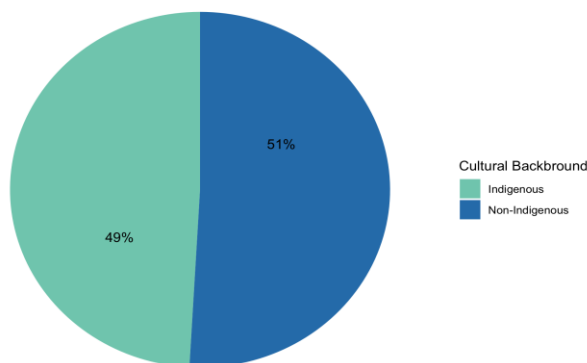
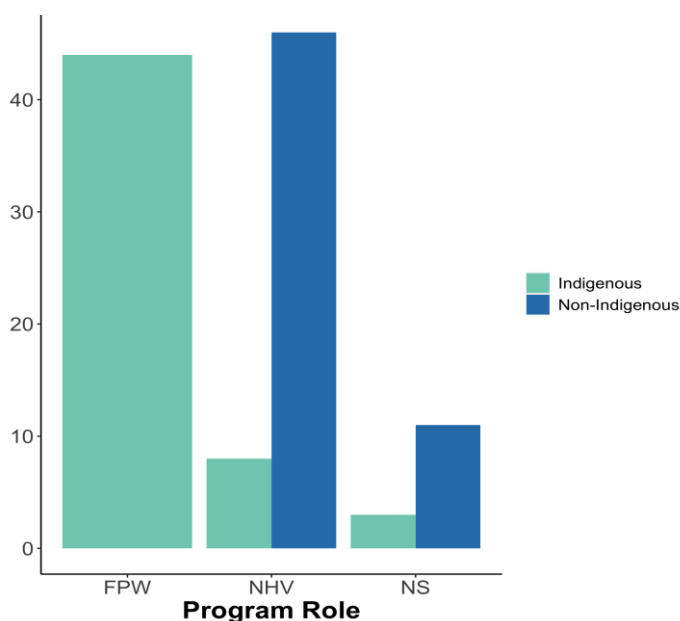


Table 16 and Figure 11 (below) summarise the proportion of Indigenous and non-Indigenous staff according to program role. The cultural make-up of teams was like the previous reporting period, consisting of approximately half Indigenous team members.

**TABLE 16 CULTURAL BACKGROUND OF HOME VISITING TEAM 2019/20 BY PROGRAM ROLE**

Home visiting role	Indigenous	Non-Indigenous	Total (Indigenous %)
Family Partnership Worker	44	0	44 (100%)
Nurse Home Visitor	7	46	54 (15%)
Nurse Supervisor	3	11	14 (21%)
<b>Total (N, %)</b>	<b>53(49%)</b>	<b>58 (51%)</b>	<b>112</b>

**FIGURE 11 CULTURAL BACKGROUND OF HOME VISITING TEAMS 2019/20 BY PROGRAM ROLE**



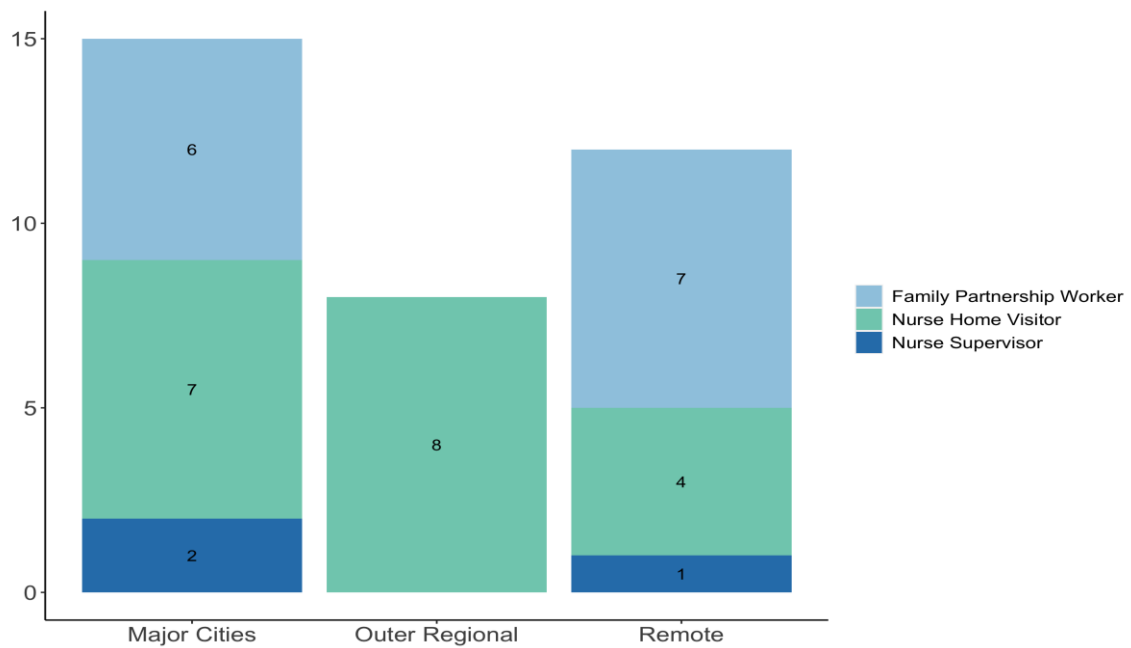
**TABLE 17 ANFPP PROGRAM SITE STAFF TURNOVER IN 2019/20**

Program Role	n (%)
Family Partnership Worker	13 (37%)
Nurse Home Visitor	19 (54%)
Nurse Supervisor	3 (9%)
<b>Total</b>	<b>35 (100%)</b>

Of the 35 staff who left the program in 2019/20 (Table 17), 54% (19) were NHV, 37% (13) were FPW and 9% (3) were NS (Table 17). This was similar to the previous 2018/19 reporting period. Table 15 above shows that NHV make up the largest proportion of the ANFPP workforce, followed by FPW and NS. According to these proportions, in 2019/20, there was an approximate staff turnover of 35% among the NHV workforce, (19/54), 30% among FPWs (13/44) and 21% among the NS workforce (3/14).



FIGURE 12 ANFPP WORKFORCE ATTRITION BY REMOTENESS, 2019/20



In 2019/20, there was no program data indicating staff turnover in inner regional program sites (Figure 12). The highest staff turnover in numeric terms (n=15) was in major cities. However, when considered as a proportion of workforce, turnover in aggregated major city sites was 30%; lower than in outer regional areas (35%) and remote areas (41%). The overall staff turnover of 35/112 (31%) was higher than 2018/19 (19%) and 2017/18 (17%), and lower than 2016/17 (48%).

## 5.0 Client Demographics

Out of 607 eligible clients who were offered the ANFFP in 2019/20, 468 clients (77%) accepted and enrolled in the program. Core Model Element 4 requires that the client is enrolled early in her pregnancy and receives her first home visit no later than the 28<sup>th</sup> week of pregnancy. Ideally, 60% of pregnant women are enrolled by 16 weeks gestation or earlier. Early referral and enrolment remain a challenge, with 25% of clients enrolled by 16 weeks in 2019/20. This is similar to the previous reporting period when the percentage of enrolment by 16 weeks increased from 18% in 2017/18 to 26% in 2018/19.

Table 18 compares client attrition rates from 2019/20 with the previous reporting period. In 2019/20 attrition was slightly higher in the Infancy stage, but lower in the Toddlerhood phase. Overall, attrition was 2% higher in the current reporting period compared with the previous year. There was a 20% increase in active clients in 2019/20 compared with the previous reporting period.

**TABLE 18 COMPARISON OF ATTRITION RATE BY STAGES, 2018/19 – 2019/20**

Reporting period	Pregnancy phase	Infancy phase	Toddlerhood phase	Overall attrition
2018/19	40%	39%	21%	42%
2019/20	40%	43%	17%	44%
Program target	<10%	<20%	<10%	<40%

## 5.1 Cultural Background and Parenting Status

Tables 19 and 20 show the cultural background and parity of accepted clients. Most clients are Aboriginal women (84%). The program is also offered to non-Indigenous women pregnant with an Aboriginal or Torres Strait Islander child who made up 12% of the clients accepted to the program in 2019/20.

ANFPP is delivered to first-time mothers, however, multiparous women may be included at the discretion of the program sites. In 2019/20 most program clients (83%) were first time mothers (Table 20). The remainder of the program clientele (17%) were multiparous women for whom it may have been their first opportunity to parent, or who were accepted to the program under special circumstances approved by the program site.

**TABLE 19 NUMBER AND PERCENTAGES OF CLIENT ETHNICITY, 2019/20**

Ethnicity	n	%
Aboriginal	395	84%
Aboriginal and Torres Strait Islander	9	2%
Non-Indigenous woman with Aboriginal and/or Torres Strait Islander partner	54	12%
Torres Strait Islander	10	2%
<b>Total</b>	<b>468</b>	<b>100%</b>

**TABLE 20 NUMBER AND PERCENTAGE FOR MOTHER'S PARITY, 2019/20**

Parity (Live Births)	n	%
0	386	83%
1	49	11%
2	16	3%
3	5	1%
4+	9	2%
Missing	3	<1%
<b>Total</b>	<b>468</b>	<b>100%</b>

In 2019/20, of 468 clients who were accepted to the ANFP program, 79 (17%) were multiparous (Table 20). Five of these clients were accepted after the birth of their baby. Of the 74 multiparous clients accepted during pregnancy, 10 (14%) were accepted prior to 16 weeks gestation and 64 (86%) were accepted after 16 weeks gestation. In 2019/20, of 318 clients who left the program, 53 (17%) were multiparous. Table 20B below shows multiparous clients who left the program in 2019/20 by remoteness category and program phase.

**TABLE 21 MULTIPAROUS CLIENT ATTRITION BY REMOTENESS AND PROGRAM PHASE, 2019/20**

Remoteness category	Program phase		
	Pregnancy	Infancy	Toddlerhood
Major cities	9	6	2
Inner regional	3	4	1
Outer regional	0	1	1
Remote	10	10	6
Total	22	21	10

## 5.2 Client Age

**TABLE 22 AGE AT INTAKE FOR WOMEN PARTICIPATING IN THE PROGRAM, 2019/20**

Parameter	Age in Years
Mean age at intake	23
Median age at intake	22
Youngest client	13
Oldest client	43

**TABLE 23 AGE DISTRIBUTION AT INTAKE FOR WOMEN PARTICIPATING IN THE PROGRAM, 2019/20**

Age ranges	n (%)
13-19	130 (28%)
20-34	315 (67%)
35+	23 (5%)
Total	468

The ANFPP client age group ranged from 13-43 years with a mean age of 23 years (Table 21). Most clients were aged 20-34 (67%) and 28% were <20 years (Table 22). The percentage of teenage mothers in the program in 2019/20 was lower than the previous reporting year when it was 35%.

### 5.3 Housing and Living Arrangements

A safe, secure home with facilities for daily living in good working order is a key factor for promoting good health and wellbeing. Household overcrowding is associated with a range of health problems including otitis media, trachoma, scabies, gastroenteritis and respiratory infections (Royal Australian College of General Practitioners, 2018). Mental health issues and domestic violence are potentially exacerbated among individuals who live in circumstances of overcrowding (Royal Australian College of General Practitioners, 2018).

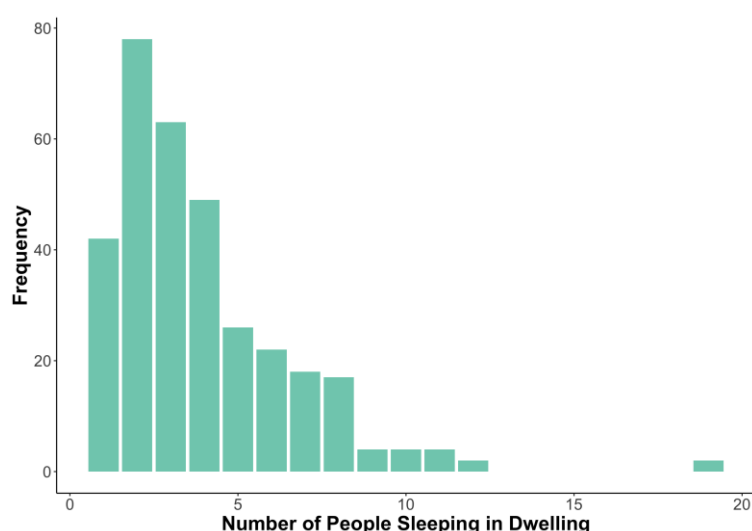
Figure 13 shows the number of people (including the client) sleeping in client households. Individuals are considered to sleep in the household/dwell in the residence if they are present four nights or more per week.

In 2019/20 about 13% of ANFPP clients reported living alone in their home, while 20% of the clients identified as being homeless. This proportion of homeless clients is similar to the reported population figure for Aboriginal and Torres Strait Islander peoples of 22% (Australian Institute of Health & Welfare, 2019).

The majority (72%) of clients have between two and six people sleeping at their dwelling and 15% of clients reported seven or more people sleeping at their dwelling (Figure 13).

ANFPP staff feedback suggests that many clients prefer program visits outside the home due to reasons that include overcrowding and lack of privacy.

**FIGURE 13 NUMBER OF PEOPLE SLEEPING (AT LEAST 4 NIGHTS PER WEEK) AT THE CLIENT'S HOUSEHOLD, 2019/20**



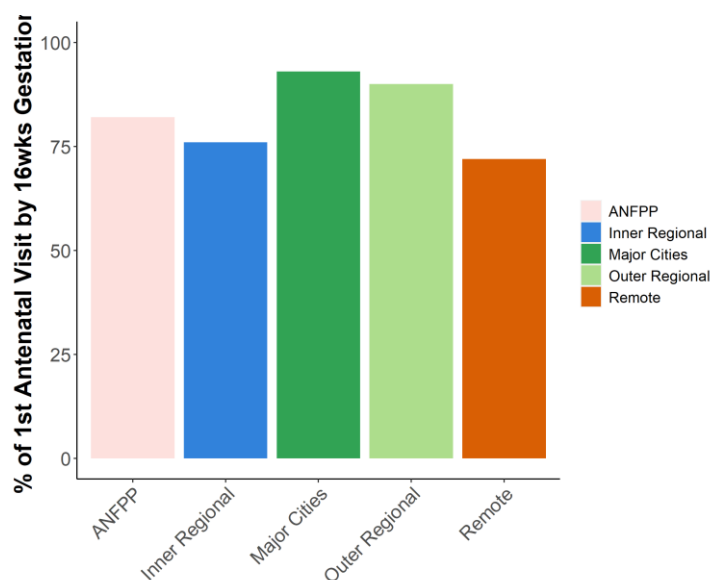
## 5.4 Antenatal Care Visits

Antenatal care is specialised health care for women during pregnancy. Women are provided with information about pregnancy and birth, support and reassurance, and screening and clinical examinations to assess their own health and the health of their baby (Downe, Finlayson, Tunçalp, & Gülmezoglu, 2019).

Early and regular antenatal care is associated with positive health outcomes for mothers and their babies, including improved maternal health during pregnancy, a lower rate of interventions in late pregnancy, and better child health outcomes (Australian Institute of Health and Welfare, 2018). Antenatal care that includes education on nutrition appears effective in reducing the risk of low birthweight and preterm birth in women who are undernourished (Ota, Horj, Mori, Tobe-Gai, & Farra, 2015).

On average, ANFPP program sites reported the first antenatal visit (to a local health provider) occurred by the 16<sup>th</sup> week of pregnancy for 82% of clients (Figure 14).

FIGURE 14 PERCENTAGE OF FIRST ANTENATAL VISITS OCCURRING BEFORE 16 WEEKS GESTATION BY REMOTENESS, 2019/20





## 5.5 Client Complexity

ANFPP clients' complex personal circumstances need to be taken into consideration for the implementation of the program as well as for the assessment of its progress and success. The ANFPP is designed to improve the health, well-being and self-efficacy of socioeconomically disadvantaged first-time parents and their children. In December 2007, the Council of Australian Governments committed to the Closing the Gap Strategy to reduce disadvantage among Aboriginal and Torres Strait Islander people. Compared to non-Indigenous Australians, Aboriginal and Torres Strait Islander children and families experience the following (Australian Institute of Health and Welfare, 2015):

- Children twice as likely to have low birthweight
- Higher levels of homelessness and/or overcrowding
- Children twice as likely to be developmentally vulnerable
- Higher levels of physical stress
- Children 10 times more likely to be in out of home care
- Lower levels of employment

The complexity of clients in the ANFPP is evidenced by a relatively high number of pregnancies among women aged < 20 years (28%), overcrowded housing conditions, high rates of homelessness (20%) and high rates of tobacco smoking (38%).



## 6.0 Program Outcomes

### 6.1 Overview

Analysis of ANFPP data from 2016/17 to 2019/20 requires the assimilation of datasets collected at points in time across multiple systems. As the program has matured, the number and type of data collected has also evolved, through Data Specification 2.1 to Data Specification 2.5, then extended to include the ANKA data specifications.

Datasets for the following outcomes and their related program targets were investigated in greater detail as these are key program outcome areas:

- Immunisation
- Breastfeeding
- Birthweight
- Smoking
- ASQ Scores

A summary of the ANFPP Performance and Quality Framework (2018) outcome measures and targets for the program is outlined in Table 23.



**TABLE 24 ANFPP OUTCOME MEASURES AND TARGETS**

Outcome measures	Measured by	Program Target	ANFPP performance for 2019/20
<b>A. Pregnancy outcome</b>			
<b>Smoking</b>	Percentage of women smoking from intake to 36 weeks pregnancy	Reduction by 25% or greater	Among 57 women with data about smoking available at both the beginning and end of pregnancy there was a 32% reduction of women smoking from intake to 36 weeks pregnancy (Section 6.5).
	Number of cigarettes smoked per day between intake and 36 weeks pregnancy	Average reduction by 83% for women who smoked 5 or more cigarettes at intake and 36 weeks pregnancy	There was very little data about the number of cigarettes smoked per day available at both the beginning and end of pregnancy. Among 14 women who reported smoking >5 cigarettes per day at intake, 10 reported smoking <5 cigarettes at 36 weeks.
<b>Preterm births</b>	The percentage of infants born preterm	7.6% or less	10% of infants were preterm (Section 6.4)
<b>Low birthweight</b>	The percentage of infants born with low birthweight (LBW)	5% or less	<ul style="list-style-type: none"> <li>• 16.8% of infants were low birthweight</li> <li>• After excluding preterm infants, the rate of low birthweight was 12% (Section 6.4)</li> </ul>
<b>B. Child health and development outcome</b>			
<b>Immunisation</b>	Completion rates for all recommended childhood immunisations by the second birthday	90% or greater	97% of infants had their recommended immunisations by their 2 <sup>nd</sup> birthday (Section 6.2)
<b>Breastfeeding</b>	The percentage of mothers who ever breastfed	No target set	84% of mothers reported having ever breastfed (Section 6.3)

Outcome measures	Measured by	Program Target	ANFPP performance for 2019/20
<b>Ages and Stages Questionnaire</b>	The percentage of toddlers who fall below the cut off score for further assessment or referral	No target set	Among toddlers assessed at 20 months: Communication: 0% Gross motor skills: 0% Fine motor skills: 4% Personal/Social: 0% Problem solving: 0% (Section 6.6)
<b>C. Improving parent's life-course outcomes</b>			
<b>Subsequent pregnancy frequency</b>	Percentage of women having subsequent pregnancies within two years of the infants' birth	<25%	(27/581 active clients) 5% of mothers reported a subsequent pregnancy within two years of the infants' birth

## 6.2 Immunisation

The aim of the National Immunisation Strategy 2019-2024 is to achieve herd immunity against vaccine-preventable diseases (Australian Government Department of Health, 2020). Herd immunity is achieved when enough people are vaccinated so that the level of immunity in a population prevents spread of a disease. Herd immunity also provides protection to people who are unimmunised including those that are too young, those for whom an immunisation is medically contraindicated, or those for whom immunisation was not effective.

To achieve herd immunity for highly infectious diseases (e.g. measles) requires an immunisation coverage rate of 92-94%, however, Australia's national aspirational target is 95% coverage (Australian Government Department of Health, 2020).

The latest reporting from the Australian Immunisation Register provides data on childhood immunisation coverage up to March 2020 (Australian Government Department of Health, 2020a). The national coverage rate for Aboriginal and Torres Strait Islander children who were 'fully immunised' by 12-months of age has increased from 92.62% in 2018 to 93.4%. For the 12-month old age group, all states and territories except WA had coverage levels that exceeded 90%. The ACT and Tasmania exceeded the aspirational target of 95%.

The national coverage rate for 'fully immunised' Aboriginal and Torres Strait Islander 24-month old children was 90.03%, an increase from the previous reporting period of 0.33%. For 24-month old children, all states and territories except WA & SA exceeded 90% coverage (Australian Government Department of Health, 2020a).

### 6.2.1 HOW WAS THE ANALYSIS PERFORMED?

To determine immunisation rates as per the ANFPP target, it is necessary to identify the number of children who turned 12 and 24 months old during the reporting year (the denominator) and how many of these children are recorded as fully immunised at 12 and 24 months (numerator). In practice, however, home visits (therefore, record dates) do not correspond exactly with these milestones, and children are not immunised exactly on their first birthday or milestone date. To allow for this, a one-month buffer was added to immunisation due dates when determining if an infant has been immunised at the 12-month milestone. This is in line with the national due and overdue rules for immunisation (Australian Immunisation Register, 2018), under which any child remaining unimmunised more than one month after their 12 months immunisation milestone is considered overdue (Australian Immunisation Register, 2018).

Therefore, the following criteria were used to identify immunisation coverage and data completeness for 12-month milestone:

- To be considered fully immunised, each child turning 12 months (365 days) within the reporting period must have 12-month immunisation data recorded by their 13-month anniversary.

- Child records are excluded from the denominator if the child is 12 months old but has not turned 13 months on the record date. This prevents children being considered ‘unimmunised’ when the buffer period has not yet elapsed.

With respect to the 24-month immunisation milestone, a slightly different approach was used as there are no scheduled immunisation requirements for 24 months. In this case, the records for the child’s 18-month and 24-month milestone visits were used to determine immunisation status.

In 2019/20, the above criteria produced 178 immunisation records for children aged 12 months and 77 records for children aged 24 months.

## 6.2.2 PROGRAM PERFORMANCE

The early childhood immunisation target in the ANFPP Performance and Quality Framework is:

- Completion rates for all recommended childhood immunisations are **90% or greater by the child’s second birthday.**

Additionally, ANFPP immunisation data of children fully immunised at their first birthday (12 months) is also included below (Table 24 and Figure 15).

### Does ANFPP meet its target for childhood immunisation?

- ANFPP data completeness for immunisation coverage in the 2019/20 reporting period was 72% for children aged 12 months and 84% for children aged 24 months.
- The ANFPP program target of 90% coverage or greater set for childhood immunisations at 24 months of age has been consistently exceeded between 2016/17 and 2019/20.
- In 2019/20, the immunisation coverage of infants in the ANFPP has exceeded the national aspirational rate of 95% for children aged 12 months and 24 months with coverage rates of 97.6% and 96.7% respectively.

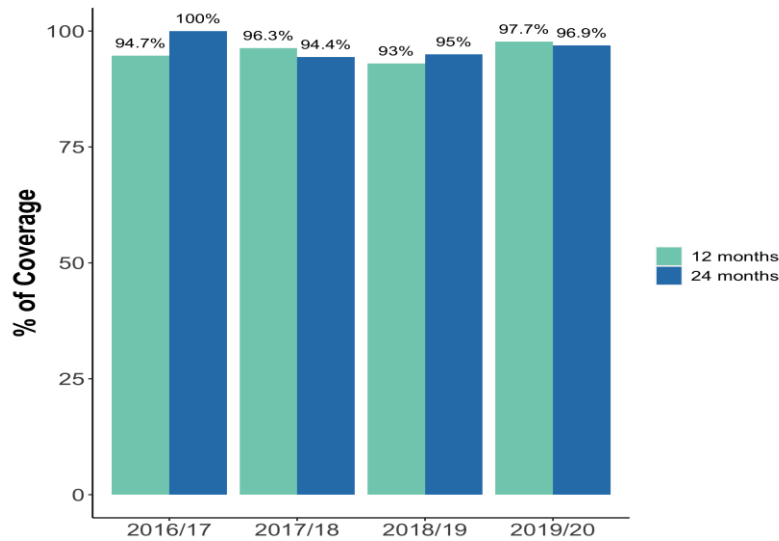
**TABLE 25 PERCENTAGE OF ANFPP CHILDREN FULLY IMMUNISED AT 12 AND 24 MONTHS, BY PERIOD (2016/17-2019/20)**

Stage	ANFPP immunisation coverage by period				National rate for Aboriginal and Torres Strait Islander Children*
	2016–17	2017–18	2018–19	2019–20 <sup>^</sup>	
<b>12 months</b>	94.7%	96.3%	93.0%	97.6%	93.4%
<b>24 months</b>	100.0%	94.4%	95.0%	96.7%	90.03%

\*2019/20 data, sourced from DOH (Australian Government Department of Health, 2018b)

<sup>^</sup>2019/20 at 12 months, 128/178, (72%) data completeness. 2019/20 at 24 months 63/77 (84%) data completeness

**FIGURE 15 ANFPP IMMUNISATION COVERAGE (%) AT 12 AND 24 MONTHS, BY PERIOD (2016/17-2019/20)**



### Does ANFPP immunisation coverage vary with Remoteness?

Figure 16 (below) shows immunisation data by remoteness for children aged 12 months and Figure 17 shows the data for children aged 24-months.

- ANFPP children living in remote (including very remote) and inner regional areas had a 100% 12-month coverage in 2019/20.
- The 12-month coverage achieved in ANFPP sites in major cities, inner regional and remote areas, and the ANFPP program overall, exceeded the Australian national aspirational immunisation target of 95%.
- By 24 months, immunisation coverage exceeds the national aspirational immunisation target of 95% in all ANFPP geographical areas.

FIGURE 16 ANFPP 12-MONTH IMMUNISATION COVERAGE (%), 2019/20, BY REMOTENESS AREA.

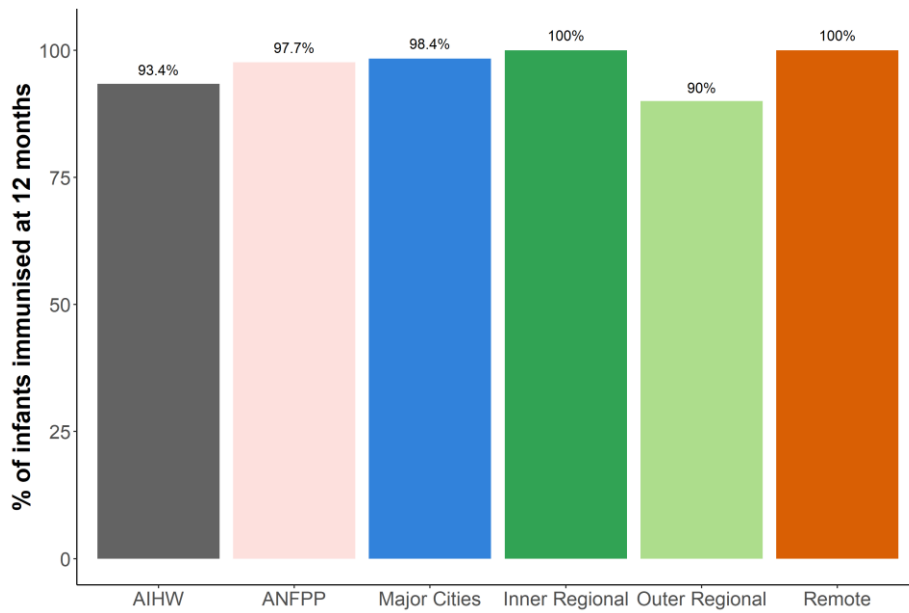
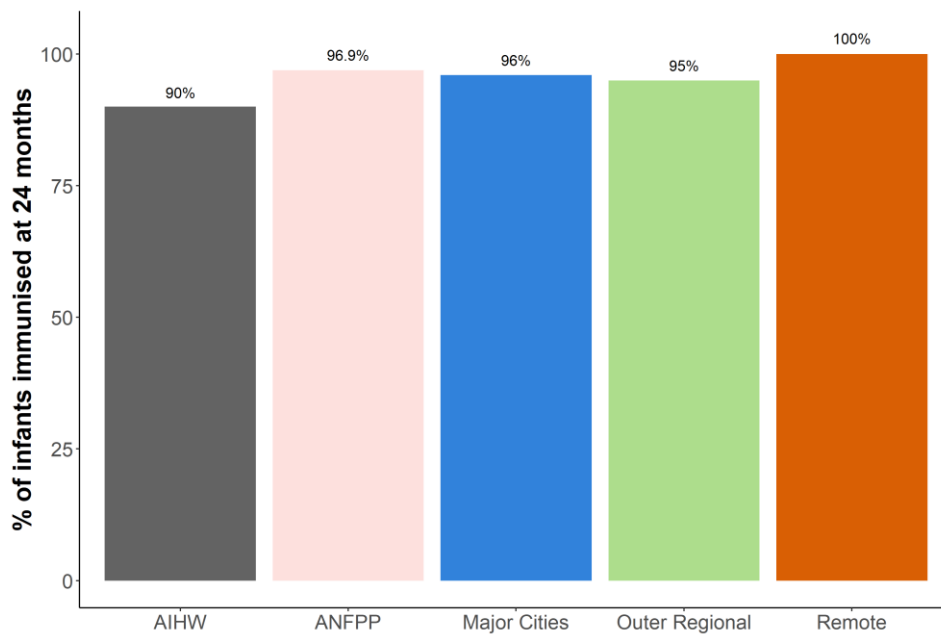


FIGURE 17 ANFPP 24-MONTH IMMUNISATION COVERAGE (%), 2019/20, BY REMOTENESS AREA.



### 6.2.3 COMPARISON WITH NATIONAL IMMUNISATION DATA

As shown in Figures 16 & 17, the ANFPP infant immunisation coverage rate for 2019/20 exceeded the national rate reported by the Australian Institute of Health and Welfare for children aged 12 months and 24 months, as well the national aspirational rate of 95%.

## 6.3 Breastfeeding

Breast milk is uniquely engineered to suit the dietary needs of newborn infants. Evidence suggests that breastfeeding has numerous health benefits at all stages of life (Allen and Hector, 2005; Australian Government Department of Health, 2018). The World Health Organization and the United Nations Children’s Fund recommend that infants initiate breastfeeding in the first hour after birth and be breastfed exclusively (meaning no other foods or liquids provided including water), as often as the child wants, for the first six months (Gupta et al, 2019, World Health Organization, 2020). From 6 months, complementary foods should be introduced while continuing to breastfeed for two years and beyond (World Health Organization, 2020). In Australia, while most women intend to breastfeed and most initiate breastfeeding, only 15-25% continue exclusive breastfeeding until their baby is six months of age (Australian Government Department of Health, 2018)

In a two-part Lancet series, Victora et al. (2016) and Rollins et al. (2016) reviewed the short-term and long-term maternal and child health consequences of breastfeeding and explored what is needed to improve breastfeeding practices. Key messages included:

- Children with longer breastfeeding duration have lower morbidity and mortality from infections, better dental health, and higher intelligence. There is strengthening evidence that suggests breastfeeding provides protection against overweight and obesity later in life.
- Breastfeeding benefits mothers because it can reduce risk of breast cancer, improve birth spacing and may reduce her risk of diabetes and ovarian cancer.
- Women who want to breastfeed need a supportive and enabling environment.
- The promotion of breastfeeding is a societal responsibility. It is a cost-effective investment in society because it benefits human capital e.g. by improving school achievement and employment outcomes.

This section reports on the 2019/20 ANFPP client breastfeeding practices, presenting the data alongside breastfeeding rates in previous years. Data are presented for two breastfeeding indicator questions.

- What percentage of children aged 0 to 24 months within the ANFPP have *ever been breastfed*?
- What percentage of infants in the ANFPP are *still breastfeeding* at 6 months of age?

Comparative data: The most recent national data on breastfeeding status of Aboriginal and Torres Strait Islander infants aged 0-24 months, including duration is available from the 2014-2015 period (Australian Institute of Health and Welfare 2017). It was generated by the Australian Institute of Health and Welfare and the Australian Bureau of Statistics from analysis of the National Aboriginal and Torres Strait Islander Social Survey 2014-15 and the National Health Survey 2014-15 implemented between July 2014 and June 2015. The age of this dataset limits its value for comparative purposes.

### 6.3.1 HOW WAS THE ANALYSIS PERFORMED?

In the tables and figures that follow, the ANFPP 'Ever Breastfed' totals were built from ANFPP Infant Birth and Infant Health Check records. For a given infant, a positive breastfeeding indication in any of these records was taken to indicate breastfeeding had occurred. There is no requirement that breastfeeding occur repeatedly over an extended period for an infant to be considered 'ever breastfed'. The denominator for this data is all ANFPP infant births recorded during the period.

The nature of the collected data required assessment of 'still breastfeeding at 6 months' rather than continuation of breastfeeding beyond the 6-month threshold. Values were calculated from specific cessation records entered by Nurse Home Visitors in combination with Currently Breastfeeding records, for all children who were aged at least 6 months of age (calculated as 24 weeks) during the period.

In all cases, remoteness areas are excluded where the number of records for analysis is five or less.

### 6.3.2 PROGRAM PERFORMANCE

A breastfeeding rate target for ANFPP infants has not been set. From the national dataset about breastfeeding, in 2014-15, the proportion of ever breastfed Aboriginal and Torres Strait Islander infants aged 0-24 months nationally was 82.4%. Nationally, the proportion of infants who ceased breastfeeding prior to 6 months in 2014-15 was 39.2% (Australian Institute of Health and Welfare 2017).

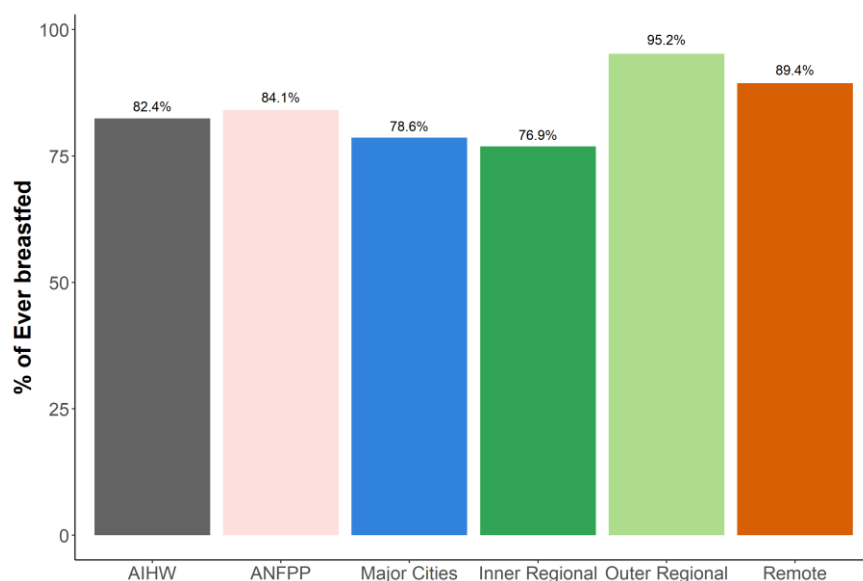
#### Percentage of Infants 'Ever Breastfed'

Figure 18 shows the ANFPP breastfeeding rates for 2019/20, by remoteness area, with total ANFPP comparison and the Australian Institute of Health and Welfare national comparison from 2014-15 data. The rate of infants who were 'ever breastfed' within the program (84.1%) is similar to the previous ANFPP reporting period data (2018/19 - 84.3%), and slightly higher than the national comparison for Aboriginal and Torres Strait Islander infants aged 0-24 months (82.4%). The rates of 'ever breastfed' in the ANFPP were higher in all remoteness areas, except inner regional, than the national rates reported in 2014-15 (Major cities- ANFPP 78.6% versus national 73.4%; Inner regional ANFPP 76.9% versus national 86.5%; Outer regional- ANFPP 95.2% versus national 87.4%; Remote- ANFPP 89.4% versus national 88.4%)

Table 25 shows ANFPP breastfeeding rates by remoteness over time from 2016/17 to the current reporting period.



FIGURE 18 ANFPP INFANTS EVER BREASTFED\* (%), 2019/20, BY REMOTENESS



\*dataset includes all babies born to ANFPP clients within the designated period

TABLE 26 ANFPP INFANTS EVER BREASTFED (%), 2016/17 TO 2019/20, BY REMOTENESS AREA

Remoteness Area	ANFPP % Ever Breastfed Rates			
	2016–17	2017–18	2018–19	2019–20 <sup>^</sup>
Major Cities	90.2%	87.6%	83.1%	78.6%
Inner Regional		*	72.2%	76.9%
Outer Regional	89.7%	89.9%	86.7%	95.2%
Remote	100%**	98.5%	88.7%	89.4%
ANFPP: All Sites	93%	92%	84.3%	84.1%

\*Total counts are < 5; \*\*100% values can be the result of small sample size; <sup>^</sup>300/302 (99%) data completeness  
Cells are blank where no data is available for that Area and time period.

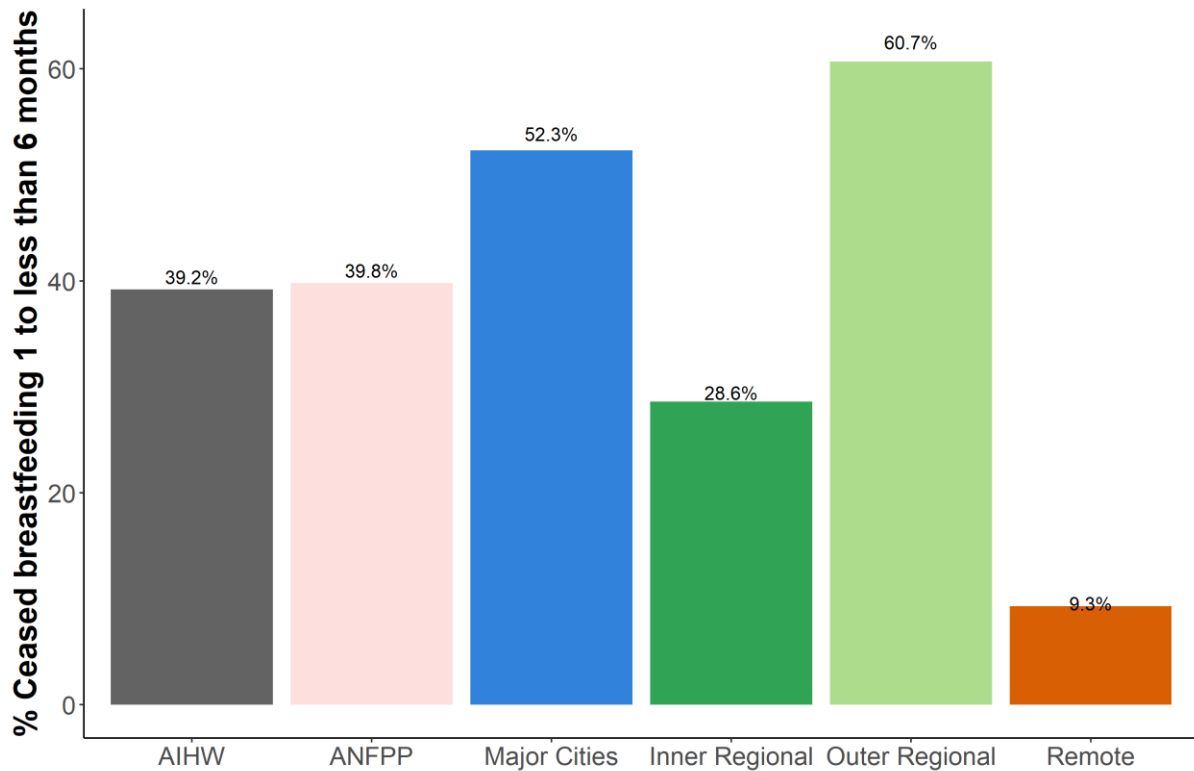
### Infants ceasing breastfeeding before six months

Figure 19 shows the ANFPP breastfeeding cessation rates across remoteness areas for 2019/20. Table 26 presents data on rates of continued breastfeeding beyond 6 months by remoteness area from 2016/17 to 2019/20. Cells in the table without data is due to very small numbers (<5) or unavailable data.

- Compared with the previous reporting period, ANFPP breastfeeding cessation rates before 6 months (Figure 19) have decreased in remote areas (2019/20-9.3% versus 2018/19-22.2%) and increased in major cities (2019/20-52.3% versus 2018/19-40.8%) and outer regional sites (2019/20-60.7% versus 2018/19-26.3%). Breastfeeding cessation data for inner regional sites was not presented for the previous reporting period.

- High levels of breastfeeding beyond 6 months (low cessation rates) were reported in remote and very remote sites (data for sites combined) – Table 26.
- Continued breastfeeding beyond 6 months (60.2%) was lower than for the previous reporting period (2018/19-67%). There is considerable variation in continued breastfeeding rates between geographical areas e.g. 39.3% reported in outer regional areas compared with 90.7% in remote and very remote areas (Table 26).

**FIGURE 19 ANFPP BREASTFEEDING CESSATION BEFORE 6 MONTHS (24 WEEKS), 2019/20, BY REMOTENESS**



\* inner regional total counts are < 5

**TABLE 27 ANFPP INFANTS STILL BREASTFEEDING AT 6 MONTHS (24 WEEKS), 2016/17 TO 2019/20, BY REMOTENESS AREA**

Remoteness Area	ANFPP % Still Breastfeeding at 6 months			
	2016–17	2017–18	2018–19	2019–20
Major Cities	*	53.8%	53.1%	47.7%
Inner Regional	-	-	-	71.4%
Outer Regional	31.2%	38.2%	31.6%	39.3%
Remote	86.4%	77.1%	77.8%	90.7%
ANFPP: All Sites	59.3%	57.7%	67.0%	60.2%

\*Total counts are < 5; Cells are blank where no data is available for that remoteness area and period



### 6.3.3 COMPARISON WITH NATIONAL BREASTFEEDING DATA

The comparative national data on breastfeeding rates and duration was from the 2014-2015 time period (Australian Institute of Health and Welfare 2017).

- In 2019/20 ANFPP sites in outer regional and remote areas reported higher rates of 'ever breastfeeding' (95.2% and 89.4% respectively) than the national average in 2014-2015 (82.4%). ANFPP sites in major cities and inner regional areas reported lower rates (78.6% and 76.9% respectively).
- In 2019/20 ANFPP sites in major cities and outer regional areas had higher 6-month cessation rates (52.3% and 60.7% respectively) than the 2014-2015 aggregated national data (39.2%). Data from sites in inner regional areas showed a lower rate of cessation than the national data (28.6%). The cessation rate at 6 months reported by ANFPP sites in remote and very remote areas was much lower (9.3%).

## 6.4 Birthweights

Birthweight is an important indicator of infant health. Babies who are born with a low birthweight are at a higher risk of illness, disability and death than other babies (McGovern, 2019; Sherf et al., 2019). Research has found that the health effects of low birthweight can persist across the lifespan with increased risk of metabolic and cardiovascular diseases in adulthood (Australian Institute of Health and Welfare, 2018a; Sjöholm et al. 2018; Zhang et.al. 2014). A baby may be born small because it is born too early or because it is small for gestational age despite being born at term (Australian Institute of Health and Welfare, 2018a). Infants with a birthweight below 2500grams are categorised as low birthweight (Australian Institute of Health and Welfare, 2018a). Infants born prior to 37 completed weeks of gestation are categorised as preterm. An infant is small for gestational age if they are below the 10<sup>th</sup> percentile for their gestational age (McEwan et al., 2018).

Maternal factors that contribute to an increased risk of having a low birthweight baby include poor antenatal care, smoking, alcohol use, poor nutrition or illness during pregnancy, low socioeconomic position, multiple pregnancy, and extremes in maternal age (very young and older mothers) (Aust. Institute of Health and Welfare, 2018a). Australian Indigenous newborns have more than twice the risk of being low birthweight compared to non-Indigenous newborns (Australian Institute of Health and Welfare, 2020) and are more likely to be preterm (Kildea et al., 2019; Whish-Wilson et al., 2016).

### 6.4.1 PROGRAM PERFORMANCE

- The ANFPP target for the percentage of infants born preterm is **7.6% or less**
- The ANFPP target for the percentage of infants born with low birthweight is **5% or less**

### 6.4.2 HOW WAS THE ANALYSIS PERFORMED

Babies are categorised as ‘low birthweight’ if their birthweight is less than 2,500 grams, 2500-4449grams are categorised as normal birthweight, and  $\geq 4500$ grams as high birthweight (Australian Institute of Health and Welfare, 2018a). The low birthweight category also includes babies that are very low birthweight (<1500g). This analysis includes births that occurred in the specified reporting year after the client had formally consented to the ANFPP. Multiple births are excluded. According to Australian Institute of Health and Welfare reporting, the low birthweight indicator reported “does not currently distinguish between preterm babies who are appropriate weight for gestational age and full-term babies who are small for gestational age” (Australian Institute of Health and Welfare, 2018a). However, the ANFPP low birthweight data excluding preterm births is also presented in this section.

Values shown are percentages of births with a low birthweight, calculated from the number of low birthweight births as a proportion of the total number of births with a recorded birthweight during the period. The same method is used to calculate rates of normal and high birthweights. Regions with less than five births in a given period are excluded from calculations.

Comparison data for low birthweight infants has been drawn from Australia’s Mothers and Babies 2018 In Brief (Australian Institute of Health and Welfare, 2020). It presents data for the 2018 calendar year.

## Does ANFPP meet its target for percentage of low birthweight births?

Table 27 shows the percentage of infants with low, normal and high birthweights from 2015/16 to 2019/20.

- The rate of low birthweight infants born in the ANFPP program in 2019/20 was 16.8% (LBW 15.5% + VLBW 1.3%) (Table 27). The low birthweight category includes very low birthweight infants. This was higher than the previous reporting period (13.2%) and more than three times the ANFPP target of <5%.
- After excluding preterm births, the rate of low birthweight in 2019/20 was 12% (Table 28)

The rate of low birthweight in the ANFPP has steadily increased since 2015/16 (Table 27). In 2019/20, the proportion of preterm births as a contributing factor to the overall low birthweight was 10% (29/297). This was lower than preterm birth rate of 17.6% reported in the ANFPP in 2018/19. National data for the rate of Indigenous preterm infants reported for 2018 was 14%, a proportion which has remained steady nationally for the previous 10 years (Australian Institute of Health and Welfare, 2020; Kildea et al. 2019).

**TABLE 28 PROPORTION OF VERY LOW/LOW/NORMAL/HIGH SINGLETON BIRTHWEIGHTS FOR ALL ANFPP PROGRAM SITES**

	Very Low <1500g		Low 1500-2449g		Normal 2500-4449g		High ≥4500		Reported Smoking (%)	Total Singleton Births
	n	%	n	%	n	%	n	%		
2015/16	*	1.9%	8	7.8%	92	89.3%	*	0.9%	41%	103
2016/17	*	1.6%	18	9.5%	168	88.4%	*	0.5%	44%	190
2018/19	*	1.6%	30	11.6%	214	83.2%	5	2%	39%	257
2019/20	*	1.3%	46	15.5%	242	81.4%	5	2%	40%**	297

\*Cell sizes less than 5; \*Cell sizes less than 5; \*\* This table cell has been reviewed & updated Feb 2021

**TABLE 29 PROPORTION OF VERY LOW/LOW/NORMAL/HIGH SINGLETON BIRTHWEIGHTS EXCLUDING PRETERM INFANTS FOR ALL ANFPP PROGRAM SITES**

	Very Low <1500g		Low 1500-2449g		Normal 2500-4449g		High ≥4500		Reported Smoking (%)	Total Singleton Births
	n	%	n	%	n	%	n	%		
2015/16	0	0	*	3.2%	90	95.7%	*	1.1%	22.3%	94
2016/17	0	0	6	3.5%	163	95.9%	*	0.6%	43%**	170
2018/19	0	0	13	6.2%	193	91.5%	5	2.4%	51%**	211
2019/20	*	0.4	31	11.6%	231	86.2%	5	1.9%	43%**	268

\*\*These table cells have been reviewed & updated Feb 2021

## Does ANFPP percentage of low birthweight births vary with Remoteness?

- In 2019/20, the percentage of low birthweight babies in the ANFPP was slightly higher in outer regional and remote (including very remote) areas (Figure 20).

FIGURE 20 ANFPP LOW BIRTHWEIGHT BIRTHS\* (%), 2019/20, BY REMOTENESS AREA

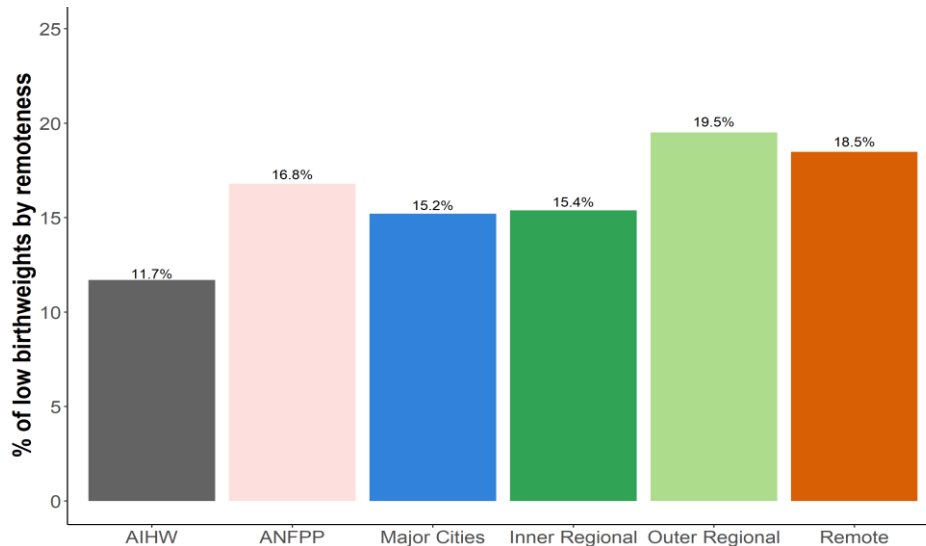
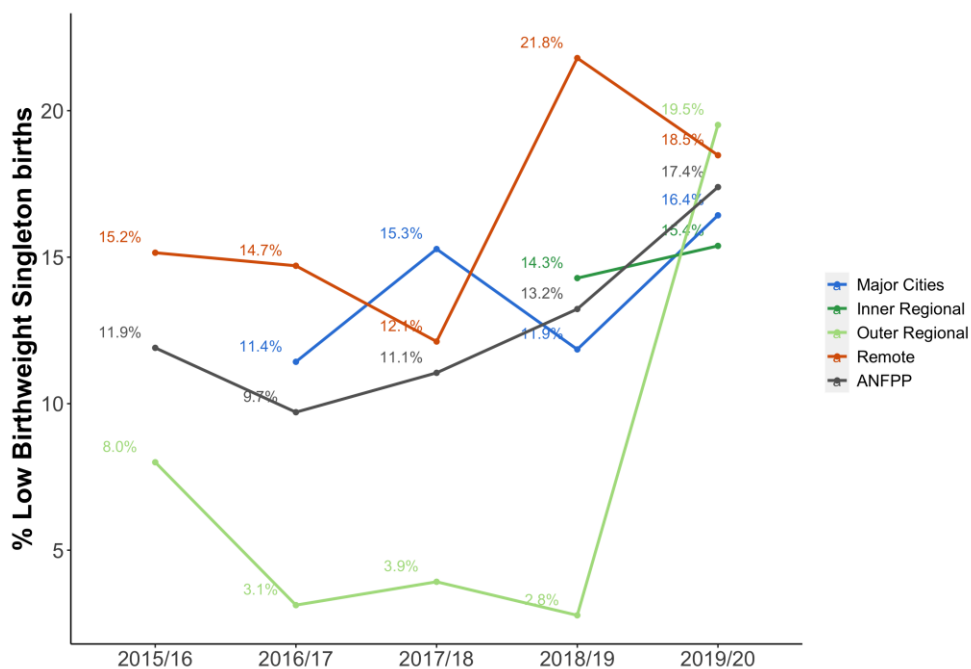


Figure 21 presents ANFPP trends in low birthweight over time by remoteness area. *The figure should be interpreted with caution.* In remoteness areas where numbers of births are low (Table 29), quite small numerical changes in low birthweight babies may appear significant when plotted as a trend.

FIGURE 21 ANFPP LOW BIRTHWEIGHT BIRTHS (%), 2015/16 TO 2019/20, BY REMOTENESS AREA



**TABLE 30 ANFPP LOW BIRTHWEIGHTS, 2016/17 - 2019/20, BY REMOTENESS AREA**

Remoteness Area	2016–17	2017–18	2018–19	2019–20
Major Cities	*	11/72 (15.3%)	16/135 (11.9%)	21/138 (15.2%)
Inner Regional	-	-	*	*
Outer Regional	*	*	*	8/41 (19.5%)
Remote	*	8/66 (12.1%)	17/78 (21.8%)	17/92 (18.5%)
<b>ANFPP: All Sites</b>	10/103 (9.7%)	21/190 (11%)	34/257 (13.2%)	50/297 (16.8%)

\*Cell sizes less than 5

#### 6.4.2 COMPARISON WITH NATIONAL LOW BIRTHWEIGHT DATA

- In 2019/20, the percentage of low birthweight babies in the ANFPP was 16.8% which was higher than the national average reported by the Australian Institute of Health and Welfare of 11.7%.

We assessed the rate of low birthweight births among clients who received at least five ANFPP home visits during pregnancy. In 2019/20 there were 159 clients who had a baby and received five or more visits during their pregnancy; the rate of low birthweight among this cohort was 14% (22/159) and normal birthweight was 85% (Table 30)\*. Among the women who had a baby and received less than five home visits during pregnancy (n= 113), the rate of low birthweight was 17% (19/113); 25 women who had a baby did not have home visits recorded and the rate of low birth weight among this group was high (9/25 = 36%).

It is hoped that if therapeutic relationships are strengthened in the ANFPP during scheduled home visits, the client may have a greater opportunity to address lifestyle risk factors for low birthweight e.g. smoking or nutrition.

**TABLE 31 PROPORTION OF LOW/NORMAL/HIGH BIRTHWEIGHT BIRTHS OF CLIENTS WHO RECEIVED AT LEAST 5 VISITS IN PREGNANCY (2019/20)**

	Low	Low %	Normal	Normal %	High	High %	Total Singleton Births
<b>2019/20</b>	22	14%	136	85%	1	1%	159

\* Text reviewed & updated Feb 2021

## 6.5 Smoking

Maternal smoking during pregnancy is associated with significantly poorer obstetric and perinatal outcomes and should be considered and managed as high risk (Li et al., 2019). Paternal smoking and passive smoking also increase adverse neonatal outcomes (Li et al., 2019). Smoking during pregnancy is associated with preterm birth, low birthweight and increased risk of perinatal death (Gould et al. 2017; Small et al., 2018), congenital anomalies, increased risk of miscarriage, stillbirth (Cope, 2015), increased incidence of neonatal intensive care admissions (Li et al., 2019), chronic lung disease (Gould et al., 2017), early behavioural difficulties and cognitive vulnerabilities (Tzoumakis et al., 2018), long-term neurological morbidity (Gutvirtz et al., 2018; Micalizzi & Knopik, 2018), reduced kidney volume, suboptimal lung development, increased risk of wheezing, asthma, infantile colic (Cope, 2015) and childhood adiposity (Cameron et al., 2013).

Cigarette smoke is a reproductive toxicant associated with maternal obstetric complications including miscarriage, placental abruption, placenta praevia, preterm labour, premature rupture of membranes and ectopic pregnancy (Gould et al., 2017; Leybovitz-Haleluya et al., 2018). Women who smoke are more likely to require emergency caesarean section due to foetal distress (Li et al. 2019) and experience postnatal complications including poorer wound healing, as well as shorter breastfeeding duration (Cope, 2015).

This section reports on 2019/20 ANFPP client tobacco smoking and presents also data from previous years.

The ANFPP smoking dataset is characterised by changes in data specifications over time, e.g. smoking is reported according to different question sets in ANKA and Communicare. As a result, few data items between the datasets can be aggregated for analysis. Here, the following questions are explored:

- What percentage of ANFPP clients self-reported smoking during pregnancy during the reporting period?
- What percentage of ANFPP clients self-reported as smoking during the reporting period, regardless of program phase?
- Was there a reduction in smoking among ANFPP clients who had their smoking status recorded at the beginning and end of their pregnancy.

National comparative data about smoking pregnancy during 2018 is available in Australia's Mothers and Babies 2018 In Brief report (Australian Institute of Health and Welfare, 2020).

### 6.5.1 PROGRAM PERFORMANCE

Smoking targets in the ANFPP Performance and Quality Framework are:

- A 25% reduction in the proportion of women smoking from intake to 36 weeks of pregnancy
- An average of 83% reduction in the number of women smoking five or more cigarettes per day between intake and 36 weeks of pregnancy. The available data for this group is scant.



## How was the Analysis Performed?

The percentage of clients currently smoking during pregnancy was calculated as a percentage of all valid smoking status records collected during the pregnancy phase.

For data collected through the Communicare DCS (v2.1 and v 2.5), valid smoking status records were those where a response (either yes or no) was recorded in a self-reported response to the question: *Have you smoked cigarettes at all during this pregnancy, even before you knew you were pregnant?* For data collected using ANKA, valid smoking status records were those where smoking status was indicated as one of 'Current Smoker', 'Ex-Smoker', or 'Never Smoked'. Records where the status was 'Declined to Answer' or 'Question not Asked' were excluded from the analysis. Additionally, records with no response were excluded.

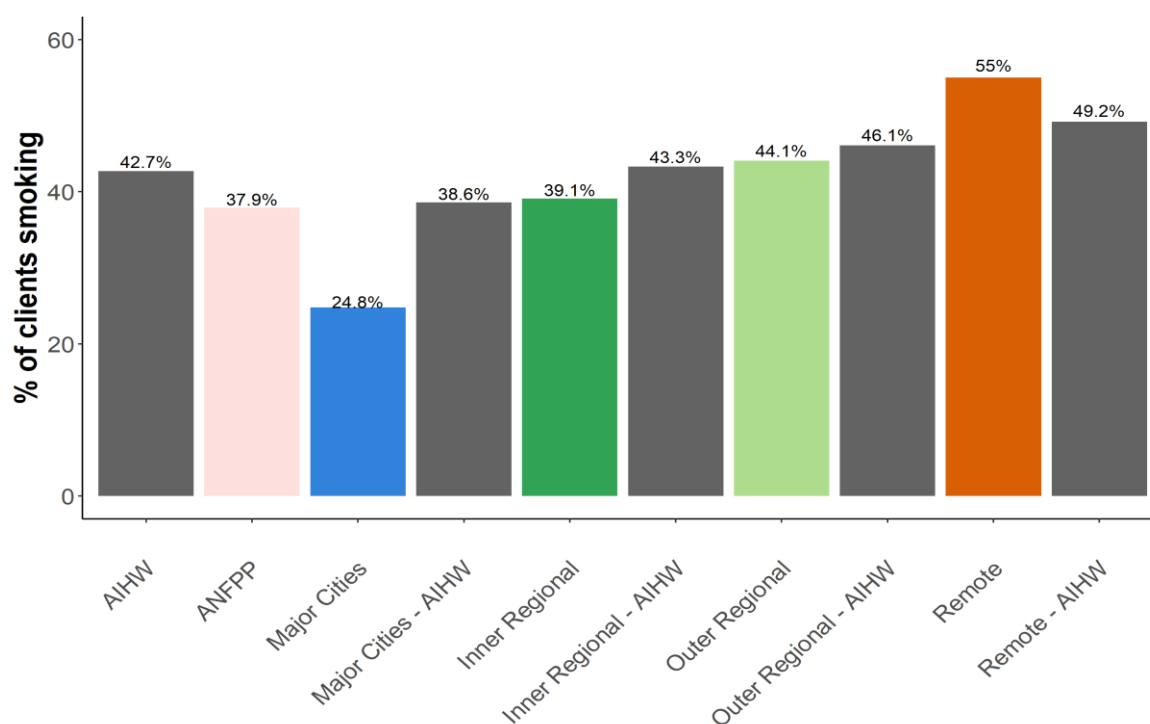
## Do ANFPP smoking rates vary with Remoteness?

Data on smoking in pregnancy was available for just over half (51%) of the 2019/20 ANFPP client cohort. Figure 22 and Table 31 show smoking rates for 2019/20, by remoteness area. Additionally, Figure 22 provides national Australian Health and Welfare comparison data on smoking during pregnancy for each remoteness area.

In the ANFPP, smoking rates during pregnancy ranged from 24.8% in major city areas to 53.4% in remote and very remote areas. The ANFPP smoking rate from aggregated remoteness areas was 37.9% (Table 31).

Figure 23 shows smoking rates for 2019/20, by remoteness area across all program phases.

FIGURE 22 ANFPP CLIENTS WHO SMOKED DURING PREGNANCY (%), 2019/20, BY REMOTENESS AREA



**TABLE 32 PROPORTION OF ANFPP CLIENTS WHO SMOKED AT SOME POINT DURING PREGNANCY BY PERIOD AND REMOTENESS CATEGORY**

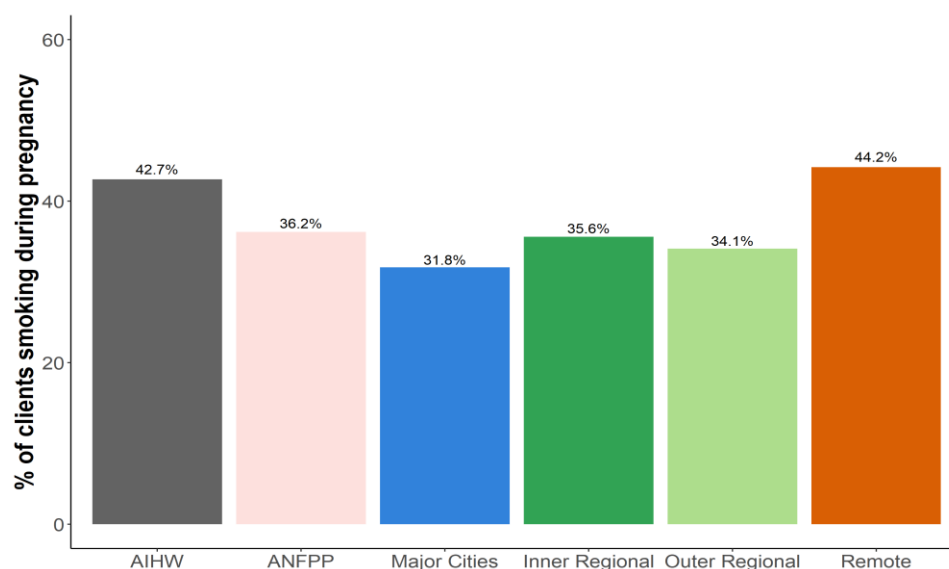
ANFPP % Clients Smoking <sup>^</sup> During Pregnancy					
Remoteness Area	2015–16	2016–17	2017–18	2018–19	2019–20
Major Cities	*	30.8% (n =26)	37.3% (n=59)	28.9% (39/135)	24.8% (26/105)
Inner Regional			*	22.7% (5/22)	39.1% (10/25)
Outer Regional	51.5% (n =66)	46.0% (n =50)	54.0% (n=50)	50.0% (27/54)	44.1% (15/34)
Remote	53.3% (n =30)	41.9% (n =31)	35.4% (n=48)	46.0% (29/63)	55% (40/73)
ANFPP: All Sites	52.0%	40.7%	43.9%	36.5% (100/274)	37.9% (89/237)

\*Total counts are < 5

<sup>^</sup>as a % of number of smoking status records. 2019/20, 237/468 (51%) data completeness

Cells are blank where no data is available for that Area and time period.

**FIGURE 23 ANFPP CLIENTS SMOKING (%), 2019/20, ACROSS ALL PROGRAM PHASES, BY REMOTENESS**



<sup>^</sup>Age standardised Indigenous smoking in Pregnancy rates. Source: AIHW NPDC

**TABLE 33 ANFPP PERFORMANCE AND QUALITY FRAMEWORK TARGETS: WOMEN WHO WERE ASKED ABOUT SMOKING AT THE BEGINNING AND END OF PREGNANCY n =57**

Indicator	Intake	36 weeks	% reduction
Reported smoking	28	19	32%
Smoked five or more cigarettes per day	14	10	29%

In 2019/20 there were 57 ANFPP clients who had their smoking status recorded at intake to the program and at 36 weeks of pregnancy. Nearly half (28/57) reported smoking at intake (Table 32). There was a 32% reduction in smoking among this group of women at 36 weeks. Data on number of cigarettes smoked per day was available for a very small number of clients.

## 6.6 Child Development

In the ANFPP, *Ages and Stages Questionnaires* (ASQ) are used to monitor child development outcomes for infants. The ASQ is a parent-reported standard developmental screening instrument (Kerstjens et al. 2009) with items in five domains: (i) communication, (ii) gross motor, (iii) fine motor, (iv) personal/social and (v) problem solving. ASQ assessment produces a score for the child in each of the five domains. For each item, YES, SOMETIMES, or NOT YET can be marked for each item response. YES = 10 points; SOMETIMES = 5 points; NOT YET = 0 points. The maximum score for normal development in each domain is 60, and most children are expected to be at that level.

In most cases, these questionnaires accurately identify children who may need further evaluation to assess if they require early intervention services.

In the ANFPP, children are screened using the ASQ on four occasions, at or as close as practicable to the following timepoints:

- Infancy phase at 4 months
- Infancy phase at 10 months
- Toddlerhood phase at 14 months
- Toddlerhood phase at 20 months.

### 6.6.1 PROGRAM PERFORMANCE

The ANFPP Performance and Quality Framework does not state specific ASQ-related program targets.

### 6.6.2 HOW WAS THE ANALYSIS PERFORMED?

In this analysis, mean and median values were calculated for each of the five domains within the ASQ. Minimum and maximum scores are presented as well as standard deviations which provides an indication of the spread of the scores within the sample around the mean value. Because most children in the program are expected to be developing normally, mean and median scores out of 60 are also expected to be high. The distribution of results within each of the five ASQ domains are presented.

### 6.6.3 PERCENTAGE OF INFANTS AT FOUR MONTHS FALLING BELOW MILESTONES?

In 2019/20, out of 170 ANFPP infants aged 4 months with data available (Table 33), most infants scored above the cut-off score for further developmental assessment or referral. Fourteen infants (8%) scored below the cut-off for the fine motor domain and six infants (3%) were below the cut-off score in the personal/social domain. There were very few infants (<3%) who fell below the cut-off score in the communication, gross motor and problem-solving domains.

**TABLE 34 AGES AND STAGES QUESTIONNAIRE SCORES, 2019/20, INFANCY AT 4 MONTHS (n = 170)**

PARAMETER	Mean	n	Min	Max	Median	SD	Cut-off score	Below cut-off score, n (%)*
Communication	55.1	170	30	60	60.0	6.4	34.6	(<3%)
Gross Motor	54.2	170	15	60	60.0	8.9	29.6	(<3%)
fine motor	53.4	170	10	60	60.0	9.8	38.4	14 (8%)
Personal/Social	54.2	170	25	70	50.0	8.3	33.2	6 (3%)
Problem-Solving	55.3	170	20	60	60.0	7.7	35.0	(<3%)

\*numerical values <5 not presented

### 6.6.4 PERCENTAGE OF INFANTS AT TEN MONTHS FALLING BELOW MILESTONES?

At 10 months, of 98 children with data available, there were no children who scored below the cut-off for further assessment or referral in the communication domain, while 10% scored below the cut-off in the gross motor domain (Table 34). In the remaining domains, <5 children were below the cut-off.

**TABLE 35 AGES AND STAGES QUESTIONNAIRE SCORES, 2019/20, INFANCY AT 10 MONTHS (n = 98)**

PARAMETER	Mean	n	Min	Max	Median	SD	Cut-off score	Below cut-off score, n (%)*
Communication	54.5	98	30	60	55.0	6.9	22.9	0
Gross Motor	51.6	98	10	60	60.0	12.4	38.0	10 (10%)
Fine motor	55.3	98	30	60	60.0	8.0	30.1	(<3%)
Personal/Social	53.6	98	20	60	55.0	8.2	27.2	(<3%)
Problem-Solving	53.0	98	6	60	55.0	8.9	32.5	(<5%)

\*numerical values <5 not presented

### 6.6.5 PERCENTAGE OF TODDLERS AT 14 MONTHS FALLING BELOW MILESTONES?

At 14 months, of 81 toddlers with data available, there were 12 toddlers (15%) who scored below the ASQ cut-off score for further assessment or referral in the fine motor domain, 9 (11%) scored below in the gross motor domain and 7 (9%) in the personal/social domain (Table 35).

**TABLE 36 AGES AND STAGES QUESTIONNAIRE SCORES, 2019/20, TODDLERHOOD AT 14 MONTHS (n = 81)**

PARAMETER	Mean	n	Min	Max	Median	SD	Cut-off score	Below cut-off score, n (%)*
Communication	49.9	81	10	60	50.0	10.8	25.17	(<5%)
Gross Motor	53.4	81	10	60	60.0	11.2	38.07	9 (11%)
Fine motor	49.8	81	10	60	50.0	11.3	35.16	12 (15%)
Personal/Social	51.5	81	10	60	55.0	11.5	31.54	7 (9%)
Problem-Solving	50.0	81	10	60	50.0	9.8	29.78	(<3%)

\*numerical values <5 not presented

### 6.6.6 PERCENTAGE OF TODDLERS AT 20 MONTHS FALLING BELOW MILESTONES?

In 2019/20, of 24 children with data available, nearly all the children tested at 20 months scored above the cut-off scores for further assessment or referral and in all the ASQ domains (Table 36).

**TABLE 37 AGES AND STAGES QUESTIONNAIRE SCORES, 2019/20, TODDLERHOOD AT 20 MONTHS (n = 24)**

PARAMETER	Mean	n	Min	Max	Median	SD	Cut-off score	Below cut-off score, n (%)*
Communication	48.8	24	35	60	50.0	8.3	13.1	0
Gross Motor	54.1	24	35	60	60.0	7.9	34.3	0
fine motor	54.7	24	30	60	60.0	7.2	37.4	(<5%)
Personal/Social	50.3	24	40	60	55.0	7.1	27.2	0
Problem-Solving	55.0	24	35	60	57.5	7.8	25.7	0

\*numerical values <5 not presented

## 7.0 Notable changes impacting the ANFPP during 2019/20

The 2019/20 reporting period has been a year that has seen considerable change for the ANFPP.

Since commencement of the ANFPP program in 2009, the Australian Government Department of Health (the Department) has engaged an organisation to provide program education and support.

In February 2020 the new ANFPP National Support Service was awarded to Charles Darwin University, to commence operation July 1<sup>st</sup>, 2020 following five months of transition. The service is directed by Professor Sue Kruske and sits under the auspices of the Molly Wardaguga Research Centre within the College of Nursing and Midwifery at Charles Darwin University.

From March 2020, the transition period from the NPC to the NSS has been impacted by the COVID-19 pandemic. The Australian experience of the pandemic has seen the introduction of measures aimed at preventing spread of the virus. Life-style changes for many Australians have included social distancing, travel restrictions, and state border closures.

All ANFPP sites rapidly responded to the COVID-19 pandemic and utilised innovative methods to deliver the program with continuity and fidelity to the Core Model Elements. Innovations varied based on local protocols, location, organisational policy, community needs, client availability and team capacity.

Telehealth and videoconferencing technology were utilised widely, and anecdotal feedback was received stating that clients accepted “virtual” visits in place of their usual home visit from the home visiting team members. Some sites reported an increase in contact frequency for a number of clients via the telephone and videoconference, whilst many reported that in the early stages of COVID-19 restrictions, clients required support accessing food and necessities. It was reported that many clients had more economic stability once the supplementary Centrelink payments commenced.

The ANFPP team members must be applauded for their continuing high-quality care of clients and their families during these difficult times, for some families the ANFPP Nurse Home Visitors and Family Partnership Workers were their only contact with professionals or support organisations. Some referral agencies have stated that the ANFPP teams were well placed to support families when other mainstream services may have been restricted due to lock down policies.

Despite the requirements for some sites to redeploy some ANFPP team members, a majority of clients continued to receive the program and additional support as required.

## 8.0 Conclusions and recommendations

Data presented in the 2019/20 National Annual Data Report were provided by 13 ANFPP program sites. The NPC stored and cleaned the site data and provided an interim data report to the DOH in April 2020. This updated report was collated by the NSS in the weeks following the establishment of the new ANFPP support service using a reporting template developed by the NPC. The NSS acknowledges these contributions from the NPC.

The NSS also acknowledges the scope for improvements to ANFPP data quality and reporting. Effective health service delivery and quality data are linked. In the coming months and years, the NSS looks forward to working with the ANFPP program sites and the DOH using a continuous quality improvement framework to develop mechanisms to:

1. provide accurate information to the ANFPP sites about the degree to which the program is being implemented as intended when measured against 15 Core Model Elements, and
2. ensure high quality robust data to monitor and evaluate the impact of the ANFPP on improving outcomes for Aboriginal and Torres Strait Islander families who participate in the program.

As such, the NSS presents the following considerations to inform continuous quality improvements (CQI) moving forward by:

- Ensuring the NSS data and education teams work together cohesively to provide the best possible consistent support to ANFPP program sites
- Including additional educational modules in the ANFPP curriculum to promote a culture of quality data and respect for the effort taken by program sites to produce it
- Increase efforts to raise the program profile to encourage early referrals to maximise program dosage, effectiveness and program monitoring
- Facilitating and supporting the use of local data for local CQI activities
- Re-establishment of the ANFPP 'Data User Group' to inform enhancement of the content and format of the ANFPP quarterly (fidelity) reports
- Providing high quality data support and helpdesk services to program sites to maintain data accuracy, timeliness and utility by e.g. streamlining exception reports, introducing a data enquiry ticketing system
- Using qualitative data collection and analysis methods to provide depth and detail to reporting while protecting the privacy and confidentiality of program participants and sites
- Developing indicators that reflect positive impacts the ANFPP program can promote among participants e.g. cultural growth and empowerment.

This report has provided an overview of ANFPP activities and health outcomes during the 2019/20 financial year. It also provides data for the ANFPP duration that shows the expansion and development of the program over time. ANFPP data suggests the program has continued to meet the needs of Aboriginal and Torres Strait Islander women and families, providing support and education particularly targeting those having a child for the first time. Additionally, the 2019/20 annual data report provides an opportune platform to review the function and effectiveness of ANFPP data collection, analysis and reporting moving forward.



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## 10.0 Appendices

### Appendix 1: ANFPP Site Profiles

**TABLE 38 AUSTRALIAN NURSE AND FAMILY PARTNERSHIP PROGRAM SITES, ASSOCIATED INDIGENOUS AREA, ABORIGINAL AND TORRES STRAIT ISLANDER POPULATION PROFILE, AND REMOTENESS STRUCTURES**

ANFPP Program Sites	Service Area	State	ABS Remoteness Structure
<b>ANFPP Metropolitan Site UIIH covers Brisbane South</b>	Brisbane City	QLD	Major Cities of Australia
	Logan City	QLD	Major Cities of Australia
	Redlands	QLD	Major Cities of Australia
<b>ANFPP Metropolitan Site UIIH covers Brisbane North</b>	Redcliffe	QLD	Major Cities of Australia
	Brisbane City	QLD	Major Cities (with some Inner regional, outer regional patches)
	Pine Rivers	QLD	Major Cities (with inner regional patches)
	Caboolture	QLD	Major Cities (with inner regional patches)
<b>Winnunga Nimmityjah Aboriginal Health Clinic/Health Service (ACT)</b>	Canberra–North	ACT	Major Cities
	Canberra–South	ACT	Major Cities
<b>Danila Dilba Biluru Butji Binnilutlum Health Service Aboriginal Corporation</b>	Palmerston	NT	Outer Regional Australia
<b>Nunkuwarrin Yunti of South Australia</b>	Playford	SA	Major Cities of Australia
	Port Adelaide - Enfield	SA	Major Cities of Australia
<b>Wuchopperen Health Service</b>	Cairns	QLD	Outer Regional Australia
	Cairns–Southern Hinterlands	QLD	Outer Regional Australia
<b>WACHS (Wellington and Greater Western Aboriginal Health Services)</b>	Dubbo	NSW	Inner Regional Australia
	Gilgandra	NSW	Outer Regional Australia
	Narromine	NSW	Outer Regional Australia
	Wellington	NSW	Outer Regional Australia
	Blacktown	NSW	Major Cities of Australia
<b>Durri Aboriginal Corporation Medical Service</b>	Kempsey	NSW	Inner Regional Australia

ANFPP Program Sites	Service Area	State	ABS Remoteness Structure
<b>ANFPP Metropolitan Site IUIH covers Brisbane South</b>	Brisbane City	QLD	Major Cities of Australia
	Logan City	QLD	Major Cities of Australia
	Redlands	QLD	Major Cities of Australia
<b>Rumbalara Aboriginal Cooperative</b>	Campaspe–Shepparton–Moirā	Vic	Inner Regional Australia
<b>Central Australian Aboriginal Congress Inc.</b>	Alice exc. Town Camps	NT	Remote Australia
	Alice Springs Town Camps	NT	Remote Australia
<b>Top End Health Services (NT Government)</b>	Maningrida and Outstations	NT	Very Remote Australia
	North-West Arnhem	NT	Very Remote Australia
	Thamarrurr inc. Wadeye	NT	Very Remote Australia
	Tiwi Islands	NT	Very Remote Australia
<b>Wurli Wurlinjang Aboriginal Corporation</b>	Katherine Town	NT	Remote Australia
<b>NT Government</b>	Hermannsburg	NT	Very Remote Australia