

UNFOLDING INFORMATION NEEDS TO IMPROVE THE UTILIZATION OF ANTENATAL CARE SERVICES: A DESCRIPTIVE CASE STUDY IN THE WESTERN CAPE

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DECLARATION

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ABSTRACT

Background: The utilization of Antenatal care (ANC) is essential for better outcomes in pregnancy, birth and motherhood. ANC is regarded as specialised care that is available to pregnant women from conception until birth. The provision of this care prepares pregnant women for birth and motherhood while detecting health problems, risk factors and complications.

Booking in this study refers to the first antenatal visit whereby a complete maternal history-taking, physical examination, gestational age and risk assessment is done (Republic of South Africa, 2007:20). The preferred booking time must be in the first three months of the pregnancy (after the second period is missed) and the minimum number recommended for basic antenatal care (BANC) follow up visits in low risk pregnancies are seven, which is at 20, 26-28, 30-32, 34, 36, 38 and 40. Each year in Africa 30 million women become pregnant while around 250,000 women die of pregnancy-related causes. Globally, approximately 56% of pregnant women attend the recommended minimum of four antenatal care visits. The other 44% either utilize the services too late or not at all.

This study was based in a rural level one hospital where pregnant women utilize the basic antenatal care (BANC) services late or not at all. A reduced interest and uptake of ANC were observed in Saldanha sub-district, West Coast region of the Western Cape.

Purpose: The aim of the study was to explore the factors that influenced the utilization of BANC services while understanding how information could be utilized to enhance the uptake of BANC services, in order to improve maternal and neonatal outcomes in Saldanha sub-district.

Methods: The study utilized a qualitative methodology with a single case study approach with embedded units of analysis. The population for this study was all the pregnant women who booked after 32 weeks of pregnancy as one unit of analysis, and midwives working in the labour ward where the women delivered and midwives who provided the antenatal care in the clinics as another unit of analysis. In-depth interviews were conducted with nine (9) un-booked and two (2) late booked pregnant women. A further eleven (11) midwives participated in the two focus group discussions and two (2) individual interviews which were conducted.

Findings: The study found that pregnant women were subjected to personal, social, economic and institutional factors that prevented them from using the recommended BANC services. Personal feelings that influenced the motivation, and institutionally based factors like access to services and waiting times, were revealed as barriers. The study further revealed a variety of information needs that pregnant women have and methods to disseminate the information. Information such as the availability of the recommended services, the competency levels of the healthcare workers, communication skills, attitude and support were identified.

Conclusion: Personal, social and institutional barriers to the recommended BANC services were identified, which could serve as an indicator for change in the Sub-district. These findings will be submitted to the West Coast district health services that could assist in the process of future planning towards objectives to improve the utilization of such services by pregnant women.

Keywords: Information needs, basic antenatal care services, pregnant women, midwives.

OPSOMMING

Agtergrond: Die gebruik van voorgeboorte sorg (VGS) is belangrik vir die uitkomst en resultate van swangerskap, geboorte en moederskap. VGS word beskou as gespesialiseerde sorg wat beskikbaar is vir swanger vroue vanaf bevrugting tot geboorte. Die voorsiening van die sorg berei swanger vroue voor vir die geboorte proses en moederskap terwyl die voorkoms van gesondheidsprobleme, risiko faktore en komplikasies gemonitor word.

Bespreking vir swangerskap verwys na die eerste voorgeboortesorg besoek waartydens n volledige geskiedenis, fisiese ondersoek, gestasie bepaling en risiko gradering gedoen word (Republiek van Suid Afrika, 2007:20). Die verkieslike besprekingstyd moet in die eerste drie maande van swangerskap geskied (nadat die tweede menstruasie gemis is) en die minimum aantal opvolg besoeke moet sewe wees (20, 26-28, 30-32, 34, 36, 38, en 40 weke gestasie). Elke jaar word 30 miljoen vroue swanger in Afrika en ongeveer 250,000 vroue sterf aan swangererskap verwante oorsake. Globaal woon ongeveer 56% van swanger vroue die aanbevele vier minimum VGS besoeke by terwyl die ander 44% die dienste laat of nooit gebruik nie.

Die studie was gebaseer op n landelike vlak een hospitaal waar swanger vroue die geneigdheid het om laat te bespreek vir basiese voorgeboorte sorg of om glad nie te bespreek nie. Min belangstelling en gebruik van voorgeboorte sorg was waargeneem in Saldanha sub-distrik.

Doel: Die doel van die studie was uit te vind watter faktore die gebruik van voorgeboorte sorg beïnvloed om te verstaan hoe informasie gebruik kan word om die gebruik van voorgeboorte sorg aan te moedig ten einde die moederlike en neonatale uitkomst of resultate te verbeter in Saldanha sub-distrik.

Metode: n Kwalitatiewe metodologie was gebruik met n enkel gevalle studie benadering. Die populasie was alle onbespreekte of laat bespreekte (na 32 weke) swanger vroue as een eenheid van ontleding, vroedvroue van die kraamsaal en voorgeboorte klinieke as n ander eenheid van ontleding. Nege (9) onbespreekte, twee (2) laat bespreekte swanger vroue het deelgeneem in die indiepte onderhoude en elf (11) vroed vroue het deelgeneem in die twee fokus groep besprekings en twee (2) indiepte onderhoude.

Resultate: Die studie het bevind dat swanger vroue onderwerp is aan persoonlike, sosiale, ekonomiese en institusionele faktore wat die gebruik van voorgeboorte sorg verhoed. Persoonlike gevoelens wat hul motivering beïnvloed tot instansie gebaseerde faktore soos toegang en lang wagperiodes was geïdentifiseer as hindernisse. Die studie het ook verskeie informasiebehoeftes en maniere om die informasie te versprei aan die lig gebring. Informasiebehoeftes soos die beskikbaarheid van dienste, vaardigheid van die gesondheidswerkers, kommunikasie vaardighede, gesindheid, houding en ondersteuning was geïdentifiseer.

Afsluiting: Persoonlike, sosiale en institusionele hindernisse tot voorgeboorte sorg was geïdentifiseer wat kan dien as indikatore vir veranderinge in die Sub-distrik. Die bevindinge sal voorgele word aan die Weskus Gesondheidsdistrik bestuur wat kan help in die proses van toekomstige beplanning van doelwitte om die gebruik van VGS deur swanger vroue te verbeter.

Sleutelwoorde: Informasie behoeftes, Basiese voorgeboorte sorg, swanger vroue, vroedvroue

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ABBREVIATIONS

BANC	Basic Antenatal Care
WHO	World Health Organisation
FY	Financial Year
MMR	Maternal Mortality Ratio
IMR	Infant Mortality Ratio

1. CHAPTER ONE

FOUNDATION OF THE STUDY

1.1 Introduction

This study was conducted in a rural level-one hospital setting, where a large percentage of pregnant women attend the antenatal clinics late in pregnancy for the first time, or do not attend at all. Booking in this study refers to the first antenatal visit whereby a complete maternal history-taking, physical examination, gestational age and risk assessment is done (Republic of South Africa, 2007:20). Antenatal care (ANC) is specialised care that is provided to pregnant women from confirmation of conception until she is in labour (Frazer, Cooper & Nolte, and 2010: 231). Frazer et al. (2010:231) further elaborates that ANC provides essential basic care that prepares pregnant women for birth and motherhood. It aims at monitoring the complete progress of the pregnancy from conception to detect possible health problems, risk factors, and complications (Fraser et al., 2010:231).

The researcher, who is a male midwife, has observed that there is reduced uptake of BANC in the Saldanha sub-district, West Coast district of the Western Cape. There was no research found addressing the reasons for not booking or booking late in the Saldanha sub-district. Subsequently, the researcher explored the phenomenon of unbooked and late booked pregnancies in the Saldanha sub-district, West Coast district, Western Cape.

1.2 Significance of the problem

According to the Guidelines for Maternity care in South Africa (2007:2), maternal healthcare has been identified as one of the priorities in reproductive health issues requiring urgent attention in South Africa. The confidential enquiry into maternal death (2012) has revealed that non-existent or poor ANC equals to 3.5% from the top ten preventable barriers associated with perinatal deaths in rural areas of South Africa.

Pattinson (2004:7) emphasises that the preferred booking time must be in the first three months of the pregnancy (after the second period is missed). According to the World Health Organisation (WHO) (2006:1) and Pattinson (2004:11) the minimum number recommended for basic antenatal care (BANC) follow-up visits in low risk pregnancies was four, which is at 20, 28, 32 and 38 weeks of gestation. These follow-

up visits have been increased to seven since 2016, which is 20, 26-28, 30-32, 34, 36, 38 and 40. A minimum of eight (8) ANC contacts have been recommended for implementation by 01 April 2017 by the Department of Health South Africa, after the previously four recommended visits were found to be ineffective with little or no effect (WHO, 2016:101). The report on recommendations (WHO, 2016:1) revealed that 303 000 women and adolescent girls died in 2015 during pregnancy or childbirth and 2.6 million babies were stillborn. The report further elaborates that evidence exists of effective interventions that can prevent and treat life-threatening maternal and neonatal complications.

The Global Health Observatory (GHO) data (WHO, 2015:1) reveals that globally, during the period 2006 to 2013, about 56% of pregnant women attended the recommended minimum of four antenatal care visits. The other 44% either booked too late or did not return for follow up visits.

Data from the West Coast district office (Department of Health, 2015) revealed that in the financial year 2014/2015, the number of ANC bookings in the Saldanha Sub-district was 1,766. Appendix ten is a display of the total bookings in the Sub-district for the financial year 2014/2015.

The total that booked before the recommended 14 weeks of gestation were 693 (39.2%), between 14 and 20 weeks of gestation were 433 (24.5%) and after 20 weeks of gestation were 640 (36.2%). After 20 weeks of gestation, totals can represent any gestation from 20 weeks to 40 weeks. The total that booked for the whole of 2014/15 was 1766. See graphs of different booking gestations on Appendix ten to fifteen pages 150 to 155.

Data from the FY 2015/16 (Appendix four page 154) were also used to illustrate the significance of the problem. The data also reveals that the problem is still a reality and it proves that the problem does exist. The total that booked before the recommended 14 weeks of gestation was 613 (40.8%), between 14 and 20 weeks of gestation was 373 (24.8%) and after 20 weeks of gestation was 514 (34.2%). The total that booked for the whole of 2015/16 was 1500.

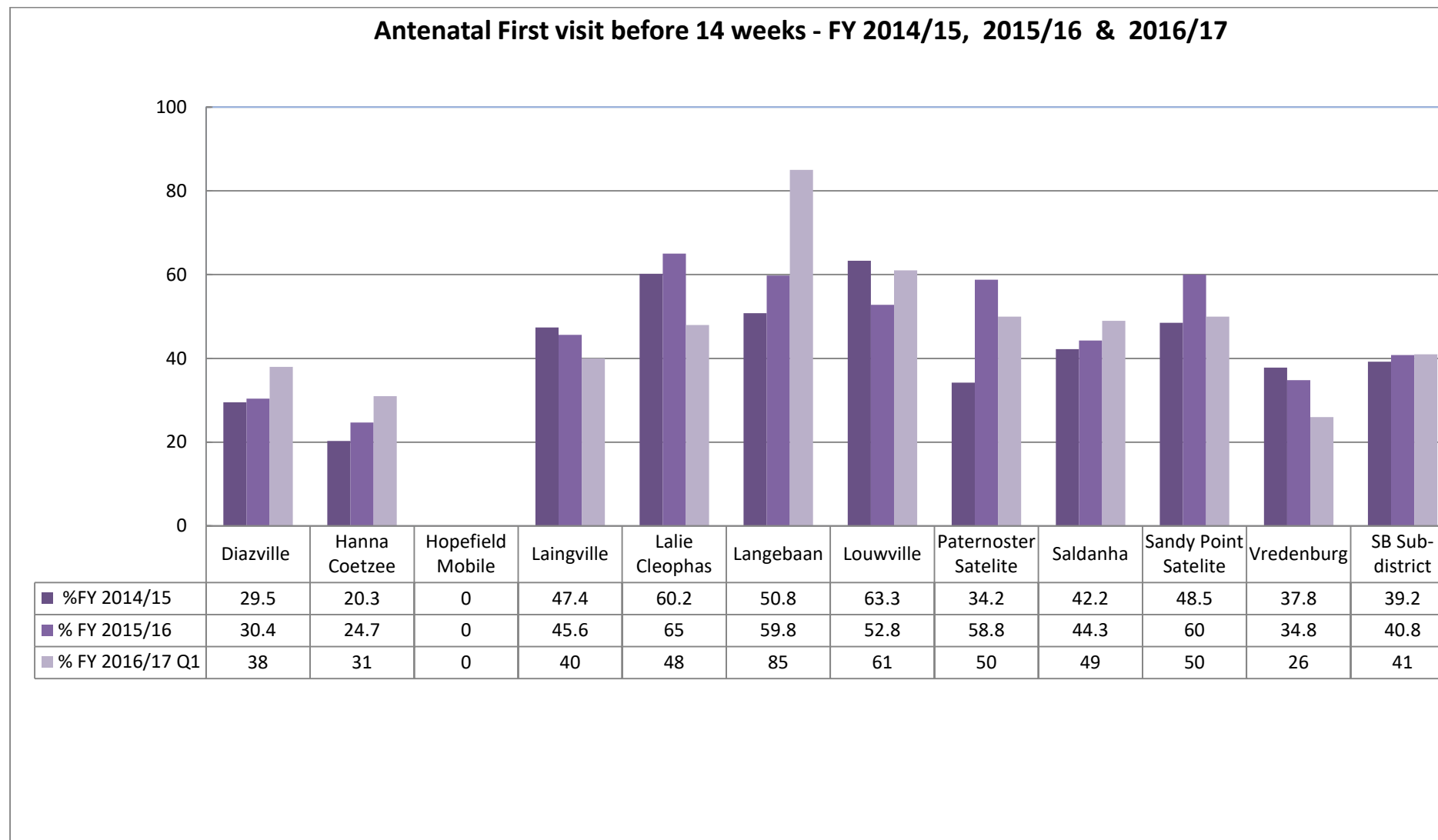
The graphs display the total bookings before 14 weeks, 20 weeks and after 20 weeks' gestation per facility for the financial year (FY). It also displays the total bookings for the whole FY and also the percentage per facility for that specific gestation.

The pregnant women in Saldanha Sub-district did not adequately utilize the ANC service although the recommended number of ANC visits was reduced to four. Now that the number of follow-up visits has increased to seven, there is an even greater need for focused implementation to improve utilization.

The antenatal booking or antenatal first visit data from the two financial years were used to emphasize the significance of the existing problem. The above illustrated graphs display that the preferred booking time of before 14 weeks of gestation is not adhered to.

Below is an illustration of the preferred first visit of before 14 weeks of gestation of the financial years 2014/15 to 2016/17. The illustration also indicates the total per facility. Most of the facilities presented a preferred booking percentage of less than 50%. This also indicated the significant issue that most of the pregnant women still book late. The total percentage early booking in the sub-district is between 39.2% and 41%.

Graph 1: Antenatal booking before 14 weeks for FY 2014/15, 15/16 & Q1 2016/17



Source: West Coast District data (2016)

According to the Department of Health (West Coast District Information Management, 2015) the Saldanha sub-district has a total population of 108187. Below is a display of the total population per town that each clinic in the sub-district serves that add up to the total.

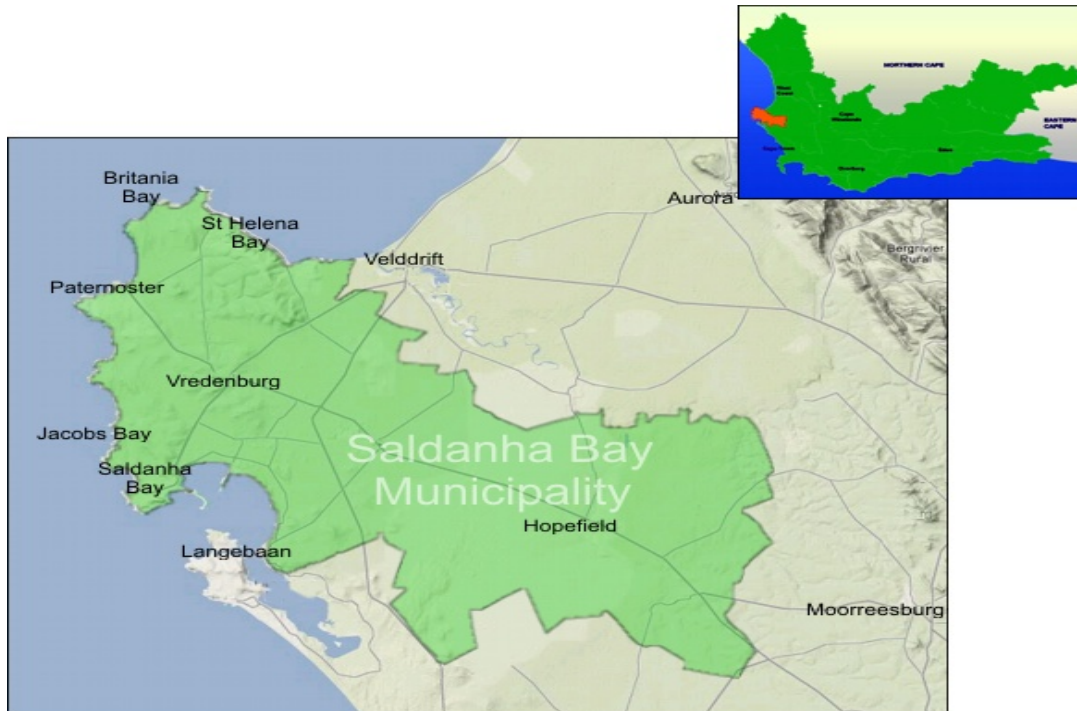
Table 1: Saldanha Sub-district population (2015)

Saldanha Bay Local Municipality	% of total	Saldanha sub-district Total pop : 108187
1. Saldanha Bay		
❖ Saldanha Clinic	12.1	13055
❖ Diazville Clinic	16.2	17543
2. Vredenburg/Paternoster		
❖ Hanna Coetzee Clinic	17.3	18703
❖ Louwville Clinic	12.6	13665
❖ Vredenburg Clinic	8.2	8895
❖ Paternoster Satellite Clinic	3.8	4130
❖ Vredenburg Mobile	0.0	1
❖ Vredenburg Chemphos	0.0	15
3. St Helena Bay/Sandy Point		
❖ Laingville Clinic	9.7	10498
❖ Sandy Point Satellite Clinic	3.0	3227
4. Langebaan		
❖ Langebaan Clinic	8.4	9038
5. Hopefield		
❖ Lalie Cleophas Clinic	8.4	9134
❖ Hopefield Mobile	0.3	280
	100	108187

Source: Hospital data (2015)

The sub-district has eight clinics and two satellite clinics providing antenatal care distributed in seven towns around the hospital, as illustrated below, that pregnant woman have access to.

Figure 1: Saldanha Sub-district map



Source: Hospital data (2015)

Vredenburg Hospital is situated in Saldanha sub district which is one of the five sub-districts in the West Coast district as illustrated on the (figure 2) below. The West Coast district is one of the six districts in the Western Cape.

Figure 2: West Coast district map



Source: Hospital data (2015)

The utilization of ANC affects or influences birth outcomes (Pattinson, 2016:5). The labour ward maternity register from Vredenburg Provincial Hospital (2015) revealed that the complications of the un-booked and late booked pregnancies during the period of January 2014 to January 2015 were: premature labour, intra-uterine growth restriction, intra-uterine deaths; or stillborn (which may or may not be related to late booking or being un-booked). Other problems included undetected pregnancy-induced hypertension, preeclampsia and defaulting chronic HIV or hypertension treatment. Some of these patients gave birth at home with complications of third degree tears, post-partum haemorrhage and neonatal complications, such as premature babies with severe respiratory distress. This could be attributed to the low rates of ANC attendance which influences birth outcomes.

1.3 Rationale

During the time I worked as a midwife in the labour ward at Vredenburg Provincial Hospital from 2006 to 2016, I observed that the outcomes of pregnancy were influenced by whether or not the women received antenatal care. Even if the total number of women who delivered as un-booked was 3.6%, the outcomes of these deliveries were poor and required attention. Bookings after the recommended 14 weeks of gestation were also observed as illustrated above. Furthermore, the World Health Organisation's Global Health Observatory data survey (2015:1) revealed that about 800 women died every day during 2013 due to pregnancy and childbirth complications.

From the total of 68 un-booked pregnant women that presented to the labour ward during the period of January 2014 to January 2015, about 50 had poor maternal and neonatal outcomes (Vredenburg Hospital, 2015). The effect thereof was avoidable conditions as indicated in Tables 9 and 10 and more than one condition was applicable to one patient (maternal or/and neonatal).

The tables (table 2 & 3) below illustrate the type of maternal and neonatal complications that presented with the un-booked pregnancies during the period of January 2014 to January 2015. It also illustrates how many were affected by the different complications and what age group they were.

Table 2: Maternal complications

CONDITION	DESCRIPTION (age between 15 - 40 years old)	TOTAL/68
Premature labour	Labour between 32 weeks and 36 weeks of gestation. Aged between 16 and 33.	15 (22.0%)
Intra uterine growth restricted pregnancies (IUGR)	Pregnancies are more than 38 weeks of gestation according to their last normal menstruation (LNM) with small for gestation babies. Aged between 18 and 40.	16(23.5%)
Pregnancy induced hypertension (PIH)	Undetected hypertension that started during pregnancy without treatment. Age 35 and 39.	2 (2.9%)
Gestational proteinuria and hypertension (GPH)	Undetected hypertension and proteinuria that were induced during pregnancy without being on treatment. Age 19 and 39.	2 (2.9%)
HIV Positive	Test was positive on admission (possibly positive during pregnancy without antiretroviral treatment). Aged between 22 and 29.	5 (7.3%)
VDRL positive	Test was positive on admission (possibly positive during pregnancy without treatment). Age 20 and 32.	2 (2.9%)
Default on chronic medication	Patients on hypertension and HIV treatment started before pregnancies that did not continue on their medication during pregnancies. Age 35 and 24.	2 (2.9%)
Born before Arrival (BBA)	Mothers give birth at home without expert supervision, treatment and care. Aged between 15 and 40.	28 (41.1%)
Post-partum Haemorrhage	Bleeding after delivery after home birth without expert supervision, treatment and care. Age 19 and 24.	2 (2.9%)
3 rd Degree tear	Tear through the anal sphincter muscle after delivery after home birth without expert supervision, treatment and care. Age 34 and 28.	2 (2.9%)
Stillborn deliveries	Delivery of stillborn infants of between 1000grams and 3340grams. Aged between 15 and 28.	7 (10.2%)

Source: Hospital data (2015)

Table 3 : Neonatal complications

CONDITION	DESCRIPTION	TOTAL/68
Low birth weight infants (LBW)	Weight at birth was between 1600gr and 2500gr	27 (39.7%)
Intra uterine growth restricted (IUGR) infants	Infants were small for gestation at birth	10 (14.7%)
Respiratory Distress Syndrome (RDS)	Infants had signs of respiratory distress or difficulty in breathing at birth	11 (16.1%)

Source: Hospital data, 2015

The study was conducted to determine the reasons why pregnant women do not book or book late for these essential ANC services. The objective was also to enquire on the information needed to improve the utilization of ANC. By introducing identified health needs in the form of health promotion/education initiatives may alleviate uncertainty and increase knowledge levels of health care users in the community. This intervention may be beneficial to the hospital, sub-district and district because this study identified areas of concern and generated knowledge on areas for change. This can also benefit the users of maternal healthcare as the results may be utilized as indicators to improve the services.

1.4 Research problem

Pregnant women presenting in labour in Vredenburg Hospital booked late for ANC and a notable percentage of 3.6% did not book at all. The inadequate or lack of ANC for pregnant women resulted in poor intra-natal and postnatal outcomes in the Saldanha sub-district, West Coast district. The researcher could not find any literature related to the specific context that could advise interventions to improve the utilisation of ANC services in the Saldanha sub-district. The main assumption is that the identification of information needs for women living in Saldanha sub-district, would improve the interest and uptake of ANC within the sub-district.

1.5 Research question

How can the uptake of antenatal care services be enhanced through the utilization of information in order to improve the maternal and neonatal outcomes in Saldanha sub-district, West Coast District?

1.6 Research aim

The aim of the study was to explore and describe factors that influence the utilization of ANC services while understanding how information could be utilized to enhance the uptake of ANC services in order to improve maternal and neonatal outcomes in Saldana sub-district, West Coast region.

1.6.1 Research objectives

The objectives for this study were as follows:

RO 1: describe the reasons for inadequate utilization of ANC services by pregnant women in Saldanha sub-district, West Coast district.

RO 2: explore the information needs of pregnant women regarding ANC utilization in the Saldanha sub-district, West Coast district.

RO 3: suggest how information could be utilized to improve ANC services in the Saldanha sub-district, West Coast district.

1.7 Research methodology

The research design was a qualitative descriptive, case study with a multi method approach. A type 2 case study approach (Single case study with multiple units of analysis) was used. The case was the un-booked and late booked pregnancy and the first unit of analysis were un-booked / late booked patients and the second unit of analysis were midwives.

The study setting was Vredenburg Provincial Hospital and Hopefield Clinic, Saldanha sub-district, West Coast district of the Western Cape, South Africa. The population for this study was all women who were un-booked or late booked after 32 weeks of gestation who have delivered in Vredenburg Hospital during the time of the study.

The study was subjected to ethical approval from the Health Research Ethics Committee of Stellenbosch University and the Western Cape Provincial Department of Health.

A pilot interview was conducted with two participants (one midwife and one patient). A further ten women were interviewed during the individual interviews. Eight midwives were used in two focus group interview sessions and two individual interviews with midwives were conducted. Women were recruited prospectively from the time

permission for the study was obtained. Data was collected from the participants and a semi-structured interview guide was used. Data were analysed manually and thematic analysis was used for data analysis.

1.8 Operational definitions

Antenatal care (ANC) services - ANC is care given to a pregnant woman from the time of conception until the commencement of labour (Fraser, Cooper and Nolte, 2010:231). In this study ANC services include screening for complications, detecting problems, improving nutrition and health of pregnant women, and are provided at PHC clinics in the area.

Midwife - A midwife is a person who is qualified, competent to independently practise midwifery in the manner and the level prescribed who is capable of assuming responsibility and accountability for such practice according to section 31 subsection 1(b) of the Nursing Act 33 of 2005 (Republic of South Africa, 2005).

Information needs – It is the desire of an individual or group to locate and obtain facts or information to satisfy needs.

1.9 Chapter outline

The chapters in this thesis explored reasons why pregnant women in the Saldanha Sub-district book late or do not book at all for BANC. It also explores the information needs that might influence the motivation to use BANC.

Chapter 1: Foundation of the study

Chapter one contains gives an overview on the topic of interest and it elaborates why the study is important for the researcher. It describes the significance of the topic related to current practice. It elaborates on the research question, aim and objectives.

Chapter 2: Literature review

Chapter two elaborates on the current literature related to the general reasons for late and not booking for BANC. It also provides an overview on the current status in the sub-district related to bookings.

Chapter 3: Research methodology

Chapter three discusses the study design, how the study was conducted, who the population were, how recruitment was conducted and how data were collected.

Chapter 4: Findings

Chapter four discusses the findings of the data collection process. The themes, sub-themes are presented.

Chapter 5: Discussion, conclusions and recommendations

Chapter five summarizes and discusses the outcomes of the findings; the meaning and significance to current practice and makes recommendations for future practices or studies.

1.10 Significance of the study

By doing this study the researcher was able to determine reasons why pregnant women have booked late or did not booked for BANC services in the Saldanha sub-district, West Coast. The findings also revealed what the possible barriers are to these essential services and what information may be needed to improve ANC utilization in the sub-district.

The study can be of scientific value because undetected or unnoticed clinical and organizational areas of concern were revealed. Gaps in treatment, care and information in the health services of the sub-district were identified. It can also be of social value for the reason that socio-economic and social problems that pregnant women are dealing with were revealed and discovered. These factors influenced the enthusiasm and motivation to attend the healthcare services for care and treatment.

This may be the first research study in the area on this topic and the results will be able to assist with suggestions for solutions or interventions for change. This may be beneficial to the sub-district and district health system and it may improve antenatal service utilization and early booking that affects maternal and neonatal outcomes. This may contribute to reaching the Sustainable Development Goal 3: to ensure healthy lives and promote well-being for all at all ages (United Nations, 2016:42).

1.11 Summary

The tendency for un-booked or late-booked pregnancies in the Saldanha sub-district was observed by the researcher. The problem of inadequate or no BANC for pregnant women was identified that resulted into avoidable complications for mother and baby as described above.

The study was based in a rural level-one hospital that is the only hospital in the sub-district. The population was un-booked and late-booked pregnant women that present to Vredenburg hospital for delivery. A descriptive, qualitative study with a case study approach was conducted to determine reasons why pregnant women did not utilize BANC. Barriers to these essential services and information needed to improve BANC utilization in the Saldanha sub-district were determined. The researcher identified through purposive sampling possible participants. He recruited respondents to participate in the study. All ethical values and requirements were maintained and participation was voluntary.

The study was conducted after ethical approval from the Health Research Ethics Committee of Stellenbosch University and the Western Cape Provincial Department of Health had been granted. The study was kept within the proposed identified budget.

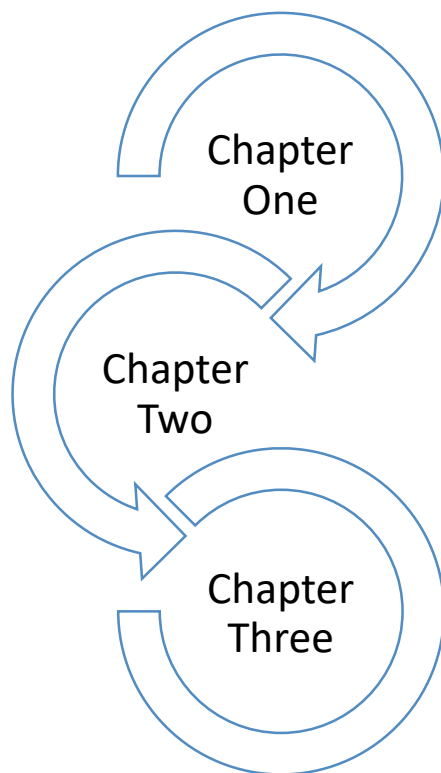
The researcher aimed to determine possible barriers and to identify possible areas for change. The outcomes and value of the study will be directed to improve BANC utilization, to improve maternal health and reduce neonatal mortality.

This may be the first study that was conducted in the area on the observed phenomena since no available literature was obtained or detected. In the next chapter literature based on the studied phenomenon will be discussed.

1.12 Conclusion

As many of these complications (as indicated in this chapter) are preventable, the utilization of these essential BANC services should be emphasised.

The aim was to explore why pregnant women do not utilize the BANC services. The reason is to determine what the barriers to these essential services are and what information is needed to improve the utilization of such services. The intention is to assist in improving the ANC attendance and to encourage pregnant woman to utilise these essential BANC services. The intention is also to increase the compliance of pregnant women to ANC utilization. Improving BANC utilization in the sub-district will influence the pregnancy and birth outcomes.



The previous chapter highlighted the research process underpinning this study.

This chapter will describe in detail the literature review done as a background to the research in order to inform the research problem

The following chapter will include the research methodology followed during the research process

2. CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review is an organized, systematic and written presentation of what is been published on a topic (Grove, Burns & Grey. 2013:97). Burns & Grove (2011:198) elaborate further that it provides a background to the problem that is studied, it provides a description of the current knowledge, it identifies possible gaps in the current literature and it contributes to building knowledge in the studied area. Brink (2006:67) also explains that the review of literature is a crucial element of the research process and the purpose is to convey to the reader what is already known about the topic.

2.2 Electing and reviewing the literature

In this chapter, an analysis of the literature regarding basic antenatal care (BANC), the utilisation thereof and the factors that influence the compliance thereof in general, is presented. This includes a review of recent relevant research and research findings. The search terms utilised in several combinations were “basic antenatal care” / “antenatal care” / “pre labour care” / “prenatal care” / “pregnancy”. The search was conducted on the EBSCO, CINAHL, PUBMED and GOOGLE SCHOLAR databases.

2.3 Global perspective on maternal care

On a global platform the World Health Organisation (WHO) reported on the progress of the Global strategy for women and child health 2010 – 2015. According to this report in 2013 the number of infant deaths (2.8 million) within the first 28 days of life has declined by 42% since 1990. Maternal deaths (289 000) declined by 45% since 1990. Most of these deaths occurred in low- and middle-income countries and the majority of these deaths were preventable (WHO, 2016:24). Preterm births and problems or complications during delivery are still major causes of the high level of the Infant mortality ratio (IMR). Globally, 2.6 million preventable stillbirths still occur each year (WHO, 2016:44). Although a 3% decline is noticed per year in the Maternal mortality ratio (MMR), the Millennium development goals 4 – to reduce infant mortality by 2/3 and Millennium development goal 5 – to reduce maternal mortality by $\frac{3}{4}$ remained

unfinished by end of 2015 (WHO, 2016:14). The progress on the Sustainable Development Goals (2016) indicates that the need to increase progress to reach the set targets by 2030 is still evident. The current target is set at less than 70 maternal deaths per 100,000 live births, currently stood at 216/100, 00. The report also indicates that neonates are most vulnerable in the first 28 days of live and currently the neonatal mortality stand at 19/1,000 (UN, 2016: 42 - 46)

A study done by a team of 60 authors in Africa has found that each year in Africa 30 million women become pregnant, around 250,000 women die of pregnancy-related causes, approximately 1 million babies are stillborn, at least 1 million babies die in their first month of life; and about half a million die on their first day. Four Million low birth weight (LBW) babies and others with neonatal complications may live, but not reach their full potential (Partnership for Maternal, New-born & Child Health (PMNCH) 2012:53).

According to the WHO (2016:1), the preferred booking time for pregnancy is before 14 weeks of gestation and the minimum number for basic ANC follow up visits of low risk pregnancies changed from 4 times (20, 28, 32 and 38 weeks) to seven times (20, 26-28, 30-32, 34, 36, 38 and 40 weeks of gestation). The recommended contacts are eight visits that include the booking visit. The argument is that many maternal and perinatal deaths occur in women who have received no ANC and the newly-adapted and recommended WHO care model aims to recognise, prevent and treat potential or existing problems that might influence the outcomes of the pregnancy negatively, and the focus is to provide quality care to every pregnant women and new-born. (WHO, 2016:1). According to the WHO (2017), only 64% of pregnant women attended the recommended minimum of four visits during the period of 2007-2014.

The report on recommendation on antenatal care for a positive pregnancy experience (2017) further acknowledges that the needs of vulnerable groups (adolescent girls, women with mental health problems, HIV infected women, sex workers, war affected women and ethnic/racial minorities) are greater than the needs of other women therefore the recommendations are to give clear guidance in this evidence-based framework for person-centred ANC practices with a human rights based approach. The report focuses on five intervention areas that include nutrition, maternal and foetal assessment that focuses on the detection of diabetes in pregnancy, the recommended ultrasound before 24 weeks of gestation, the use of alcohol, drugs and tobacco in

pregnancy and routine HIV-counselling and testing, preventative measures that include tetanus vaccination during pregnancy and antibiotics for asymptomatic bacteriuria, interventions for common physiological symptoms like treatment for nausea, heartburn, leg cramps, low back and pelvic pains, constipation and varicose veins during pregnancy. The last recommendation is health systems interventions that advocated for pregnant women to carry their own case notes and to increase the amount of contacts from four to eight during pregnancy (WHO, 2016:13).

2.4 Maternal and neonatal health in South Africa

The National Department of health (NDoH) is guided by its vision, which is a long and healthy life for the people of South Africa. The Department focuses on its mission to improve health status through the prevention of illness and disease, to promote healthy lifestyles and to consistently improve the healthcare delivery system by focusing on accessibility, equity, efficiency, quality and sustainability (Republic of South Africa, 2016:10). South Africa has fairly a stable health resource capacity and the country has a constitution that protects the health rights of its citizens. Section 27(a) of the Constitution of South Africa (1996) stipulates that “everyone has the right to have access to healthcare services, including reproductive rights”.

The South African government aims to fulfil the National Development Plan (NDP) 2030 vision, to raise the life expectancy of South Africans to at least 70 years. In order to achieve this, there is need to reduce maternal, infant and child mortality, to reduce the incidences of TB while providing cure and reduce prevalence of non-communicable diseases. Being able to provide universal healthcare coverage to all South Africans irrespective of social standing and financial position is part of the plan. Further the health systems need to be reformed while having all posts filled with skilled, committed and competent practitioners (Republic of South Africa, 2016:10).

According to the NDoH (2012) South Africa had an estimated population of 52 386 000. The MMR was 300 per 100 000 live births, the infant mortality rate (IMR) was 33 per 100 000 live births, still birth rate (SBR) stood at 20 per 1000 live births and the estimated life expectancy stood at 58-60 years. Now the Annual Performance Plan 2016/2017 - 2018/2019 reports that the estimated population is 53,000 000, the MMR is 155 per 100 000 live births and the IMR is 11 per 100 000 live births (Republic

of South Africa, 2016:10). This has shown a definite reduction in the MMR and IMR since 2012.

The Guidelines for Maternity Care in South Africa (2015:13) defined maternal mortality as the death of a woman while pregnant or within 42 days after delivery or after termination of the pregnancy, irrespective of the duration of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

A National Committee on Confidential Enquiry into Maternal death (NCCEMD) was established, and on 01 October 1997 a maternal death became a notifiable condition in terms of the National Policy Health Act, no 116 of 1990. All deaths during pregnancy, until 42 days after the delivery, must be reported to the provincial departments of maternal and child health. The provincial Maternal Child and Women's Health (MCWH) units then inform the NCCEMD. This was to improve maternal health by identifying areas and factors that are causing maternal deaths. Those areas and factors were explored and interventions to minimise those factors were submitted. (Republic of South Africa, 2015:159).

According to the Saving Mothers Reports (2008-2010 and 2011-2013) (2014: VI, 1), the first comprehensive report into maternal deaths in South Africa was published in October 1999. The "big 5" causes of maternal deaths are listed below. Sixty percent (60%) of preventable maternal deaths was mostly due to poor quality of care during the antepartum, intrapartum and postpartum periods. Bleeding at or after caesarean section was responsible for a third of obstetric haemorrhage deaths during 2011-2013. TB was the most common cause of deaths in 2011-2013 due to non-pregnancy related infections and was probably underdiagnosed in a number of other women (National Department of Health, 2014:VI, 48).

Table 4: Causes of maternal deaths

Condition	2008-2010	2011-2013
Non-pregnancy related infections (NPRI) (HIV infection, tuberculosis, pneumocystis carinii pneumonia (PCP) and pneumonia	40.5%	34.7%
Obstetric haemorrhage	14.1%	15.8%
Complications of hypertension in pregnancy	14.0%	14.8%
Pregnancy related sepsis	9.1%	9.5%
Medical and surgical disorders	8.8%	11.4%
Maternal deaths caused by these five conditions	86.5%	86.2%

(Source: Saving Mothers Report (2008-2010 and 2011-2013))

The Annual Performance Plan (Republic of South Africa, 2016:21) reported on the current institutional MMR and IMR as reported by the NCCEMD. In line with the MDG targets, the health system aimed at reducing infant mortality by two-thirds and maternal mortality by three quarters by the end of 2015.

Table 5 reflects the maternal mortality rate per 100 000 live births per province per year. The aim was to reduce maternal deaths by three quarters at the end of 2015 to about less than 100 000 deaths per live birth (RSA, 2016:21).

In 2008 and 2010 the Northern Cape had the highest maternal death rate of 274.4/100 000 and 276.4/100 000 live births and in 2009, 2011-2013 and 2014 the Free State had the highest maternal deaths of the other 9 provinces. Although South Africa reflected a maternal rate of 188.9 in 2009 that were the highest between 2008 till 2014, South Africa remarkably reduced the incidence of maternal deaths to 140.91 by the end of 2014.

Table 5: Institutional Maternal Mortality Ratio (MMR)

Province	2008	2009	2010	2011-2013	2014
Eastern Cape	180.4	215.2	197.0	148.07	174.15
Free State	267.0	350.9	263.5	201.53	194.42
Gauteng	136.0	160.2	159.2	166.77	149.75
KZN	183.8	194.2	208.7	170.57	127.82
Limpopo	176.6	160.4	166.7	196.85	153.25
Mpumalanga	179.8	159.4	218.6	172.12	119.54
North West	161.7	279.5	256.1	166.74	180.08
Northern Cape	274.4	251.8	267.4	170.78	120.68
Western Cape	61.8	113.1	88.0	75.99	66.50
South Africa	164.8	188.9	186.2	155.81	140.91

(Source: NCCEMD, 2015)

Table 6 reflects the Infant mortality rate per 1000 live births and the aim was to reduce the incidence of infant deaths to 28 deaths per live birth. The infant deaths of each year are reported on below and the highest incidence of infant death were in 2008 (48.4/1000 live births) and the lowest were reported in 2015 (34.4/1000 live births). The table illustrates a fair reduction of infant deaths per year in South Africa.

Table 6: Infant Mortality Rate (IMR)

Year	IMR
2008	48.4
2009	43.6
2010	41.0
2011	39.7
2012	39.0
2013	36.4
2014	35.3
2015	34.4

(Source: NCCMD, 2015)

2.5 Antenatal care

Antenatal care (ANC) is specialised care that is given to confirmed pregnant women from the time of conception until the beginning of labour (Frazer, Cooper & Nolte. 2010:231). Frazer et al. (2010) further elaborate that the ultimate aim of this ANC is to monitor the total progress of the pregnancy, detecting, preventing and treating health-related problems and risk factors that may influence the outcomes of the pregnancy. Pairman, Tracy, Thorogood and Pincombe (2010:432) explain that ANC is not an independent entity, as it is integrated with the whole pregnancy and childbearing experience. It is also the exclusive journey whereby a supportive relationship of care (antepartum, intra-partum and postpartum), trust, information exchange, advocacy and guidance is formed between the midwife and the pregnant woman.

Frazer et al. (2010:231) stated that ANC has been offered from as far back as the late 1920's. The visits were planned as monthly until 28 weeks of gestation, then every 2 weeks until 36 weeks of gestation, and then weekly until the pregnant woman goes into labour. This amounted to 12 visits that remained the same every time and each visit were more of a ritual than problem detecting and solving approach (Pattinson, 2004:10).

In the 1980's this model was challenged and in 2007 the South African National Department of Health introduced an ANC handbook or guidelines called Basic Antenatal Care (BANC). The recommended schedule for booking was as soon as two periods are missed (12-14 weeks), follow up visits on 20, 26, 32 and 38 weeks and if still pregnant at 41 weeks of gestation (Pattinson, 2004:11). It aims to detect and treat possible problems early to improve the outcomes of the pregnancy (Pattinson, 2004:5). A new edition of BANC (BANC +) was introduced that increases the number of follow up visits to seven (Pattinson, 2016:15).

2.5.1 *Basic Antenatal Care Handbook*

BANC were introduced in 2007 by the Department of Health. It aims to give guidelines and guidance to the healthcare professionals who provide antenatal care to pregnant woman every day. It aims to simplify the ANC that is provided and it moves the approach away whereby midwives only should perform BANC. BANC should be delivered by any Professional Nurse (PN) that works in a Primary Healthcare (PHC) setting where pregnant women book and follow up for care. BANC should be provided

in any PHC clinic every day. A referral system should be in place whereby high risk pregnancies are referred to a higher level of care for specialised care provided by specialist professionals (Pattinson, 2004:4).

The Basic Antenatal Care Plus Handbook was introduced in August 2016 as a followed up 2nd edition form the above mentioned Antenatal Care handbook. The increase in visits increases the quality of ANC care to pregnant women. The rationale for increasing the visits was that the four ANC follow up visits are no longer recommended by WHO as it is associated with a higher perinatal mortality rate than standard care models with more visits (Pattinson, 2016: iii).

2.5.2 Importance of Antenatal Care

BANC through this BANC and BANC Plus handbook aims to detect potential problems early that could have an effect on the outcomes of this pregnancy, birth or neonate (Pattinson, 2016:4). BANC aims to treat this detected problem as soon as it's discovered and it has a referral structure in place. Utilization of basic antenatal care ensures that the maximum benefits of the care with the resources available and the performance of tests that is proven to be of significance at that point in the pregnancy (Pattinson, 2016:7). Easy to perform rapid tests with immediate results are available to speed up service delivery and care. Through all of the above it aims to improve the outcomes of the pregnancy, the woman's chance of survival and the nutritional status of the mother (Pattinson, 2016:13).

Frazer et al. (2010) further explains that the need for basic antenatal services which are crucial in the sense that they should provide holistic care to the pregnant woman's needs, and should be a platform for advocacy, support and partnership and be effective in assessing current health problems, recognising complications and detecting new problems. The process of this approach should prepare the woman for birth and give skills on how to handle and care for the new-born baby after birth.

Mahlangeni (2013:2) revealed that the quality of ANC given will determine the outcomes of the pregnancy and this will influence the general health status of the pregnancy and postnatal women. The study furthermore elaborates that the need for information empowerment is crucial and that in itself will empower women to actively and concisely participate to improve their own health status during and after pregnancy.

In a study done by Ndidi and Oseremen (2010:2), the authors revealed that the earlier pregnant women commence with BANC, the better the outcome will be for mother and baby (2010:2). Kisuule, Kaye, Najjuka, Ssematimba, Arinda, Nakitende and Otim (2013) revealed in their study titled *Timing and reasons for coming late for the first antenatal care visit by pregnant women at Mulago hospital, Kampala Uganda*, that pregnant women who book late miss the early detection of HIV, STD, anaemia, malaria and they miss the opportunity for health education treatment and prevention of complications. The study also reveals that many health problems and complications can be prevented, detected and treated during BANC visits. The authors further emphasize that the main objectives for ANC are to prevent and treat complications, to prepare for emergencies, to plan for birth and to satisfy deficit of the nutritional, social and physical needs of the pregnant women. The study continues to elaborate that provision of education, the involvement of the partner and the successful care and nutrition of the new-born are also regarded as important objectives (2013:2).

2.5.3 Antenatal Care provision

BANC should commence preferably before 14 weeks' gestation. The notice of the second missed period (before 14 weeks) should be an indication for seeking help and this should be confirmed with a rapid pregnancy test (Pattinson, 2016:9). The support services like nutrition, genetic screening etc. should be utilised and ultrasound should be performed before 22-24 weeks' gestation. This would help to accurately establish the estimated gestation and growth should be assessed accordingly. The first visit should be utilised effectively and booking of the pregnancy upon confirmation should be done before the patient leaves the clinic. The new recommended schedule for follow up visits should be 20, 26-28, 30-32, 34, 36, 38 and 40 weeks (Pattinson, 2016:15). All the findings should be documented in the Antenatal Book (Maternal case record) available and the book should stay with the pregnant women.

The professional nurse/midwife should be accessible, friendly, caring, committed, non-judgemental, efficient and competent as guided by the scope of practice for midwives, R 2598: 30 November 1984, R 2488: 26 October 1990 and R387/Acts and Omissions: 15 February 1985 (South African Nursing Council: Republic of South Africa). This alone would encourage the pregnant woman to attend this essential service and this could exclude a huge number of avoidable complications and problems. The nurse should enhance quality of care and encourage clinic attendance and she/he should

give guidance and information. The nurse has a responsibility and accountability to provide competent quality healthcare reference.

The patient should be introduced to the Mom Connect initiative that has been launched and initiated by the National Department of health. An in-depth discussion thereof will be available in this chapter.

2.6 Reasons for not booking or booking late

In the nineteen's Aved, Irwin, Cummings and Findeisen, (1993:493) argued that many maternal and perinatal deaths occur in women who have received no ANC. Several articles were consulted and the results of the studies were categorised into different factors that may contribute to poor adherence to ANC. These factors include socio-economic, personal factors, and facility-based factors that include health worker related issues.

2.6.1 Socio economic factors

Socio-economic factors that directly relate to the reasons for pregnant women booking late or not booking at all were revealed as far as 1993. A study conducted by Aved et al. (1993:493) on low income women, revealed that poor socio-economic circumstances contribute to the poor attendance of ANC by pregnant women. The study further elaborated that issues like transport problems, poverty, the fear of pregnancy disclosure to parents, families or partners, contributed to booking late or not booking at all. The study found that inadequate prenatal care is associated with poor birth outcomes and early recognition of barriers to care is necessary to improve the outcomes or results (1993:493).

In a recent study by Okhiai, Izeefua, Okojie, Edengbe, Aigbokhaebho and Benjamin (2015:333) revealed that Nigeria is one of the countries with the highest maternal mortality rate of 545/100 000 live births. The study continues to elaborate that although direction is provided by WHO on ANC visits, late bookings (first visit at 28-40 weeks) are still reported. Fifty-eight percent revealed that distance to the facility was the reason they did not book or booked late for ANC and some revealed that cultural beliefs are the reasons they did not book for the recommended services.

A study conducted by Roberts and Spies (2011:333) revealed that pregnant women using drugs, who are homeless, unemployed, with no transport and no medical

insurance, are likely not to book or to book late for the essential ANC and the lack of such ANC limits the opportunities for health interventions. Their addiction, and the fear to disclose / stigma prevented them from seeking ANC and they fear being reported to child welfare services as they are always concerned about the outcomes for themselves as drug addicts (2011:334).

A study done by Pillai, Pappanicheal and Yoong (2008:149) investigated the outcomes of pregnancies in extreme teenage (between 12 and 15 years old) pregnancies. Thirty-five (35) pregnant teenagers were examined for the outcomes of the pregnancies and the question was whether enough is done to enhance the outcomes of these pregnant teenagers. The findings revealed that they are more likely to book later than older teenagers as they are in denial of their pregnancies and they fear to disclose. They fear social rejection from peers, family, school and the community, and that impacted on their choice and decision to book for ANC (Pillai et al., 2008:149). They come from single parent homes and were subjected to sexual abuse. They are also most likely subjected to complications such as low haemoglobin levels due to the late booking and most of them received caesarean sections as the birth process was complicated (Pillai et al., 2008:149).

A study done by Torres (2016:10) titled *Access Barriers to Prenatal Care in Emerging Adult Latinas*, revealed that these respondents booked late and did not utilise BANC effectively. That led to a high risk of preventable pregnancy-related complications. The study further reported that factors such as biological immaturity, poor nutrition, poor weight gain, tobacco and substance use, stress and depression contributed to the underutilisation of BANC (Torres, 2016:10). Eighty-nine percent (89%) of the total of 54 respondents were unemployed and they found language to be a barrier. A study done in Mississippi revealed that black women were more reluctant to seek ANC than white women. The authors argued that empirical evidence was provided to support the existence of racial disparities in ANC utilization and infant birth outcomes in Mississippi. The study revealed that white women received better ANC than black woman (Cox, Zhang, Zotti and Graham: 2009:931).

Bbaale (2011:516) found that 16% of women in Uganda effectively utilized ANC. Factors influencing the utilization of ANC are the education level of the women and/or the partner, the area of location (urban vs rural), those who have access to media and the ability to pay for services (Bbaale, 2011:518). The study concluded that efforts are

needed to consciously educate women to book as early as 14 weeks, to implement outreach services in rural areas with qualified staff and to extensively facilitate and implement BANC irrespective of the woman's ability to pay for services (Bbaale, 2011:518).

A study done by Hawley, Brown, Nu'usolia, Ah-Ching, Muasau-Howard and McGarvey titled *Barriers to adequate prenatal care utilization in American Samoa* (2014) revealed that late booking for BANC is common and is associated with high parity, low educational level and unemployment status. The study further elaborated that reasons for poor ANC utilization vary widely and may be closely linked with local culture or local healthcare infrastructure. Socio-demographic barriers include young maternal age, low educational attainment, high birth order, being unmarried, and having insufficient income.

2.6.2 Personal factors

Another study conducted in Cape Town in 2009 also revealed that barriers such as ignorance of the purpose of the service, denial of the pregnancy and the preferred booking time contributed to the respondents to book late or not book at all (De Vaal, 2011: 3). The study concluded that in 2009 a total of 31 women delivered without ANC and 61% booked late for the needed ANC. Sunil, Spears, Hook, Castillo and Torres (2010:133) have found that less educated women, those who are living alone and have an unplanned pregnancy are less likely to book for ANC, even though they are aware of the importance and benefits of ANC services.

Women with high parity tend to deliver un-booked. That was confirmed with two separate studies in Kenya by Ochako, Fotso, Ikamari and Khasakhala (2011) and in Ethiopia by Tarekegn, Lieberman and Giedraitis (2014:161). Tarekegn et al. (2014) discovered that only 34% of pregnant woman utilised the ANC and the seeking of healthcare is determined by the cultural beliefs of the community. Torres (2016:12) also revealed that 96% of the total respondents regarded ANC as not important. They were in denial of their pregnancy and were embarrassed, depressed or negative towards the pregnancy.

Hawley et al. (2014) revealed that early recognition of pregnancy may not be common which could have determined the improved timing and attendance of prenatal care visits. The study also elaborates that the respondents revealed that they hesitated to

utilise the services due to the lack of knowledge on what the service will entail and the anxiety it created.

Okhiai et al. (2015:333) reveal that, although educated women do understand the importance of ANC, pregnant women still remains ignorant to early booking dates. Sixty-eight percent of the participants booked late and they reasoned that they did not know the importance of booking early and some of them displayed a personal negative attitude towards the ANC visits. Younger participants (less than twenty years) revealed that being unmarried and pregnant posed as a barrier for utilizing those services.

2.6.3 Facility based factors.

Okhiai et al. (2015:333) revealed further that due to long waiting times in healthcare facilities pregnant women were reluctant to book early. The attitude of healthcare providers was reported to be a barrier by 80% of the participants.

2.6.4 Outcomes of un-booked and late booked pregnancies

Beekman, Loucky and Ritman (2011:1067), believes that ANC is important for the health and wellbeing of women and their babies and that ANC should be initiated in the first trimester. Another study conducted in San Antonio, Texas elaborated that there is observational evidence that ANC does have benefits and that it contributes to the reduction of Maternal and Neonatal Mortalities (Sunil, Spears, Hook, Castillo & Torres: 2010:133)

The results of not seeking antenatal care early enough can be detrimental to the outcomes of the pregnancy for both mother and baby. If a pregnant woman presents for the first time for care late in pregnancy or during labour, the provision of adequate preventative care, advice and information is not possible (De Vaal, 2011:4). The uncertainty of the gestational age (GA), the possible underlying complications and problems and the anticipated poor outcomes is eminent. The whole care will be driven by the control of complications and risk. De Vaal (2011:4) also concluded that due to late booking or not booking, women's GA is uncertain and factors like obesity contribute to the problem and that leads to poor birth outcomes. Poor birth outcomes include prolonged labour, prolonged second stage, and shoulder dystocia due to undetected big baby with related neonatal complications.

2.6.5 Proposed interventions to enhance ANC utilization

Mahlangeni (2013:17) proposed that pregnant women need to be educated and empowered with information that would be helpful in early identification of pregnancy-related complications that may influence the outcomes of the pregnancy. This will also empower them to report any abnormality and that may contribute to the positive outcomes and active participation in the pregnancy.

Tsawe and Susuman, (2014:9) proposed that information regarding the importance of maternal care must be emphasised through the use of media, to enhance the literacy skills for women through educational programmes and to implement better policies and delivery services for pregnant women.

Rangiah (2012:49) recommend that healthcare services should be non- judgemental and youth friendly and that nurses should be empowered to change their attitudes towards teenagers seeking family planning services. Rangiah (2012:49) further elaborated that school counsellors and social workers should be accessible and approachable for young teenagers seeking guidance and that the communities and families should be involved in the preventative processes.

Ngxongo and Sibiya (2013:1) revealed that factors that may influence the successful implementation and usage of BANC is the availability and accessibility of the services, various means of communication, comprehensive integration of services, available policies, guidelines and protocols, human and material resources, training opportunities, in-service training and support and supervision offered to the midwives.

Hawley et al. (2014) revealed that the Samoan government introduced and implemented a prenatal care incentive scheme to improve prenatal care utilization. The pregnant women who booked before the end of the first trimester (12weeks) qualified for the incentive. In return, the pregnant women received free medical services, two free ultrasound scans and two nights of free care in labour and delivery. Because the costs of prenatal care are high, particularly for the uninsured, the prenatal program offered a significant incentive. Okhiai et al. (2015:334) contributed in their study that to curb the barrier of distance to healthcare facilities, public healthcare centres should be established in the core rural areas to increase access to the services.

The Global Strategy for Women and Child health 2010 – 2015 (WHO, 2016) recommends that a strong political commitment with effective leadership, clear outcomes, achievable targets with regular progress reports, financial resources for the maternal and child health agenda as a priority are needed to achieve the Millennium Development Goals (WHO,2016:10). The report further emphasizes that the public needs to be educated and empowered on the service delivery commitments and the focus should be on strengthening of the health system and service delivery (WHO, 2016:10).

The Saving Mothers Report (2011-2013) (2014:52) recommends that all antenatal and postnatal women must be reached in the community and basic care and information regarding antenatal, postnatal and contraceptive care must be provided. The report further recommends the use of the Mom Connect initiative. Mom Connect is a short message system (SMS) service for all pregnant women whereby messages appropriate to their gestational age are received. This is a very effective way of communication and every pregnant women must be registered on the Mom Connect platform with the community (Republic of South Africa, 2014:52).

The report elaborated on possible areas for improvement such as the encouragement of communities to get involved in the care of pregnant women, access to BANC and quality maternity services, encouragement of early booking (in the first trimester) and use of BANC, recognising of and acting on danger signs, use of contraceptives, healthy lifestyles and the use of Mom Connect information system (Republic of South Africa, 2014: 64, 71, 72, 75).

2.7 Information systems in South Africa

On 21 August 2014 the NDoH launched an initiative called Mom Connect that aimed to improve maternal and child health services in South Africa. This initiative was initiated by registering all pregnant women to receive free preventative health messages via mobile phones twice per week (Republic of South Africa, 2016:5).

According to the NDoH (2016:7) approximately 1.17 million births are registered in South Africa every year and preventable maternal and infant mortality remains a persistent problem. In the effort to reduce these mortalities the NDoH implemented this initiative to tackle the health challenges and ensure quality healthcare for mothers and infants.

The initial target was to register (100%) all pregnant women at the first antenatal visit. These targets were not reached in South Africa in the first year. Only over 700,000 registrants (over 50%) across South Africa were registered in its first year. The initiative was initiated, funded and implemented in collaboration of 20 non-governmental, governmental and international partners (Republic of South Africa, 2016:4)

The process of registration is as follows. After confirming the pregnancy, the pregnant woman or healthcare practitioner dials *134*550# from the woman's cell phone to register. A few simple questions will be asked about the pregnancy after which the client will be registered. Weekly SMS messages will be sent in 11 official languages on broader health-related topics significant for that stage of pregnancy or childhood at that time up to one year of age. Helpline-users can ask anonymous questions for which they will get feedback. The pregnancy will also be registered on the National Database (Republic of South Africa, 2016:5).

The report acknowledges that Mom Connect made a significant impact in South Africa on the initiative to improve the South African healthcare system thus far. By using technology, the Department has used its collective power, knowledge and available resources to alleviate and reduce maternal and infant deaths by providing basic information to clients and adding to the value of improving women's and child health services.

Figure 3: Mom Connect



2.8 Summary

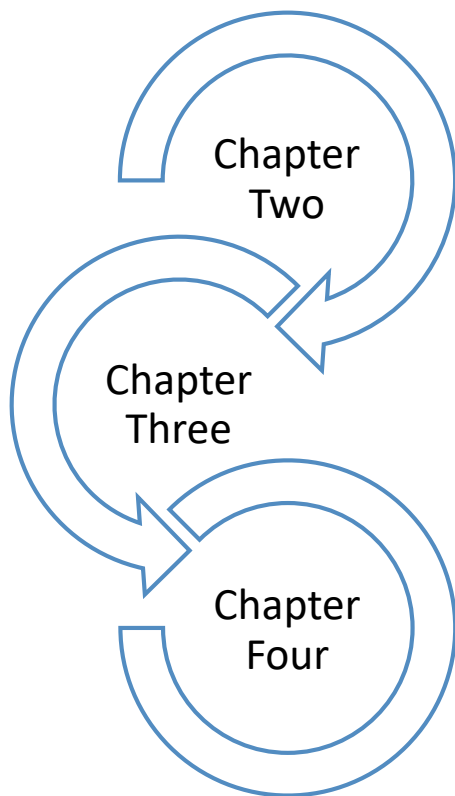
The literature presented in this chapter relates to antenatal care (ANC) or basic antenatal care (BANC) and the utilisation thereof during pregnancy. The content focuses on the universal reasons why pregnant women start BANC so late in pregnancy or do not use BANC at all during pregnancy. The literature also focuses on possible reasons to eliminate the status quo by the use of information empowerment and education.

2.9 Conclusion

The literature review focuses on the utilisation of BANC during pregnancy. The ultimate aim was to explore why pregnant women use BANC so late in pregnancy or why they do not use the services at all.

Generalised findings were discovered in the literature like socio-economic factors such as unemployment, poverty, drug/alcohol abuse, transport problems and the fear of pregnancy disclosure to parents and families that are keeping them from using these services. Personal factors revealed in the literature included ignorance about the purpose of the service, denial of the pregnancy, their high parity status, cultural influences, their lack of knowledge and anxiety.

Possible solutions were revealed such as information sharing, empowerment and education of pregnant women. Another set of possibilities may be the availability and accessibility of the services, effective communication and integration of essential services, policies, guidelines, protocols, resources and training.



The previous chapter described in detail the literature review done as a background to the research in order to inform the research problem

This chapter describes the research methodology utilized, the research design and methods used in this study. Further the population and sampling method is also described.

The following Chapter focuses on the data findings described in themes and subthemes.

3. CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter the methodology used in the study is discussed. The methodology was a qualitative descriptive study with a case study approach. The objective was to explore the individual reasons for the inadequate utilization of ANC by women during pregnancy. Experiences of midwives from different settings were also explored to strengthen the argument and explore the commonalities in relation to the reasons for underutilization of the ANC.

3.2 Study Setting

The setting is a site or location where the research will take place (Burns and Grove, 2011:321).

This study was conducted in Vredenburg Provincial Hospital and Hopefield Clinic, Saldanha sub-district, West Coast region of the Western Cape, South Africa. Vredenburg hospital is the only level one hospital in the sub-district. The hospital is located in the centre of the seven towns that are functioning under the one municipal area (Saldanha Municipal area) that utilize the hospital. In the seven towns, healthcare is provided by community health clinics that refer to Vredenburg Provincial hospital as illustrated in Figure 4 below.

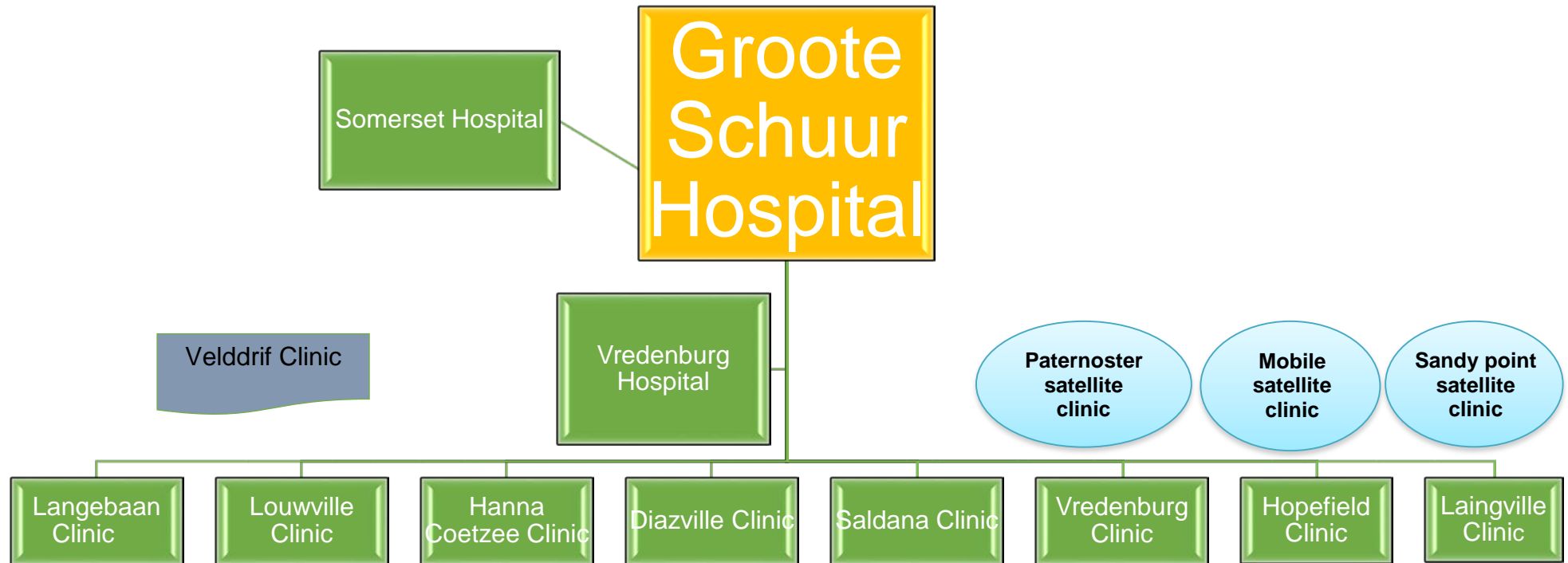


Figure 4: Different clinics and referral hospitals

Figure 4 displays the different green coloured community clinics that are situated in the Saldanha sub-district (Langebaan Clinic, Louwville Clinic, Hanna Coetzee Clinic, Diazville Clinic, Saldana Clinic, Vredenburg Clinic, Hopefield Clinic, and Laingville Clinic). The two blue coloured clinics (Paternoster Satellite and Sandy Point Satellite) are satellite clinics that operate three days per week and one blue coloured clinic (Hopefield Mobile) has mobile services that serve more than 60 farms in the area. The mobile services are being managed by one of the two Registered nurses in the Hopefield Clinic operating once in six weeks in the rural area.

BANC is rendered in the clinics as part of the comprehensive healthcare package and high-risk patients are referred to Vredenburg Hospital- which has the only labour ward in the sub-district available. Vredenburg hospital refers to the two referral hospitals as displayed above. Below is a display of what the current distance for the different clinics is to Vredenburg hospital and the estimated driving time.

Table 7: Distance from clinic to Vredenburg Hospital

Clinic	Kilometres away	Estimated driving time
Saldanha	15 km	14min
Diazville clinic	16.5 km	16 min
Vredenburg	0.6 km	2 min
Paternoster satellite	14.9 km	13 min
Hanna Coetzee	1 km	4 min
Louwville	0.8 km	3 min
Langebaan	25 km	23 min
Laingville	28 km	26 min
Sandy Point satellite	30 km	30 min
Hopefield	35 km	32 min

Velddrif clinic is a community clinic that is situated in the Bergrivier Sub-district and is on the border of the two sub-districts (Bergrivier Sub-district and Saldanha Sub-district). The distance to Vredenburg Hospital is closer than to their referral hospital – which is Radie Kotze hospital in Piketberg. The clinic and the community make use of Vredenburg hospital for service because it's closer.

Table 8: Distance from Velddrif to hospitals

Velddrif to Vredenburg	25.6 km	22 min
Velddrif to Piketberg	68 km	60 min

The referral hospitals for Vredenburg hospital are New Somerset which is a secondary hospital and Groote Schuur hospital which is a national referral hospital.

Table 9: Distance from Vredenburg to referral hospitals

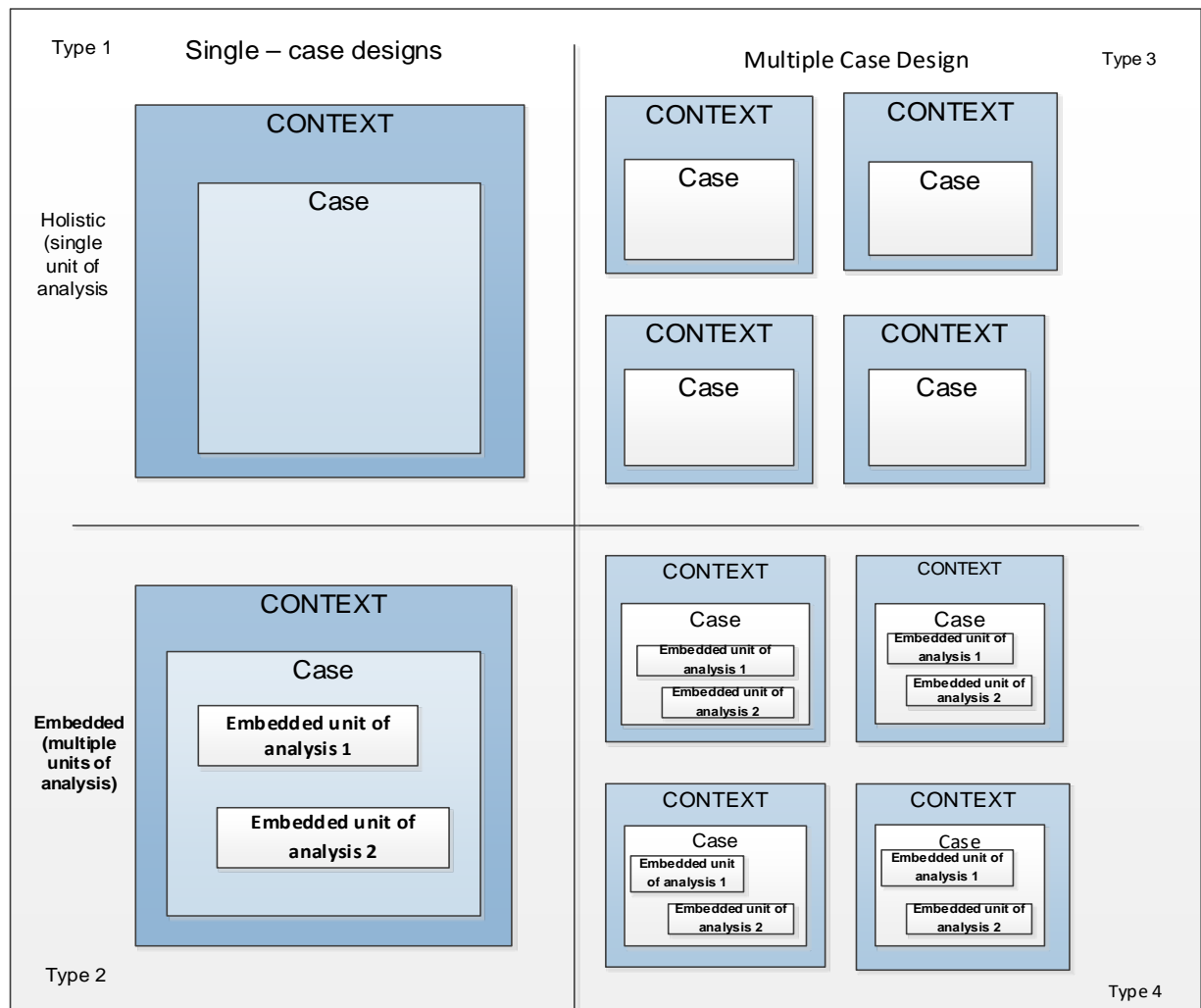
Vredenburg to New Somerset	150 km	1hr 40 min
Vredenburg to Groote Schuur	160 km	1hr 50 min

Vredenburg Provincial hospital is the only hospital in the sub district with a maternity /labour ward in the sub-district accessible to the pregnant women. The BANC services are provided in the community health clinics and pregnant women come to Vredenburg Provincial hospital to give birth. For this reason, Vredenburg hospital was seen as the best site for data collection.

3.3 Research design

The design is a plan or blueprint for the study and it determines the methodology used (Brink, 2006:92). The research design for this study was a case study approach. Using the case study approach enabled the researcher to focus on edging the research in such a way to gain more insight and allow the understanding of the complexities involved in the utilization of antenatal care within the Saldanha sub district (Flyvberg, 2006).

Yin (2014:237) describes a case study as a study that investigates, describes and interprets a contemporary phenomenon in-depth in its real-world context for the purpose of understanding. It seeks to answer focused questions. Yin (2014) refers to a case as phenomenon of interest and he also elaborates on the four types of case studies as indicated in figure 5. Further, Yin (2014:50-67) discusses the types of case studies based on a 2x2 matrix. Type 1 which is known as a single case designs with (holistic) single unit of analysis, Type 2 is a single case design with (embedded) multiple unit of analysis, Type 3 multiple case designs (holistic) single unit of analysis and Type 4 multiple case designs with (embedded) multiple unit of analysis.

Figure 5: Basic Types of case studies

Basic Types of designs for case studies Source: Yin 2014:50

This study embarked on the type two single case of Saldana sub-district with multiple units of analysis which includes the pregnant women who did not utilize the ANC services and the midwives attending to the women who come to the facilities to deliver. Woodside (2010:10) reports that by doing case study, research participants' thinking processes, intentions and self-perceptions are explored. The author further elaborates that by triangulating the evidence, the focus is on multiple sources in the objective to deepen understanding thereof by focusing on the same event.

For the purpose of this study a type 2 case study approach was used. The case was the un-booked and late booked pregnant women as the first unit of analysis and the second unit of analysis was the midwives.

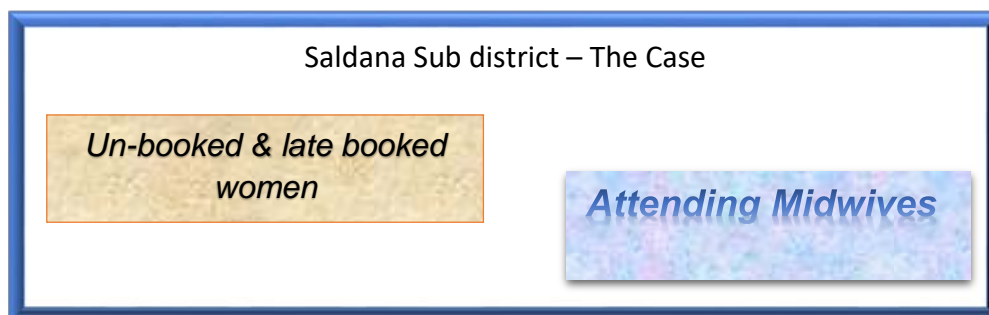


Figure 6: *The case with the embedded approach (adapted from Yin 2014)*

The phenomenon under study was the reason why women were not seeking utilizing the ANC services. The problem was that the phenomenon does exist or it's happening now and the reasons why were not evident. The aim was to conduct an in-depth enquiry into the case and find differences and similarities in the different units of analysis. Furthermore, to determine the information needs for women in order to improve the utilization of the ANC services.

Using a case study approach allowed me to explore the reasons why women in Saldana sub-district do not utilize antenatal services within the population (late booked and un-booked pregnant women). The case study approach was used to explore and describe why women did not utilize ANC services and how information could be utilized to improve the uptake of antenatal care in Saldanha sub-district in the West coast. Proposals or suggestions on the distribution of the identified information needs were also explored.

3.4 Population and sampling

3.4.1 Population

Burns and Grove (2011:51) explain that the population is all the elements that meet the criteria to be included in the study. It may be objects, individuals or substances.

The population for this study was all the women who did not utilize the ANC services or attended the ANC clinic after 32 weeks of pregnancy and midwives working in Vredenburg hospital and clinics in Saldanha sub-district, West coast region, Western Cape, South Africa.

3.4.2 Sampling

Sampling is defined as the process of selecting elements, individuals, behaviours or events with which the study will be conducted (Burns and Grove, 2011:290).

The sampling method that was most appropriate to use was the purposive sampling method (Burns & Grove, 2011:313). The purpose was to identify participants who could answer the research questions.

According to the National Department of Health, the recommended booking time is after the second period was missed (Pattinson, 2004:5). That indicates that booking must be before or at 14 weeks of gestation. After 14 weeks booking will be regarded as late.

Although literature indicates that late booking is after 14 weeks of gestation the researcher included the very late booking after 32 weeks of gestation. The reason was that those who booked earlier than 32 weeks of gestation may not contributed to what the researcher wanted to explore, as they have used some the antenatal services. By the 32 weeks' gestation, 4 visits should have been completed and any complications or abnormalities detected were referred for treatment or management.

The researcher identified eight (8) pregnant women who did not utilize the antenatal services during pregnancy (un-booked /late booked) for the individual in-depth interviews and four (4) midwives from the labour ward for the focus group interview. The need was evident to include more un-booked/late booked pregnant women for the individual in-depth interviews and to conduct another focus group interview with midwives from the primary healthcare setting – where antenatal services are rendered.

The data collection took place after the women delivered. Thirteen (13) un-booked and two (2) late booked pregnant mothers were approached and recruited for the individual in-depth interviews that included the one pilot interview. Three (3) un-booked and one (1) late booked pregnant women declined to participate in the interview sessions after explanation of the study.

Eight midwives participated in the two focus group interviews. In the first focus group session four (4) midwives participated who were working in the maternity ward of Vredenburg Hospital at the time of data collection. Due to staff allocation and shift work, only the four was available to participate.

The second focus group was also conducted with four (4) midwives from the primary healthcare (PHC) arena. Two (2) individual interviews were conducted in Hopefield Clinic with the midwives that conduct or manage the rural mobile services in the sub-district. Available participants were selected from different ethnic groups, ages, socio economic circumstances and parities.

3.4.3 Inclusion and exclusion criteria

3.4.3.1 Inclusion criteria

Inclusion sampling criteria are the list of characteristics which the participants must have to be included in the study (Burns & Grove, 2011:291).

- ❖ Un-booked or late booked (after 32 weeks) pregnant women (stratified under age 18 years and over 18 years of age) delivering in Vredenburg Provincial Hospital, Saldanha sub-district, West Coast region during the period of the study (June 2016-August 2016) was included.
- ❖ Midwives working for a minimum of at least one year in Vredenburg Provincial Hospital and in Primary healthcare (PHC) clinics (where ANC are rendered).

3.5 Data collection procedure

Participants were recruited prospectively from the time permission for the study was obtained in June 2016. Women of all ages were included and age was stratified under 18 years and less and above 18 years of age. The available women who were less-than-18-years of age declined to participate. The rest of the participants were over 18 years of age.

Midwives from the hospital as well as the primary healthcare setting – where the ANC services are rendered - were included to give insight and understanding into the information needs that (pregnant) women might need to improve utilization of such services, as midwives have experience in what women would like to know before booking for ANC.

3.6 Instrumentation

A semi-structured interview guide was utilized during the interview sessions. This was the best possible method as the data required was real-life experiences, feelings, thoughts and perceptions. Five open-ended questions as displayed on Appendix 6

were utilized to gain insight into the reasons why the women did not utilize the antenatal services while affording them an opportunity to suggest utilization of services.

The interview was started with easy questions to put the participants at ease and allow the participants to express themselves.

Questions like : “ Tell me about your pregnancy” and “ What would you like to know before pregnancy that would encourage you to book?” was used for the un-booked/late booked pregnant women.

Questions like : “ Tell me about the antenatal services in this sub-district” and “ Tell me out of your experience as a midwife what information would you think pregnant women would want to have or what information would you recommend that encourage booking for ANC and effectively utilise the service?” was used for the midwives.

The interviewer probed and summarised between questions to allow flow of the conversation and to clarify uncertainties. Probing words like : “ tell me more” , Can you please elaborate”, “I hear you say...., please explain what you mean by that”, were used to encourage participation and to obtain more in-depth information from the participant. Burns and Grove (2011:85) explained that probing is used to make queries to get more information from the participant.

The researcher used the data collected in the two focus group sessions to compile and co-scheme a leaflet that illustrated potential information needs that women might have. These information needs were portrayed in the form of words and illustrations. See Appendix 7 and 8. The researcher requested the un-booked/late booked participants to choose the three most important words or illustrations that they thought were important from the leaflet or paper. That indicated what type of information the participant deemed as important. The participants were asked to elaborate on the words/areas they choose.

The researcher only used the co-design leaflet in the first three individual interviews. The reason, was that the responses to the questions on the information needs were not influenced from their individual experiences, but from the items displayed on the leaflet. The leaflet could not stimulate objective needs analysis and the participants were not able to draw the needs from their experience. The needs were subjectively chosen from the leaflet. The other participants could elaborate on their needs based on their experiences.

The researcher was also alerted and ready for potential barriers or problems during the interview process that could influence the process. Factors like participants that have emotional outbursts due to disclosure of personal information which might lead to a refusal to participate further was expected. Any disturbance from outside was minimised by the sign: “do not to disturb as interviews are in progress”. The researcher encouraged and allowed breastfeeding and bonding during the interview process and allowed the participant to be at ease and comfortable. The interview process was (most of the time) done after supper time when the patients were free. The researcher was also neutral in the sense that he wore private clothes and was seen as equal with the participants. Unfamiliar words in the question were explained and difficult questions were rephrased. The language medium used were Afrikaans and English and no need for an interpreter arised.

3.7 Pilot study

A pilot study is smaller version of the proposed study and is used to determine the feasibility of the proposed study, to develop or refine the methodology, to identify possible problems and to analyse data collection instruments and analysis techniques (Burns & Grove, 2011:49).

A pilot interview was conducted with one (1) un-booked pregnant woman and one (1) midwife who meet the inclusion criteria for the study to pre-test the methodology and to evaluate the data collection tool (Burns & Groves, 2011:49). This information was included in the study.

The researcher’s supervisor, attended as an assessor to assess and evaluate the interview skills of the researcher. The pilot study data were included and elaborated in chapter 4 in order to keep the participants’ voice.

3.8 Data collection

Grove, Burns and Gray (2013:159) emphasize that nursing research does not only require expertise and diligence, but also honesty and integrity.

3.8.1 Approval

Ethics approval (S16/02/019) was granted on 08 April 2016 by the Health Research Ethics Committee 1 of Stellenbosch University and institutional approval

(WC_2016RP55_69) was granted on 07 June 2016 by Western Cape Department of Health. See Appendix 1.

3.8.2 Recruitment process

Recruitment and data collection commenced soon after institutional approval was obtained. Participants were recruited at Vredenburg Provincial Hospital, Saldanha sub-district, West Coast district. The recruitment of un-booked or late booked participants was done when they presented at the site of data collection. The researcher had to rely on the staff working in the maternity ward of Vredenburg Hospital to inform him when potential participants (pregnant women) were admitted. The hospital records and clinic books were also assessed to ascertain who the late booked clients were and the participants' demographics. Clinics were contacted for midwives to participate in the interviews.

Data collection was done after the delivery process when women were available and more relaxed and it was done before the patient was discharged. The researcher conducted the interviews himself in Afrikaans and English as this is in a region where the clients predominantly speak Afrikaans. He is an expert in the field of interest and has been trained to conduct in-depth interviews and focus groups. An interpreter was available on standby should the services be needed. No interpreter was used. The midwives were interviewed (focus groups) on the hospital premises on a date and time set when they were available and the two individual interviews were conducted in the clinic where they work.

3.8.3 Pilot interview

The in-depth interviews lasted between 30 minutes to one hour; referred to as short interviews by Yin (2014). One (1) un-booked mother was used and one (1) midwife for the pilot interviews. The pilot interviews were done to test the methodology. The semi-structured questions were tested for effectiveness and to measure whether they could answer the research question.

The pilot interview with the un-booked patient was done on 16 June 2016 and with the midwife on 24 June 2016. Both interviews were conducted in the maternity ward and a notice was displayed to minimize interruptions during the interviews. The un-booked mother was open to participate and revealed the reasons why she did not book for ANC services. The participant somehow got stuck at question 3 that asked how

information could be utilized to improve the ANC usage. Rephrasing and summarizing were done to allow the participant to understand the question asked. The midwife that was used for the pilot interview was working in the maternity ward at the time of data collection. The participant were also open to answer questions and could elaborate on reasons why pregnant women does not use ANC services. She could elaborate on complications due to un-booked/late booked status. She could contribute data based on her experience.

3.8.4 Focus group one

The first focus group session was attended by four midwives working in Vredenburg hospital maternity ward. Midwives were recruited during their shift. Only two midwives were allocated per shift for day and night duty. The first focus group interview with the midwives from Vredenburg Hospital was scheduled on their availability and the date was set for the 13 July 2016 at 13h00.

Some of them were off duty on the day when the focus group interview was conducted. Five midwives consented to the interview and those that came from home (2) were remunerated with transport fares. The other two were on duty and were able to join the focus group interview. One who also consented to participate could not join to participate due to personal problems at home. One midwife who acted as a reliever for the unit manager, who was on leave, consented to join the focus group interview. Only one midwife and the two nursing assistants were left on the floor and the possibility for an unexpected emergency was possible. Assistance was assured even if the interview should be postponed.

The venue was a quiet, adequately ventilated and lighted room in the multi-purpose hall. Identification was done (Participant A–D) for analysing purposes and only the researcher had access to that identification process. This was to maintain the privacy and confidentiality of the participants. The interview started off with the question “what can you tell me about antenatal services (ANC) in the sub-district”? They were uncertain about what I meant with the question. I had to elaborate and rephrase the question for them to understand.

As the participants are working in Vredenburg hospital maternity ward, they had extensive exposure and experience in the maternity domain, but have limited experience and knowledge in the community antenatal domain. They have maternity

ward experience from four (4) years up to thirty-three (33) years. All of the participants available were female, coloured, aged between twenty-nine (29) and fifty-two (52) and Afrikaans-speaking, but they responded in English to accommodate the moderator who was English-speaking.

The moderation was done by my supervisor who assessed the process for credibility, dependability and authenticity. The participants knew very little about what happens in the ANC domain but they received the un-booked or late booked pregnancies in the hospital.

They could elaborate on the responses from patients with regard to their un-booked or late booked status as they have access to that information in their setting. Two participants were active in the group and the other two quite shy and quiet. Reflection and probing were done and that made the other two to participate. The difference in the level of service, competence and experience were visible as the ones who were dominant were more experienced than those who were quiet. Individual follow-up interviews were planned with the two who were quiet, but did not happen due to the unavailability of the midwives. Another focus group with the midwives who manage the antenatal clinics was planned and one individual interview with the midwife that manages the rural mobile services. The duration of the focus group were 1 hour and 10 minutes.

3.8.5 Focus group two

The second focus group interview was conducted on 27 July 2016 at 14h00. The venue was the multipurpose hall in Vredenburg Hospital. Participants were also four (4) available midwives from different PHC clinics in the sub-district. Years experienced were between four (4) and thirty-one (31). Age ranged from thirty-six (36) years to fifty-four (54) years of age. All of them were Afrikaans-speaking women and they managed the BANC services in the clinics. BANC is part of the comprehensive services they rendering in the community clinics. The participants were labelled from participant one to participant four for identification purposes. Three were active and one of the three dominated the other group participants. This was also due to years' experience. One participant was less active but participated in the group discussions.

3.8.6 Individual interviews

Individual interviews were conducted in Hopefield Clinic with two (2) midwives from the rural mobile service. They were experienced in serving the rural mobile patients on the farms. Together with their main clinic responsibilities, they managed four routes of between 10 and 60 kilometres every six weeks and they relieve one another if needed. They are employed at Hopefield Clinic and if one of them takes the rural mobile clinic service, the other must manage the PHC clinic. BANC is one fraction of the comprehensive service they render.

The individual interviews with the un-booked and late booked participants were conducted in the ward since they had babies to attend to. Separation from their babies was not promoted so they were allowed to have their babies with them during the interview process. Fifteen (15) participants were recruited and eleven (11) consented to the interviews. Four (4) refused to participate and two of those four were under 18 years of age. Ten participants were coloured and one was African. Age ranged from twenty-four (24) and forty-seven (47). The other demographic information is listed in chapter four

The ethical principle of autonomy was applied that allowed the person to make informed decisions themselves. A decision to participate in the research was freely made by the patients themselves. No obligations were forced upon the patient and no repercussions or penalty followed on refusal.

Informed consent, as described below, was obtained from the participants or parents (if mother is less than 18 years of age) before the interview (see Annexure 2). Burns & Grove (2011: 122) elaborate that informed consent requires disclosure of essential information to the participant, understanding of such information by the participant, competence of the participant to give consent and voluntary consent from the participant to take part. Consent forms were available in Afrikaans, English and Xhosa.

Anonymity and confidentiality was emphasized and maintained. No names were linked to data to protect the participants. Selection of participants was fair and non-discriminatory and care was given to any special groups present (immune compromised or sick, those who cannot read or write and those with poor language proficiency). A reliable voice recorder was used to capture the data during the interviews. Interviews went smoothly and no one had expressions of emotional trauma and instability during the interview sessions. A moment of silence was allowed if

emotional outbursts were present. Refreshments were served after the interviews. All recorded and transcribed data are stored on a password protected computer.

3.9 Data analysis

Brink (2006:170) explains that data analysing is the categorising, ordering, manipulation and summarising of data and transcription into meaningful terms.

3.9.1 Steps in data analysis

Gale, Heath, Cameron, Rashid and Redwood (2013:15) discussed in their article titled *“Using the framework method for the analysis of qualitative data in multi-disciplinary health research”*, that this method is becoming a popular approach to the management and analysis of qualitative data in health research. The authors further elaborate that this method has been used since the 1980’s and it’s systematic and flexible in analysing qualitative data. This approach is also called thematic analysis or qualitative content analysis and it aims to identify commonalities and differences in qualitative data.

Explained below are the stages for analysing qualitative data as set out and explained by the article.

Stage 1: Transcription

The process of transcription should be a good opportunity to become immersed in the data. A good quality audio recording and a word-for-word transcription of the interview is needed. Large margins and adequate line spacing, coding and making notes should be encouraged. Transcription was done by Me. E. Booysen – see Appendix 5.

Familiarization with the interview

At this stage the researcher should become familiar with the whole interview. The audio recording, transcript and any contextual or reflective notes that were recorded by the interviewer should be used. Re-listen to all or parts of the audio recording. One margin can be used to record any analytical notes, thoughts or impressions. The researcher read the transcriptions while listening to the recordings. The reflective notes were also analysed during the process.

Stage 3: Coding

After familiarization, the researcher carefully reads the transcript line by line. A label (a ‘code’) is applied to each section or phrase that describes what they have

interpreted in the passage as important. Codes could refer to substantive things (e.g. behaviours, incidents or structures), values (e.g. such as a beliefs or choices), emotions (e.g. sorrow, frustration, love) and more methodological elements (e.g. interviewee found something difficult to explain, interviewee became emotional, interviewer felt uncomfortable). It also aims to classify all of the data so that it can be systematically compared with other data. At least two researchers should independently code the first few transcripts. Coding can also be done digitally using CAQDAS, which is a useful way to keep track automatically of new codes.

Stage 4: Developing a working analytical framework

After coding the first few transcripts the labels should be compared to concur on an agreement to apply the set of codes to all subsequent transcripts. Codes can be grouped together into categories, which are then clearly defined. This forms a working analytical framework. Try not to ignore data that does not fit. Rather code them under “other/general” and review their relationship to the themes later.

Stage 5: Applying the analytical framework

The existing categories and codes are used to index subsequent transcripts. Each code is assigned a number or abbreviation for easy identification and is written directly onto the transcripts. Computer Assisted Qualitative Data Analysis Software (CAQDAS) is useful at this stage because it can speed up the process and ensures that data is easily retrievable.

Stage 6: Charting data into the framework matrix

To manage and summarize (reduce) qualitative data is a vital aspect of the analysis process. Qualitative data are voluminous and an hour of interview can generate 15–30 pages of text. A spread sheet should be used to generate a matrix and the data are ‘charted’ into the matrix. Charting involves summarizing the data by category from each transcript and balancing between reducing the data and the retaining original meanings. The chart should include references to interesting or illustrative quotations.

Stage 7: Interpreting the data

The researcher should have a separate note book or computer file to note down impressions, ideas and early interpretations of the data. Gradually, characteristics of and differences between the data are identified. Connections and relationships between categories are explored. If the data are rich enough, the findings generated

through this process can be a description of particular cases, to explanation of reasons for the emergence of a phenomena, predicting how an organisation or other social actor is responding to a situation, or identifying areas that are not functioning well within an organisation or system. This stage often takes longer than anticipated and any project plan should ensure that sufficient time is allocated to individual researcher time to conduct interpretation and writing up of findings.

Data was analysed manually and thematic analysis was used as discussed in the framework above. The data from the voice recorder (individual and focus group interviews), and field notes was divided into meaningful themes, sub-themes and categories of each research objective by the process of coding that described the phenomena under study. This allowed differential analysis of data with regard to experiences, information needs and recommendations to improve the services. Burns and Grove (2011:94) explain that coding is the process whereby data are listened to/read, divided into smaller parts and labelled. The written data was validated against the transcriptions/recordings by my supervisor for accuracy and reliability. The verbatim transcriptions were reviewed in a private, quiet setting.

3.10 Ethical considerations

3.10.1 Right to self-determination

The researcher applied the ethical principle of autonomy that allowed the person to make informed decisions themselves. Decisions to participate in the research were freely made by the patients themselves. No obligations were forced upon the patient and no repercussions or penalty followed on refusal. The women who did not book or booked late for pregnancy were seen and treated as vulnerable and care (not to inflict on their vulnerable emotional state) was applied when I approached them.

Burns and Grove (2011: 122) elaborate that informed consent requires disclosure of essential information to the participant, understanding of such information by the participant, competence of the participant to give consent and voluntary consent from participant to take part. Informed consent as described above was obtained from the participants before the interview (see Annexure 2). Consent forms was available in Afrikaans, English and Xhosa.

3.10.2 *Right to confidentiality and anonymity*

Anonymity and confidentiality was emphasized and maintained and no names were linked to data. Numbers and letters were assigned to each participant for transcribing and reporting purposes.

3.10.3 *Right to protection from discomfort and harm*

A descriptive and clear written explanation of the purpose of the study, the procedures involved, any risks involved, benefits of the study and right to commit or withdraw without repercussions and consequences were available to the participant. Selection of participants was fair and non-discriminatory.

Risks foreseen were the participants may experience inconvenience of having to participate in the interview or feel obligated to participate, some might feel passively coerced into participating as they do not want to disappoint the researcher who was a male midwife in the institution. They might feel that the refusal to participate might cause the compromising of care for them as a repercussion.

The researcher was a neutral source in the delivery of care to the potential participants and he was not involved (as a midwife or colleague) in the delivery process of potential participants. He no longer works in the maternity section and he only engaged with the participants after the birth process. He did not wear a uniform when engaging with participants and he did not coerce potential participants into participating. He reassured his independency and allowed the potential participant to refuse. Two participants who revealed psychological traumatic experiences and who become distressed were provided with the option to be referred for trauma counselling by the on-site social worker. No reimbursed with taxi fare (if transport was lost due to interview process) were needed even if all the interviews were conducted on the hospital premises. Refreshment was served after the interview process.

3.11 Limitations and weaknesses

Limitations and weaknesses of the study was the unavailability of the participants in the specific timeframe of data collection that caused some delay in data collection. Another limitation were the inability of un-booked and late booked participants to objectively displayed their needs for information when the Co-design leaflet were used.

3.12 Summary

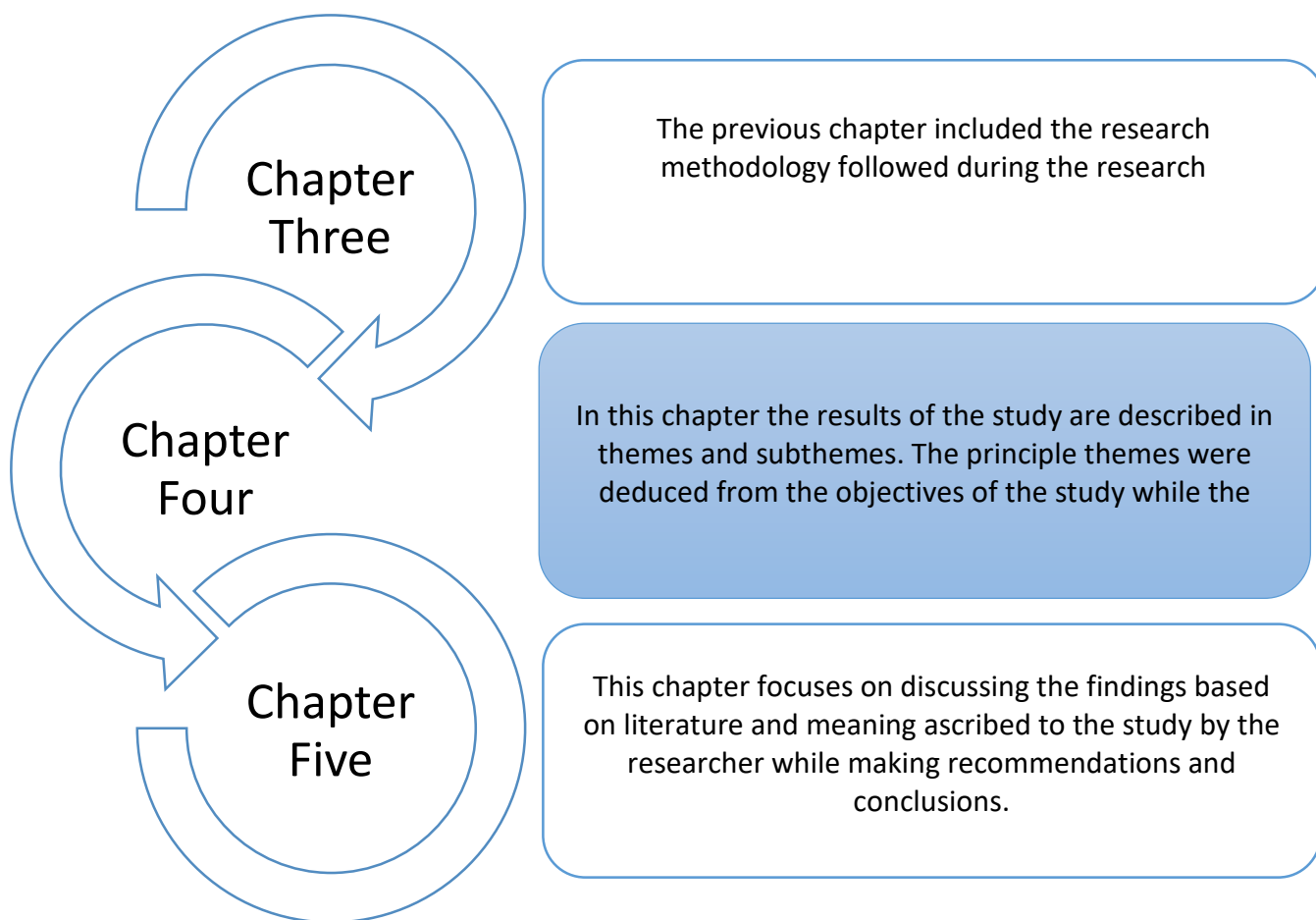
The aim of the study was to explore and describe the factors influencing the utilization of ANC services while understanding how information can be utilized to enhance the uptake of ANC services in order to improve maternal and neonatal outcomes in Saldana sub-district, West Coast region.

The study was conducted in Vredenburg Provincial Hospital, Saldanha sub-district, West Coast region of the Western Cape, South Africa. The phenomenon under study was women with un-booked and late booked pregnancies. The population for this study was all un-booked or late booked (after 32 weeks) pregnancies that delivered or presented in Vredenburg Hospital during the period of data collection. A purposive sampling method was used to identify participants who could answer the research question. A semi-structured interview guide was used during the interviews session. Data was analysed manually and thematic analysis was used

Ethics approval (S16/02/019) was granted by the Health Research Ethics Committee 1 of Stellenbosch University and institutional approval (WC_2016RP55_69) was granted by Western Cape Department of Health.

3.13 Conclusion

In this chapter the methodology of the study and the various steps of the research process applied in the study were discussed. These included the research question, aim and objectives, the study setting, research design, population and sampling, inclusion criteria, instrumentation, pilot study, data collection and analysis, trustworthiness (that will be discussed in chapter 5) and ethical considerations and the limitations experienced during the study.



4. CHAPTER FOUR

RESEARCH FINDINGS

4.1 Introduction

In this chapter the findings of recorded interviews of the pregnant women and focus group discussions with the midwives working directly with the women in an antenatal clinic or maternity ward setting are provided and interpreted.

The data analysis followed the co-construction of the meaning obtained from the in-depth interviews with the nine (9) women who did not utilize antenatal services, two (2) women who utilized the clinic after 32 weeks and the two (2) focus groups with eleven (11) midwives including two (2) follow-up short interviews after the focus group discussions. Midwives with level one hospital-related and primary healthcare-(PHC) related experience were involved in the focus groups to obtain an in-depth understanding of why pregnant women do not utilize the ANC services or utilize them late. The different sources of knowledge and experience from the midwives were also used to illuminate the information needed to promote and motivate the use of these essential services.

The data collected was analysed using thematic analysis from each unit of analysis (the un-booked/late booked clients as one unit and the midwives as another unit of analysis). Data triangulation was done without losing the voice of the participants, whether within or between the units of analysis.

The analysis entails the use of raw data from participants' experiences and merging that into categories that are grouped together as sub-themes, which are then combined into a theme.

4.2 Setting of the research

The research was conducted in Vredenburg Provincial Hospital and one of the surrounding clinics. Hopefield Clinic is situated at the border of the sub-district about thirty-five (35) kilometres away from the hospital. Two (2) midwives from the Hopefield Clinic were interviewed as they operate and manage the rural mobile services in the sub-district. BANC form part of the comprehensive service that is rendered in the rural areas. The mobile services include four routes of up to fifteen

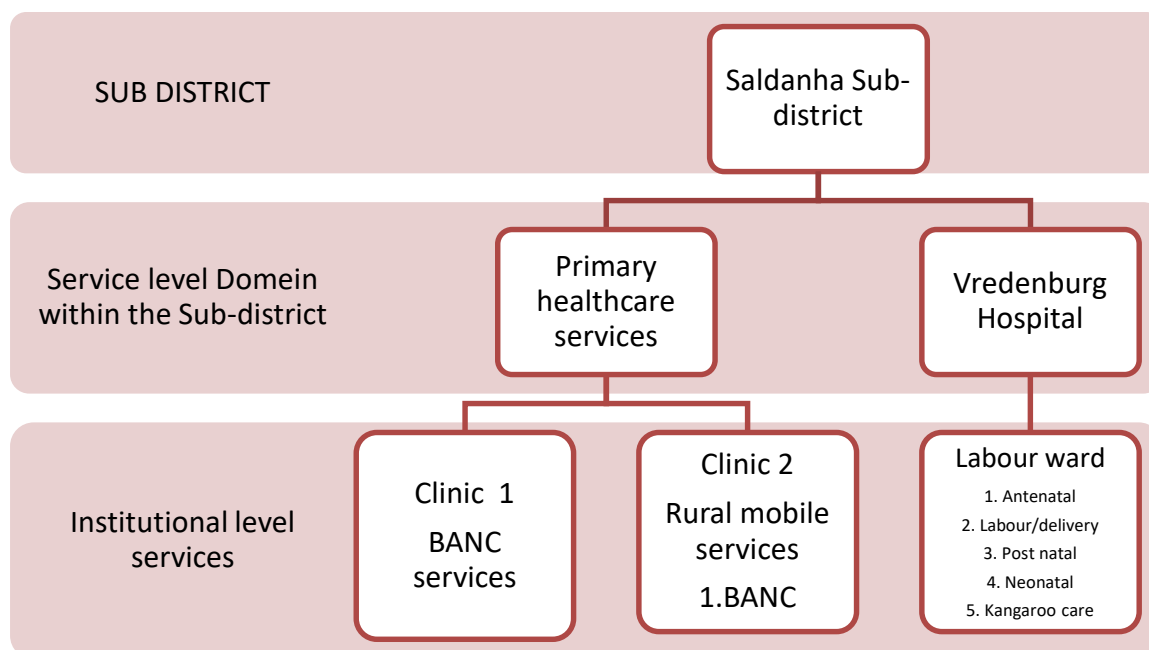
(15) to seventeen (17) farms per route. The mobile services are rendered to each route every six weeks, and that may depend on the availability of the healthcare provider.

There were two units of analysis, which were the un-booked and late booked women, as well as the midwives from Vredenburg Hospital and PHC services. Midwives were used from the different domains like hospital-based maternity services and PHC clinics, as both domains are involved in rendering antenatal and labour/delivery services.

Below is an outline of the relationship of the different service domains and how they interact with one another. The Saldanha Sub-district is one of the five (5) sub-districts in the West Coast District and they manage the two areas of service, namely hospital-based services and PHC-based services also referred to as community-based services (CBS). The hospital-based services render hospital-related services of which labour and delivery services form part. PHC-based services render community based healthcare services, of which BANC forms part.

As patients make use of both type of services during pregnancy, the experiences of midwives in both domains were used and analysed to create an in-depth comprehensive overview and understanding of the phenomenon at hand.

Figure 7: Sub-district service domains



Qualitative data analysis was conducted from the experience of late booked and un-booked pregnant women regarding reasons for not utilizing BANC services in the Saldanha Sub-district. Analysis was also conducted on information needs that might influence motivation to utilize these services during pregnancy. These data were received from late and un-booked pregnant women as well as experienced midwives working in this domain.

4.3 Un-booked/late book Women (Embedded unit of analysis)

There were nine (9) un-booked, two (2) late booked women and eleven (11) midwives who participated in the study. Four (4) of the un-booked women declined to participate in the study. They were seventeen (17) twenty-three (23) thirty-four (34) and forty years old. The reasons for declining were not indicated.

The un-booked and late booked women were aged between twenty-four (24) and forty-seven (47) years of age, which is within the reproductive age of women. This is an area, according to Stats SA (2011) that has an Afrikaans-speaking population of 311,829 which constitutes 83.7% of the total population. The dominant race in the area is also Coloured, that constitutes 66.6% of the total population (Stats SA, 2011).

Table 17 indicates the total population of the West Coast District. The table also elaborates on the first language statistics and the total race percentage in the district. That gives an indication of what the dominant race and language preferences are.

The majority of the available pregnant women during the time of study were Coloured and that reflects in the demographics of the participants. Ten (10) of the eleven (11) participants were Coloured and only one (1) was African according to the racial profiling in South Africa. There were no white or other races among the groups.

Five (5) of the un-booked and late booked clients were employed and six (6) were unemployed at the time of the data collection. Three (3) of the un-booked clients were married and lived with their respective husbands and children, while six (6) were in a stable relationship and two (2) of the six (6) lived with their partners and

children. The other four who were in a stable relationship lived with their parents or siblings. Two (2) of the women were single at the time of data collection and living with their parents.

Table 10: First language statistics and the total race percentage

First language			Race		
Language	Population	%	Race	Population	%
Afrikaans	311,829	83.7%	Coloured	260,850	66.6%
Xhosa	31,978	8.6%	Black African	64,110	16.4%
English	14,828	4.0%	White	61,527	15.7%
Sotho	4,668	1.3%	Indian or Asian	2,181	0.6%
Tswana	2,358	0.6%	Other	3,098	0.8%
Sign language	1,146	0.3%	Total	391,766	
Zulu	833	0.2%			
Ndebele	683	0.2%			
Tsonga	448	0.1%			
Venda	327	0.1%			
Northern Sotho	322	0.1%			
Swazi	206	0.1%			
Other	3,043	0.8%			
Total	372,669				
Not applicable	19,099				

Stats SA (2011)

All of the un-booked women indicated knowledge of the ANC services and all of them stay in walking distance from the respective clinics. Nine (9) were un-booked and two (2) were late booked after 32 weeks of gestation. Three (3) were gravida 2, one (1) was gravida 3, one (1) was gravida 4, two (2) were gravida 5, two (2) were gravida 6, one (1) was gravida 7 and one (1) gravida 9. From the eleven (11) six (6) were Grande multipara. Seven (7) had a normal vertex delivery (NVD), two

(2) had caesarean sections and two (2) were still pregnant during the time of data collection.

Maternal risk factors were advanced maternal age of five (5) participants that could influence the genetic disorders in the foetus. One (1) had a Born before Arrival (BBA). That could influence the birth process and the emergency management immediately after birth.

Three (3) of the participants had previous caesarean sections, one (1) had two previous Intra-Uterine Deaths (IUD) in the third trimester and one had an 2nd trimester miscarriage. One participant had a previous early neonatal death (ENND) and four (4) of the nine (9) babies were prematurely born or had possible intrauterine growth restriction present. Due to their un-booked/late booked status this could not be determined. One (1) participant was diagnosed with HIV and had no preventative treatment during pregnancy.

Neonatal complications were three (3) low birth weight babies of between 1400 and 1600 grams. One (1) was diagnosed with Neonatal anencephaly/Cystic encephalocele and one (1) suffered from perinatal hypoxia after birth.

4.4 Midwives (embedded unit of analysis)

Eleven (11) midwives consented to participate in the study including the pilot interview. Three (3) individual interviews were conducted and two focus group interviews were conducted with four (4) participants in each focus group. All of the midwives were females aged between twenty-nine (29) and fifty (50), while only two (2) could not participate due to unavailability and workload. Ten (10) of the eleven Midwives were Coloured and one (1) was African.

Six (6) participants are employed in Primary Healthcare (PHC) services where the Basic Antenatal Care (BANC) services are rendered. The services in the PHC clinic are comprehensive of nature and BANC forms part of the comprehensive services. They also render rural mobile services for patients on farms. All of these participants are Basic Midwives.

Five (5) of the midwives are employed in Vredenburg Hospital, maternity ward. The ward offers antenatal, labour, postnatal, neonatal and kangaroo mother-care

services. In the ward, management and treatment of complicated conditions are rendered and deliveries are conducted. The maternity ward is the referral option for PHC BANC services. Two (2) are advanced midwives and three (3) basic midwives. The experience of the midwives in the ANC/Maternity was between four (4) and thirty-three (33) years.

According to the Nursing Act no 33 (2005:25) a basic midwife is a person who is qualified through a prescribed basic midwifery course (R 245) and the person is competent to practice basic midwifery to a prescribed level. The Nursing Act further elaborates that an advanced midwife, also called nurse/midwife/accoucheur specialist, is a person qualified with a postgraduate diploma, on a National Qualification Framework (NQF) level 8, who has advanced midwifery expertise and practice within the ethical legal parameters to render a comprehensive specialist service.

4.5 Themes emerging from un-booked/late booked women unit of analysis

From the data collected, the following principle themes and subthemes emerged. Three principle themes were deduced from the objectives, while the sub-themes emerged from the data coding and categorization. The three principle themes which emerged from un-booked women unit of analysis include **inadequate utilization, information needs, information optimization**. The summary table below indicates the summary of themes and subthemes that fall under this principle theme inadequate utilization.

Table 11: Reasons for inadequate utilization

<u>Principle themes</u>	<u>Themes</u>	<u>Sub-themes</u>	<u>Categories</u>
Inadequate utilization	1. Personal Factors	A. Maternal feelings	<ul style="list-style-type: none"> ✓ Ambivalence ✓ Denial and ignorance ✓ Unwanted pregnancy ✓ Feelings of condemnation/anxiety/embarrassment ✓ Insecurity ✓ Withdrawal
		B. Psychological trauma	<ul style="list-style-type: none"> ✓ Post-traumatic stress disorder ✓ Personal stress
	2. Social factors	A. Social Support	<ul style="list-style-type: none"> ✓ Lack of Emotional support ✓ Lack of Paternal commitment ✓ Social rejection
		A. Access to services	<ul style="list-style-type: none"> ✓ Turned away ✓ Service refused ✓ Waiting time ✓ Privacy and confidentiality
	3. Institutional factors	B. Staff matters	<ul style="list-style-type: none"> ✓ Attitude ✓ Unavailability of staff ✓ Information inadequacy

4.5.1 Principle Theme: Inadequate utilization

This principle theme is deduced from the objective: “to describe the reasons for inadequate utilization of antenatal services by pregnant women in Saldanha sub-district, West Coast district”. In this objective the ultimate reasons were explored as to why the essential services of BANC are not utilized by pregnant women in the Saldanha sub-district. The underutilization of these essential services has led to major implications for un-booked and late booked pregnant women as described in chapter one. The themes that emerged from the data collected are Personal factors, Social factors and Institutional factors.

4.5.1.1 Theme: Personal factors

The sub-themes that emerged under the theme of Personal factors include maternal feelings and psychological trauma as indicated in table 4.1. The sub-themes that emerged under this theme included maternal feelings.

Maternal Feelings

Maternal feelings were illuminated by the fact that the women did not want to accept that they were pregnant due to their present circumstances, which made

them rather ambivalent. Maternal feelings like personal denial of being pregnant, ignorance towards the pregnancy and symptoms, the feeling of being embarrassed by the pregnancy that led to the feelings of being mad and angry at themselves, were reported. Some of the pregnant women reported feelings of unwanted pregnancies and they fostered thoughts of abortion and adoption.

Maternal feelings such as the refusal to accept the pregnancy was evident. Un-booked/late booked women were subjected to the dominance of personal related issues/factors that influenced the feeling of rejection at that point in time. That led to the fact that they went into denial of the pregnancy and they totally ignored the physiological signs of pregnancy like missed menstruation cycle or amenorrhea, feeling of movements, change in body shape, tender breasts etc. Lowdermilk, Perry, Cashion and Alden (2012:292) indicate that nausea and vomiting, urine frequency and fatigue may also be present.

The categories that emerged under the sub-theme maternal feelings included ambivalence, denial and ignorance, unwanted pregnancy, feelings of condemnation, anxiety, embarrassment, insecurity, withdrawal /post-traumatic stress, post-traumatic stress disorder and personal stress

According to the American Heritage Dictionary of the English Language (2016), **ambivalence** is the state when you cannot make a decision or when you foster the coexistence of two opposite attitudes or feelings like acceptance or rejection, love and hate. It further elaborates that ambivalence is the uncertainty or indecisiveness as to which course to follow.

As pregnant women experience the pressure of ambivalence, some pregnant women succumb to the rejection rather than the acceptance. That was obvious in the data collection of this study. The un-booked/late booked patients were confronted by the personal decisions to accept the pregnancy or not. The acceptance or rejection of that physical state was influenced by certain factors, emotions and/or circumstances. Some of the un-booked mothers like Pt.2 just made the decision not to use the BANC services.

“...I had a normal pregnancy...I just didn’t book myself, that is all, but further... it was normal. I didn’t go to the clinic...I

had no clinic card...I have never been at the clinic, with this..."
(Pt.2)

Although it was her 6th pregnancy she decided not to use the BANC services. These are some of the direct responses of the un-booked pregnant women with regard to the acceptance or rejection of the pregnancy as some of the women did not expect the pregnancy and their life plans were disrupted, which increased ambivalence.

"...this pregnancy was a bit of a shock to me. This isn't what I wanted right now. This is maybe one of the reasons I didn't book myself. What I wanted...I wanted to be married first, with the first one I wasn't married...and I didn't want to bring another baby into the world, before I was married..." (Pt. 3)

"...I'm not so happy about this pregnancy. Because it was my fifth child. And I feel it is... Why more? And things are already at the difficult side..." (Pt. 5)

Increased pressure to conform to certain societal expectations such as marriage before children made the women anxious and that increased ambivalence. The women needed to feel accepted by their families for them to make informed decisions about the pregnancy and birth, such as booking in the clinics. Most of the participating pregnant women were living with their parents, which influenced their feeling and resentment towards the pregnancy. Some of them were unemployed and they were dependent on their family for financial assistance.

"...The reasons were that I was unsure if I want to keep baby, and then it was also that uhm... I didn't know what my family would say; everything was too much for me and..." (Pt. Pilot)

Denial and Ignorance was another category that was evident in the data collection. Most of the un-booked/late booked pregnant women were in denial of their pregnancy and refused to believe that they were pregnant.

"...and that was the reason I never came to the clinic. I was..., I knew I was pregnant. I was in denial. I knew but I did not want to know. Does it make sense...?" (Pt. 5)

“...I never, never, never wanted to go to the clinic I was too shy and too angry. When I walked in the streets I was wearing big jackets to hide my pregnancy...” (Pt.1)

As they were of the view and opinion that they were not pregnant, they fostered feelings of denial towards the pregnancy and they ignored the signs and symptoms of pregnancy. Signs and symptoms as described above are indicators that are present as early as the first five weeks of pregnancy.

“...I kept quiet about it, yes...but I said no, I am not going to go book myself...” (Pt.2)

“...this is the seventh baby neh... my timing was just out... because I got my periods, and I couldn't find out...” (Pt.4)

These feelings of denial towards being pregnant and ignoring their symptoms influenced their motivation to book for pregnancy. The women ignored confirmatory signs such as a baby moving at greater than five months as they were not prepared for pregnancy.

“...I didn't know that I was pregnant because I was recently on the tablet for prevention.... He was kicking...It started at five months, but I didn't...I didn't...because I knew that I was using prevention...” (Pt.10)

Another woman totally ignored the signs and symptoms of pregnancy until she was forced to see her abdomen and accept the reality that she is pregnant.

“...She then asked me if I knew that I was pregnant and I asked her how I can be pregnant because I didn't look pregnant and still got my menstruation every month. After she examined me, I saw my stomach, at that time I was thirty-one weeks...” (Pt.9)

Most of the un-booked/late booked pregnant women shared feelings that they did **not want to be pregnant**. They provide the reason that they were not ready for the pregnancy.

“...I didn't really plan for this baby...” (Pt.8)

They fostered thoughts and feelings of abortion, adoption and even self-harm. These were some of the options that the pregnant women explored.

“...one of the options was to abort baby, but I didn’t go that far. I was not ready but now I am ready. And for me it’s like I am young and I’m sitting with my second child...” (Pt. Pilot)

“...I even, I thought about terminating the baby. I had those gruesome thoughts that I wanted to drink pills just to do something...” (Pt. 1)

“...Adoption. But that was not the first... First was Abortion ...or doing something to myself that I can just die.... I was standing and thinking what building is flat enough for me to jump from. And that type of things ...” (Pt. 5)

“...I was stressed, a lot. To me it sometimes felt like I wanted to take my own life. I didn’t feel to live anymore...” (Pt. 6)

Some of the maternal feelings that were evident were the feeling of **embarrassment** to be pregnant, being **mad** and **angry**. They blamed themselves for being pregnant again and personally condemned their pregnancy. The feeling of disapproval and disappointment towards the pregnancy was conveyed in the data collection. The feelings of being mad and angry for being pregnant again were evident. The American Heritage Dictionary of the English Language (2016) defines condemn/condemnation as a state of disapproval or to pronounce judgement against. .

“...when I got pregnant, I hate it so much...” (Pt.5)

“...I was very upset...Because I knew that I now had to go to the clinic...” (Pt.8)

“...When I found out that I was pregnant I was mad at myself. I never wanted to go and I never wanted to take my children to the clinic because I was shy and because what were the people at the clinic going to say about me...” (Pt. 1)

They were always concerns of what people would say about them being pregnant. Those feelings of shame allowed them to hide the pregnancy from their families and the public.

“...I was very conscious of people. I was aware about what people will think about me... and say about me... This is why it was a shock to me, because the first time I already felt how it was...for me it felt like, it was the most hurt I ever felt...I am now one of those outsiders, which have two out of wedlock kids...” (Pt.3)

Insecurity and **uncertainty**, especially of family support, was another category that was revealed. As some of them are reliant on the family for financial, emotional, psychological and physical support, they felt unsure or insecure of the support once they announced the pregnancy, and they were afraid to lose the support once the unwanted pregnancy becomes public. For that reason, they hid the pregnancy from the family.

“...The fact that it will be my second child...and I knew that I will disappoint a lot of people...Especially my parent, my mother. This is also not what she wanted, for me...” (Pt.3)

“...But I have family and friends who are always there. We can't always depend on them...” (Pt.5)

“...my father... he was disappointed in...in this because I was pregnant again...” (Pt.6)

Maternal feelings of being shy were one of the reasons these un-booked pregnant women hid their pregnancy. Some were also angry, as discussed above, and simultaneously these feelings merged and led to **withdrawal** of women from the public. These personal withdrawals were accompanied by shame and they tried to hide the pregnancy from public. Some experienced real symptoms of social withdrawal because of social circumstances that they were subjected to.

“...I... did not want to walk to the clinic to book myself. I was shy and I knew people were going to judge me because here I was pregnant with my fourth child each one with its own father so ...so it was all these things that withdraw, withdraw me, that I... almost like I must not mix with anyone. I must not get to a clinic, I must just be at home...I just wanted to be alone, after my mother's death. (Pt. 1)

“...I was very conscious of people... I was aware about what people will think about me and say about me...I am now one of those

outsiders, which have two out of wedlock kids... still feeling inferior... it feels to me that I am a failure now, because I can't live up to his expectations... I actually hid it a lot, yes..." (Pt. 3)

"...in the morning, I stand up...my father will go to work... I will just sit on my own, outside...But when my father get home, the afternoon quarter past 5, he clocks out and get at home half 6 or to 6 then I will eat for the first time..." (Pt.6)

Psychological trauma

The second sub-theme in the personal factors theme is the Psychological trauma that pregnant women experienced before and/or during their pregnancy. The American Heritage Dictionary of the English Language (2016) defines Psychological trauma as an individual experience of an event or conditions that overwhelms the ability to cope and it includes helplessness, pain or loss. Symptoms in general are social withdrawal, anxiety with mood swings and poor concentration. Emotionally symptoms of anger, denial, outbursts and sadness appear.

Two of the un-booked pregnant women reported on emotional and psychological trauma that they have been subjected to. They had symptoms of **Post-traumatic stress disorder (PTSD)** and endured personal stress. These feelings and symptoms contributed to pregnant women not utilizing the essential BANC services during pregnancy. Lowdermilk et al. (2012:759) define Post-traumatic stress disorder (PTSD) as a mental health condition that occurs as a result of a terrifying event. It occurs in people who either experienced or witnessed it. Symptoms may include flashbacks, nightmares and severe anxiety, as well as uncontrollable thoughts about the event.

One un-booked pregnant women (Pt. 7) was raped at the age of 17, almost 20 years ago. This was the first time she ever talked about it.

"...It was in my young days...years, when I was still in school, at the time I was seventeen years old, I was in school and uh... I did hard...I didn't know, yet that I was pregnant with my girl... The eldest, and there one night, I was raped by six guys, on the hostel yard and it was with...after they found out, the doctors found out that time, when this happened, that I was pregnant...And because of what they did, a lot of

my mother parts inside... during the rape. Because the doctor had to, the items they pushed inside me like, the beer bottle, my clothes and that stuff, the doctors had to remove and there they found out, that I was pregnant... and at that time I was three months pregnant, with my girl. And ever since that uh...it was between me and her...the past still haunts me, everyday... And even with my children, I am very protective because, it feels to me that my girl or any of my children can't be out of my watchful eye, for two hours...because... that, what happened to me... I feel that it can also happen with my children...People...it isn't easy to talk about it...One wouldn't open up easily and it feels like, ah seventeen... I was seventeen years old...I am thirty-six years old now...If you could talk to someone, it helps a lot...There always happens something that reminds you about... And at that time, my mother passed away..." (Pt.7)

This was the story of the pregnant women who endured Psychological trauma and still suffering from PTSD. The scars of the event contributed to her emotional status that demotivated the use of BANC.

"...after that I struggled with my pregnancies...This is my fifth pregnancy... I didn't go book, that was in 2012...I was very angry, I was upset because I know that my pregnancies are risks and because the doctors previously told me that my womb, open at seven months. And I knew...it was stressful and I was upset because, it felt to me that I will just lose another child. And that was my fear. I was really terrified, for what will happen..." (Pt.7)

The second un-booked pregnant women (Pt.1) also endured PTSD as she discovered her murdered mother at the murder scene and she was also present when her father died. Her ordeal led to withdrawal from the outside world and she did not utilize BANC services.

"...I lost my mother and I took it hard because I just lost my mother and now I am pregnant and everyone at home are unemployed so, and I...did not want to walk to the clinic to book myself... because my mother was murdered... my mother's murder case still ongoing...The thing is [crying] I was, I was the one who found my mom...my dad minutes before he took his last breath, in front of me and my three

children...and I was also the one who found my mother, my mother was already murdered... so it was all these things that withdraw, withdraw me, that I...almost like I must not mix with anyone. I must not get to a clinic, I must just be at home...I just wanted to be alone, after my mother's death..." (Pt.1)

One of the un-booked pregnant women was subjected to **personal stress** due to a number of personal issues. That influenced her decision to utilize BANC services.

Personal stress is defined by The American Heritage Dictionary of the English Language (2016) as a condition or feeling of a demand that exceed the personal and social resources that the person has available to cope. All pregnant women are faced daily with social and personal challenges that test their ability to cope. It may be physical, emotional, psychological, or even spiritual. If they are not able to cope with the resources available, personal stress starts to build up.

The first two children's father is in jail and this baby's father left her for his first girlfriend. The foetus was diagnosed with foetal abnormality and she had an appointment for termination, which she defaulted on due to unknown reasons. She has no relationship with her mother and that causes further strain for her at home. This may be linked with social factors and it is also the effect or result of circumstances. Direct quotes from the un-booked pregnant mother:

"...With the previous pregnancies, the two children, or the two before this one, uhm... has the same father, they have the same father, but the father is in jail. That is why I say, I will be alone, again...But the...the...from his side...it was he, I mean his girlfriend, that he is back with, she was against it and she was always sending or told me messages about her wishing that the baby die and stuff like that. And then it was my mother, after she found out. And why...the reason why she was against it, was because it was another man's child. I already have two children from one man, why...that was the questions she asked me. Why did you again...It made me very...to say I was very...I was stressed, a lot. To me it sometimes felt like I wanted to take my own life. I didn't feel to live anymore ...Firstly, I would have wanted to change, uhm... I would have wanted to book myself, if I knew what I know now ...that the

doctor told me this morning that she will not live long... I blame myself because, maybe if I booked myself, they would have found out and there maybe could have be done something, about it. So I blame...or like I said, I have a part in her death, if she dies, I have a part in it, but I...special, she also could have said, but the Lord know of better..." (Pt.6)

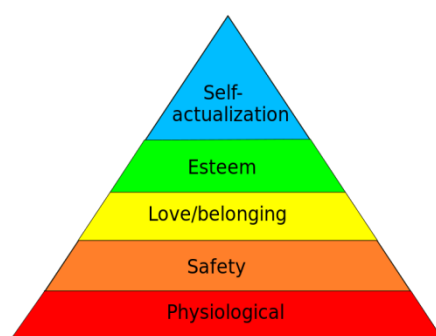
4.5.1.2 Theme: Social Factors

The second theme derived from the principle theme of inadequate utilization is Social Factors. This theme elaborates on the social factors that contribute to the inadequate utilization of BANC services. The sub-theme that emerged from theme Social Factors were Social Support. Categories emerging from the sub-theme include lack of emotional support, lack of paternal commitment and social rejection. These factors influence the use of BANC in the sub-district.

Social support

Every human being has a need to belong, to be loved, cared for and to be respected. These needs were observed and reported by Abraham Maslow (1943). The hierarchy of the human needs, as displayed below, indicate that every human being has the profound and intense need to be recognized.

The first levels of human needs are the basic physical needs that consist of food, clothes, oxygen and sleep. The second level of need is to be safe. He elaborated that the need is for security, stability and consistency. The third level of need is to be loved, to belong and to be cared for. The forth level of need is the intense need for esteem. That reflects the need for achievement and to be recognized. The fifth and last level of need is to achieve self-actualization. Maslow described the need for self-actualization as the desire to become more and more. This may include the need for knowledge, understanding, peace and self-fulfilment (Griffen, 1994: 124-133).

Figure 8: Maslow's hierarchy of needs

(Source: <http://www.afirstlook.com/>)

Social support is an important aspect of a healthy lifestyle as the cohesion and interaction may be beneficial to the emotional stimulation and health of the pregnant woman. Knowing that there is support available would alleviate preventable problems that may convert to conditions. Pregnancy is associated with many changes and that includes physical and emotional changes. The adaptation to those changes cannot be accomplished alone. Family is one of the stable structures that every person needs in order to flourish. Lowdermilk et al. (2012:18) define a family as primary unit of socialization and it forms a basic structural unit within a community. The authors further elaborate that, despite stress and strain, the family network and ties forms a protected support system for its members in general.

In essence, pregnant women cannot function alone. They need the support, communication and cohesion of family and they need to be recognized as displayed in Maslow's hierarchy of needs. They are also reliant on acceptance and respect from the broader community. These un-booked/late booked pregnant women were faced with **lack** of the essential **support** and that affected their personal will to seek needed help.

Many of the participating pregnant women feared the loss of the family support and some of them had no support. Some of the pregnant women were subjected to the stress related to being alone, with no help and no-one to rely on. Here are some of the direct quotes from the pregnant women being afraid to lose the support and the quotes from those stating no support.

"...the reason why, it's my second child and I was afraid of what my mother would say... That is one of the reasons, because I'm living

with her at the moment and I have a five-year-old daughter. This is now my second child and I didn't know what she would have said. And for me it's like I am young and I'm sitting with my second child."
(Pt. Pilot)

"...Especially my parents, my mother. This is also not what she wanted, for me..." (Pt. 3)

The social issue of poverty was also one of the reasons that added to the choice whether to use the BANC or not. The pregnant women were subjected to poverty and that influenced their motivation or enthusiasm to care for themselves.

"...I lost my mother and I took it hard because I just lost my mother and now I am pregnant and everyone at home are unemployed so, and I... did not want to walk to the clinic to book myself... All this poverty...most nights I didn't want to eat I just felt like crying, I felt like giving up and...it was just very hard, very hard for me. [" (Pt. 1)

Patient 5 was married and she experienced no support from her husband. She felt alone in the marriage and that influenced her motivation to book for BANC.

"...But I have family and friends... We can't always depend on them... There were thorns in a marriage. Many thorns... There is never time for me... there's never attention ... or late at night when the children are sleeping... But now it feels like I only get attention in the bed ...then it just a half an hour or so when we would talk and cuddle ... all this formed part of the decision or the feeling towards this pregnancy..." (Pt.5)

They were also subjected to interpersonal related issues that caused stress and influenced the support at home. With no support available at home, personal harmony and synchronization are affected.

"...And then it was my mother, after she found out. And why...the reason why she was against it, was because it was another man's child. I already have two children from one man, why...that was the questions she asked me. Why did you again...And but me and my mom, we don't have such a

good understanding. I still live with them, now...me and my two children. But I and she clash a lot..." (Pt. 6)

These factors contributed to the personal choice whether to utilize BANC or not. Social problems, that are the cause of stress in pregnancy, were evident in the data collection. The lack of the needed social support for the pregnant women causes the inadequate utilization of these essential services.

The need and necessity for support were evident in the data collection as that was experienced as a barrier. The lack of social support is a barrier to the utilization of essential services like BANC and it also influences the level of motivation to seek help. Social support also creates the need for acceptance, emotional stability and the belonging to a homogenous group.

Paternal support is one of the most important requirements for a healthy relationship in pregnancy. Lowdermilk et.al (2012:25) explains that certain factors like cultural expectations and norms, contribute to paternal participation during pregnancy and childbirth. This may not be an excuse not to provide support and be committed.

Eight (8) pregnant women who participated in the study were pregnant by different fathers as from their previous pregnancies. Paternal support and commitment were absent and that influenced the emotional state that allowed the women to participate in BANC or not.

"...the baby's father and I are not in a stable relationship. He has a girlfriend, she is not from here, he only wants to see me when he is not working, and that only happens maybe once or twice. What really mad me angry was when he found out that I was pregnant, him knowing very well that he was the guy that made me pregnant, he ignored me he did not want to see me and that led me to want to do an abortion..." (Pt.1)

"...when he came home. And ok the first night is where we are together as a family. And then it is just he is with his family or with my dad or...He doesn't just talk. There is never time for me or there's never attention. And then the day before he needs to go to sea than it is again he is fine then he goes again..." (Pt.5)

“...we were together but after he found out that I was pregnant...he ended the relationship and he went back to his first born’s mother...and at the end, I was alone, again...” (Pt. 6)

These un-booked /late booked pregnant women also reported **rejections** or fear of rejections from the broader community. This personal feelings and attempts at rejection were also part of the reason why these women refused to book. They were afraid that once the public knows they are pregnant, that would jeopardize their status, roles and influences in the community they live in.

“...Oh...uhm...one of the main reasons also that I kept my pregnancy to myself because of support. I was afraid what people would say...” (Pt. Pilot)

The American Heritage Dictionary of the English Language (2016) defines Social rejection as a deliberate attempt to exclude someone from social interactions or relationships. In this category social rejection is coming from the community and it does not include the family structure support at home. Some of the pregnant women reported on the fear of the rejection that already influenced their emotional state. That’s why they hid their pregnancy and refused to use BANC services. Here are some of the direct quotes from the pregnant women with regard to rejection from the community:

“...I knew people were going to judge me because here I was pregnant with my fourth child each one with its own father so... it took me long up until last week Wednesday when I decided to go to the clinic and...and, and I never wanted to go and I never wanted to take my children to the clinic because I was shy and because what were the people at the clinic going to say about me...” (Pt.1)

“...Certainly, what people will say... The fact that it will be my second child...and I knew that I will disappoint a lot of people...I was very conscious of people...I was aware about what people will think about me...” (Pt. 3)

“...this wasn’t an easy pregnancy for me. Firstly, a lot of people were against this pregnancy... I mean his girlfriend that he is back with, she was against it and she was always sending or told me messages about her wishing that the baby die and stuff like that...” (Pt.6)

4.5.1.3 **Theme: Institutional factors**

This is the third theme that emerged from the data collection with regard to reasons for the inadequate utilization of BANC services. Some of the other factors are also beyond their control. These factors are based on the services rendering BANC. The two major sub-themes that emerged was access to services and staff matters. These two sub-themes were factors that directly contributed to pregnant women not utilizing the BANC services. These were avoidable factors that influenced the status of not booked and late booked. General feelings of the health services were reported such as:

“...that the service at the clinic is very bad...” (Pt.8)

Access to Services

The sub-theme Access to Service holds a major part in the institutional factors and embedded in it is categories like being turned away, service refused, waiting time, privacy and confidentiality. These categories had major implications for the unbooked/late booked pregnant women as they were barriers to them.

Many pregnant women who participated in the study reported that they have been **turned away** when accessing the services to book. The service will confirm the pregnancy and book the woman by doing health status assessments and plan referrals or follow up visits.

Being turned away means that the person went for the booking of the pregnancy and was turned away to come back another time. The person who was coming for the service was the pregnant women and the one who sent the person away was one of the staff members. Pregnant women reported that they went to the clinic to book their pregnancy and they were turned away to come back again another day. That resulted in feelings of discouragement and that demotivated them to access the services again.

“...so I went to asked her when can I book myself and she said that I must come on Monday... She told me that they don't book on Wednesdays but on Mondays ...After the weekend on the Monday I would have booked myself but I couldn't make it...” (Pt.1)

“...I bought me a home tester. I then found out that I was home. I went to the clinic, three times, but every time, they told me to come back on another time. When I went there the Wednesday they told me to come back the

Friday, the Friday they told me to come back on the Monday. I then became discouraged, and decided not to go again...” (Pt.7)

That led to them deliver un-booked with all of the associated complications and consequences attached:

“... I am disappointed that I did not book myself because today I don't even know how many months I was when I gave birth maybe I wouldn't have been in this situation that I, that my child is so small...and malnourished and so if only I did what I had to and book myself...” (Pt. 1)

Some of the pregnant women experienced that the return dates were too far away or far apart, resulting in them becoming discouraged to go back again.

“...no because they...when you...even if you go early to the clinic, they will...they will check you that day and then they will maybe tell you to come back after two or three months for a check-up...that is why I don't go early... Because you will anyway have to wait two or three months, when they decide that you can come again ...” (Pt.4)

Other pregnant women reported that services they requested, like sterilization or family planning was refused, which also added to the feeling not to utilize the services any more. That could have led to the unwanted pregnancy.

“...I was ready for the operation, to close me...He told me, uhm...it was too soon, and that he is not going to close me...and then he sends me home... And this woman, who works with me, she is a black lady, she came to me and she told me but, uhm...she was at Hanna Coetzee-clinic and she went on her date, also for an injection...and then they told her that they can't give her an injection and she must go home...now it is that type of things...” (Pt.4)

Waiting times

Waiting times at the clinics are experienced as a problem according to the responses by pregnant women in the data collection. They reported that they are subjected to long waiting times that affected the motivation to use the services again.

“...And you must sit and wait long...and I decided that I will go home, I am not going to sit there any longer, because they take so long to help you...No, I didn't go back again...” (Pt.4)

The pregnant women also reported that the staff were also responsible for the long waiting times that they are experiencing as they take their time to help the pregnant women.

“...The clinic services are normally bad, because you can go at six the morning, you will still sit there and then at four you must see if they will help you... they will take they time...” (Pt.7)

Then the staff will wait until the afternoon to inform them that they will not be helped and they must come back on another day.

“...I went to the clinic at 8 o'clock the morning, then at 3 o'clock the afternoon, they would call me and tell me that it is already too late...” (Pt.10)

These issues with regard to waiting times influenced the motivation and enthusiasm to utilize BANC services. The pregnant women who made the effort to access the services for the essential services experienced the long waiting times as a barrier.

Privacy and confidentiality

Every patient has the right to **privacy and confidentiality** as stipulated in the Patient Rights Charter (2000). That was another issue that was reported in the data collection. Pregnant women reported that their personal information and affairs were discussed with other members of the family without their consent. That made them angry and reluctant to use those services again. That influenced the trust relationship patients foster in the health services.

“...It is because my aunty works at the clinic... they talk man... that's why I didn't want to go... stuff is supposed to stay between us or anything, but...but it also reaches her... and then she would tell me or my mother about this, this, this or this and things that I wouldn't even tell my mother, then she would maybe know about it...With the previous pregnancy...she did...some of the stuff got out...the last one, to be more specific, the fifth one, so I decided not to go again...” (Pt.2)

Staff matters

This category reflected the issues of factors that are caused by the staff or healthcare workers (HCW). These include attitudes, unavailability of staff and information inadequacy. Attitudes are reported to be one of the factors that have a major effect on the motivation of pregnant women to utilize the services. The way the staff treats patients impacted directly on the willingness and courage to use the service.

The pregnant women reported that the **attitude** of the staff was not acceptable and they describe it as bad:

“...The staff, the staff their attitude are very, very bad...” (Pt.8)

They reported that the staff did not treated them with respect and that influenced their motivation to use the services. The way how they were spoken to caused unhappiness and discontent, especially if it were done in front of other patients in the waiting room:

“...they stress and yell on you, I...I or I couldn't deal with that. I mean, I am a mother of two... I know the difference between right and wrong. I know what I must do...the must and the must not's... they don't have a way of talking... Then I asked her why she didn't tell me that in the beginning, why did you have to be rude, scold me in front of a lot of people” (Pt.6)

“...she didn't even want to listen to the explanation I wanted to give her, about the danger of my pregnancies. And she didn't want to understand... the attitude they have toward the patients, isn't something good...” (Pt.7)

The need to be treated with respect was evident in the data collection. The staff at clinics reportedly treated the patients with no respect. And that impacted on the dignity of patients, whether pregnant or not. The patients have indeed the right to be treated with respect and dignity as stipulated in the constitution of South Africa (1996). The Bill of rights explains that every person should be treated with respect and their dignity should be protected.

Pregnant women also reported that when they access the clinics for service, the **staff** that can help them were **not available**. They had to ask the receptionist if they will be seen today and the reply was that the person who is doing the booking of pregnancies was not available.

“...And one Monday morning, I stood up to go to the clinic; it was thirty minutes to six. I waited in the line; I go to Hanna Coetzee-clinic. The clinic usually opens at to eight, and then they begin to help after nine. I was sitting and waiting and after nine I went to the...To the reception, I asked when we will be helped, because I come to...to book. The one, lady told me that the sister, who is doing the booking, isn't there today... I went home; I didn't go back the next day...” (Pt.6)

The other pregnant women reported that before her pregnancy she went to the clinic for family planning and they informed her that the staff was busy and that she could not be helped that day.

“...it was before December month...just before our uhm...season time, when our restaurants are getting busy...And I went for an injection...They send me from one room to another. They have...how many rooms are there...one, two, three rooms... And I went to the office...but they couldn't help me because they were busy” (Pt.4)

All of the above reasons have impacted on the utilization of BANC services by pregnant women. The excuse of having no staff available or being too busy to help them is an operational issue that also influenced the will and motivation to use the services as recommended.

Another problem that was reported during the data collection was that the patients were not aware or informed of general information; for instance, that genetic screening was available for pregnant women older than 36 years of age at 16-18 weeks of gestation if bookings are done early.

“...So I didn't know that they also, uhm...send you or things like that. Usually I go out on my own...than I make sure that the baby is all right...” (Pt.4)

Other general pregnancy-related information was also reported to be a gap and that was evident in the data collection.

“...no-one at the clinic explained to me that it will work like that...I feel very unhappy about that...” (Pt.8)

Information inadequacy was not directly part of the reasons for not using the services, but the knowledge thereof would have made an impact on the motivation to use the services.

In the principle theme, inadequate utilization, three themes were identified, i.e. personal, social and institutional factors. These three factors were direct reasons why pregnant women do not book or book late for BANC.

The study revealed that personal feelings like denial, disapproval and anger led to the rejection of the pregnancy and that contributed to their lack of enthusiasm to book for BANC. They had the tendency to ignore the signs and symptoms and fostered feelings of not wanting to be pregnant. They were aware of the symptoms of pregnancy and some replied that they had no symptoms of pregnancy until over five months of pregnancy. Upon that they hid the pregnancy and some planned to abort the pregnancy or give the baby up for adoption. Some had thoughts of self-harm.

They blamed themselves for being pregnant again and felt embarrassed by the pregnancy. They were uncertain of the support from their families as most of them were reliant on the social, emotional and financial support from their families. They feared the rejection from their community and some of the pregnant women withdrew themselves from the public arena because of the fear of rejection. Two of the pregnant women were subjected to personal stress and psychological trauma. One was raped during her first pregnancy and the other one discovered her mother's murdered body at home. They suffered from Post-traumatic stress disorder and had trouble dealing with the past.

Socially the lack of emotional support, social rejection and lack of paternal commitment were evident from the data analysis. The pregnant women reported

a lack of emotional support that had an influence on their decision to book for pregnancy. Some struggled due to no family support and some feared the loss of that support and of being alone. They reported that they had no one to rely on and some struggled with poverty.

Most of the participating pregnant women were not married and most of them reported problems with parental support. They were not sure whether the support from the father will be available, as one experienced that the baby's father left her for someone else whilst pregnant. Eight of the pregnant women were pregnant from different fathers. One pregnant woman who is married reported no support from their husband and that caused social problems that affected their willingness to book for BANC. In general, they feared the social isolation and rejection from their family and community

Another theme was institutional factors that influenced the pregnant woman's motivation to book for BANC. Problems with access to the service and staffing matters were evident during data collection. Pregnant women reported being turned away when arriving at the clinic for BANC. Some reported that family planning services were refused, which may have influenced their current state of being pregnant. Some of the un-booked pregnant women reported that their privacy and confidentiality were invaded as the staff shared personal information without their consent. Most of the participating pregnant women reported on the long waiting time that they were subjected to on their first visit or in subsequent visits. That affected their decision to utilize the services again.

Staff matters that were reported included the rude attitude of staff and the display of disrespect for the pregnant women that also contributed to their resistance to use the services again. They also reported that staff were not available for BANC when they arrive at the clinic and that resulted in the situation that they could not be helped that specific day. Another problem that was stated was the lack of general pregnancy-related information that could have influenced the motivation to use BANC during pregnancy. Some reported that they had no information before pregnancy that could have motivated them to use these essential BANC services during pregnancy.

All these reasons were given by the participating un-booked and late booked pregnant women on the question why they did not utilize BANC during pregnancy. These factors are the cause of the un-booked status of these pregnant women and most of them, if not all, are avoidable or reversible factors or issues that could have been eliminated or prevented.

4.5.2 *Principle theme: Information needs*

Table 12: Information Needs explored

Principle themes	Themes	Sub-themes	✓ Categories
Information needs	Institutional information needs	Competency	✓ Confidence in skills
		Obstetric Services	✓ Waiting times ✓ Services available ✓ Privacy and confidentiality
		Health Promotion	✓ Health literacy
	Interpersonal needs	Communication skills	✓ Professional behaviour
		Attitude	✓ Courteous
		Support	✓ Social support

This principle theme was deduced from the research objective: “To explore the information needs for pregnant women regarding antenatal care utilization in the Saldanha sub-district, West Coast district”. In this principle theme information needs to improve the use of BANC by pregnant women are explored. Two themes emerged from the data collection like institutional needs and personal needs.

4.5.2.1 *Theme: Institutional information needs*

Institutional needs are information that can be provided to the public from an institutional perspective. This information can influence the attitude that people have towards their health and choice that people make about their health. These identified institutional needs include competency levels or skills of the HCW, obstetric service and health promotion.

Competency

The public must know that competent, skilled practitioners are rendering the services and those services are safe to utilize. Competency is defined by The

American Heritage Dictionary of the English Language (2016) as the combination of observable and measurable knowledge, skills, abilities, qualification and personal attributes or a cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation and ultimately result in organizational success.

The pregnant women reported that they want to know that the HCW has the necessary **skills and competence** to deliver an effective safe service. They experience the need to know that they can trust the HCW with their condition or life.

“...like the nurse or doctor or whatever, must uhm...have skills, know what they doing, and inform me more... want to know that I and my child are in safe hands, that we would be taken care off and that when complications came the nurse or doctor would be able to handle them and that we would safely walk out of the process...” (Pt. Pilot)

“...if my child is health...if I am healthy...if my child is lying in the right place...Safe delivering...” (Pt.1)

Obstetric Services

Another sub-theme that emerged from the data collection was the obstetric services. Factors within the obstetric services were reported to be of concern included **waiting times, services available** within the obstetric services and **privacy and confidentiality**. These areas were seen as a barrier to the use of BANC and the pregnant women perceived these categories as information that needed to be promoted and advertised. The goal of this information broadcast is to enhance and promote the essential services in order to increase the uptake of BANC by pregnant women.

Waiting time was one of the categories seen as an important area that needs to be promoted. Because the pregnant women experienced the current waiting times in the clinic as too long, the need to announce a shorter waiting times were recommended. That would encourage the use of BANC by pregnant women in the sub-district.

“...If I knew or if the service were different at the clinic...for example you stand long in the line... as soon as they got there, they must start to help ...you sit there very long... if I

knew that you get helped quicker, then I would have book myself” (Pt.6)

Services available were another category that emerged through the data and that entails that the services available should be advertised to increase the awareness thereof by the public. The ultimate aim is to interest and attract pregnant women to use the services that could benefit the outcomes of the pregnancy. The different services available for pregnant women needs to be emphasized, like booking on the day of coming to the clinic, sonar services available for early bookings, tests that can influence the health status of the pregnancy like HIV, syphilis and congenital screenings. Other services available include family planning, cytology smears and other important women’s health-related services. These services should be an attraction for pregnant and non-pregnant women to use the services if needed.

“...Oh...about they services. What services they have available... According to age, yes...” (Pt.4)

“...firstly know the time period, how long you take to book...” (Pt.7)

“...sonar or so... know that there are tests that are done...” (Pt.8)

“...fill in the forms or let them sterilize me and stuff...” (Pt.9)

“...that you must go early to the clinic, to book...” (Pt.10)

Privacy and confidentiality were also reported as an important area or category that the public needs to know about. The pregnant women reported that privacy and confidentiality needs to be maintained and therefore the public should know that this will be maintained. The reason for this may be that private and confidential information should be kept confidential and the consent of the pregnant women should be requested and obtained before information can be distributed.

According to Department of health (2007) privacy and confidentiality of every patient should be maintained, including information concerning their health and treatment. This private information may only be disclosed with informed consent, except when required in terms of any law or any order of court.

“...I would have like there to be absolute privacy, that’s what I would want... Things that are talk about between me and a

sister should stay between us. That...that I know I can trust her...that type of things... To maybe let them fill in forms or something like that, to ensure people's privacy..." (Pt.2)

"...respect your privacy...someone that I really could share everything with ..." (Pt.7)

Health Promotion

The sub-theme health promotion also emerged in the data collection. The need for information and education was evident and that may be beneficial to the maintenance of healthy lifestyles in pregnant and non-pregnant women.

The American Heritage Dictionary of the English Language (2016) reports that Health promotion is a process whereby people are empowered to take control over, and improve their health. This is to reach a state of complete physical, mental and social well-being and it focus beyond the behaviour of social and environmental interventions.

In this sub-theme, one category stood out, namely **health literacy**, and that was to empower the people with literacy or knowledge and skills to improve decision-making about their own health. The American Heritage Dictionary of the English Language (2016) explains that Health literacy is a process whereby knowledge, skills and information are given to someone to empower that person to make healthy informed choices. That also means that the person is being skilled by the information given to be able to make their own choices.

Health information is regarded as knowledge that you get about something or facts or details about a subject that can be used to improve your health. This information can lead to an increase in understanding and decrease in uncertainty. Information is valuable because it can affect behaviour. Health Education is also regarded as a process whereby a person learns to behave in a manner conducive to the promotion, maintenance, or restoration of health. It is also any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes

The un-booked or late booked pregnant women reported that due to a lack of information, as they experienced it, they proposed or suggested that general information needs to be made available on a public platform.

They claim that information on general issues must be made available.

“...Firstly what would have helped, uhm... if the child is all right, as usual if the baby is all right, the pregnancy, will it...will everything be all right, do you understand? That they blood is right...a normal routine. Do you understand...” (Pt.4)

“...to give someone advice...” (Pt.5)

“...give you advice...” (Pt.7)

“...how do you handle the baby... food you must eat, the healthy food... protection against diseases...” (Pt.8)

“...that you must go early to the clinic, to book... And to know her status...” (Pt.10)

Then they also proposed health education regarding pregnancy, early signs and symptoms, as well as danger signs to be broadcast. This information and education is needed so that pregnant women can be liberated and open-minded when making health related choices.

“...Yep, uhm... a person expects of them to also give you information about pregnancy. Even if...if the question is simple, at least they must tell you...they can give you information...they must make time...according to the age...” (Pt.4)

“...they must explain to you... from your first pregnancy from the start of the pregnancy... up until nine months ... Almost like a lecture...” (Pt.8)

4.5.2.2 Theme: Interpersonal needs

Interpersonal needs are information needs that can be provided or delivered by midwives in the BANC and Maternity services. These needs were identified by the participating pregnant women and sub-themes that emerged were communication skills, attitude and support. These areas are also seen as essential and vital in the objective to improve the utilization of BANC by pregnant women in the sub-district. This theme refers also to the skills that are needed for effective communication and the way messages are given and received.

Communication skills

The American Heritage Dictionary of the English Language (2016) define communication as the conveying or exchanging of information or facts by speaking, writing, or using some other medium. It is also done by means of sending or receiving information, such as telephone lines or computers. It is a two-way process of reaching mutual understanding, in which participants not only exchange (encode-decode) information, news, ideas and feelings but also create and share meaning.

One of the un-booked pregnant mothers responded that the HCW needs to be more **professional**. Professional behaviour is described as a series of actions considered to be acceptable in the workplace. These methods of interaction are dictated by concepts like courtesy, politeness, civility, respect and good taste. Information needs to be disseminated and the public needs to be informed that the HCW is professionals and they will behave as professionals. They will communicate in a professional, efficient and respectable manner.

“...the staff must be more professional...” (Pt.7)

Attitude

The pregnant women also requested that the HCW needs to be **courteous** and polite. They need to display attitudes of care and respect. The public needs to be informed that HCW will treat them with care and respect. They will be considerate, attentive, kind and thoughtful.

“...respect for the next person’s circumstances...” (Pt.7)

“...They must just give attention to the people...” (Pt.4)

“...staff won’t stress... Show decency...” (Pt.6)

“...changes her attitude and treats, us as patients, with respect...” (Pt.7)

Support

The American Heritage Dictionary of the English Language (2016) defines **social support** as several forms of support like assistance or help that people receive from others. It can be emotional, instrumental and sometimes informational. Social support also means to have friends and family to turn to in times of need or crisis. Social support enhances quality of life and provides a defence against adverse life events.

Another need for information that was identified was the importance of social support from family and friends at home. One pregnant woman identified that she would have wanted to know that she has the full support of her family. That would have motivated her to announce and book the pregnancy.

“...the support from my parent, my mom... that she didn’t judge me, at that time... That she will always there, to support me...and without the sting words...” (Pt.3)

The assurance and guarantee of stable social support at home will enhance and improve the feeling of acceptance towards the pregnancy that will improve the utilization of BANC services in the sub-district. The approval from the family will therefor increase self-esteem and confidence of the pregnant woman that will allow the acceptance of the pregnancy with ease. The need to advocate for social support during pregnancy is obvious and the benefits thereof will be of great value and advantage for the pregnancy.

4.5.3 Principle theme: Information Optimization

Table 13: Information optimization strategies

<u>Principle themes</u>	<u>Themes</u>	<u>Sub-themes</u>	✓ <u>Categories</u>
Information optimization	Institutional influence	Health worker-led	<ul style="list-style-type: none"> ✓ Information ✓ Talks ✓ Displays ✓ Pamphlets
		Community based	<ul style="list-style-type: none"> ✓ Talk shows ✓ Home visits
	Community influence	Media/technology	<ul style="list-style-type: none"> ✓ Telephonic advertisements ✓ WhatsApp advertisements ✓ Instagram advertisements ✓ Facebook advertisements

Information optimization is the effort of turning identified information into a method of distribution. This principle theme was deduced from the research objective: “suggest how information could be utilized to improve ANC services in the Saldanha Sub-district, West Coast District”. This principle theme will allow the acknowledged information to be delivered to the community. Pregnant participants had some trouble in responding to this question or to elaborate on how we should

distribute the identified information. Themes that emerged from the data were Institutional influence and Community influence. As the information needs were identified and recognized, the dissemination and delivery thereof needs to be carefully planned with the intention to change behaviour.

4.5.3.1 Theme: Institutional influence

The theme institutional influence relates to how information can be disseminated on an institutional level. The information identified in the previous principle theme can be broadcast or announced in the institutions like the clinics or even in the hospital. The un-booked and late booked pregnant women identified information that will help to improve the utilization of BANC by pregnant women and they also identified ways or methods how this information can be delivered or conveyed. Only one sub-theme emerged from the data which is Health worker-led.

“...Like in at the clinics...” (Pt. Pilot)

Health worker-led

Health worker-led information delivery is the method whereby the information can be delivered by the HCW in the institutions. Patients can be informed or educated by HCW in clinics and hospitals. Methods include general information in the form of talks, displays and pamphlets. These were the methods that the pregnant women proposed during data collection. They proposed that information should be distributed in the form of health promotion talks within the institution

“...that our community must be put at ease... they must talk to us people about... maybe a date for every clinic, to go out to that clinic, where there are pregnant mothers every day, that day when it is the bookings, for pregnant mothers, that there will go someone, to talk to them... have discussion at the clinic...” (Pt.7)

“...to hold a discussion...” (Pt.2)

“...to bigger groups...discussion at the clinic...” (Pt.8)

They also proposed that other ways of distribution such as displays within the clinics must be put in place. This is to allow those that are waiting on services to be informed by reading the information board displays as well as from the pamphlets in the clinic.

“...Hand out pamphlets...” (Pt.2)

“...You must advertise it...or give it...any of the two...” (Pt. 1)

Information can also be distributed during consultations in the clinic. The HCW can provide one-on-one information when in consultation with the patients. Participating pregnant women proposed that individual information sessions need to be provided.

“...to go to them to find out something if you are not sure of something...” (Pt. Pilot)

“...Like an interview...” (Pt.8)

4.5.3.2 Theme: Community influence

Community influence can be used to disseminate information on a community level. Information can be distributed on the level where the public can reach and benefit from it. This identified information can be provided to influence the level of knowledge and cause awareness and change in behaviour. The two sub-themes that emerged from the collected data were Community based information and Media/ technology

Community based

Community based information can be disseminated in the community. This information can be used to influence behaviour. The ultimate goal is to extend the dissemination of information as wide and far as possible for the purpose to reach as much as the people in the community as possible. The pregnant mothers proposed that community discussions should be embraced. They also proposed the use of community based workers to help in the dissemination of information.

“...maybe to go more into the community, to discuss this with them...with the young men also...” (Pt.3)

“... find out the names of the mothers at the clinic, that are pregnant and then to send people to those people’s homes, to talk to them at the homes...” (Pt.7)

Media and Technology

The women also suggested that information can be distributed by the use of media and technology. The ultimate goal is to broadcast the information through the use

of telephone, WhatsApp, Instagram and Facebook. By using this technology, the information can be shared with as many people as possible.

“...Yes, telephonic; WhatsApp, Instagram, Facebook...”
(Pt.6)

4.6 Themes emerging from Midwives unit of analysis

Midwives were the other unit of analysis that was used to integrate and strengthen the data findings and to compare the conclusions. Midwives from two different settings were used to elaborate on their experiences related to the research objectives. The different settings were the institutional based hospital setting, where high risk pregnancies and deliveries are managed, and the other setting was the community-based PHC where antenatal services are rendered. Two midwives from the community-based PHC services, who manage the rural mobile services, were also included to elaborate on the rural programme of antenatal services.

The midwives confirmed that the problem of un-booked and late booked deliveries does exist. This confirmation and verification was extended by the midwives from the hospital that manages the un-booked and late booked deliveries on a daily basis.

“...I must say the influx of un-booked and late booked patients have become more the past month while I was working...” (Pilot)

“...They book late ya, later than 32 weeks. Some of them only attend once 36 weeks... nowadays the old ones, the higher gravida...the...the 48 years old...” (F.1)

The midwives that are employed in the PHC services also elaborated on their experience regarding the phenomena at hand. They have more exposure in the late booked pregnancies.

“...Late bookings are mostly teenagers...I would say between fifteen and eighteen...they are our problem, where we experience, late bookings...We don't have a lot that gets to the maternity ward, not booked...we little few have not book patients, what I maybe can say is that country areas, where we don't reach, where the patients are not booked, because the patient

don't get here or because the...the mobile services don't cover it. But we very little few have a not book patient.” (M.1)

“...percentage late books increased... now that the sonar was taken away...It was a ‘track plaster’ in common language, not to get pregnant, but our own bookings was gaining from it... we could save abnormality bookings...” (M.2)

“...I however do get a few cases where there are late bookings, but in most cases it is from other towns, because the town where we work, Langebaan, there are people who come work there, from other areas, and then the person couldn't get to their town or she was afraid, she didn't know if she could come book there, and when she comes then she is already far in her pregnancy...” (F.2)

“...What I realized was that our Africans, they always come book...whether it is early...or late, they come. Uhm...and our other races, they will not come book or very late...” (F.2)

The consequences of the un-booked and late booked pregnancies were noticed by the midwives that are hospital based. The complications due to their status were evident in the un-booked and late booked pregnant women. Conditions like pre-eclampsia and unsure dates were reported.

“...Friday ya, we had one patient; she only booked once at 32 weeks. And when she came in she was a PET, pre-eclampsia and there was fetal distress, grade 3 meconium and both of them was transferred. So that is also the... there are a lot of complications...” (F.1)

“...most of the patients they don't know when their last menstrual period was, they always...the people that I saw most of the time had unsure dates...” (F.1)

“...that actually creates a lot of problems. And especially people who maybe have health conditions they don't know about, like high blood-pressure, and they syphilis is positive or they are RVD positive, it actually do create a lot of problems for one...” (F.2)

The midwives have confirmed that in Saldanha Sub-district PHC services, antenatal services are freely available in all of the eight (8) main clinics from

Monday to Friday and two satellite clinics, three times per week. The frequency in the availability of the specific service of BANC, however, differs from clinic to clinic. One clinic does bookings every day while the other clinic refers patients to come for bookings on a specific date.

“...We have an antenatal service every day, at the clinic...” (M.1)

“...so unfortunately at my facility there is a time attached to antenatal... I can't help pregnant women the moment she walks into the facility, so at us they get dates...” (F.2)

Since the service is freely available, the different components within the service were briefly explained. The available components were bookings; follow up visits, screening tests and referral services to support and manage high risk pregnancies.

“...Services that are available at the clinic are booking, bloods for rhesus and syphilis tests, HIV services, ultrasound services and screening for low or high risk grading...” (Pilot)

“...the HIV testing, Pap smear, blood test and only RPR test and then we do the examinations, and then the patient are refer to do a sonar, at

The aims and benefits of the services were briefly explained.

“...services are rendered to identify low or high risk patients and thereafter they are referred to a higher level...” (Pilot)

“...that can detect abnormalities...” (F.1)

A rural mobile service is also available that is managed by an experienced midwife once every six weeks. The service covers over sixty two (62) farms and they have divided that rural farms in four (4) routes that runs every six weeks per route. Each route contains about fifteen (15) to seventeen (17) farms.

“...that provides mobile services for patients that lives on farms that are far...” (Pilot)

“...we are the only mobile in this sub-district...” (M.1)

“...mobile service, I have an outstretch program... I'm 15 years on the route...a mobile clinic, once a week, to visit, to engage up to fifteen till seventeen farms...and I have four routes... comprehensive services are

also available in my mobile route, which includes antenatal care a part of...Let me give it to you again. The mobile services consist of four routes. Each route consists out of 15 to 17 farms. So each route is being visited every sixth week to form part of the family planning. A three monthly or two monthly are given through..." (M.2)

"...Just to elaborate more on the antenatal. We see them on 20 weeks, we see them on 28 weeks, we see them on 34 weeks, and then we see them on 38 and 40 weeks. I bend the rule there a little bit where, where, where it comes to the country (farm) patients. Neh? I see you with every visit... If I see you then I try to make a sonar appointment the same day..." (M.2)

Challenges were reported by the sister that manages the mobile service delivery. Challenges like staff shortages, the distance to the farms, time restrictions, and privacy of clients during consultation, and farms owners that violate and invade the client's rights to privacy.

"...What curbs it a bit is the only time that, that, that the service isn't so regular there on the country areas, is when there is only one nurse...and the other one is on leave. So then the mobile minibus does not reach the farms at all..." (M.2)

"...sometimes that we are on leave for four weeks...there is a course and a meeting. Or training or whatever.... then it gets a bit longer than four or six weeks..." (M.2)

"...Let me tell, I'm quickly going to take the patients side... challenges...privacy... everyone streams to the bus... We have a small curtain and we close it. You may stand on a distance... I mean this that is shared is confidential.....I must work hard to get through to create privacy..." (M.2)

"...The owners also take ownership of their workers. And sometimes it is difficult that they need to understand or want to understand that what is wrong with me is my case. Owners want to dictate to patients in the sense that: "you must do this and that." On the other hand, owners also want to know what is going on with patients... violating the patient's rights..." (M.2)

"...there is a lot of times when I am alone on the bus...When there aren't an assistant... sometimes there are a bit of a shortage of medication... here

in the facility we prepare the bus before we go out, sometimes the minimum aren't here, so we can't take it with to the farm...." (M.2)

"...There's not a lot of time given to the preparation for the route.... Because of... the shortage of staff..." (M.2)

"...Distance... The nearest is Kopperfontein. That is about 10 km... Between 10 and 60 km... 60+ kilometres, this is far for me... but you don't first get at your furthest point, you drive different 20-30 km's in between..." (M.2)

Other reasons that were provided by the midwives were that the mobile services are rendered in a short period of time with lots of things to do and lots of people to see. The problem that is that the service is quantitative of nature and there is a lack of quality in the services.

*"...How it influences it is that you, you, you need time to sit with that patient. Neh. And the fact that I need to go to 17 farms every sixth week... is a quick story...It's a **quantity service**..." (M.2)*

On probing on the improvement plans, the sister responsible for the rural mobile service elaborated that she is working on the areas of concern.

"...on the insurance on privacy, I've implemented that they wait on the distance... The other one I've implemented, that's not always reachable. Is when there isn't a sister available than I request of the patients to come to the clinic... Then uhm I work on where I have my supporting services like with the dietician or occupational therapist..." (M.2).

4.6.1 Principle theme: Inadequate Utilization

Table 14: Reasons for inadequate utilization

<u>Principle themes</u>	<u>Themes</u>	<u>Sub-themes</u>	<u>Categories</u>
Inadequate utilization	Personal Factors	Maternal feelings	<ul style="list-style-type: none"> ✓ HIV Stigma ✓ Denial and ignorance ✓ Feeling of shame ✓ Multi gravity
		Social factors	Social Support
	Economic factors		<ul style="list-style-type: none"> ✓ Employers ✓ Distance ✓ Transport ✓ Finance ✓ Immigration ✓ Teenage pregnancy ✓ Drug abuse
	Institutional factors		Access to service
		Staff attitudes	<ul style="list-style-type: none"> ✓ Disrespect

The principle theme, inadequate utilization was deduced from the objective: “to describe the reasons for inadequate utilization of antenatal services by pregnant women in Saldanha sub-district, West Coast district”. The same principle of data analysis was used as with the un-booked and late booked pregnant women. In this objective the ultimate reasons were explored why the essential services of BANC are not utilized by pregnant women in the Saldanha sub-district. The unit of analysis is the opinions and perceptions of the midwives rendering the services to pregnant women.

As with the un-booked and late booked pregnant women, the midwives with hospital-related experience as well as community primary-healthcare related experience was used to provide possible reasons and explanations why they think pregnant women do not utilize these BANC services. Themes that emerged were also Personal factors, Social factors and Institutional factors.

4.6.1.1 Theme: Personal Factors

In the theme personal factors, personal related reasons were explored why the midwives perceived and observed pregnant women not using the essential BANC services available. The subtheme emerged from the received data were Maternal feelings.

Maternal Feelings

Maternal feelings, as described in the un-booked and late booked unit of analysis, are the feelings that pregnant women foster that allow them to make a decision, whether right or wrong. Midwives described these feelings as negative towards the services. These were the opinions of the midwives that are interacting with the pregnant women on a daily basis. Midwives from the hospital revealed that this is what the un-booked or late booked pregnant women declare when they arrive at the maternity ward.

“...I had a patient once that said to me: “Sr. do you really want to know the truth?” I said yes I want to know the truth. “I just didn’t feel like going to the clinic...” (F.1)

Categories that emerged from the data were HIV stigma, denial and ignorance, feelings of shame and multi-gravity. Ambivalence as described in the un-booked and late booked unit of analysis is the state when you cannot make a decision and you don’t know which course to follow. According to the midwives, certain factors influence the process or ability to make a decision, whether right or wrong. Many factors like the categories above were influential in the decision whether to book or not.

The process of ambivalence was influenced by the **HIV stigma**. The perception was that pregnant women who were diagnosed as HIV positive, feared that once their status becomes public or known, that this would influence their personal status, acceptance and treatment. The midwives also elaborated that the HIV pregnant women were dealing with emotional feelings of denial versus acceptance. The stigma caused the women not to book if the status is known, and not to utilize follow up if diagnosed with booking.

*“...Other personal reasons are because of the fact when patient that for instance went to the clinic once who booked late and they find out they are **HIV positive**. So this, they are terribly uhm...emotional and they do not*

know how to process it. And this makes that they do not go back to the clinic even though they got all the information...” (Pilot)

*“...stigma because they are **HIV positive**...” (F.1)*

Another factor that contributes to the acceptance or rejection of the pregnancy is when the pregnant women are in **denial of their pregnancy**. They shared reasons with the midwives of not knowing they were pregnant and they were perceived to be ignorant to the signs of pregnancy.

*“...they **didn’t know** they were pregnant...” (F.1)*

They were also perceived to be **ashamed** of their pregnancy that influenced their choice to book or not. Their feeling of shame influenced their acceptance of the pregnancy and that led to them hiding their pregnancy.

“...some feel ashamed that they are pregnant, their 4th child and they are now 26 years old. So she doesn’t want her mother to find out.....” (F.1)

“...the same with the teenagers also, they hide their pregnancy because...because they are ashamed...” (F.1)

Midwives also revealed that pregnancies of high parity are perceived to book late. **High parity** refers to more than three pregnancies. Complications thereof could be fast cervical dilatation causing deliveries before arrival and post-partum bleeding. High parity is sometimes related to advanced maternal age patients that are prone to have chronic diseases like hypertension and diabetes which could influence the pregnancy with complications. The general feeling is that these pregnant women just access the clinic once very late in pregnancy, to obtain the maternal case record that allows direct access to the maternity ward without the situation of being labelled as un-booked.

*“...It is mostly your **multi gravida** that’s late bookings...” (M.2)*

*“...You will never really get a **primi** that book early, excuse me that book late, it is usually the **multiparas**. They personal reason is that they just want they book before they go give birth, they don’t want to come to the clinic to be monitored throughout the pregnancy...” (F.2)*

4.6.1.2 Theme: Social factors

In this theme social related factors are discussed that contributed to the reasons why BANC services are not used by pregnant women. Factors such as social support and economic factors emerged as sub-themes from the data.

Social Support

Social support refers to the emotional, physical and financial support that pregnant women receive from their families and friends. The midwives reported that due to the need for the social support, the pregnancies were hidden and kept away from the families and friends. Support is defined as being cared for and assistance given. Categories that emerged from the collected data were emotional support and paternal commitment.

Midwives have reported that the un-booked pregnant women revealed that they were afraid to lose the support from their parents and families. They reported that that a feeling of being petrified led them to the choice to hide their pregnancy. They were afraid once their parents discovered they were pregnant; it would affect their support system at home. The general assumption is that many of the un-booked and late booked pregnant mothers are dependent on their parents and families for support.

*“...and because the teenager is still a school learner, she is afraid of the parent at home, she doesn't want anyone to know that she is pregnant, **they hide it** and don't come to the clinic...” (F.2)*

The focus group with the midwives from the hospital speculated that some of the mothers were pregnant from another man. The fathers of their previous children may be different from the current pregnancy. That was indicated as part of the barriers to using the service as they could have been afraid to make the pregnancy public as this may affect the commitment from the fathers. Being pregnant again with another man's child may also compromise their social image in their community.

*“...maybe the last one has **another father**...” (F.1)*

Economic Factors

Many economic related problems were revealed by the midwives. They elaborated social problems that were influenced by economic factors. Categories that emerged were employers, distances, transport, finance, immigration, teenage pregnancies and drug abuse.

Many of the un-booked and late booked pregnant women are forced to work due to their economic situation. The midwives revealed that employers played a role in the utilization of the services. They perceived these as barriers as they were reluctant to release the pregnant women to attend the essential services.

*“...**the employer**, they don’t give them time off...to go to attend to that service... it’s like the work is more important than you and your baby’s health... Some of the employers told to have that attitude...” (F.1)*

Some of the reasons for booking late were the responsibility to be at **work** or other personal commitments that they have to attend to, and never get the appropriate time to go to the clinic to book.

*“...because she has to be at work or some kind **of responsibility**, and so it just gets later and later...and then the patient comes on a, for example when she is already over twenty weeks, and that actually creates a lot of problems...” (F.2)*

They also elaborated on the issue of distance, that the main clinics are too far for the women who do not have transport to attend the clinic. If they have missed their appointment due to one or other reason, they would be stuck and have to wait for another day after six weeks when the mobile services come again on that route. They also reported that pregnant women reported difficulties on getting transport to the services.

“...it’s too far for them to go to the clinic...” (F.1)

“...there sometimes isn’t transport...” (M.2)

Contrary to the barrier of **distance and transport**, they also reported that, should the area where the pregnant women stay, like Velddrif, be too far from their hospital, that they would help them irrespective of the fact that they should be accessing the hospital in their sub-district.

*“...The other satellite services like Velddrif its...it’s not supposed to...we are not supposed to cover them, but **because their distance to go their hospital** to go and deliver is so far and the problem there is that they don’t have transport, they don’t have money, so...so we like...uhm...uhm...how can I say, we help them, we accommodate them here...” (F.1)*

The midwives also added that the issue of finance was perceived as a barrier to the uptake of the service. As most of the rural pregnant women were living in **poverty**, they did not have money to pay for transport. Most of the women are unemployed or are employed in low income jobs that create social problems for them.

*“...**Incomes**, a lot of my country people are **unemployed**, especially at the females, the, the, the farm’s surroundings; it is here and there a wealthy farmer...” (M.2)*

They also reported that the pregnant women, especially in the rural areas, are perceived to be **uneducated**. Maybe this is the reason they end up in low income jobs that do not alleviate their poverty circumstances and improve their conditions of living.

*“...I say this with a lot of respect. Our people on the farm are very **uneducated**...” (M.2)*

Another barrier that was identified by the midwives was the issue of **immigration**. Midwives elaborated those pregnant women that emigrate from other areas were experienced to book late or deliver un-booked. The rationale was provided that pregnant women in the rural areas immigrate out of their area to the West Coast area and don’t know that such services exist.

*“...**influx of people** who comes from another area, that usually use the excuse that they didn’t know how things work here...” (M.2)*

“...influx system now from other provinces also...” (F.1)

Teenage pregnancy has been reported to be experienced as a problem in the sub-district. The problem attached to that is that the Department of Education (DOE) allows this problem to be perceived as a normal situation. The pregnant child is allowed to attend school and the message it distributes to other learners is that this is an acceptable state of affairs.

“...our coloured community is where I get the problem, especially with our teenagers... We have a lot of teenage pregnancies...” (F.2)

The midwives also reported that they have tried to address the problem with the correction of **myths** that exist, to involve the parents and to address the issue during parent meetings.

“...the first thing I try to do is to correct the myths...” (M.2)

The last issue that was raised was the problem of **drug abuse** in the sub-district. Drugs are affecting the motivation to book and utilize the BANC service, irrespective of the known effects and consequences.

*“...another factor in our society now with the drugs, **drug abuse** in our youngsters, dagga and Tik and all that...” (F.1)*

These issues as indicated above are the social factors that influence the pregnant mothers' choice to book for BANC and utilize the follow up appointments. These factors have caused the pregnant mothers to book late and some did not book at all.

4.6.1.3 Theme: Institutional factors

Institutional factors are aspects from the institution that were perceived to be a barrier in the utilization of the services. In this theme the factors that influence the use of the BANC services are discussed. The two sub-themes that emerged are the Access to service and Staff attitudes.

Access to service

Access to service emerged from the collected data categories that were obvious were: language barriers, waiting times, turned away and privacy and confidentiality. These were the issues of concern that were reported by the midwives.

Midwives have reported that **language** is perceived to be a barrier to these essential services. In this sub-district the dominant language in these communities are Afrikaans, English and also Xhosa. The languages used by HCW are mainly Afrikaans and English, and some institutions have isiXhosa-speaking staff. Pregnant women have reported that due to the fact that HCW do not speak their language, they are not understood if they access the services.

*“...further, one patient told me that she was from Congo and she told me that they, **the communication** uhm...gap was huge and that made that she didn’t want to go back, because she couldn’t understand them and they couldn’t understand her...couldn’t really speak English...” (Pilot)*

Waiting times were also identified to be a barrier. Pregnant women have conveyed the problem that they are sitting too long before they are helped and that created frustrations for the pregnant women. They reported that they did not go back as they waited too long.

*“...they have to **sit too long** in the clinic before they get helped...” (F.1)*

Being **turned away** has also been perceived as a problem by the pregnant women as some of the clinics book pregnant women every day; the others have certain days that they used only for booking of pregnancies.

*“...And I think most of the reasons why people come to book late is, when you have restrictions like they can only **come on certain days**, just on a Monday or just on a Friday...” (F.2)*

One focus group has identified the problem of **privacy and confidentiality**. They reported that the lack of privacy and confidentiality was identified by the un-booked or late booked pregnant women as a barrier and this are the reason why pregnant women refuse to use the services.

“...no privacy or confidentiality...” (F.1)

In this sub-theme, access to service, the problems of language obstacles, long waiting times or periods, being turned away to come back another day and the lack or absence of privacy and confidentiality was revealed by the midwives. These were the factors that influenced the use of the BANC in the sub-district. They were the reasons that pregnant women identified during consultations.

With regard to the pregnant women in the rural areas, if they have missed the mobile services in their area, the services would only be available in two to three months. They might not have finance to use alternative transport to get to a clinic, so the next best option for them is that they don’t book. Access to the mobile services might then be restricted due to the unavailability of those services in that specific area.

*“...It is the **mobile service**...they don’t get to the other mobile services or that mobile service comes once in two or three months. Then they won’t get to it and uhm...that is why they don’t book...” (M.1)*

Staff Attitude

The attitudes of staff have been reported as being full of disrespect and rudeness. This has been identified by pregnant women and it was reported by the midwives during data collection.

*“...they say that the staffs are **too rude**...” (F.1)*

*“...they do not have **a manner** in which they communicate with the clients, or they do not listen to reasons. Uhm...so this is also the reasons why they do not go...” (Pilot)*

4.6.2 Principle theme: Information Needs

Table 15: Information needs explored

Principle themes	Themes	Sub-themes	✓ Categories
Information needs	Institutional	Competency levels	✓ Skills and Competency
		Obstetric Services	<ul style="list-style-type: none"> ✓ Service available ✓ Access ✓ Privacy and confidentiality ✓ Language of choice ✓ Complaint system ✓ Transport ✓ Waiting times
		Health promotion	<ul style="list-style-type: none"> ✓ Advantages & Disadvantages ✓ Signs of pregnancy
	Personal	Attitude Support	✓ Respect

This principle theme was deduced from the research objective: “To explore the information needs for pregnant women regarding antenatal care utilization in the Saldanha sub-district, West Coast district”. In this principle theme, information needs to improve the use of BANC by pregnant women are explored. The views of the midwives that are directly involved in the care and management of the pregnant women were taken. Two themes emerged from the data collection like

institutional needs and personal needs. The same approach was used as with the un-booked and late booked unit of analysis.

4.6.2.1 Theme: Institutional needs

Institutional needs are identified information needs related to the institutions. This is information that can be provided from the clinics and hospital. This information needs include competency levels, obstetric service and health promotion.

Competency levels

Competency levels refer to the level of skills, **competence** and proficiency that HCW display to the community. The performance needs to be on a level judged and appraised by quality. The essentials identified by midwives were that the public must know that trained, competent, capable, knowledgeable and experienced staff are available at the service point and that safe and quality of care is available. Categories that emerged were **skills and competency**.

*“...every clinic and every hospital has **trained staff**, midwives with the necessary skills and competence that can serve them...” (Pilot)*

*“...there will be a **safe** delivery... that person that will help them, really knows what she’s doing...” (F.2)*

Obstetric Services

This sub-theme refers to the services themselves. The public needs to know that the service is accessible and available. Categories that emerged were service available, access, privacy and confidentiality, language of choice, complaint system, transport and waiting times.

Midwives agreed that the **availability of the service** need to be confirmed. The community needs to be informed that antenatal services are available at every clinic. They also need to know that services are available for every patient, regardless of where she lives.

*“...every patient must know that there are **antenatal services** available for every patient...” (Pilot)*

Access to service must also be promoted. That was the view of the midwives that participated in the study. They recommend that the public must be informed that the services are free and access is guaranteed.

*“...antenatal care is **free**; they do not have to feel excluded if they do not have money...” (Pilot)*

The issue of **privacy and confidentiality** must be assured and the privacy of the service must be emphasized. Midwives recommend that confidentiality must be promoted to the public.

*“...Then **privacy** is there for every client, so if she feels she wants to talk of information or she is afraid information will leak or so...” (Pilot)*

*“...that it is obviously **confidential**, if they were to come, it will be confidential...” (M.1)*

Patients need to be informed and reassured that they will be serviced in their **language** of choice. When their language of is not available or the HCW are unable to treat them in their language of choice, the reassurance need to be given that translators will be available.

*“...they should know that they don't have to be afraid to talk in their **language**...” (F.2)*

When the services are not up to date as promised, the patient has a right to complain. That is drafted in the patient right charter. Midwives elaborated that the focus must be placed on the advertisement that a complaint system is available for the public to use.

*“...that there is a channel if there any...a **complain system**, a channel they can go to if they are not satisfied with the services they are getting...” (F.1)*

The issue of **transport** available to patients must be emphasized. That was recognized by the midwives. The public must know that there is transport available to the hospital if they stay far away.

“...I will first start with, when I maybe talk about country transport that must be available...” (M.2)

*“...transport ready available for people who stay far, the satellite services...”
(F.1)*

The last issue that was acknowledged was the **waiting times** that patients can expect when using the public health services. They must know that waiting times will be reduced to improve the efficiency and proficiency of services without compromising the quality of the services rendered. The public must be informed that an appointment system approach will be introduced if not already existent.

*“...They need to be informed about the **waiting times**, how long they will be able to sit at the clinic...” (F.1)*

Health Promotion

In this sub-theme the promotion and distribution of essential information is encouraged. The midwives identified important health information and education issues that must be reassured to the public. Categories that emerged were advantages and disadvantages and the signs of pregnancy. The midwives identified that information on **advantages** of using BANC and **disadvantages** of not using BANC must be emphasized to the public

*“...They need to be informed about the **benefits** for them and the baby for booking early...” (F.1)*

*“...why it is **important** for her and the foetus, why it is important that she must use the services...” (F.2)*

The other area of essential information that was recognized by the participating midwives was on the **signs of pregnancies**. The public must be informed what the signs of pregnancy are. That is to allow them to recognize the signs early enough and to book early.

“...signs of pregnancy...” (F.2)

4.6.2.2 Theme: Personal needs

Personal needs are areas that midwives personally can change to improve the use of BANC. That is personal-related attributes that can change the status quo. The sub-theme that emerged was attitude support.

Attitude Support

Attitude is a personal attribute or characteristic that is individual of nature. The support and provision of these personal, individual attributes will improve the image the public has on the health services. The category that emerged was respect.

Respect is an essential part of the care that midwives provide every day. Midwives recognize the importance of adding respect to the service rendered every day. That would recuperate the essentialism of the services and improve the use of BANC by pregnant women.

“...respect and caring attitude of the staff towards the patient’s...” (Pilot)

4.6.3 Principle Theme: Information Optimization

Table 16: Information optimization strategies

Principle themes	Themes	Sub-themes	✓ Categories
Information optimization	Institutional Influence	Health worker initiated	<ul style="list-style-type: none"> ✓ Information sessions /group talks ✓ Open days/ Awareness campaigns ✓ Health promotion/ Outreach services ✓ Pamphlets and posters
	Community influence	Community based	<ul style="list-style-type: none"> ✓ Public Posters ✓ School programs/ Lectures ✓ Baby magazines Churches/youth groups ✓ Community based services
		Media/ technology	<ul style="list-style-type: none"> ✓ Media ✓ Dvd's in hospitals ✓ Mom connect

This principle theme was deduced from the research objection: “suggest how information could be utilized to improve ANC services in the Saldanha Sub-district, West Coast district”. This includes strategies to effectively disseminate and publicize essential information to improve the public level of knowledge to improve the use of these services by pregnant women. Themes that emerged from the data were institutional and community influence to disseminate information.

4.6.3.1 **Theme: Institutional Influence**

Institutional influence is a strategy that can be used by institutions like clinics and hospitals to disseminate and distribute information. That was the opinion of the participating midwives

*“...also get the information from the **hospital**...” (F.1)*

Midwives have identified essential and important knowledge and information that the public must have to improve and change their behaviour regarding health services. They also elaborated that information services do not just end at the clinics. They want to assure the public that there are other ways and options available to them if they need them.

“...it’s just the service...doesn’t end at the clinic, there is another way that they can reach out for...” (F.1)

In this theme the strategy or method to disseminate and broadcast the identified knowledge will be discussed. A sub-theme that emerged was Health worker based.

Health Worker initiated

HCW have an immense influence on the public in general. If appropriately used, the HCW can use that power to improve and change the behaviour of the public. By providing health education and disseminating essential information, the public can benefit from the HCW without any effort. Midwives have identified strategies to disseminate important information that the public can benefit off. Categories that emerged from the data were information sessions/group talks; open days/awareness campaigns; health promotion/ outreach services; and pamphlets and posters.

Group talks are information sessions that can benefit a whole group. The waiting room is an appropriate forum for group talks and information sessions. Midwives have suggested that information sessions can be provided in the clinic while patients are waiting to be seen.

*“...**discussion**... that can give us health education and sexual education in the waiting-room...” (M.2)*

*“...give more **information** may be in the waiting room...waiting room talks...” (F.2)*

Health education and awareness messages can also be provided on a one-to-one basis in the clinic. That can be provided by the staff, care workers or health promoters.

*“...**health promoters** in the clinic...One till one...” (M.2)*

Another option that was recommended was the use of awareness campaigns and open days. During this session a specific group can be used to disseminate or distribute general or specific information.

“...the student groups that we can use, to talk to the pregnant woman or not just pregnant woman, patients, to talk to the community in general...” (F.2)

*“...**open days** and invite the...pregnant patients who come and attend, that they can get those kind of...like **awareness campaigns**...2 (F.1)*

“...And to also have open days, specific for antenatal patients, or to promote it...” (F.2)

Health promotion can be provided through the use of outreach services from community based organizations and government departments to come to the clinic and distribute the information.

*“...the **support groups** in our community, our none-government organization, that is currently Mfesane, and then we have outreaches...” (M.2)*

Displays can also be used to disseminate or distribute information to the public. Posters and pamphlets are a valuable source of information that can get the message across. That can be taken home to distribute or read again if needed.

“...information posters in the clinic...” (M.1)

4.6.3.2 Theme: Community Influence

Community influence is a strategy to distribute information in the community. Sub-themes are community based and media/technology.

Community Based Information

In this sub-theme community based information is discussed. Midwives have contributed to the information needs in the previous theme. Here the options on how to inform the public are elaborated. Categories that emerged were of public

posters, magazines, school programs, churches/youth groups and community based services.

The use of posters in public places was one of the options for publications that were given by midwives. They suggested that places that the public uses, like the local municipality or local library, must be used as a point of information dissemination. That is to reach as many people as possible.

*“...Posters on **public places** like where people are going like the municipality, library...” (F.1)*

Another idea was to publish the information in baby magazines that women usually buy. The rationale is that because women are interested in issues on pregnancy and motherhood, the dissemination of information in such magazines will be beneficial for those who still planning on getting pregnant. The message will benefit those who are bothered by issues as discussed above.

“...baby magazines...” (F.1)

Some of the midwives proposed the option to reach out to schools and disseminate the information in the classroom as information sessions, or to negotiate with the DoE to include such information in the curriculum. This will improve the knowledge on pregnancy-related issues and change or improve behaviour. The option was also to invest in parent meetings at school where the parents can be informed and emphasis be placed on the dynamics of interpersonal relationships at home and the prevention of teenage pregnancies in general.

“...programs in the schools...” (F.1)

*“...**Information session**, especially on parent meetings...” (M.1)*

*“...through **information sessions**...at schools...” (M.1)*

Midwives have contributed that churches must be used to disseminate important information. Parents, family and friends of someone who might need the information may attend the church and information can be taken home. The youth groups must also be involved to disseminate information that might change behaviour.

*“...our **churches, schools**...” (M.2)*

“...talk to youth groups at churches...” (F.2)

The use of community based services like home based carers, and a health promoter, to distribute the information to the public was also one of the suggestions from the midwives. NGO's can also be used to reach out to the community and information can be disseminated through their community programs and sessions.

...se the home base carers in the community... NGO'S...”
(F.2)

Media and Technology

The use of media and technology was the second sub-theme that emerged from the data. Categories like the use of media, DVD's in hospitals/clinics and Mom-connect emerged.

The use of media like local newspapers and local radio stations was proposed to disseminate health information on a mass scale. Most of the families are tuned in to the radio station and read the newspaper every week.

*“...the **media**, especially our...uhh...the **Weslander** that is available to the community... put in sessions there about antenatal care, postnatal care and services that is available to them, for clients and public...” (Pilot)*

*“...we also have in the West Coast is **Radio West Coast**. So there can...a midwife or Doctor can give a session around the antenatal care...” (Pilot)*

Another option was to use DVDs in the clinics and hospital where patients are waiting or admitted. That would help in broadcasting important messages to the public. Important topics of interest can be pre-recorded and played on a daily basis.

*“...Other options is also is should the client be in hospital **DVD's available** are for antenatal care...uhh...for patients postnatal care while they are in hospital. Then they can distribute this information to the public...do not forget of the out patients and clinics self while they are waiting to be seen, that there is DVD's and information session are for them...” (Pilot)*

The last option that was proposed were the use of mom-connect. Mom-connect is already in existence to those pregnant women who are connected. The broader meaning was to extent the mom connect initiative to the broader non-pregnant community as well to publicize related information to those who are not pregnant

yet. Most of the public have cell phones and messages can be sent to more people if connection is ensured.

“...the mom connects.....” (M.1)

4.7 Summary of findings

In summary the three principle themes had similarities and differences in the emerging categories. Similarities on reasons for inadequate utilization (Appendix 16) in both units of analysis included; denial and ignorance, feelings of condemnation or shame, lack of emotional and parental support, long waiting times and lack of privacy and confidentiality.

Further the Principle theme information needs (Appendix 17) has some similar categories emerging from the two units of analysis. These included the level of confidence and competence among midwives to be able to provide acceptable services to the women. The waiting times in the institutions was seen as information required to be communicated to reduce expectations. The availability of information on services available in the institutions was important to both parties and the need for privacy and confidentiality after the women visit the clinics.

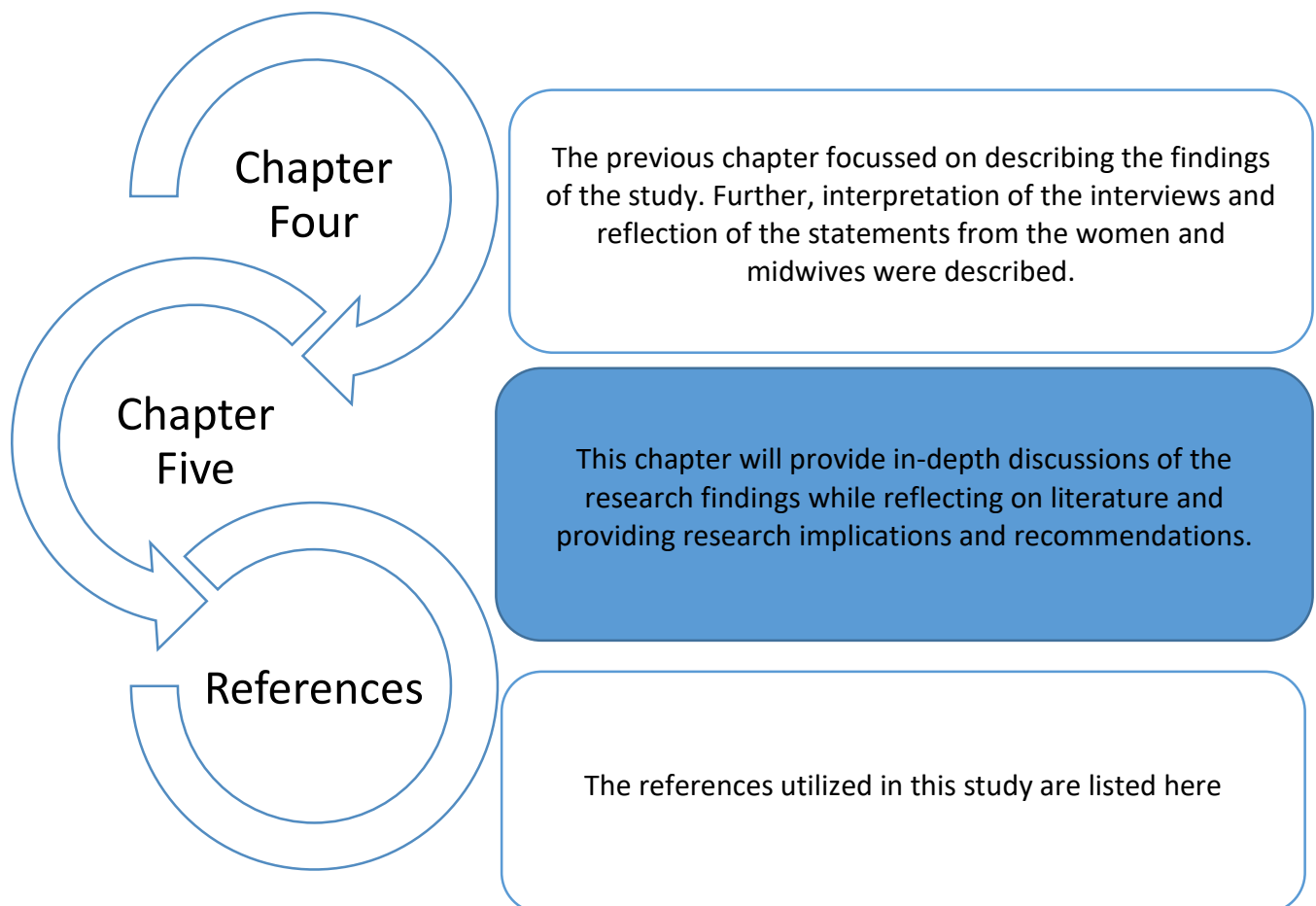
The question on how the information needs to be optimized (Appendix 18), was seen in both units of analysis with categories emerging such as the need for information sessions and having information pamphlets for distribution with the necessary information.

In all three principle themes there were several differences in opinions as illustrated in Appendix 16, 17 and 18. While the midwives perceived that economic factors seemed to be the main reason for inadequate utilization, the un-booked women felt their feelings at the point of pregnancy and social support as the key players to not attending the ANC.

The un-booked women had little to say regarding the information needs while a lot of categories emerged from the midwives. This could either be due to the fact that the midwives are literate in regard to what is required or the un-booked women do not need information flooding. Regarding the information saturation the midwives felt the strong need for face to face communication while the un-booked women were specific on use of media and the preferred media to be utilized.

4.8 Conclusion

In conclusion the two units of analysis, the late booked and un-booked pregnant women and the midwives, were interrogated and used to strengthen and support the argument that certain factors are barriers to the utilization of BANC in the sub-district and that information needs are an essential component of service delivery. The similarities and differences in opinion are essential addressing the main reasons for the inadequate utilization of BANC. Three research objectives were apparent in the study and the discussion thereof will be detailed in Chapter 5. In the next chapter the discussions, recommendations and conclusions will be discussed.



5. CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study aims and objectives were viewed to assess and measure whether the research question was answered. A discussion follows to review whether the collected data responded to the objectives, limitations, recommendations and the need for further research, will be explored in this chapter.

5.2 Discussions

The problem was that pregnant women presented to Vredenburg Hospital in Saldanha Sub-district as late booked and un-booked pregnancies. That resulted in preventable intra-natal, postnatal and neonatal complications as outlined and discussed on page 10 and 11. The aim of the study was to explore the factors that influence the utilization of ANC services in the sub-district. The study also aimed to understand how information can be used to improve the utilization of these services in order to improve the maternal and neonatal outcomes in the Saldanha Sub-district, West Coast region. Three objectives were used, as elaborated below, to explore the phenomenon of late and un-booked pregnancies in Saldanha Sub-district, West Coast district.

Un-booked, late booked patients and midwives were used to describe and elaborate on the phenomenon of un-booked and late booked pregnancies in the Saldanha Sub-district, West Coast district. These two units of analysis were used to strengthen the argument that barriers to the utilization of BANC services do exist in the sub-district. The need for information was explored that could assist in the improvement of BANC utilization. These findings were compared for commonalities and differences and both units of analysis revealed similar issues.

5.2.1 Utilization of Antenatal services

The first objective for this study was to describe the reasons for inadequate utilization of ANC services by pregnant women in Saldanha Sub-district, West Coast district.

Both units have identified that reasons for not using the services are common and mutual. Both have identified that personal, social and institutional related issues are found to be barriers of using the services.

Literature (De Vaal, 2011:3 and Okhiai et al., 2015:333), as discussed in chapter 2, also confirmed that personal related issues and feelings of ambivalence were found to be a barrier to the usage of BANC. That was found to be similar in my study. Respondents in unit 1 revealed that although they knew they were pregnant they ignored the signs thereof. Feelings of denial and ignorance towards the pregnancy, as well as ignorance towards the pregnancy symptoms were found to be common. As some studies (Pillai et al., 2008:149, Roberts & Spies, 2011:333) also indicated, the fear to disclose the pregnancy to family and friends led them to hide the pregnancy and not booking for BANC. That was also found to be similar in my study. Most of the pregnant women fostered feelings of shame, embarrassment and anger towards being pregnant and some withdrew themselves from the public. They fostered feelings and thoughts of abortion and some of the pregnant women also thought of self-harm or suicide during pregnancy.

Midwives reported that being HIV positive had an influence on the decision to use BANC services or not. Many of the pregnant women were insecure of the support at home, as some of the participating pregnant women lived with their parents. They were dependent on the care and support of their families and that led to the refusal to reveal the pregnancy. The reason therefore was the fear of losing the support.

Ochako et al. (2011) and Tarekegn et al. (2014) found that high parity women tend to delivered un-booked. (, This study revealed that most of the high parity pregnant women tend to book late. They attend the BANC very late in pregnancy just to get the maternal case record to avoid being labelled as un-booked delivery.

Two un-booked pregnant women experienced PTSD and personal stress. The level and intensity of stress was perceived to have influenced their feelings about booking for ANC. They were dealing with major personal issues and that formed part of the reasons for not using BANC services.

Social issues that were evident included the lack of emotional support, lack of paternal commitment and social rejection that pregnant women were experiencing. Many of the pregnant women revealed that they lack the support (emotional, physical,

psychological and economical) of the baby's father. That was a common issue across the study. They either received no support or they were afraid and assumed once the pregnancy becomes public, they would lose the paternal support. The general assumption can be that they had no secure relationship with the baby's father as this would not pose a threat to the relationship once known. They also feared the social rejection of their families and friends.

Many social and economic related issues were consistent and congruent with what literature (Aved et al., 1993:493 and Roberts & Spies, 2011:333) has revealed. The use of drugs during pregnancy, teenage pregnancies, and low income that contributed to poverty was also found to keep pregnant women from using BANC. Transport was an issue that was revealed in the study, but it mainly affected the pregnant women living on the rural farms. Those living in the main villages did not require transport as the clinic was within walking distance of their homes.

Midwives revealed that employers posed a barrier as they were reluctant to release the pregnant women to attend the BANC services. Pregnant women staying on farms were mainly affected. They were subjected to low income labour and poverty, and were therefore dependent on the employers for transport and accommodation. They revealed some sort of loyalty towards their employers. Employers were perceived to be unaccommodating towards the needs of the pregnant women. Some requested the personal information and details of the visit, which violated the privacy of the patient. Distance to the nearest clinic was too far and if they missed the mobile clinic on that specific day, they had to wait for another six weeks until the mobile clinic returned to that specific farm.

Midwives also reported that immigration was found to be one of the reasons some patients delivered un-booked. They emigrate from areas that are outside the border of the rural mobile services into areas within the border of the mobile services. They elaborated that some of the pregnant women did not know that such services exist. Due to the lack of information they missed the dates that the mobile services came to their area.

The issue on the education level of the pregnant women that were revealed by three studies in Uganda (2011), Hawley et al. (2014) and Sunil et al. (2010) was not effectively evident in this study. The only remark on education levels was done on the

women from rural areas. That could not be generalized to all pregnant women in the findings. Most of the pregnant women have access to media and that was not reported to be a problem.

Some of the issues that were revealed in the literature (Cox et al., 2009:931 and Torres, 2016:10) were not visible in this study, for example, issues of racial disparities, poor nutrition, severe stress and depression and no medical insurance. The services are free and no medical insurance is required to guarantee pre-natal or intra-natal services. With regard to the racial disparities found in the study done by Cox et al. (2009), the issue was that Black women are more reluctant to seek BANC services than their white counterparts. In this study the midwives reported that black women are more likely to use the BANC services than their coloured counterparts. The fact that the area of study is mostly Coloured, very few blacks and no Whites were found to be un-booked and late booked during the time of data collection. No problems relating to cultural issues were reported.

Institutional issues that were revealed were that patients were turned away when they presented for booking: both units of analysis revealed that. Some reported experience of refusal for family planning and sterilization services. Un-booked and late booked pregnant women complained that they wait too long for services when they go to the clinics. That posed a barrier to the utilization of these services. That statement was confirmed by the participating midwives and they argued that pregnant women should be serviced in appointment slots. That would ease the pressure of long waiting times and a full waiting room for both midwives and patients.

Both units of analysis revealed that privacy and confidentiality were one of the reasons pregnant women refused to use the services. They elaborated that staff do not keep visits and patient information private and confidential. Pregnant women feared their personal information to be revealed and one un-booked participant confirmed that her personal details were revealed to her family by the staff of that clinic. Language was also revealed to be a barrier as literature has indicated.

Another issue that kept pregnant women from the enthusiasm of using the essential BANC services was the attitude of staff. Both units of analysis revealed that staff attitude and lack of professionalism posed a barrier to the utilization of the services. Clinic staff was reported to be unprofessional, rude and disrespectful. Some of the

participants reported that when they access the clinics for services, the staff rendering that specific services were not available. Then they will be turned away to come back another day. That resulted in the feelings of discouragement and discontent. Some of the pregnant women revealed that lack of information at the clinics also hindered usage of the essential services. They felt that services and related information are not properly available to them. They reported that if information was available, the enthusiasm and will or determination to use the services would have been present.

5.2.2 Information Needs

The second objective was: Explore the information needs for pregnant women regarding ANC utilization in the Saldanha Sub-district, West Coast district.

Both units of analysis explored the need for information in the sub-district. The basic information needs that were revealed in this study were access to available or needed services in the language of choice. The need to be serviced by professional, skilled and competent HCWs that will display respect was also reported. The public should be informed that skilled competent HCW will be available in the clinics and hospital. The issue of a caring and trustworthy attitude from HWC's was also reported on during data collection. The assurance and guarantee that privacy and confidentiality are maintained needs to be emphasized. That will confirm professionalism and accountability. The availability of emergency transport must be emphasized and the available plan to reduce waiting times should be visible. A complaint system for healthcare users if not happy should be available, if needed.

The signs of pregnancy, advantages of using BANC services, the disadvantages of not using BANC services and general health-related information must be available and emphasized publicly. The reassurance and availability of social support from family and HCW's during pregnancy must also be encouraged. This was what both un-booked and late booked pregnant women and midwives have contributed. Both units have identified the same factors that need to be published for the community to take note of.

5.2.3 Information Utilization

The third objective was: Suggest how information could be utilized to improve ANC services in the Saldanha Sub-district, West Coast district.

Part of the proposed interventions from Mahlangeni (2013:17) was that pregnant women need to be educated and empowered with information. The un-booked, late booked pregnant women and the participating midwives from the hospital and clinics have identified strategies how this information could be distributed for public attention. They have suggested that the health worker is a valuable source in distributing important information. This can be done during working hours in the form of open days or awareness campaigns, group talks or information sessions in the waiting room, pamphlets and posters. The suggestion was also made that specialist outreach services should be used to disseminate information to the patients.

Another proposal was to use the community to disseminate and broadcast important information. Suggestions were to use public posters in places where the community gathers like municipalities and libraries. The midwives and pregnant women also elaborated that the community-based services must be utilized to do public talk shows and home visits. The use of school programmes, school functions and churches to disseminate important relevant information were also suggested. Midwives proposed the use of magazines, community radio stations, community newspapers to disseminate information.

Another suggestion was to use the media to inform the public. Tsawe and Susuman, (2014:9) also proposed that relevant information must be emphasized through the use of media. The use of cell phones via Instagram, WhatsApp and Facebook to actively distribute valuable information were suggested by both units of analysis.

The Saving Mothers Reports (2011-2013) (2014:52) recommend that important information must be provided. The report further recommends the use of the Mom Connect initiative. Mom-connect (and/or even a women-connect initiative for non-pregnant women) and DVDs in clinics and hospital waiting rooms were proposed by both units of analysis. The content should be promotional and it should be informational especially for those who should still fall pregnant.

These were the proposals from the two units of analysis how to distribute the identified information to improve the utilization of ANC in the sub-district.

5.3 Trustworthiness

Trustworthiness promotes values such as rigor, transparency and ethics in research. The principles of transferability, credibility, dependability and conformability as

described by Lincoln and Guba (1985:290) were used to ensure trustworthiness of this study. The researcher introduced an extended, strong experience to the review under study and that allowed the researcher to create a rapport with the participants. Multiple perspectives were established during data collection through the in-depth understanding of the cases while reducing social desirable responses in the interviews (Rule & John, 2011:107, Baxter & Jack, 2008).

5.4 Credibility

Credibility refers to the attempt to provide a true reflection of what has been investigated or measured (Shenton, 2004:1). Shenton (2004:3) further elaborates that credibility makes sure that the findings of the study are congruent with reality or that the findings reflect what the study intended to measure. The author further elaborates that a thick description of the phenomenon under study is important to promote credibility as it helps to convey actual situations and responses. Polit and Beck (2008:538) refer to credibility as having confidence in the findings as the truth.

The researcher attempted to provide a true reflection of what has been done in the research process. He applied the correct principles and procedures in collecting the data and reporting on the findings. The data collected in the form of voice recordings, field notes and the presented findings were assessed and validated by my supervisor. Regular follow up discussions with my supervisor were conducted to discuss the course of the research and to clear out flaws and shortcomings.

Shenton (2004:5) reports that to obtain credibility of the study, the researcher should include a wide range of informants. Those available who met the inclusion criteria was recruited and refusals were allowed. Those who consented to participate were allowed to withdraw without repercussions. The area where the study was conducted is a mainly Afrikaans-speaking community. The researcher depended on the availability of participants and the majority that were available during the time of data collection were Afrikaans. The demographic details of the participants, the racial distribution percentage and the first language statistics were discussed in chapter four.

Shenton (2004:5) also elaborated that the researcher must be credible, especially in qualitative studies as he/she holds a major influence and is a major instrument in collection and analysis of the data. The researcher is an expert in the field of interest with ten years' experience in midwifery. He relocated from maternity to primary

healthcare before recruitment and data collection to maintain independency and to avoid researcher's influence in the process. Bracketing was done before the interviews and own interpretations were avoided.

Brink (2006:113) describes bracketing as "when the researcher identifies and sets aside any preconceived idea, beliefs or opinions about the phenomenon under study". Every participant had the same questions to answer (stability) and clarity was provided when requested. A rapport of trust was formed between the researcher and participant to allow truthful and honest reporting on experiences, thoughts and ideas. Questions were rephrased and repeated to assess for truthfulness of the responses.

5.5 Transferability

Transferability refers to the extent to where the findings can be applied to a wider population or to other situations (Shenton, 2004:9). It is quite difficult for the researcher to report on the possibility of transferability of the findings. The findings obtained in the research question one that asks to describe the reasons for inadequate utilization of antenatal services by pregnant women, are seen as barriers to ANC services.

These findings can be used as indicators for change that can be useful to the women's health component of the sub-district to enhance utilization of ANC within the sub-district. They can also be used in other sub- districts or districts where such problems exist. The findings in research question two, that explored the information needs for pregnant women regarding antenatal care utilization in the Saldanha sub-district, West Coast district, have generated and produced a wide range of information for pregnant women.

Findings can also be transferred to other domains and areas where such information is needed. The question of how information could be utilized to improve ANC services in the Saldanha sub-district, West Coast district, may be helpful in creating an information system whereby the findings can be provided to users of ANC services in other areas. It may help students/experts in the information studies domain to develop an information-related platform for pregnant women on a district, provincial, or even national level.

Shenton (2004:10) reports that information regarding the research methods, collections, findings, shortcomings and inconsistencies must be sufficient and transparent to allow copying by other researchers.

5.6 Dependability

Dependability refers to the possibility of obtaining the same results if research was conducted with the same participants and methods, but by another researcher (Shenton, 2004:12). This refers also to the stability of data. The same questions were asked of every participant and clarity was provided where requested. The data/findings obtained in the study was assessed and validated by the supervisor who is an expert in the field of study. The research processes used in this study were authentic and every step is reported in detail.

5.7 Confirmability

Confirmability refers to the objectivity or neutrality of the data and interpretations (Polit & Beck, 2008:539). The author further elaborates that it's the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning (Polit & Beck, 2008:539). Shenton (2004:12) explains that confirmability is the objectivity of the researcher reporting on the findings.

In this study the researcher was objective and neutral, as explained in the credibility section. Bracketing was done and efforts have been made to minimize bias and to ensure neutrality. The methodology has been widely elaborated on and the findings of the individual and focus group interviews, patient records and the field notes have been triangulated to create an understanding of the phenomena. Participants had access to the written transcripts and could validate the findings and reporting of their contribution.

5.8 Limitations of the study

Limitations were the approval process of the Western Cape Department of Health. The process of approval took two months and several enquiry requests on the approval process were made. That caused delays in the initiation process of recruitment and data collection. Another limitation was the unavailability of eligible un-booked or late booked women during the time of data collection. The researcher was dependent on the availability of the un-booked and late booked pregnant women to recruit. The unavailability of pregnant women less than 18-years old was also noted and those that were available refused to participate. That impeded the ability to generalise the findings to all age groups in the study area.

Another limitation that was noted was the unavailability of structured and reported first visit or booking data over 20 weeks of gestation in the sub-district. The sub-district does not report on the data of bookings of first visits over 20 weeks of gestation and the reason therefor is that the data element (first visit over 20 weeks) is not an Annual Performance Plan indicator (APP). The data element is not part of the district health plan and there is no need therefore to report on it. First visits of before 14 weeks and before 20 weeks were the only data reported on. That indicates and emphasizes that areas of concern related to late bookings will not obtain and secure the attention that the significance of the problem requires. The sub-district will not experience late booking as a problem, as the issue does not reflect in the reporting and discussions at an appropriate level.

5.9 Key findings

The overall key findings are that some pregnant women do not utilize BANC services in Saldanha Sub-district and the reasons therefore were personal-related factors like denial of pregnancy which led to denial of pregnancy symptoms and the concealment of the pregnancy from family and friends. Social factors were issues with social support from the family and commitments from the baby's father. Some had PTSD and personal stress due to social circumstances. Institutional problems that were evident were the long waiting times in the facilities, the rudeness of the HCW, refusal of services, and lack of trust with HCW. These avoidable factors were barriers to the utilization of BANC in the sub-district and pregnant women consequently booked late or delivered un-booked.

The request was made to identify information that might assist in motivation and enthusiasm to use BANC services in the sub-district. Information needs such as skills and competency levels of HCW, available services, privacy and confidentiality assurance, efficiency of the services and caring attitude and professional behaviour of HCW were identified, based on experiences.

Recommendations about distributing this identified information were reported. Proposals on institutional efforts like pamphlets, displays, waiting room talks, open days and awareness programmes were specified. Community-based efforts like the use of the local radio station and newspapers, the use of school programmes,

curriculums and meetings were identified. The use of community-based organisations and the promotion of community participation were suggested.

The research question was answered and findings were discussed in relation with literature. The recommendations as to the way forward will be discussed.

5.10 Recommendations

5.10.1 Recommendation one: Dissemination of Findings

The first and important recommendation would be to inform the Saldanha sub-district and West Coast district management of the identified barriers to the essential BANC services. An appointment with the West Coast district management will be arranged or an invitation to the district management meeting will be requested. The purpose will be to inform the relevant role player of the key findings related to the barriers that exist. Possible proposals on solutions for change will be provided and the district management plans on improvement will be tested and challenged.

Secondly, the recommendation to the district would be to motivate for the indicator (first visit after 20 weeks) to be seen as a Performance Plan indicator that would result in reporting and distribution of first visit after 20 weeks information. The reason would be to avail the information for research purposes and to demonstrate the significance of late bookings that leads to preventable maternal and neonatal complications. Further I would recommend that the services have a holistic approach by working with social workers who can support the women in the community based on the social factors that were influencing utilization of the BANC.

5.10.2 Recommendation two: Optimizing Information

The need for information on maternal health care in the district is evident. The identified information needs should be recognised and possible strategic or intentional plans should be developed and introduced to disseminate the information. Information in the form of health promotion and education can be significant if the information reaches the public in a form that is easily understood and displayed in simple terms. The ideal should be that women should be made aware of BANC services before pregnancy. Mom connect is an initiative that directly benefits those who are pregnant and if this initiative can be extended to non-pregnant women in the form of women

connect. It will be beneficial to a larger group of population and increase knowledge on issues that are relevant.

Firstly, it would be useful for the district management to utilize the community radio station (Radio West Coast). Further, to include information sessions in their programme and the local newspaper (Weslander). This will allow them to have a regular health promotion page to inform the public on BANC services and the advantages thereof.

Secondly information pamphlets and posters should be used to share information to the community on the availability of BANC services. Information can be displayed on Municipal levy accounts, shopping bags, bill boards, in South African Police Services (SAPS), South African Revenue Services (SARS) and South African Social Security Agency (SASSA) waiting rooms. Information should also be available in Hospitals wards and clinics.

Further, dissemination of the information is important at school level to where the young girls are educated on the availability of such services. The Department of Education should be approached for consideration including the information on BANC (services available, advantages) into their Life Orientation (LO) syllabus from as early as possible. That would be to increase awareness and the level of information of such services. Plans can be arranged in collaboration with community care workers and NGO's to have health promotion talks in churches, schools and at public events. The proposal would be to submit these identified information needs and the proposed solutions to the information communication (ICT) specialists in the district and allow them to create a platform to distribute the information on the importance of utilization of the BANC by pregnant women to the district on an institutional level. The fact that waiting times are problematic women can book appointments online and avoid long queues.

5.10.3 Recommendation three: Media Platforms

The other option would be to liaise with the Department of Information Studies of universities for possible assistance in the distribution of such information to the community. The assistance will be in the form of developing or creating a media platform where the identified information will be disseminating to the public. This could be the project of honours or master's students.

5.10.4 Recommendation four: Patient Satisfaction Survey and Staff Support

The health care workers need to be informed on the impact of staff attitude to the women utilizing the services. The approach must be emphasized on regular feedback from patient satisfaction surveys, reports of compliments and complaints received etc. This must be done at every sub-district and institutional staff meetings. Staff must be subjected to regular debriefing sessions and burnout symptoms must be recognized at operational level. A functional occupational health system should be in place to improve staff health that indirectly impacts on the attitude towards pregnant women.

5.11 Future research

The following two areas for future research are proposed:

- An inquiry of underutilization or lack of utilization of BANC services by women under 18 years of age (teenage pregnancies) and their social support systems at home in the West Coast district.
- Further, research on improving BANC services for women under the age of 18 years in order to improve outcomes.

5.12 Dissemination of the research

The research findings will be published in peer-reviewed journals. Presentations will be done in conferences and symposiums with the policy makers to inform them of the outcome of the study. Further, the information communication strategies identified will be developed and implemented to enhance the utilization of BANC.

5.13 Conclusion

This thesis elaborates on reasons for underutilization of BANC services in spite of knowledge of the available services and the distance to the clinics. The study found that pregnant women were subjected to personal, social, economic and institutional factors that prevented them from using the BANC services. The study also revealed information needs and methods to disseminate the information.

These findings may not represent all of the subjective feelings, experiences and views of the total population of the un-booked and late booked pregnant women in the Saldanha sub district, but most of the findings could be associated with literature. The contribution of the study to maternal health would be sufficient in the sense that

barriers to the BANC services can be eliminated and the information needs identified can be disseminated in the sub-district. The trend of late booked and un-booked pregnancies should be reassessed to confirm the success of the planned efforts made possible by this thesis.

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7. Appendices

Appendix 1: Ethics approval from Stellenbosch University Approval Notice

Response to Modifications- (New Application)

08-Apr-2016

Smeda, Winston WB

Ethics Reference #: S16/02/019

Title:

INFORMATION NEEDS TO IMPROVE THE UTILIZATION OF ANTENATAL CARE SERVICES: A CASE STUDY IN SALDANHA SUB-DISTRICT, WEST COAST REGION.

Dear Mr Winston Smeda,

The **Response to Modifications - (New Application)** received on **31-Mar-2016**, was reviewed by members of **Health Research Ethics Committee 1** via Expedited review procedures on **08-Apr-2016** and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Period: **08-Apr-2016 -07-Apr-2017**

Please remember to use your **protocol number (S16/02/019)** on any documents or correspondence with the HREC concerning your research protocol. Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit. Translation of the consent document to the language applicable to the study participants should be submitted.

Federal Wide Assurance Number: **00001372**

Institutional Review Board (IRB) Number: **IRB0005239**

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and documents please visit: www.sun.ac.za/rds

If you have any questions or need further assistance, please contact the HREC office at 0219389657.

Included Documents:

20160401 MOD Cover letter

- ✓ General Checklist (Eng) WSMEDA.docx
- ✓ Investigator Declaration V4.2 (Eng).pdf
- ✓ HREC application form.pdf
- ✓ 20160401 MOD Protocol
- ✓ Information leaflet W Smeda.docx
- ✓ synopsis.docx
- ✓ CV Supervisor D M'Rithaa.pdf

- ✓ Investigator Declaration Supervisor V4.2dkm (Eng).pdf
- ✓ CV WINSTON SMEDA.doc
- ✓ Proposal for Ethics W Smeda 2016.pdf

Sincerely,

Franklin Weber

HREC Coordinator

Appendix 2: Permission obtained from institutions / department of health



**Western Cape
Government**
Health

STRATEGY & HEALTH SUPPORT

Health.Research@westerncape.gov.za
tel: +27 21 483 6857; fax: +27 21 483 9895
5th Floor, Norton Rose House., 8 Riebeeck Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: WC_2016RP55_69
ENQUIRIES: Ms Charlene Roderick

Stellenbosch University

Private Bag x1

Matieland

7602

For attention: Mr Winston Smeda

Re: Information needs to improve the utilization of antenatal care services: a case study in saldanha sub-district, west coast region.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

Vredenburg Hospital

Dr Nick Fortuin

022 709 7287

Kindly ensure that the following are adhered to:


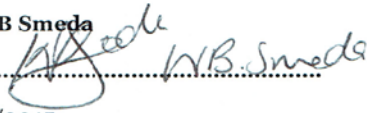
1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.

2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of

Kindly ensure that the following are adhered to:

Appendix 3: Institutional permission to use data

	Ms C.H. Oosthuizen Nursing Services Manager
	1 8 FEB 2015 
Mr W B Smeda	PERSAL NR: 51237989
P O Box 806	
Veldrift	
7365	
The Management	
Vredenburg Hospital Management and PHC Services	
Saldanha Sub district	
Vredenburg	
7380	
<u>RE: Permission of using Hospital data and PHC Facilities</u>	
Dear Sir/Madam	
Hereby I wish to obtain permission to use the data in the Maternity Birth Register of Vredenburg Hospital and access the PHC facilities to conduct the research.	
I am currently enrolled for the Master's Program at the Stellenbosch University (2015-2016) and I wish to direct my research project in Midwifery. I need to have access to the Birth register in the Maternity ward, to get the baseline information for direction I wish to embark on.	
I also wishes (with permission) to enter the premises of the Primary Health Care facilities in the Saldanha Sub District to conduct this planned proposed research project .	
I hereby promise to keep the data confidential as expected by the Ethics Committee of Stellenbosch University. I will maintain the ethical standards that are attach to the domain as far as possible.	
This project, in the form of a Research Proposal, is dependent on the approval from the Ethics Committee of Stellenbosch and the proposed project will be in 2016.The Research proposal needs to be submitted at the Stellenbosch University in September 2015.If approved as requested, I will submit the Office of the PHC Manager with the planned dates and times.	
I hope my request will be granted.	
Regards	
Mr W B Smeda	
.....
17/02/2015	Student nr: 15185273

TOESTEMMING**STUDIETITEL:**

INFORMATION NEEDS TO IMPROVE THE UTILISATION OF ANTENATAL CARE SERVICES: A CASE STUDY IN SALDANHA SUB-DISTRICT, WEST COAST REGION

NAVORSER: MNR WINSTON BERNARD SMEDA

PROTOKOLNOMMER: S16/02/019

Hiermee wil ek u graag uitnooi om deel te neem aan die navorsingstudie. Die doel van die studie is te bepaal waarom swanger vroue laat bespreek of glad nie bespreek vir basiese noodsaaklike voorgeboortesorg nie. Die studie sal u nie direk bevoordeel nie, maar die inligting kan ons help om veranderinge in die subdistrik in te stel sodat swanger vroue in die toekoms van die voorgeboortesorgdienste gebruik sal maak.

Die prosedure sal 'n opgeneemde onderhoud van een tot twee ure behels. U sal die geleentheid kry om my in te lig waarom u nie die voorgeboortesorg benut het nie en in watter areas veranderinge aangebring kan word. Geen risiko word voorsien in die prosedure nie, maar u kan dalk ongemak verduur terwyl u sensitiewe inligting met my deel.

Ek sal die opgeneemde band van ons gesprek en transkripsies van die data op 'n veilige plek bewaar. U naam sal nie genoem word nie. Slegs die navorsingspan sal toegang tot die data hê. U naam sal nie in die gepubliseerde verslag verskyn nie.

U deelname is vrywillig en u het die reg om te weier om deel te neem. U kan enige tyd tydens die onderhoud onttrek sonder enige negatiewe gevolge.

Die studie is deur die Gesondheidsnavorsingsetiekkomitee van die Universiteit Stellenbosch asook die Wes-Kaapse Provinsiale Departement van Gesondheid goedgekeur. Indien u enige vrae het, kan u my gerus skakel by 083 363 1146. U kan ook die Navorsingsraad by 021 936 9657 skakel.

Ek verstaan die inhoud van die toestemmingsvorm en ek gee vrywillig toestemming om aan die navorsingstudie deel te neem. Ek verstaan ook dat ek enige tyd mag onttrek sonder enige nagevolge.

.....

.....

Deelnemer

Getuie

Ek het die inhoud van die studie aan die deelnemer verduidelik en volgens my verstaan sy die inhoud en haar deelname is vrywillig.

.....

.....

Navorser

Datum

Parental Consent: Afrikaans**OUERTOESTEMMING**

STUDIETITEL:

INFORMATION NEEDS TO IMPROVE THE UTILIZATION OF ANTENATAL CARE SERVICES: A CASE STUDY IN SALDANHA SUB-DISTRICT, WEST COAST REGION

NAVORSER: MNR WINSTON BERNARD SMEDA

PROTOKOLNOMMER: S16/02/019

Hiermee wil ek u graag u minderjarige kind (< 18)uitnoui om deel te neem aan die navorsingstudie. Die doel van die studie is te bepaal waarom swanger vroue laat bespreek of glad nie bespreek vir basiese noodsaaklike voorgeboortesorg nie. Die studie sal u minderjarige kind nie direk bevoordeel nie, maar die inligting kan ons help om veranderinge in die subdistrik in te stel sodat swanger vroue in die toekoms van die voorgeboortesorgdienste gebruik sal maak.

Die prosedure sal 'n opgeneemde onderhoud van een tot twee ure behels. U kind sal die geleentheid kry om my in te lig waarom sy nie die voorgeboortesorg benut het nie en in watter areas veranderinge aangebring kan word. Geen risiko word voorsien in die prosedure nie, maar u kind kan dalk ongemak verduur terwyl sy sensitiewe inligting met my deel.

Ek sal die opgeneemde band van ons gesprek en transkripsies van die data op 'n veilige plek bewaar. U kind se naam sal nie genoem word nie. Slegs die navorsingspan sal toegang tot die data hê. U kind se naam sal nie in die gepubliseerde verslag verskyn nie.

U kind se deelname is vrywillig en sy het die reg om te weier. Sy kan enige tyd onttrek sonder enige negatiewe gevolge.

Die studie is deur die Gesondheidsnavorsingsetiekkomitee van die Universiteit Stellenbosch asook die Wes-Kaapse Provinsiale Departement van Gesondheid goedgekeur. Indien u (of u kind) enige vrae het, kan u my gerus skakel by 083 363 1146. U kan ook die Navorsingsraad by 021 936 9657 skakel.

Ek verstaan die inhoud van die toestemmingsvorm en ek gee vrywillig toestemming aan(ook met haar vrywillige toestemming) om aan die navorsingstudie deel te neem. Ek verstaan ook dat sy enige tyd mag onttrek sonder enige nagevolge.

.....

Ouer Minderjarige kind

Ek het die inhoud van die studie aan die deelnemer en haar ouer verduidelik en volgens my verstaan albei die inhoud en haar deelname is vrywillig.

.....

Navorsers Datum

Consent: Xhosa***IMVUME EFUNGELWEYO YOMZALI*****ISIHLOKO SOPHANDO:**

SIFUNA ULWAZI LOKUPHUKUCULA UKUSETYENZISWA WEENKONZO ZAMANINA UKUZE BAKWAZI UKUHLUKUHLE XA BEKHULELWE. OLU PHANDO LWENZIWA KWINGINGQI YESITHILI SASESALDANHA, EWEST COAST.

UMPHANDI: MNU. WINSTON BERNARD SMEDA**INAMBA YESIVUMELWANO: S16/02/019**

Ndinqwenela ukumema umntwana wakho ongaphantsi (< 18)..... ukuba athabathe inxaxheba kuphandonzulu. Injongo yolu phando kukufuna ukwazi iinkcukaha zokuba kutheni bengayi/besiyi kwiinkonzo zokuhlukuhle kwangethuba xa bekhulelwe. Uphando olu lungangancedi wena qha kodwa nabanye abantwana bancinane abakhulelweyo kwindawo apho uhlala khona ukuze basebenzise iinkonzo zaseKliniki ukuze bahlukhe kwixa elizayo.

Uphando olu luza kwenziwa ngoshicilelo lwelizwi iyure enye ukuya kwezimbini apho andixelela khona izizathu zakhe zokuba angahlukuhli/aye emva kwexesha kwiinkonzo ezikhoyo ekuhlaleni kwaye yintoni acinga ukuba idinga ukuguqulwa. Akukho buzazu kolu phando kodwa yena angaziva engakhululekanga ekuthetheni inyani nam mhlawumbi ngezinto ezithile. Ushicilelo olu lwelizwi nento yonke ebhaliweyo phantsi iza kugcinwa kwindawo ekhuselekileyo kwaye igama lakhe alizu kwaziswa mntu naye akazuxelwa ukuba ngubani. Zonke iinkcukacha-lwazi ziya kugcinwa kwindawo ekhuselekileyo kwaye liqela lophando kuphela eliya kufikelela kwiinkcukacha-lwazi.

Uthabatha inxaxheba ngokuzithandela kwaye unelungelo lokwala. Ungarhoxa nanini na kudliwanondlebe ngaphandle kwayo nayiphi imiphumela emibi okanye isohlwayo.

Olu phando luvunywe yiKomiti yeeNqobo eziseSikweni zoPhandonzulu kwezeMpilo yeYunivesithi yaseStellenbosch kunye neSebe lezeMpilo lePhondo laseNtshona Koloni. Ukuba unamakhwiniba okanye into ongayiqondiyi unganditsalela umnxeba ku 083 363 1146 okanye iYunivesithi ku 021 938 9657.

Ndiyivile yonke inkcazelo equlathwe kule fomu yemvume kwaye ndinikeza imvume yam ngokukhululekileyo (nangemvume yakhe yokuzithandela) ukuba athabathe inxaxheba kolu phando. Ndiyayazi ukuba angayeka nanini na engafuni ukuqhubeka kwaye akazubekwa tyala ngokusemthetweni.

.....

Umzali

Umntwana

Ndikucacisile olu phando lungentla kumphandwa kwaye ngokoluvi lwam umphandwa uziqonda kakuhle iziqukatho kwaye uthabatha inxaxheba ngokuzithandela

.....

.....

Umphandi

Umhla

Xhosa: Parental informed consent**IMVUME EFUNGELWEYO****ISIHLOKO SOPHANDO:**

SIFUNA ULWAZI LOKUPHUKUCULA UKUSETYENZISWA WEENKONZO ZAMANINA UKUZE BAKWAZI UKUHLUKUHLA XA BEKHULELWE. OLU PHANDO LWENZIWA KWINGINGQI YESITHILI SASESALDANHA, EWEST COAST.

UMPHANDI: MNU. WINSTON BERNARD SMEDA

INAMBA YESIVUMELWANO: S16/02/019

Ndinqwenelela ukukumema uthathe inxaxheba kuphandonzulu. Injongo yoluphandonzulu kukuveza izizathu ezibangela ukuba amanina akhuleleweyo angabhalisi okanye abhalise kade iinkonzo zempilo phambi kokuba abeleke. Olu phando lungangabiyinzuzo kuwe ncakasana kodwa ulwazi esilufumanayo lunganceda ekusunguleni iinguqu engingqini ukuze amanina akhulelweyo asebenzise ezi nkonzo phambi kokubeleka.

Inkqubo emiselweyo iya kuba ludliwanondlebe lwelizwi elishicilelweyo oluya kuthatha iyure enye ukuya kwezimbini apho uya kuveza khona izimvo zakho nalapho ucinga ukuba singenza utshintsho khona. Andiwuboni umngcipheko kolu phando kodwa ungaziva ungakhululekanga ingakumbi xa usabelana nam ngeenkukacha ezibuthathaka. Konke ukushicilelwa kuza kugcinwa kwindawo ekhuselekileyo kwaye negama lakho aliyi kudizwa. Liqela lophandonzulu eliya kuba nelungelo kwezo nkukacha. Igama lakho aliyi kudizwa kwingxelo eyakuthi ipapashwe.

Uthabatha inxaxheba ngokuzithandela kwaye unelungelo lokwala. Ungarhoxa nanini na kudliwanondlebe ngaphandle kwayo nayiphi imiphumela emibi okanye isohlwayo.

Olu phando luvunywe yiKomiti yeeNqobo eziseSikweni zoPhandonzulu kwezeMpilo yeYunivesithi yaseStellenbosch kunye neSebe lezeMpilo lePhondo laseNtshona Koloni. Ukuba unamakhwiniba okanye into ongayiqondiyo unganditsalela umnxeba ku 083 363 1146 okanye iYunivesithi ku 021 938 9657.

Ndiyakuqonda okuqulathwe kule fomu yemvume efungelweyo kwaye ndivuma ngokukhululekileyo ukuthatha inxaxheba kuphandonzulu. Ndiyakuqonda ukuba ndingarhoxa nangaliphi na ixesha ngaphandle kwesohlwayo.

Umphandwa

Ingqina

Ndikucacisile olu phando lungentla kumphandwa kwaye ngokoluvi lwam umphandwa uziqonda kakuhle iziqulatho kwaye uthabatha inxaxheba ngokuzithandela.

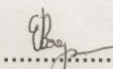

.....

.....

Umphandi

Umhla

Appendix 5: Confidentiality agreement with data transcriber

CONFIDENTIALITY AGREEMENT	
<p>STUDY TITEL: INFORMATION NEEDS TO IMPROVE THE UTILIZATION OF ANTENATAL CARE SERVICES: A CASE STUDY IN SALDANHA SUB-DISTRICT, WEST COAST REGION.</p> <p>INVESTIGATOR: Mr Winston Smeda</p>	
<p>I <u>ELANZA WILLENE BOOYSEN</u>.....hereby undertake to act as a transcriber in the research study of Mr Winston Bernard Smeda. I agree to transcribe the recorded tapes given to me. I fully understand that the information is sensitive and confidential therefor :</p> <p>I acknowledge the sensitivity of information that may be shared. I promise to respect the investigator and participant. I promise to keep the confidentiality and privacy of the information shared. I acknowledge that if I break this agreement I may be subjected to prosecution.</p>	
<p>I declare to uphold the above mentioned requirements.</p>	
<p><u>ELANZA BOOYSEN</u>..... PRINT NAME</p>	<p> SIGNATURE</p>
<p><u>96120800 82087</u>..... ID NUMBER</p>	
<p><u>JONENE BOOYSEN</u>..... WITNESS</p>	<p> SIGNATURE</p>
<p><u>04/01/2017</u>..... DATE</p>	

Appendix 6: Investigator instrument / interview guide

SEMI-STRUCTURED INTERVIEW GUIDE

Interviews with the women who did not utilize the ANC services

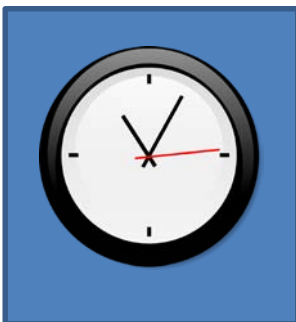
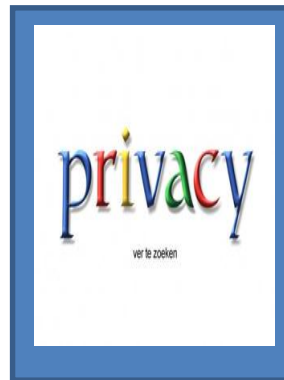
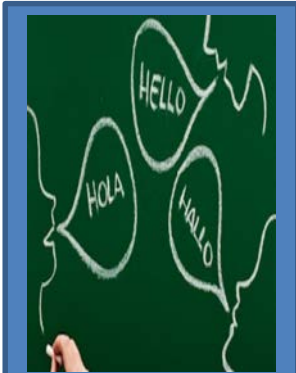
1. Tell me about your pregnancy.
2. Tell me about booking for antenatal care during pregnancy
 - a. What services did you use during pregnancy?
 - b. Why did you use the BANC?
 - c. How did you know about the BANC?
3. Tell me about the reason you did not book for ANC services
4. Tell me about the information you would have wanted to know during the ANC period
5. What can we do to encourage women to come for ANC?

Interviews with midwives

1. Tell me about antenatal care services?
2. Tell me about booking for antenatal care during pregnancy
 - a. What services do women utilize during pregnancy?
 - b. Why do they use the BANC?
 - c. How do they get the required information?
 - d. What information do they require during pregnancy?
3. Tell me about the un-booked pregnant women?
 - a. Why don't they book?
4. Tell me about the information they require to improve the utilization of ANC?
 - a. What information would they need?
 - b. How would you prefer to pass it to them?

Appendix 7: Co-design leaflet 1

PLEASE CHOOSE AT LEAST THREE AREAS THAT YOU WOULD WANT TO KNOW BEFORE OR DURING PREGNANCY....



Appendix 8: Co-design leaflet 2

PARTICIPANT NO.....

PLEASE CHOOSE AT LEAST THREE THINGS THAT YOU WOULD LIKE TO ENSURE ARE IN PLACE TO IMPROVE YOUR ANC VISITS

SKILLS AND
COMPETENT
NURSES

FREE
ACCESS

HELP WHEN I
COME TO THE
CLINIC

TRANSPORT
AVAILABLE

ANTENATAL
SERVICES
AVAILABLE

REFFERAL
SERVICES

SAME SISTER
HELPING

HEALTH
INFORMATION

SAFE DELIVERY

WAITING
TIMES

PRIVACY

COMMITMENT

LANGUAGE OF MY CHOICE

EFFICIENT RISK DETECTION

RESPECT AND CARING
ATTITUDE

Appendix 9: Declarations by language and technical editors

Jill Stevenson
Copy Editor/Proof reader
4 Chesterton
12 Blackheath Road
Kenilworth 7708
11 June 2017

To whom it may concern

Re: Copyediting and Proofreading of

*UNFOLDING INFORMATION NEEDS TO IMPROVE THE UTILIZATION OF
ANTENATAL CARE SERVICES: A DESCRIPTIVE CASE STUDY IN THE WESTERN
CAPE*

By Mr Winston Smeda

I, Jill Diane Stevenson, hereby confirm that the changes made to the above thesis were to ensure consistency of grammar and language (concord, spelling, punctuation) and to the conformity of format (headings, indexing and references).

No other changes were made to the body of work submitted by the candidate (conclusions, recommendations, data, factual reporting or commentary).

Yours faithfully



Jill Stevenson

Certified Copy-Editor and Proof reader

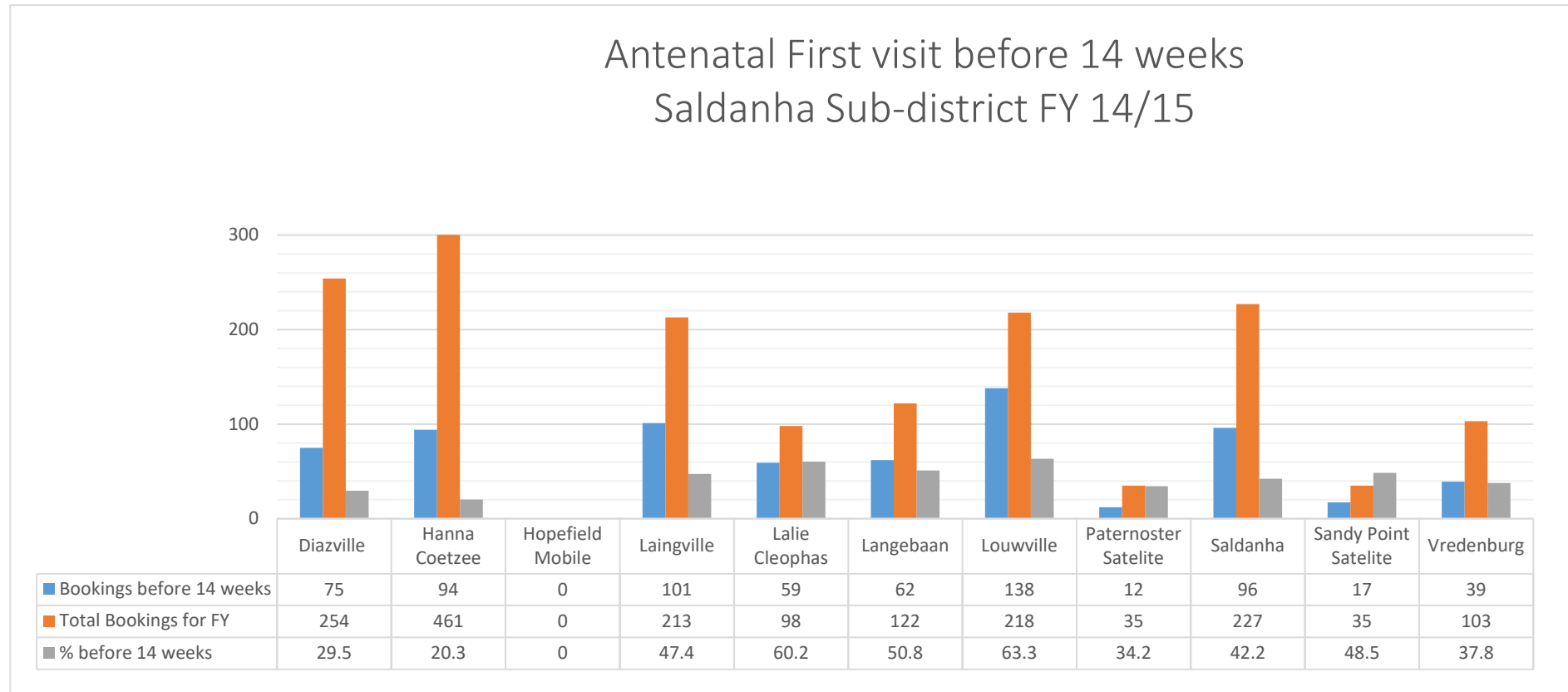
Cell: 0833092927

Email: Jilldiane18@gmail.com

Appendix 10: Antenatal booking before 14 weeks of gestation (FY 14/15)

Below is a display of the first antenatal visit at the different clinics in the sub-district before the recommended 14 weeks of gestation. This displays the number of clients that booked before the recommended 14 weeks per clinic for the FY 2014/15.

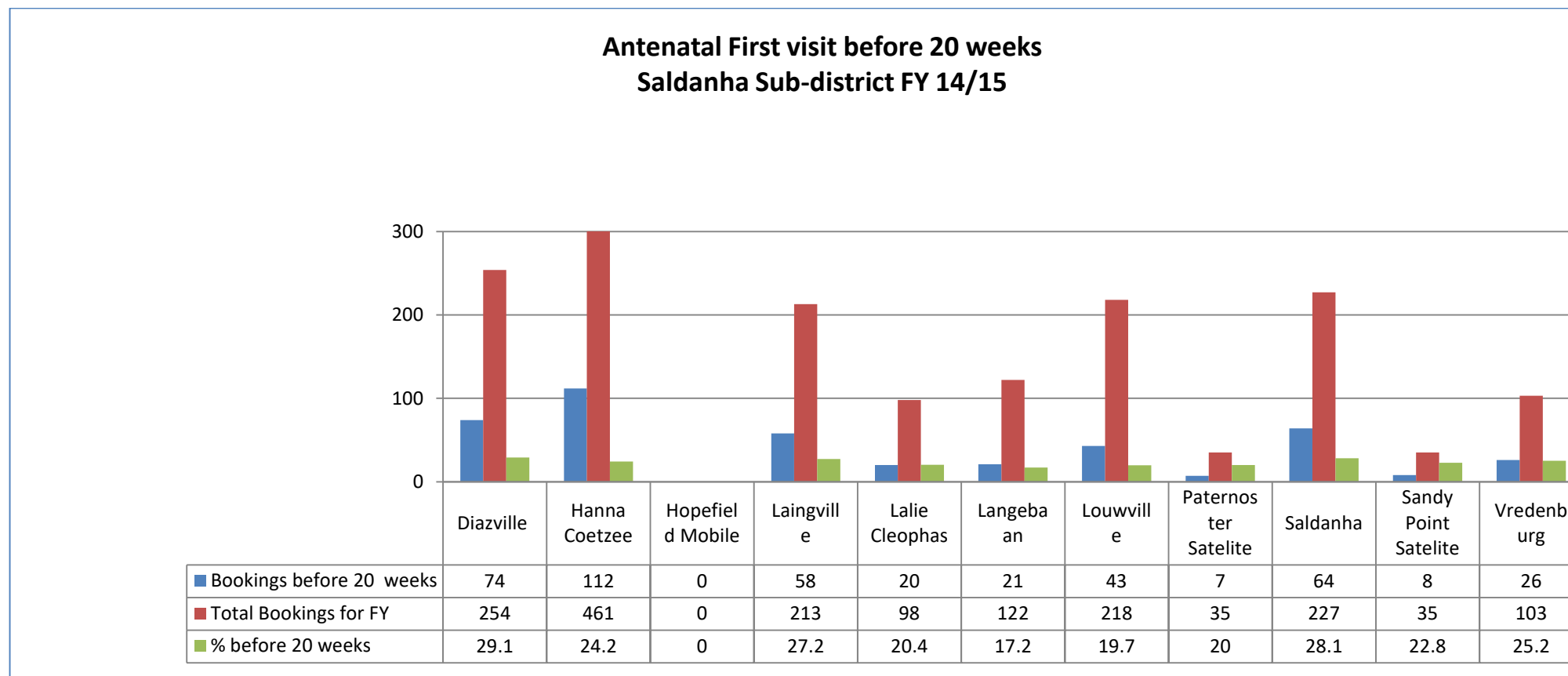
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Source: West Coast District data (2015)

Appendix 11: Antenatal booking between 14 weeks to 20 weeks of gestation (FY 14/15)

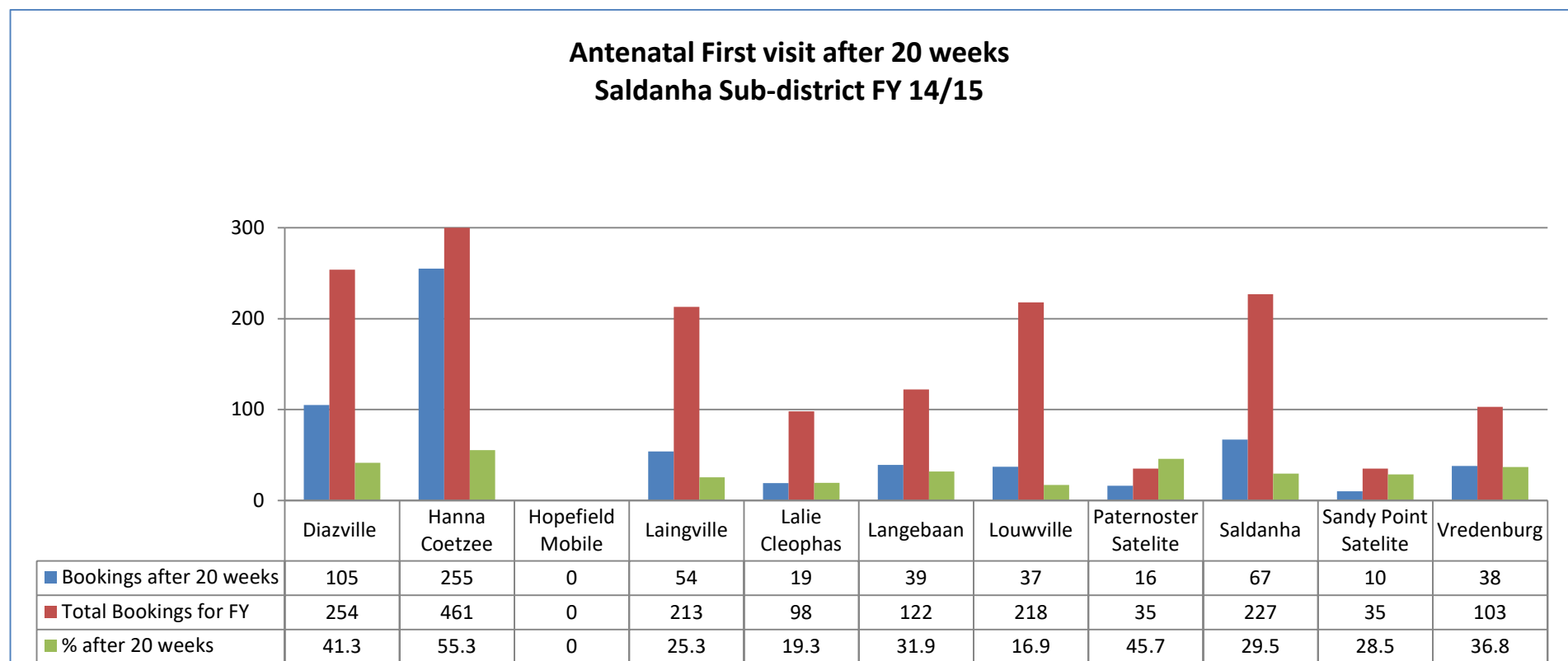
The figure below illustrates the total bookings of gestations between 14 weeks and 20 weeks for the financial year 2014/15. The display illustrates the total clients that booked per facility.



Source: West Coast District data (2015)

Appendix 12: Antenatal booking after 20 weeks of gestation (FY 14/15)

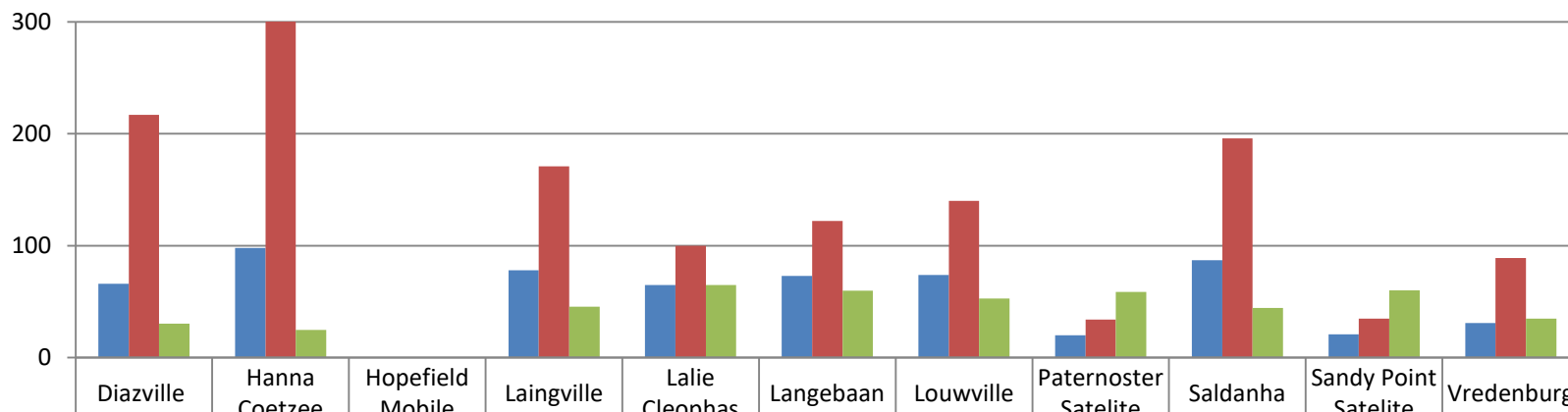
Below are the total bookings after 20 weeks of gestation for the financial year 2014/15. The gestation can be anything from 20 weeks up until 40 weeks. The illustration is per facility in the sub-district.



Source: West Coast District data (2015)

Appendix 13: Antenatal booking before 14 weeks of gestation (FY 15/16)

**Antenatal First visit before 14 weeks
Saldanha Sub-district FY 15/16**

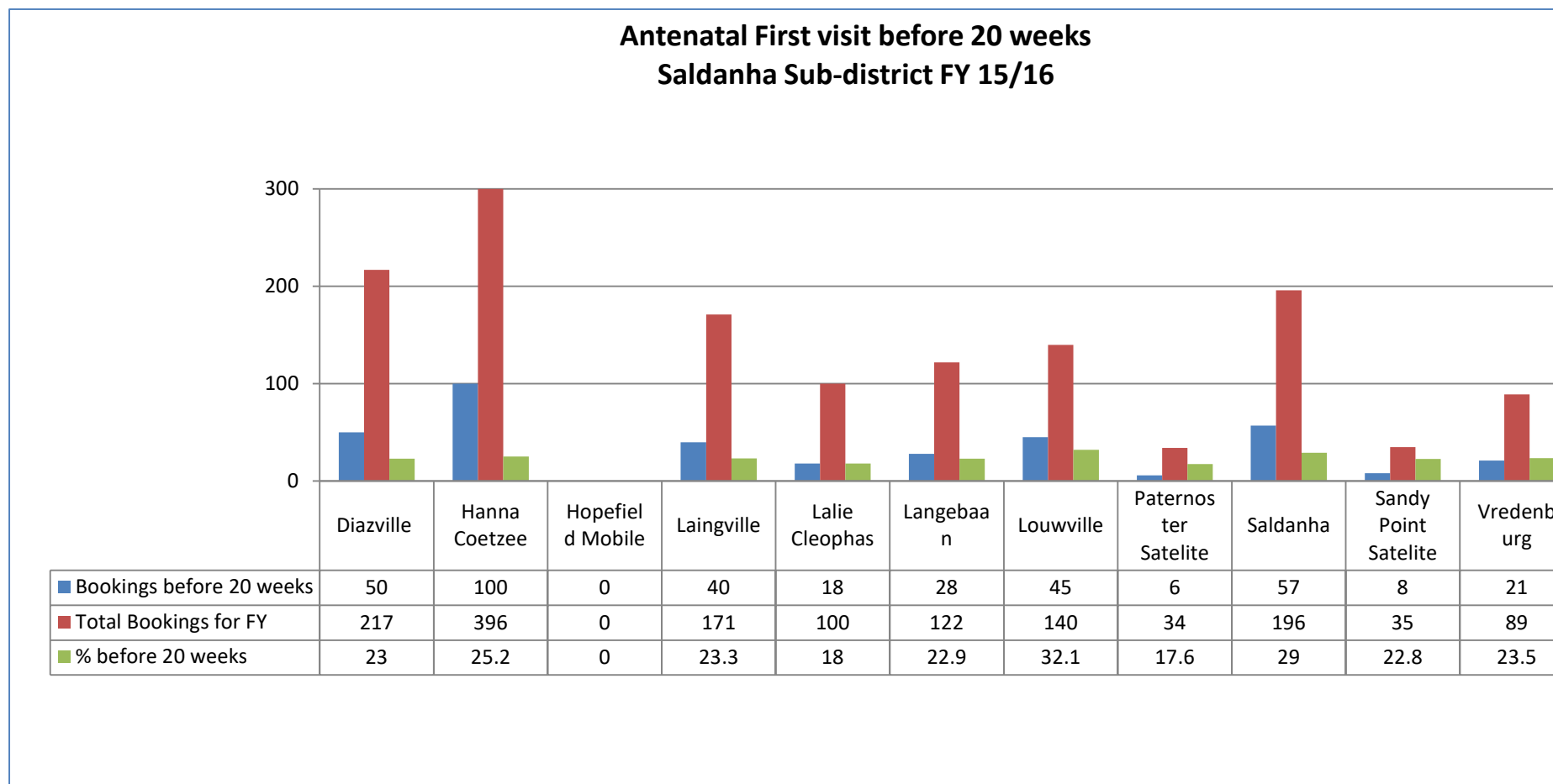


■ Total Bookings before 14 weeks	66	98	0	78	65	73	74	20	87	21	31
■ Total Bookings for FY	217	396	0	171	100	122	140	34	196	35	89
■ % before 14 weeks	30.4	24.7	0	45.6	65	59.8	52.8	58.8	44.3	60	34.8

Source: West Coast District data (2016)

Graph below illustrates and illuminates the total bookings from 14 weeks to before 20 weeks of gestation for the FY 2015/16.

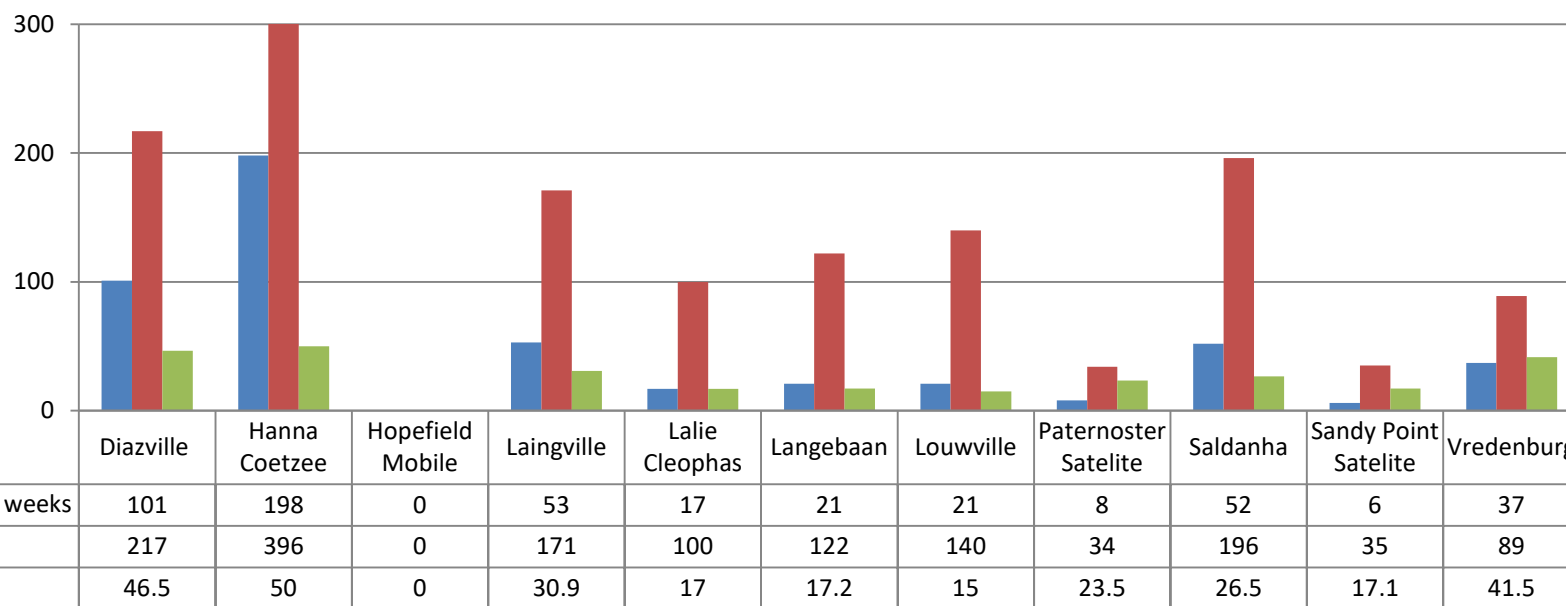
Appendix 14: Antenatal booking before 20 weeks of gestation (FY 15/16)



Source: West Coast District data (2016)

Appendix 15: Antenatal booking after 20 weeks of gestation (FY 15/16)

**Antenatal First visit after 20 weeks
Saldanha Sub-district FY 15/16**



Source: West Coast District data (2016)

Appendix 16: Inadequate utilization similarities (yellow) & differences

<u>Principle themes</u>	<u>Themes</u>	<u>Sub-themes</u>	<u>Categories Un-booked women</u>	<u>Sub-Themes</u>	<u>Categories Midwives</u>	
Inadequate utilization	4. Personal Factors	C. Maternal feelings	<ul style="list-style-type: none"> ✓ Ambivalence ✓ Denial and ignorance ✓ Unwanted pregnancy ✓ Feelings of condemnation/anxiety/embarrassment ✓ Insecurity ✓ Withdrawal 	Maternal feelings	<ul style="list-style-type: none"> ✓ HIV Stigma ✓ Denial and ignorance ✓ Feeling of shame ✓ Multi gravity 	
		D. Psychological trauma	<ul style="list-style-type: none"> ✓ Post-traumatic stress disorder ✓ Personal stress 	Social Support	<ul style="list-style-type: none"> ✓ Emotional support ✓ Paternal Commitment 	
	5. Social factors	B. Social Support		<ul style="list-style-type: none"> ✓ Lack of Emotional support ✓ Lack of Paternal commitment ✓ Social rejection 	Economic factors	<ul style="list-style-type: none"> ✓ Employers ✓ Distance ✓ Transport ✓ Finance ✓ Immigration ✓ Teenage pregnancy ✓ Drug abuse
				6. Institutional factors	C. Access to services	
	D. Staff matters	<ul style="list-style-type: none"> ✓ Attitude ✓ Unavailability of staff ✓ Information inadequacy 	Staff attitudes			

Appendix 17: Information needs similarities (yellow) & differences

Principle themes	Themes	Sub-themes unbooked	Categories Unbooked women	Sub-themes midwives	Categories midwives
Information needs	Institutional information needs	Competency	✓ Confidence in skills	Competency levels	✓ Skills and Competency
		Obstetric Services	✓ Waiting times ✓ Services available ✓ Privacy and confidentiality	Obstetric Services	✓ Service available ✓ Access ✓ Privacy and confidentiality ✓ Language of choice ✓ Complaint system ✓ Transport ✓ Waiting times
		Health Promotion	✓ Health literacy	Health promotion	✓ Advantages & Disadvantages ✓ Signs of pregnancy
	Interpersonal needs	Communication skills	✓ Professional behaviour	Competency levels	✓ Skills and Competency
		Attitude	✓ Courteous	Obstetric Services	✓ Service available ✓ Access ✓ Privacy and confidentiality ✓ Language of choice ✓ Complaint system ✓ Transport ✓ Waiting times
		Support	✓ Social support		

Appendix 18: Information optimization similarities (yellow) & differences

Principle themes	Themes	Sub-themes	✓ Categories midwives	Categories unbooked
Information optimization	Institutional Influence	Health worker initiated	<ul style="list-style-type: none"> ✓ Information sessions /group talks ✓ Open days/ Awareness campaigns ✓ Health promotion/ Outreach services ✓ Pamphlets and posters 	<ul style="list-style-type: none"> ✓ Information ✓ Talks ✓ Displays ✓ Pamphlets
	Community influence	Community based	<ul style="list-style-type: none"> ✓ Public Posters ✓ School programs/ Lectures ✓ Baby magazines Churches/youth groups ✓ Community based services 	<ul style="list-style-type: none"> ✓ Talk shows ✓ Home visits
		Media/ technology	<ul style="list-style-type: none"> ✓ Media ✓ Dvd's in hospitals ✓ Mom connect 	<ul style="list-style-type: none"> ✓ Telephonic advertisements ✓ WhatsApp advertisements ✓ Instagram advertisements ✓ Facebook advertisements